Chapter – 2

Review of Literature

2.1 Introduction

2.2 Inflation accounting

2.3 History of inflation accounting

2.4 Purpose of the inflation accounting

2.5 Objectives and benefits of inflation accounting

2.6 Disclosure of inflation accounting information

2.7 Emerges and development of inflation accounting

2.8 Implementation of inflation accounting

2.9 Inflation accounting in India

2.10 Methods of accounting for price level changes

2.10.1 Periodical revaluation of fixed assets along with adoption of LIFO for inventory valuation

2.10.2 Generally purchasing power accounting

2.10.3 Current value accounting

2.10.3.1 Replacement cost accounting

2.10.3.2 Realizable value accounting

2.10.3.3 Current cost accounting
2.10.4 Specific and general price level accounting

2.11 Inflation rate

2.11.1 India inflation rate

2.12 Inflation index

2.13 How to calculate inflation

2.13.1 Wholesale Price Index

2.13.2 Consumer Price Index

2.14 A more realistic and indicative WPI

2.15 WPI and inflation

2.16 Calculation of inflation

2.17 Previous work

2.18 The Institute of chartered Accountant of India
2.1 Introduction

Financial statements are intended to be understandable by readers who have "a reasonable knowledge of business and economic activities and accounting and who are willing to study the information diligently."

A written report which quantitatively describes the financial health of a company is financial statement. This includes income statement and a balance sheet, and often also includes a cash flow statement. Financial statements are used usually compiled on a quarterly and annual report basis.

The purpose of financial statements was defined by the American Association of Accounting (AAA) as follows:

The purpose of the statements is the expression, in financial terms, of the utilization of the economic resources of the enterprise and resultant changes in the position of the interest of creditors and investors. Accounting is thus not essentially a process of valuation but the allocation of historical cost and revenue to the current and succeeding periods. [1]

2.2 Inflation accounting

Inflation Accounting is a financial reporting procedure which records the consequences of inflation on the financial statements that a company prepares and publishes at the end of the financial year. It is based on the assumption that the currency is stable. But in certain countries this assumption is not valid especially for certain countries which are experiencing hyperinflation and the adjustments are done according to the changes in the purchasing power of the masses. Inflation accounting was practiced in the US by the American Institute of Certified Public Accountants for over 50 years. During the period of Great
Depression many companies reconstructed their financial reports recording the inflation in them. During those 50 years many companies were encouraged to record the price-level adjusted statements in place of cost-based financial statements. The FSAB or the Financial Accounting Standards Board raised a proposal of publishing the price-level adjustment statements which was withdrawn by them later due to certain problems.

2.3 History of inflation accounting

History of Inflation Accounting is quite a long one. The alterations in the price index are recorded in the financial statements by the process of inflation accounting. Accounting is a process of keeping track of a business organization's financial transactions. It has evolved through a long period of time. Many economists have contributed towards the evolution of the accounting process. Same has happened with accounting of inflation. The history of accounting dates back to the first half of the twentieth century. The accountants of USA and UK have dedicated much of their time in developing the process of inflation accounting. It became important since the time the economies of various countries began to face inflation as a serious impediment to their economic structure. From there on the effects of inflation on financial statements began to be recorded. This process has faced some changes and has evolved since then.

Historical or normal accounting process assumes the fact that the transactions taking place over a given period of time can be measured by a single stable measuring unit. This unit could be a Pound or a Dollar. This implies that in UK all accounts are prepared in terms of pound and that the
balance sheet of one particular year could be compared with another year’s balance sheet. Eventually, if immovable assets were carried over from the last year to the present year then the accountants would count them as fixed assets for the whole of the present year. This process would ensure consistency in the economy but the biggest problem lies in the fact that very few currencies are stable during inflation. In reality the best most appropriate accounting process ever founded on this subject was withdrawn by UK. The American Institute of Certified Public Accountants and the American Accounting Association has worked on tracing the effects of inflation on the financial statements. They have been doing the work for over fifty years now. Some of the companies restated their reports during the period of Great Depression to incorporate inflation in their reports. Price-Level Adjusted Statements replaced the Cost-Based Financial Statements. This step was encouraged by the organizations that set the standards. The Financial Accounting Standards Board was planning to pass a proposal during 1970s when due to certain problems they had to withdraw the proposal.[2]

Accountants in the United Kingdom and the United States have discussed the effect of inflation on financial statements since the early 1900s, beginning index number theory and purchasing power Irving fisher's 1911 book .The Purchasing Power of Money was used as a source by Henry W. Sweeney in his book (1936) stabilized accounting, which was about constant purchasing power accounting .This model by Sweeney was used by The American institute of certified public accounting research study (ARS6) Reporting the Financial Effects of Price-Level Changes, and later used by the Accounting Standards Steering Committee (UK). Sweeney advocated using a
price index that covers everything in the gross national product. In March 1979, the financial accounting standards board (FASB) wrote Constant Dollar Accounting, which advocated using the consumer price index for all urban consumers (CPI-U) to adjust accounts because it is calculated every month. During the Great Depression, some corporations restated their financial when the Securities and Exchange Commission (SEC) issued ASR 190, which required approximately 1,000 of the largest US corporations to provide supplemental information based on replacement cost. The FASB statements to reflect inflation at times during the past 50 years standard-setting organizations have encouraged companies to supplement cost-based financial statements with price-level adjusted statements. During a period of high inflation in the 1970s, the FASB was reviewing a draft proposal for price-level adjusted statements withdrew the draft proposal.[3]

