CHAPTER – III

METHODOLOGY AND INFLATION ACCOUNTING POLICIES
Inflation may be defined as a decline in the purchasing power of money due to an increase in money supply and rise in price level. 'Inflation Accounting' attempts to reflect (and mitigate) the impact of rising price level on the operating results and financial position of a firm through various adjustments or reforms in the accounting process.

Various proposals have been advanced for curing the ill-effects of inflation. Almost all the proposals involve some degree of switching within the conceptual framework in existence. Reform of cost and profit figures involve a switch from the money sub concept to real value sub-concept (adjusting for changes in the general price level with the help of a general index) or the physical sub-concept (adjusting for changes in the specific price level with the help of specific indices). Reform of asset figures involves a switch from the historical concept to current value concept.

Accounting reforms can use alternative tools, leading to different values. 'Inflation Accounting also is not a single model but can take many shapes. The various proposals for reform may be broadly classified by two value concepts:

(i) The first concept uses a general index to restate historical cost figures in terms of artificial units of constant purchasing power. Real wealth is stressed and income is recognised after the purchasing power of shareholders equity in the enterprise has been maintained.

(ii) The second concept uses specific indices to restate historical cost figures in terms of current value figures. Physical wealth is stressed and income is recognised after the operating capacity of the enterprise has been maintained.

A proposal may also combine both concepts known as 'Hybrid Model'. The scope of the model may be restricted to a few items in the balance sheet and income statement or its scope can stretch much further. At the extreme,

* The term 'Inflation Accounting' is used as a generic expression to connote any of the phrases like price level accounting, accounting for price level changes, replacement cost accounting, current cost accounting, current value accounting and general purchasing power accounting etc.
reform may extend to every items including equity. 'A reform programme should seldom be thought of as a seamless robe to be accepted or rejected as a whole. On the contrary, its various parts should be considered one by one, and a firm may reasonably decide to adopt some parts and to reject or postpone others'.

Thus the various proposals for reform can be broadly classified into two categories of inflation accounting techniques:

(i) General Price Level Accounting (GPLA) or Current Purchasing Power Accounting (CPPA) otherwise known as Constant Purchasing Power Accounting.

(ii) Current Value Accounting (CVA) or Current Cost Accounting (CCA) or Replacement Cost Accounting (RCA).

GENERAL PRICE LEVEL ACCOUNTING

General price level accounting or constant purchasing power accounting attempts to measure changes in the value of the currency. A restatement process is used to convert all items in the financial statements to a stable measurement scale i.e. a unit of measurement of constant value, the purchasing power unit. A general price level index (which measures changes in the prices of goods and services thus reflects shifts in the real value of money) is used to convert all items in terms of money units on a particular date, generally the last day of the accounting period.

Thus, CPPA does not imply a major departure from the principles of conventional historical cost accounting. Only the measurement unit is expressed in constant purchasing power. All other accounting principles remain operative. The only departure from historical cost accounting is reflected in the calculation of gain or loss on holding monetary items termed 'money value assets' and 'money value liabilities'.

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CPP based financial statements are generally prepared by a series of adjustments applied to the information collected by the conventional accounting system. Appropriate assumptions should be made about the timing of production and trading activities during the year. Restatement adjustments should be computed on an average basis. Additional information is required about the timing of transactions and the age of non-monetary assets.

In the income statement items such as sales, purchases and expenses are restated in terms of period end purchasing power by applying average price index for the year. Opening and closing inventories are restated by applying the price index of the average date of acquisition both in the income statement and balance sheet. Depreciation is calculated on the amount at which assets are shown in the balance sheet i.e. the restated amount by applying the price index of the actual or average date of acquisition. No adjustment is made for monetary assets and liabilities in the balance sheet. The equity share capital is, however, restated in terms of period end purchasing power by applying the index number on the date of issue or the average index for the year. Alternatively, the increase in share capital may be treated as 'capital reserve' or an 'inflation allowance'.

Monetary items were defined by the Statement of Standard Accounting Practice No. 7 as 'assets, liabilities or capital, the amounts of which are fixed by contract or statute in terms of number of pounds regardless of changes in the purchasing power of money'. Purchasing power gain or loss is the amount by which a monetary item should have changed, in the face of a changing price level, to preserve the purchasing power inherent in the item. Therefore, since the rupee value of monetary items is fixed, a rising price level will result in purchasing power losses on positive monetary items and purchasing power gains on negative monetary items. Monetary assets include cash, bank


deposits, investments (fixed interest), prepaid expenses, bills receivable, debtors, advance corporate tax, advances to employees, suppliers etc. Monetary liabilities includes creditors (including tax payable), refundable deposits, accrued expenses, dividends and interest payable, bank overdrafts, debentures (including convertible debentures until converted), loans and preference shares\(^4\).

However, FASB Exposure Draft (Dec. 31, 1974) 'Financial Reporting, in Units of General Purchasing Power', regards pre-paid expenses as non-monetary items. Further, marketable securities (investments in equities) and deferred income (payments received in advance) are also treated as non-monetary items. The Exposure Draft gives a detailed classification of assets and liabilities into monetary and non-monetary items\(^5\).

During a period of inflation, a business should as far as possible, be in a position of net monetary liabilities (monetary liabilities are greater than monetary assets i.e. ML >MA) so as to gain from reductions in the purchasing power of its monetary liabilities to a greater extent than the loss incurred from the fall in the purchasing power of its monetary assets. This may however not be possible due to a need for liquid working capital.

To calculate gains or losses from holding monetary items, the amount of each monetary item at the beginning and end of that part of holding period which falls within the current accounting period is measured in terms of purchasing power at the date of financial statements. Differences between the beginning and ending amounts represent loss in case of monetary assets and gain in case of monetary liabilities during a period of inflation. Generally, a single figure reflecting gain or loss from holding net monetary liabilities or assets is computed by evaluating in terms of period and purchasing power, the amount of monetary assets less monetary liabilities at the beginning and

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end of the accounting period making a similar evaluation of the aggregate acquisitions and disposals of monetary items during the period.

Differences of opinion exist on recognition of gain on monetary items. According to Baxter, the ordinary rules in times of stable prices should show discount on current items (being measurable and either realised or sure to be realised) in the income statement. Therefore, gain and loss on short-term monetary items during inflation should be shown in the income statement. On the other hand, gains from holding long-term monetary liabilities such as debentures, loan, stock and preference shares are not realised and are unlikely to be realised in the foreseeable future. According to another view debt capital and preference shares are regarded as a part of the capital structure, and financial statements should be directed to all capital holders. Therefore, a recognition of changes in their value should be treated as a capital adjustment via a capital reserve account. The Statement of Standard Accounting practice No. 7, however regarded it as 'confusing the measurement of profitability with the measurement of liquidity'. Though not explicit it regarded financial statements to be directed towards the equity owners accordingly; Gains to equity could be recognised in the income statement. The Sandilands Committee agreed with the contention of SSAP 7 that 'profitability should not be confused with liquidity', but concluded appropriately that gain on monetary items should be a taken direct to reserves in CPP based financial statements, since recognition of unrealised gains in the income statement is not in accordance with accounting principles.

Thus, under this approach income normally reflects the effects (using an appropriate index) of general price level changes on depreciation, cost of sales and net monetary items and is reported after the general purchasing power of shareholder's equity in the enterprise has been maintained. It aims at capital maintenance defining the latter in terms of owner's investment.

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6 Baxter, W.T., 'inflation Accounting', P-68.
7 SSAP 7, Para – 16.
The most conspicuous problem of CPPA however, seems to be the development of an appropriate index. A discussion relating to the development of an appropriate index is however, beyond the scope of this study.

EVALUATION OF CPPA

CPPA recognises changes in the value of money and its impact on historical cost accounts during a period of inflation. It provides a simple solution to the problem of accounting for price level changes. 'The only way to remove the distorting effects on inflation from financial statements is to remove the elasticity from the measuring unit and report all data in a set of financial statements in units of the same size in dollars that have the same general purchasing power'.

Moreover, as pointed out earlier, CPPA does not imply a major departure from the principles of conventional historical cost accounting. Only the unit of measurement is expressed in Constant Purchasing Power. Adoption of CPPA requires very few changes in the existing accounting system.

CPPA also meets the basic requirements of an accounting system Viz. objectivity and comparability. The restated amounts under CPPA are based upon original costs and are not affected in any way by personal opinions of valuers, managers and accountants. Furthermore, interperiod comparisons made in monetary units representing different amounts of general purchasing power may be meaningless and misleading. Hence financial statements prepared on the basis of CPPA which uses uniform purchasing power are more realistic and useful. Adjustment of accounts to changes in price level on

the basis of CPPA helps to distinguish between the operating results of an entity and the gains / losses arising due to changes in price level. Further, the application of CPPA is simple and inexpensive. The measuring unit can be easily understood by the accounting staff and hence they do not require extensive education for smooth implementation of a CPPA system.

However, it may be pointed out that one of the first criticisms levelled against CPPA is that the measuring unit i.e. constant purchasing power is not easily perceived by users of financial statements unlike a monetary unit which can be exchanged as a physical object between parties to a transaction. 'A unit of purchasing power or a dated dollar may be sound in theory, but neither the entity nor the statement user can do much with it. It may be more foreign to understanding than a unit of foreign currency'.

The Sandilands Committee points out that CPPA suffers from all the defects of historical cost accounting, since the basic principles of historical cost accounting also remain operative under CPPA. Attempts to adjust historical cost accounts to changes in price level on the basis of CPPA would result in 'accounting getting further away from reality'.

There are differences of opinion amongst accountants regarding the recognition of gain / losses on monetary items (already discussed at length earlier), i.e. whether they should be included in income statement or should be taken direct to reserves in CPP based financial statements.

Critics have expressed doubts regarding the relevance and utility of financial statements based on CPPA, as has also been concluded in surveys conducted by Garner and Estes. Critics argue that historical cost financial

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13 Gynther, R.S. 'Why use General Purchasing Power', ACCOUNTING AND BUSINESS RESEARCH, spring 1974, P-144.
statements provide sufficient information to enable users to make the required adjustments which help to account for inflation. There is also a high degree of association between the rate of return on shareholder's equity, computed under historical cost accounting and CPPA 16. Sterling evaluated various accounting methods used during a period of inflation, in terms of their relevance and interpretation and concluded that CPP based financial statements are neither 17 relevant, nor can they be easily interpreted.

Inflation affects different firms differently depending upon industry characteristics and management policies. Hence the use of a general index by all firms to account for inflation may not lead to meaningful results, rather specific indices would be more relevant. A general price index measures changes in the prices of goods and services in general and accordingly reflects shifts in the value of money. But it does not measure changes in the prices of specific assets owned by an entity.

The construction of a suitable general index also poses proposals. A general index measures how many money units must be paid for a given quantity of goods and services at different times. It is for the statistician to decide what sort of goods and services should serve the standard. Technical changes overtime may bring entirely new commodities in the market. It is also difficult to find a representative consumer since tastes vary with circumstances and people. In other words, there may be many faults in a general index series. The statisticians can only strive to lesson them but cannot overcome them.

