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EDITORIAL

The present issue contains seven well-written articles in different areas of accounting and control. Khursheed Omer presents theoretical arguments supporting the proposition that ploughback earnings represent an important information signal for the users of corporate financial data. Sukumar Bhattacharya deals with ethical standards of the Accountants and the Auditors in India. While implicating economics in management accounting research, A. J. M. Humayun Murshed suggests an alternative approach which will overcome some of the methodological limitations. L. S. Porwal and H. K. Porwal in their article highlight the need for review of accounting standards in India in the context of recent liberalisation and globalisation measures taken by the Government and make a few suggestions to improve the usefulness of annual financial statements to all user groups. Ahmed Riahi-Belkaoui examines the impact of replacing man by a 'model man' on the phenomena of conservatism in processing information in a probabilistic cost control context and the impact of the source reliability and cognitive style. While V. K. Vasal deals with corporate extended social reporting and identifies some of the corporate characteristics that explain the observed variations, A. K. Basu pleads for further harmonisation for ensuring greater comparability between accounting reports prepared in different member countries of the European Community (EC).

May I now draw the attention of our members to the national and international conference news published elsewhere in this issue ? I have no doubt that an active participation by our members will make these conferences a success.

I am grateful to Dr. J. B. Sarker, Secretary, IAA Calcutta Branch, and Dr. S. C. Jain, Treasurer, IAA, for funding the publication of this issue. My colleagues in the Editorial Board who helped me in the publication of this issue also deserve special thanks.

B. Banerjee
Chief Editor

December 31, 1994

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PLOUGHBACK EARNINGS AS A MEASURE OF MANAGEMENT PERFORMANCE—A STEWARDSHIP PERSPECTIVE

*Khursheed Omer**

The purpose of this paper is to present theoretical arguments supporting the proposition that ploughback earnings represent an important information signal for the users of corporate financial data. The term "ploughback earnings" is used to represent the amount of current earnings retained in the business to provide the future growth of a company. A model is proposed which depicts how the market receives and transforms the dividend and ploughback signals provided by the management.

I. Introduction

The concept of earnings plays a pivotal role in providing information about an enterprise's financial performance. Several proposals to improve the measurement and reporting of enterprise income have appeared in the accounting literature over the last several decades. Although current accounting practice has not espoused any of the various alternative income concepts, decision-usefulness remains the primal quality sought in accounting income. The problem of finding an appropriate measure that would provide the basis for a reasonable assessment of the quality of decisions made by a firm, however, remains an open issue.

In response to the pressures for altering prevalent income reporting practices the Securities and Exchange Commission [SEC] issued *Accounting Series Release No. 190* [ASR NO. 190] (SEC 1976) and the Financial Accounting Standards Board [FASB] issued *Statement of Financial Accounting Standards No. 33* [SFAS No. 33] (FASB 1979) requiring supplementary disclosure of current cost and general price level information. Recent research on earnings has primarily been focused on examining the relevance of current cost data as opposed to historical cost data.[1] A number of research studies reported lack of incremental information in ASR No. 190 and SFAS No. 33 data. Notwithstanding the results of these studies, arguments favouring the use of current cost data to supplement financial statements based upon historical costs are quite common. These arguments are based largely on the intuitive appeal of current cost information first articulated by Edwards and Bell (1961) in

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[1] See DeBerg and Shriver (1987) for review of this research.

their seminal work on measurement of business income and the perceived deficiencies of historical cost income in providing useful information (Stamp 1971, 281-82).

Historical cost, however, continues to be the basis of reported income and has had strong supporters not only among practicing accountants who advocate its continuation on grounds of practicality, but also among such prominent accounting writers as Littleton (1952), Kohler (1963), Ijri (1971), and Mautz (1973). Furthermore, Lev and Ohlson (1982, 261 & 263) noted that there was overwhelming empirical evidence of association between earnings announcements and stock prices supporting the belief that reported earnings provided timely and relevant information to the financial markets. They, however, expressed concern about the small magnitude of this association and about the fact that much of the stock-return distribution remains to be explained. Lev (1989, 155) also reiterated the concern about the usefulness of earnings information due to a very low explanatory power displayed by the earnings/returns regressions in most studies on the subject. Such concerns have brought forth calls for consideration of alternative methods of relating stock-price characteristics in financial markets to accounting signals and for undertaking research exploring the determinants of earnings quality (Lev and Ohlson, 305 and Lev, 180).

Thus, the accounting community is faced with a dilemma between the position taken by the advocates of reform in the prevailing practice of income reporting based upon historical costs and the evidence from the market which indicates information content in the reported historical cost income and lack of use of supplementary disclosures required under ASR No. 190 and SFAS No. 33. This paper attempts to find some possible answers to this dilemma as it identifies the portion of earnings reinvested in business as potentially containing an information signal distinct from the ones conveyed by the aggregate earnings.

II. Theoretical development

The reported earnings figure ostensibly provides information that is useful in assessing three important aspects of enterprise performance : (1) the cash flow prospects of an enterprise in terms of dividends and interest payments, (2) the maintenance of the enterprise's liquidity and solvency, and (3) the discharge of management's stewardship responsibility (FASB 1978, par. 42-52). Traditionally, the stewardship concept has been interpreted in terms of management's accountability for the custody and safekeeping of enterprise resources. In the late 1960's, emphasis in accounting research shifted away from the stewardship perspective to a decision making perspective (Moonitz 1961, 21). Information for decision making, however, does not supplant information

on stewardship ; rather the two are inextricably linked together. The FASB recognized this linkage between the two types of information when it maintained that information about past activities was indispensable for predicting the future because of the need to confirm or correct earlier predictions (FASB 1980, par. 52). According to FASB's definition of stewardship, management's accountability also extends to the efficient use of these resources and to protecting them to the extent possible from unfavourable economic impacts of factors in the economy such as inflation or deflation and technological and social change (FASB 1978, par. 50). An enterprise which demonstrates the ability to cope with future contingencies and the ability to seize the opportunity for growth is likely to have much better prospects for future earnings and cash flow as compared with an enterprise which shows a lack of such ability. The arguments presented in this paper are based on this extended concept of stewardship.

The amount of ploughback depicts the extent to which internally generated funds are made available for growth. Hence, it signals the fulfillment of an important management responsibility. Several measures of ploughback earnings are developed in this paper as possible indicators of the fulfillment of management's stewardship responsibility because it is not known with any degree of clarity if the market uses a naive model or a sophisticated model to arrive at the amount of ploughback measures to judge management's stewardship performance. The naive model implies that the market utilizes the magnitude of the difference between reported earnings and dividends to judge the success of the management in fulfilling its responsibilities. Alternatively, the market may use more sophisticated models to assess management's stewardship performance. The sophisticated models take into account retention of earnings needed to maintain the going concern status of the firm in the event of inflation or increase in the specific prices of resources before the amount needed to achieve the growth objectives of the firm is determined. Thus a prerequisite for the sophisticated models is the determination of the amount needed to maintain the enterprise's level of current operations.

There is no general agreement in accounting literature on the method of determining the amount of reinvestment necessary to maintain the going concern status of the firm. The determination of such amounts depends on how maintenance of going concern status is defined. The market may utilize any of the numerous capital maintenance concepts and strategies that have been discussed in the literature. These concepts have formed the basis for arriving at alternative amounts of going concern adjustment that the market may use to asses the stewardship performance.

Ploughback earnings signal

As noted earlier, reported income has long been regarded as an indicator of the success achieved by an enterprise because it represents a net increase in available resources. With additional resources at its disposal, the enterprise has a greater capability of enhancing future cash flows into the firm and to the shareholders. There is ample documented evidence supporting the relevance of earnings to stock prices, but, as noted earlier, there is still need for further research involving accounting numbers in view of the small magnitude of correlation between earnings and stock return. Net income is a single bottom-line measure which may not reveal all the details necessary for proper evaluation of the growth prospects of an enterprise. For this reason, breakdown of the net income figure into meaningful components, such as income from continuing operations, income from discontinued segments, extra-ordinary items etc. has been required by the prevalent financial reporting standards. The basic purpose behind this scheme of disaggregation is to disclose in some detail the various sources of revenues and expenses in the income generating process in order to help the users of financial statements distinguish transitory from non-transitory components in predicting future income.

A different scheme of disaggregating income is possible which would highlight the future prospects for growth as indicated by the amount of reinvestment of earnings in the business. Viewed from the standpoint of generating additional resources for enterprise growth, the earnings figure can be broken into two components—dividend payments to the shareholders and the amount reinvested in the business. Dividends paid to the stockholders represent resources that have left the enterprise. Such resources cannot be expected to contribute to the generation of future income or cash flow of the enterprise.[1] Ploughback, on the other hand, is by definition the amount of additional resources retained in the business. One of the most obvious relationships in the theory of the firm is that between ploughback and growth in the company (BHMQ 1970, 345), ploughback earnings are indicative of a firm's ability to continue its operations successfully because they represent additional resources deployed to enhance the earnings [and cash flow] potential of business enterprise (Devine 1985, 51).

Even though the amount of ploughback is derived by subtracting the amount of dividend from the earnings figure, neither the dividend nor the ploughback is the residual left after the other has been deducted from

[1] It does not matter whether the dividends are paid out of current or accumulated retained earnings because in either case, they represent resources that have left the business.

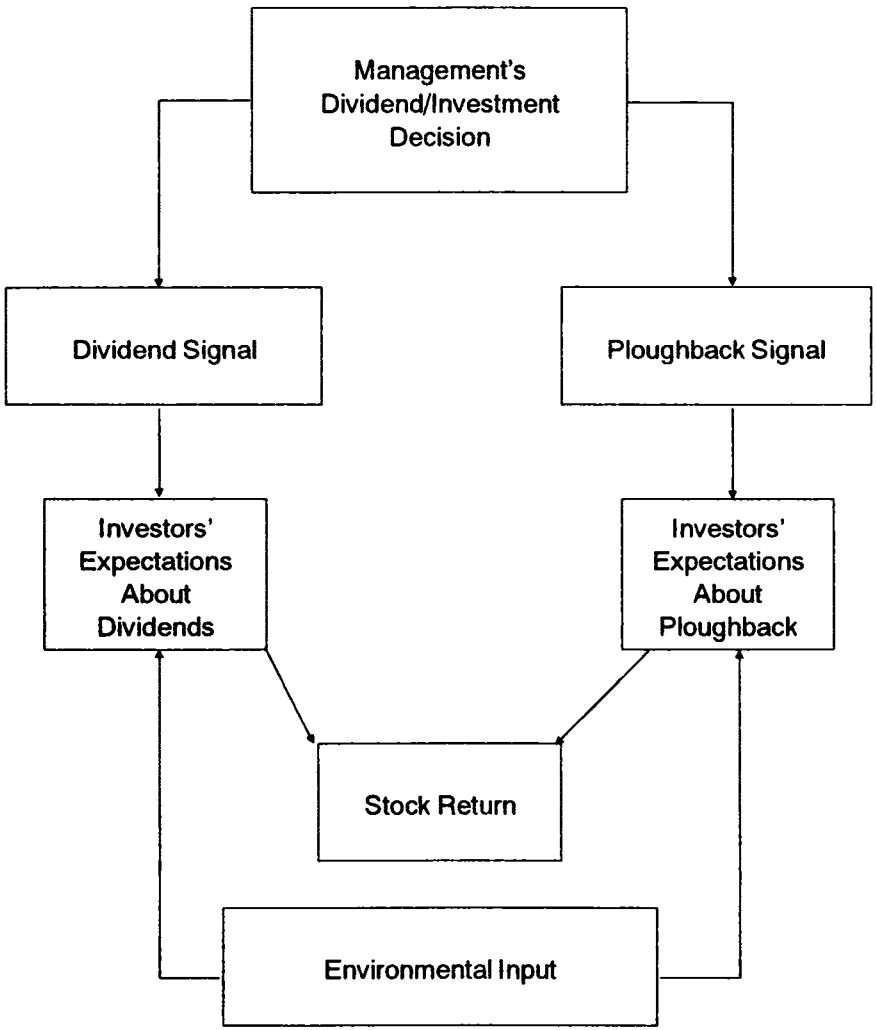
earnings. Research dealing with the nature of dividend decision by management lends support to the foregoing argument. For example, Fama (1974) and Mcabe (1979) concluded that the payment of dividends and the decision to reinvest earnings in the business represented two interdependent but separate facets of financial management of the firm. The study by Partington (1985) also confirmed this finding. He presented empirical evidence based upon a survey of senior managers' perception about three major types of dividend policies pursued by the managements of 93 large Australian companies :

1. A residual dividend policy—the level of dividend payments depends upon the values selected for the investment and financing variables [given earnings].
2. An independent dividend policy—the size of the dividend payment is selected and either investment or financing, or both are adjusted. Thus dividends are determined by exogenous factors, such as desire for dividend stability.
3. A simultaneous dividend policy—the dividend decision is neither totally residual nor totally independent. Dividend decisions are taken with reference to some exogenous factors, but consideration is also given to investment and/or financing decisions.

The results of the Partington study demonstrated that dividends were not residually determined, and that firms usually adopted independent dividend and investment policies with external financing, usually debt, as the residual. Pricing out firm's securities involves investors' making inference about the characteristics of decisions made by the firm's management (Gonedes 1978, 29). The market, therefore, has to evaluate the interdependent decisions to pay dividends and to reinvest earnings in the business. The ploughback earnings measure captures this interdependence and is likely to provide a signal to the market which is distinct from the signal conveyed by earnings.

Figure I shows a theoretical model depicting how the market would receive and transform the dividend and ploughback signals provided by management into stock price adjustments. Such a model is a prerequisite to any empirical testing that is to be undertaken to verify the postulated impact of ploughback earnings on stock prices. The model shows that users of financial reports respond to the management signals by processing them through their own expectation filter involving the assessment of information supplied by the management. The model also recognizes the fact that stock returns are, at the same time, influenced by environmental inputs such as analyst's forecasts, and news reports about the economy, industry, and the firm.

Figure 1
Theoretical Model Depicting Transformation of Management Signals into Stock Price Adjustment



Investors' expectations about ploughback

The fundamental notions about ploughback can be traced back to the development of income concepts by Hicks (1946). In his frequently quoted first *ex ante* notion of the income concept, Hicks defined income as the maximum value that an individual could consume and still be as well off as he was before. The measurement of income according to this notion depended on the measurement of the state of being well off. Hicks went beyond the state of being well-off to a state of being better off in

his first *ex post* approximation of income. He defined income in terms of value consumed and increment in the money value of the individual's prospects. Thus, he identified two important components of income : (1) recovery of the value consumed which assures the maintenance of the prior economic status, and (2) increment in the money value of an individual's prospects signifying growth in the economic status of the individual.

The concept of growth inherently assumes the presence of a benchmark against which movement toward growth can be measured. The going concern status of a business firm is such a benchmark. Maintenance of going concern status is the minimum which is expected of a business enterprise functioning in a market economy. It represents the accounting interpretation of the Hicksian notion of recovery of value consumed. Achievement of growth is possible only after the firm has maintained its going concern status. The term growth is used in this paper to simply mean availability of additional resources and does not attempt to specify the type of growth a firm is seeking.

Growth may be accomplished in the short-term by a combination of direct investment of internal funds, issuance of common stock, and external borrowing. In the long-run, however, the firm has to increase its earnings to satisfy the additional claims of the creditors and stockholders. Exactly how the market decides the appropriate amount of ploughback earnings that indicates achievement of growth is not known except, as noted above, it depends upon the maintenance of going concern status of the firm. Conceptually, maintenance of going concern status of an entity is linked to capital maintenance concepts because both refer to the recovery of resources consumed during operations.

The concept of capital maintenance had its origin in the economic literature where it was identified as the basis on which income must be calculated. The idea of capital maintenance originally entered the accounting arena as a legal constraint on dividend payments to the stockholders, but it soon became a practical basis for the calculation of profit (Chatfield 1977, 82). Hence, capital maintenance in the sense of replacing capital to recover expended cost has been implicitly a part of the income determination routine for quite some time. With the introduction of Hick's definition of income in the debate on the conceptual basis of accounting income, capital maintenance became the focal point of arguments supporting a particular income concept. For this reason, the FASB stressed the importance of reaching an agreement on the issue of capital maintenance before reaching an agreement on the objectives of financial statements in its discussion memorandum on the conceptual framework (FASB 1976, par. 264).

A number of different interpretations of the concepts of capital maintenance have been discussed in accounting literature. The difference among the various interpretations is attributable to the definition of the capital to be maintained which, in turn, is determined by what constitutes going concern status or "well-offness" in the Hicksian sense. Capital maintenance concepts can be grouped under two main categories. The firm may try to maintain its financial capital which is represented by the monetary value of capital [measured in terms of units of money or in terms of units of purchasing power] supplied by its shareholders ; or it may try to maintain its physical capital which is represented by the firm's ability to maintain its productive capacity over the long run. The concept of productive capacity itself is subject to varying interpretations and may refer to operating capacity identical to that which existed during the period concerned, operating capacity based on latest equipment and other assets needed to produce the same volume of goods and services as produced currently, and operating capacity based on latest equipment etc. needed to produce the same value of goods and service as produced now (Gynther 1970, 716).

Arguments for and against a capital maintenance strategy have traditionally been made in the context of the particular income concept that the strategy supports. These arguments are, therefore, intertwined with issues of recognition and measurement of asset values, revenues and expenses. However, Shwayder (1969, 310-313) has shown that the implementation of a particular capital maintenance strategy does not necessarily hinge upon net asset valuation and that various combinations of net asset valuation and capital maintenance rules can be used together. Grinyer and Symon (1980, 406), in their criticism of capital maintenance as the sole criterion for income determination, maintain that the financial reporting model should disclose the results of manager's actions so that the effectiveness of their stewardship can be assessed by the owners.

The foregoing logic leads to the proposition that the concept of capital maintenance, besides serving as the basic foundation upon which income determination rests, can also be used by shareholders to assess the stewardship performance of the management. Moreover, capital maintenance by definition deals with capital retained in the business. Shareholders' expectations about ploughback are, therefore, logically linked to some notion of capital maintenance. Historical cost accrual earnings have been the dominant concern of accountants, analysts, and investors in the existing corporate financial reporting environment. It does not necessarily follow, however, that financial capital maintenance is the only basis on which shareholders judge the adequacy of earnings ploughed back in the business.

The following two sub-sections present a discussion of the relevance of different capital maintenance strategies in evaluating management's ploughback decision within the framework of current income reporting practices based on historical costs. A rational behaviour is presumed on the part of the shareholders whereby they recognize the interdependence of the ability of the business enterprise to continue meeting the dividend expectations and timely and prudent reinvestment of earnings in the business.

Historical cost income, capital maintenance, and growth of the firm

One of the major criticisms of historical cost income is that it fails to reflect the economic reality surrounding the business at a given time. Critics point out that income is overstated when arrived at with the objective of maintaining financial capital which might result in the distribution of holding gains to the stockholders in the form of dividends (Kam, 1986, 116). This statement is considered valid not only during periods of high inflation but also during periods when the rate of general inflation is not as high and the enterprise is experiencing a rising trend in its input prices due to market forces and/or technological changes. Such a criticism of historical cost income is based on the supposition that no other capital maintenance strategy can be incorporated into a historical cost reporting format.

The use of a financial capital maintenance concept in arriving at the periodic historical cost net income insures that, in the long run, the original amount invested in the resources of the enterprise shall be maintained even if all of the reported net income were to be distributed as dividends. However, it was noted earlier that businesses normally pay only a part of historical cost net income in cash dividends which actually results in increasing the capital base beyond the original amount. Except when paying liquidating dividends, business enterprises are barred from taking actions that would shrink the capital. It is evident that an entity reporting net income based on the concept of financial capital maintenance may in fact be maintaining capital at a higher level than the financial capital. The determination of amount that the operations of the business are contributing towards achieving future growth of the firm depends upon the definition of going concern status.

Earnings under the prevailing accounting system represent the amount earned by a business beyond the recovery of its financial capital. The idea is that a firm maintains its going concern status if it recovers its actual cost outlays. A firm that aspires success should demonstrate not only the ability to recover actual cost outlays but also the ability to pay dividends out of its earnings to the shareholders and to maintain long-term profitability. The prospects for long-term profitability by the investors are,

at least, partially determined by the magnitude of internal funds that the firm is able to generate for investing in profitable projects.[1] Under conventional rules of accounting, the amount of earnings retained in the business after paying regular dividends to the shareholders supposedly represents investment in future growth of the firm. However, investors would have the same perception of ploughback only if they have the same definitions for capital to be maintained and the going concern status of the firm. If the investors' definitions differ from what is implied in the traditional presentation of earnings information, then adjustments to the reported ploughback figure become necessary. Because of this uncertainty, reported ploughback in this study is referred to as the "apparent ploughback amount". Apparent ploughback can be symbolically shown as :

$$APB_t = (HC_t - CD_t) \quad (1)$$

where :

APB_t = the apparent ploughback for time "t",

HC_t = historical cost earnings for time "t", and

CD_t = cash dividends paid for time "t".

An argument supporting the information value of apparent ploughback can be found in the notion that prudent managers anticipate economic changes likely to affect the financial performance of the business entity and take such responsive measures as adjusting production mix and production schedules, altering timing and quantities of purchases, and changing prices of the products. Accordingly, the amount of apparent ploughback is considered as representing investment of internal funds for future growth of the firm.

