

**AN HISTORICAL PERSPECTIVE OF THE ACCOUNTING ENVIRONMENT:  
A GENERAL OUTLINE OF A WESTERN EUROPEAN AND NORTH AMERICAN LINKAGE**

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**ABSTRACT**

It is recognized that the usefulness of accounting information is contingent upon its (1) neutrality, (2) relevancy, and (3) reliability. Given that all socio-economic systems are comprised of participants and institutions, it would seem that the attainment of those three qualities is conditioned by a proper determination of the institutional arrangement. The relationship of the members of society to existing institutions emerges as the pivotal consideration. Institutions are the creations of society, therefore, it seems fair to state that they reflect the evolutionary process. The institutional arrangement has evolved over time, and an understanding of the evolution is fundamental to achieving neutrality, relevancy, and reliability of accounting information. The roles of the many and varied institutions as intended upon their creation by society can provide the basis for establishing disclosure requirements. Such requirements entail a proper balancing of many factors as constrained by costs versus benefits in the information disseminating process. In this regard, historical research can provide a tremendous insight into institutions and institutional roles as they have evolved. Such insight can facilitate the complex balancing problem of financial reporting.

**INSTITUTIONAL ARRANGEMENTS AND ACCOUNTING THEORY**

“Acquaintance with reality's diversities is as important as understanding their connexion [Guerlac 1977,7].” In order to understand (construct) the foundations of accounting theory, it would appear that the development of the socio-economic system which accounting serves be understood. To look at an existing highly developed system and from that to attempt to construct the foundations of accounting theory may very well be folly and be fraught with disastrous consequences for further analysis and policy recommendations. A simple case in point follows.

The Financial Accounting Standards Board (FASB), in *Statement of Financial Accounting Concepts No.2*, has espoused relevancy and reliability as *primary* qualities of accounting information; however, it considers neutrality as a *secondary* quality [FASB 1980]. This treatment of neutrality may be due to the failure to give due cognizance to the evolution of *internal* and *external* financial reporting. Relevancy and reliability are of much

older vintage than neutrality, but that should not diminish neutrality's rightful location in the hierarchy of accounting qualities. Relevancy and reliability were primary qualities in the area of *internal* financial reporting when the financier of the enterprise was also the manager of the enterprise. The emergence of new institutions (capital markets, corporations, etc.) and new participants (shareholders, professional managers, employee associations, etc), characterizes the social evolutionary process which gave rise to *external* financial reporting. In order to serve the many and varied *new* users, the abstraction of the entity had to be a true and fair representation of the facts consistent with monetary exchange. A complex balancing among the interests of the many and varied users became paramount, and *neutrality* emerged as the desired quality to achieve this complex balancing of interests.

The existing institutional arrangement evolved and did not exist in its present state, however, the basic societal concern has not been altered by the variations emerging from the continual modification or amplification of the institutional arrangement. To simply abstract from reality without understanding the historical relevance of certain institutional developments may allow reality to escape the analysis. Accounting theorists must avoid falling victim to the same type of accusation launched against the classical economists:

The classical economists in their theoretical analysis did not do justice to the variety of institutions. . . they built theories which could not justly account for the full range of economic reality and its historical development [Eucken 1951,50].

The implications and consequences of the failure to understand institutional arrangements and their historical evolution are of great importance and cannot be overemphasized [Finley 1973].<sup>1</sup> The requisite understanding of the accounting environment can be obtained from an analysis of observed and observable phenomena. Apparently, the findings of such an investigation should serve as the basis for the development of accounting theory.

With the foregoing in mind, this treatise shall: (1) focus on the socio-economic system; (2) determine the participants; (3) examine their behavior; and (4) establish a basis for the formulation of accounting theory. It must be stressed that human behavior at times is irrational due to certain stimuli. When such irrationality does exist it must be recognized as

such and, therefore, not be incorporated into the formal theory. Government action or inaction is the prime stimulus which can produce irrational behavior among individuals. The following caveat is highly illuminating: "What shines out amid darkness is often false and deceptive. The natural order is often upset by special interests which are always pursued in secret or disguised as the general welfare [Eucken 1951,321]."<sup>2</sup>

### THE EVOLUTIONARY PROCESS AND DYNAMIC CONDITIONS

The theory of accounting must be viewed in light of its evolution through successive and coincident socio-economic systems:

- (1) Empires with public economies
  - (a) Chaldean-Babylonian<sup>3</sup>
  - (b) Grecian and Roman
- (2) European Feudalism
- (3) Private economies coexistent with public economies:
  - (a) Individual Capitalism (1200-1850)
  - (b) Security Capitalism (1851-1900)
  - (c) Corporate Capitalism (1901- ) [Baran and Sweezy 1966,28-46]

Society has experienced the following phases in the capital formation process: *adaptability, tractability, mobility, and shiftability*. The more complex the system became, from the simple manorial accounting system to the complex enterprise accounting system, the more sophisticated (scientific) the underlying infrastructure. The complex system emerging with the Roman Empire was halted, giving way to a primitive and simple system during the "Dark Ages" [Cunningham 1910,70,77,78,98,99; Deanesley 1956,126-140]. Then, in the fifteenth century the transmission of the more sophisticated accounting system from Italy to Britain and other parts of Europe was experienced.

### **Adaptability**

Human beings have adapted themselves to changing circumstances (tyranny, population growth, etc.). The early socio-economic systems (Chaldean, Grecian, Roman) shared a mercantilist philosophy. Accounting was invented as a first step in the administration of the affairs of society [Lambert 1960,1-26];<sup>4</sup> in order for the state to manage its affairs, control over its resources had to be established.

Under European feudalism, essentially the same purpose was made of accounting by

the lords (nobility). Then came the period of "individual capitalism" in the early stages of industrialism [Ashton 1948; Heaton 1972,89].

The contours of the industrialized society are familiar in such features as urbanization, mechanized manufacture, or the dominance of industry over agriculture. It is more important to recognize its fundamental economic characteristic: its dependence upon substantial investment in fixed capital, embodying technical devices which raise productivity to levels far higher than anything obtainable in the absence of that investment.

It is because this human achievement made its first massive appearance in manufacturing industry that we have come to think and speak of the sort of society built upon achievement--whatever its political form or moral base--as industrialized. It does not mean that societies which preceded it had no capital, or that they were devoid of capitalism. Nor does it mean that they were all the same. But it does imply that capital investment of this peculiar type was normally absent in the industrial activity of pre-industrialized economies. . . . It is that pervasive absence. . . . [Coleman 1975,11-12].

The socio-economic system experienced technological changes that were accompanied by the adaptation of a new financial institution to accommodate this strain on individualism; private merchant bankers, emerged on the scene to aid the individual entrepreneur [Ashton 1948,71; Edwards 1938,9]. The rise of the merchant banker and the extension of industrialization intensified the need for and sophistication of accounting. However, further extension of industrialization necessitated a more fundamental institutional innovation--the joint stock company (the corporation):

From very early times, several owners might combine to fit out a ship and buy a cargo, when none of them was able, separately, to risk a very large sum in ventures by sea; and this practice received a new application when a permanent joint-stock company, like the East India Company, was formed. . . such. . . could not be permanently maintained by individuals singly, and the risk of trading were minimized for each, when the shareholders acted together as one body. By this means the owner of a comparatively small sum of money can club with others, so as to share great risks, and, if he is successful, earn large profits. . . .