Another complex problem is the choice of suitable index to account for price level changes. The main objective of translation is to indicate what money figures of a past date meant at that time, therefore the most effective measuring rod for most people would be the one related to their consumption and this argues for the Cost of Living Index. Further, the main objective of

financial statements is to give the owners some picture of their material welfare and to enable them to compare their 'well-off ness' at different dates. This again argues for the Cost of Living Index. It can also be argued that since accounts are intended for the owners who purchase the business assets i.e. capital goods, hence the index should also cover capital goods besides the Cost of Living. If purchasing power is interpreted as providing a link between all goods and services produced in the economy and the money available to pay for them, then the general price index should be wide ranging to cover the price movements of all goods and services produced in the economy. For this purpose, National Income deflators may provide a suitable index. Accounting bodies in the U.S., Canada and Australia have recommended the use of a National Income Deflator.

It may also be argued that money possessed by an individual has value only to the extent that it can acquire goods and services which he wishes to consume. Shareholders will normally buy only consumer goods and services at retail prices. Hence, changes in the value of money to shareholders may be measured by a Consumer Price Index or Retail Price Index, to be used in the restatement process. The use of a Retail Price Index has been advocated in U.K. However, according to critics, shareholders in companies are neither a homogenous group nor are they likely to correspond with an average household purchasing a sample basket of goods and services, used in the construction of a Retail Price Index. Therefore, the use of a Retail Price Index may not be effective in measuring changes in the purchasing power of money to individual shareholders. This underlines the need to prepare a separate financial statement, to account for changes in the purchasing power of money to each individual shareholder, which is impracticable. According to the Sandilands Committee, in so far as shareholders are interested in consumer price movements, they will be concerned with the purchasing power of their investments and its associated dividends. For this purpose, the shareholder's investment should be
measured by its stock-market quotation and not by historical book values contained in the companies accounting records\textsuperscript{18}.

The costs involved in educating the accounting staff and implementing a system of CPPA in an enterprise are also expected to be substantial.

To conclude, the usefulness of financial statements based on CPPA is still open to doubt, but they can be defended on the grounds that they are objective, verifiable, uniform and to some extent even comparable. The specific index may be a better tool for updating asset values. But the equity balances (capital, profits etc.) are not linked with particular assets. That reflect the investments made by the owners at different dates and the general index, is the best device to measure how the owners wealth has fared during a particular period.

CPPA as outlined by SSAP 7 received support in several countries especially during the 1960's and 70's, but in the past decade it has come in for severe criticism from institutions and academicians alike. Even the Financial Accounting Standards Board (FASB) which recommended constant dollar disclosures along with current cost disclosures in the Statements of Financial Accounting Standard No. 33 (SFAS 33) has eliminated the historical cost constant dollar requirement in its Statement of Financial Accounting Standard No. 82 (SFAS 82).

CURRENT VALUE ACCOUNTING (CURRENT COST ACCOUNTING AND REPLACEMENT COST ACCOUNTING)

The Sandilands Committee regarded to application of CPPA to historical cost methods to be of limited value. 'The usefulness of the information given by CPP based supplementary statements will always be constrained by the deficiencies of the basic historical cost accounts to which they are attached'.\textsuperscript{19}

\textsuperscript{18} Scapens, R.W., ACCOUNTING IN AN INFLATIONARY ENVIRONMENT, OP. Cit, P. 31.
\textsuperscript{19} Sandilands Committee Report, OP. Cit., P. 136.
The second major alternative proposed to historical cost accounting is current value accounting. The introduction of concepts of value into financial statements implies a fundamental departure from the principle of historical cost. It has been resisted on the ground that values cannot be determined objectively. "To cut loose from the moorings of historical cost would open up a Pandora's box of confusions, annual appraisals, complications and adjustments to recorded dollar values since objective measurements beginning with the historical cost of fixed assets would be cast aside and be superseded by subjective measurements".20

The expression 'Current Value' is used to refer to a variety of valuation alternatives. Current Values are usually measured by the prices of specific goods and services and these may change as a result of shifts in relative prices, even if the general price level is unchanged. Distortions in current financial statements caused by inflation can be avoided if assets and liabilities are reported in the balance sheet at current values. However, while there appears to be a general agreement as to the definition of price-level adjustment, there is no widely accepted concept of current value for exclusive use. Robert T. Sprouse, Vice-chairman of FASB said "...............one is never certain what someone is advocating when they are said to favour current value accounting. The only thing one can be certain of is that they favour departure from historical cost".21

CONCEPTS OF VALUE

A business undertakes various exchanges of resources and distributes any surplus to its owners. The ability of an asset to generate resources in the exchange process indicates its value to the business. It may be termed 'exchange value' and can be measured in money units. The market price of any resource reflects its exchange value at a particular date. Change in prices leads to change in exchange values. To value assets at their exchange values, it is essential to determine the appropriate date for recording market

20 Kelly, A.C., 'Can Corporate Income by Scientifically Ascertained'. ACCOUNTING REVIEW, July 1951, P. 293.
21 Kohler, E.L., 'Why not Retain historical Cost'? JOURNAL OF ACCOUNTING, Oct. 1963, PP. 35-
prices. A consideration of past, present or future exchanges or potential exchanges leads to three possible approaches. An appropriate past exchange is the acquisition of the asset, an appropriate future exchange would be the disposal of the asset, or the goods which it helps to produce. Another possible exchange is a potential exchange at the present time.\(^22\)

If the direction of exchange is also considered in addition to the time dimension of exchange value, then there are six possible concepts of value.\(^23\) Past entry values (historical cost), past exit values (irrelevant), present entry values (current replacement cost), present exit values (current selling prices), future entry values (expected replacement cost), and future exit values (expected values). These concepts may be further sub-divided depending on the form or asset to be valued. 'The assets may be categorised as (i) initial inputs, (ii) present form and (iii) ultimate form.\(^24\)

A combination of these asset forms and the concepts of value suggest eighteen ways of valuing assets, of which some are irrelevant (past exist value and future entry value). Past and future values are likely to be relevant only in connection with initial inputs and assets in the ultimate form respectively. Present values can be used in the valuation of assets in any form. Generally, current entry values are appropriate for initial inputs and present form whereas current exit values are more consistent with present and ultimate forms.

'Current value accounting' generally refers to those accounting methods in which asset values are determined with reference to the present time dimension of value. A number of accounting methods may be included within this definition. Income for a period may be defined as the amount by which capital value at the end of the period exceeds capital value at the commencement of the period. Income comprises two elements.\(^25\)

\(^{22}\) Scapens, R.W., ACCOUNTING IN AN INFLATIONARY ENVIRONMENT, OP. Cit, P. 49.
\(^{23}\) Ibid, P. 49.
\(^{25}\) Scapens, R.W., ACCOUNTING IN AN INFLATIONARY ENVIRONMENT, OP. Cit, P. 31.
The measurement of capital value (asset valuation),
the measurement at the end of the period of the amount required to
maintain intact the capital value at the start of the period (capital
maintenance).

Measurement of capital value involves the valuation of assets and
liabilities. The term ‘Current Value’ encompasses a variety of valuation
alternatives. Similarly, there are various possible concepts of capital
maintenance. But before analysing these concepts, a discussion of holding
gains as distinct from operating gains or losses is essential.

HOLDING GAINS

The application of current valuation concept in the preparation of
financial accounts results in the reporting of holding gains and losses. A
holding gain results when the current value of an asset changes while the
asset is being held by an enterprise and is determined at the date the asset is
sold, or if the asset is still being held at the balance sheet date. A holding gain
or loss is equal to the difference between the current value of an asset and
the current value of the asset at the beginning of the current accounting
period or the historical cost of the asset if the asset has been acquired during
the current accounting period. In the terminology of replacement cost
accounting, holding gains are also called ‘cost savings’ as it represents the
additional cost that would have to be incurred if the asset was acquired at the
time of sale. Realised holding gains are gains which are realised through the
sale or use of the related asset during the accounting period whereas
unrealised holding gains are increases in the cost of assets held at the end of
the period. Further, real holding gains are computed by deducting from the
total gain, the proportion that is accounted for by the change in the purchasing
power index during the holding period.

Thus, holding gains arise from decisions to hold particular amounts of
certain assets unlike operating profits which arise from decisions to use
assets. But holding and operating activities are not always independent. A
single investment decision could result in holding gains if the prices of assets
rise subsequently and operating profits may be reported if the business efficiency is improved. Although the distinction between holding and operating gains improves interperiod and interfirm comparisons of operating performance, the interdependencies between holding and operating activities varying form business to business or from period to period may affect comparability. The dichotomy helps to determine operating income which is a good measure of a firm's long run income and helps to provide a better forecast of the future income stream.

But the dichotomisation of income into holding and operating components has led to another controversy: whether holding gains should be reported in the income statement. This in turn depends upon the concept of capital maintenance selected for financial reporting.

CONCEPT OF CAPITAL MAINTENANCE

It is in the above context that we analyse the various concepts of capital maintenance. The concept of capital maintenance refer to a firm's definition of capital that it seeks to maintain. It establishes a link between the concept of capital and concept of profit by providing a point of reference by which profit should be measured. It distinguishes between an enterprises return 'on' capital and return 'of' capital profit or return on capital is the inflow of assets in excess of the amounts needed to maintain capital. The three important concepts of capital maintenance are:

(i) Money Value Concept – In this concept, a profit is reported when the capital value at the end or the period exceeds the monetary amount of capital value at the beginning of the period, making due adjustments, for distributions and new capital introduced. Thus, all increases in capital arising from movements in prices used for asset valuation, i.e. holding gains are reported in the income statement.

(ii) Purchasing Power Adjusted Money Value Concept – When capital value is to be adjusted for purchasing power changes, using an appropriate index, only the holding gains in excess of the amount

required to maintain the purchasing power of the opening capital value, is reported as profit. The total amount of holding gain will not be reported in the income statement. For an individual asset, the real holding gain is the excess of the increase in its current value above the amount required to maintain the purchasing power invested in it. The relative prices of monetary assets decline during a period of inflation, real losses will be incurred by holding such assets when prices are rising. Conversely real holding gains will arise from holding of monetary liabilities.

(iii) Operating Capacity Concept – Capital value at any date may be computed by valuing the firm’s assets less liabilities at the date. When current values are used for asset valuation, the aggregate asset value measures the current value of the existing operating capacity (as represented by a certain quantity of assets). A business is said to be as well off at the end of the period as it was at the beginning, provided it has at least maintained its capacity, to continue its operations at the same level i.e. it has maintained its operating capacity. Thus, changes in capital value (total assets less liabilities) arising form movements in the price used to value those assets should not be regarded as an element of profit but as an adjustment to the opening capital value. In other words, under the operating capacity concept of capital maintenance assumes that the business is a separate entity and the owners are suppliers of resource (equity finance). Accordingly, assets are regarded as a means of continuing operations and unless the operating capacity in maintained by current operations, the business is unprofitable. This concept of capital maintenance has also been favoured by the Sandilands Committee. Samuelson favoured this concept on the ground that it is a reasonable surrogate of cash generating potential 27. Revsine & Weygandt favoured it on the ground that cash operating flows generated by a firm are a function of two variables: the physical level of its operations and the prevailing prices of its inputs and outputs. Price changes are dictated by market

condition and hence are beyond the control of management. The management can only maintain the physical level of operations to maintain the operating flow levels on the assumption that the margin between input and output prices will remain constant\(^{28}\).

If the operating capacity concept of capital maintenance is being favoured, it is necessary to identify the assets and liabilities which constitute operating capability of the business especially in view of the different definitions of operating capability Viz. (i) Physical assets \(^{29}\), (ii) all assets (monetary and non-monetary) \(^{30}\), (iii) all assets except fixed or long term monetary items\(^{31}\), (iv) non-monetary and monetary assets less current monetary liabilities (or fixed assets, stock and monetary working capital)\(^{32}\). The different approaches put forward suggesting different treatment for monetary items will lead to different income figures.