A case can also be made for the proposition that apparent ploughback provides the necessary information signal concerning the maintenance of going concern status and investment in growth of the firm under the proprietary view of the firm. The proprietary view regards the proprietors as the focus of all financial reporting. Under this view, capital maintenance is interpreted as maintaining the monetary value of the assets contributed by the owner. Moreover, going concern status of the firm is not necessarily tied to the maintenance of the same productive facilities because of changing technology and tastes ; it is rather determined by the financial flexibility the firm enjoys to capitalize on new opportunities for stockholders' wealth maximization or to allow stockholders to determine their own alternative investment strategies through higher dividend payments

[1] Firms may use internally generated funds or a combination of internally generated funds and other means of financing to expand existing productive capacity. In any event, the amount of ploughback signals growth.

(Grinyer and Symon 1980, 406). The proprietary view of the firm can be interpreted to require maintenance of the purchasing power of investment. In such a case, a downward adjustment to the apparent ploughback amount would be needed to capture the effects of inflation.

The entity viewpoint, on the other hand, considers the firm to be a separate entity distinct from those who contributed capital. Capital maintenance under this view emphasizes maintenance of the firm's operating capacity. The going concern status under the entity viewpoint is determined by a firm's ability to cope with future uncertainties. Under the entity viewpoint, apparent ploughback fails to depict fully the amount of reinvested earnings in the sense of broadening the operating base of the business because long-term profitability is considered as maintained only when the firm is assured that inventories and plant assets can be replaced as needed.[1] If prices at which assets can be replaced have been rising, at least part of the apparent ploughback may be needed to just maintain the going concern status of the firm. Downward adjustments to the apparent ploughback amount under either of the two approaches is referred to as the going concern adjustment.

The going concern adjustment assumes an "as if" scenario much in the same manner as computation of fully diluted earnings per share does. Computation of fully diluted earnings per share requires the consideration of the maximum extent of potential dilution of current earnings which conversions of securities that are not common stock equivalents could create (AICPA 1969, par. 16). Similarly, the going concern adjustment is aimed at the amount of income that would have to be retained beyond the recovery of financial capital if no external funding was available for maintaining the firm's capital at the desired level. The apparent ploughback amount corrected by the amount of going concern adjustment will be regarded as the amount of "real ploughback" representing the amount reinvested to achieve real growth in the firm. Under this viewpoint, it is obvious that the idea of maintaining capital at a specified level is more germane to reinvested earnings than it is to the determination of income as such.

Going concern adjustment and significance of real ploughback

The notion of real ploughback is in some ways similar to the concept behind the computation of distributable income under replacement cost accounting proposals. The difference lies in the assumption pertaining to

[1] Proprietary and entity views of the firm have been extensively discussed in accounting literature. No single view of the firm has dominated the development of accounting practices and procedure as accounting standards and practice reflect both views selectively applied to each individual situation [for details of this argument, see Lorig (1982)].

the disposal of the so called distributable income. According to the Hicksian definition of income, distributable income is assumed to be fully distributed in order to demonstrate the fact that the business enterprise is as well off as before even after such distribution. In contrast, real ploughback takes into consideration the practical reality of dividend payments in a lesser amount to the shareholders and represents the amount internally generated by the enterprise that is available for future growth of the business.[1] The amount of real ploughback earnings is symbolically represented by the following equation :

$$RPB_t = (APB_t - GCA_t) \qquad (2)$$

where :

RPB_t = real ploughback for time "t".

APB_t = the apparent ploughback for time "t", and

GCA_t = the going concern adjustment for time "t".

Periodic going concern adjustment can be computed by taking into consideration any number of methods for price level and specific price adjustments discussed in the accounting literature of the past three decades. For the purposes of this study, variations of several methods of adjusting for inflation and several versions of current cost adjustments recommended by SFAS No. 33 are utilized to develop measures of going concern adjustment.

SFAS No. 33 data is to be used to calculate going concern adjustments for the following reasons : (1) it is widely accepted that, during inflationary periods, historical cost financial statements for most capital-intensive enterprises show illusory profits, mask erosion of capital, and invalidate trend analysis ; (2) SFAS No. 33 continues to represent recommended disclosure for changing prices under the provisions of SFAS no. 89 and the suspension of mandatory requirement for disclosure was prompted by dwindling interest in the disclosures due to the easing of inflation in the economy ; and (3) the non-use of SFAS No. 33 data may have been due to lack of useful aggregation that would allow supplemental disclosures to be integrated into a meaningful performance measure (FASB 1986, par. 3, 4 & 123).

SFAS No. 33 disclosures were based on the premise that the future contingencies a business typically faces include changes in the cost of goods sold, depreciation of plant assets, and purchasing power gains or losses due to general inflation, specific price changes or both. These

[1] As pointed out earlier, future growth can involve expansion of the present scope of operations or acquisition of a new line of business and may be accomplished either by direct investment of internal funds or through additional debt financing made possible by an improved debt equity ratio.

disclosures did not specify any particular capital maintenance strategy and left it up to the financial statement user to utilize the additional information in whatever manner the users wished. Agrawal (1980, 6-8) presented an extensive analysis of the issues underlying the determination of the amount of capital that may be maintained using SFAS No. 33 information. His analysis was based on a classification of the enterprise resources in terms of how they were financed as shown in Figure 2.

Figure 2
Classification of Resources

	Monetary Assets	Non-monetary Assets
Financed by Equity	A	B
Financed by Debt	C	D

Source : Agrawal (1980)

Each of the four feasible combinations in the above matrix can be valued in terms of (1) original cost, (2) general purchasing power, and (3) specific prices giving rise to a total of 36 possible capital maintenance strategies. Agrawal developed and explained eight different capital maintenance strategies which he deemed logical and practical within the framework of the numerical example he utilized. Five of these strategies are utilized in this study to develop alternative measures of real ploughback. Three of the strategies that are left out involved assumptions about reinvestment of sheltered funds in similar assets. Such assumptions cannot be made realistically for the sample companies.

The first strategy aims at maintaining the nonmonetary resources in terms of general purchasing power and the monetary resources at original amounts. Going concern adjustment under this strategy is equivalent to the general inflation adjustment on cost of sales and depreciation. Since monetary liabilities have to be paid off in terms of the same absolute amount, no adjustment for inflation is deemed necessary under this strategy. The second strategy provides for maintenance of resources financed by equity in general purchasing power and those financed by debt in original amount. Besides considering the impact of inflation on cost of sales and depreciation, going concern adjustment under this strategy also considers the net effect of inflation on holding net monetary liabilities and assets. The third strategy seeks maintenance of all resources in terms of general purchasing power. The going concern adjustment, therefore, comprises of inflation adjustment for cost of sales, depreciation, and the holding of monetary assets. The fourth strategy insures maintenance

of non-monetary resources at current cost and monetary resources at original amounts. The going concern adjustment under this strategy is represented by the adjustment for specific price changes in cost of sales and depreciation. The fifth strategy is designed to maintain non-monetary resources at current costs and monetary resources in terms of general purchasing power. The going concern adjustment under this strategy includes both specific price adjustment for cost of sales and depreciation and loss or gain due to the holding of net monetary assets or liabilities. Equations showing computation of the amount of real ploughback for firm "i" in period "t" under the five capital maintenance strategies discussed above are given below :

Strategy (1) : $RPB_2 = (APB_{it} - GIA_{it})$ (3)

Strategy (2) : $RPB_3 = [APB_{it} - (GIA_{it} + PPGL_{it})]$ (4)

Strategy (3) : $RPB_4 = [APB_{it} - (GIA_{it} + PPA_{it})]$ (5)

Strategy (4) : $RPB_5 = (APB_{it} - SPA_{it})$ (6)

Strategy (5) : $RPB_6 = [APB_{it} - (SPA_{it} + PPGL_{it})]$ (7)

where :

GIA = adjustment for the effect of general inflation on cost of sales and depreciation

SPA = adjustment for specific price changes in cost of sales and depreciation

PPGL = net purchasing power gain or loss on monetary assets and liabilities composed of purchasing power loss on holding monetary assets [PPA] and purchasing power gain on debt [PPD], [PPGL could be positive (a gain) or negative (a loss) depending upon the component which dominates.]

Of the five strategies discussed above, the first three are based upon the concept of financial capital maintenance because the original investment [defined in three different ways] under these strategies is maintained in terms of current purchasing power. The fourth strategy is based on the concept of physical capital maintenance but it does not provide for maintaining the operating capability in terms of monetary resources needed. The fifth strategy is a hybrid in that it combines the financial and physical capital maintenance concepts. The rationale behind this hybrid approach is the assumption that the monetary resources are exposed to loss in purchasing power due to inflation, but the non-monetary resources which are held for long-term purposes are exposed to the risk of rising specific prices.

SFAS No. 33 disclosures require disclosure of Purchasing Power Gain or Loss [PPGL] on holding net monetary liabilities or assets based on changes in the general price level. However, no comparable disclosure was required for gains and losses on holding monetary assets and liabilities in terms of specific prices. Agrawal (1980, 9-10) includes in his suggestions the possibility of alternative adjustments [similar to the adjustments required in the United Kingdom] for monetary items based on a weighted average of changes in specific prices of goods and services for the use of which an entity holds monetary items.

In the United Kingdom, where current cost accounting was adopted for calculating an alternative income measure, the Statement of Standard Accounting Practice [SSAP] No. 16 (Accounting Standards Committee 1980) required two separate adjustments for computation of current cost income depicting the effect of changes in specific prices. The adjustment for monetary working capital [MWCA] was required to account for additional or reduced finance needed as a result of changes in prices. The gearing adjustment [GA] was required to allow for the fact that the entity had protected itself against the effect of rising prices to the extent that it financed resources through borrowing (Agrawal 1983, 102-103).

Following the British model, two additional capital maintenance strategies based exclusively on the concept of physical capital maintenance are introduced in this study. These strategies require replacement of PPGL, which is based on changes in general price level with MWCA and GA which are based upon changes in specific prices. The rationale of such a substitution is based on the need to recognize the impact of price changes on the day-to-day operations of the business and the fact that incurrence of debt by a business entity provides a hedge against inflation. Equations (8) and (9) given below show the calculations for the two adjustments. Data to calculate weighted average of changes in specific prices of goods and services for which working capital is held is not easily available. MWCA is, therefore, calculated by multiplying the amount of net monetary working capital by the specific price changes in the cost of sales.

$$MWCA = (MWC \times S) \qquad (8)$$

where :

MWC = monetary working capital

S = change in specific prices relevant to cost of sales

GA is calculated by multiplying the sum of the adjustments for specific price changes, and net monetary capital adjustments by the ratio of long-term debt to total assets.

$$GA = (SPA + MWCA) \times (\text{long-term debt/total assets}) \qquad (9)$$

where :

SPA = specific price change in cost of sales and depreciation

[Both MWCA and GA can be positive or negative depending upon the dominance of assets or liabilities in these measures.]

Utilizing the adjustments discussed above, the sixth capital maintenance strategy entails going concern adjustment comprising specific price adjustment for cost of sales and depreciation, monetary working capital adjustment, and gearing adjustment. The purpose of this strategy is the maintenance of all monetary and nonmonetary resources at current costs except those financed by debt.

Strategy (6) : $RPB_7 = [APB_{it} - (SPA_{it} + MWCA_{it} - GA_{it})]$ (10)

The gearing adjustment under the British guidelines reflects the proprietary view of the firm because it was meant to allow gains from borrowing to be recognized as income to the stockholders. It was established earlier that the determination of the ploughback amount after providing for the maintenance of operating capacity is justified under the entity view of the firm. From the standpoint of the entity as a whole, it may be argued that it is artificial to distinguish between the equity and debt holders because both provide finance to the entity (Scapens 1983, 515). The seventh capital maintenance strategy, therefore, seeks to maintain all resources regardless of the source of financing at current costs.

Strategy (7) : $RPB_8 = APB_{it} - (SPA_{it} + MWCA_{it})$ (11)

When the specific prices are decreasing under conditions of very low or no inflation, the amount of going concern adjustment will be limited to zero because the real ploughback amount cannot logically exceed the apparent ploughback amount. In other words, apparent and real ploughback amounts will converge when deflation exists or when specific prices of assets are declining at a faster rate than inflation due to technological advances and/or competitive pressures.

III. Conclusion

The paper presented arguments supporting the notion that ploughback earnings represent a useful information signal for the users of corporate financial data. A model depicting how the ploughback earnings measure captures this interdependence was developed. Seven different measures of ploughback were computed on the basis of different possible strategies of capital maintenance as discussed in financial accounting literature. The models developed in the paper demonstrate how historical cost earning figures may be used in combination with available supplementary information in order to assess the stewardship performance of the management and can be utilized to investigate empirically the capital maintenance strategy the stock market adopts when evaluating the stocks.

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19th All India Accounting Conference of the IAA

The 19th All India Accounting Conference of the Indian Accounting Assoication will be held under the auspices of the Vikram University, Ujjain. The topics selected for the 19th conference and the seminar are : (1) Accounting education and Research : Challenges for the 21st Century (Chairman : Prof. Bhabatosh Banerjee, Department of Commerce, Calcutta University, Calcutta-700073) ; (2) Macro Accounting (Chairman : Prof. N. M. Khandelwal, Head, Dept. of Commerce, Saurashtra University, Rajkot-360005) and (3) Globalization and Tax Reforms (Chairman : Prof. Bhagwati Prasad, Director, Kousali Institute of Management Studies, Dharwad-580003). The conference will be held in the last quarter of 1995. Two copies of each paper should be sent to the chairman concerned by 31st July, 1995. For further details regarding the conference contact : Professor Nageswar Rao, Dean, Faculty of Management Studies, Vikram University, Ujjain-456010 or Professor D. Prabhakara Rao, General Secretary, IAA, 2 Shanmukha Apartments, China Waltair, Visakhapatnam-530023.

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ETHICS IN ACCOUNTING

*Sukumar Bhattacharya**

While dealing with the ethical standards of the Accountants and the Auditors in India, the author suggests that they should do their jobs ethically so that the rot that has entered in the pores of the society, particularly in the field of business, may be stemmed to a large extent.

Public confidence in business practices has been badly shaken in recent times. Business practices are reflected largely in the published accounts, and relying on those, certified by the Accountant as true and fair, many investors, creditors and sundry other people have suffered enormous monetary losses which have adversely affected their existence in many cases. The issue that is being debated seriously today is whether the Accountant is doing his allotted job in the proper manner ! It is here that the question of ethics comes in. It may be noted here that by the term "accountant" one includes the auditor as well.

When one talks of ethics in accounting what one is really concerned with are the ethical standards of the Accountant himself. Accounts are the handiwork of human beings. By themselves accounts cannot be ethical or non-ethical. It is the human mind whose attitude is reflected in the facts recorded in the books of accounts in terms of money. What therefore one is concerned with is the mental make up of the persons who prepare such accounting records and of the persons who are required to report whether the accounts examined by them reflect a true and fair view of the actual state of affairs on the balance sheet date as also of the profit or loss for the period ending with that date.

The businessman, by and large, is motivated by the urge to make profits and still more profits in his business organisation. There are very many cases where one tries to make gains surreptitiously by resorting to downright falsehood in the accounting statements prepared by them. These take the form of understating income, overstating expenses, failing to bring to the notice of the users of the accounting statements the reality of the position of debts recoverable, and so on and so forth.

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A few years ago, there was a report that in negotiating a take-over of the control of an organisation, the persons who took over such control were badly misled by the "true and fair" certificate granted by a reputed firm of auditors. It was found, after the shares of the said organisation had been acquired by the purchasers to gain the control, that there existed in reality undisclosed irrecoverable debts of over Rs. 4 crores and that the published audited accounts, which had been the basis for the negotiations, were absolutely silent about such damaging information. The presumption is that the erstwhile authorities had deliberately refrained from making the necessary disclosure which they should have made, and that the auditors had connived at such unfair and misleading accounting.

In the United States a hue and cry was raised two years ago when a large number of Savings and Loans companies went bankrupt within a short period after their accounts had been certified by the auditors as true and fair. Similar situations have occurred from time to time in the United Kingdom also. So far as Japan is concerned, it is generally believed that the politicians often resort to corrupt practices for making money in the sly. Such money cannot but come from the businessman's coffers, but does any accounting statement prepared by the businessman or the auditor's report thereon disclose this malaise ?

The position in India is no different. It is universally known that large sums of money are paid by the companies in times of elections and at other times also. In how many cases are such contributions at all reflected in the published accounts and in how many of the audit reports in respect of such false accounts have the auditors even hinted at culpable non-disclosure of facts ?

We hear everyday of the existence of a large amount of unaccounted money circulating in a parallel economy in India, and the Government itself admits that not only does such black money operate in the country but that it is proliferating in a big way.

The question arises as to what the accountants and auditors have been doing in this environment ? Is it very wrong for the general public to infer from the state of affairs that they (the auditors) are conniving at the wrong doing of the businessmen and shielding them ?

One has to search one's heart to ponder on the issue as to what remedial measures can be taken when corruption at all levels has today become a way of life in India !

The answer to this problem may be provided by the accountant and the auditor. If they do their jobs ethically the rot that has entered in the pores of the society, particularly in the field of business, may perhaps be stemmed to a large extent. But the accountants and the auditors form a part of that corrupt society itself. Can they remain unaffected by the

disease which eats into the vitals of that very society in which they are born and brought up ? This is the question that we have to ask ourselves today and here comes the recognition of the ethical values of the accountant.

I may refer to two occasions where I had raised the issue—one was at the University level where I was delivering a series of lectures on accounting ethics, and the audience consisted of students and teachers dealing with techniques of business management, and the other was in the Institute of Management Calcutta where I was invited to deliver a talk on role-conflict. At the University, where the students were yet to be confronted by the stark realities of life in a significant manner, the answers to the question, which I will presently pose before you too, indicated that there still existed in them a sense of values which are eternally cherished by human beings all over the world. At the Institute of Management however it was a different matter altogether. The participants there were Senior Officers from large public sector and private sector companies. In these persons I found from their answers that not even a veneer of idealism prompted those. Their answers came from hearts renumbered by gross materialism and greed for money overwhelming their sense of right and wrong, ethics and morality.

My question was as to how an employee should react in the practical field when he was directed by his employer to falsify the accounting records with a view to reducing the organisation's tax liability substantially.

It may be assumed that the employee concerned holds a senior post of accountancy in the organisation. He knows how disastrous the consequences may be to his career if he fails or refuses to carry out the directions. He also knows that if he acts according to the wishes of his boss, he may even get some substantial monetary rewards. What should he do ?

At the University the general response was a righteous indignation refusing to carry out the orders, but at the Institute the universal response was that the work as ordered had to be carried out !

I now ask you—what shall you do in such a case ?

Let me go back to the issue of ethics. I may narrate a story here from the pages of history. Socrates propounded theories which many liked and revered, but there was a coterie of politicians who did not like those. They had the ears of the king and were able to persuade him that what Socrates was propagating was nothing but sedition and treason. The King ordered his arrest and in an unfair trial Socrates was condemned to death by poisoning. Those who held him in reverence, and, they were large in number, derived a plot to storm the jail where Socrates was lodged, rescue him and send him to a safe place where the King's rule

could not operate. They approached Socrates and asked him to name a date and time when the rescue operations could be started. Socrates said he would give them the answer after pondering over the issue. When asked again, he refused to act according to his followers' advice. He told them that being still a subject of the King, he could not act in such a manner as would show disrespect for the monarch and break the law made by him. Conscientiously he refused life and counted death. This anecdote brings out as to what ethics means !

We are dealing with ethics in the area of accountancy, but the subject of ethics is not limited to this field alone. It pervades all spheres of thought and action. The sense of right and wrong and the concept of what constitutes a proper ethical standard is inherent in human beings. This is brought out clearly by the tale of Socrates that I have just narrated. It is that spirit which must influence the accountant's work both the recording events in terms of figures and in auditing those for forming a view of their truth and fairness.

In practising in an ethical manner in the field of accountancy, the first requirement is a thorough knowledge of the subject itself, of its principles and their proper application. A person who wants to serve as an accountant, be it as an employee or as a practitioner, will fail in the ethical test at the very outset if he embarks on his work with only incomplete knowledge of the subject.

The second requirement for maintaining the ethical standard the accountant must continually update himself by learning about the new techniques in the field of accountancy and allied subjects. A continued education programme is the only means to achieve this end. Only when an accountant keeps himself abroad of the continual changes taking place in his chosen field, he can rightfully call himself an accountant and accept the offer for rendering services in that capacity to those who may be desirous of his assistance in that regard. With a half-baked knowledge a person, even though he may have obtained recognition as an accountant, fails in observing proper ethical standards.

When a person is an accountant in practice auditing the accounting records of others, he is legally required to become a practising member of the Institute of Chartered Accountants and/or the Institute of Cost and Works Accountants. These two Institutes are regulatory bodies and each of them has formulated a prescribed code of conduct for its members, deviation from which is liable to be visited by disciplinary action. But such a regulatory code of conduct has its own limitations, because it is never possible to completely codify in writing as to how one should conduct oneself in one's profession. The environments are ever changing and what is required today may be unnecessary tomorrow and new requirements

may take its place. But coded rules of conduct cannot keep pace with time and ethics really cover the ground about which there are no written rules. Following what is prescribed does not require so much of the application of mind. There one is concerned with law and not ethics. Ethics deal with those matters for which there is no legal prescription. It is the sense of his or her individual morality which guides an accountant issues where written rules do not exist. It is however generally found that most of the accountants in the profession are busy to see merely that there is no violation of the written code. Beyond that they are not eager to venture at all. This is not a desirable state of affairs. There is no pursuit of excellence and only an ethical outlook going beyond the bounds of statutory prescriptions practically exercised will help the accountant to rise in the esteem of the public generally and the users of published accounting records in particular.