It seems, indeed that unless this form of conducting business had been generally understood, the gigantic undertaking of the present day. could not have been accomplished; there would have been no capital available [Cunningham and McArthur 1896,119].

The development of corporate organization may best be considered as a

result rather than a cause of the economic changes of the period. The increasing demand for capital made necessary an improvement in the form of business organization, as the demand for capital became so great that it could no longer be supplied from resources mobilized by the forms of business organization under individual capitalism, namely, the singly ownership or partnership. It was therefore essential to develop the corporate form in order to provide cooperative capital tapped from innumerable private sources [Edwards 1938,14; Rogers 1892,140-141].<sup>5</sup>

### **Tractability**

Capital is essential to growth.<sup>6</sup> However, it was the ability to trace the flow of capital which enables the growth of cities and states through the expansion of existing and the introduction of new industries. Whilst it was the growth of urban centers that undermined the whole philosophy of mercantilism [Moffit 1925,p.xv], the corporation represented collective ownership of resources through traceable units of capital--shares.

### **Mobility**

The capital markets came into being to facilitate the movement of capital from areas of abundance to areas of scarcity. Capital is that which enables the exploitation of investment opportunities, hence capital is money or its equivalent. The foregoing point can be appreciated in light of the following passage:

. . . [T]here were enough people in the country to finance an economic effort far in excess of the modest activities of the leaders of the Industrial Revolution. . . . What was inadequate was not the quantity of stored-up wealth, but its behaviour. The reservoirs of savings were full enough, but conduits to connect them with the wheels of industry were few and meagre [Postan 1972,71].<sup>7</sup>

Local capital markets developed, and subsequently they were connected into a national market, thus permitting the fullest exploitation of investment opportunities. Through various institutional arrangements (financial intermediaries), economic units with surplus funds (savings) were able to make accessible those funds to economic units facing deficit financing in light of profitable investment opportunities.

A market for new capital, apart from transactions in existing financial and real assets, exists because in a modern economy saving (the excess of current income over current expenditures on consumption) is to a large extent separate from investment, i.e., expenditures on durable assets usually defined

as new construction, equipment, and additions to inventories and excluding education, research and health [Goldsmith 1965,22-23].

However, one cannot lose sight of the fact that:

The capital market of a modern economy has two basic economic functions: first, the allocation of a period's current saving among users and uses, or the supply of financing the period's investment; second, the facilitation of the transfer of existing assets, tangible, among individual economic units, groups of them, sectors, and countries [Goldsmith 1965,28].<sup>8</sup>

### **Shiftability**

The two functions of the capital market actually represent two distinct markets: (a) primary--new issues market; and (b) secondary--a market of existing or the outstanding stock of old issues. The primary market enables the *mobility* of capital; it provides capital to enterprises for investment purposes [Committee 1967,23-25]. The secondary market enables the *shiftability* of capital which can be appreciated from Lavington's appraisal:

The greater part of capital is supplied, not directly, but through the intermediate organizations of the Money Market, whose operations effect a very great reduction in the Insecurity associated with the supply of capital for long periods. . . . In practice the method adopted consists in the provisions of a market by which a large number of the parties supplying capital are brought into touch with one another. By this means any capitalist who wishes to recover invested resources is enabled to do so, not by withdrawing it from the party who is applying it to its productive uses, but by *shifting* the work of *supply* on to some other capitalist willing to invest.

The economy effected by the Stock Exchange depends on precisely the same principle. In most cases the securities dealt with on this market are representative of capital supplied for very long, even indefinite, periods. Probably only a small fraction of that capital would have been forthcoming were it not that the element of Insecurity in the costs of supply has been reduced by the ease with which the capital may be recovered, not indeed from the party to whom it was originally supplied but from some other party desirous of investment [Lavington 1934,94-95]. (*Emphasis added*)

### **THE MARKET ECONOMY**

In the ancient society, there was no "enormous conglomeration of independent markets." To speak of a labor market or capital market is to render a false statement of the situation [Finley 1973,22-23,33,34]. The evolutionary process with respect to markets,

labor and commodities, (their emergence and development) can be traced to the period 1200 to 1500.<sup>9</sup> The mere existence of money is no indication that a monetary economy exists. A monetary economy did not exist before the period 1200-1500.<sup>10</sup>

The following passages explain the nature of the market economy:

A market economy exists wherever the ramifications of the market become so widespread and the opportunities it offers so numerous and attractive that most individuals find it advantageous to carry on their economic activities predominantly through the market rather than on their own.

In the developed market economy, the conditions of production have become adjusted to the market requirements. . . .

Transactions may involve any of innumerable commodities or services, they may involve any of a wide range of quantities and qualities, and they may be concluded at any of a wide variety of prices. . . .

Each market decision is made under the stress of market forces set up by the decisions, past or expected, of all the market participants. During any given period, therefore, the decisions made by individual market participants constitute an interlocking system embracing the entire scope of the market. [Kirzner 1963,2-3].

Historical data reveals that the market place is constantly affected by new forces which modify and shape the delicate and interlocking decision network that makes up the system. It is, therefore, the task of accounting theory to give cognizance to the consequences of these market forces, with special emphasis upon the corresponding and concordant systems.

Accounting theory is confronted with socio-economic phenomena. Organizational activities involve the adoption of one alternative among several. Accounting furnishes information to decision-makers on this adopted course of action based upon the exchange values of all the underlying transactions necessitated by the adopted alternative. No reference is made to the possible consequences of having adopted the other rejected courses of action. Accounting information enables decision-makers to ascertain the profitableness of the course of action or whether costs incurred were worthwhile in light of a market economy or a controlled (planned) economy.

The time path (sequence) in a money economy is extremely important. In fact, it is

critical to the efficient functioning of the socio-economic system. Hence, the following caveat is applicable to accounting theory, since accounting describes how economic units behave in markets.

[A]ll economic plans and actions have always to be seen in their temporal order, and that our daily economic life cannot be understood without a knowledge of its structure through time. Nor is the element of time one which can well be introduced subsequently. *The main problem cannot be tackled if the time factor is left out. . . .*

*It is not possible to understand economic life with all its interrelations simply by looking directly at contemporary economic reality.*

[T]he actual sequence of economic events at any place or time cannot be understood in the same way as other historical facts [Eucken 1951,27,37-39].

[I]f economic theory does not start from the economic plans, and does not keep the *ex ante* planning data separate from the "factual" data. . . it is disregarding the essential element of mistakes, uncertainty and risk, or it is not giving them the key position they deserve [Eucken 1951,255-256]. (*Emphasis added.*)

It is accounting that provides this factual data, and to lose sight of this fact constitutes a tragedy for society.