2.4 Purpose of inflation accounting

The basic purpose of Financial Statements of any entity is to portray true and fair view of the operations and affairs of the entity. But this basic purpose is not solved where the reporting currency is subject to hyperinflationary pressures. This is because we are following the historical cost convention of accounting. Under the historical cost convention, the assets and liabilities are reported at their historical cost, but the real purchasing power of the reporting currency could have been heavily reduced by the inflationary pressures. Thus the financial statements under the historical cost convention would over state the profits of the entity. But there would be no real profit left because the purchasing power of the money would have long
been eroded by inflation. On the other hand the assets would show a lower value than their real current worth. Hence the historical cost convention in a hyperinflationary situation fails to serve the basic purpose of Financial Reporting. It presents a distorted view of the profitability by overstating it and of intrinsic worth by understating it. Hence this calls for certain adjustments. Adjusting financial statements to show a firm’s real financial position in inflationary times called as inflation accounting. It aims to indicate how rising prices and lower purchasing power of the currency affect a firm’s cost of refinancing its productive assets, and of its ability to maintain an adequate level of profit on the capital employed. One method is to adjust every figure in the balance sheet on the basis of a price index (such as consumer price index) which reflects the current purchasing power of the currency. Another method suggests revaluing tangible assets at their replacement cost. In valuation of an inventory, inflation accounting treatment can affect the firm’s taxable income, cash position and reported earnings, depending on whether the firm uses FIFO or LIFO methods. FIFO method shows a higher profit, therefore higher tax burden and a decrease in net cash flow. LIFO method lowers the profit and tax burden and increases the net cash flow.

2.5 Objectives and benefits of inflation accounting

The primary objective of inflation accounting is to measure the extent of change in economic welfare or purchasing power due to existing or potential inflation and to estimate its consequences to the rate of return on a given investment. For instance, if the index number of the price level at the
base year (T0) was 100 and at the end of the next year (T1) the index stood at 105, you can reach the following conclusions:

- in order to have the purchasing power equal to that of Rs. 100 at T0 you must have Rs. 105 in T1.
- The purchasing power of Rs.105 in T1 equal to that of Rs. 100 in T0.
- By possessing 5% more each in T1, it will be possible to seek identical purchasing power with respect to T0. [4]

Inflation accounting has some objectives as following:

1. Inflation accounting provides correct information of net profit because depreciation value is on current market value which will be more than historical cost method, because of inflation. It will decrease the value of profit and shareholder gets current amount of dividends.

2. Replacement is so easy because, depreciation is on fixed assets’ current market value, so it will decrease the value of net profit and company can easily create fund out of profit for purchasing new assets. In case, historical accounting system, it is most difficult to purchase new fixed asset at new market value, because depreciation is on historical cost and due to less charging of depreciation. It may possible that there will be less money in pocket of company for purchasing of new fixed asset. But in inflation accounting this problem will not arise.

3. Correct information to interested parties

All economists believe that inflation decreases the level of new investment because customers start hoarding of material goods after fearing hyperinflation. At that time, if company makes his accounts on current
purchase price and cost price basis, then all interested parties can get correct information about company’s financial and revenue position.

   a) They can also get information about inflation loss of company.

   b) They can also get information of gearing adjustments; it means what benefits are for shareholders in increasing price index in company.

4. Useful for managerial decision

Manager studies financial statements before doing any managerial decisions. If company provides also financial statement on the basis of price level changing or inflation accounting system, managers can easily make their plans of new investment and also estimates new sale prices of their products.

2.6 Disclosure of inflation accounting information

In order to understand the adjustment for inflation better, IAS 29 mandates the following disclosures: [5]

   a) The fact that the financial statements and the corresponding figures for previous periods have been restated for the changes in the general purchasing power of the functional currency and, as a result, are stated in terms of the measuring unit current at the end of the reporting period;

   b) Whether the financial statements are based on a historical cost approach or a current cost approach; and

   c) The identity and level of the price index at the end of the reporting period and the movement in the index during the current and the previous reporting period. These disclosures aide the users of financial statements to have a better understanding about the inflation adjusted financial statements
and also the adjustment process. These disclosures should essentially form part of the Notes to Accounts.

2.7 Emerges and Development of Financial Accounting

Under inflation condition, accounting to the general price index or current cost data, adjusts traditional historical cost accounting in order to reflect and offset the influence of price rise on traditional accounting statement, or completely change some traditional accounting principles, and reflects corporate financial situation and business achievement more realistically.

Inflation accounting is a new field of western financial accounting, whose emerges and development has very deep historical background. Along with the transition of capitalist economy from free competition to monopoly, cyclical economy crisis has emerged. Especially after World War I, western countries experienced inflation, price rise and large unemployment, which broke the balance and stability of economy running. Inflation, unemployment and serious imbalance of resource allocation become a sort of reflection of deepened and complicated economy crisis of capitalist countries, which hindered the development of capitalist economy. Western economic theories have made long–term unremitting exploration and research in order to control serious inflation; however they have not been able to fundamentally eliminate the inflation phenomenon. [6]

Several stages of emerges and development of inflation accounting:
1. In the traditional financial accounting method, appropriate methods are used to eliminate the influence of inflation on traditional financial accounting information.

   a) LIFO of paying the cost of inventory
   b) Accelerated depreciation of fixed assets
   c) Valuation of periodic replacement of fixed assets
   d) No depreciation of fixed assets

2. Adjust traditional financial accounting information to reflect and eliminate the influence of inflation accounting to general price change.

3. Reflect the change of corporate assets during inflation base on current cost, and provide statement user with accounting information influenced by traditional financial accounting of individual price change.

The emergence of the most extended and widespread period of inflation in peacetime history in industrialized countries has led to renewed discussion of the appropriate measurement of profit and rates of return in the corporate sector.