Replacement Cost Accounting and Current Cost Accounting are variants of Current Value Accounting. Replacement Cost Accounting is based on the principle that charges to the income statement should be sufficient to meet the cost of replacing fixed assets and inventories as and when they wear out by use or consumption.

Current Cost Accounting is also a variant of the current value concept. It may be described as a modification to historical cost profit to arrive at 'the surplus after allowing for the impact of price changes on the funds needed to continue the existing business and to maintain its operating capability, whether financed by share capital or borrowings'\(^{33}\). In fact, CCA is still regarded as the most effective inflation accounting technique developed to date, and has been accepted by institutions and academicians alike.

\(^{29}\) Sandilands Committee, OP. Cit., Para 117-118, P.35.
\(^{30}\) AARF, AAS, II: Current Cost Accounting (Homeographed), Melbourne, July 1982, P. 10.
Current cost methods recognise income after the operating capability of the enterprise has been maintained. However, some methods recognise income after the portion of the firm’s operating capacity financed by its shareholders has been maintained (gearing adjustment). This is done by reducing the total adjustment for depreciation, cost of sales and monetary working capital adjustment in the proportion that finance by borrowing bears to finance by the total of borrowing and equity capital.

Another item included in the current cost balance sheet is the current cost reserve. The total reserve includes the unrealised revaluation surpluses (on fixed assets, inventory and investments) and realised amounts equal to the cumulative net total current cost adjustments i.e. depreciation adjustment, the two working capital adjustments and the gearing adjustment. Notes to the balance sheet should disclose the totals of net operating assets and net borrowings and their main elements. The balance sheet should be supported by summaries of the fixed asset accounts and the movements on reserves.

EVALUATION OF CURRENT COST ACCOUNTING

CCA seeks to maintain the operating capability of an enterprise. It helps to show the impact of inflation on an enterprise by updating asset values using specific indices. The basic principle of CCA, that the current cost operating profit should be computed after charging the value to the business of assets consumed during the period and that assets should be shown in the balance sheet at their 'value to the business,' has been supported by most institutions and academicians.

However, CCA fails to meet the basic requirement of an accounting system i.e. objectivity. An element of subjectivity is bound to be present in periodic valuations especially if reliable specific indices are not available. In other words, valuation of assets provides ample scope for discretion and subjective judgement of the management. Even the choice of the basis of valuation is subject to the personal whims of the valuer. Accounting records prepared on the basis of CCA methods can not be verified by reference to independent factual information as is possible in case of historical costs. Even
the Sandilands Committee has admitted that the 'value to the business' figure of a company's assets is not capable of precise and objective verification unlike the historical cost figures.

The basic purpose of inflation accounting is to account for inflation i.e. changes in the value of money. But under CCA, the historical cost figures will have to be adjusted to changes in specific indices even if there is no change in the general price level. This implies a departure from the basic objective of inflation accounting. Furthermore, the operating profits computed on the basis of CCA cannot be said to reflect the real earnings of the firm i.e. the command over goods and services in general. Distribution of these profits will amount to capital distribution. Consequently the firm will fail to meet its operating capability.

Inspite of these drawbacks CCA has been regarded as a better alternative to historical cost accounting, especially as compared to CPPA. CCA or variants to CCA have been recommended by a majority of accounting bodies.

HYBRID MODELS
Hybrid models were proposed by a few academicians to find a compromise solution to the problem caused by the drawbacks of CPPA and CCA.

Richard F. Vancil\(^{34}\) of the Harvard Business School Proposed, 'Specific and General Price level, Accounting (SPLA). It combines GPLA with the Replacement Cost Method of inflation accounting. The items in the financial statements are first converted in terms of units of constant purchasing power as in GPLA. The assets are then revalued and stated in terms of net replacement cost. SPLA involves a change in measurement and a change in the method of valuation, SPLA is best viewed as an extension of CVA.

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The main advantage of this method is that it presents both monetary and non-monetary items at their 'real worth', in other words, it helps to show the real value of the business.

Revsine & Thies\textsuperscript{35} advocated 'Price Level Adjusted Replacement Cost Reporting' (PLARC). They recommended the conversion of replacement cost data into price level adjusted replacement cost data with the help of a few 'wash entry' adjustments.

(i) Beginning equity is rolled forward with the help of a general price index.

(ii) Real and general purchasing power components of unrealised holding gains shown in replacement cost income statement are isolated. The 'real' component is included in the income statement whereas the general purchasing power component is treated as an equity adjustment.

(iii) Computation of monetary gains / losses arising from holding monetary items during a period of inflation to be shown in the income statement.

Arthur Anderson & Co., a major international accounting firm published a book 'Accounting Standards for Business Enterprises Throughout the World' (1974)\textsuperscript{36}. The company holds the view that 'no system of accounting practices established in the past is wholly valid today and no system established today is likely to be valid in even a few years time. It was held that the basic purpose of financial statements is to communicate information regarding the 'nature and value of economic resources of a business enterprise and their changes overtime'.

Another accounting firm, The Touche Ross and Company, proposed a hybrid model in a book entitled 'Current Value Accounting Economic Reality in


\textsuperscript{36} Arthur Anderson & co., ACCOUNTING STANDARDS FOR BUSINESS ENTERPRISES THROUGHOUT THE WORLD, Chicago, 1974, P-8.
Financial Reporting\textsuperscript{37}. Like the Arthur Anderson model, it lays emphasis on value accounting and income is measured with reference to preservation of general purchasing owner of financial capital. Present value of future cash flows is recommended for valuation of assets, but practical problems may limit its use and hence current costs may be used as an alternative. It recognises gains / losses resulting from changes in the market values of liabilities subsequent to issuance, as interest rates change. Further, it segregates holding gains on non-monetary assets into realised and unrealised components.

The two main methods of accounting for price level changes CPPA and CCA differ in terms of valuation, income measurement and capital maintenance. Although there are differences of opinion among accountants regarding the merits and demerits of each, the need for a suitable method to account for price level changes has now been recognised. The introduction of a method of inflation accounting has the following advantages:

(i) It helps to provide explicit information about the impact of inflation across firms. Within a given country, inflation affects different firms differently, depending on industry characteristics and management policies. In the absence of adjustments for changes in the general price level, the impact of changes in the purchasing power of the monetary unit is necessarily submerged with all other factors affecting the performance of the firm\textsuperscript{38}.

(ii) It enables the firm to maintain its capital and helps to show 'real' or 'economic' profit. By matching costs and revenues at current values it enables a realistic assessment of performance. Assets are shown at real values uniformly instead of being shown at historical values.

(iii) Accounting for price level changes recognises the fact that business operations are dynamic in nature, constantly subject to changes either through variations in the quantities of factors of production or through


variations in price level. Further, the management, is well informed and better equipped to tackle the problems caused by inflation.

(iv) The external users of financial statements are able to make better decisions, shareholders are more realistic in their dividend expectations and investment valuations, employees have a clear view of what the company can afford, in settling wage claims and the government is aware of the impact of taxation on real company profits.

It has been justifiably pointed out that ‘financial statements that are not adjusted for inflation, distort economic reality and paint a picture that could be a mirage’\textsuperscript{39}.

‘Accountants are expected to ignore inflation, but inflation does not ignore the accounts, it makes a mockery of them’\textsuperscript{40}. This statement aptly sums up the case for inflation accounting.

**ASSET VALUATION**

Various proposals relating to inflation accounting have been put forward for improvement.

In this section we undertake a detailed discussion of Asset Valuation (including inventories) in terms of current values. The methods associated with current valuation are exposed to various interpretations.

**Rationale for Asset Valuation**

Under the capital maintenance concept of income, valuation is considered central to the issue of income determination\textsuperscript{41}. The quantification of assets in terms of monetary units is the valuation process. Income may be determined by analysing the changes in the net asset valuation between two points of time. The mode of valuation of assets is influenced to a great extent

\textsuperscript{40} Editorial, ECONOMIST, London, 16\textsuperscript{th} Jan. 1971.
\textsuperscript{41} Hendrikson, Eldon, S., ACCOUNTING THEORY, Illinois, Richard Inwin, 1975, P-251.
by the objectives of doing so. The objectives of asset valuation are fundamentally two fold\(^42\).

(ii) To provide a relative measurement of the resources available to the firm in the generation of future cash flows.

(iii) To provide information which will permit the prediction of future cash outflows required to acquire similar resources in the continuation of the business.

**Asset Valuation serves three purposes\(^43\):**

(i) According to one school of thought, the object of asset valuation is income determination. The capital maintenance concept of income also requires valuation of assets in terms of input costs or in terms of output values and income arises from the increase in these values over time.

(ii) According to another view, income accrues to a firm as asset valuation increases (or liability valuation decreases) subject to no change in other things. In other words, income arises from increasing valuation from input values to output values or from increasing discounted net realisable value to cash values.

(iii) Valuation as a step in matching may take two alternative forms besides the usual historical cost basis. In the former, emphasis may be placed on the valuation of inputs as they expire, while in the latter non-monetary assets may be restated at the date of the balance sheet or periodically during the year, permitting an appropriate matching as these assets expire. However, many activities do not lend themselves to accurate matching resulting in arbitrary allocation, having no relationship with the future benefits.

**Valuation Concepts**

Valuation concepts may be based on exchange values or conversion values\(^44\). A firm operates in two markets; input values which reflect the measure of consideration given up in obtaining the assets that are being used

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\(^43\) Khanna, B.S., 'ASSET VALUATION', OP. Cit., P-440.

by the firm and output values which reflect the expected funds to be received by the firm in future (based primarily on exchange price of products).

Direct valuation applies to assets for which conversion to future cash flows is capable of being measured with some reliability. Indirect valuation applies to assets for which there is no means of estimating directly the funds to be provided. However, a number of resources jointly contribute to the net cash flows of a firm, hence direct valuation of all assets is not possible. And when there is no direct association with future cash flows, one or more alternatives of valuation concepts may provide a better estimate of values.

Various exposure drafts proposing alterations of or adjustments to conventional accounting practices have been issued by professional accountants organisations in various countries. A valuation concept which is most useful for economic decisions should be choosen. According to Baxter, the best concept should meet two tests; firstly the asset figures should form part of the manager’s calculations on the best use of the asset, i.e. it should prove its helpfulness for practical purposes within the firm and secondly the sum of separate values (i.e. total net assets) should constitute a meaningful figure in its own right (the ‘aggregation’ or ‘additivity’ test). On the whole, the second test is more telling.

Price level adjustment accounting does not consider the resource preference between two points of time. It only measures changes in the measurement unit. Unlike CVA, it does not reflect the changes or effects of price changes on assets, companies, etc.

The methods associated with current valuation are exposed to various interpretations. There appear to be at least three conceptual meanings of current value:

(i) Replacement Cost.
(ii) Net Realisable Value.
(iii) Present Value of Future Cash Flows.

Replacement Cost

Replacement costs also referred to as entrance value, can be subdivided into replacement in kind which implies the cost of replacing an exact replica of the present asset and replacement of productive capacity which implies the cost of replacing an asset with the same productive capacity, taking into consideration the technological changes. Replacement costs have been advocated by several authors.