There is yet one major socio-economic evolution that tends to produce a serious problem for theorists--the firm. The firm (corporation) emerged in the final stage of the transition of the socio-economic system into a full-blown market economy [Eucken 1951, 129-130]. In this highly developed economy, in which exchange is the basis for the mobilization of the socio-economic system, the firm acts as a highly specialized surrogate market [Alchian and Demsetz 1972,793].

The problem that exists is that some theorists fail to recognize that the firm as a surrogate market is subject to market failure. Therefore, accounting theory should not foster the perpetuation of market failure by incorporating this aberration into the structure of accounting theory. This market failure is the disruption of the primary capital market, through the attempts of firms at total self-financing.

At the beginning of the industrial revolution, the capital markets were essential to (emerged to accommodate) economic expansion. Individual savings were the critical source of business capital; however, at the end of the 19th century, a marked change took place.

Individual savings were becoming less important in the financing of business. This condition has worsened [Baran and Sweezy 1966,16,35]. The firm is a participant in the market economy and any attempt at total self-financing is inconsistent with the efficiency of the market economy. This condition is so because the firm is an invention of the socio-economic system. The firm is to act on behalf of the socio-economic system and not act as a unit independent of the system that created it. "Consistency and correspondence between market participants are of the first importance in any successful execution by the market of its function [Kirzner 1963,3]."

The implications of the foregoing should be quite clear. If all savings generated by the corporations are retained by each corporation, then an aberration in resource allocation will ensue. The capital market emerged to enable those corporations to secure the capital necessary for the expansion of production; it is the function of that market to maintain the mobility of capital, insuring flows to the most favorable investment opportunities.

Recent arguments for changes in accounting is based upon the fact that the corporation should be able to provide for the replacement of its plant and equipment independent of the capital market [Business Week 1977]. The effect of this development is to eliminate completely the primary capital market, simultaneously restricting the growth of new and small enterprises.

If the primary capital market is allowed to function and resource allocation is permitted to be directed impartially and efficiently, then the current market valuation problem being posed as an accounting dilemma will no longer plague society. Under the present situation, management, except for the internal politics, is self-perpetuating [Taus 1979,1067]. Therefore, inefficient management is rewarded invariably and cannot be penalized. It is insulated from the market process through its internal financing ability; the secondary capital market does not serve as a displacement device [Rumelt 1974,153].<sup>11</sup>

## **Consumer**

Within the market system, consumers play an important role. To be more precise, without consumers there cannot be a market system. Consumers always existed but within the context of an exchange economy consumers emerged with the manorial system.<sup>12</sup>

The manor was essentially a capitalistic organization. "The economic organization of the manor was designed to provide for the exploitation of the lord's farm by the labor services rendered by the tenants [Usher 1920,125,128]."<sup>13</sup>

The affairs of the lord were in the hand of two officers, the steward and the bailiff. The steward was charged with legal and financial business: he held the manor court, or leet, attended to all matters connected with the tenures of the villagers and their financial obligations to the lord. The steward also supervised the market, if the lord had the privilege of holding market [Usher 1920,129].

It was the breaking up of the manors that produced a labor pool and hence a labor market, and then a transition from payment in kind to payment in money that effectively expanded the market. The transition to money payments accentuated labor specialization, because the individual could buy what the individual had not produced. There are other contributory factors to market expansion but they were all complimentary:

The possessions of individual proprietors were widely scattered, and it was really less convenient to collect the rents in kind than to collect them in money with which supplies could be purchased at the nearest market. The period 1200-1500 is marked by a gradual transition toward conversion of labor dues into money rents, and toward an abandonment of the demesne farm. It became more profitable to let out the demesne farm [Usher 1920,131].

The transition was not without its difficulties.<sup>14</sup> Naturally, it involved *an allocation problem*. Inasmuch as the world cannot stand still, *the problem was solved in the only way it could be solved, then and now, through bargaining* and compromise:

The attempt to convert somewhat uncertain rights to service into precise equivalents in money must inevitably have created much difficulty, and no little tension; and yet, on the whole, both lord and tenant found a vital interest in the transition to a system of money payments [Usher 1920,132].<sup>15</sup>

Thus, in the market economy, "the consumer enters the market with *money* to purchase goods and services for consumption. . . each individual chooses between alternative patterns of consumption spending [Senholz 1960,p.vi]." The consumer is faced with numerous opportunities to purchase different quantities and qualities of goods and services at their announced prices. However, the means of the consumer are insufficient to permit the acquisition of more than a few selected opportunities. This condition or action constitutes consumer choice.

Regardless of what "their ultimate motivation may be, whether material or ideal, noble or base [Senholz 1960,p.vi]," the consumers make an assessment of goods and services in accordance with their specifications for the satisfaction of their needs. Consumers by their role indirectly determine the prices of the factors of production and the income of every member of the market economy. Capital markets and business enterprises are merely agents executing the wishes of consumers as expressed by their preferences as reflected by their consumption patterns [Senholz 1960,p.vi].

It is only natural, therefore, that accounting theory would focus on the choices, which are both overt and conscious acts in the light of budget constraints and managerial strategy.

### **Entrepreneur**

The entrepreneur emerged and developed during the period 1200-1500 A.D. The role of the entrepreneur changed not in the function but in the organizational setting.

The entrepreneur emerged from the manorial system. The manor is the origin of the economic unit--the firm [Bennett 1938,189; Pollard 1965].<sup>16</sup> These manors operated with the objective of making a profit [Bennett 1938,191].<sup>17</sup> There is clear evidence that the manors, in the thirteenth century, were centers of rural employment.<sup>18</sup> Some of these manors were well managed estates, characterized by a careful system of administration and the rendering of annual accounts. The basic handbook of estate administration in existence at that time was written by Walter of Henley--a Dominican friar [Cunningham and McArthur 1896,37; Bennett 1938,189]. This handbook emphasized profit and loss as the test of efficiency in the administration of an estate [Bennett 1938,191].

The dynamics of the situation indicate that the lords sought to minimize their risks and maximize their returns. Some of them used long-term leases as a means of fixing their returns and removing themselves from the administration of their estates. If they felt that the current returns were unsatisfactory, they would rearrange their operations through new leases or revert to managing the estates themselves. The Statute of Merton (1235) recognized the need for profit making by the lords on their holdings through rent charges or otherwise [Ashley 1912,271].