The conceptual issues in estimating corporate profits and the rates of return on total assets during a period of inflation have been widely recognized and discussed for decades. The question of how to measure the key accounting and economic variables can only be resolved with a reasonably clear view of the purpose of measurement. For this purpose, J. R. Hicks’s definition is satisfactory, with an emphasis on measuring income in a manner to ensure retaining an adequate level of income in the firm to maintain it as an ongoing entity. [7]
The Sandilands committee accepted the same philosophy and adapted the definition to read “the maximum amount which a company can distribute during the year, and still expect to be as well off at the end of the year as the beginning”. Similar themes have been expressed by Yuji Iriji, (1981), John Walton (1981) and others. The theoretical basis of these adjustments has been well covered in these papers.[8,9]

Two examples can illustrate these problems in a period of inflation. Accounting practice has historically encouraged the use of depreciation at historic cost as a basis of reporting profits for public reporting and for tax purposes. The valuation of inventories is based on historic cost or current market cost, whichever is lower. During a period of inflation this approach to the valuation of these assets will lead to a higher reported estimate for profits before taxes than would be the situation if profits were estimated on the basis of the costs of replacing those physical assets at the new and higher level of prices for similar durable capital assets and inventories.

These estimates of profit can have several further effects. When these reported profits are used as the basis of corporate profits taxes to the government, it leads to larger tax payments, and the government can become an important beneficiary of inflation. Furthermore, if reported profits are used as a basis of corporate decision making the companies may not be setting prices sufficiently high to ensure an adequate rate of return on a long–term basis, if they have some scope for pricing policies. In addition, dividends may be paid out to an excessive degree and thereby they might not have an adequate level of internal reserves to maintain their real resources intact.
These same issues arise in the context of estimating the balance sheet and the related rates of return on total assets. The balance sheets are based on historic costs, so the balance sheets as reported will be lower than replacement costs. Valuations of both profit and balance sheets at replacement costs can have a significant impact on rates of return (both on net trading assets and shareholder’s interest). Replacement cost rather than historic costs will lead to lower levels of corporate income and higher levels of assets and unambiguously lower rate of total return on both assets and net equity.

Estimates for two alternative concepts of income and assets are provided in subsequent sections. One concept of rate of return relates to total income and the related coverage of total assets. This would cover net trading income before interest to total net trading assets. This would cover all income from capital, both debts and equity, and all related assets. An advantage of this measure is that it is not affected by the changing proportions of debt and equity. The second concept of rate of return relates to net trading income after interest paid to shareholder’s interest, this would exclude interest income in the numerator and long-term debt liabilities in the adjusted balance sheets.

2.8 Implementation of Inflation Accounting

The implementation of inflation accounting is a necessary requirement for economic development. At present, India’s corporate accounting is mainly based on historical cost, with corresponding accounting requirements on assets, liabilities equity, costs, expenditure, income and other accounting elements. However in the case of inflation due to increased money supply, real purchasing power, declines. If we follow traditional assumption of unchanged
currency and historical cost principle of accounting, it will inevitably lead to distortion, resulting in a series of negative effects. Therefore, it is an economic necessity to actively promote inflation accounting, which is the premise to ensure the accuracy, relevance and usefulness of accounting information.

1) it is a need to promote inflation accounting for improving the stability of accounting units:

The traditional assumption of unchanged currency and historical cost accounting model consider neither changes in monetary value nor price changes of measured production factors, therefore it can’t reflect the information of price changes. In the case of continues inflation, the use of this accounting model will lead to the following serious problems. What the historical cost accounting uses in named currency unit. In the case of price change, the result must be lack of economic practical significance. When price rises, the historical cost of assets may be much lower than that the market price of prepared statement, which is difficult to reflect assets, especially the real value of assets held is undervalued, and equity is underestimated in the whole. So it seriously affects the accuracy of financial statement, greatly reduces the usefulness of accounting information, and even affects the benefits of the company, investors and creditors.

2) The implementation of inflation accounting is to properly compensate the cost of production factors and maintain reproduction capacity:

For historical cost accounting, within foreseeable period, on accounting an enterprise will not recognize and reflect unrealized gains or losses of fixed assets because of price up and down, i.e. the enterprise will
neither enjoy the benefits of price change nor suffer the losses of that. In the case of inflation, the income of traditional accounting is real income of current period. But most of consumed assets among the matching cost were pre-purchased, which has been calculated on historical cost. In an inflation environment, with rising price, income and expenses lose the ratio based on the same price calculation, resulting in higher real income than the cost of inputs. Therefore, it inevitably results in adequate cost compensation, threatens the scale of corporate reproduction, causes vicious circle, increases business risks, and difficult to maintain simple reproduction.

C) The implementation of inflation accounting is to correctly calculate corporate profit and loss:

If assets are calculated on historical cost, the costs in each period should be determined by the historical cost of consumed assets. In the case of inflation, the income that an enterprise gains is reflected by prevailing money purchase power, however, the matching costs and expenses mostly reflected previous money purchase power at low price. So the over estimation of gains and underestimation of cost must lead to inflated profits, and the profits derived from business can’t accurately reflect current corporate performance. Therefore, the reflected business performance and corporate gain power are distorted. Under the inflation environment, the accounting information provided by traditional financial accounting statement is seriously falls.

d) The implementation of inflation accounting is to ensure the comparability of accounting information between enterprises

The principle of comparability requires not only the accounting indicators approaches between enterprises be the same, i.e. comparable, but
also those of the same enterprise be comparable in different accounting period. Because of inflation, the previous financial statements can be directly compared with current ones on values. But the statements users had better compare them on real volume, which often leads to conscious adjustment equivalent on price change level. Therefore, the accounting information provided by traditional historical cost accounting often does not meet the reality, whose relevance, comparability and adaptability are poor. In the case of high inflation rate, if we still base on the principle of historical cost and assumption of stable currency accounting and make accounting statements, but not correspondingly adjust and deal with it. The comparability of accounting information will not be that reliable.

e) the implementation of inflation accounting is to improve corporate decision-making investment:

False accounting information can cause corporate management level and investors make bad business decisions and investment decisions. Thus it is difficult to make a correct assessment on business Performance according to false accounting information. Even the bad decisions bring big mistakes to an enterprise, so it is hard to achieve the ultimate goal of the enterprise. When price rises, the non-discounted investment decision-making method is clearly no longer desirable. And the discount methods are more difficult due to the influence of inflation. Meanwhile, inflation easily leads to the rapid rise in capital flowing to the products or industries with faster price rise. If it is lack of necessary macro-control and restraint, it may result in unreasonable allocation of social resources and waste. Under the condition of inflation, traditional accounting model is has been difficult to accurately describe the
real performance of the enterprise, therefore, it is imperative to seek measures to deal with inflation accounting and make accounting information accurately express business performance.[6]

2.9 Inflation accounting in India

The highest inflation that India has ever seen in the past two centuries is 53.8%, in the famine year of 1943 India is deeply intolerant of high inflation. It's either because we have been blessed with very conservative policymakers or because the political elite know that the electorate explodes in anger whenever inflation crosses the middle teens. That’s perhaps a comforting thought as the inflation rate moves towards double digits. History suggests that the chances of inflation running completely amok are quite low; but then history can be misleading. The actual track record tells a more complicated story. India has never had to face the terror of hyperinflation. Look at Zimbabwe. The most recent estimate is that prices in that unfortunate African nation are rising at an annual rate of 66,000%. Prices change every day and sometimes every hour. Its central bank introduced a 500-million-dollar note last month. It can be used to buy two loaves of bread, Reuters had said in a 15 May report from Harare. Every citizen is a billionaire, but in terms of a currency that is worthless. India has never had to face such insanity since 1801. The highest inflation that India has ever seen in the past two centuries is 53.8%, in the famine year of 1943. Amartya Sen has often written about the havoc wreaked by that inflation in his part of the country. Satyajit Ray captured the suffering in Ashani Sanket, a film he made in 1973. Those were terrible times, but nothing like what Germany faced in the early 1920s or what
Zimbabwe has to deal with today. Many other Asian countries have done far worse than India over the years. (The less said about hyperinflation-prone Latin America, the better.) Inflation in China reached 1,579% in 1947, when there was a civil war raging there. Japanese inflation peaked at 568% in 1945, the year of defeat and economic collapse. South Korea saw inflation shoot up to 210% in 1951, when it was at war with the communist North. These episodes of runaway inflation are linked to political dislocations and war. So peace, political stability and credible governments do matter when it comes to keeping a lid on prices. But even if the extreme cases of inflation that have their roots in war are kept aside, India has a middling record in fighting the genie of rising prices. It has a far better long-term record than most other regional peers. India has spent about one out of every eight years with inflation about 20%. The likes of China, Indonesia, Korea, Myanmar and even Japan have done worse. But Asian economies such as Hong Kong, Malaysia and Singapore spent far less time struggling with 20%-plus inflation. The ability to keep inflation under some sort of control is one part of India’s good economic record. The other part is the ability to stay clear of foreign defaults though, lest we forget, India has had three trysts with semi-defaults since it became an independent country. The government rescheduled foreign debt in 1958, 1969 and 1972. The data used here is taken from a recent paper, by economists Carmen M. Reinhart and Kenneth Rogoff, on financial crises over the past eight centuries. They show that financial crises are a given in the world economy since the Middle Ages. “Serial default is a universal rite of passage through history for nearly all countries as they pass through the emerging market state of development,” they write. And add: “Episodes of
high inflation and currency debasement are just as much a universal rite of passage as serial default.” So, on the one hand, we have India’s reasonably good record in avoiding financial crises and hyperinflation. On the other hand, we have the iron law that high-growth economies tend to fall into trouble every now and then. Which way will we go? A lot will depend on the policy response. Man Mohan Singh is no stranger to episodes of high inflation. He was chief economic adviser to the Indira Gandhi government in the mid-1970s, when two years of 20%-plus inflation was attacked with the then-fashionable option of price controls. Then he was finance minister during the inflation spike in the mid-1990s, when he and Reserve Bank of India governor C. Rangarajan pushed up interest rates to dizzying heights to bring inflation under control. Now Singh is Prime Minister, and inflation is once again headed for double digits. His government has tried a mild version of the 1970s medicine — trade restrictions and moral suasion to hold the price line in commodities such as steel. But it is a matter of time before the 1990s medicine will have to be taken in larger dose higher interest rates.

There are several reasons why we should worry about the spike in the inflation rate. Inflation is a tax on the poor and long-term lenders. Also, as Reinhart and Rogoff show, “inflation crises and exchange rate crises travel hand-in-hand”. Inflation is already too high, though it is definitely not at economy-wrecking levels. But it’s best to be serious about the threat it poses.\[10\]
2.10 Methods of accounting for price level changes

The various approaches suggested by various researchers, authors and professional accounting bodies have been discussed in the following. During the past decades, the accountants, government agencies and professional institutes have tried to evolve various methods to recognize the effects of changing prices on the financial statements.

Henry Sweeny (1936) \(^{[11]}\) was the first to suggest a systematic approach to adjust financial statements for price level changes. He proposed valuation in terms of "common dollars" of uniform purchasing power.

Bonbright (1937) \(^{[12]}\) proposed the concept of "value to the owner" in an attempt to draw together various concepts like economic value, replacement value and realizable value. His main concern was with the questions of the legal damages which should be awarded for the loss of assets. He was not concerned with the impact of asset valuation on the determination of accounting profit.

Kenneth Mac Neal (1939) \(^{[13]}\) argued that financial statements purport to deal with present economic values and they are appropriate to be useful only to the extent that they do so. He suggested the market price of the assets as the proper value for accounting purpose. The proposals put forward are many and varied in the nature and implication.

A survey of the literature available on price level accounting reveals that the following methods have been suggested by various researchers and professional accounting bodies in different countries to combat the impact of inflation on accounts:
1) Periodical revaluation of fixed assets along with the adoption of LIFO formula for inventory valuation.

