CHAPTER VI

MAJOR FINDINGS AND CONCLUSIONS
The main objective of financial reporting is to communicate information about the resources and performance of an enterprise to the users of financial statements to enable them to take rational economic decisions focusing on the present and future ability of a firm to generate favourable cash flows. However, doubts have been expressed regarding the authenticity and reliability of financial statements prepared on the basis of historical costs.

Historical Cost Accounting (HCA) ignores the decline in the purchasing power of money during inflationary conditions, which distorts the reported profits and financial position of an enterprise. The profit figure is inflated due to an underestimation of the depreciation provision and cost of sales, resulting in capital levy and capital distribution. Due to non-recovery of costs and rise in working capital requirements, the firm experiences a financial strain. Purchasing power gains/losses arise on monetary items. Interpretation of financial statements and appraisal of investment projects becomes difficult. Thus, inflation distorts the information presented by financial statements prepared on historical cost basis. The need for presentation of meaningful and reliable accounts in times of inflation led to the development of 'Inflation Accounting'.

Inflation accounting refers to a variety of accounting techniques which help to mitigate the impact of rising price levels on financial statements through various adjustments in the accounting process. Among the various proposals, the two most important and widely suggested methods of inflation accounting are Constant Purchasing Power Accounting (CPPA) and Current Cost Accounting (CCA). A proposal may combine both concepts known as the Hybrid model.

CPPA involves a restatement of items in the financial statements in units of (period end) constant purchasing power using a general price level index. It recognises purchasing power gains (losses) on monetary items. Income is reported after the general purchasing power of shareholder's equity has been maintained. It is based on the same principles as HCA and satisfies the basic requirement of objectivity.
Current Value Accounting (CVA) generally refers to those accounting methods in which asset values are determined by reference to the present time dimension of value. The application of this concept primarily results in the reporting of holding gains (as distinct from operating income) which are treated as an adjustment to opening capital value under the operating capacity concept of capital maintenance. Replacement Cost Accounting (RCA) and Current Cost Accounting (CCA) are variants of CVA. CCA is the most widely accepted inflation accounting technique.

Under CCA, non-monetary assets are shown in the balance sheet at their 'value to the business' which is the lower of replacement cost and recoverable amount (if recoverable amount, then it is the higher of Net Realisable Value and Net Present Value). Income is reported after the operating capacity of the enterprise has been maintained, for which three adjustments, Depreciation, Cost of Sales Adjustment and Monetary Working Capital Adjustment are made to the historical cost trading profit. To determine the income attributable to shareholders, a gearing adjustment is made. The Current Cost Reserve in the balance sheet includes unrealised revaluation surpluses on fixed assets, inventory and investments and realised amounts equal to the net CCA adjustments. But the method provides ample scope for discretion and subjectivity in the valuation of assets. CCA based income figures are not accepted by tax authorities. Further, CVA is not a uniform accounting method but a family of accounting techniques and the concepts of 'Current Value' and 'Capital Maintenance' are difficult to perceive.

Hybrid models were also proposed by academicians like Richard F. Vancil, Revsine and Thies and a few accounting firms (Arthur Anderson & Co. and Touche Ross & Co.). Although, an attempt was made to eliminate the drawbacks of CPPA and CCA, the hybrid models could not command widespread support.

Various concepts of asset valuation have also been proposed. A valuation concept which is most useful for economic decisions should be choosen. The historical cost concept adds the costs of assets acquired in
different time periods representing different purchasing power and thus presents distorted figures. CPPA does not measure changes in the prices of specific assets. It only measures changes in the measurement unit. The methods associated with current valuation are exposed to various interpretations. Conceptually current value has three meanings, viz. Replacement Cost, Net Realisable Value and Present Value of Future Cash Flows.

The use of Replacement Costs was advocated by Bauer, Mac Neal, Paton & Paton and others. Significant contributions to replacement cost theory include, Edwards & Bell contribution, Sprouse & Moonitz Postulates and principles, Revsine's Replacement Cost Theory and Limperg's Replacement Value Theory. But the replacement cost method was criticised on the grounds that it was subjective, it lacked Comparability, it was the price of an asset which the company did not own and that it favoured an entity view of management as opposed to the proprietorship view.