This entrepreneurial spirit is clearly revealed by the following passage:

Many of the landlords who had kept their demesnes in their own hands were changing their system of managing them: many who had been wont to let them for terms of years to 'firmarii' (farmers, farmers\*) were taking them back into their own hands to try themselves the experiment of sheep raising; or they were taking the opportunity of the greater chance now presented of making money by land and of the consequent greater demand for 'firms' to make better terms on the renewal of the lease. And if the lords were doing this, still more were the 'firmars' bent upon making the best they could of their bargain, so that they were frequently regarded as chiefly responsible for 'laying ground to pasture' [Ashley 1912,267-268].<sup>19</sup> (Two footnotes omitted)

The role of the entrepreneur is essentially one of risk-taking and organizing. In the earlier days prior to the industrial revolution, these entrepreneurs were responsible for what was termed a "putting-out system." Such a system is characterized by an effective demand for the goods in question greater than that which could be satisfied by artisan or handicraft production on a local basis [Coleman 1975,24];<sup>20</sup> such potential demand gives rise to "merchant-entrepreneurs" who forge the vital link between commercial expansion and the re-organization of production, and thus to feed the new markets [Coleman 1975,24].

Their role was essentially to organize and finance. The capital of such industries, because of the techniques involved, mainly took the form of raw materials, semi-finished goods, and stocks--what is sometimes called 'circulating' capital. So the main prop of the financial structure was the provision of working credit to cover the completion of the various processes up to the sale of the final product [Coleman 1975,24].

With the transition of the natural economy into a money economy, the entrepreneur emerged as a want-satisfaction agent. The entrepreneur engages in consumer want-satisfaction. The entrepreneur permitted the individual to exchange his labor services for money, and in turn exchange his money for goods and services so desired. The entrepreneur enables the realization of the benefits of economies of scale.

### **The Professional Manager**

The existence of the professional manager can clearly be traced to the earliest of civilization [Chiera 1938; Lambert 1960],<sup>21</sup> but a money economy gave rise to a new breed by expanding the need for professional managers within the context of a money economy.<sup>22</sup>

Upon the letting out of the manors on a firm contractual basis, the function of

organizing production was effectively separated from the function of risktaking. In the manorial period, the emergence of the bailiff, the reeve, and the steward is experienced. The bailiff is responsible for general administration, the reeve for production, and the steward for financial administration. What was accomplished was the separation of the owner from the manager and the accountant. 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. The later development of the manorial period is characteristic of the subsequent period--security capitalism, in which skilled salaried management is saddled with the task of organizing the various activities of the firm; and investors have accepted the function of risk-taking through the supply of finance:

Such generality of form as came to exist was primarily due to the pressure of the economic needs of an industrial and commercial life that presented many fundamental elements of similarity despite the diversities of political forms in national and municipal life [Usher 1920,81].

### **Centralized Production: The Factory System**

The start of the factory system can be traced to 1717 in Britain. At that time 300 workers were lured together by Thomas Lombe to work together in a factory based upon machine designs brought into Britain from Italy. Prior to that there were small scale workshops which were operations of small groups of workers [Ashton 1969,24]. Centralized industry introduced fixed capital investment:

[T]he introduction of the blast-furnace into England sometime towards the end of the fifteenth century. . . together with its bellows and the necessary water-wheel and water-courses, evolved into a costly piece of fixed capital. . . The construction, maintenance, and operation of such a producing unit was quite outside the financial range of those without access to capital and credit [Coleman 1975,41-42].<sup>23</sup>

Centralized industry was due to a combination of technical factors, such as shipbuilding and mining and economic factors such as product standardization which was necessary for effective marketing [Coleman 1975,35-36; Trevelyan 1942].

### **CAPITAL: TRADE CREDIT AND MONEY**

The organization of industry was dependent upon capital--trade credit and money:

The entrepreneur, with a more than local outlook and with money at his command, was required to collect the raw material. . . and pass them on from craftsman to craftsman and from place to place. . . and from town to town, and finally to bring a standardized article to the best market. For all this capital was needed [Trevelyan 1942,34-35].

The organization of production through a series of merchants and intermediaries necessitated a system of credit, but the obverse of credit is debt [Ashton 1969,39].

Most of the capital [invested money] was embodied, not in buildings and machines, but in stocks of material in process of production: resources could be transferred readily [capital mobility] from industry to trade, or from trade to industry. . . . [Ashton 1969,36; Uhr 1960,66-67].<sup>24</sup>

Population growth increased consumer demand. This increase stimulated development of “productivity-raising fixed capital such as power-driven machinery [Coleman 1975,25].”

The consequences can be appreciated in light of the following passages:

The transmutation of mercantile into fixed capital was an important cause (as well as a result) of the expansion of manufacture. The industrialist needed not only long-term capital [money] to set up and extend his works, but also working capital to cover the purchase of raw material, the cost of holding the product till it was paid for, and the sums to be handed over periodically to the wage-earners. The first of the short-term needs was generally met by the producer or dealer--who provided the material on credit which ran into many months. . . . [T]he rise in the rates of interest. . . in 1793 strengthened the practice of giving discounts for prompt payment and charging interest on overdue accounts. A new sense of time was one of the outstanding psychological features of the industrial revolution.

The payment of wages at more or less regular intervals meant that the employer had not only to find funds, but find them in a form acceptable to the wage-earner. . . .

The dearth of coins of small denominations was a serious matter for manufacturers with wages to pay. Many of them spent days riding from place to place in search of shillings. . . .

For the larger transactions of commerce the instrument was the bill of exchange, drawn by a creditor on a debtor who accepted it for payment three, six, or twelve months ahead. Bills. . . formed by far the greater part of the medium of exchange. . . .

As far as it is known, the first provincial banking house was set up, in 1716. . . . But it was not until after 1760 that private banks of this kind became general. They had no common origin. . . . As manufacture increased, many industrialists. . . established banks of their own, partly, no doubt as a means of obtaining cash for wages and bills for remittances, but partly as an outlet for the growing capital [Ashton 1969,69-71].<sup>25</sup>

Money (capital) enabled the transfer of risk from the artisan and the acceptance of risk by the entrepreneur. By being a homogeneous measure and through insuring a definite nominal amount of purchasing power, it provided an incentive to the artisan to produce for exchange in money which has assured exchange value whereas an inventory of his output had no assured exchange value. Thus, the risk of producing beyond limited amounts for immediate barter in the absence of assured exchange was quite profound and was unequivocally a deterrent to increasing output.

Fiduciary money because of its assured nominal exchange value (owing to governmental decree) provided a level of predictability heretofore absent. Planning was facilitated because instead of having two sets of changing values, uncertain nominal value of the medium of exchange and uncertain exchange value of commodities, there is only one set of uncertain values. Given the stability of money in terms of assured nominal exchange values, only one area of uncertainty--values in the commodity market--remains to be incorporated into the planning model. Since all contracts entered into will be settled in a fixed determinable amount of nominal exchange value, uncertainty is reduced and the cost of contracting effectively reduced because of the elimination of the premium that normally would exist whenever uncertainty is present. Herein lies a clue to the invalidity of the inflation debate in accounting.

### **The Accounting Functionary and Financial Reporting**

With the separation of the owner from the management. of the operations of the manor, it was only natural that the function of financial reporting gained prominence, and hence the resultant need for an independent arbiter of the financial facts--the auditor. The following are intended to shed light on this development.

Any careful study of manorial documents will show that the contemporary scribes who compiled the accounts and the Court Rolls could not differentiate clearly between the various manorial officers.