2) General Purchasing Power Accounting (GPPA), PSSAP-7

3) Current Value Accounting (CVA), ASSC-ED18
   a) Replacement Cost Accounting (RCA), F, E, P. Sandilands
   b) Realizable value accounting (RVA), Kenneth Mac Neal
   c) Current Cost Accounting (CCA), SSAP-16.

4) Specific and General Price Level Accounting (SPLA), FAS-33

Depending upon the objectives to be served, the main proposals are discussed briefly:

**2.10.1 Periodical Revaluation of Fixed Assets Along With Adoption of LIFO Formula for Inventory Valuation**

This approach emphasizes the need for adjusting fixed assets and inventories which are significantly affected by price changes. The main objective of periodic revaluation of fixed assets is to charge current cost of replacement by way of depreciation to the profit and loss account in the generation of revenue. The cost of fixed asset is estimated at regular intervals of three to five years and the depreciation is charged on the revalued amounts. The revaluation is normally carried out on the basis of expert opinion of values or by using specific price indices indicative of the replacement cost of the relevant fixed assets. A significant number of companies in India do reveal their assets to reflect their current value in accounts.
LIFO (last-in-first-out) formula for inventory valuation has been adopted by so many enterprises in India and abroad. This method of accounting for inventories will substantially eliminate inventory profits.

It matches current replacement costs with current sales prices and improve the quality of reported earnings. This is true not only from a subsidiary or division performance. It also improves financial position through reduction of taxes and increased working capital. In a long period of inflation the cumulative effects of LIFO tax saving, when reinvested, could result more profit than using FIFO inventory costing. It has been accepted as a valid basis for assigning costs for the purpose of taxation in many countries.

According to Sandilands, "LIFO is the best known method of alleviating the problem of stock profits. Although not widely used in U.K. where the courts have in the past ruled against its acceptability as a basis for assessing taxable profit, it is widely used in U.S.A. where it is accepted by the authorities as a tax basis". (Sandilands, 1975)\textsuperscript{14}

Application of the LIFO method for inventory calculations during a period of inflation causes the cost of materials used to be closer to current market prices. Therefore, conventional reported profit will be lower than the profit computed by following FIFO method. The relation between these methods is as follows:

\begin{align*}
\text{Cost of material used} & : \text{FIFO} < \text{LIFO} \\
\text{Profit} & : \text{FIFO} > \text{LIFO} \\
\text{Inventory value} & : \text{FIFO} > \text{LIFO}
\end{align*}

In recent months, it has become apparent that there is a rather clearly defined trend towards LIFO inventory valuation and away from the more
traditional FIFO method. Underlying this trend is the attractiveness of a substantial tax deferred that result from the use of LIFO (Bahin.1975).[15] This method is one of the practical approaches to maintain the operating capability of an enterprise in a period of changing prices. Though this method is simple, but it has been criticized for not being a complete method of accounting for changing prices periodical revaluations lack the advantages incidental to an objective and consistent basis. In the present day economies of high inflation rates, even regular revaluations after three or five years may not serve the purpose of maintaining the operating capability of an enterprise. The decision to adopt LIFO should not be made without a thorough understanding of the implications of LIFO on the financial reporting process. One distinct disadvantage of a change to LIFO is the financial difficulties that will ensue if a company ever a witches back to FIFO from LIFO. The essence of LIFO is a tax deferral, not tax saving.

2.10.2 Generally Purchasing Power Accounting

The purchasing power accounting known by different names such as: Constant Purchasing Power Accounting (CPPA), General Price Level Accounting (CPLA), Constant Dollar Accounting.

General Purchasing Power Accounting(GPPA) was the first highlighted by Sweeney (1936), when he wrote a book entitled" Stabilized Accounting" since then a large number of individuals and professional accounting bodies have worked on this approach with a view to developing it as a useful and practical method of price level accounting.[11]
The amounts reported in conventional financial statements are measured in terms of the number of units of money (i.e. rupee) expended for the object of measurement. An important assumption underlying the use of units of money in accounting measurements is that the size of this measuring unit remains relatively stable over time. In this way rupee expended at different times can be meaningfully added and subtracted to obtain measure of total assets, total equities and net income.

The high profitability of the instability of the unit of money in terms of general purchasing power has led to the questions as to whether financial statements should continue to be prepared without regard to changes in the general purchasing power. This method overcomes this limitation of the conventional fixed assets by restating them in terms of uniform rupees of current purchasing power. The unit of measurement used in this method is the "purchasing power unit" and not money (Gynther, 1974). This method is not strictly a change from the historical cost based accounting; it merely attempts to remove the distortions in the financial statements which arise due to changing level of prices. It makes all the accounting information comparable in terms of general purchasing power by removing the mixed purchasing power element from the historical figures statements. To convert the accounting figures into rupees of uniform value as at the date of the balance sheet, the most broad-based index of consumer goods prices or of prices in general is used which portrays the changes in the general purchasing power of the rupee. The historical cost figures are multiplied by a conversion factor which is the ratio of the index at the date of conversion and the index at the transaction date. Since, it is practically very difficult to convert each figure
in terms of the index number of date of the transaction; it is assumed that all transactions take place evenly throughout the year (ICAI, 1982)\(^{17}\).

The current purchasing power method makes a distinction between the monetary items and the non-monetary items while converting the historical rupees into rupees of uniform value as at the date of the balance sheet.

**Monetary items** are those the amounts of which are fixed by contract or by their nature and are expressed in rupees regardless of changes in the general level of prices. They include monetary assets such as cash, debtors, bills receivable, loans, etc. and exist as money or as claims to specified sums of money and monetary liabilities such as creditors, bank overdrafts, long term loans, debentures, etc. It is obvious that in a period of inflation, the holders of monetary assets suffer a loss whereas the holders of monetary liabilities gain in terms of general purchasing power. The general purchasing power accounting method, therefore, suggests the computation of the purchasing power gain or loss made by an enterprise on holding net monetary items.