The Net Realisable Value (NRV) concept was advocated by Mac Neal and later developed by Chambers and Sterling. Chambers coined a new term 'Current Cash Equivalent' (CCE=NRV) for all assets, representing their market resale price under conditions of orderly liquidation. Although the concept eliminates the depreciation provision it excludes items that do not have a contemporary market price. Relevant quotations may also not be available. However, Chambers developed the concept into a full fledged accounting system called 'Continuously Contemporary Accounting'.

The Present Value Accounting (PVA) concept developed by Hansen represents the sum of the future market prices of all streams of service to be derived, discounted by probability and interest factors to their present worth. Although the concept is relevant for monetary assets, it is subjective. Further, it lacks the additive property.

Another concept of asset valuation is the 'Deprival Value' (DV) concept advocated by Bonbright and favoured by the Sandilands Committee. It
measures value to the owner as the loss which would be suffered, if the business is deprived of that asset and is derived by drawing alternative cash budgets.

As far as inventory valuation techniques are concerned, FIFO method charges remote prices to production giving rise to inventory profits while LIFO method charges current (or close to) costs to production and average costing gives a figure between the two. Although LIFO is appropriate for a reliable income figure, it requires elaborate calculations when stock includes a large variety of items and may be inaccurate when physical increments/decrements affect closing stock. The need for stable stock figures to maximise tax benefits may also interfere with the interests of the firm. But the main drawback of LIFO is that it reflects remote inventory figures in the balance sheet for which FIFO seems more appropriate as it tends to reflect current prices in the balance sheet. Although no generalisations can be made regarding the superiority of any method, LIFO is more widely in use in most countries.

It may therefore be concluded that due to the subjectivity and variety of valuation techniques inherent in current valuation, assets are valued at different prices.

The earliest development in the international field in inflation accounting took place in the 1920s in France, Germany, Netherlands and U.S.A.. Brazil adopted the indexing method in 1964. Since then, other South American countries have also adopted adjustments for price level changes. Lately South Africa, Israel, Indonesia and other Asian countries, are also taking a keen interest in inflation accounting.

Earlier pronouncements in Australia and New Zealand recommended CPPA. Influenced by the Sandilands Committee's recommendations, accounting bodies in both countries now recommend CCA. The Canadian Accounting Standard issued by CICA in 1982, required large publicly held companies to disclose supplementary current cost information on items on
which the effect of price changes are significant. The standard appears to be a combination of FAS 33 and SSAP 16.

In U.S.A., ARS 6(1963) issued by the Research Division of AICPA and the APB statement No. 3 (1969), both recommended GPLA. However, ASR 190 issued by SEC in 1976 required disclosure of replacement cost data. FAS 33, one of the most widely recognised standards on the subject, was issued by the FASB in 1979. It required certain public enterprises to disclose supplementary information on constant dollar and current cost basis. Failure to choose between CPPA and CCA, the subjective nature of determining value-in-use, different procedure of writing down if current cost exceeds NRV and partial restatement basis Vs. comprehensive basis were the main points of criticism levelled against FAS 33. However, SFAS 82 issued in 1984 eliminated the requirement for disclosure of general price level information.

The first two significant proposals issued by ASSC in U.K. where ED 8 (1973) and PSSAP 7 (1974). Both recommended presentation of supplementary GPP statements. The Sandilands Committee report (1975) recommended CCA as the basis of financial reporting. It required that assets and liabilities be shown in the balance sheet at a valuation, operating profit be determined after charging the value to business of assets consumed (Depreciation and cost of sales adjustment) and that holding gains and purchasing power gains should not be treated as profits. The report received widespread support from government and accounting bodies. ED 18(1976) issued by the ASC, Hyde Guidelines (1977) and ED 24 (1979) issued by ASC recommended further adjustments for presentation of a comprehensive CCA system.