In the April, 1994 issue of the Journal of Accountancy published by the American Institute of Certified Public Accountants an interesting news item appears at page 14 under the heading "Professional". It is stated therein that according to a poll of 1,000 members of the Institute of Management Accountants, "Companies that Institute formal ethics policies might find they lead to lower internal control costs." 53% of those polled "believed a strong, comprehensive ethics policy reduced the overall cost of internal control." This is heartening news as it clearly indicates that in business circles the idea of adopting ethical standards is getting general approval. Accounting is one of the principal instruments for disclosing how ethically a businessman has conducted himself. It is the accountant who records the businessman's transactions and it is the auditor who examines their truth and fairness. If the transactions are carried out following ethical principles, their recording also must be ethical unless the accountant deviates from the right path in such recording. The same remarks apply to the auditor's work. Then all the persons involved, the business, the recorder, i.e., the accountant, and the auditor, join hands in following rules of ethics, the era of falsehood, deception and lack of confidence in the accountants' work is bound to disappear.

I conclude this article by referring to another news item appearing recently in an esteemed periodical dealing with Accountancy.

In the same issue of the Journal of Accountancy a further report appears at pages 14 and 15 which is of a disturbing nature. There was an investigation of some audits of entities receiving government financial assistance. According to the report of such investigation there were quite a few instances of defaults some of which are noted below :

1. Lack of professional competence.
2. Lack of due professional care.

3. Deficiencies in the audit report.
4. Non-compliance with Government Accounting Standards Board pronouncements.
5. Inadequate or no study of internal control.
6. Reportable conditions not disclosed.

Government aided institutions are generally subject to considerable scrutiny. If the position in regard to accountancy and audit is deplorable in that sphere also, one hesitates to contemplate how had it must be when one comes to the sphere of business operations where the degree of Government control in matters of transactions, their recording and auditing are considerably less severe !

National Accounting Conference
Calcutta
January 21-22, 1995

The Calcutta Branch of the Indian Accounting Association will hold its national accounting conference in Cacutta on January 21 and 22, 1995. The topics for the conference are : Accountants as Managers, and Development of Corporate Laws in India (January 21) and Financial Sector Reporting Practices in India and Transparency in Accounts—Auditors' Responsibility (January 22). Delegates fees for members are : without accommodation Rs. 250 and with accommodation Rs. 550. For further details contact : Dr. J. B. Sarker, Hony. Secretary, IAA Calcutta Branch, 1, Graham's Land Extension, Calcutta-700040 (Phone : 471-5255).

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IMPLICATING ECONOMICS IN MANAGEMENT ACCOUNTING RESEARCH : AN OVERVIEW

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Management Accounting evolved as a discipline geared to provide relevant financial information for managerial decision making. This discipline grew rapidly during the sixties and early seventies. The theoretical rationale and understanding implicating the management accounting research has largely been drawn from the neo-classical economics. It has been argued here that such dependence has resulted in an obvious narrow vision within the discipline involving, among others, some methodological limitations. An alternative approach is suggested in this paper, for overcoming the limitations.

1. Introduction

Management accounting developed rapidly during the 1960s and early 1970s. The 1960s, in particular, witnessed a fast growing discipline and a high level of aspiration among the academic researchers. The development has been motivated by the popularity of the economic thought and the rapid application of management science, statistics and mathematical techniques in industry. Accounting wisdom is largely derived from neoclassical theory of the firm with its basic assumptions of profit maximization, certainty, complete and costless information. The introduction of uncertainty and information economics into management accounting decision models added more insights into the research, however, did not change very much its theoretical structure specially with respect to its basic assumption of utility maximization. Agency theory has shifted the focus of the discipline, however, without fundamentally modifying the marginalist assumptions. This paper will make a modest attempt to examine the extent of the influence of economics on the development of management accounting together with outlining the methodological limitations and suggest a tentative option for future development.

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2. Historical Development of Management Accounting Research

Management accounting evolved as a discipline concerned with providing financial and economic information for managerial decision making (Shillinglaw, 1977). The general use of the term "management accounting" is comparatively new (Scapens, 1985). It emerged in the accounting literature after the Second World War. However, the use of accounting information by firms and traders dates back to centuries. Parker (1969), for example, indicated that Rober Loder's farm accounts in the fifteenth century provided information for management purposes. But the second half of the nineteenth century witnessed a general increase in the use of accounting information by traders and manufacturers. The last three decades of the century, in particular, were marked by what accounting historians describe as a "costing renaissance" (Parker, 1969). Many industries grew and flourished including textile, railways, iron and steel, mining, tobacco, power and machinery. The development was increased and reinforced around the turn of the century by the rise and growth of giant corporations (Chandler, 1977). The various ways of allocating overheads to production units which were in use by the 1870s is evident by a book published by Thomas Battersby, a Manchester public accountant, in 1878. There was a need for accounting information for decisions associated with setting prices and cost estimation and allocations. Chandler (1977) provided a discussion of the development of cost accounting and management control systems in US corporations such as Du Pont and General Motors in the early years of the twentieth century. By 1925 many cost accounting techniques were designed including standard costing, budgeting and cost allocation.

Before the Second World War, the primary focus of internal accounting was the determination of costs, with particular emphasis on product costing and the control of direct labour, direct materials and overheads. There was much concern for identifying the full cost of providing each unit of output. Practitioners, specially industrial engineers and accountants, took a more active role in the innovations and design of accounting system. Few academics participated and their contribution was very limited indeed. There is little in the literature to suggest that the course of cost accounting theory and practice was consciously influenced to any considerable extent by the economic thought (Parker, 1969). Economists did not play any substantial role in the development of the theory or practice during this period.

Wells (1978), however, goes further and suggests that economists' writing during the period did nothing to make their work intelligible or relevant to accountants. It was not until the 1920s that economists started to have a close look at cost accounting (Parker, 1969). J.M. Clark published a book entitled *Studies in the Economics of Overhead Cost* in 1923, in

which he examined many cost concepts. Although his work had little immediate practical effects on cost accounting thought (Parker, 1969), latter specially, during the 1930s, some of his concepts like "different costs for different purposes" had a major impact on cost accounting research.

The striking change after the 1920s was managerial recognition of cost accounting's value, not only in reducing factory expense, but also for policy and decision-making purposes. Prior to that period, cost concepts had been developed more or less independently by accountants and economists (Arnold and Scapens, 1981). Accountants had been concerned primarily with determining the cost of each unit of output, control of prime costs, allocation of overheads and recording past transactions. Economists, on the other side, had a concern over the problems of the irrelevance of fixed and historical costs and the need to take account of foregone alternatives (Arnold and Scapens, 1981). The variation of costs with volume attracted the attention of a number of economists in the nineteenth century and even earlier, but were usually concerned with the output of an industry rather than the firm (Solomons, 1968). The distinction between fixed and variable costs was drawn by Landner in 1850 in the US, while Alfred Marshall in England gave prominence to the distinction between prime and supplementary costs (Solomons, 1968).

The 1930s marked the start of the influence of economics on cost accounting theory and brought together those cost ideas previously discussed separately in the literature of economics and accounting. Accountants and economists trained in accounting started to explore the relevance of economic cost concepts to decision making purposes. There was an increasing awareness of the view that cost information, in particular, and accounting information, in general, should be appropriate to the needs of users specially decision-makers (Scapens and Arnold, 1985). This awareness was associated with a growing dissatisfaction with the "unitary cost concept" as a useful tool for decision-making purposes. Academic accounting researchers began to recognize the economists' criticisms leveled against the concept of cost and methods by which accountants prepare figures to aid businessmen, specially the use of historical costs, allocation of overheads, and the lack of a recognition of foregone alternative (see Arnold and Scapens, 1981). As such, the accounting literature, specially in the UK began to reflect the economic perspectives of decision-making, in particular, the notion of "different costs for different purposes", the definition of cost in terms of sacrificed alternatives and the fundamental distinction between fixed and variable costs. For example, Solomons (1968) provided a detailed discussion of the aspects of that literature, particularly the contribution of accountants and economists at the London School of Economics.

After the War, economic cost concepts found their way into some cost and management accounting textbooks and even influenced the discussion and policy-making within professional accounting bodies in the US (NACA, 1946). These concepts provided the basis for management accounting research which built up during the 1960s. The notions of relevant costs including opportunity costs and marginal costing have been central to the development of the research (Scapens and Arnold, 1985). By the end of the 1960s and early 1970s management accounting researchers introduced uncertainty and information costs into management accounting models. The introduction of uncertainty was followed by a relaxation of the assumption of complete and certain information which characterized conventional management accounting techniques. The information economics approach introduced cost-benefit analysis to management accounting research. This approach represents an attempt to develop an adequate theory of information collection and processing from the point of view of the decision-making process.

The most recent two decades (1970-1993) has been characterized by an application of agency theory and the economics of internal organization to management accounting research. Agency theory research utilized the benefits of introducing uncertainty and information economics, and added new behavioural and motivational elements to management accounting research. Related to the agency theory and developing in parallel with it, is the theory of the firm based on transaction costs. A central aspect of this work is the investigation of the key role of information and its associated costs in choices between alternative ways of organizing economic activity. Both agency theory and the economics of internal organization research have attempted to close the gap between quantitative-based research and behavioural research.

3. The Influence of Economics on Management Accounting

The major concern of accounting systems in 1920s shifted from a basic orientation towards external users and record keeping, to a primary emphasis on internal users. As decision-making processes comprise a wide range of issues and policies, meeting the information needs of different users became central to the development of management accounting after the Second World War. These perspectives were emphasized in the debate in the accounting and economic literature during the 1930s which displayed distinct neo-classical characteristics (Baxter, 1952). The major aspects of the economic and accounting literature in the 1930s provided the basis for the development of management accounting after the war. The incorporation of economic concepts into management accounting decision models led Sundem (1981) to remark :

".....one finds growing evidence of new techniques notably management accounting, new forms for budgeting control, and so called "profit planning" which singly and in combination display interesting marginalist principles, essentially 'objectives' and predominantly 'short-run in nature".

The literature during this period, which was heavily influenced by British contributions, recognized the major weaknesses of traditional cost accounting practices and introduced economic cost concepts, in particular, opportunity cost and marginal costing as fundamental to decision-making purposes. Thus economics and accounting were increasingly seen as two disciplines with a common subject matter.

The impact of the economic cost concepts on management accounting has resulted in a large body of research built up during the 1960s and early 1970s. The expanding literature, was motivated by the popularity of operations research, in particular, made an impressive gain from its initial integration into military and industrial organizations after the Second World War. The view that accounting ought to expand its scope by the introduction of operation research was very strongly advocated by academics, and certain professional bodies (AAA, 1969). The introduction of quantitative analysis provided new dimensions for research, specially by providing analytic tools to aid decision-making. Decision models were typically based on the assumption that the users are economic men and profits maximizers. Many textbooks on linear programming assume prefect competition in their illustration of decision processes. In addition, they assume short-run solutions.

Microeconomic theory played a key role in structuring management accounting models. The objective of profit maximization and the concept of marginal analysis which are the fundamental characteristics of the neoclassical theory of the firm, are essential elements of management accounting's conventional wisdom. Decision problems and solutions were analyzed within simple production settings with market considerations. The notions of relevant costs including opportunity cost and marginal costing that have been central to the development during the 1950s and 1960s, can be fitted within the perspectives of the neoclassical theory of the firm and its basic assumptions of profit maximization, perfect, complete and costless information. This 'conditional truth approach' recognized heterogeneous needs for information i.e. it emphasized the concept of "different costs for different purposes". It was a clear departure from the 'absolute truth theme' which assumed a unique cost for all decisions purposes. Major topics including cost-volume-profit analysis, marginal costing, divisional performance, cost allocations, and capital budgeting —all captured the basic characteristics of the neoclassical approach to decision making.

Cost-volume-profit analysis (C-V-P) is an area which witnessed an intensification in this period and follows the application of economic analysis. Traditional break-even charts were extended using new economic concepts of profit maximization, the distinction between fixed and variable costs, marginal costing, etc. Differential calculus was applied to C-V-P to extend break-even analysis for situations where cost and/revenue behaviour is curvilinear. The application of C-V-P analysis to optimal product mix was also explored (Jaedicke, 1961).

Within the area of capital budgeting, the influence of economics has been substantial. Progress was made during the 1950s in integrating corporate planning with capital budgeting for investment and control purposes. During this period, the question of return on capital was examined by Keynes, Boulding, Samuelson and other economists. Dean (1954) rediscovered the basis of capital budgeting theory which Samuelson previously used to demonstrate the superiority of net present value. Subsequently, economists including Hirshleifer contributed to its theoretical development and provided an axiomatic justification of how expected utility can explain rational choice under conditions of uncertainty. Discussions in the economic literature were quickly incorporated in the capital budgeting and the theoretical foundations of capital budgeting are rooted in the utility theory.

The literature of divisional performance was also affected by marginal economic analysis. Return on investment (ROI) as a measure of divisional performance gained much popularity after the Second World War. Solomons (1965) suggested residual income as an alternative to the ROI criterion. The calculation of transfer prices was also influenced by neoclassical economics. Much of the early analysis of transfer pricing problems is owed to economists. However, some accounting researchers (e.g. Dean, 1954) did show an interest in the problem. An important consideration in the development of transfer prices was that divisional decision-makers should be motivated to select courses of action that maximize the profits of the organization as a whole. Generally, transfer pricing can be fitted into the decision-making framework of management accounting, provided by economics.

Cost allocations were also influenced by the economic approach. Economists have long considered them unnecessary and possibly misleading since according to their models optimal decisions should depend on incremental costs. The economic approach to decision-making relies on the concept of marginal cost whereas cost allocations involve the partitioning of total costs and thus lead to an average rather than marginal costs. This understanding led some accounting researchers to consider allocations not only unnecessary, but essentially arbitrary and incorrigible (Thomas, 1969). Generally, accounting researchers appeared

to accept this argument; however, they tended to believe that as allocations are observed in practice, preferred methods should be identified. Given this conception, the general approach to cost allocation research has been to identify as accurately as possible, the amounts of any marginal costs associated with a particular department, a product or an activity and to allocate them to the cost objects concerned. The remaining (fixed) costs can then be allocated in a manner which as far as possible does not distort the decision making process. Mathematical models which assume optimal deterministic solutions were extensively used in the research. Mathematical programming, for example, was used for joint cost allocations with emphasis on optimal product mix and optimal prices. Non-linear programming was advocated by Jensen (1977) and Kaplan (1984) for the same purpose.

Towards the end of the 1960s and early 1970s management accounting researchers began modifying the neoclassical framework which had been developed during the 1960s. The researchers first introduced uncertainty into decision-models, later supplemented it with a cost-benefit approach based on information economics. The incorporation of uncertainty led researchers to relax the assumption of complete and certain information. This required an extensive use of advanced mathematical and statistical methods which resulted it an additional level of sophistication to the previously existing models. The introduction of uncertainty, however, has not altered very much the conceptual structure underlying them. Profit maximization was replaced by expected utility. The costs and benefits of information acquisition were not considered and the general framework remained consistent with the 'conditional truth approach', which was typical of management accounting research in the 1960s. Marginalism also remained as the basic mechanism for analyzing decision problems.

The information evaluation approach, which is an application of information economics, viewed management accounting as choosing an information system to assist decision-makers in the firm in an uncertain environment. The information system is seen as useful if it provides signals about an unknown state of nature that could influence the actions of an optimizing decision-maker with a known utility function. The approach was introduced and applied to accounting problems by Dantzing (1963). The criterion for choosing models is central to marginal economic analysis and the opportunity cost concept. The expected value of information is the maximum amount which a rational decision-maker would be willing to pay.

Information economics research in management accounting provided some useful insights into the choice of accounting systems. Unlike the 'absolute' and 'conditional truth' approaches, the design and choice of

management accounting models is based on the costs and benefits of alternative systems. Furthermore, studies of model evaluation indicated that the methods of assessing managerial performance can influence model choice—an element which was not recognized by early information economics approaches. Moreover, the results of information economics research in accounting demonstrated that no general prescriptions could be made. Importantly, some accounting researchers who used model-choice evaluation concluded that the use of simple models in practice may approximate the optimal, because of the costs and benefits of information provision. As a result, subsequent research became much more concerned with explaining reasons for certain practices, than with advocating normative models. Accounting researchers using agency models have attempted to demonstrate that conditions exist in which management accounting techniques observed in practice, can be shown to be the outcome of rational choice (Magee, 1976). A 'positive approach' was called upon to answer these questions.

The approach has not only taken management accounting research away from normative prescription, but has brought it closer to the methodology of positive economics. Its emergence coincided with a wide appeal for scientific accounting research, specially the empirical testability of theories, for example, Jensen (1977) and Zimmerman (1979) have argued that most accounting theories are 'unscientific' because they are 'normative'. They advocated the development of positive theories to explain accounting practice. Jensen (1977), in particular, called for the development of a positive theory of accounting which will explain why accounting is, what it is, what it does, and what effects these phenomena have on people and resource utilization. Without such "positive theory" he added that neither academics nor professionals will make significant progress in obtaining answers to the normative questions they continue to ask.

Agency theory researchers have taken a large share of the credit for this major shift in the research emphasis. In review of agency theory research in management accounting, Zimmerman (1979) argued that before any theory can be accepted as a proper theoretical foundations for management accounting, it must be capable of explaining current practice in the sense that the demands for accounting information which are observed in practice should be derivable as an implication of the theory. Some accounting researchers even went further and argued that a positive approach is likely to contribute to a construction of more realistic normative procedures. Within a principal-agent context, attempts were made to apply the approach to several management accounting topics including cost allocations, investigation of variances, budgets and budgeting process. In fact, the economic approach to management

accounting has come to function as a basis for positive rather than normative research. In fact, Agency theory researchers have contributed substantially to this new direction.

Basically, agency theory focuses on the optimal contractual relationships among members of the firm where each member is assumed to be motivated solely by self-interest. Agency theory models, as applied in management accounting, are used for several purposes, among them examining firms' employment contracts and information systems. Although the agency theory framework relies heavily on marginal economic analysis, it provided an explicit recognition of the behaviour of an individual whose actions the management accounting systems seek to control. The need to consider the reactions and behavioural responses of a firm's participants in structuring and choosing accounting information systems is central to agency theory analysis. Such consideration brings economics based management accounting research closer to the areas of interest of behavioural accounting researchers.

Agency theory has emphasized the importance of management accounting as a control mechanism, in particular, the role of risk-sharing in motivating agents. Motivational and risk-sharing user of information are seen interrelated in that a manager's motivation can be influenced by the amount of financial risk imposed on him. The optimal sharing of risk is contrary to the conventional wisdom of management accounting which tends to isolate mangers from the effects of uncertainty. Agency models, as used in management accounting, have distinct neoclassical characteristics. Although the economic framework has been extended to incorporate uncertainty, costs and benefits of information, behavioural and motivational considerations, a series of marginalist assumptions remain unchanged. The behaviour of an economic agent is motivated by rationality and utility maximization. The competitive market phenomenon has been also preserved within agency theory framework. Fama (1980) viewed the firm as taking on the characteristics of an efficient market and assumed that competitive market forces will protect the interest of all groups. Market equilibrium, pareto-optimality solutions and market for information exchange were assumed for principal-agent contracts. Generally, the principal-agent literature in management accounting can be located within the neoclassical's camp, although some of its features are derived from behavioural theories of the firm.

4. Methodological Issues

The foregoing discussion has demonstrated the extent of influence of neoclassical economics on management accounting research. This section will attempt to explore the view that the methodological and theoretical weaknesses underlying the neoclassical framework has

contributed substantially to the limited scope of management accounting. There are serious problems in using neoclassical economics to predict and explain the behaviour of business firms with respect to such economic decisions as price, output, capital investment and internal resource allocations. The neoclassical framework, especially the neoclassical theory of the firm, was designed mainly to predict certain classes of economic phenomena at the market or industry level (Machlap, 1967). Economic analysis, for example, could be useful to study questions relating to issues like the general trend of prices, level of employment, rate of inflation, aggregate level of investment, etc. Such methodological stance suggests that neoclassical economics does not explain individual economic behaviour at a firm level, but provides a basis to predict certain economic events at an aggregate level. In most discussions of resource allocations, the emphasis of the neoclassical theory of the firm tends to be on the functioning of markets, rather than the operations of individual firms.

In management accounting, unfortunately, the neoclassical economic framework, in many cases, has been used to explain the behaviour of business firms and of individuals within firms. Assumptions of the conventional theory have been used to structure decision models to answer questions concerning the operations of individual firms, for example, to aid planning and control decisions, assessing product profitability, allocating costs of products, evaluating capital investment projects, determining fixed and variable costs, aiding the make vs. buy decisions, analyzing the sources of deviation between budgeted and actual performance etc. Neoclassical economics could be useful in management accounting research in predicting general patterns of behaviour. Principal-agent models may provide useful insights, if applied at an aggregate level for such things as the general nature of decisions taken and information systems used, it is less likely that the neoclassical framework will be useful in answering questions at the individual level.

Perhaps the most serious misconception of neoclassical economics in management accounting has been its use as a basic for designing normative techniques. Accounting researchers using the basic postulates of the theory, with the addition of some auxiliary assumptions and hypotheses, have produced a wide variety of quantitative models for different purposes. These models tend to show how managers "ought" or "should" behave. Such normative preoccupation is clearly seen within the conditional and costly truth themes underlying research during the 1960s and 1970s. As discussed before, the neoclassical framework was designed mainly to serve as a basis for generating testable predictions (implications) about certain classes of economic phenomena. It was not intended to deign normative policies. This methodological confusion has been emphasized by Scapen and Arnold (1984, p.19).