The purchasing power gains or losses on monetary items can be calculated in two ways. In the first procedure the purchasing power gain or loss can be calculated on each monetary items and then individual gains and losses on monetary assets and monetary liabilities are totaled to determine the gain or loss. In the second procedure, the gain or loss can be computed in terms of net monetary assets i.e. monetary assets minus monetary liabilities.

There is a diversified pinion on the treatment of purchasing power gain and loss. The authors have suggested the following accounting treatments:

(i) The purchasing power gain or loss should be included in current income. (AICPA, 1969)\(^{18}\)
(ii) The purchasing power gain or loss should be included in current income except for those gains and losses relating to long term debt, which should not appear until realized through the redemption of the bonds.

(iii) The purchasing power gain or loss should be included in current income except for those arising from monetary items included in shareholders' equity e.g. redeemable preference shares.

(iv) Purchasing power gain or loss should be treated as capital items

(v) Purchasing power loss should be included in current income, while the purchasing power gain should be capitalized.

The accounting principle board of AICPA has observed: "General Price Level gains and losses on monetary items arise from changes in the general price level and are not related to subsequent events such as the receipts or payments of money. Consequently, the Board has concluded that these gains and losses should be recognized as a part of the net income of the period in which the general price level changes" (APB, 1969)[18].

A similar view has been expressed by the Accounting Standards Committee (U.K.)-1974." It has been argued that the gain on long term borrowing should not be shown as profit in the supplementary statement because it might not be possible to distribute it without raising additional finance. This argument, however, confuses the measurement of profitability with the measurement of liquidity. Even in the absence of inflation, the whole of a company's profit may not be distribute without raising additional finance, for example because it has been invested in, or earmarked for investment in non liquid assets.
Financial Accounting Standard Board has clearly stated in its FAS-33 that the general purchasing power gain or losses on net monetary items shall not be included in income from continuing operations (FASB)\(^{[19]}\).

FASB in its exposure Draft on the subject has earlier proposed that "the net gain or loss of general purchasing power that results from holding monetary assets and liabilities shall be included in determining net income in units of general purchasing power. No portion of the general purchasing power gain or loss shall be deferred to future periods". FASB, expressing doubt about the utility of the item based on some comments on the Exposure drafts, preferred to display it separately, pending further experience with its use in practice.

Kaplan (1977)\(^{[20]}\) argues that during inflationary period the computation of purchasing power gains on debt of highly leveraged companies based on the book value of the outstanding debt instead of the market value tends to exaggerate the purchasing power gains. As a result, the disclosure of purchasing power gains or losses on holding monetary items as required by FAS-33 can be misleading. It is concluded in general that all general purchasing power gain or loss are included in the general price level income statement.

**Non monetary items** are assets and liabilities such as fixed assets, inventories, equity capital, retained earnings, etc. which are assumed neither to gain nor loss in value by reason of changes in the price level. This is because price changes for these items will tend to compensate for changes in the value of money. The non monetary items are reported at their adjusted amounts,
whereas monetary items at the end of year will appear at the same amount in the General Purchasing Power Accounting adjusted balance sheet.

Generally Purchasing Power Accounting attempts to remove the major objection to historical cost valuations that the unit of measurement changes when price level change common rupee accounting can be applied with the high degree of objectivity, required of accounting valuation, as it doesn't depart in principle from historical cost based measurement. Price level adjustments are verifiable by reference to the index used to measure changes in the purchasing power of money. The method can lay claim to such qualities and objectivity, comparability and uniformity (Rosenfield, 1975)[21]. Besides, it retains the historical cost as the basis of the accounts and price level adjusted accounts are shown only on a supplementary basis. This method is comparatively simple to apply and is not very expensive.

The utility of index numbers would increase and the scope for manipulations in company accounts would decrease if index numbers are prepared and published by an impartial body. Current Purchasing Power method may be criticized on the ground that restatement of historical cost figures for general price level changes is quite inapplicable and inappropriate to the economic units which hold specific assets, the prices of which usually change at different rate and in different direction from the general price level. Some authorities believe that there is no such thing as generalized purchasing power when they hold money, rather, they see themselves as holding specific purchasing power in respect of those relatively few items which they wish to purchase.
Regarding the recognition of purchasing power gains on long-term loans, it is true that firms would be reporting the loans in cheaper rupees, but such gains should not be recognized until they are actually realized, otherwise it will result in the declaration of dividends out of capital. It doesn't necessarily maintain the productive capital of the firm.

Gynther (1974) a strong opponent of the general purchasing power approach, has critically examined various arguments for general purchasing power to show that these arguments don't hold much ground. He has asked two questions: [22]

a) How can we account for inflation using just one price index series when inflation affects every entity in a different way?

b) How can we use just one index to account for the changing value of money, when money means something different to every entity especially through time?

It can't be defined that inflation affects every entity in a different way.

Index numbers are statistical averages and suffer from various limitations. These can't be applied with reasonable degree of precision to individual cases. The proponents of the method find no reason why index numbers should not give satisfactory results in the field of accounting while they are useful tools and used extensively in decision making.

In simple terms, the conversion process of historical figures into CPP figures involves two steps:

- Multiplying the historical cost figures by the price index at the end of the period;
- Dividing the figures obtained in the 1st by the index which existed at the date of original transaction.