ED 35 (1984) issued by ASC applied principally to public companies and recommended presentation of current cost information in notes to main accounts, but was withdrawn following widespread criticism. Recent surveys show that preparers and users in U.K. want a Statement of Recommended Practice (SORP) to be issued by ASC.
In India, the only significant proposal is a Guidance Note issued by ICAI (1982) to encourage presentation of supplementary inflation adjusted information. CCA is preferred and periodic revaluation of fixed assets and LIFO method of inventory valuation is recommended until a full fledged system is developed.

As far as international organisations are concerned, the IASC published IAS 6 in 1976 which required disclosure of methods used to account for inflation or a statement that no such method is used. IAS 15 was issued by IASC in November 1981 to promote wider disclosure of supplementary information by large enterprises without imposing a specific approach. It discussed both CPPA and CCA methods. The latest in exposure draft issued by IASC requires enterprises in hyper inflationary economies to restate their financial statements (prepared on current cost or historical basis) in terms of the measuring unit current at the balance sheet date. The U.N. Working Group recommended disclosure of accounting policies including overall valuation methods (historical cost, replacement value or GPL adjustments) by transnational corporations to harmonise their disclosure practices.

Thus, CPPA was favoured by most countries in the 60s and 70s but was later rejected in favour of CCA mainly on the ground that a general price level index was not relevant to an individual company’s assets i.e. it did not measure changes in the specific prices of assets. The various CCA proposals put forward by accounting bodies are similar with respect to their treatment of inventories (cost of sales) and fixed assets (depreciation). They appear to disagree only in the treatment of monetary items and on the presentation of proprietary or entity view of current cost profit. SSAP 16 presents an entity view while FAS 33 recognises the proprietary view of profit.

LEGAL FRAMEWORK

Corporate accounting practices in India are governed by the companies Act of 1956 and the Income Tax Act of 1961 for purposes of external reporting and tax reporting.
All companies have to adhere to the provisions of the Companies Act, 1956. However, the use of the term ‘true and fair view’ in sections 211 (1) and 211 (2) of the Companies Act 1956 may have several connotations. But the Cohen Committee report categorically states that the balance sheet is a historical statement and does not purport to show the net worth of an undertaking at any particular date.

As per part-1, Schedule VI of the Companies Act, fixed assets are to be shown in the balance sheet at original costs. However, revaluation is permitted provided required disclosure is made. The difference between the revised and book value is transferred to a Revaluation Reserve against which the additional depreciation on the increased amount can be adjusted. Depreciation in published accounts may be calculated either on straight line method or written down value (WDV) method. As per AS 2 on Depreciation Accounting, if a depreciating asset is revalued, the provision for depreciation should be based on the revalued amounts and on their remaining useful lives. A Guidance Note issued by Research Committee of ICAI on ‘Treatment of Reserve created on the Revaluation of Fixed Assets’, however states that for certain statutory purposes e.g. dividend, managerial remuneration etc., only depreciation relatable to the historical cost of the fixed assets is to be provided out of the current profits of the company. In the circumstance, it recommends that additional depreciation relatable to revaluation may be adjusted against Revaluation Reserve by transfer to profit and Loss Account.

For purposes of tax reporting, depreciation is calculated on WDV. The depreciation of blocks of assets at higher rates for tax purposes may be attributed to the Government’s efforts to encourage investment in fixed assets for the purpose of energy savings etc., rather than an attempt to increase the depreciation charge (to reflect the current values of assets consumed) and reduce the inflated profit figure. Besides depreciation, another important aspect of tax reporting is capital gains. Deductions are allowed in case of long-term capital gains to compensate for the effect of inflation.
The impact of inflation on taxation can be analysed under two heads; profits of an enterprise and capital gains. Inflation results in an understatement of cost of goods sold and depreciation and an inflated taxable profit figure. To rectify this distortion, Federal tax laws in U.S.A. recognise the LIFO method of inventory valuation unlike tax authorities in India which recognise the FIFO or average cost method.