The positive accounting research which developed after the mid 1970s voiced a concern about the usefulness of normative prescriptions. As discussed earlier, researchers became more concerned with explaining observed management accounting practices than with developing normative techniques. The literature of positive accounting research, however, borrows heavily from neoclassical economics, both at a theoretical and methodological level. Zimmerman (1979), for example, argues that the time is now ripe for positive research in accounting because accounting researchers are becoming increasingly well trained in economic theory and research methods. He cited Friedman's well known *Essays in Positive Economics* in which he distinguished between "positive" and "normative economics". Friedman's manuscript is one of the most influential works on economic methodology and attracted a wide and continuous debate in the literature of economics and science.

Despite emphasis on positive questions, accounting researchers continued to misinterpret the objectives of neoclassical economics in several ways. The insistence on profit and utility maximization criteria for the behaviour of economic actors runs contrary to the methodology of positive economics. Zimmerman (1979) in his positive approach to cost allocations assumes that economic agents are motivated by rationality and utility maximization. Within this context, he attempted to find positive explanations for observed cost allocations practices. Any explanations or justifications obtained will be viewed within the rationality criterion, i.e., a pre-given conception that managers will behave rationally in their use and selection of a particular cost allocation system. The insistence on utility and profit maximization returns positive accounting research within the normative domain and this contradicts the instrumental view of neoclassical economics. Thus, theories of positive accounting make no positive statements of "what is" and they are largely statements of "what ought to be" (Tinker, 1980 ; Tinker et.al, 1982). This raises the question of whether the deduced behaviours of economic actors are built into the model or should be left to be discovered by factual evidence as the methodology of positive economics holds.

Furthermore, positive accounting researchers have used the neoclassical framework to explain the behaviour of business firms and individual decision-makers, which again contradicts the methodological stance of neoclassical economics. Their theory not only predict that accounting theory will be used to buttress preconceived notions, but also that it explains why. Positive research seeks to develop a theory that can explain observed phenomena. Neoclassical economists certainly are not concerned with the explanatory power of their theories. The claim that positive accounting theories can both predict and explain echoes the symmetry thesis which underlies the cover-law concept of scientific

explanation. However, there is no guarantee that theories with unrealistic assumptions can provide adequate explanation, even if they succeed in giving useful prediction. If this is so, theories of positive accounting are based on a defective methodology.

Management accounting researchers' misinterpretations of the objectives of microeconomic theory may have contributed substantially to the limited scope of their discipline. In particular, the generalized form of normative procedures, which is a direct result of these misinterpretations, provided a distorted picture of social reality of organizations and their participants. It should be noted, management accounting quantitative models prescribe ideal managerial behaviours which rarely exist in practice. The insistence on utility and profit maximization not only contradicts the methodological stance of neoclassical economics, but equally disregards other values and imperatives that may have a role in shaping the behaviour of organizational decision makers. The analysis of economic behaviour within the structure of markets, excluded the role of a wide range of social, economic and political forces in the decision-making process in these organizations. These methodological problems, among others, have certainly limited the vision of the discipline to the reality and workings in the socio-economic world.

5. An Alternative Approach

The theoretical structure underlying mainstream management accounting research has a narrow and restrictive view of the environment in which business institutions operate. Some accounting researchers are aware of this limitation and have already started reforming and improving their theoretical framework. In particular, the understanding derived from neoclassical economics began to lose grounds and many academics have started to reject some of the basic assumptions on which much of the quantitative research was based. Within neoclassical economics itself, some of its new versions, like agency theory, have been used to provide a new understanding.

Nevertheless, one apparent weakness in the theoretical understanding of much mainstream management accounting thought is that it provides a very abstract view of the organizational environment. The dominance of market behaviour and the image of an economic actor characterized by utility maximization are important features of this narrow focus. In many cases, management accounting researchers have taken the economic models for granted and use them to structure quantitative techniques. Maximum profitability was seen, for example, as a criterion for investment appraisal, measuring the performance of firms and division, principal-agent contractual relationships and cost allocation decisions. No one would deny the importance of profitability for decision-making, but it

may not be the only objective for the firm, as well as of its participants. Moreover, the methodological framework underlying the mainstream management accounting thought is highly positivistic and instrumental. This resulted in an abstract and objective form of knowledge that the deterministic decision solutions proposed by most management accounting models.

The mainstream view of accounting assumes that through the proper application of principles, the set of objective facts can be described that in turn reflects the underlying reality of the world. But the accounting researchers have already started challenging the notion of an objective reality. In particular it is important to note that accounting numbers are human and social artifacts.

Thus in this paper the political economy approach is suggested which will emphasize for carrying out and developing management accounting research based on descriptive and critical foundation. Such an approach is likely to provide a broader and more holistic framework for analyzing and understanding the value of accounting within the context of a particular economy or society. The political economy approach should largely focus the institutional structure of a society within which the firms operate.

Instead of adopting a pluralist conception of a society where the firm is operating, the study of accounting should recognize power and conflict in a society and implication of accounting in the distribution of income, wealth and power in the society. By bringing power to the forefront, management accounting researchers should consider seriously the alternative views of the society. Rather assuming a harmony of interest and unproblematic view of the social value of accounting, a political economy would treat value as essentially contested as any form of accounting operates in specific interests.

Under the political economy approach, management accounting research should highlight more on institutional influences and features interrelating the political and economic factors. Although there may be many different variants of political economy (Frey, 1978) ; the emphasis should be given how accounting is implicated and shaped in both political and economic arenas. Such an approach will encourage the management accounting researchers to understand the specific historical and institutional perspectives. One of the important areas needs to be focused is the role of state in accounting policy making and how the practice of accounting is shaped by the managers under different state structures. In many cases state's contradictory role is increasingly apparent in managing economic affairs (Block, 1981) and it will be exciting to see how these roles and their legitimacy to achieve social harmony are

implicated in the development of accounting policy making and practices by the managers. In addition, through its involvement in economic planning and increasing concerns for public accountability state has been actively involved in the development of accounting practices.

The another major area needs to be considered in management accounting research under political economy approach is the accounting practices that are adopted by the managers. It has been a basic assumption in conventional accounting research that the accounting figures can be used as a standard criteria to measure the scale and nature of human behaviour and motivation in the organizations. Thus there has been a clear emphasis on budgeting, ROI etc. in management accounting in establishing management control taking the accounting information as value free and neutral. But it is highly unlikely that any method of accounting is neutral, particularly in the context of human behaviour. Research placing accounting in ideological perspectives would focus how accounting can be used in the conditions of economic and political conflict. For example, in the area of collective bargaining, Murshed (1992) showed how the management's use of accounting information differs as there are changes in the economic and political context. To the extent the members of organization are concerned with economic self-interest, and this self interest may be seen as consequence of the way the society is organized. Research highlighting accounting in ideological context would illuminate our understanding regarding the relationship between accounting and society and more towards suggesting the contingencies of accounting systems under different structures of society.

The major concern in this paper has been to present a view of management accounting research locating it within the context of broader socio-political framework. In essence, failure to recognize this would certainly provide an incomplete understanding of operation and implication of accounting system. The political economy approach has tended to concern with the relationship between accounting and social structures and changes. This leads to a general critique of accounting as it now is and ends with a plea for a new basis for management accounting theory and practice. This new basis could produce an alternative history of management accounting.

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NEED FOR REVIEW OF ACCOUNTING STANDARDS

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The recent policies of Government of liberalisation, privatisation and globalisation, and the new provisions in the Companies Bill, 1993 have catalyzed the need for revision of accounting standards in India. The authors have made a case for their review.

Arthur Wyatt, President, American Accounting Association (AAA) in 1991-92 annual convention made the following remarks on conceptual framework for accounting and reporting :

> "A framework should be a living document, one that is revisited from time to time to retain its relevance. Shortcomings in the framework provide opportunities for criticism and tend to produce standards that are inconsistent and less supportable than desirable."

Similar remarks can aptly be made for accounting standards (AS) in India :

> A standard should be a living document, one that is revisited from time to time to retain its usefulness, i.e., relevance, reliability, consistency and comparability.

The Financial Accounting Standards Board (FASB) in USA was formed in 1973, and in 1978 (in five years only), it initiated a postenactment review process and issued a call for public comments on all standards that had been in operation for two or more years.

The Council of the Institute of Chartered Accountants of India (ICAI) issues financial accounting standards in India. So far 15 accounting standards (AS) have been issued by the ICAI, the first one being issued in 1979. Of these 15 standards, 9 are mandatory, three will become mandatory with effect from April 1, 1995, and the remaining three are still recommendatory. Following table shows the years in which different standards were issued and the years in which they were made mandatory.

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Accounting Standards (AS) Issued by ICAI

Standard	Issued in (year)	Made/will be made mandatory (year)
AS 1	1979	1.4.1991
AS 2 and 3	1981	Recommendatory
AS 4 and 5	1982	1.1.1987
AS 6	1982 (R 1994)	Recommendatory
AS 7	1983	1.4.1991
AS 8, 9 and 10	1985	1.4.1991
AS 11	1989 (R 1993) (R 1994)	1.4.1995
AS 12	1991	1.4.1994
AS 13	1993	1.4.1995
AS 14 and 15	1994	1.4.1995

R—Revised

AS 4 was revised in 1993 and 1994, and AS 6 and AS 11 were revised in 1994. Rest of the standards have not been revised. Since AS 12, 13, 14 and 15 have been issued in 1991, 1993 and 1994 respectively, there does not seem to be any need for review.

What is surprising is that AS 2 (Valuation of Inventories) and AS 3 (Statement of Changes in Financial Position), both issued in 1981, have not been reviewed even after 13 years, and both still remain recommendatory. There is a strong case for their review, especially in view of the fact that International Accounting Standards Committee (IASC) has made suggestions for their review in its Statement of Intent (1990) and in other statements.

In May 1993, a Companies Bill was introduced in the Parliament. It will soon become an Act. An important point which needs to be highlighted is that the accounting standards issued by the ICAI have been given *statutory* recognition in the Bill. The annual financial statements will have to be prepared by the enterprises in accordance with the AS issued by the ICAI from time to time. A great responsibility has, therefore, devolved on the ICAI to issue quality standards to ensure comparability of accounting information provided in the annual statements of the companies. In view of the statutory recognition given by the Government (in the Companies Bill, 1993), the question, whether the practice of issuing recommendatory standards be given up, needs serious consideration by the standard-setting body in India. The USA, UK and some other developed countries issue mandatory standards. This has assumed greater significance in India

since during the past three years, policies regarding liberalisation, privatisation and globalisation have been adopted by the Government. "The economic, social, legal, political and other environments keep changing in a country as time passes. Since accounting systems operate in these environments, they have to be in tune with the changing environment. Socio-economic environment in particular has a great influence on accounting structures and processes."

Too many alternatives of accounting treatment of the same events and transactions by the different preparers of annual financial statements thwarts the very purpose of issuing standards. The suggestions of IASC need serious consideration to be given by ICAI in this regard. The IASC has suggested that a 'benchmark treatment' and 'allowed alternative treatment' be specified in the accounting standards to be issued on an accounting problem. This will drastically reduce the many alternative treatments that are suggested for treating an accounting problem. If comparability is lost, the information provided in the annual financial statements becomes 'useless'.

In view of the above and the rapidly changing economic and social scenario in India, there is urgent need for review of some accounting standards issued by the ICAI. Moreover, the new provisions introduced in the Companies Bill 1993 will also necessitate consequential amendments in the different accounting standards already in force.

There is, in our view, need for review of AS 2, 3, 5, 6 and 9 at an early date in view of several new provisions in the Companies Bill 1993. We give our justifications standard-wise in the following paragraphs.

Accounting Standard 2

This standard dealing with inventory valuation (recommendatory so far) provides in all for eight alternatives for valuation of inventories under different circumstances. Part II A and B of Schedule III—vertical and horizontal forms of Balance Sheet—under Current Assets section of the Companies Bill states :

> "If the net realisable value of any current asset is less than its cost, the amount to be included in respect of that asset will be the net realisable value."

This provision in the Bill necessitates thorough revision of AS 2.

Accounting Standard 3

This standard requires that a Statement of Changes in Financial Position (SCFP) should be prepared. However, very few companies (only big ones) complied with this requirement since it has remained recommendatory for more than a decade.

Now the Companies Bill requires that a Statement of Sources and Application of funds shall be annexed to the Balance Sheet. The term 'funds' has no where been defined in the Bill. Usually, the term 'funds' in SCFP has two connotations ; one, net working capital i.e., current assets *minus* current liabilities, and two, cash and cash equivalents. It appears that the meaning of 'funds' as suggested in the required Statement of Sources and Application of Funds is net working capital.

The main purpose is to give an idea of liquidity in a firm. However, the recent experience of developed countries taking net working capital as the basis of SCFP has not been a happy one. An SCFP with net working capital as the basis is not a proper indicator of liquidity. Investment decisions are taken on the basis of cash flows ; not on the basis of income. Many companies in the USA became bankrupt in early eighties for basing their investment decisions on 'funds' being taken as net working capital. W.T. Grants Company's case is a classic one in this regard. The company showed positive net income and positive net working capital for about a decade. Liquidity was regarded satisfactory, and investment decisions were made on this basis. After a decade, the company was declared bankrupt. It could not meet its obligations. It was found that the net cash flows were in the negative for a number of years. It is clear that funds, meaning net working capital, failed to indicate proper liquidity. Many companies in the USA failed on this account. Net cash flows are a better measure of liquidity of a firm.

As a consequence, SCFP with net working capital as the basis has been given up in the USA and UK. Many other countries are following suit. They instead are preparing SCFP with 'cash and cash equivalent' basis. They have liked to call it a Statement of Cash Flows. Even IASC, an international body on recommending standards to member-countries (India is a member of the IASC), has revised IAS 7, and recommended preparation of Statement of Cash Flows to all its members. Cash is to be taken in a broad sense i.e. cash and cash equivalents. It is suggested that AS 3 be revised by requiring a Statement of Cash Flows (in place of an SCFP with net working capital as a basis) to be prepared by every enterprise.

The meaning of the term 'funds' be clarified in AS 3 meaning cash flows in a broader sense.

This statement, we feel, should not be an annexure to the Balance Sheet ; rather it should be a separate financial statement to be included in the annual report of the companies. All the world over, this practice is being followed.

The format of this statement should be given in the revised AS 3. A Statement of Cash Flows should be so prepared that it gives details of

net cash flows (Cash inflows *minus* cash outflows) activities-wise, viz., operating activities, investing activities and financing activities. Both the direct and the indirect methods of computing net cash flows from operating activities should be allowed. The format of a Statement of Cash Flows given in IAS 7 (revised) of the IASC can be adopted by the ICAI. Adoption of these suggestions will make this statement more useful for decision making.

Accounting Standard 5

This standard deals with Prior Period and Extraordinary Items, and Changes in Accounting Policies. The statement states that prior period items (material charges or credits which arise in the current period as a result of errors and omissions in the preparation of financial statements of one or more prior periods) should be separately disclosed in the current statement of profit and loss.

The term 'prior period' means that these omissions and errors belong to period(s) other than the current year for which the Profit and Loss Statement is being prepared. Naturally to compute net income for the current year, the prior period items should not be shown in the current year's Profit and Loss Statement. The question arises : where should such items be shown ? The natural place for such items is Profit and Loss Appropriation Statement (also called Retained Earnings Statement). It is suggested that a Profit and Loss Appropriation Statement should also be a required statement to be prepared by all companies. The Profit and Loss Statement should show current year's income only. It is a measure of performance of a company during the current year. Information, like earnings per share, etc. are based upon net income number. It should, therefore, be properly computed to help in making better decisions by all user groups.

The Profit and Loss Appropriation Statement should show besides prior period items, other items of appropriation, like dividends, reserves etc.

Thus, besides Balance Sheet and Profit and Loss Statement, two more financial statements are recommended to be prepared by the companies. They are a Statement of Cash Flows (Cash to be taken in broad sense) and Profit and Loss Appropriation Statement (Retained Earnings Statement). A package of these four statements should be called annual financial statements. Necessary amendments will be required to be made in the proposed Companies Bill.

The IASC has also recommended prior period items to be shown preferably in Profit and Loss Appropriation Statement as a 'benchmark

treatment'. In the USA, the practice is to show prior period items in the Retained Earnings Statement (Profit and Loss Appropriation Statement).

Most companies in India adopt Single Step method for preparing Profit and Loss Statement. Many items are clubbed and mixed in a manner that no meaningful interpretation can be made. This is due to the absence of a format in the Companies Act. Instead, the Profit and Loss Statement, it is suggested, be prepared on Multiple Step method, where income is shown in multiple steps, viz., income from continuing operations, income from extraordinary items, income from discontinued operations, cumulative effect on income of change in accounting policies. (Some are of the view that the last item, like prior period items, should also be shown outside the Profit and Loss Statement.) All categories of income are shown net of tax adopting the principle : tax follows the income. Earnings per share are also to be shown for every category of income. Earnings per share number is very useful for better decision making. In the USA, around two-thirds of the companies adopt multiple basis for preparing income statement.

Accounting Standard 6

This statement relating to Depreciation Accounting is to be read with provisions in Schedule XIV of the Companies Act, 1956. Now Schedule XI of the Companies Bill 1993 takes care of these. In view of this, Accounting Standard 6 requires a thorough review. The liberalisation measures highlight the need for providing accelerated methods of depreciation, such as Double Declining Balance and Sum-of-year's-digits, etc. Developed countries allow these methods of depreciation in one form or other.

The revised AS 6 on Depreciation Accounting (issued in September 1994) has simply incorporated the provisions of the Companies Amendment Act, 1988. Further, paragraph 21 of AS 6 states :

> "The depreciation *method selected* should be applied consistently from period to period."

The method/methods to be allowed by the companies for charging depreciation should have been spelt out as 'benchmark treatment' and 'allowed alternative treatment'. This would have led to the preparation of more comparable annual financial statements by the different enter- prises.

Accounting Standard 9

This statement is concerned with revenue recognition. Schedule XII of the Companies Bill, 1993 states :

"Revenue shall not be recognised unless :

(i) it is realised (either in cash, receivables or other consideration), and

(ii) no significant uncertainty exists regarding the amount of consideration, and

(iii) it is not unreasonable to expect ultimate collection.

Any departure from these conditions will invite qualification in the auditor's report. In view of the above, Accounting Standard 9 dealing with revenue recognition needs thorough review.

Abridged Financial Statements (AFS)

The Companies Amendment Act 1988 has allowed abridged financial statements to be sent to members and others in place of full annual reports. Clause 341 (iv) of the Companies Bill 1993 also states that in case of a company whose shares are listed on a recognised stock exchange, a statement containing salient features of such documents will be sent to members of the company and others 21 days before the annual general meeting.

Trueblood Committee (USA) on Objectives of Financial Statements had clearly stated :

> Financial statements should serve primarily those users who have limited authority, ability and resources to obtain information and who rely on financial statements as their principal source of information about an enterprise's economic activity.

This statement pinpoints outside users to be supplied with full accounting information through these financial statements. If salient features of these financial documents only are to be sent to members of a company, the primary purpose of providing full and fair information is not accomplished. Members of a company are after all investors of their funds therein. They should have full right to be supplied the annual reports without abridgement.

In view of the proposal for increasing the maximum remuneration to Rs. 50,000 per month to employees of a company, there does not seem to be any need for sending the voluminous details regarding expenditure on employees in respect of remuneration of Rs. 72,000 per annum to every member of a company. This will automatically reduce the volume of annual reports. Their costs will no more be exorbitant. It is suggested that full annual reports (in place of abridged reports) be sent to all members of the company and others. Clause 341(iv) of the Bill may, therefore, be deleted from the Companies Bill, 1993.

Summary Annual Reports (SAR) in USA

"A SAR contains a condensed financial presentation in a more readable format than that of the traditional annual report."* This approach is based on the concept of "differential disclosure, i.e., certain stockholders need full disclosures but many need only highly summarised and less technical analysis of financial information."

Mckesson Corporation was the first one to adopt this approach. It cut the size of the annual report approximately 40%. A small number of companies provided SAR to their stockholders in lieu of the annual report. It is claimed by some that SAR communicates better the financial condition of the business.

But the employment of SAR is debatable. Even the General Motors which initiated the idea of SAR, opted not to reduce the size of the annual report in the first year that these reports were permitted.

"The SAR may provide the management with the opportunity to emphasize the "good" but not the "bad" conditions that are affecting the company. Further, the financial analysts do not seem to favour SARs because the reduced information is not likely to provide the type of information they desire."

The idea of providing SAR to members in place of full reports does not seem to have found favour with the outside users. In India also, the practice of providing abridged reports should be dispensed with by the companies themselves in the interest of full and fair disclosure.

Auditor's responsibility towards compliance of Accounting Standards

Clause 350 of the Companies Bill 1993 has increased the responsibility of the auditor in regard to compliance of accounting standards. Clause 350(4)(e) of the Bill requires that the auditor in his audit report shall also state

(e) whether in his opinion—

(i) the accounting policies of the company are in conformity with the accounting standards laid down by the Institute of Chartered Accountants of India constituted under the Chartered Accountants Act, 1949.

(ii) there has been any deviation from the company's accounting policies.

(iii) the accounting treatment in the Balance Sheet and Profit and Loss Account in respect of any item is inappropriate.

* See pp. 1416 of *Intermediate Accounting* by Kieso and Weygandt, 1992 edition for details.

Clause 350(5)(e) requires that where any of the matters referred to in Clause 350(3)(i) and (ii), or in (a), (b), (c), (d), (e) of (4) is answered in the negative or with qualification, the auditor's report shall state the reasons for the answer.