**Conversion process as per CPP method:**

a) Balance sheet at the beginning of the year

b) Profit and loss account for the year and

c) Balance sheet at the end of the year

**a) Balance sheet at the beginning of the year**

For the sake of convenience, the balance sheet is viewed as comprising of 3 parts:

1. Monetary Assets;

2. Non monetary Asset and

3. Shareholders Fund

1. Monetary assets:

They comprise of debtors, cash, creditors etc. The CPP method assumes that the value of these assets on the balance sheet date reflect the CPP as at the end f the previous year. These figures are converted into CPP figures as follows:

\[
\frac{\text{Index at the end}}{\text{Historical Cost}} \
\]

\[
\text{Index on the date of balance sheet}
\]
2. Non Monetary Assets

These are discussed in 3 heads:

i) Fixed assets

Index at the year end

Historical cost figures x ----------------------------------------

Index on the date of acquisition

ii) Depreciation

Index at the year end

Accumulated depreciation x ---------------------------------

Index on the date of acquisition

If assets are acquired over a period of time, calculation would have to
be made separately for each of the acquisition.

iii) Stock

In converting historical cost figures of stock, the first step is to identify
the period during which the items in stock were purchased and then a price
index representative of the price level during such period is identified.

iv) Shareholders ‘funds

It is not possible to convert shareholders funds i.e. share capital+
accumulated reserves on historical cost figures into CPP figures by
multiplying at CPP from the assets both fixed and current at CPP.

b) Profit and Loss Account:

Discussed under four sections:
1) Stock at the beginning of the year:

Same as discussed under non monetary assets.

2) Transactions during the year:

Normally the CPP assumes transactions occur evenly throughout the year. In such cases, average price index for the year is used. But in cases where the transactions occur unevenly, it is necessary to use a weighted average index or to convert for e.g. using each quarter’s transactions separately.

3) Depreciation written off for the year:

a) Value assets on CPP basis

b) Apply rates of depreciation to cost of assets expressed in CPP terms

4) Loss of opening purchasing power for holding net monetary assets:

1. Stock at the beginning of the year: same as discussed under non monetary assets

2. Transactions during the year:

Normally the CPP assumes transactions occur evenly throughout the year. In such cases, average price index for the year is used, but in cases where the transactions occur unevenly, it is necessary to use a weighted average index or to convert for e.g. using each quarters transactions separately.

3. Depreciation written off for the year:

a) Value assets on CPP basis
b) Apply rates of depreciation to cost of assets expressed in CPP terms.

4. Loss on purchasing power for holding net monetary assets:

**Step I:** Loss on opening balance of net monetary assets i.e. debtors + cash – creditors.

NonMonetary Assets at the x (Index at the year end – index at the beginning year)

<table>
<thead>
<tr>
<th>Beginning of the year</th>
<th>Index at the beginning of the year</th>
</tr>
</thead>
</table>

**Step II:** Increase / Decrease in net monetary assets

Net monetary assets at the beginning – Net monetary assets at the end of the year

**Step III:** Loss on increase/ decrease in net monetary assets

Index at the end

Figures in step II x -----------------------------

Average Index for the year

**Step IV:** Add figure in step I to figure in step III

The above process of calculation assumes that the figure of net monetary assets at the end of the year comprises of 2 parts:

i) Opening balance of net monetary assets and

ii) Increase / Decrease in net monetary assets during the year
C. balance sheet at the end of the year

Discussed under 3 heads:

i) Non monetary assets:
   a) Fixed assets and depreciation- same treatment as in the case of opening balance sheet
   b) Stock – method adopted in Profit and Loss Account

ii) Monetary assets:
    There is no need for conversion, as the monetary assets at end of the year end are already expressed in term of CPP.

iii) Shareholders’ fund = assets (CPP) – Liabilities (CPP)

2.10.3 Current Value Accounting

Current value accounting attempts to bridge the gap between accounting and economic income by providing measurements which are both relevant and feasible. Current values are applied to the measurement of income and capital for the purpose of financial reporting. Objectivity is maintained in an accounting sense by retaining the realization convention for timing value changes.

Current value accounting combines the best characteristics of economic and accounting income, by associating values and changes in values with transactions. Current Value Accounting three forms (Glautier and Underdown, 1982) [23]

a) Replacement Cost Accounting—which is based on the current acquisition value of assets.
b) Realizable value Accounting—which is based on the current realizable value of assets.

c) Current Cost Accounting— which is concerned with the value to the business of assets, and which combines replacement cost and realizable value accounting.

2.10.3.1 Replacement Cost Accounting

Replacement Cost Accounting is not a single concept, but rather a variety of concepts. The basic concept underlying replacement cost accounting is that the firm is a going concern, which is continuously replacing its assets (Zeff.1962) [24]. It is based on the principle that depreciation and cost of inventories consumed, charged in the profit and loss account should be sufficient to meet the cost of replacement of fixed assets and inventories. all the variants of the replacement cost approach has a common features that by allowing for the effects of changes in price and cost levels, they relate depreciation, inventory valuations and other cost consumptions to current replacement costs.

The U.S. Securities and Exchange Commission in Accounting Series release (ASR). "Notice of Adoption of Amendments to Regulation S-X Requiring Disclosure of Certain Replacement Cost Data" issued in 1976 requiers supplemental disclosure of replacement of cost data. Replacement cost is the amount of cash or equivalent which is required to acquire an asset to perform the same function as the outward asset.

The replacement cost is also defined as the lowest amount that could have to be paid in the normal course of business to obtain a new asset of
equivalent operating or productive capability. In the case of depreciable, depletable assets, replacement cost (new) and depreciable replacement cost should be distinguished. Replacement cost (new) is the total estimated current cost of replacing total productive capacity of the end of the year while depreciated replacement cost is the replacement cost (new) adjusted for the already expired service potential of such assets.

The purpose of providing current replacement cost information is to assist the investors in obtaining an understanding of the current cost of operating the business which account be obtained from historical cost financial statements taken alone. Such information will necessarily include subjective estimate and it may be supplemented by additional disclosures to assist inventors in understanding the meaning of the date in particular company situations.