Determination and imposition of tax on the real increase in the value of a capital asset is difficult. To identify the real increase in value, proportionate deductions (say on the basis of the duration for which the capital asset is held) are provided in many countries. In India, a similar provision is available under section 48, but only on long term capital gains although there may be a substantial increase in the value of short-term capital assets also. Some countries increase the cost of acquisition (5 to 7% for every year the asset is held). In India, a similar provision under section 55(2) allows the fair market value as on a specified date to be substituted in place of the original cost. But a gap of ten years in the determination of the base year for cost of acquisition appears to be irrational. The most sophisticated method used in some countries is to deduct the adjusted cost of acquisition (HC of acquisition is restated using an inflation adjustment factor) from the selling price. But no such provision is available in India.

Furthermore, a time lag is involved between the date on which income is earned and the date of collection of taxes. A penalty @15% on delayed payments fails to cover the impact of inflation i.e. the gain to the tax payer and loss to the tax authorities due to the time lag involved in the collection of taxes. It can therefore be concluded that Indian Tax Laws do not appear to recognise the distortionary effects of inflation on taxation except in case of capital gains tax. The possibility of a clear cut well defined policy to fight the menace of inflation from the viewpoint of taxation appears to be a remote possibility.
CASE STUDY OF NALCO

The case study attempts to show the impact of inflation on financial statement of NALCO using the CPPA and CCA approaches. For the application of these two approaches, detailed information was required, which was not available in the Annual Reports of NALCO. Non-availability of relevant details has hampered the pursuit of a comprehensive and reliable case study as far as the application of CCA is concerned. However, the application of CPPA did not pose too many problems.

The historical cost based balance sheet and profit and loss account of NALCO for the years 1994-95 to 2003-04 were restated by taking the annual average of the respective years. The Index Number of wholesale prices in India published by the office of the Economic Advisor (Government of India, New Delhi) was used for calculating the annual average in the restatement process. Appropriate assumptions regarding trading activities were made. Lack of relevant details also necessitated the pursuit of the study on the basis of a few assumptions. Detailed calculations relating to various items are shown in appendices. The application of CPPA to historical cost based financial statements of NALCO for the years 1994-95 to 2003-04 has led to the following conclusions:

a) The increase in sales as a percentage of 1994-95 sales is much lower than the percentage reflected by the reported sales figures. The reported sales are over stated to some extent due to the rise in price level during the period 1994-95 to 2003-04.

b) The gross profit margin based on restated figures is also lower than the gross profit margin based on historical cost figures. In other words, the gross profit margin is overstated during a period of inflation.

c) The net profit margin calculated on the basis of restated figure is higher than the margin calculated on the basis of reported figures except the years 1994-96. Hence, it can be said that during a period of rising prices the reported net profit margin is inflated i.e. the actual profits are higher.
d) The operating ratio calculated on the basis of restated figures is higher than the ratio calculated on the basis of reported figures except the year 2000-02. Higher the operating ratio, the less favourable it is, because, it would have a small margin (operating profit) to cover interest, income tax, dividend & reserves.

e) The Cost of Goods sold ratio based on restated figures is higher than the ratio calculated on the basis of reported figures, due to the impact of inflation during the period 1994-95 to 2003-04. As a working proposition, a low ratio is favourable while a high one is unfavourable.

f) The interest coverage ratio as reflected by the historical cost figures and restated figures are higher in the year 1996-97 and lower in the year 1994-95. From the point of view of the creditors, the larger the interest coverage ratio the greater the ability of the firm to handle fixed charge liabilities and the more assured the payment of interest to the creditors. However, too high a ratio may imply unused debt capacity.

g) The capital Gearing Ratio as reflected by the historical cost figures and restated figures are higher in the year 2003-04 and lower in the year 1994-95. From 2001-02 onwards, capital-gearing ratio showed an increasing trend. This increasing trend may be mainly on account of new debenture issue.

h) The propriety ratio showed a declining trend from 1995-96 onwards except the last year i.e. 2003-04 as reflected by the historical cost figures. This declining trend may be mainly on account of redemption of debentures. The increasing trend may be due to the fresh issue of debentures and may also due to the rise in the price level changes.