The truth is that the documents and treatises are complementary, but, even so, they require to be used with the greatest caution before any valid generalizations can be made. Two considerations at least must always be borne in mind: first, that the widest variations of procedure and customary use were possible on manors only a few miles apart, and therefore we cannot accept any clear-cut system. . . and secondly, that the lax use of terms by the medieval scribe. . .

makes it necessary for us to examine what the various manorial officers are actually found to do before we can accept the titles indiscriminately conferred on them by the writers of the documents [Bennett 1938,156-157].

Three different forms of records were kept on the well-managed estates. The *extent* or *rental* consisted of a list of tenants with a statement of their obligation and the manner of their discharge in kind, in services or in money. It was essentially "a statement of the resources of the estate and the legitimate expectations of its owner" [Cunningham and McArthur 1896,37]. The *accounts* were made up annually. They showed the produce of the estate and the purposes to which it was applied, enumerated the live stock on the estate, and disclosed the discharge of the tenants' obligations, to the extent that such occurred, as recorded on the extent or rental. The *Court Rolls* were records stating the changes in the personnel of the tenants and any modification of tenants' obligations [Cunningham and McArthur 1896,37].

In general, though the accountability for the estate was with the bailiff - the chief executive, "the manorial accounts. . . were generally returned by the reeve and it is possible that no part of his duties caused him more trouble than did the compilation of the annual accounts [Bennett 1938,186]." "The formidable nature of the accounts" is revealed in one glance at them, for "they usually state in the minutest detail every item of the manorial income and expenditure [Bennett 1938,186]."

The internal accounting function, naturally as part of management was vested in the hands of the reeve and the scribe. The daily record-keeping or bookkeeping, which was in a crude form, was handled by the reeve. The annual closing and formalizing of the *account* was "the work of trained scribes who made a round of the manors after Michaelmas for this purpose. One of the commonest entries on the *compoti* records the scribe's fees for his work, and often the cost of the *parchment* [Bennett 1938,187]."

The *account*, the term used for financial report, was a comprehensive document providing information on arrears (receivables), rent and sales revenues, expenditures, production, consumption, inventory showing the resultant effect--the balance. The beginning of the account was generally arranged to provide for the name of the manor, the year of the king's reign and the official who presented the *account* [Bennett 1938,188].<sup>26</sup>

The bailiff, the chief executive official, gave an account of his stewardship and would

normally ask for his discharge on his last day to leave the manor [Bennett 1938,166]. On well-managed estates, it was customary for the bailiff to render an account annually.

Once a year, soon after Michaelmas, the lord's auditors appeared on the manor, and held a searching inquiry into its financial condition. The bailiff had to face this and give full details of how he had spent the lord's money and with what return. Every smallest detail was investigated. [e.g.] As the representative of the lord, the bailiff from time to time gave a night or two's shelter to some passing traveller who claimed to be a friend of the lord. But the auditors were not satisfied with this. By what authority did he extend such hospitality, and where was the written command from his lord which authorized his action? If he could not produce this, or something that would move these hardfaced men, he found himself surcharged with the amount. . . [M]en found this an easy way of getting a free night's lodging, and it was necessary to take steps to overcome such abuse. . . . [T]he Bishop of Winchester, in 1295. . . issued an order to all his bailiffs commanding them to receive no one except the steward and his clerk [Bennett 1938,165].

The reeve (operating manager) sometimes used the lord's money arising from the estate, to conduct a lending operation for his own profit. These types of activities were so clearly concealed, that at times they were not readily detectable. However, it would seem that the investigations were effective.

[T]he annual audit was a very searching enquiry, and whether bailiff or reeve made the return, the proceedings were the same. Everything had to be accounted for, and what wonder if the unfortunate reeve faltered at times, and found himself obliged to invent a reason for the outlay of certain moneys, or the loss of an ox, or the defection of certain rents. So from time to time we stumble across entries which show that something like this has happened: a reeve is fined 6s. 8d. for "many things concealed" in his accounts, or is found guilty of returning certain tenements as empty when in fact they were still occupied, and so on [Bennett 1938,175].

The role of the auditor was filled at times by the steward. In effect, the steward was one of the earliest auditors, though at times much more. It has been recorded that in the year 1225, "the steward of the Bishop of Chichester's Sussex manors" was constantly engaged "making a round of the manors and auditing the accounts [Bennett 1938,189]."

Normally, the auditors received a letter of appointment. "Their office and authority was recognized by the second Statute of Westminster [Bennett 1938,190]." Their examination seemingly consisted of the checking of documentary evidence, such as the *extent*, *customal*,

prior year's balances and adjustments, as well as verification through the establishment of *steward's tallies* [Bennett 1938,161,190,191; Davenport 1906,25]. The responsibilities were both recognized and understood. The qualities and duties of a good auditor at that time were clearly enunciated by Walter of Henley and other writers. The auditor had:

to be a faithful and prudent man, well versed in his profession, and knowing all the points and details of the accounts and the many items of rents, outlays, returns, stock, etc. they must contain. He must hear the complaints and wrongs of everybody who complains of any of the lord's officers, and make an enquiry into any doubtful matters and fine those who have been careless with the lord's property [Bennett 1938,189; Lamond 1890,107].<sup>27</sup>

With the breaking up of the estates (demesnes) as a result of the "Black Death" (1348-1350) [Cunningham and McArthur 1896,40-41], there was a merger of the owner-manager-accountant function. This condition continued until the advent of the joint stock-company in 1553. Since then, there exists a variety of accounting functionaries engaging in internal record-keeping internal to the firm, or internal record-keeping external to the firm (write-up work) and the formal audit work revolving around financial reporting. This latter development is reminiscent of the highly developed manorial period. It can be considered as the restoration of an accounting response given a restoration of the stimulus that originally evoked the response.

### **Organizational Forms**

Upon the demise of the manorial system, economic activity fell primarily the within the domain of the individual - the artisan and craftsman. The individual proprietorship flourished, in spite of the emergence of the merchant trader, who had effectively organized the cloth trade around the activities of the artisans and craftsmen [Trevelyan 1942,35,129; Page 1934,145].

It must be understood that just as the "Black Death" precipitated the decline of the manorial system, it generated the need for centralized production because of the decrease in population which it produced [Coleman 1975,25]. Centralized production was concerned with increased productivity, hence the emergence of power-driven machinery (fixed capital). Fixed capital gave rise to its own problem which fostered organizational change.

Centralized production, by its nature, often called for more fixed capital than did such an industry as textiles. Only for larger units or enterprises, however, did this necessitate methods of finance radically different from familiar pattern of credit provision. That was to be found in centralized industry, too, for working capital. Moreover, it was often by loans or credit from friends, relatives, trading associates and co-religionists, the businessmen were able to raise the larger amounts of fixed capital. When still larger sums were required recourse was had to the partnership or less frequently, the joint-stock company [Coleman 1975,37].