New Standards

In view of the changed scenario on economic, social and legal front, new standards on segment reporting, interim reporting (on USA pattern), business combinations, financial instruments among others are urgently called for.

We have ventured to make few suggestions to improve the usefulness of annual financial statements to all user groups in making better decisions. The major objective of the Companies Bill 1993—to provide effective protection to investors, creditors and public at large—will be accomplished only when full and fair information is provided in the financial statements.

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PROBABILISTIC COST CONTROL, PROBABILISTIC INFORMATION PROCESSING SYSTEMS AND SOURCE RELIABILITY

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This paper reports on an experiment designed to examine the impact of replacing man by a "model of man" on the phenomena of conservatism in processing information in a probabilistic cost control context. The impact of the source reliability and cognitive style is also examined. The model of man, known as probabilistic information processing system (PIP), as well as the source reliability were found to reduce the amount of conservatism. The impact of the cognitive style as measured by intolerance of ambiguity and risk taking was found to be insignificant.

Cost accountants face various decision contexts where the available information is subject to uncertainty [Ferrara, 1977]. In general, these situations involve various options to choose from subject to various states of nature and a payoff matrix. A typical example is the probabilistic control situation where the cost accountant faces the options of either investigating a manufacturing process or not investigating it, given the likelihood of two potential events : either the process is in control (i.e., the activity in question is functioning properly) or the process is out of control (i.e., the activity in question is not functioning properly [Horngren and Foster, 1987 ; Onsi, 1967 ; Kaplan, 1969 ; Girskick and Rubin, 1952 ; Dyckman, 1969 ; Kaplan, 1975 ; Belkaoui, 1987] In this situation of uncertainty, the cost accountant may elect to rely on some a priori probability distribution of the potential events, resulting in a priori analysis. To make an informed decision, the cost accountant generally elects to seek additional evidence and update the prior probabilities to posterior probabilities. There is, however, evidence that people consistently under-estimate the importance of sample evidence in forming probability judgments about events. Basically, the revision of the posterior probabilities is smaller than the one prescribed by the Bayes' theorem. The phenomenon was labeled as conservatism (Slovic and Lichtenstein, 1971 ; Edwards, 1968 ; Libby, 1981; Ashton, 1982.) The success of the implementation of a probabilistic cost control system rests therefore on eliminating or reducing conservatism. This study seeks to investigate some variables that may eliminate or reduce conservatism in a probabilistic cost control setting. Three main objectives follow.

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The first objective of the study is to investigate the proposal made in the human information processing literature that replacing the individual by a model, called a probabilistic information processing (PIP) system would eliminate or reduce conservatism in the probabilistic cost control setting. The second objective is to investigate the impact of the reliability of the source providing the new evidence on conservatism. Finally, the third objective is to assess the impact of cognitive style on the degree of conservatism in a probabilistic cost control setting.

HYPOTHESIS DEVELOPMENT

Probabilistic Information Processing (PIP) Systems and Probabilistic Cost Control

In the probabilistic control models, the Bayes formula is used to determine the posterior probability of the events. These events may be expressed as whether the system is in control or out of control or as a finite category of the proportion of defective items in a manufacturing concern. They are denoted as $H = (H_1, H_2, H_3 \ldots\ldots H_n)$. If additional evidence is provided on the events and is denoted by D, then the probability of the event H_i that resulted in D is :

$$P(H_i/D) = \frac{P(H_i).P(D/H_i)}{\underline{P}(D)}, \quad \underline{P}(D) \neq 0.$$

This is the basic form of the Bayes' theorem where $P(H_i)$ is the prior probability of the hypothesis H_i being correct. $P(D/H_i)$ is the conditional probability of an observed datum given that H_i is the true event. $P(H_i/D)$ is the posterior probability, the Probability of H_i given that D has been observed. The denominator of the equation P(D) is calculated as

$$\underline{P}(D) = \sum_{i=1}^{n} P(H_i) . P(D/H_i)$$

Two approaches have been used to determine whether individuals upon receipt of new information can revise their posterior probability in the same direction and even equal to the optimal value prescribed by the Bayes theorem.

The first approach rested on asking the subjects to directly estimate the posterior probability, $P(H_i/D)$, after being given prior probability $P(H_i)$ and the new evidence D. The subjects' estimates of the posterior probabilities are then compared with the optimal values given by the Bayes' theorem. The general result found, labeled as conservatism, was that subjects revise their posterior probability estimates in the same direction as the optimal model, but the revision is typically two small [Slovic and Lichtenstein, 1971, p. 653]. In psychology conservatism was

observed in studies using simplified laboratory tasks involving some variant of the bookbag-and-pokerchip task [e.g., Peterson, Schneider, and Miller, 1965 ; Phillips and Edwards, 1966 ; Ritz and Downing, 1967 ; Ritz, Downing and Reinhold, 1967] as well as more complex tasks [e.g., Edwards, Phillips, Hays and Goodman, 1968 ; Gustafson, 1969]. In accounting conservatism was also observed in various accounting and auditing studies [Dickhaut, 1973 ; Kennedy, 1975 ; Wright, 1979 ; Crosby, 1980 ; Corless, 1972 ; Abdolmohammadi, 1986].

The second approach rests on asking the subjects to estimate $P(D/H_i)$, the conditional probability of an observed datum given that H_i is the true hypothesis. The estimate is then incorporated in the Bayes' theorem to obtain the posterior probability estimate, $P(H_i/D)$. The technique, known as probabilistic information processing (PIP) system, consists of replacing the individual by the model. The objective of PIP is better expressed as follows :

> "Specifically, the hypothesis underlying PIP is that men can serve as transducers from P(D/H), that is, they can be taught to estimate such probabilities (or rather, quantities related to them) with accuracy sufficient to serve as a basis for making decisions even when the probabilities cannot be calculated by any other procedure" [Edwards, *et al.*, 1968, p. 252].

Developed by Edwards and his colleagues [Edwards, 1962 ; Edwards and Phillips, 1964 ; Edwards *et al.*, 1968], the PIP system was found to be superior to the non-PIP system in various studies [Kaplan and Newman, 1966 ; Edwards *et al.*, 1968 ; Schumin, 1966].

Evidence on conservatism in the application of the probabilistic cost control models and on the benefits derived from using a PIP system are lacking. Therefore, the first hypothesis is :

H_{01} : **PIP system applied to a probabilistic cost control model results in less conservatism than non-PIP systems.**

Source Reliability

One requirement of the normative statistical principle is that the extremeness of prediction is mitigated by the reliability of its source. Reliability refers to the correspondence between the report of an information source and its reality. It is an inherent attribute of an information source [1980]. The impact of source reliability in accounting, however, has been inconclusive. For example, Joyce and Biddle [1981] investigated auditors' sensitivity to the reliability of an information source external to the audit team and found mixed evidence with respect to the attention given by auditors to the reliability of the source. Bamber [1983] examined audit managers' sensitivity to the reliability of the audit senior and found

that audit managers may under-utilize information from a less than perfectly reliable source. In psychological experiments involving the use of cascaded inference, the results indicate that subjects failed to recognize the extent of the impact of source reliability [Gettys, Kelly and Peterson, 1973 and Young and Peterson, 1973].

In probabilistic control models as well as in probabilistic information processing models source reliability may play a major role. As the source becomes more reliable, the additional evidence provided to the subject by the source are more likely to be incorporated in the probability revision task, and decisions will become less conservative. Because the source reliability may be more effective with estimation of the likelihood than the posterior probability, the estimation made by a PIP system will be still more superior than under a non-PIP system. Therefore, the second hypothesis is :

H_{02} : **Source reliability in a probabilistic cost control is more effective in the reduction of conservatism in a PIP system that in a non-PIP system.**

Impact of Cognitive Style

Various studies in accounting examining the impact of cognitive style on human information processing were not conclusive [Belkaoui, 1982 ; Dermer, 1973 ; McGee *et al.*, 1978 ; Davis and Rock, 1975 ; Lusk, 1973 ; Lusk and Bariff, 1977]. However, psychological research with cognitive style measures has shown that rational risk taking [Kogan & Wallach, 1964], integrative complexity [Schroder, Driver and Strenfert, 1967], verbal intelligence [French, Ekstrom and Price, 1963] and humanistic ideology [Tomkins, 1963] relate positively to adequacy in processing information ; normative ideology scores [Rokeach, 1960] and dogmatism [Long and Ziller, 1965] have been found to relate negatively in processing information.

If individuals do exhibit a conservative behaviour in the probability revision task of a probabilistic cost control model the question resulting from the cognitive style research is to determine if individuals more competent at information processing deviate less from the Bayesian prediction. More specifically, if the cognitive style was defined in terms of risk taking, a measure which relates positively to adequacy in processing information, and in terms of intolerance of ambiguity, a measure which relates negatively to adequacy in processing information, then the conservative behaviour resulting from the probability revision task of a probabilistic cost control model would be affected. Therefore, the third hypothesis is :

H_{03} : **Deviation from the Bayesian decision implied by the conservative behaviour is a function of cognitive style as**

defined by a risk taking measure, the Choice Dilemma measure, and by intolerance to ambiguity.

The intolerance of ambiguity was chosen because it is widely used in human information processing in accounting. In addition, the literature or authoritarianism, conservatism, dogmatism and intolerance of ambiguity assume that people who score high on the scales measuring these concepts see the world in "black or white" or as Sonief [1958] expresses it, make extreme judgments or responses.

The Choice Dilemma measure was chosen because it assesses propensity to take risks and is indicative of a stylistic approach to decision making [Alker and Hermann, 1971, p. 35].

METHOD

Subjects

The subjects were 39 undergraduate students from two statistics courses in a large university, who were asked by their teacher to participate in the experiment as a way of illustrating some of the statistical concepts learned in class earlier in the quarter.

Procedure

Prior to the experiment the instructor in both courses gave an example designed to help the subjects become acquainted again with probability revision. The practice example required the subjects to think through the three steps necessary for the application of Bayes' theorem. The steps were getting acquainted with given prior probability, estimating probabilities of certain data given the hypotheses and determining the posterior probabilities. Questions about the procedure were solicited from the subjects at this time.

The experimental problem followed the training session. The problems were randomly assigned to the subjects. Half of the subjects constituting the PIP group were asked to indicate the probability of a datum given the hypotheses. The other half, constituting the non-PIP group were asked to indicate for the same problem the posterior probability of the hypotheses given the datum.

When the subjects had completed the probability version tasks, they were asked to describe their reactions to it. They indicated on a seven point scale how difficult the problem was, the importances of the problem and how concerned they were about the consequence of making a mistake. They also reported if they knew the Bayes' theorem and were to state what it was. In addition, they were asked to complete the Budner's

intolerance of ambiguity (1962) and the Kogan and Wallach (1964) Choice Dilemma instrument.

Experimental Conditions

All the subjects were presented with a cost control problem faced by the controller of a manufacturing company. The controller is aware of four possible values of defective items pi existing in the process from a batch of 100 items. From past experience he has developed some degree of belief (subjective probabilities) for the four values. A foreman was asked to take a sample of the items and determine how many are defective. He reported to the controller that one of the five items in the sample is defective. Two variables were manipulated :

1. The degree of reliability of the foreman was manipulated. The subjects were told that the foreman has been able to select representative samples, two times out of ten, five times out of ten and eight times out of ten.
2. Half of the subjects were asked to estimate the probability of a datum (one defective out of five items in the sample) given the hypothesis pi (the proposition of defectives known to the controller). They constituted the PIP group. The other half was asked to directly estimate the posterior probability.

As a result a 2× 3× N design was used.

Dependent Variable

The dependent variable in the study was obtained differently for each group. For the PIP group, the dependent variable was the signed deviation of each subject's posterior probability obtained from his/her estimated probability of a datum given a hypothesis from what was determined in Bayesian terms as the posterior probability of the hypothesis given the datum. For the non-PIP group, the dependent variable was the signed deviation of each subject's posterior probability decision from the optimal decision in Bayesian terms. In both cases the signed deviation is a measure of accuracy, in the sense that it measures the degree to which Ss' revision of subjective probabilities agreed with the correct decision.

RESULTS

Manipulation Checks

To check that the subjects perceived decision importance, complexity and concern over consequences did not differ between the PIP group and the non-PIP group, the subjects' post decision questionnaire response were analyzed. The results showed that the subjects did not perceive

the tasks to differ in terms of decision importance, complexity and concern over consequences, regardless of whether they were asked to estimate directly the posterior probability or not.

Effects of PIP and Source Reliability

The results of the analysis of variance for the mean deviation of the subjects' decisions from the optimal Bayesian decision are shown in Table 1. The main effects of the type of probabilistic information system, reliability and their interaction are significant.

First, the deviation of the subjects' decisions from the optimal Bayesian decision differ between the probabilistic information processing system (PIP) and the non-probabilistic information system. In addition, the deviation is smaller in PIP than in non-PIP supporting the first hypothesis that a PIP system applied to a probabilistic cost control model results in less conservatism than a non-PIP system.

Second, the same deviation differs between the levels of source reliability. As the source reliability increases the deviation becomes smaller and the level of conservation decreases.

Third, the interaction effect was significant showing that the reduction in conservatism resulting from the increased source reliability was relatively better under a PIP system, as predicted by the second hypothesis in this study.

Effects of Individual Differences

The deviations from the Bayesian decisions were regressed against the intolerance of ambiguity and the risk taking measures. The results in both cases were totally insignificant in terms of the overall regression and the regression coefficients. The coefficients of determination were 3.18% and 2.61%, respectively. Under the PIP and the non-PIP systems

Table—1
Analysis of Variance

Source	DF	SS	MS	F
Model	5	0.1443	0.0288	2.95*
Error	30	0.2932	0.0097	
Corrected Total	35	0.4376		
Source				
Reliability	2	0.0513		2.63**
Type of System	1	0.0559		5.73*
Interaction	2	0.0470		2.51**

* Significant at $\alpha = 0.01$.
** Significant at $\alpha = 0.05$.

Cell Values

	Type of System	
Reliability	PIP	Non-PIP
Low = 2/10	0.00717	0.16614
Moderate = 5/10	0.00461	0.04140
High = 8/10	– 0.00002	0.00402
Total Mean	0.00278	0.0817

there is evidently little relationship between the cognitive style of the participants as measured by their intolerance of ambiguity and risk taking and deviation from optimality. Our third hypothesis in the impact of cognitive style is, therefore, not supported.

SUMMARY AND CONCLUSIONS

The results indicate that subjects were less conservative in a PIP than in a non-PIP system applied to probabilistic control. In addition, the more reliable the information source the less conservative were the subjects decisions, especially under a PIP system.

The Bayesian decision model applied to a probabilistic cost control is a normative or prescriptive model which indicates how an ideal person would make a decision. Subjects' decisions in this study and other studies do not always match the Bayesian prediction. This study shows that the degree of conservatism can be attenuated by (a) the use of a PIP system where subjects are asked to estimate $P(D/H_i)$, the conditional probability of an observed action given that H_i is the true hypothesis, and (b) increasing the reliability of the information source providing the new evidence on the number of defectives in the system. Therefore, in the application of the probabilistic cost control system, the adequate use of the Bayesian model should take into account (a) the benefit derived from using a PIP system and (b) the need for confidence generated by the reliability of the information source.

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CORPORATE CHARACTERISTICS AND EXTENDED SOCIAL REPORTING—SOME INDIAN EVIDENCE

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The author examines the possible extent of variation in social reporting through Corporate Anual Report and identifies some of those corporate characteristics that explain the observed variations.

1. Introduction

'Lufthansa, international airline of Germany, receives an award for environmental protection'. 'Supreme Court of India threatens twelve industrial units with closure and fines'. So read texts of some of the news items published in the press media during the year 1994. A message that very clearly filters out of these 'reward and punishment' news is that a modern business entity can no longer hope to survive, let alone grow, in a 'Friedmanian World' where the only social responsibility of business is to increase profits. In other words, a modern business unit cannot carry out its economic operations for long by remaining immune to the social environment in which it operates. Alternatively stated, social performance of a business enterprise is now as important, if not more, as its commercial and economic performance.

With the growing importance of social goals in business operations, a need has been felt in the last few decades to devise and introduce such information systems which could measure, report and evaluate social accountability of business units. Over the years, business corporations have deployed a large variety of mediums to disseminate information on their working and affairs to the external business participants—investors, employees, customers, government and public at large. However, of all the mediums, Corporate Annual Report (CAR) is the primary, most popular, longer lasting, and extensively accessible medium of communication. In the literature, dissemination of information on social consequences of business activities has been termed as 'social reporting'. The main objective of present research paper is to measure the possible extent of variation in social reporting through CAR and identify some of those corporate characteristics that explain the observed variations.

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2. Methodology

2.1 Approach to the problem

The problem of measuring and analyzing inter-corporate differences in social reporting can be approached in two different ways. Under the first approach social reporting is defined in terms of all such disclosures in the annual report which pertain to the issues covered within the ambit of social reporting. This is the approach that has been followed conventionally, both in India and overseas, in almost all the studies dealing with aspects of social reporting. A shortcoming of this approach is that it does not make any distinction between statutorily required and non-statutorily required disclosures. As an alternative approach, social reporting is defined in terms of non-statutorily required disclosures only, termed Extended Social Reporting (ESR) in this study. The rationale for this approach is that corporate entities, by and large, tend to conform to the governing corporate laws. Moreover, the requirement of statutory audit [and a further audit of public sector companies by the Comptroller and Auditor General (C&AG) in India] ensures that all applicable provisions of the corporate laws are observed by the companies diligently and without fail. Thus, variations in reporting, if any, would generally relate only to disclosures not mandated under the laws. In other words, ESR is a better indicator of enlightened self-regulation by a company. In the present paper, the latter approach has been followed.[1]

2.2 Regression model

In order to identify company characteristics explaining inter- corporate variations in ESR, a multivariate regression model has been designed. The designed regression model expresses ESR as a function of variables representing not only varying financial characteristics but also diverse socio-cultural milieu amongst the companies. The form of the equation used for estimating the functional relationship is :

$$y = a + b_1 x_1 + b_2 x_2 + b_3 x_3 + b_4 x_4 + b_5 x_5 + b_j x_j + e$$

where,

Y = SOCINDEX = extended social reporting score,

a = intercept,

b_j = b_6 to b_{23} = regression coefficients for industry dummies,

b_1 to b_{23} = regression coefficients,

x_1 = SIZE = size of a company,

x_2 = GOVTAGE = age of a company,

x_3 = ROTA = profitability,

x_4 = NOCGREV = review of accounts by C&AG (Dummy variable).

x_5 = ICAI = best presented accounts competition (dummy variable),

x_j = x_6 to x_{23} = DPE1 to DPE18 (industry dummy variables), and

e = regression residual.

In the foregoing model, 23 explanatory variables are used to explain the behaviour of dependent variable, extended social reporting. Amongst the explanatory variables, variables x1 to x_3 are quantitative while the others x4 to x_{23} are qualitative (dummy) variables. Since sample companies have been divided into nineteen industry–groups, the industry variable has resulted into eighteen dummy variables DPE1 to DPE18.

2.3 Sample and data

The present study is based on a sample of companies selected from the Indian Public Sector. A choice for public sector companies has been made for the following two reasons. First, the Institute of Chartered Accountants of India (1985) has observed that it is mainly the companies belonging to the public sector which are supplying information in their annual reports much beyond the statutory requirements of the law. Secondly, a high degree of compliance with statutorily required disclosures is ensured across the Central Public Sector Companies (CPSC) owing to two external audits performed on the published accounts of these companies.

For the study, based on the availability of annual reports for four cross-sectional years 1988 to 1991[2], a sample of 129 CPSC is taken. The industry-wise grouping of companies, using DPE industry classification in 1990-91 is given in Table 1.

Table 1 shows that nearly two-thirds of the CPSC constitute the sample taken in this study. Also, out of 129, 94 (72.87%) and 35 (27.13%) sample companies are, respectively, in the manufacturing and service sector. The corresponding figures for the universe are, respectively, 151 (72.95%) and 56 (27.05%). In short, sample selected is both large and a good representative of the universe in terms of broad industrial classification (manufacturing and service). At a more micro level, Table 1 also shows that each industry group is fairly represented in the sample.

2.4 Data problems

A serious problem surfaced in the study at the time of measuring some of the selected financial variables for the sample year 1989. The problem was a change in the accounting period resorted to by six sample companies. It was noticed that out of six, one company each had prepared accounts for 7, 9 and 10 months. The other three companies had prepared their accounts for a period of 15 months. Consequently, operating data

for these six companies especially on flow variables like turnover, net profits etc. are not comparable both on an inter-period and on an

Table 1
Industry-wise selection of sample companies

Industry-Group	Operating Companies (as on 31.3.1988)	Companies Sampled	Sample to Total (%)
Enterprises Producing and Selling Goods			
1. Steel	7	4	57.14
2. Minerals and Metals	12	8	66.67
3. Coal and Lignite	8	5	62.50
4. Petroleum	12	8	66.67
5. Fertilizers	8	5	62.50
6. Chemicals & Pharmaceuticals	18	13	72.22
7. Heavy Engineering	16	8	50.00
8. Medium & Light Engineering	21	11	52.38
9. Transportation Equip.	13	10	76.92
10. Consumer Goods	18	11	61.11
11. Agro-based Industries	4	2	50.00
12. Textiles	14	9	64.29
Sub-Total	151	94	62.25
Enterprises Rendering Services			
1. Trading & Marketing Services	18	11	61.11
2. Transportation Services	5	2	40.00
3. Contract of Construction Services	8	6	75.00
4. Industrial Development & Technical Consultancy Services	12	7	58.33
5. Tourist Services	4	3	75.00
6. Financial Services	7	4	57.14
7. Telecommunication Services	2	2	100.00
Sub-Total	56	35	62.50
Total	207	129	62.32

inter-corporate basis. To remedy this problem and make the data comparable and consistent, data on flow variables for the above said six companies were annualised. An appropriate adjustment factor has been used for this purpose.