Bauer\textsuperscript{47} suggested the use of replacement cost accounting as early as 1919. He recommended the computation of depreciation on the basis of replacement costs as against historical costs which would impair the ability of a firm to replace its long lived assets during inflation. Paton\textsuperscript{48} also opposed the restatement of accounts using index numbers on the ground that they do not accurately measure changes in the value of money and advocated the use of replacement costs. Kenneth Mac Neal in his book entitled 'Truth in Accounting' recommended valuation of all assets (excluding cash and receivables) at market price which represent economic values\textsuperscript{49}. However, if market prices were not available or in case of non-marketable reproducible assets, replacement cost less depreciation should be used as economic values. He further recommended the increase / decrease in the value of assets to be included in the income statement without distinguishing between realised and unrealised profits. This viewpoint however came in for severe criticism. Stevenson Zeff argued\textsuperscript{50}, "Mac Neal’s treatise, which carries the provocative title of ‘Truth in Accounting’, contains a vigorous and impassioned plea for the use of ‘economic values’ rather then historical costs in the accounts”.

Paton and Paton supported the current prices of replacing equivalent service potential and strongly contended that the significant replacement cost

\textsuperscript{47} Bauer, John, ‘Renewal Costs and Business Profits in Relation to Rising Costs’, JOURNAL OF ACCOUNTANCY, December 1919, PP-413-419.
\textsuperscript{49} Mac Neal, Kenneth, TRUTH IN ACCOUNTING, University of Pennsylvania Press, 1939, P-88.
is the cost of providing the existing capacity to produce in terms of the most up to date methods available and that the estimation of the cost of replacing an obsolete or semi-obsolete plant in kind will neither afford a basis for a sound appraisal of property nor furnish a useful measure of current operating cost\textsuperscript{51}.

Even traditional cost accounting textbooks and manuals refer to replacement costing in their treatment of stock valuations although the writers do not appear to be very enthusiastic about the method. Mearns\textsuperscript{52} concludes that issuing at a current price, whether currently being paid or merely notified, is an advantage, but he is critical that the issue is not at cost and there is a possibility of estimates having to be made. Furthermore, there is an inherent difficulty involved in ascertaining, the market price. Another traditionalist, Lucey\textsuperscript{53} also endorses Mearns's view, emphasising the stock profits administrative problems and the unacceptability of the method by Inland Revenue. It may however, be countered on the grounds that any firm anxious to stay in business will always issue at the latest price, whether issuing to a job or quoting. So far as the administrative problems are concerned, any procurement officer who is not keeping abreast of current price trends in order to feed the management with the latest costs is not doing his job\textsuperscript{54}. Unless the buying department fails to do its job and the manpower department is clueless about labour rates, most current costs can be readily identified.

Significant contributions were made by academicians to the replacement cost theory:

**Edwards and Bell Contribution :-**

Edwards and Bell regarded 3 assumptions as constraints on accounting:
- Money as a stable measuring scale.
- Realisation as the condition for recognising revenue or increase in net assets resulting from operations.

\textsuperscript{52} Mears, I., FUNDAMENTALS OF COST AND MANAGEMENT ACCOUNTING, London, 1981, P-43.
\textsuperscript{53} Lucey, T., COSTING, Winchester, 1981, P-49.
- The unitary income statement which does not separate operating from holding gains and losses.

They introduced the term 'business profit' as a comparable long run ex-post concept in contrast to accounting profit\(^5\).

\[
\begin{align*}
\text{Current Value of Outputs} & \quad \text{Revenues} \\
- \text{Current value of inputs} & \quad - \text{Expenses} \\
= \text{Current operating profit} & \quad = \text{Accounting operating profit} \\
+ \text{Realisable capital gains} & \quad + \text{Realised capital gains} \\
= \text{Business profit} & \quad = \text{Accounting profit}
\end{align*}
\]

Realisable capital gains are holding gains or the difference between the opportunity cost of net assets (exit market-values) at \(t_n\) and the opportunity cost of net assets at \(t_{n-1}\). Realised capital gains are the selling prices of surplus assets minus their book values. Edwards and Bell presented two additional constructs using figures based on average of year dollars underlying to word 'real', real business profit and real realised profit.

Sales - Cost of sales (including depreciation + interest) = current operating profit (COP)

\[
\begin{align*}
\text{Cop} & \quad \text{Cop} \\
+ \text{Real realised cost savings} & \quad + \text{Real realisable cost savings} \\
+ \text{Real realised capital gains} & \quad = \text{Real business profit.} \\
= \text{Real realised profit}
\end{align*}
\]

Cost saving is an increase in the current cost of assets held. Realised cost savings are the excess of current costs ever historical costs of inputs. Holding gains and losses are a combination of realised cost savings and wind fall gains and losses on inventories and equipment.

The Edwards and Bell assumption that the primary use of financial statements is to evaluate the past and therefore there must be a delineation

between holding gains and operating gains, implies that by current cost they meant replacement cost. But failure to identify current cost was the main drawback of the Edwards and Bell proposal which is by far the most logical scheme of incorporating price level changes in financial statements.

Moonitz and Sprouse's postulates and principles

Sprouse and Moonitz moved close to providing a theoretical basis for replacement cost on the key assumption that replacement cost is a change in asset values and that all changes in asset values are gains or losses. ‘Profit is attributable to the whole process of business activity, not just the moment of sale’, was the significance of their new postulate. Their main arguments were as follows:\(^\text{56}\):

(i) All changes in asset and liability values are components of profit.
(ii) Movements in the market prices of specific goods and services or in the general level of prices are changes in asset and liability values. Market prices can be either replacement costs or selling prices.
(iii) The use of replacement cost is already sanctioned as objective in LIFO accounting and a number of authorities have rejected realisation as the basis of revenue recognition.
(iv) They proposed to use a classification that would distinguish: a) the amount attributable to price level changes, b) the amount attributable to the acquisition of goods and services prior to their utilisation and c) the amount attributable to sales in the current market.

Instead of establishing a theoretical foundation, Sprouse and Moonitz merely admitted the use of replacement cost as one of the several alternatives aimed at disclosing holding gains & losses. They adopted the valuation model of the Fisherman capital theory which regarded the value of an asset as the sum of its discounted future services and salvage (if any), but

this model is incompatible with a concept of asset value as equal to replacement cost found by reference to input markets\textsuperscript{57}.

Revsine's Replacement Cost Theory – Revsine attempted to justify Edwards & Bell's unexplained transition from economic income to business income. He selected long term equity investors as the user group assumed a decision model derived from finance theory\textsuperscript{58}.

\[
V_0 = \left( \sum_{i=1}^{n} \frac{D_i \alpha_i}{(1 + \beta)^i} + \frac{I_n \alpha_n}{(1 + \beta)^n} \right) - I_0
\]

Where, \( V_0 \) is the subjective net present value of one equity share purchased at time 0 at price \( I_0 \).

\( D_i \) is the divided per share expected during period \( i \).
\( \alpha_i \) is a factor to adjust for uncertainty, if the investor is risk adverse, \( 0 < \alpha_i < 1 \).
\( \beta \) is the opportunity rate of discount for a risk free investment.
\( I_n \) is the expected value of this equity share at the end of the planning period, time \( n \).

This model is an expanded version of the present value algorithm. It assumes two functions of accounting information\textsuperscript{59}:

(i) to serve as a lead indicator because the data impounds exogenous factors. Revsine presented this argument on the ground that replacement cost income equals economic income in a perfectly competitive economy. Economic income has two components.

(a) expected income which equates to Edwards and Bell's current operating profit,

(b) unexpected income which equates to Edwards and Bell's realisable cost savings. But Revsine's inferences are untenable since the assumptions of a perfectly competitive economy are irrelevant to conditions under which accounting is performed.

\textsuperscript{57} Most, Kenneth, S., ACCOUNTING THEORY, Columbus, Ohio, Grid Inc., 1977, P. 200.


\textsuperscript{59} Most, K.S., Accounting Theory, OP. Cit., P. 201.
to serve as a basis for extrapolation because the data incorporates endogenous factors. Revsine argues that actual COP is the best estimate of future COP which in turn is a surrogate for future distributable (cash) flows; but there is no such evidence. The argument confuses the function of the income statement with that of the statement of changes in financial position; it is from the latter that extrapolation of this kind can proceed. Moreover, Revsine did not deal with the role of holding gains and losses in the extrapolation function.

Replacement Value Theory – As mentioned earlier Limperg perceived the need for a theory of value to the firm (from an accountant’s viewpoint, as distinct from the marginal approach to value). The basic propositions put forward by this theory are:

(i) An object can have only one value to a specified entity in the same place at the same time, i.e. historical costs are not effective during inflation.

(ii) Value of an object that can be replaced, cannot exceed the sacrifice which replacement involves i.e. replacement value. Replacement value can be calculated by finding the technically necessary and economically unavoidable cost of the object to be valued. It is used for all management considerations and decisions besides being used for preparation of annual statements.

(iii) Expense is a measure of consumption of resources during a period of time, payment is a measure of financial sacrifice involved in acquisition and cost is a measurement of use, not acquisition. Cost is a representation of the standard quantities of factor inputs required for production, in terms of their money price at the moment of use.

(iv) Where net realisable value (NRV) is less than replacement cost, value cannot exceed NRV (Proceeds value).

(v) Value to the firm for any decision in always the highest of a set of feasible alternatives (which do not include replacement value or proceeds value), since the lowest is always zero.

(vi) Holding gains are credited to a revaluation surplus account and losses are debited to the same account, to the extent it is in credit. To the
extent, the credit is exhausted, they are expenses of the period. This provision of charging holding losses against revenues, without taking credit to revenues for holding gains, has been criticised.

The theory does not cover the effect of changing price levels on monetary assets. This aspect has been discussed by Goudeket. He suggested that changes in the purchasing power of that part of stockholder's equity which is invested in monetary assets should be computed using a cost of living index. The income statement shows a result after purchasing power of stockholder's equity has been maintained. Critics however argue that instead of using the cost of living index, the inflation effect should be calculated by reference to an index of factors of production on which the firm spends its money. The theory supports the contemporary view that balance sheets and income statements should reflect current values and current costs. It also explains why non-replaceable assets are valued at NRV (When RC > NRV). But it does not provide a satisfactory answer on various issues: whether differences arising on revaluation (holding gains and losses) are profits / losses or restatements of capital, whether items in suspense are to be carried forward in the balance sheet because their effects have not yet worked themselves out. It also avoids the problems arising on revaluation of liabilities.

Gynther, Rosenfield and Burton are among the other prominent advocates of Replacement Cost Accounting.

The above discussion shows that replacement cost accounting (RCA) provides more useful and up to date information than that provided by

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historical cost accounting or CPP accounting. Replacement cost represents the amount necessary to maintain the physical capital of the enterprise and the amount that should be recovered before income emerges by matching current costs with current revenues and segregating the gross margins into operating and holding components. It provides replacement cost information thus enabling the firm to improve its liquidity through determination of lower distributable profits as a result of increased depreciation and lower profits on holding inventories. It also claims to improve comparability within the same industry. Despite these merits, RCA has been criticised on various grounds:

(i) It is subjective, hence its utility is reduced. Current costs or quotations are not available for seasonal and style items and goods produced by obsolete methods. Further, it is time consuming, lacks comparability between different time periods (since accounts are expressed in units of different purchasing power) and does not deal with inflation as such. Changes in current costs do not always reflect changes in current selling prices. Inter-period comparisons may however be carried out with the help of ratios and percentages.