i) The solvency ratio is higher in the year 2002-03 and lower in the year 1995-96 as reflected by the historical cost figures, and similarly, the solvency ratio is higher in the year 1999-00 and lower in the year 1996-97 as reflected by the restated figures. From 1995-96 onwards, the solvency ratio showed an increasing trend except the year 2003-04 as reflected by the historical cost figures. This increasing trend may due to the fresh issue of debentures.

j) The fixed assets to net worth ratio as per the historical cost figures are more than 100 per cent in the years 1994-96 and 2000-04, which
implies that owner's funds are not sufficient to finance the fixed assets and the firm has to depend upon outsiders to finance the fixed assets. But as per the restated figures, the fixed assets to net worth ratio are less than 100 per cent in the year 1996-99 due to the rise in the price level changes.

k) The ratio of current assets to proprietor's funds are higher in the year 1997-98 and lower in the year 2003-04 as reflected by the historical cost figures. From 1994-95 onwards, the ratio showed a declining trend up to the year 1996-97 and thereafter the ups and downs continued as reflected by the restated figures. The ratio as reflected by the historical cost figures and the restated figures indicates the extent to which proprietor's funds are invested in current assets.

l) The fixed assets ratio by historical cost are more than 100 per cent in the year 2001-04, which implies that the firm has financed a part of the fixed assets out of current funds or the working capital which is not a good financial policy.

m) The CPP based Return on Assets Ratio as reported on historical cost basis is much lower than the actual restated ratio except the year 1999-00 & 2003-04. In other words, the ratio computed on historical cost basis is understated and gives a misleading picture regarding the profitability of the total funds invested in assets, which have been supplied by the owners and creditors. Due to the rise in price level, the profitability of financial resources invested in assets is adversely affected.

n) The Return on Capital Employed on the basis of restated figures reflects a different picture regarding the relative efficiency of the firm as compared to the ratio calculated on the basis of reported figures. The efficiency of the firm in using the funds entrusted to it appears to have been adversely affected due to the rise in price level during the period 1994-95 to 2003-04 except the year 1996-97, 2002-04.

o) The actual returns on owner's equity (ROSE) are actually much less than what are shown by the reported figures except the period 1994-95 & 1998-99. The fall in actual profit figures has also resulted in lower return on owner's equity during inflation.
p) The Earnings per share based on restated figures are marginally lower than the EPS based on historical cost based figures due to the addition of purchasing power gains on NCML to the restated profits except the year 1994-95.

q) The percentage of profits distributed as dividends as per the restated figures are lower than the percent distribution based on historical costs throughout the period of study. It shows that the actual amount distributed as dividends, taking into consideration the rise in price level, is much lower than the amount reflected by historical cost accounts. This implies that dividends are being paid out of profits.

r) The Earning Power of the firm as reflected by the restated figures is much higher than the reported figures except the year 1996-97. This may again be attributed to the adverse effect of inflation.

s) The current ratio is higher in the year 1997-98 as reflected by the historical cost figures, which indicates that the firm maintains a high liquid position and has the ability to pay its current obligations in time as and when they become due. Similarly, the current ratio is higher in the year 1997-98 as per the restated figures which implies improvement in the liquidity position of a firm in an inflationary situation.

t) The inventory turnover ratio is higher in the year 1996-97 as per the historical cost figures which highlights the efficient management of inventory because more frequently the stock are sold, the lesser amount of money is required to finance the inventory and lower in the year 1999-00 as per the historical cost which indicates an inefficient management of inventory.

Thus, it is evident that during a period of rising prices the profits are overstated. Consequently, historical cost based figures reflect higher returns. The actual returns are lower than the returns reflected by reported figures. Overstatement of profits leads to capital levy and capital distribution. Rise in price level also affects adversely the operating efficiency of the firm and the profitability of financial resources invested by owners and creditors in the firm. A comparison of the historical cost based and restated figures of items in the balance sheet also shows that non-monetary assets are understated. In fact a
proper comparison shows that the historical cost based figures in the balance sheet present a misleading picture regarding the financial position of the firm.