2.5 Variables

2.5.1 *Dependent Variable—Social Reporting Score (Socindex)*

Measurement of the quantum of information reported in CAR is not an exact science. Consequently, two different measurement methods have been proposed in the literature. The first method recommends that information reported on an item should be measured by counting the words and numbers used in its disclosure (see Copeland and Fredericks, 1968). The other method measures information disclosure by using a 'disclosure index'. It is this method which has been used widely in the research studies conducted all over the world. In the present study, therefore, 'disclosure index' method has been used.

To operationalise the selected method the following steps are taken. First, a list of twenty-seven items that relate to various aspects of social reporting has been prepared.[3] Second, using 'modified dichotomous approach', social reporting score for a company is defined and measured as a percentage of items disclosed to what was expected to be disclosed by the company concerned.

2.5.2 *Independent Variables*

As stated above in sub-section 2.2, the present study employs 23 explanatory variables in the designed regression model. The hypothesized relationship of each of these variables with the social reporting score and their respective measurements are discussed below.

(i) *Size (SIZE)*

It is a fairly natural assumption to expect large companies to have a tendency to report more information than small companies. (see Singhvi and Desai 1971 ; Cook 1989 ; and Marston and Shrives 1991). In the past Cerf (1961), Singhvi and Desai (1971), Buzby (1975), McNally et. al. (1982), Chow and Wong-Boren (1987) and Cook (1989) have selected a measure of size like total assets, turnover etc., and tested its relationship with the disclosure scores. However, in his study, Cook (1992) argues that each measure of size contains an interesting and possibly unique aspect of size and there exists no overwhelming theoretical reason to prefer one size measure to another. Thus, Cook (1992) has used factor analysis technique to identify the internal structure of eight size variables. Following the reasoning of Cook, in the present study factor analysis technique has been used to identify principal factors of seven observable constructs viz., Equity Capital, Gross Block, Net fixed Assets, Number of Employees, Turnover, Long-term Capital Investments, and Total Assets.[4]

(ii) *Age (GOVTAGE)*

It is commonly stated that old companies disclose more information than relatively new ones. This is apparently because companies become

more aware of the trade discipline and benefits of extended disclosures as they grow older.

Age of a company is conventionally defined and measured as the number of completed years of its existence since incorporation. However, in the present study age of a company is measured as the number of years for which it has operated as a CPSC. This is particularly important for companies which have been nationalized subsequent to their incorporation in the private sector and which could have had only a limited time to imbibe the trade discipline and culture of the public sector. In this paper, age has been measured in terms of the natural logarithm of the years for which a company has operated in the public sector.

(iii) *Profitability (ROTA)*

It is expected that companies with higher profitability would be disclosing more information due to stability of their operations and increased capacity to absorb higher costs of information disclosure.

In the present study, profitability has been defined as the ratio of net profit to total assets. Significantly, return on total assets is widely recognized as the prime indicator of overall profitability in the literature of accounting and finance.

(iv) *Review of Accounts by C&AG (NOCGREV)*

In the case of public sector companies, review of accounts by C&AG generates additional information which is supplied through the annual reports. However, not all CPSC undergo a review of their accounts every year. It is observed that review is done on an irregular basis particularly for companies that are employing limited financial and physical resources, are of no strategic importance, and are operating as subsidiaries to a large-sized parent company. In order to proxy for these company-specific qualities, a dummy variable (0 or 1) is included in the regression model. The variable has been assigned a value of 1 for companies not undergoing a review of accounts by the C&AG. Hence, a negative association is expected between the dependent and the independent variable.

(v) *Participation in Annual Accounts Competition (ICAI)*

The Institute of Chartered Accountants of India has been organizing an annual competition on 'best presented accounts' for many years now. In awarding the published accounts of a company, non- statutorily required disclosures in annual reports, *inter alia,* are given due weightage by the organizers of the competition. Significantly, participation in the competition and winning an award helps a company in its exercise of building a positive public image. In order to examine whether participation of companies in the aforesaid competition is related to the extent of ESR, a dummy variable (0 or 1) is defined. In the study, the variable is assigned

a value of 1 for companies taking a part in the competition. It is hypothesized that ESR shall be positively related with this dummy variable.

(vi) *Nature of Industry (DPE1 TO DPE18)*

Differences in the extent of social reporting may also occur due to varying degree of competition and different cultural milieu prevailing in different industries. In the past, significance of industry variable as a possible determinant of disclosure scores has been examined by researchers such as McNally et. al. (1982), Cook (1989) and Cook (1992). In this study, industry variable has been incorporated by using industrial classification given by Department of Public Enterprises in its annual report. Notably, the sample companies can be classified into 19 industrial groups using DPE classification. In the study, 18 dummy variables (DPE1 to DPE 18) have been used for classifying the companies into 19 industry-groups. These eighteen dummy variables represent the following industries.

DPE1	Steel ;
DPE2	Minerals & Metals ;
DPE3	Coal and Lignite ;
DPE4	Petroleum ;
DPE5	Fertilizers ;
DPE6	Chemicals & Pharmaceuticals ;
DPE7	Heavy Engineering ;
DPE8	Medium & Light Engineering ;
DPE9	Transportation Equipment ;
DPE10	Consumer Goods ;
DPE11	Agro-based Industries ;
DPE12	Textiles ;
DPE13	Trading & Marketing Services ;
DPE14	Transportation Services ;
DPE15	Contract & Construction Services ;
DPE16	Ind. Dev. & Tech. Consultancy Services ;
DPE17	Tourist Services ;
DPE18	Financial Services.

Since there is no a *priori* information available on the direction of relationship between the social reporting score and the defined 18 industry dummy variables, expected sign of the variables cannot be hypothesized.

3. Empirical Results and Discussion

The detailed results of regression model specified in sub-section 2.2 are given in Tables 2 through 5. The results are, respectively, for the sample years 1988 to 1991.

Results reported in the tables show that coefficients of SIZE, GOVTAGE, ROTA and ICAI are positive in all years. Coefficients of NOCGREV have been found showing negative sign over the sample period. For DPE1 to DPE18 (industry dummies), the results show that, with the following exceptions, coefficients are generally negative in all sample years and for all industries. The only industries that have shown positive coefficients are DPE1 (Steel industry) in 1991 ; DPE4 (Petroleum industry) in 1990 and 1991 ; and DPE14 ('Transportation Services' industry) in 1990. Thus, regression coefficients of all explanatory variables have expected signs.

Tables 2 to 5 show that regression coefficients of SIZE and GOVTAGE are highly significant. Coefficients of both variables are significant at 1 percent level in all the sample years. Coefficients of ICAI are observed significant at 1 percent level only in 1990 and 1991, and at 10 percent in 1988. It is seen that regression coefficients of ROTA and NOCGREV are significant at 5 percent and 10 percent level, respectively, in 1989. From the above analysis of results, following inferences can be drawn. First, Size and Age of a company are the two important determinants of the extent of social reporting disclosures. Second, participation of companies in Best Presented Accounts Competition generally explains the extent of social reporting in annual reports. Third, Profitability and Review of Accounts by C&AG are not important in explaining social reporting behaviour of companies.

On the significance of 18 industry dummy variables, the following results have been obtained. First, only for 'Textiles' industry, regression coefficients are highly significant at 5 percent level ($P<0.05$) in all sample years. Second, for two industries—'Contract and Construction Services', and 'Tourist Services'—regression coefficients are significant at 10 percent level ($P<0.10$) in all four years. Third, for five industries—'Steel', 'Coal and Lignite', 'Petroleum', 'Chemicals and Pharmaceuticals', and 'Transportation Services'—coefficients are statistically non-insignificant at 10 percent level in all sample years. Fourth, ten industries have shown mixed results on the significance of their regression coefficients over the sample years. To sum, at 10 percent level of significance, implications of the results on industry dummies are : (i) consistently significant negative coefficients of three industries suggest that reporting by companies in these industries is relatively lower than others ; (ii) non-significant coefficients of five industries—'Steel', 'Coal and Lignite', 'Petroleum', 'Chemicals and Pharmaceuticals' and 'Transportation Services'—show that social reporting by companies in these industries is not significantly different from 'Telecommunication Services' industry (industry for which all the 18 industry dummies are zeros) ; and (iii) mixed results on significance for coefficients of ten industries do not allow any

Table—2
Multiple Regression Analysis—1988

<< Ordinary Least Squares Regression >>

Dependent Variable	SOCINDEX	Number of Observations	129
Mean of Dep. Var.	0.3917	Std. Dev. of Dep. Var.	0.1771
Std. Error of Regr.	0.1179	Sum of Sqrd. Residuals	1.4594
R—Squared	0.6363	Adjusted R—Squared	0.5566
Total Variation	4.0124	Regression Variation	2.5529
F (23, 105)	7.9857	Prob. Value for F	0.0000

Variable	Coefficient	Std. Error	T-ratio	Prob | t | > x
ONE	0.0858	0.1433	0.599	0.5580
SIZE	0.0321	0.0082	3,900	0.0002
GOVTAGE	0.0814	0.0202	4.028	0.0002
ROTA	0.1070	0.0673	1.590	0.1106
NOCGREV	– 0.0380	0.0335	– 1.133	0.2588
ICAI	0.0540	0.0304	1.744	0.0753
DPE1	– 0.1043	0.1087	– 0.959	0.3419
DPE2	– 0.1978	0.1053	– 1.879	0.0598
DPE3	– 0.1133	0.1053	– 1.076	0.2842
DPE4	– 0.0859	0.1086	– 0.791	0.4364
DPE5	– 0.2134	0.1079	– 1.977	0.0479
DPE6	– 0.1691	0.1065	– 1.588	0.1111
DPE7	– 0.2194	0.1072	– 2.047	0.0408
DPE8	– 0.2272	0.1085	– 2.093	0.0367
DPE9	– 0.2368	0.1071	– 2.210	0.0277
DPE10	– 0.1931	0.1043	– 1.852	0.0635
DPE11	– 0.2468	0.1360	– 1.815	0.0689
DPE12	– 0.3210	0.1077	– 2.979	0.0037
DPE13	– 0.2078	0.1109	– 1.874	0.0605
DPE14	– 0.1461	0.1227	– 1.191	0.2344
DPE15	– O.3077	0.1143	– 2.692	0.0081
DPE16	– 0.1959	0.1146	– 1.709	0.0865
DPE17	– 0.2893	0.1208	– 2.396	0.0175
DPE18	– 0.1991	0.1162	– 1.713	0.0858

Table—3
Multiple Regression Analysis—1989

<< Ordinary Least Squares Regression >>

Dependent Variable	SOCINDEX	Number of Observations	129
Mean of Dep. Var.	0.4019	Std. Dev. of Dep. Var.	0.1726
Std. Error of Regr.	0.1081	Sum of Sqrd. Residuals	1.2280
R—Squared	0.6781	Adjusted R—Squared	0.6076
Total Variation	3.8152	Regression Variation	2.5872
F (23, 105)	9.6181	Prob. Value for F	0.0000

variable	Coefficient	Std. Error	T-ratio	Prob | t | > x
ONE	0.0622	0.1368	0.455	0.6546
SIZE	0.0310	0.0077	4.012	0.0002
GOVTAGE	0.0859	0.0206	4.177	0.0001
ROTA	0.1018	0.0464	2.194	0.0288
NOCGREV	– 0.0559	0.0321	– 1.740	0.0810
ICAI	0.0376	0.0278	1.352	0.1759
DPE1	– 0.0546	0.0997	– 0.548	0.5920
DPE2	– 0.1781	0.0954	– 1.866	0.0615
DPE3	– 0.1045	0.0973	– 1.074	0.2852
DPE4	– 0.0592	0.0981	– 0.604	0.5546
DPE5	– 0.1585	0.0986	– 1.608	0.1066
DPE6	– 0.1314	0.0967	– 1.360	0.1733
DPE7	– 0.1623	0.0979	– 1.657	0.0964
DPE8	– 1.1800	0.0989	– 1.820	0.0681
DPE9	– 0.1873	0.0980	– 1.912	0.0556
DPE10	– 0.1477	0.0968	– 1.526	0.1258
DPE11	– 0.2435	0.1237	– 1.967	0.0490
DPE12	– 0.2972	0.0991	– 2.999	0.0035
DPE13	– 0.1974	0.1017	– 1.941	0.0520
DPE14	– 0.0964	0.1163	– 0.829	0.4141
DPE15	– 0.2979	0.1053	– 2.830	0.0056
DPE16	– 0.1892	0.1058	– 1.788	0.0731
DPE17	– 0.2558	0.1107	– 2.311	0.0217
DPE18	– 0.2102	0.1061	– 1.981	0.0476

Table—4
Multiple Regression Analysis—1990

<< Ordinary Least Squares Regression >>

Dependent Variable	SOCINDEX	Number of Observations	129
Mean of Dep. Var.	0.4134	Std. Dev. of Dep. Var.	0.1748
Std. Error of Regr.	0.1113	Sum of Sqrd. Residuals	1.2996
R—Squared	0.6678	Adjusted R—Squared	0.5950
Total Variation	3.9119	Regression Variation	2.6122
F (23, 105)	9.1758	Prob. Value for F	0.0000

Variable	Coefficient	Std. Error	T-ratio	Prob | t | > x
ONE	–0.0657	0.1440	– 0.457	0.6532
SIZE	0.0334	0.0083	4.048	0.0002
GOVTAGE	0.0917	0.0219	4.180	0.0001
ROTA	0.0580	0.0406	1.429	0.1519
NOCGREV	– 0.0252	0.0339	– 0.743	0.4655
ICAI	0.0893	0.0279	3.197	0.0020
DPE1	– 0.0100	0.1070	– 0.093	0.8878
DPE2	– 0.1154	0.1006	– 1.147	0.2527
DPE3	– 0.0134	0.1004	– 0.134	0.8635
DPE4	0.0064	0.1031	0.062	0.9063
DPE5	– 0.1115	0.1026	– 1.087	0.2791
DPE6	– 0.0557	0.1007	– 0.553	0.5881
DPE7	– 0.0909	0.1016	– 0.895	0.3766
DPE8	– 0.1274	0.1034	– 1.232	0.2184
DPE9	– 0.1375	0.1024	– 1.342	0.1789
DPE10	– 0.0667	0.1005	– 0.664	0.5155
DPE11	– 0.2089	0.1308	– 1.597	0.1092
DPE12	– 0.2322	0.1021	– 2.274	0.0237
DPE13	– 0.1215	0.1066	– 1.139	0.2562
DPE14	0.0147	0.1163	0.126	0.8681
DPE15	– 0.1982	0.1108	– 1.788	0.0730
DPE16	– 0.0903	0.1091	– 0.828	0.4146
DPE17	– 0.2233	0.1157	– 1.930	0.0533
DPE18	– 0.1441	0.1117	– 1.290	0.1969

Table—5
Multiple Regression analysis—1991

<< Ordinary Least Squares Regression >>

Dependent Variable	SOCINDEX	Number of Observations	129
Mean of Dep. Var.	0.4128	Std. Dev. of Dep. Var.	0.1761
Std. Error of Regr.	0.1163	Sum of Sqrd. Residuals	1.4192
R—Squared	0.6425	Adjusted R—Squared	0.5642
Total Variation	3.9696	Regression Variation	2.5505
F (23, 105)	8.2045	Prob. Value for F	0.0000

Variable	Coefficient	Std. Error	T-ratio	Prob | t | > x
ONE	–0.0684	0.1559	–0.439	0.6653
SIZE	0.0319	0.0088	3.628	0.0006
GOVTAGE	0.0999	0.0252	3.962	0.0002
ROTA	0.0300	0.0288	1.044	0.2995
NOCGREV	– 0.0219	0.0373	– 0.587	0.5656
ICAI	0.0881	0.0336	2.624	0.0097
DPE1	0.0076	0.1118	0.068	0.9025
DPE2	– 0.1007	0.1051	– 0.958	0.3428
DPE3	– 0.0247	0.1055	– 0.234	0.8011
DPE4	0.0023	0.1072	0.022	0.9314
DPE5	– 0.0669	0.1071	– 0.625	0.5405
DPE6	– 0.0692	0.1056	–0.655	0.5213
DPE7	– 0.1099	0.1083	– 1.015	0.3134
DPE8	– 0.1517	0.1090	– 1.392	0.1630
DPE9	– 0.1354	0.1067	– 1.268	0.2046
DPE10	– 0.1214	0.1059	– 1.147	0.2529
DPE11	– 0.1569	0.1276	– 1.229	0.2194
DPE12	– 0.2421	0.1079	– 2.245	0.0255
DPE13	– 0.1501	0.1118	– 1.342	0.1790
DPE14	– 0.0572	0.1270	– 0.450	0.6575
DPE15	– 0.2127	0.1172	– 1.815	0.0688
DPE16	– 0.1236	0.1146	– 1.079	0.2832
DPE17	– 0.2158	0.1185	– 1.821	0.0680
DPE18	– 0.1363	0.1151	– 1.184	0.2372

generalizations on the reporting behaviour of companies concerned. Thus, industry dummies isolate three industries that consistently have lower disclosure scores. These are 'Textiles', 'Contract and Construction Services' and 'Tourist Services'. The most revealing finding of the analysis is that out of three industries showing significant negative coefficients, two are rendering services. The only manufacturing industry showing significantly negative coefficients is the Textile industry.

The overall significance of above research findings has been evaluated by examining the values of adjusted R-square and F-Test. The values of adjusted R-square for four sample years 1988 to 1991 are, respectively, 0.557, 0.608, 0.595 and 0.564. This indicates that 55 to 61 percent variation in social reporting scores is explained by the selected independent variables. Further, F-values showing significance of the overall regression model are also significant at 1 percent level in all sample years. These results provide supportive evidence to a statistically significant relationship between social reporting disclosures and the explanatory variables. On the whole, empirical results have provided strong evidence that research hypothesis of a significant association between social reporting scores and selected independent variables is acceptable.

4. Summary and conclusions

The present research study is a pioneering effort in identifying some fundamental factors which affect extended social reporting in India. Specifically, the research study was designed to determine the impact of six explanatory variables—size, age, profitability, review of accounts by C&AG, participation in annual accounts competition and nature of industry on the social reporting behaviour of CPSC. Using a multivariate analysis framework, the main empirical conclusion of the study is that size and age of a company and nature of industry are the most important determinants of extended social reporting in India. The empirical evidence obtained in the study is consistent for four cross-sectional years and is based on a large-sized sample of companies. However, sample period of the study lies in an era which ended just before the launching of the new economic liberalization regime in India. It would indeed be interesting to watch the research findings of a similar type of study in future which could be based on the data generated during the new liberal economic regime.

Endnotes

1. In terms of 'disclosure index' method (please see discussion on dependent variable below) absolute differences between companies under either approach would be the same. However, values of social reporting are stated in a narrower range when they are expressed as ratios under the former method.

2. The cross-sectional years 1988 to 1991 correspond to the fiscal years 1987-88 to 1990-91. A fiscal year begins on April 1 and ends on March 31. At the time of collection of data 1990-91 was the latest year for which annual reports were available.

3. NAA (1974) has identified four major areas of social performance as community involvement, human resources, physical resources and environmental contributions and product or service contributions. In this study, Ramanathan (1979) has also included energy usage, research and development and productively statistics as areas of social reporting. Fair business practices have also been listed as an area of social reporting in the study by Ahmed and Zeghal (1986). In the present study actual disclosure of information on these aspects (excluding energy usage and research and development) by the sample companies in their annual reports has been taken as the guiding principle for constructing the 'disclosure index'. The list of items based on above areas of social reporting is available with the author.

4. Principal factor analysis on natural logarithms of these variables has yielded a single factor with eigenvalue greater than one. This factor has explained at least 81.3% of the total variation during the four sample years.

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EC ACCOUNTNG HARMONISATION : PERSPECTIVES AND PROGNOSIS

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The European Community, which is an intergovernmental agency constituted with the principal objective of promoting regional economic integration, has long been actively involved in harmonising accounting practices across its member countries. Its directives on company law have made a very valuable contribution towards narrowing the national accounting differences within the Community. But there are still many key areas where differences in accounting practices still continue to exist. Further harmonisation is necessary in order to ensure greater comparability between accounting reports prepared in different member countries.

I. Introduction

There exist at the present time a number of agencies or organisations that are actively involved in the process of endeavouring to promote measures for harmonising accounting practices across countries. Some of these agencies are operating at regional levels, while others are functioning on a global basis. The European Community is one of those agencies that are at present involved with the accounting harmonisation issue at the regional level. It is an intergovernmental agency which arose as a result of signing of the 1957 Treaty of Rome. The agency was at first known as the European Economic Community (EEC) but subsequently the name was changed to the European Community (EC)[1]. At present, the membership of the EC is made up of twelve European countries : Belgium, Denmark, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain and the United Kingdom. Many other European countries appear to be very much eager to join the agency and some of them have already applied for membership (eg, Austria, Cyprus, Malta and Sweden). The EC has made an agreement with the European Free Trade Association (EFTA) to form a European Economic Area (EEA) which will allow for the creation of a zone of free trade for goods, services, labour and capital between the member states of the

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[1] Technically, the EC has become European Union (EU) as a result of putting the Maastricht Treaty into effect in late 1993.

two agencies (McDonald and Dearden, 1992, p.xiv). It has also made several special agreements with a view to establishing strong links to many Third World countries.