(ii) It is the price of an asset which the company does not own. It does not specifically account for the maintenance of working capital in real terms, since it treats business as it might be if replacement were effected, rather than business as it is. It is concerned with physical assets and capacities. The operating capacity concept of capital maintenance represents an entity view of management as opposed to the proprietorship view of the owners interested in evaluating alternative investments.64

(iii) In a period of rapid technological changes, replacement with an identical asset is impossible. The modern substitute may be much more sophisticated than the earlier model and the ascertainment of replacement cost will be difficult.

(iv) Differences in the estimation of replacement costs distort inter-firm comparisons.

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(v) It ignores the gain / loss arising from holding monetary items during inflation and hence it is not applicable to non-manufacturing businesses.
(vi) It is not suitable for tax purposes as enterprises experiencing escalating stock prices and plant costs will build up owner's equity at a rate faster than enterprises experiencing the opposite.

ASR 190, released by SEC required the disclosure of the estimated current cost of replacing (new) productive capacity, the current depreciated replacement cost of productive capacity on hand and the methods used in arriving at these figures, at the end of the fiscal year for which the balance sheet was required. The effect of replacement cost on asset valuation is yet to be seen, for the ingenuity is so remarkable that sooner or later one may witness a new concept for the same purpose.

**Net Realisable Value**

NRV is also referred to as CCA or Continuously Contemporary Accounting (in Australia). An early supporter of this method was MacNeal\(^6\). Later it was developed by Chambers and Sterling\(^7\). Chambers proposed the term Current Cash Equivalent (CCE=NRV) as a single measurement concept for all assets, representing their present realisable values also termed market resale price. It represents the amount of cash or generalised purchasing power that could be obtained by selling each asset under conditions of orderly liquidation which may be measured by quoted market prices of goods of similar types and conditions. In essence, it is a liquidation value reflecting the peculiarities of the market at a given time and is subject to greater volatility than other valuation concepts. It represents the firm's position in relation to its adaptive behaviour to the environment.

Chambers favoured contemporary prices. He regarded past prices irrelevant and future prices speculative. Thus the concept avoids the

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\(^6\) MacNeal, K., TRUTH IN ACCOUNTING, University of Pennsylvania press / Oxford University Press, 1939

necessity of aggregating past, present and future prices. But the method is not free from criticism:

(i) It does not consider the relevancy of the information to the prediction and decision needs of the users.

(ii) It lacks the additive property, i.e. CCE in individual assets does not add upto the CCE of assets as a group. This discrepancy can be said to arise due to Goodwill.

(iii) It justifies the exclusion of items which do not have a contemporary market price, from the balance sheet, although Chambers has suggested some modification to deal with this situation. Depreciation is not provided as it is taken care of in the restatements of assets at their CCEs.

(iv) The results of operations may be mixed with the high fluctuations in asset valuation. Further, the problem of getting relevant quotations also remains.

The CCE concept is however meaningful in accounting measurement and has been accepted in many countries: U.K., Australia, New Zealand, South Africa and U.S.A. Current exit value in orderly liquidation is being used to value marketable securities of investment companies, brokers and dealers in securities. In the normal routine, the concept of exit value (NRV) is being used to value accounts receivables and inventories.

These two aspects of current valuation i.e. RC ad NRV suggest two separate concepts of business profit. Exit prices represent the opportunity cost of using resources in the business rather than disposing of them. According a measure of realisable profit in which assets are valued at exit prices represents the short run return to business from using or holding assets rather than selling them. Entry prices provide a long run evaluation in the form of a measure of replacement cost profit. To continue its operations in the long run, a business should replace its assets used in production, accordingly replacement costs should be used for asset valuation67.

However, entry and exit prices need not be considered mutually exclusive. While accepting the contention that replacement cost profit and realisable profit provide different information, Edwards and Bell advocated the incorporation of both sets of data (entry and exit prices) in the accounting records. Similar views were expressed by the Sandilands Committee. But Edwards and Bell ultimately favoured replacement cost profit as it reports business performance on the going concern assumption underlying the information needs of managers for evaluation of potential outcomes68.

Present Value Accounting (PVA)

This method was developed by Prof. Hansen (1961). Present value of future cash flows is theoretically an accurate concept for asset valuation. The value of assets is the money equivalent of its service potentials. Conceptually this is the sum of the future market prices of all streams of service to be derived, discounted by probability and interest factors to their present worth69. According to Sprouse and Moonitz, the valuation of these assets (money or claims to money) should be based on the amount of cash into which they will be converted i.e. their discounted future exchange prices70.

This concept however is based on three factors – the amount of money to be received, the discount factor and the time period or periods involved. It ignores the risk factor. It is useful as a valuation concept for single ventures where there are no joint factors requiring separate accounting or where the aggregations of assets can be carried far enough to include all joint factors. It is also relevant for monetary assets where waiting is the primary factor determining the net benefit to be received in cash by the firm. It has been argued that discounted value basis may be employed in case of notes, mortgages, accounts receivables and payables and whenever the rights or obligations constituting the asset or liability take the form of definite

69 AAA Committee on Accounting Concepts And Standards, Accounting and Reporting Standards for Corporate Financial Statements and Preceding Statements and Supplements (Columbus, Ohio, AAA, 1957), P-4.
determinable stream of money receipts or payments or of benefits directly convertible into cash equivalent\textsuperscript{71}. Due to its highly subjective character, it has limited usage, restricted to assets and liabilities having fairly certain cash flows (e.g. U.S. Government bonds).

The method can also be used effectively for assets such as leaseholds, bond investments etc. But it is of doubtful validity when applied to separate assets for the following reasons\textsuperscript{72}:

(i) Expected cash receipts depend upon subjective probability distributions that are not verifiable by nature.

(ii) Discounting not only involves an estimate of the true interest (opportunity cost of money) but also an estimate of the probability of receiving the expected amount. Longer the waiting period, greater the uncertainty that the amount will be received. Even if opportunity discount rates are obtainable the adjustment for risk factor should be evaluated.

(iii) If two or more factors contribute jointly, it may be difficult to allocate the benefits to these assets effectively especially if human assets are also involved.

(iv) The sum total of the firm's future cash flows discounted worth may be different from the total of all separate assets.

It is often argued that the three values discussed above i.e. RC, NRV and PV are equal in a free market and that the main causes for differences in the resultant values under the three concepts are market imperfections and the evaluator. Thus, the differences can be reduced by dictating the measuring concept to be adopted. On the other hand, if the requirement of using a single basis of valuation for all assets is dropped, close approximation to present economic values is possible.

\textsuperscript{71} Committee on Accounting procedure; AICPA, 'Restatement and Revision of Accounting Research Bulletins, ARB No. 43, New York, 1953, P-40.

Different basis of valuation should be adopted for different assets. Asset valuation could be guided by the following valuation rule: "Where sufficiently verifiable evidence is available to permit the valuation of an asset on one or more bases, the basis to be used in the one considered to yield the closest approximation to the discounted value of the assets future cash flows."73

The arguments for and against the various aspects of current valuation cannot be finally resolved without a clear specification of the information needs of potential statement users.

The Sandilands Committee favoured the concept of value to the business which is similar to what Baxter terms 'deprival values'.

Deprival Values

This concept was first discussed in depth by Prof. J.C. Bonbright of Columbia University in 1937. It has been adopted by British writers but has not found favour in USA. This concept measures assets at their deprival value. The value to the owner can be measured by the loss which would be suffered if the business is deprived of that asset. The usual ceiling is replacement cost but, if the asset is not worth replacing, a lower figure represents deprival value. The concept appears to be negative as it relies on the loss from deprival rather than gain from acquisition.

The best way to determine deprival value is to draw alternative cash budgets showing the future cash flows depending upon the possession of the asset. The alternative budgets reflect two scenarios (i) when the owner is deprived of the asset, (ii) when he continues in possession. In the former, future cash flows will be worse, as the owner will have to pay for replacement. The gap between the alternatives is the cash advantage of ownership, i.e. the value of the asset under this concept.74 The value will vary with the circumstances of the particular asset:

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73 Committee on Accounting Procedure, AICPA, 'Restatement and Revision of Accounting Research Bulletins', ARB No. 43, New York, 1953, P-40.
(i) Where an item is worth replacing: Replacement cost is the differential or deprival value of the asset.

(ii) Where an asset is not worth replacing: This is so, especially if the replacement price has risen or the contribution (recoverable amount) has fallen. In such a case, the owner may be planning to get rid of the particular type of assets. Hence it is not replacement cost but contribution which becomes a relevant part of deprival budgets. Alternative cash budgets also show that when contribution is less than replacement cost, contribution represents deprival value. Thus deprival value is lower of replacement cost or contribution.

Contribution may take two forms:

(a) net revenue from the assets early sale, or

(b) use (or economic) value; normally the cost savings from keeping and using the asset, but sometimes future revenues (e.g. hiring out the asset).

Where the disappointing asset is intended for sale, deprival value is sale price less any future costs of completion, selling etc., net realisable value. But if the future cost savings (contribution) are worth more than net realisable value, then deprival value is use value (contribution). Thus deprival value is lower of replacement cost and future contribution; where deprival value is contribution, it is the higher of net realisable value and use value.

(iii) Where an asset will be replaced by a different asset:

Under certain circumstances, the asset may have to be replaced by a different kind of asset due to changes in customer's preferences or the firm's methods. With a new invention, the deprival value of an old or semi-obsolete asset falls. Where the old asset and the potential replacement differ, replacement cost ceases to be the same as replacement price. Cost is then the price adjusted for change in benefits. In such a case, deprival value is net realisable value and not use value since the owner has decided to replace the obsolete asset.

75 Ibid., P-204.
When the value of an asset is defined as the difference between alternative cash budgets, its size varies not only with a change in the asset's own budget but also with a change in the budget of potential replacement. If the budget of potential replacement improves the value of the asset will fall even though its own future contribution may be good. As financial journalists say, market values move in sympathy. “Every valuation is a comparison, we have no conception of an absolute utility or an absolute standard of utility. The notion of value is meaningless except in relation to alternatives of choice”76.

Deprival budgets should be drafted on reasonable and likely assumptions about the owner, the particular asset and circumstances. It should assume that the owner will adopt the course which offers the best cash flow prospects under alternative budgets; that the asset can be replaced without any suggestion of haste or duress and the firm has access to enough cash to replace the old asset in an economical way.

Thus deprival value is the right figure for many everyday management decisions. It is practical, logical and increasingly familiar. It also satisfies the two tests of the best standard of value: figures should be helpful for decisions on the use of a separate asset and that the total of figures should show how much the firm would feel justified in paying for an equally productive set of assets.

The above suggestions for deprival values apply to assets in general but there are some assets, which are difficult to value e.g. work-in-progress and finished goods and intangibles. Such assets are difficult to value by any method, as their links with the market are weak, hence the necessary price data is not available. Baxter has given suggestions for valuation of such assets 77:

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76 Knight, F.H., 'RISK, UNCERTAINTY AND PROFIT', London School of Economics, REPRINTS, 1957, P-63.
(i) In case of factory's work-in-progress (WIP) and finished goods, the current values could be based on prices in the outside market or on the current cost of replacement within the factory. In both cases it is difficult to arrive at current values. Market dealings in WIP are rare, such assets may neither have a buying nor a selling price. As regards internal replacement it can be argued that to furnish itself with a comparable total stock, a new or deprived firm would have to buy raw materials and pay wages and overheads (assuming that the firm works at the most efficient level of activity) during the time period needed to manufacture the total stock. Replacement cost of stock is then the total expense for the period. Unlike other methods, this method lays emphasis on overheads which are likely to gain importance with increase in mechanisation.