At first, the partnership was of tremendous importance during the seventeenth century, but it eventually gave way to the joint stock company with limited liability in the nineteenth century.<sup>28</sup> The retardation of the normal financial and coincident organizational evolutionary processes were a direct consequence of the "Bubble Act" in 1720 [DuBois 1938,p.x].<sup>29</sup> This artificial impediment to the environmental condition (stimulus) was removed in 1825.

The entrepreneur--merchant tradesman--by interposing himself between the artisan and the consumer--reduced uncertainty on the part of the artisan and extended the length of the production process. The organizational form for the embodiment of entrepreneurial spirit changed to meet changing circumstances. Planning in the form of long term contracts on the part of the firm (be it proprietorship, partnership or corporation) eliminated the cost of daily contracting and the monitoring of daily prices. The evolution from the proprietorship through the corporation reflected an evolution aimed at achieving maximum cost reduction for all the factors of production.

## **Government**

The role of government is an important one and is essential to a healthy socio-economic system. Government comes into being when the members of society grant to a few members (of that society), the authority to monitor the functioning (of that society) to insure an efficient functioning (of that society) for the benefit of all the members. Unfortunately, there is the tendency to think that "the normal economic system works itself, is under no control and needs no central survey [Coase 1937,387]." There is the belief that over the whole range of human activity and human need, supply adjusts automatically to demand and likewise, production to consumption in a highly responsive manner. Such a

thought process transforms society from an organization, which is what it is, into an organism, which is what it is not [Coase 1937,387].

The role of government can be seen as one that fosters economic growth and efficiency, even in its most limited form. In its reduced form, it is assigned the role of impartial arbiter only when disputes arise among individuals engaged in business [Friedman 1963]. Unmistakably, the role of government is extremely important in unsticking the economy which is stagnating due to the absence of a change in expectations on the part of consumers and entrepreneurs [Burstein 1963,590].

However, the more popular role of government is one that: (1) provides for markets where such do not exist; (2) corrects market failures when they do occur in existing markets to prevent their collapse; and (3) provides essential services that are peculiar to government [Steiner 1970,21-58].

The most lucid, though stringent, discussion on the role of government is furnished by Thomas Hobbes. He maintained that governments are formed by men for the common good of all. Some benefits derived from such covenant, which are directly relevant to this treatise are [Brooklyn College 1960,238]:

- (1) Establishment of laws for the conduct of business in order to insure fair competition among the participants.
- 2) Preservation of internal unity-political stability.

The effect of such conditions are succinctly stated by Moss:

The social contract is a spot transaction that makes all future transactions possible. It is an ingenious artifact that allows men voluntarily to overcome the impasse of the choice-independence problem and capture the benefits of political and economic organization. The creation of a contract-enforcing body is analogous to the opening of trade between regions: suddenly individuals are able to take advantage of a whole variety of new exchange opportunities. In this way, the state arises to promote economic welfare by making social organization "stable" where it was "unstable" before [Moss 1977,264-265].

The conditions set forth in the preceding passage are' clearly documented in the case of the urban network and its formation in the earlier middle ages in Britain and the rise of the town on the European continent [Postan 1972,236-239; Cunningham 1910,139].

The most pressing and obvious role of government in modern times is the fine tuning of the economy [Keynes 1936,164,377-382].

**THE STRUCTURE OF THE SYSTEM**

It is only based upon a factual investigation of the development of the socio-economic system that a proper foundation of accounting theory can be established.

One must guard against being so impressed by the characteristics of a contemporary economic system as it exists at the moment, however, varied the forms represented in it may be, that one interprets it as a new form [Eucken 1951,226].

It is only by understanding the parts of the system that one can understand the totality of the system.<sup>30</sup> This treatise has established that the organized whole (the socio-economic system) can be broken down into segments and systemic functions. Figures 1, 2, and 3 illustrate segments and functions.

**Figure 1**

**Segment 1 - Commodities Market**

<b><u>Entrepreneur/ Manager</u></b>	<b><u>Contractor/ Employee</u></b>	<b><u>Investor</u></b>	<b><u>Consumer</u></b>	<b><u>Government**</u></b>
<i>Operator of Business*</i>	<i>Provider of Services</i>	<i>Financier of Business*</i>	<i>User of Business Outputs</i>	<i>Provider of Services</i>

\* Pension funds, estates and trusts are subsumed under the title of business.  
 \*\* Philanthropic organizations are subsumed under the title of government.