The application of CCA based on SSAP 16 to the financial statements involves a series of adjustments to historical cost trading profit (before interest on net borrowings). Using an index based approach, an attempt was made to show the impact of inflation and prepare current cost financial statements of NALCO for the period 1994-95 to 2003-04. As pointed out earlier, due to non-availability of relevant information, necessary for the preparation of current cost accounts, a comprehensive analysis was not possible. Consequently, computation of all CCA adjustments could not be undertaken.

The Wholesale Price Index Numbers (all commodities), Machinery and Machine Tools and Manufactured products Published by the Office of the Economic Advisor (Govt. of India, New Delhi) have been used for the application of the CCA techniques since specific indices of individual items in the balance sheet are not available.

The depreciation adjustment could not be calculated since detailed information necessary for its computation was not available. The computation of COSA clearly shows that the historical cost of goods sold are understated throughout the period of study. The value to the business of stock consumed is much higher. The computation of Negative Monetary Working Capital Adjustment represents the reduction in working capital required, as a result of rise in price level (unlike the positive MWCA which shows the additional working capital required as a result of price changes).

The gearing adjustment is calculated by multiplying the gearing ratio with the total of charges made to allow for the impact of price changes on net operating assets. However, since the depreciation adjustment could not be computed, figures relating to total of charges made to allow for the impact of inflation also could not be computed. Consequently, computation of gearing adjustment was not possible.
Since a comprehensive study under CCA was not possible due to non-availability of details, it is difficult to draw any conclusions except the fact that the COSA shows that the historical cost of sales are understated during a period of rising price level and the MWCA shows the reduction in working capital required as a result of price changes.

The above findings clearly supports our hypotheses that:

I. Financial statements do not reflect a true and fair view of the financial position and operating performance of an entity during inflation.

II. A majority of Indian companies do not publish inflation adjusted financial statements, and

III. Among the alternative techniques, CCA is more popular than CPPA in India.

SUGGESTIONS

In order to examine the financial accounting system to be used for reporting in an inflationary environment, a proposed accounting framework should first be laid down. The framework should establish the objectives of financial reporting, identify the information needs of users of accounting information, evaluate the authenticity and reliability of the available accounting techniques to provide the required information and select the one which provides the required information in the most efficient manner.

The principal objective of financial reporting is to communicate information about the measurement of resources and the performance of an entity to enable users to take useful economic decisions. Users of accounting information include shareholders, investors, creditors, management, employees, government and the general public. The information needs of users of accounting information are more or less similar and hence the information presented for existing shareholders (in the annual reports) will meet the needs of other users as well.
Selection of an Alternative Accounting Technique for Reporting in an Inflationary Environment

The selection of an accounting technique which will meet the needs of financial statement users during inflation, necessitates an evaluation of the alternative techniques available for accounting in an inflationary environment Viz. HCA, CPPA and the various concepts of current value. Although HCA is objective and verifiable, a major drawback of HCA is that it inflates the profit figures during inflation (and thus leads to capital levy and capital distribution) and non-monetary items in the balance sheet reflect historical values, rather than current values. CPPA measures changes in the purchasing power unit and brings out the impact of inflation by restating historical cost figures in units of (period end) constant purchasing power. But it fails to measure changes in the prices of specific assets or to provide information useful for investment related decisions. Long term equity investors are generally interested in the future operating flows of the entity. Hence it can be argued that CVA has a slight edge over HCA and CPPA since it provides contemporary information based on current values which is more likely to be relevant for decision purposes.

It may, however, be pointed out that despite the distortion of reported profits and financial position under HCA, there is still too much resentment in the accounting fraternity towards any alternative to HCA even during inflation. Recent Surveys even in countries like U.K. and U.S.A. where full fledged standards on inflation accounting have been issued, so that both preparers and users of financial statements feel that the reliability and authenticity of HCA can be suspect only when inflation reaches double digit figures. The latest Exposure Draft on inflation accounting issued by IASC also applies only to enterprises in hyperinflationary economies. In view of the fact that attempts are being made in most countries to take adequate measures to reduce the rate of inflation including ours, presentation of current cost financial statements as a supplement to historical cost based accounts should be recommended for all large sized companies.