(ii) In case of a contracting firm, a partly finished ship or building is also a kind of WIP; their valuation too is difficult due to lack of market dealings. Here deprival value may be the replacement cost at today's prices for the work completed so far (with an eye on savings). Overheads may be added to direct costs and deductions made for progress payments and loss. In recent years, several contracting firms have been raising asset values by adding a fraction of the expected profit on the whole contract each year. But this method is against the rule of caution because profit estimates may be upset due to unexpected circumstances e.g. strikes, wage increases, technological problems etc. Contracting firms which recognise interim profits may allocate the final profit using an artificial method e.g. percentages of work completed method by which the estimated total profit is split in the proportion that each years cost bears to total cost. FASB 56 recognises both methods. SSAP 9 also recognises cost plus any attributable profit but the companies Act (UK) 1981 regards it as illegal.

(iii) Valuation of intangibles requires superlative judgement. The deprival concept is not applicable. FASB 2 lays down that research and development should be written off at once. Other intangibles should be treated as assets and amortised over 'estimated future life' not exceeding forty years (FASB 44). In U.K., standard 13 also lays down that research and development should be written off at once. However, it has not commented on a wide range of items.
Goodwill is a balancing figure between the whole firm as its current price and the assets at historical costs or between the whole firm and parts at current prices. In the latter case, difference is due to market and technical difficulties which may prevent the acquisition of a set of parts to be built into an effective whole. Baxter suggests that instead of treating this debit as an asset, it should be treated as 'excess of price paid for whole firm as a going concern over the net sum of separate asset values'. If it is included in the ledger, it should be written off as early as possible. In USA, rules for intangibles also apply to goodwill. In U.K. the Companies Act. 1981 requires writing off goodwill over a period chosen by directors but not exceeding useful economic life.

There is yet another category of assets corresponding to long term liabilities. They are assets that yield cash directly, e.g. holdings of long-term loans. Theoretically in case of such assets 'use value' changes to future receipts (interest and ultimate proceeds) and the deprival value is lower of 78:
(i) (if the owner could and would replace on deprival) the replacement cost.
(ii) (otherwise) the higher of (a) net current sale price and (b) the present value (at his appropriate discount rate) of future receipts according to whether his best plan is to sell the asset at once or keep it.

Error on Depreciation

The main objective of depreciation accounting is to allocate depreciation in a systematic and rational manner in order to (i) distribute the cost of capital assets less salvage value (if any) over its estimated useful life, (ii) ascertain the cost of production or services by recording the cost of services used. Depreciation figures in the income statement influence profits and tax payments. In the balance sheet they reflect the size of assets and capital maintenance.

The conventional methods of charging depreciation can be divided into four groups:

78 Baxter, W.T., INFLATION ACCOUNTING, OP, cit., P. 223.
(i) Constant Charge, Straight Line or Fixed Instalment Charge Method.  
(ii) Increasing Charge Methods, (Annuity Method and Sinking Fund Method).  
(iii) Decreasing Charge Methods (Declining Balance Method and Sum of Digits Method).  
(iv) Variable Charge Method (Production or Service Unit Method).

A detailed analysis will reveal that the rationale of these methods (matching costs and revenues) seems crude and the grounds for choosing a method are seldom stated in a clear way. These methods produce a limited range of somewhat rigid value patterns and inflation renders the depreciation figures totally inadequate. With inflation the depreciation prevision based on historical costs widens the gap between the annual depreciation provision and the cost of used up portion of assets. The inadequate depreciation figure when matched with current revenues leads to an inflated profit figure; consequently the firm faces difficulty in replacing the asset. The above argument provides a strong case for revaluation of assets (so that the balance sheet reflects current values) and calculation of depreciation on the revalued amounts to enable matching of current costs with current revenues in the income statement.

Recognising the gravity of the time lag error, companies may adopt a depreciation method that may make heavy charges in the earlier part of an asset's life justifying it on the grounds of abnormal physical activity in the early years or they may write off an arbitrary initial allowance in the first year. They may even switch over from straight line to declining balance or sum of digits or double rate declining balance method. These are merely ways to increase the depreciation charges during inflation so that new assets may be purchased easily. Although tax authorities disallow inflation charges, they may accept accelerated methods of depreciation.

**Backlog Depreciation**

An important aspect of depreciation based on replacement cost is backlog depreciation. Backlog depreciation arises every time a depreciating asset is revalued. Such revaluations make earlier provisions inadequate and
hence the need to provide backlog depreciation. In other words, the depreciation charge before arriving at the replacement cost operating income should equal the depreciation charge for the current year plus the amount by which previous depreciation charges, based on the lower replacement cost prevailing in previous periods, have been insufficient to provide for replacement on the basis of current replacement cost.

There are differences of opinion regarding the treatment of backlog depreciation. If backlog depreciation is included in the depreciation charge for the current year, the total depreciation charge will not be a measure of the current costs of assets consumed during the year, rather it will represent a provision to replace the asset at the end of its useful life. Further it will distort the current income figure.

A more acceptable view is that backlog depreciation should be deducted from the Fixed Assets Revaluation Reserve in the balance sheet and added to the “Accumulated Depreciation provision”. This transfer should take place within the balance sheet. Further most companies replace their assets on a regular revolving basis in which case depreciation charge is the amount required to purchase new fixed assets in that year. Hence, charging backlog depreciation is not necessary. Or the depreciation provided may be invested in assets which themselves rise in value with inflation and are not held in cash or as monetary assets. In such circumstances, the depreciation provision may be approximately sufficient for replacement of assets.

Another point worth considering is that the year’s provisions should meet the estimated future replacement cost, not the current replacement cost. Where inputs can be replaced at once, current cost is the same as replacement cost. But where they are not to be replaced for a long time as in the case of depreciable assets; current cost is a poor guide to future replacement cost and can be defended only as a short term remedy avoiding

the estimation of remote prices. Moreover, increasing depreciation charges as a result of revaluation may cut profits to a low that may prohibit the payment of dividends, which will again lead to dissatisfaction among the owners. When prices fall with improving technology, charging falling replacement cost depreciation will again raise doubts whether capital is being maintained.

Rationale for Inventory Valuation

A major objective of accounting for inventories is the proper determination of income through the process of matching appropriate costs against revenues. An error in the valuation of inventory may cause a material mis-statement of financial position and of net income. It may lead to other erroneous figures in the balance sheet such as current assets, total assets, owner's equity etc. The error will also affect key figures in the income statement such as cost of goods sold, gross profit on sales and the net income for the period. Moreover the ending inventory of one year is also the beginning inventory of the following year. Consequently the income statement of the following year will also be in error by the full amount of original error in inventory valuation.

Inventory Valuation Methods:

Various methods have been evolved overtime for valuation of inventories. They may be broadly classified as follows:

(a) Methods based on actual costs (e.g. First-in-First-Out, Last-in-First-Out, Weighted Average Cost and Base Stock Methods).
(b) Methods not based on actual costs (Market value and standard cost methods).

The methods under these two classifications reflect the pattern of cost flow for accounting purposes though it may not coincide with the actual flow pattern of materials. An appropriate method of costing materials should relate current costs to current revenues, and reflect the procurement, manufacturing and sales policies of the firm. It should also carry forward to the new fiscal period a residual value representing useful cost previously incurred, which will be consumed in earning revenue. No method is absolutely suitable for all
occasions but a method once chosen should be followed consistently. The International Accounting Standards Committee observed that the FIFO, Weighted Average Cost, LIFO, Base Stock, Next-in-First-Out (NIFO), specific identification and latest purchase price are in current use.\footnote{International Accounting Standards Committee, \textit{International Accounting Standard on Valuation and Presentation of Inventories in the Context of the Historical Cost System (IAS 2)}, London, IASC, 1975.}

In the selection of a method, consideration should be given to the probable effect upon the balance sheet, the income statement, taxable income and on other business decisions e.g establishing the selling prices for goods. The usual methods of inventory valuation make extensive use of historical cost which appears to be objective and easy. But there are various problems in finding the historical cost of stocks and further difficulties in justifying it. The cost figure for closing stock can vary with the choice of ingredients i.e. a bigger overhead content may lead to a bigger stock carry forward and thus in an error of great magnitude with price change. Further, the sequence in which units are issued may again affect the cost of goods sold and the error.

The inflationary policies and high income tax rates in recent years have stimulated the interest of management in the choice of inventory valuation methods. When prices are rising drastically, the most significant cost data to use as a guide to sales policies are probably the current replacement cost of goods being sold. All methods using historical cost are likely to create time lag errors. FIFO method will result in lowest material costs being charged to production, while LIFO will result in highest material costs being charged to production and average costing will give a figure in between the two.

FIFO method assumes that materials are issued from the oldest supplies in stock priced at the oldest cost price listed in stock ledger, while materials on hand are the most recent purchases. The time lag error under FIFO arises because unlike current revenues, costs also include the costs incurred in the preceding year or in the beginning of the same year. The
error arises even if there is no closing stock. Thus the error on cost of goods sold (i.e. subtracting old inventory costs rather than current replacement costs from current revenues) results in fictitious profits referred to as inventory profits which in turn lead to payment of excessive income taxes. The quantum and direction of inventory profits may be influenced by the amount and direction of price changes from time to time and the size of inventory.

LIFO method assumes that the most recent purchases are included in cost of goods sold to represent current costs since sales and production result from current purchases. Supporters of this method claim that most enterprises maintain a minimum quantity of inventory at all times which may be compared to a fixed asset or an investment fund and should be valued at the cost of quantity originally purchased, provided the inventory quantity remains unchanged. The main advantage of this method is that it eliminates the error on cost of goods sold in a straightforward manner, i.e. by charging cost of goods sold at (close to) replacement cost. It also acts as a tax shield by reducing the impact of taxation during a period of rising prices. However, when goods are issued from stock in accordance with LIFO principles, the inventories are valued at remote figures in the balance sheet.

Although the LIFO method of inventory valuation comes closer than any other method to measure profits in the light of current revenues and current replacement costs, it has been criticised on various grounds:

(i) Firstly, critics regard the matching of current costs and current revenues as purely coincidental. The method would be inaccurate when physical increments and decrements affect closing stock or there are fluctuations during the year. If the sales quantity is more than the purchase quantity, a part of the values of opening inventory (valued at historical cost) would also enter the cost of goods sold.

(ii) The LIFO method may be quite complicated, especially in firms whose stocks may include a large variety of items varying in nature and mix of types. LIFO then involves elaborate calculations which may be based on index numbers. The current cost of various items comprising closing stock may be ‘deflated’ with the help of an index, to a base date level.
(iii) Under the LIFO method, the balance sheet depicts stock at original historical cost (which are remote prices) instead of depicting current values. Even in the income statement, LIFO only approximates current costs, since it shows the cost of most recent purchases. It is not necessary that this is the same as current cost.

(iv) This method may force the management to take decisions, which may be against the interests of the firm. The need for stable stock figures to maximise tax benefits may interfere with the buying policies of the firm: "If you have too little inventory compared with your LIFO base, you buy up stock; when six or seven companies are trying to do the same thing, you run the market ragged. Should you be too high on certain goods in comparison with your LIFO base, you cut prices to move out goods. Thus operating decisions are coloured by the operation of the accounting system"82.