The main economic objectives of the EC are to promote throughout the Community a harmonious development of economic activities, a continuous and balanced expansion, an accelerated raising of the standard of living and close relations between the member countries (Article 2). One of the important mechanisms by means of which the EC is endeavouring to realise its economic objectives is the establishment of a single integrated common market. In 1985 the EC heads of governments decided to formulate measures for completing the process of creation of a true single European market by the end of 1992, and the Single European Act 1987 was passed mainly for this purpose. The EC has already been successful in removing most of the major barriers to the cross-border movement of goods, services, capital and labour and a single integrated common market has become a fact of life. The agency is now planning to embark on a programme of developing a full economic and monetary union involving irrevocably locked exchange rates, a single European currency and a common monetary policy administered by a European central bank (Kent, 1992, p.8).

Accounting harmonisation is not as such provided for in the Treaty of Rome. The EC has, however, been trying to promote measures for harmonising accounting practices across its member countries since almost the initial phase of its operation. Its accounting harmonisation programme has been incorporated into the company law harmonisation programme for which there is a provision in the Treaty of Rome. The principal mechanisms that have been adopted by the EC with a view to harmonising company laws across its member countries are called "directives". The EC has already issued a number of directives that contain requirements relating to the preparation and presentation of accounting reports by companies. These directives, which are drafted by the European Commission[2], have got to be incorporated by the individual member countries into their domestic laws. The directives have been quite helpful in reducing the intercountry variations in the rules and principles that constitute the basis of preparation and presentation of company accounts. But there are still many areas where diversity continues to exist. The EC is now trying to promote further measures with a view to increasing the effectiveness of its accounting harmonisation efforts.

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[2] The European Commission is a functional organ of the EC. It is a "cross between a civil service and an executive body" (McDonald and Dearden, 1992, p. xx). Its main function lies in acting as the guardian of the Treaties and in policing EC laws.

The objectives of undertaking this study are : (1) to see why the EC has considered it necessary to commit itself to harmonising accounting practices across its member countries; (2) to examine the mechanisms that it has adopted in order to effect the harmonisation; (3) to make an assessment of the success of the harmonisation measures that have already been adopted, and (4) to obtain an indication of the direction to which the accounting harmonisation efforts of the EC are likely to move in the future. The study will remain confined to published company accounts.

The accounting harmonisation efforts of the EC have far-reaching implications for many other countries and agencies outside the Community. The accounting changes that are taking place in the EC countries as a result of implementation of the EC accounting requirements are likely to affect those non-EC based multinational companies that have subsidiaries or branches located in the EC countries. There are many Third World countries that use the accounting models prevailing in the EC member countries as the primary basis for developing their domestic accounting requirements. The EC accounting harmonisation efforts are expected to affect the accounting practices of these Third World countries as well. The accounting harmonisation programme of the EC has also attracted a great deal of interest in the International Accounting Standards Committee (IASC) circles. If the EC, which is gradually emerging as a very powerful economic force in the world, formulates its accounting requirements using an approach different from that is being pursued by the IASC, then the global accounting harmonisation process started by this latter agency is sure to lose much of its appeal. But things will be quite different if the EC uses the IASC standards as the basis for development of its own accounting requirements.

II. The Need for Accounting Harmonisation in the EC

Accounting practices differ widely from one country to another within the EC. Differences are observed in almost all areas pertaining to the preparation and presentation of accounting reports by companies. Some of these differences are procedural, while others are conceptual. Procedural differences are those differences that arise as a result of the adoption by different countries of dissimilar techniques in relation to designing of report formats, choosing of terminologies, and classifying and ordering of the items of the basic financial statements. Conceptual differences, on the other hand, are those differences that emanate from the adoption by different countries of different principles and philosophies in the matter of recognition and measurement of accountable events and phenomena and computation of periodical financial results. Procedural

differences can easily be reconciled but the differences that arise because of conceptual reasons often appear to be quite difficult to interpret.

Accounting practices vary among the EC countries because published company accounts are required to serve different purposes in different countries. In the UK, the main objective of published company accounts is to provide information useful for making rational credit and investment decisions. The other EC countries where published company accounts have an orientation somewhat similar to that of the UK are Denmark, Ireland and the Netherlands. There are those EC countries where the primary objective of preparation and presentation of external accounting reports by companies is to serve the requirements of fiscal authorities. Accounting principles in these countries have to be subservient to tax principles. Germany happens to be one such EC country whose corporate accounting practices are heavily geared to taxation. In this country, financial accounts of companies should be the same as their tax accounts (Nobes, 1984, p.10). There are still some other EC countries (eg France) where companies are required to prepare their financial accounts strictly in accordance with the uniform chart of accounts prescribed by governmental agencies. The main objective of company accounts in these countries is to provide data for use in planning and controlling aggregate economic operations. The accounting systems that are designed to serve the information needs of the governments have to be different in many significant respects from the accounting systems that are aimed at serving the information needs of investors and creditors.

The diversity in accounting practices that exists among countries within the EC is clearly a great hindrance to the efficient and effective functioning of the EC common market. This is why the EC has been endeavouring hard to promote measures for harmonising accounting practices across its member countries. If the intercountry accounting diversity is too high in that case it becomes difficult to make any meaningful comparisons between company accounts prepared in different countries. The lack of comparability creates serious problems especially for those investors that are interested in buying shares of companies located in different countries. The profits that are reported by companies in their published accounts generally tend to serve as an important basis for comparing their financial performances. But if the rules and principles that constitute the basis of measurement of profits differ from one country to another then making valid comparisons between the profit figures of companies located in different countries is very likely to appear to be a complicated task. It is not reasonable to expect that all investors will be equally proficient in making reconciliation between the profits that are computed using dissimilar accounting principles and rules. Comparability between company accounts prepared in different countries can be enhanced through harmonisation.

The diversity in accounting practices that exists among countries within the EC is a source of trouble for those EC companies that seek stock market listing facilities in different EC countries. Stock markets require companies seeking listing facilities to comply with certain accounting requirements. If these requirements vary from one country to another, securing multiple listings by companies then becomes a difficult task. It is indeed a very costly exercise for companies to produce different sets of accounting reports in conformity with the differing accounting requirements prescribed by the stock markets of different countries. This problem can be obviated if the EC can harmonise accounting practices across its member countries.

Intercountry accounting diversity sometimes creates problems for the fiscal authorities. Countries may arrive at an agreement to the effect that they will adopt uniform policies with regard to taxing company profits. But if the bases of measurement of company profits differ from one country to another then companies in different countries will be affected differently despite their being required to pay tax on their profits at a uniform rate. This is another important reason why the EC considers it necessary to promote accounting harmonisation among its member countries.

Intercountry accounting diversity is also a formidable obstacle to making optimum decisions in the sphere of cross-border mergers and acquisitions. According to Hulle (1993, p.77), it is the lack of accounting harmonisation that makes it impossible to create a level playing field for mergers and acquisitions within the EC. Merger and acquisition decisions are based on data, a major part of which is derived from published company accounts. If company accounts in different EC member states are prepared using dissimilar accounting principles and rules then this is sure to create some serious problems for those taking cross-border merger and acquisition decisions within the EC. Hulle (1993) identifies still one more reason why the EC should harmonise accounting practices across its member states. At present it is not possible for a company registered in one EC member state to shift its registered office to another EC member state. According to Hulle, "(n)egotiations between member states on this issue will only succeed if there is enough harmonisation" (p. 77).

III. The Mechanisms of EC Accounting Harmonisation

It has been stated earlier that the EC's accounting harmonisation mechanisms are its directives on company law. The EC company law directives are different in many respects from the EC regulations. The EC regulations are directly applicable, but the EC directives are binding as far as the results to be achieved are concerned. Member states have the liberty to choose the form and method of implementation of the directives issued by the EC from time to time. But as soon as a directive

is incorporated into national law, it becomes binding for all companies covered by it. The issuance of a directive is, however, a very complicated affair. It has to pass a lengthy process before it is finalised. After the adoption of a directive by the EC Council, it may still take a very long time for getting it implemented by all the member states. The EC normally gives member states sufficient amount of time for implementing its directives. If a member state fails to implement a given directive within the stipulated time, the EC Commission may then take the state before the European Court of Justice (ECJ).[3]

Before issuing a final directive, the EC Commission prepares a draft directive and circulates the same to member states for review and comment. It becomes often necessary to reissue a given draft directive several times with a view to giving it an acceptable shape. When the directive reaches its final stage, the EC Commission then sends it to the EC Council for approval. If the necessary clearance is obtained from the Council, the directive is then sent by the EC Commission to the member states for ratification.

The EC directives on company law deal not only with accounting matters but also with various other matters relating to the governance of companies. Since this study is concerned with accounting harmonisation, it will take into consideration only those directives that have accounting implications. There are a number of EC directives on company law that contain requirements relating to the preparation and presentation of company accounts. These requirements are discussed below.

Accounting Requirements under the First Directive

The first directive was issued in 1968. It contains several provisions relating to company accounts. But these provisions are very general in nature. The directive requires member states to keep public registers of all companies operating in their respective territories. Under this directive, it is obligatory for all registered companies to submit their annual accounts. It is also specified in the directive that the accounts to be submitted by companies must be audited by statutory auditors.

Accounting Requirements under the Fourth Directive

The fourth directive was issued after just ten years from the issuance of the first directive. It is, in fact, the most important of all the accounting-related directives that have so far been issued by the EC. it contains detailed provisions relating to accounts formats, valuation and measurement rules and disclosure guidelines. The directive has been prepared by combining elements of the Anglo-Saxon professional

[3] The ECJ is the final court to which disputes on EC law can be brought and national courts must accept and implement the judgements of the ECJ.

judgement-based accounting and the continental European codified systems of accounting. The most important Anglo-Saxon element that has been included in the directive is the overriding obligation to provide a "true and fair view" of the company's financial health and performance. Another important feature of the Anglo-Saxon accounting model that has been incorporated into the directive is the recognition of the fundamental accounting concepts. The fundamental accounting concepts are the broad basic assumptions that underlie periodical company accounts. According to the UK accounting standard SSAP 2, there are four fundamental accounting concepts that have general acceptability : going concern, accruals, consistency, and prudence. The EC directive has also formally recognised these four fundamental accounting concepts as having general acceptability.

The most important continental European accounting feature that has been incorporated into the directive relates to the standardisation of accounts formats. The first draft of this directive was heavily influenced by the German codified system of accounting, but after the inclusion of the UK in the Community the draft directive was substantially changed. In the final version of the draft, some sort of a balance has been maintained with regard to the incorporation of the elements of the British and continental European accounting practices.

Under the directive, companies are required to produce accounting reports which must contain a balance sheet, a profit and loss account and notes to the accounts. The directive has not made it obligatory for companies to prepare any kind of cash or funds flow statement. Both the balance sheet and the profit and loss account have to be prepared by companies in accordance with the prescribed formats. In the case of the balance sheet, the directive permits member states to choose between the vertical and the horizontal formats. It is provided for in the directive that the balance sheet at the beginning of an accounting period must correspond to the balance sheet at the end of the preceding accounting period. Departures from this rule are permitted only in exceptional circumstances. Companies must prepare their balance sheets using the same layout consistently. It is also obligatory, under this directive, to use the same prescribed numbering, nomenclature and terminology. Items may be combined only if they are immaterial. Each categories of assets and liabilities are to be valued separately, and setoffs between assets and liabilities are strictly prohibited.

The directive has four options in the matter of formating the profit and loss account. Companies can use (1) a vertical or (2) a horizontal approach in conjunction with a choice between (3) listing expenses by function, such as costs of goods sold and administrative and selling expenses, or (4) listing expenses by class, such as purchases, rent, rates,

depreciation, wages and salaries. Any member state, if it so likes, can reduce the number of alternatives. If no such thing is done, the choice is then left to individual companies.

Measurement prescriptions

The directive contains many important prescriptions relating to the measurement of financial statement elements. The specific elements covered include property, plant and equipment, intangibles, intercorporate investments, inventories, organisation expenses, long-term debts and other liabilities. With regard to property, plant and equipment it is provided for in the directive that they have to be depreciated by systematic annual charges to operations. As far as goodwill, formation and start-up expenses and research and development costs are concerned, the directive maintains that an amortisation period not exceeding five years should ordinarily be used. Member states may permit a longer amortisation period in the case of goodwill and research and development costs, but such longer period must not exceed the assets' useful economic life.

The directive's prescription in the matter of inventories is that the lower of cost or market rule has got to be followed. Member states are allowed to permit companies to adopt the actual cost, FIFO, LIFO, weighted average or a similar cost in ascertaining inventory amounts. If there is a material difference between the replacement cost and the costs that are actually assigned, companies must disclose the difference. The cost or market rule which is applicable to inventory is also to be used in connection with valuing other categories of current assets. If any lower value is used for commercial reasons, necessary adjustments must be disclosed in the profit and loss account or in the notes to accounts.

The requirements concerning intercorporate investments are as follows. All holdings in affiliated companies must be valued at costs. The equity method may also be used but in such a case it becomes necessary to make full disclosure of all changes in intercorporate investment accounts. It is not permissible to include the unrealised equity method income from affiliates in the distributable income of the investor company.

Requirements Relating to Inflation Accounting

Member states may permit or require a type of inflation accounting. But detailed specifications to this effect have to be provided for in national laws. If a member state introduces any form of inflation accounting in place of historical cost accounting, it must inform the EC Commission that it has reserved the right to authorise or require such a system. Article 33 lays down a number of conditions for inflation accounting. If there arises any surplus as a result of introduction of a system of inflation accounting, it has to be taken to revaluation reserve. This revaluation reserve cannot be distributed unless realised. As far as the balance sheet

items are concerned, historical costs must continue to be disclosed. The profit and loss account may be drawn up as an ordinary historical cost account with inflation adjustments shown separately.

Disclosure Requirements

The directive sets out in great detail information which must be disclosed in the notes to the accounts. Article 43 is designed to deal with these disclosure requirements. The areas covered by the disclosure requirements include accounting polices, significant share holdings, share capital, profit sharing securities, taxation, turnover, and employees. Much emphasis has been placed in the Article on the disclosure of accounting policies. Companies are required, under this Article, to disclose the accounting policies they have adopted in the matter of valuation and value adjustments (depreciation). It is also obligatory for them to state clearly the basis they have adopted in converting foreign currency accounts. Another very important disclosure item is taxation. Companies must disclose in the notes to their accounts particulars needed to measure the extent to which the results for the year under consideration have been affected by tax treatments. If there is a material difference between the tax charge for the year and the tax actually payable then the accounting treatment of this must be clearly stated in the notes. This disclosure requirement has been prescribed mainly because of the fact that the tax advantages granted to companies differ significantly from one country to another within the EC.

The Article has also laid a great deal of emphasis on the disclosure of significant shareholdings. If a company holds, directly or indirectly, capital interest of 20% or more in another company then it must disclose in the notes to the accounts the name and address of such company, the proportion of capital held and the amount of capital, reserves and profits and losses for the last financial year. When there is more than one such company, the required particulars have to be disclosed separately in respect of each such company. There are some exceptional circumstances under which companies may be exempted from disclosing particulars relating to significant shareholdings.

The Impact of the Fourth Directive

The fourth directive is a very comprehensive document and it contains many valuable prescriptions relating to company accounts. The directive has been described by Hulle (1990) as the "kingpin of accounting harmonization within the community". It was issued in 1978 and member states were asked to implement it within a period of two years. But most of the states failed to maintain the prescribed time schedule. Denmark was the first country to implement the directive. This implementation took place in 1981. The last country to implement the directive was Italy. It completed the implementation process in 1991.

Implementation of the directive has brought about many significant changes in company accounting and reporting practices in the EC. In the UK, the major change that has taken place as a result of the implementation of the directive is the standardisation of formats of published company accounts. Another noteworthy change that has been brought about by the directive's implementation in the country is the incorporation in company law of detailed prescriptions relating to the preparation and presentation of company accounts. Prior to the implementation of the directive the UK Companies Act contained only a few provisions relating to the form and content of published company accounts. Accounting practices in the country used to be determined in the past mostly by professionally determined accounting principles and standards. But after the implementation of the directive there has been a significant change in the situation. The Companies Act is now playing a very crucial role in regulating the form and content of the published company accounts in the UK.

For the most continental EC countries the major change in accounting practices that has been brought about by the directive is the introduction of the overriding requirement for published company accounts to give a "true and fair view". It is for the first time that most of these countries are being required to accept the position that legal rules may not always prove to be sufficient in the resolution of accounting and reporting issues. It is also for the first time that these countries are being required to learn that legal rules may even prove to be misleading at times. The "true and fair" override was not there when the first draft of the directive was prepared prior to the accession of the UK to the EC. This was incorporated at a later stage mainly because of the UK's insistence.

The "true and fair view" is an Anglo-Saxon concept and its original source is the UK. The concept first appeared in the British Companies Act 1947. Initially, the requirement was that of giving a "true and correct view". But the phrase was subsequently changed with a view to accommodating the growing belief that "correct" was too precise a word to reflect accounting practices (Rutherford, 1985). The replacement of the word "correct" by the word "fair" did not, however, create any immediate additional implications for accounting practice. One of the reasons why this became so is that the Act did not offer any indication as to what it intended to mean by this concept. The Act is still silent about the meanings that should be attributed to it. The EC fourth directive, which has adopted the concept, has also not made any endeavour to explain how the same should be interpreted.

The "true and fair view" requirement exists not only in the UK but also in several other Anglo-Saxon countries. The requirement has also been incorporated into national legislations of many non-Anglo-Sazon

countries that have adopted the Anglo-Saxon acounting model. But the status of the concept is not the same everywhere. For example, in Australia, directors are required to provide additional explanations and additional pieces of information with a view to enabling published company accounts to give a true and fair view. In the United States, to cite another example, there is the requirement of making a "fair" presentation. Published company accounts in this country are required to "present fairly in conformity with generally accepted accounting principles". What this implies is that the concept "fairness" cannot override the accounting principles. The UK is possibly the only Anglo-Saxon country where the "true and fair view" overrides both the law and the accounting principles. The UK position has been incorporated into the EC fourth directive. The implication of the EC "true and fair view" requirement is that there is an underlying reality or truth about the financial condition and performance of a company "the portrayal of which is more important than any particular rules of practice" (Nobes, 1993, p. 47). Thus, in order to be able to portray this underlying truth it may be necessary to disclose more particulars than are prescribed by the law. Furthermore, there may be circumstances in which it may even be necessary to depart from the prescribed rules for the sake of portrayal of the same truth.

The underlying truth referred to above is, however, not any immutable thing. It may change with the passage of time as a consequence of changes in the needs, expectations and understanding of the users of company accounts. The conception of the underlying truth may also vary from one country to another even at the same point in time. It is in view of this that many are of the opinion that the undefined "true and fair view" concept is very likely to be subjected to different interpretations in different EC member countries.

The fourth directive has a number of shortcomings. There are many important accounting issues that the directive has failed to tackle. According to Macharzina (1988, p. 135), the most crucial accounting issues that the directive has failed to tackle effectively include secret reserves, foreign currency translation, leasing, and sources and application of funds. The practice of maintenance of hidden or secret reserves is widely prevalent in many continental European countries. No effective measures have been promoted by the directive with a view to eliminating the possibility of creation of such reserves. What it has attempted to do is to impose some restrictions on undervaluation in the balance sheet and to prohibit compensatory netting in the profit and loss account. In the matter of foreign currency translation, the prescriptions provided for in the directive fall far short of the minimum necessary to achieve the desired degree of harmonisation. The directive is almost silent with regard to accounting for leases. This is also the case with regard to the preparation and presentation of the funds flow statement.

The directive contains provisions relating to inflation accounting, but these are not adequate. It is provided for in the directive that member states "may permit or require a type of inflation accounting, but there is no standardisation of current cost or current purchasing power adjustment, and no regulation as to whether adjusted statements should be the main or supplementary ones or merely notes to the financial statements" (Macharzina, 1988, p. 135).

Accounting Prescriptions under the Seventh Directive

The seventh directive is concerned mainly with group accounts. This directive was initially proposed in 1976 but finally adopted in 1983. It requires all groups to prepare consolidated financial statements in conformity with the formats prescribed in the fourth directive. One of the important provisions contained in the directive is that accounts of all groups of companies must be prepared in a single consolidated form. The overriding criterion of presenting "a true and fair view" contained in the fourth directive has also to be complied with in preparing group accounts. According to the provisions contained in the directive, groups are to be defined on the basis of control irrespective of the legal form of that control or the location or constitution of the subsidiaries. An endeavour has also been made in the directive to harmonise accounting practices in relation to joint ventures and associates.

Some of the main provisions of the directive, in addition to those mentioned above, are summarised as follows :

Composition of consolidated accounts : Consolidated accounts are to comprise a consolidated balance sheet, a consolidated profit and loss account and notes on the account. These documents constitute a composite whole and they must give a true and fair view of the financial position and results of operation of the undertakings comprising the group.

Size and consolidation : Consolidation is obligatory for all groups above a certain size. But if any member of a group is a listed company, then consolidation is obligatory regardless of the group's size.

Computation of goodwill : Goodwill is to be calculated only once at the date of acquisition. The calculation should be based on fair values and not on book values. Positive goodwill can either be amortized over a maximum period of five years or can be written off immediately to reserves.

Intercompany debts : All intercompany debts, transactions and profits are to be eliminated at the time of preparation of group accounts.

Consolidation date : Consolidated accounts are to be prepared as at the same date as the annual accounts of the parent company.

There are certain exceptional circumstances in which this rule can be violated.