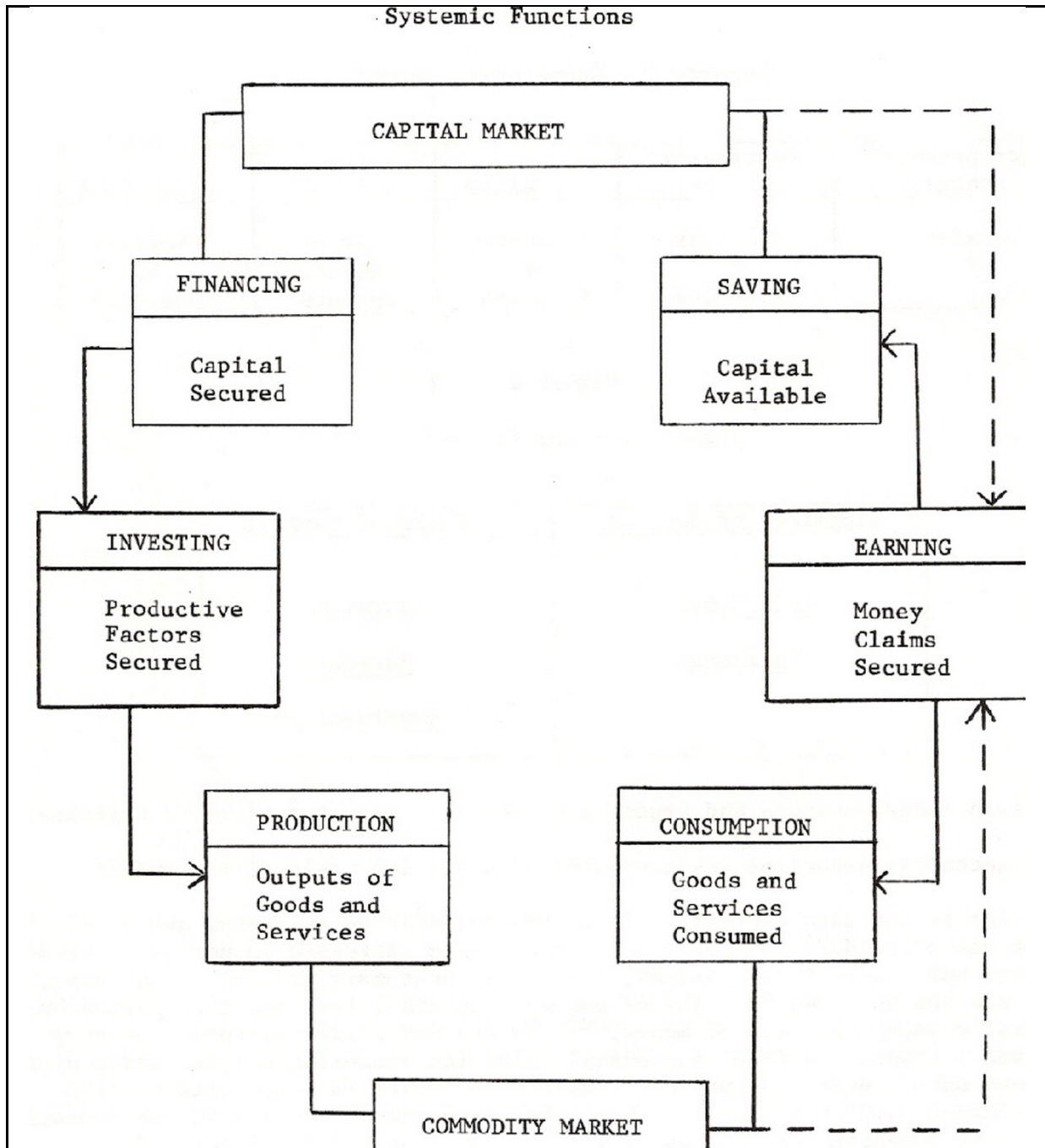
**Figure 2**

**Segment 2 - Capital Market**

<b><u>Suppliers of Capital</u></b>	<b><u>Users of Capital</u></b>
<i>Individuals Business*</i>	<i>Individuals Business Government**</i>

\* Pension funds, estates and trusts are subsumed under the title of business.  
 \*\* Philanthropic organizations are subsumed under the title of government.

**Figure 3**



Prior to the 15th century, prices were established by custom and a unit of account was adopted.<sup>31</sup> Although such prices were expressed in monetary terms, they were not 'competition' prices, they were 'customary' prices. "Customary prices are the money

equivalents of payments in kind; they are the expression of a natural economy in terms of money [Cunningham 1910,458-459; Lees 1935,p.clxxxiii].<sup>32</sup> By the end of the fifteenth century, there was a transition from 'customary' price (an established price based upon custom--a subsistence concept) to 'competition' price (a price arising from bargaining--a surplus concept). Money permitted production beyond the immediate need of the producer, because surplus would be exchanged for money. However, 'competition' price emerged because the person buying was not the consumer but a trader.

In an economic system in which exchange predominates, it is the money price that acts as the adjustment mechanism. The monetary system and forms of market will determine the success of the price mechanism. It is money which co-ordinates individual plans and economic actions, and thus enables the functioning of an exchange economy, past or present [Eucken 1951,131,159-172,261,262].

The socio-economic system is driven (directed) towards equilibrium through the interconnections of the diverse functions, although it never stays in equilibrium.

#### SUMMARY AND CONCLUSION

This paper has analyzed historical works in order to establish the evolutionary pattern of the accounting environment through the evolutionary process of society. Such processes were identified as *adaptability, tractability, mobility, and shiftability*. The emergence of the *market economy* through the price mechanism was rendered efficient through the introduction of *money* and later the firm. Money was introduced by society as the *unit of accountability* and as the *agent of exchange* whereas, the *firm* emerged as a *multi-contracting agent*, in effect assuming the role of a *surrogate market*.

Money exchange gave rise to the *consumer*; the *entrepreneur* emerged to satisfy the needs of the consumer. The firm gave rise to *centralized production* and the *professional manager*. With the growth in population, increased consumer demand necessitated the money savings of society to be directed to consumer satisfaction. Firms were able to expand through being able to tap the savings of the community, thus the emergence of the capital market. In order for the savings to be made available, communication between *suppliers* of money savings and *demanders* of money savings became necessary; thus,

financial reporting emerged, and the importance of attestation (the function of the auditor) was accentuated. Furthermore, the evolutionary process entailed legalizing risk sharing arrangements between the firm and society. Limited liability became necessary for the intensification of capital accumulation, and its emergence was accompanied by an alteration of the organizational form. It was made clear that *government* played an important part in the evolutionary process by providing political stability, enforcing contractual agreement, and ensuring the acceptance of the medium of exchange--money.

In conclusion, it would seem that the structure of the socio-economic system as outlined, based upon the evolution of the participants and the institutions, provides a sound basis for the development of accounting theory. It would seem that only through this type of analytical process can neutrality, relevancy, and reliability of financial reporting, as deemed vital to the usefulness of accounting, be achieved.

#### ENDNOTES

- 1 This work was undertaken expressly to demonstrate the fallacious analysis resulting from the failure to give cognizance to the historical development of institutional arrangements.
- 2 This statement is attributed to Francois Quesnay (*Maximes generales du Gouvernement economique* ca 1748), as cited by Eucken [1951,321].
- 3 Temples as seat of government were the establishment for the conduct of industrial and commercial activities [Chiera 1938,80-83].
- 4 "Society is nothing but the common ground between one individual's network of relations and another's, and it has no existence except in the activities of individuals who, for their part, cannot exist except in Society [Toynbee 1954,386]." Accounting is an invention of society. Inventions are a part of the social process [Ashton 1948,12].
- 5 In the (pre U.S.A.) colonies in the seventeenth century, the "plantations became a field for capitalist enterprise, and moneyed men sank, and often lost, their capital in them as a form of investment." The Virginia Company which was incorporated in 1609, involving a large sum of money was a joint stock company with 715 shareholders--56 city companies and 659 individuals. The investment which was lost over a twelve-year period was £100,000. The company was dissolved in 1625 [Lipson 1956,167-169].
- 6 It was the joint-stock company, with the limited liability feature adopted from France that was the critical capital formation device [Rogers 1892,144].