(v) LIFO refutes the claim that FIFO method leads to the recognition of 'market gain' by reducing the cost of goods sold. Instead it alleges that FIFO leads to inventory profits which are eliminated by LIFO with its built in tendency to restrict periodic profits. But it can be said that LIFO is on less sure ground than FIFO which may add a calculated and defensible charge to costs, for inflation. LIFO deducts something from closing stock to eliminate the error on cost of goods sold. Thus, it is more inaccurate and fails to reveal important figures depicting price movements.

The search for the best method of inventory valuation is rendered difficult, because the inventory figure is used both in the income statement and in the balance sheet. These two financial statements are intended for different purposes. In the income statement the function of the inventory figure is to permit a matching of current costs and current revenues. Under the LIFO method of inventory valuation, reported net income reflects the increasing cost of replacing the goods sold during the year. At the same time LIFO method prevents the payment of income tax on an exaggerated measure of taxable income. On the other hand, the function of the inventory figure in the

balance sheet is to reflect the ability of the company to meet its debts. For this purpose, the FIFO method in line with replacement costs is more appropriate than the LIFO method.

Thus, we cannot make generalisations regarding the superiority of either method. But the LIFO method is already in wide use, is more easily understood than FIFO plus an inflation charge and hence more easily acceptable than any other method of inventory valuation.

Disclosure practices relating to inventory valuation is one of the areas when there seems great latitude of judgement and the mode of valuation adopted may distort the picture of the company in the way desired by the management. Alternate treatments are widely known and may have an impact on the concern's reported results and financial position.

In U.S.A, the LIFO method of inventory valuation has been very popular. It was accepted by the American tax law for income tax assessment in a narrow range of industries as early as 1938. During the next ten years, the congress liberalised the rules until all tax payers could opt for LIFO. In 1976, the SEC adopted disclosure requirements to emphasise the impact of inflation. It required the 1000 largest non-financial corporations to disclose the cost of replacing inventories at current prices and the computation of cost of goods sold using replacement cost. The disclosure could be in a special section of financial statements or in a footnote.

In U.K., the principle of 'Lower of cost (FIFO) or market' seemed to reign in tax practice. The peak inflation of 1974 caused a liquidity crisis for many British firms. As a result the government was forced to give belated tax relief for error on both stocks and depreciation. After various stop gap rules had been tried for stocks, the Finance Act 1981, brought in a system that avoided CCA (due to its subjectivity and other defects) and geared relief to an 'all stocks' index. This relief was unfortunately withdrawn (1984) with a decline in inflation. The Companies Act (1981) however recognises LIFO.
In France, FIFO or Weighted average method is used for inventory valuation, LIFO method is not permitted. In Japan, inventories are valued at lower of cost or market value. As far as cost flow assumptions are concerned, weighted average cost is common in Japan.

In India, a study of top 100 companies in the engineering industry (with sales exceeding Rs. 100 crores per year including public and private limited companies) was carried out. It was observed that very little disclosure is made by companies regarding cost flow assumptions although the modes of valuation of inventory are consistently followed from year to year. Further, no company depicted the overhead cost assignment or the manner of application of lower of cost or market value.

Thus, a large variety of modes of valuation are observed in the private as well as public sector in our country. Very few companies demonstrate the composition of inventory cost. Absorption costing as opposed to variable costing has been accepted as GAAP for inventory valuation. Various cost flow assumptions are permissible as per the recommendation of AS 2. Although the LIFO method appears to be popular; in the light of income tax requirements, there is a tacit implication that the final figure of profit is not the same for computing tax liability and for other uses.

To conclude, it may be admitted that the degree of subjective judgement and the variety of valuation techniques inherent in current valuation result in current assets being revalued at different prices. The elimination of alternatives and comparability may be sought at the expense of relevance. It has been suggested that at least 'a partial solution lies in the concept of consistency'. It will facilitate inter-firm and inter-period comparisons. But rigidity may not be appropriate since current valuation is still

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84 Accounting Standards Board, Valuation of Inventories, AS 2, ASB, ASB, ICAI, New Delhi, June 1981.

at an experimental stage. The only serious objection to the proposed rule (relevance) for valuation is that similar assets employed in similar circumstances by different firms may be valued on different bases thereby impairing inter-firm comparison. This cannot be remedied and it is still a risk worth taking. The adoption of the suggested rule could produce a high degree of comparability in the long run by focusing attention on assets individually and by type. An added requirement is that firms make full disclosure of the bases adopted by them for valuation of all kinds of assets.

LEGAL FRAMEWORK

In the preceding section, we examined the need to account for price level changes, the conceptual underpinning of inflation accounting and the international development in this field.

We now focus our attention on the Indian corporate sector to study the manner and extent to which inflation accounting has been adopted by Indian companies. However, before undertaking this study, it would be worth-while to examine the awareness of the government in our country towards this problem. This involves a study of the existing legal framework in our country in the context of inflation. Against this backdrop, the impact of inflation on taxation and effective steps that have been taken by various countries (as compared to our country) to rectify or mitigate the distortionary effects of inflation on taxation have been examined.

The accounting policies adopted by a company depend on the objectives and purpose of reporting. Apart from internal reporting (which provides information required for various management decisions) and external reporting (which provides information to the various users of accounting information namely shareholders, creditors, investors, the government and the public), reporting requirements can also be classified into a third category viz. tax reporting (to provide information for assessment of tax liability). Although there are no legal restrictions on internal reporting, corporate accounting practices in our country are governed by the Companies Act of 1956 and the
All the companies have to adhere to the provisions of the companies Act 1956 while preparing published accounts. The form and contents of published financial statements i.e. balance sheet and income statement should be in accordance with the requirements outlined by section 209-212 of the companies Act 1956.

Section 211(1) of the Act states: "Every balance sheet of a company shall give a true and fair view of the state of affairs of the company as at the end of the financial year and shall, subject to the provisions of this section, be in the form set out in Part – I of schedule VI; or as near thereto as circumstances admit or in such other form as may be approved by the Central Government either generally or in any particular case; and in preparing the balance sheet due regard shall be had, as far as may be, to the general instructions for preparation of balance sheet under the heading "Notes" at the end of that part".

Section 211(2) states: ‘Every profit and loss account of a company shall give a true and fair view of the profit or loss of the company for the financial year and shall, subject as aforesaid, comply with the requirements of Part – II of schedule VI, so far as they are applicable there to'.

A major shortcoming of the above mentioned statements is the use of the term, ‘true and fair view’ which may have several connotations. The following statement outlining the function of a balance sheet is significant in this context : 'The function of a balance sheet may be stated to be an endeavour to show the share capital, reserves (distinguishing those which are available for distribution as dividends from those not regarded as so available) and liabilities of the company at the date as at which it is prepared, and the manner in which the total moneys representing them are distributed over the several types of assets. A balance sheet is, thus, a historical document and does not, as a general rule purport to show the net worth of an undertaking at any particular date, of the present realisable value of such
items as goodwill, land, plant and machinery, nor except in cases where the realisable value is less than cost, does it normally show the realisable value of stock in-trade'.

Thus it can be argued that although the balance sheet and profit and loss account may be prepared in the form set out in Part – I and Part – II of schedule VI respectively, subject to the provisions of section 211; they cannot be said to reflect a 'true and fair view' unless the fixed assets and stock are shown at their current values. In other words, the use of the term 'true and fair view' contradicts the information actually presented by the balance sheet and profit and loss account.

Fixed Assets are to be shown in the balance sheet at original cost. Part - I, schedule-VI of the Companies Act states that 'under each head the original cost and the additions thereto and deductions therefrom during the year and the total depreciation written off or provided unto the end of the year to be stated'. It further states : 'where sums have been written off on a reduction of capital or a revaluation of assets, every balance sheet (after the first balance sheet), subsequent to the reduction or revaluation shall show the reduced figures and with the date of the reduction in place of the original cost. Similarly, where sums have been added by writing up the assets, every balance sheet subsequent to such writing up shall show the increased figures with the date of the increase in place of the original cost. Each balance sheet for the first five years subsequent to the date of writing up shall also show the amount of increase made.'

In other words, fixed assets are to be shown in the balance sheet at historical costs. However, revaluation of fixed assets is permitted, provided disclosure of such revaluation is made i.e. subsequent balance sheets should depict the increased figures. The amount of income should be shown for the first five years. The difference between the revised value and the book value is credited to a Revaluation Reserve. However, as per the Guidance Note on

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'Treatment of Reserve Created on Revaluation of fixed Assets', issued by the Research Committee of ICAI, this reserve is not available for payment of dividends. And this view is also supported by the Companies (Declaration of Dividend out of Reserves) Rules, 1975. Accumulated losses or arrears of depreciation also cannot be set off against Revaluation Reserve. Only the additional depreciation on the increased amount due to revaluation, can be adjusted against Revaluation Reserve, from year to year or on the retirement of the relevant assets.

As regards depreciation, section 350 of the Companies Act states: 'The amount of depreciation to be deducted in pursuance of clause (k) of sub-section (4) of section 349 shall be the amount calculated with reference to the written down value of the assets as shown by the books of the company at the end of the financial year expiring at the commencement of this Act or immediately thereafter and at the end of each subsequent financial year (at the rate specified in schedule XIV)'.

The rates specified in schedule XIV for some important categories of assets is as follows:

Rates of Depreciation (Percent)

<table>
<thead>
<tr>
<th>Nature of Assets</th>
<th>Single WDV*</th>
<th>SHIFT SLM**</th>
<th>DOUBLE WDV*</th>
<th>SHIFT SLM**</th>
<th>TRIPLE WDV*</th>
<th>SHIFT SLM**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factory buildings</td>
<td>10</td>
<td>3.34</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Other buildings</td>
<td>5</td>
<td>1.63</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Plant &amp; Machinery (General rate)</td>
<td>15</td>
<td>5.15</td>
<td>22.5</td>
<td>8.09</td>
<td>30</td>
<td>11.31</td>
</tr>
<tr>
<td>Furniture &amp; fittings (General rate)</td>
<td>10</td>
<td>3.34</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

*WDV – Written Down Value,
**SLM – Straight Line Method.

* Substituted for 'at the rate specified for the assets by the Indian Income-tax Act, 1922 and the rule made thereunder for the time being in force, as normal depreciation including therein extra and multiple shift allowances but not including therein any special initial or other depreciation any development rebate, whether allowed by that Act or those rules or otherwise' by the Companies (Amendment) Act 1988.
The Companies (Amendment) Act 1988, seeks to make far reaching changes in the Companies Act 1956. Significant changes relating to depreciation include:

- Delinking depreciation under the Companies Act and Income Tax Law.
- Depreciation may be provided on written down value or straight line method on rates specified in schedule XIV.
- Depreciation to be provided on prorata basis.
- Extra shift depreciation to be provided in this case of applicable assets.

Thus depreciation in published accounts may be calculated either on the basis of straight-line method or written down value method. As per the Accounting Standard on Depreciation Accounting\(^\text{87}\) 'where the depreciable assets are revalued, the provision for depreciation should be based on the revalued amount and on the estimate of the remaining useful lives of such assets'. But the Guidance Note on 'Treatment of Reserve Created on Revaluation of Fixed Assets' states that\(^\text{88}\), 'for certain statutory purposes e.g. dividends, 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 circumstances, the additional depreciation relatable to revaluation may be adjusted against Revaluation Reserve by transfer to Profit and Loss Account'.