Consistency : Consistency is to be maintained in the matter of application of consolidation methods from period to period. Methods once chosen cannot be altered except under certain restricted conditions.

Deferred taxation : Deferred taxation is to be recognised in the accounts. Exceptional value adjustments made with a view to taking tax advantages are to be disclosed in details.

Financial holding companies : Financial holding companies may be exempted from the need to prepare consolidated accounts.

The main objective of the EC seventh directive on company law is to harmonise consolidation practices across the Community countries with a view to enhancing comparability between the consolidated accounts prepared in different countries. According to Parker and Nobes (1989), harmonization in consolidated company accounts within the EC is likely to be of great assistance in the matter of controlling multinational companies by host countries.

The Implications of the Seventh Directive

The accounting prescriptions contained in the seventh directive have already been implemented by all the EC member countries. In the UK, the requirements contained in the directive have been incorporated into the Companies Act 1989. The Accounting Standards Board has also formulated a new accounting standard — FRS 2 — with a view to providing an interpretation for the amended legislation (ASB, 1992). This new standard has replaced the standard entitled SSAP 14 which has been in force since the late 1970s. But since the accounting requirements contained in the seventh directive have been formulated mainly on the basis of Anglo-Saxon consolidation practices, implementation of the directive has not materially affected the way in which consolidated accounts are prepared in the UK. The only noticeable changes that have been brought about by the directive's implementation in this country are redefining of a subsidiary in terms of economic control and exclusion of small groups from the consolidation net.

The directive has some major implications for those continental EC member countries whose accounting systems are oriented to tax laws (eg, Germany and France). As a result of implementation of the directive, it has now become necessary for these countries to make a number of adjustments in the accounts in respect of the entries that are made in conformity with tax rules rather than financial accounting principles. Implementation of the directive has also resulted in bringing about many profound changes in those EC member countries where consolidation

practices have either been unknown or less known in the past. The countries where consolidation has appeared almost to be a new phenomenon include Greece, Italy, Luxembourg, and Spain. The directive is not expected to create any significant impact on accounting practices in the Netherlands because the Anglo-Saxon type of consolidation had been well-established in the country long before the directive was formulated.

The directive has been criticised from various quarters on several grounds. Many have criticised the directive by saying that it is too flexible to permit various kinds of options. According to a survey conducted by the FEE[4], the directive contains as many as 51 options. Nobes (1990, p.85) has pointed it out that if the options contained in the directive are assumed to be yes/no options then there can be two zillion ways in which the directive's implementation can be accomplished. Some have criticised the directive on the ground that it has tended to avoid those issues that appear to be controversial and for which consensus seems to be difficult to achieve. It is, however, expected that the deficiencies of the directive will be made good when it will be subjected to review after the expiry of the initial observation period.

The EC Eighth Directive

The EC eighth directive was formally adopted in 1984. The main objective of this directive is to prescribe qualifications of persons eligible to carry out statutory financial audit. It is provided for in the directive that both natural persons and audit firms may be authorised to carry out legally required financial audit. In the case of an auditing firm there is a requirement to the effect that the firm must be so organised that a majority of voting rights are held by those natural persons who possess the minimum qualifications and experience specified in the directive.

The directive is also concerned with independence of auditors, but it has not laid down any conditions with regard to this ; member states have been given discretionary power to prescribe conditions of independence.

Accounting Prescriptions under other Directives

The directives discussed above are the most important ones in the context of accounting. In addition to these directives there are some other directives that also contain provisions relating to accounting. The Directive of 8 December 1986 is one such document. This directive is, in fact, an extension of the fourth and seventh directives. Its main concern lies in

[4] FEE stands for Fédération des Experts Comptables Européens. It is the umbrella body for the accountancy profession in Europe. Its membership comprises professional accountancy bodies from over twenty countries. The main objective of the agency is to study international accounting differences and to contribute to their removal.

dealing with the annual accounts of banks and other financial institutions. The directive offers prescriptions relating to accounting formats, valuation of investments and hidden reserves. It has also some provisions with regard to financial instruments.

Another directive containing provisions concerning accounting is the Directive of 21 December 1988. This directive is usually referred to as "Mutual Recognition Directive" (MRD). It aims at facilitating free movement of professionally qualified persons within the Community. Free movement of professionally qualified persons is possible only if one country recognises professional qualifications of other countries. The directive has not made it obligatory for any EC member country to directly recognise the professional qualifications held by all migrant professionals. Instead, it maintains that "host member states may require migrant professionals to make good any deficiency between the original qualifications and those they seek to acquire in the member states where they wish to practise" (Williams, 1990, p.21). The adaptation needed to get the recognition can be effected either by an aptitude test or through a period of supervised practical experience, but not both. If the profession is of such a nature that a knowledge of law is essential then member states may stipulate the kind of adaptation they will require. Since the EC has recognised the accounting profession as a "legal" profession, the adaptation method for the migrant accounting professionals will be dictated upon by the host countries.

There is still one more directive containing provisions relating to accounts. This is the Directive of 13 February 1989. It is concerned with the publication of annual financial statements by the branches of credit and financial institutions having their head offices in other EC member countries. These institutions are covered by consolidation requirements. But if the consolidated accounts fail to satisfy the requirements specified by the 8 December 1986 Directive then member countries may require the branches to prepare financial statements on the basis of their own activities only.

IV. Appraisal of the EC Accounting Harmonisation Programme

The EC seems to be quite serious in promoting measures for harmonising accounting practices across its member countries. It has been trying to harmonise accounting practices mainly through harmonising the rules and principles that constitute the basis for preparation and presentation of accounting reports by companies. Its directives on company law have made a very valuable contribution towards reducing differences in national accounting rules and principles. The directives have particularly been useful in enhancing the quality of company accounts in many Community countries. There are, however, many areas where

national differences in accounting requirements still continue to exist. Some of these differences are of such a nature that they cannot be reconciled or removed without the resolution of the problems that exist at the conceptual level. The EC has not yet been able to develop any mechanism by means of which it can effectively tackle the fundamental issues in the field of accounting and reporting.

The EC directives that are concerned with prescribing the form and contents of published company accounts are characterised by a great deal of flexibility. In many cases they permit a very wide range of options. The EC has found it necessary to allow two or more alternative treatments in respect of the same item in order to accommodate the conflicting viewpoints of its member countries. It is true that an agency like the EC cannot maintain too much rigidity in the matter of formulation of its accounting rules and principles, but if it becomes too much liberal in permitting alternatives then the very basic objective of enhancing comparability between accounting reports prepared in different countries is bound to get frustrated. If the goals of increased harmonisation are to be achieved then the EC must reduce the number of acceptable alternatives.

The EC directives are often subjected to different interpretations in different countries. This is another great impediment to promoting accounting harmonisation across member countries. The reason why the directives are subjected to different interpretations in different countries has been explained by Holgate (1990) thus :

> Quite literally, when a phrase like 'realised profits' is expressed in 10 or so languages, something is lost in the translation. Translation differences apart, a country with a tradition of true and fair reporting, of profit measurement geared towards capital markets and of a strong accounting profession, will interpret the notion in a very different way from one dominated by bankers and with a tradition that financial reporting is geared towards conservatism and tax assessment (p.27).

The problems that are encountered by countries in interpreting the directives can be mitigated to a great extent if the documents are formulated in a very comprehensive manner and if adequate explanations are provided with respect to items or issues having conceptual implications.

The use of directives on company law as a means of harmonising accounting practices is a unique phenomenon which is found only in the EC. Many have criticised the EC approach to accounting harmonisation by pointing it out that the directives on company law, the formulation of which involves a highly politicised process, cannot be much effective in promoting harmonisation in accounting practices across countries. According to these people, it would be much better for the EC if it would

assign the task of formulation of accounting principles and rules to a specialised agency. At one stage, the EC also began to entertain the idea that the establishment of a European accounting standard setting body would provide a better solution to the accounting harmonisation problem. This issue came up for discussion in a two-day conference organised in Brussels in January 1990. But those who took part in the conference took a decision to the effect that the idea of constituting a European standard setting body would be dropped and, instead, an accounting advisory forum would be set up with the specific purpose of bringing together national standard setters, representatives of the accountancy profession, and preparers and users of company accounts. Such a forum has already been set up. The main function of the forum lies in giving advice on the accounting requirements specified in the EC directives, assessing the needs to formulate additional requirements and commenting on how the harmonisation process can be made more fruitful and more effective.

The EC has probably done a very right thing by abandoning the idea of constituting a new body for the purpose of development of European accounting standards. If such a body would be constituted, it would create an additional layer between national and global standards. Although the EC is concerned with harmonising accounting practices only among its member countries, it has also to take into consideration the harmonisation programmes that have been initiated elsewhere in the world. It has particularly to be concerned with the harmonisation efforts being made by the agencies operating on a global scale. As a matter of fact, pressures are now mounting on the EC to coordinate its efforts with those of the International Accounting Standards Committee (IASC) which is operating with the principal objective of development of accounting standards capable of serving as a basis for global accounting harmonisation. The EC can play a very important role in increasing the effectiveness of the IASC's efforts if it uses IASC standards as the basis of promoting its own harmonisation. Of late, the EC has started thinking along this line. It has already recognised the necessity for increasing the closeness of its ties with the various wings of the IASC. The EC representative is now attending the meetings of the IASC Consultative Group on a regular basis. According to Anthony Carey, the Secretary to the erstwhile UK Accounting Standards Committee's International Sub-committee, "the decision of the EC to support IASC as the appropriate channel through which to promote harmonisation within the Community and between it and outside countries, is a practical solution" (Carey, 1990, p.93). He also points it out that the EC support is "a way forward because it saves reinventing the wheel and allows IASC's harmonisation project to proceed without delay" (p.93).

V. Concluding Comments

In recent years there have occurred many spectacular and far-reaching changes in the environment of world business. With the relaxation of restrictions on the movements of goods and capital, repaid expansion has taken place in cross-border trading and direct investments. Global capital markets have come into being and business operations have become global in the real sense of the term. The hostility of countries, particularly those of the Third World, towards multinational companies has almost vanished. This has enabled those companies to expand the geographical spread of their operations on a scale hitherto unknown in the history of world business. These developments have brought in their wakes several important implications for accounting. Accounting is the language of business. So if business operations become global then there also arises a need for the language of business to become a global language. But accounting has been rather slow to adapt itself to the changing needs of its environment. The language of accounting is still very much a national language. Efforts are now being made from various quarters to promote measures for harmonising accounting practices throughout the world. The IASC happens to be the most prominent of the agencies that are currently involved in global accounting harmonisation. The agency has been struggling hard to draw up a set of definitive accounting standards in order to provide a basis for internationally comparable accounting reports. To date, it has produced thirty-one 'accounting standards on various important accounting and reporting issues. These standards have started gaining support from the international business community. The International Organisation of Securities Commission (IOSCO), which is the international representative body for securities exchanges, is now seriously considering a proposal for giving official backing to IASC standards. Since the resources of the IASC are very limited, it often experiences a great deal of difficulty in providing the infrastructure needed to develop effective solutions to critical accounting problems. The operational efficiency of the IASC will be greatly enhanced if the EC extends its full cooperation and support in all possible ways.

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BOOK REVIEW

Audit Management, T. P. Maitin, South Asia Publications, Delhi, 1994. Price Rs. 120.

The author conceived the idea of writing a treatise on Audit Management while on a foreign assignment in Nigeria. He felt that auditing being an extremely important branch of the ever-growing subject of Management, there was a need for re-examination of the existing procedures of audit practised by the Accounting Profession and the publication of the book "Audit Management" is a result of such feelings.

In the dissertation the author had necessarily to consider the role auditing takes in assisting and formulating management processes and this required recapitulation of the existing procedures and ideals and inevitably much of what is actually done in practice presently has been narrated in the book. What makes the book useful is the new methodology suggested by the author in the practice of auditing. In his view the Auditor must devote his attention not merely to what is revealed by the records, but also should examine whether the persons involved directly in the management of the organisation under audit have been doing their jobs in the proper manner. Although he has not stated so directly, one gets the hint that the Auditor should also consider the reasonability and prudence of transactions undertaken by the organisation. This idea is slowly but surely gaining momentum, although the auditors generally do not support this approach.

In the author's view modern audit techniques put greater reliance upon the review of systems rather that on the review of records.

In his book, Maitin has referred to the observations of many authorities and has also cited a number of court decisions concerning audit of accounts.

The author hopes that the views expressed by him will help others to devote further thoughts as to how the work of auditing can be developed in such a manner as to satisfy the needs of the users and bring greater credibility to published accounting statements.

Sukumar Bhattacharya
Calcutta

INTERNATIONAL CONFERENCE NEWS

40th World Conference
International Council for Small Business
Sydney, Australia
June 18-21, 1995

The 40th World Conference of the International Council for Small Business (ICSB) and the Small Enterprise Association of Australia and New Zealand (SEAANZ) will be held at the Sydney Convention Centre, Darling Harbour, Sydney, Australia, from June 18-21, 1995. The *conference theme* **"skills for success"** will involve concurrent sessions covering contemporary research and developments in small enterprise from around the world. Papers, workshops and seminars will focus upon the skill requirements of small and medium enterprises and linked to the conference theme will cover the following areas :

* Success for small enterprise
* Education and training
* Entrepreneurship
* Family business
* Human resources
  Government policy/ strategies
* Internationalisation
* Third world and transforming economies
* Business developments
* Franchising
* Community based small enterprise centres.

Complementing the concurrent sessions will be plenary sessions featuring leading Australasian and International Keynote Speakers drawn from government, academe and practising professionals.

Participation is open to all persons interested in and supporting small enterprises through research, education, government policy and private and public sector advisory services.

Deadlines

Deadline for receipt of workshop and panel proposals :	31 January 1995
Deadline for receipt of conference papers :	31 December 1994

Registration Fees

	Payment received before 17.4.1995	*Payment received after 17.4.1995*
Member ICSB & Affiliates	A$ 530	A$ 595
Non-member	630	695
Accompanying Persons	290	290

Payment from overseas can be made by either credit card (Mastercard or Visa) or by International bank cheque payable in Australian Dollars (A$) drawn on an Australian Bank and made payable to **ICSB Conference.**

Address for communications

The Secretariat
ICSB 40th World Conference
G.P.O. Box 128
Sydney, NSW 2001
Australia

Fax : 61-2-262-2323

Tel : 61-2-262-2277

Telex : AA1 76511 (TRHOST)

Second Annual Conference of Accounting Academics
Hong Kong
June 8-9, 1995

The Education Interest Group under the Management Accounting Committee of the Hong Kong Society of Accountants will hold the Seventh Annual Conference of Accounting Academics on June 8-9, 1995, in Hong Kong. The *theme* of the conference is **"Accounting in Asia-Pacific : Trends and Issues."** The conference offers an excellent opportunity to meet other professional and academic colleagues from around the world and exchange views on a wide variety of accounting developments in the Asia-Pacific region. Topics of interest include but are not limited to :

* International accounting
* Information technology for accountants
* Trends in accounting research
* Ethics in accounting
* Developments in finance
* Financial accounting
* Management accounting and changing technology
* Issues in auditing
* New dimensions in taxation
* Innovations in accounting education
* Accounting in the public sector
* Corporate governance
* Environmental accounting

Guidelines for contributors

1. Each contributor should submit three copies of the paper along with an IBM PC diskette by *27th January, 1995.*
2. Each paper should include a separate cover page with the title, the name(s), affiliation(s), telephone and fax number(s) and address(es) of the authors along with an abstract of no more than 100 words.
3. The first page should commence with the title (do not include the author's name) and the text should be single spaced and of no more than 10 pages.

4. Diskette should be in Word Perfect or Wordstar formats (indicate the software and the version used).
5. All submitted papers will be subject to a blind review process. Notification of acceptance will be made by mid-March, 1995.

Address for communications

Mr. D. C. Oxley
7ACAA Conference Chairman
Education Interest Group
Hong Kong Society of Accountants
17th Floor, Belgian House
77-79 Gloucester Road
Wanchai, Hong Kong

Fax : (852) 865 6603

Tel : (852) 766 7044

IAA NEWS

Amendments to the Constitution of the Indian Accounting Association

[Minutes of The Special General Body Meeting of The Indian Accounting Association, Held at Kousali Institute of Management Studies, Karnataka University, Dharwad, on 30th May 1994 at 10.30 A.M. & Chaired by Prof. N. M. Khandelwal, The President of IAA.]

Clause 1 : Name :

The Association shall be called Indian Accounting Association and its Head Office shall be at M. L. Sukhadia University, Udaipur. The Association shall have its emblem. Administrative/Executive office will move with General Secretary.

Clause 4 (b) : Membership fee :

Membership fee in India shall be as under :

i) Life membership Rs. 750

ii) Ordinary Membership Rs. 100

iii) Associate Membership Rs. 50

iv) Institutional Membership—Permanent : Rs. 1,500 ; Annual Rs. 500

Clause 4 (b) : The official year of the Association shall be from April 1 to March 31 i.e. the Financial year.

Clause 8 :

The Management of the Association shall vest in the Executive Committee which shall consist of :

a) President

b) Two Vice-Presidents (Senior and Junior)

c) General Secretary

d) Treasurer

e) Chief Editor

f) President, IAA Research Foundation

g) Nine Elected members of which not more than two will be local branch secretaries.

h) Three co-opted members for one year term, of which at least one of them will be forthcoming Conference Secretaries.

i) Permanent Invitees (non-voting members) :

(i) Past Presidents, (ii) Honorary members, (iii) Patrons and Fellows of IAA.

Clause 8(c) : Nomination Committee for nominating the Junior Vice-President

The Junior Vice-President shall be nominated by a Nomination Committee consisting of the following :

i) President of the Association

ii) Senior Vice-President

iii) Three members nominated by the Executive Committee

iv) Two senior members elected by the General Body.

Clause 10(1) : Meetings :

Annual General 10(a)

10(a) Annual General Meeting of the Association shall ordinarily be held latest by December 31st, following the end of the financial year. It will require 14 days' clear notice.

Clause 11 : Election

The earlier provision read as follows :

"Arrangements for election may be made by postal ballot or any other method approved by the Election Committee. Nominations duly proposed and seconded should reach the General Secretary at least one week before the date of election.

It was resolved to add a new provision :

The Election Committee shall consist of the following :

a) President

b) Senior and Junior Vice-Presidents

c) General Secretary

Clause 14 : Local Branches

(e) 50% of the "membership fee" of local branches shall be transferred to the account of the Association with the Treasurer along with a list of members with full postal addresses under intimation to the President, the General Secretary and the Chief Editor.

It was resolved to add two new sub-clauses viz. –

(f) The Local Branch Secretary shall submit a copy of the annual report and duly audited final accounts of the Local Branch to the General Secretary within three months of the end of a financial year.

(g) In the event of failure to submit the annual report and/or duly audited final accounts by a Local Branch within 6 months, the Executive Committee may decide to take serious action against the Local Branch including withdrawal of recognition after giving due notice to the Local Branch Secretary.

Sd/ D. Prabhakara Rao
General Secretary, IAA

IAA BRANCH NEWS

Vizag Branch

A National Seminar on Globalisation Policy : Prospects and Problems of Indian Industry was organised by the Indian Accounting Association, Visakhapatnam Branch, at Hotel Daspalla on 4th September, 1994.

While welcoming the delegates Prof. D. Prabhakara Rao highlighted the pros and cons of globalisation process in India. He urged the Indian industry to take advantage of market driven cost models and JIT systems of cost management to become more competitive in the global markets. He also brought to the notice of the house the initial impact of economic liberalisations on different sectors of the Indian industry including the agricultural and service sectors.

While inaugurating the seminar, Prof. M. Gopalakrishna Reddy, the Vice-Chancellor of Andhra University, said that the people of India should be eternally vigilant of the effects of globalisation process. They should be prepared from all angles to integrate themselves with the economic reforms that are being initiated by the Government of India in recent times.

Master Parvathi Kumar, the Chairman of IAA Visakhapatnam Branch, briefed the audience of the impact of globalisation on specific industrial units in Visakhapatnam and also the long-term effects of the process on the Indian economy. Prof. D. V. Ramana, the Technical Chairman of the Seminar and former United Nations Economist, educated the audience of various provisions of Dunkel proposals and their implications in the short and long-run for economic development of India on various fronts. Prof. P. K. Sahu and Prof. Mohanty explained the effects of foreign Institutional investments on the Indian capital market as well as the industrial progress. About 100 members, including academicians, executives, professionals and scholars participated in the Seminar.

The Seminar concluded with a hearty vote of thanks by Prof. D. Prabhakara Rao, the Seminar Director.

THE INDIAN ACCOUNTING ASSOCIATION

The Indian Accounting Association is an organisation of persons willing to assist in the advancement of accounting education and research. The registered office of the Association is at the College of Commerce and Management Studies, M. L. Sukhadia University, Udaipur-313001, India. Membership of the Association is open to academics and professionals who are willing to assist in achieving the objectives of the Association.

The membership fees for individuals are as under :

	India	Abroad
Life	Rs. 750	US $ 100
Annual	Rs. 100	$ 25

Members are entitled to participate in the activities of the Association and receive a free copy of the Indian Journal of Accounting and selected research publications.

INDIAN JOURNAL OF ACCOUNTING

Indian Journal of Accounting is an official publication of the Indian Accounting Association. It is published twice a year, in June and December respectively.

The subscription rates are :

Individual	**India**	**Abroad**
	(Rs.)	(US $)
Annual	100	25
Life	750	100
Institutional		
Annual	500	100
Permanent	1,500	250

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(Sd/-) Dr. D. Prabhakara Rao
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