- 7 "At the official recognition of the London Stock Exchange in 1773, virtually all the stocks sold and traded at that time were government securities. . . . A few mines and the great chartered trading enterprises of the century like the East India Company were incorporated, but their shares were not traded and sold openly or even quoted on the Stock Exchange. Where they did change hands it usually happened through the company itself [Mathias 1969,383-384]."
- The stagnation of the normal evolutionary process was the enactment of the Bubble Act in 1720, which restricted stock-jobbing and the formation of corporations [DuBois 1938,p.x].
- The impact must have been felt in the U.S. for "an act of Parliament was passed in 1741 which expressly extended the Bubble Act to the American Colonies." [DuBois 1938,25].
- The effectiveness of the market is dependent upon the links that exist, extending from one area to another. For instance: "Around 1850 the United States as far west as the Great Plains became a national business system knit together by rail and water [Cochran 1977,51]."
- 8 In the 16th century, Antwerp was "the world's money market" [Lipson 1956,233].
- 9 Concerning the development of commodities markets, see Moffitt [1925,231-236]. "[T]he agrarian European feudal world provided the medieval cities with the external markets the ancient cities lacked [Finley 1973,140]."
- 10 The manorial system evolved from a natural economy into a money economy [Lipson 1959,62,89,94,96,102; Finley 1973,140-141; Powell 1916,3-4].
- The ancient world created hard money (gold and silver coins) but "never created fiduciary money in any form, or negotiable instruments." The machinery for the creation of credit through negotiable instruments simply did not exist [Finley 1973,141]. On the difference between hard money (coins) and fiduciary money (legal tender), see Jevons [1875,71-73, 190,229]. Bills of exchange emerged in the fourteenth century in Italy [Jevons 1875,294].
- 11 A relatively free flow of capital was experienced by the end of the Middle Ages; money accumulated from agriculture went into commerce (trade), and in turn from commerce to industry [Lipson 1959,208]. This same pattern of capital flow was experienced in the U.S.A. by the beginning of the nineteenth century [Cochran 1977,18].
- 12 The manorial system evolved into an organized system of exchange [Page 1936,p. xxxi].
- 13 In the twelfth century, members of the Order of Knights Templar "farmed out some of their estates, but they kept many of them in their own hands and managed them." The records of the Templars support a high degree of skill, accuracy and business ability [Lees 1935,p. xxxiv].
- 14 The earliest form of manorial revenue were food rents. However, by the middle of the twelfth century, except for a few sporadic food rent payments, the Bury economy depended upon money payments [Douglas 1932,pp. cxxxi,cxxxiii].
- 15 "If any generalization may be risked, it would seem that throughout money payments were encouraged" as a discharge of feudal obligations [Lees 1935,lxxi].
- Being that mobility was the chief characteristic of the Order of Knights Templar, it seems quite logical that "their administrative system would be based on a monetary exchange rather than on feudal service" [Lees 1935,xxxvi].
- "It is not surprising that a marked feature of the Templars' administration was the establishment of fixed money rents" [Lees, 1935,p. xxvii].

- 16 With a bit of imagination one can see the similarities between the modern multinational or multicorporate establishment and the manorial establishment of the middle ages. One very good illustration follows [Bennett 1938,189]:
- "Forncett was one of a large number of East Anglian manors held by the Earls of Norfolk. From the chief seat of the Earls, at Framlingham, Suffolk, these manors were administered partly as distinct units, partly as members of one great estate. The local officers of Forncett were in constant touch with the officers of the central administration and with local officers of other of the Earl's manors in Norfolk.
- Considered from the Earl's standpoint, the manor of Forncett was, primarily, a source of revenue in money and in kind. It helped to fill their treasury and to supply food for their great household. Some of the cash receipts were paid by local officers to the collector of Framlingham or to itinerant accountants; but much of the money never reached the central treasure but was disbursed by the local officers, upon order of the Earl to his creditors in Norwich or the vicinity. Thus the scattered manors, each with a fisc of its own, facilitated the payment of debts, while the necessity of transferring cash over along distance was avoided." [Davenport 1906].
- 17 "It might naturally be expected the Order of Knights Templar, half soldiers, half monks, would like the great commercial magnates and bankers who acquired landed property. . . in the early nineteenth century tend to regard their. . . estates mainly as a source of profit [Lees 1935,p.xxxvi]."
- 18 During the thirteenth century in Paris: "The large establishments of the great lords sheltered many craftsmen and became the scene of further specialization of occupations at a fairly early date [Usher 1920,78]." Whereas, in Italy during the same period: "Manufacturing was one of the main activities of the manor." The manor "produced for the market in order to be able to buy from the market, so that the administration always had a certain balance in cash to meet its commercial needs [Eucken 1951,111-112]."
- 19 "It seems clear that the term 'farmers' as used of agriculturists, was first applied to men [entrepreneurs] who took the demesnes. . .for a certain number of years, contracting to pay annually a regular fixed sum (or firma)." It was only during the middle of the 16th century that the term farmer came to have its present meaning [Ashley 1912,290, footnote #10]. "Firma" is translated as "rent for a lease" [Page 1936,p.xxvii].
- 20 The time period is the 14th and 15th centuries.
- 21 Given changing circumstances, the evolutionary process, *the importance of management through their attention to profitability analysis had its origin in the 14th century* (breaking up of old manorial organization) [Davenport 1906,53]. It is fully recognized in the sixteenth century. At such time, "the large German merchant houses transformed European mining and metallurgy [Pollard 1965,31]."
- 22 The bailiff was one of the early professional manager to receive an annual cash wage plus certain perquisites [Davenport 1906,22].
- 23 The transmission process was quite profound. At the time of the American Revolution, the colonies had more blast furnaces and forges than did England and Wales [Lipson 1956,510].
- 24 Capital is essentially a concept of time--the extension of the production process. The length of the production period is determined, other things being held constant, by the manner in which capital (money received or credit extended) is invested. *Capital goods* (real assets) are

essentially assets that possess physical qualities and not merely represent claims or rights. Whereas, capital can be invested in financial assets (claims or rights), retained in the original form (money or credit) or invested in real assets (capital goods) [Uhr 1960,66-67].

- 25 The Bank of England was established in 1694, but it was not concerned with commercial activities of a provincial nature.  
Hoarding of money and the lending of money to entrepreneurs became firmly established in the fifteenth century [Powell 1916,16-17; Ashley 1912,46].
- 26 The purpose of the *account* was to provide a knowledge "of the state of things as well as the issues, receipts, sales, purchases, and other expenses, and for raising money [Lamond 1890,33]." For presentations of actual financial reports (*compotus roll*), see Page 1936; Davenport 1906, Appendices VIII and IX; Cunningham 1910,591-610; Hone 1925,204-218].
- 27 The separation between the internal audit and external audit did exist. At times there were only internal audits, but for some manors there were external audits. The steward was essentially, at times, the internal auditor among other things. "As the steward acted as a check upon the bailiff and other officers, so did the accountants upon the officers of the manor, including the steward himself [Davenport 1906,23]." See also, Page [1936,p.xxxv].
- 28 In Germany, the limited guarantee company (G.m.b.H.) was introduced in 1892, though without public balance sheet [Eucken 1951,245].
- 29 "The situation in England after 1720 is in many regards reminiscent of America in 1930; a lethargic government, in some quarters a sense of public outrage, in others a profound feeling of depression. It was in particular the entrepreneurs whose usual buoyance was well deflated. . . At this time men were convinced that governmental authority was necessary if stocks of transferable shares were to be raised [DuBois 1938,11]." (Footnotes omitted.)
- 30 "A system is 'an organized or complex whole; an assemblage or combination of things or parts forming a complex or unitary whole'." [Johnson, Kast, and Rosenzweig 1967,4].
- 31 The unit of account was the *solidus* or *mancus*; they were both measures in relation to an ox [Cunningham 1910,117,122].
- 32 Although a change from "natural husbandry" to a "money system" began in the 13th century and was accentuated in the 14th century, there was not a transition from a "natural economy" to a "money economy" [Davenport 1906,48]. The transition was to follow however: "In the fifteenth century the use of money had become general; the old forms of natural economy were discarded; but though prices could be quoted in a money form, they were not yet determined by monetary considerations pure and simple [Cunningham 1910,459]." See also, Vinogradoff [1905,329].

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