Thus, although the Companies Act permits revaluation of fixed assets, it does not incorporate any 'specific' provision to account for price level charges in financial statements.

Tax reporting in our country is governed by the provisions contained in the Income-tax Act 1961. Section 32 of the Income-tax Act provides that the depreciation allowance in respect of buildings, machinery, plant or furniture is

\(^{87}\) Accounting Standard Board, Depreciation Accounting As 6, ASB, ICAI, New Delhi.

\(^{88}\) Institute of chartered Accountants of India, 'Guidance Note on Treatment of Reserve Created on Revaluation of Fixed Assets' issued by Research Committee of ICAI, New Delhi, 1982.
to be allowed as deduction. Depreciation is calculated on the basis of written
down value. Since the written down value is calculated with reference to cost,
ascertainment of actual cost to the assessee is necessary. Actual cost has
been defined by section 43(1). It means the actual cost of the assets to the
assessee reduced by that portion of cost thereof, if any, as has been met
directly or indirectly by any other person or authority. But the word cost is not
synonymous with 'price'\(^89\). In other words, 'cost' implies historical costs, which
form the basis for calculating depreciation. It follows that tax authorities in our
country do not recognise 'current values' of fixed assets for computation of
depreciation.

Under the changes proposed by the Taxation laws (Amendments and
Miscellaneous Provisions) Act 1986, depreciation will be allowed at the
prescribed rate on the Written Down Value of a block of assets. For this
purpose depreciable assets are classified under the following broad
categories: Building (residential and non-residential), furniture and fixtures,
plant and machinery (general, indigenous technology based; and energy
pollution control based) and ships. Thus by amending section 32 of the
Income Tax Act, depreciation will now be charged on blocks of assets.

The rates of depreciation as applicable for assessment years 1994-95
to 2003-04 were as follows:

<table>
<thead>
<tr>
<th>Class of Asset</th>
<th>Percentage of WDV</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Buildings (for assessment years 1994-95 to 2003-04)</td>
<td></td>
</tr>
<tr>
<td>1. General rate</td>
<td>5</td>
</tr>
<tr>
<td>2. Special rate in respect of factory building.</td>
<td>10</td>
</tr>
<tr>
<td>II. Furniture and fittings (for assessment years 1994-95 to 2003-04)</td>
<td></td>
</tr>
<tr>
<td>General rate</td>
<td>15</td>
</tr>
</tbody>
</table>

III. Machinery and plant (for assessment years 1994-95 to 2003-04)

General rate 20

For assessment year 2005-06 and onwards:

Block of assets Depreciation allowance on percentage of WDV
I. Building:
   - Residential buildings 5
   - Non-residential buildings 10
II. Furniture and fittings: 15
III. Machinery and plant:
   - General 20
   - Indigenous technology based 40
   - Energy saving and pollution control machinery 100

The depreciation of blocks of assets at higher rates under the new provisions may be regarded as welcome step since the taxable income will be considerably reduced. But the proposed changes have not been brought about with the objective of increasing the depreciation charge so as to reflect the current value of assets consumed. That the depreciation charge will increase as a result of the new provisions and reduce the inflated profit figure is merely co-incidental.

The following table presents a comparative study of the depreciation provisions under the Income Tax Act and the Companies Act.

<table>
<thead>
<tr>
<th>Particulars</th>
<th>Income Tax Act 1961</th>
<th>Companies Act 1956</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rates of depreciation</td>
<td>Higher</td>
<td>Lower</td>
</tr>
<tr>
<td>Methods of depreciation</td>
<td>Only WDV</td>
<td>WDV or SLM</td>
</tr>
<tr>
<td>Other allowance</td>
<td>Only normal depreciation</td>
<td>Extra shift allowance, technical allowance</td>
</tr>
<tr>
<td>Period of depreciation</td>
<td>Granted for entire year</td>
<td>Granted on pro-rata</td>
</tr>
</tbody>
</table>

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Besides depreciation, another important aspect of tax reporting is capital gains. Capital gains refer to the profits or gains arising from the transfer of a capital asset. 'Transfer' in relation to a capital asset includes the sale, exchange or relinquishment of the asset or the extinguishment of any rights therein or the compulsory acquisition thereof under any law or in a case where the asset is converted by the owner thereof into, or is treated by him as, stock-in-trade of a business carried on by him, such conversion or treatment | Sec. 2 (47) |

It further includes (for assessment years 2005-06 and onwards) the possession of immovable property given without registration of conveyance deed and transactions in agreement to buy or sell any immovable property or any right thereon | Amended Section 2(47)|. According to section 2(42A), a short term capital asset is one that is held for not more than 36 months whereas a long term capital asset is one that is held for more than 36 months. However, with effect from assessment year 2005-06 and onwards, a share in a company will be treated as short term capital asset if held by an assessee for not more than 12 months immediately preceeding the date of its transfer and will be treated as a long term capital asset if held for more than 12 months immediately preceeding the date of its transfer.

Short-term capital gains arise if the sale value is greater than the opening WDV plus additions during the year to assets within the same block. To avoid taxation of short term capital gains a company can restrict its sale of assets within the WDV of block of assets (under the new scheme) or it can acquire more assets than it discards and thus claim higher depreciation.

A close scrutiny of the relevant provisions of the Companies Act 1956 and the Income Tax Act 1961 (along with the recent amendments) governing
accounting practices for purposes of external reporting and tax reporting reveals that the Companies Act allows revaluation of assets, provided required disclosure is made, but the tax authorities do not allow computation of depreciation charge on the revalued amounts for determination of taxable profits. Recent amendments have prescribed higher rates of depreciation but that may be attributed to the government's efforts to encourage additions to fixed assets for the purpose of energy savings etc. Thus the reduction of the inflated profit figure is merely co-incidental. Despite an increasing awareness towards the problem of inflation throughout the world, in the last two decades, the recent amendments to the Income Tax Act also do not incorporate any 'specific' provisions to allow computation of depreciation on the basis of revalued figures.

The impact of inflation on financial statements i.e. published accounts has already been discussed at length in chapter – II. Besides distorting the reported profits and the financial position of an enterprise, inflation also leads to a distortion of taxation. Taxation of the inflated profit figure as shown by the income statements leads to capital levy i.e. payment of taxes out of capital. The impact of inflations on taxation can be analysed in detail by studying its impact on various types of income. Significant among the various types of income are:

(i) **Profits of an enterprise** – The two most important determinants of taxable income are the cost of goods sold and the depreciation charge for the year. Tax authorities in our country recognise the FIFO method and average cost method of inventory valuation. Although the FIFO method is preferred by most enterprises, the cost of goods sold figure does not reflect current values, rather the current revenues are matched against the historical cost of goods sold thus resulting in an inflated taxable profit figure. To rectify this distortion effective steps have been taken by countries like U.S.A. and U.K. The federal tax laws in U.S.A. recognise the LIFO method of inventory valuation which prevents the distortion of the profit figure as it reflects current cost of goods sold. In U.K., an arbitrary method is used to revalue the opening inventory by

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10% over the normal FIFO value although it is less effective than the use of LIFO method.

It has been established that depreciation calculated on the basis of historical costs does not reflect the current value of assets consumed. Under statement of depreciation provision again leads to an inflated taxable profit figure. This distortion can be rectified by revaluation of fixed assets and calculation of depreciation on the revalued figure. The alternative is to restate the historical cost based depreciation figure in units of current purchasing power using a general price index. The latter alternative has been favoured by most experts. Many companies in our country are presenting supplementary inflation adjusted financial statements (using CCA method) or revaluing fixed assets. However, recognition of depreciation provision based on the revalued figures or restated in units of current purchasing power by the tax authorities still seems to be a remote possibility.

(ii) **Capital gains** – Capital gains represent an increase in the value of an asset over a period of time, i.e. from the date of acquisition to the date of its transfer and are chargeable to tax under the head ‘capital gains’ of the previous year in which the transfer takes place. But the increase in the value of a capital asset over a period of time can partly be attributed to the rise in price level i.e. a fall in the purchasing power of money. Hence tax should be imposed only on the real increase in the value of the asset. However, determination of the real increase in capital value poses a problem. The following methods are currently being used, in which an attempt is made to impose taxes on the real increase in the value of a capital asset.

(a) **Proportionate Deductions** – Under this method deductions from capital gains are made on a proportionate basis. Many countries have provided deductions from capital gains on the basis of the duration for which the asset was held. This method is being followed in countries like Sweden, Mexico, Finland, Columbia and Spain which provide formulae for determining the capital gains. A similar provision i.e. deduction from capital gains under section 80T or reduction in rates under section 115, as the case may be is available in India (now substituted by section 48). But the provision is available only for long term capital gains which considerably
limits the effectiveness of the method. Short term capital gains relate to assets which are held for less than 3 years during which there may be a drastic increase in the value of an asset due to inflation during the period. But no such deduction is available on short term capital gains.

(b) Increasing the cost of acquisition – The cost of acquisition figure may be increased to identify the real increase in capital value. In countries like Belgium, Denmark and Norway, the cost of acquisition is increased by 5 to 7 percent for every year the asset is held. In our country, a similar provision is available under section 55 (2) of the Income Tax Act 1961, wherein the assessee has to option to substitute the fair market value as on the specified date in place of the original cost, if the capital asset became the property of the assessee before the specified date as given below:

<table>
<thead>
<tr>
<th>Assessment year</th>
<th>Specified date for substitution of fair market value in place of original cost.</th>
</tr>
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</table>

(c) Use of Price Indices – This appears to be the most effective and sophisticated method. Under this method, inflation adjusted capital gains are computed by deducting the adjusted cost of acquisition from the selling price. The historical cost of acquisition is restated using an inflation adjustment factor (calculated on the basis of price indices).

\[ C_i = P_s - [C_h x F] = \left( \frac{P_s}{F} - C_h \right) x F \]

where,
- \( C_i \) = Inflation adjusted capital gains
- \( P_s \) = Special Price
- \( C_h \) = Historical cost of acquisition
- \( F \) = Inflation adjustment factor.

This method is being followed in Argentina, France, Israel and Ireland. The only drawback of this method is the choice of a suitable index. However, no such provision is available in our country under the Income Tax Laws.
Besides the effects on various types of taxable income, the impact of inflation can also be analysed from the viewpoint of the time lag involved in the collection of taxes. Tax may not be collected on the same date on which the income is earned (except in case of deduction of tax at source). There is always a time lag between the date on which the income is earned and the date on which tax is collected. Depreciation in the value of money during this period results is a loss to tax authorities (and gain to the tax payer) due to inflation. Although interest @15 percent is charged on delayed payments under income Tax Act, this penalty does not cover the impact of inflation on delayed payments.

The above discussion clearly reflects the distortions caused by inflation on taxation and also spells out the need for remedial measures to mitigate the distortionary effects. Indian tax laws do not appear to recognise the distortionary effects of inflation on taxation except in case of capital gains tax where in deductions have been escalated. If may however be pointed out that the deduction is allowed only on long term capital gains which considerably limits the effectiveness of the method. And the method adopted for escalation of cost basis is irrational.

A clear cut well defined policy to fight the menace of inflation from the viewpoint of taxation is yet to be evolved and the possibility of any such measure in the near future appears to be remote.