Replacement cost accounting is founded on the philosophy of maintenance of operating capacity of an enterprise and involves:

(i) Measuring current operating income and financial position in current value terms.

(ii) Calculating holding gains and losses

(iii) Presenting the balance sheet in current value terms

It provides more useful and more detailed and more detailed information for pricing and output decisions than traditional accounting concepts and thus, maintains objectivity. Replacement cost accounting is found to be more relevant to investors than accounting income for evaluating the business as it provides for the maintenance of the service potential of capital by charging against profits the cost of replacing the assets exhausted in
earning revenue. It distinguishes between operating profits and holding gains, thereby allowing investors to appraise the firm as a going concern. It also recognizes changes in the value of assets, since they are related to current market prices.

Replacement Cost Accounting also overcomes the limitation of diversity of values found in conventional accounting due to employment of different methods of valuation such as FIFO, LIFO, Simple Average, Weighted Average Cost of specific assets in RCA so that meaningful comparisons may be made. It is not much time consuming and costly for practical implementation. Dickerson himself exercised the problem of converting data from historical cost to replacement cost for a small procedure of molded plastic goods and reported that 95 hours of work were spent in that conversion of which 40 hours work were spent on familiarizing himself with the data.

Replacement Cost Accounting has been criticized on the ground that measurements involved are subjective (Burgert, 1972)\textsuperscript{[25]}. A wide degree of discretion and subjective judgment into the choice of the adjustment factor for valuation of assets makes the results of different companies or within a same company incomparable over a period of time.

Another criticism leveled is that replacement cost measurements imply the substitution of specific asset values for many measurements, thereby abandoning a common unit of measurement.

Another major problem arises during periods of rapid technological changes when the replacement of old machinery by identical machinery is impossible (Lawrence, 1979) \textsuperscript{[26]}. Old machinery will be replaced by a new machine of a larger size or with certain improved quality (Nichols, 1982) \textsuperscript{[27]}
So, it becomes difficult to attribute the different between the historical cost and the replacement cost of the asset merely to price increase. The replacement cost accounting is commonly used in Holland. Because of some of its rigid forms, it is not suitable for general application by all companies in India.

2.10.3.2 Realizable Value Accounting

The historical cost and replacement accounting are based on the acquisition cost of assets i.e. at their entry values. But realizable value accounting is based on realizable price of assets i.e. at their exit values. The distinction between entry and exit values lead to two different aspects of income-realized and realizable. Realized income arises only upon sale. As a result, unsold assets are valued at cost. The realizable income is based on the current selling price of the assets so that unsold assets are valued not at cost, but at realizable value.

Chambers (1973)[28] defined this concept as the best possible approximation to the net selling prices in the ordinary course of business of those assets in their condition as of the date of the balance sheet. K. Mac Neal (1939)[7] and R.R Sterling (1979)[29] supported the Realizable Value Accounting approach.

Characteristics of Realizable Value Accounting:

i) It doesn't recognize the realization concept of accountancy.

ii) It also doesn't recognize the going concern concept as it values the assets of the enterprise at their current sales value assuming the sale of the asset.
iii) It doesn't make arbitrary allocation and thus removes subjectivity. It is also free of the subjective choice of accounting method and emphasis actual current market value.

iv) It assumes the stock monetary unit as all assets and liabilities are measured by money equivalents at the balance sheet date.

v) A better comparison of data is possible as it doesn't permit a set of generally acceptable methods to make a choice.

RVA is based on the concept of opportunity cost. This method is not supported by many people because it implies liquidation rather than continuity of the business enterprise. However its supporters contend that exit values are more appropriate than entry values because RVA model reflects alternatives or choices which are fundamental to economic decision making. This information is very useful and relevant to the users and persons interested in the affairs of business enterprise. Moreover, realizable values are commonly interpreted as market values which most people understand easily. Survival of the business depends on its ability to purchase goods and services and this ability is measured by net realizable value of assets.

The major criticism of RVA is its short run approach to the measurement and analysis of business operations which is contrary to the generally accepted principle of going concern. It also concentrates on the overall change in the realizable value during a given period, and doesn't pay much attention towards measuring the current cost of operating the business. The difficulties can arise in determining the realizable values for particular business assets. Exit values don't indicate the way the profits were earned and how much of that profit has been earned from continuing operations.
RVA provides a mixture of book values and current realizable value. Friedman (1978) suggests that cost and revenue flows during the period be disclosed by employing a combination of both exit-prices and replacement costs in the accounting system. In essence, a replacement-cost income statement is utilized within an exit-price framework to take advantage of the strengths of both exit-price and replacement cost systems. The replacement-cost system is primarily income statement oriented while the exit-price system is primarily balance sheet oriented. By using some of the replacement-cost concepts within the basic exit-price approach, the resultant financial statements provide more useful information to the investor than statements prepared under alternative approaches. The exit price balance sheet provides information about current financial position and adaptive capacity not given in a replacement cost balance sheet. While the use of replacement cost in the income statement provides information about current activities not normally found in an exit-price system.

2.10.3.2 Current Cost Accounting (CCA)

The financial statements are prepared to provide useful information to the majority of users of accounts, i.e. the shareholders, employees, management, creditors and general public. The shareholders are concerned with the return on investment and the financial viability of the business. The most useful figure of profit may be one which distinguishes operating gains from extraordinary gains and holding gains. This should be arrived at by charging against the amounts realized for a company’s output the “value to the business” of assets consumed in generating those amounts and balance sheet
should reflect the “value to the business” of assets rather than their historical cost. The concept of “value to the business” is based on the idea of deprival value which the owner of an asset would suffer, if he is deprived of that asset (Bonbright, 1937) [31].

The current cost approach is based on the fundamental rule that costs and revenue must be matched in the same time dimension. The current income of an enterprise of a given period must be computed by considering relevant costs including depreciation in current basis. Generally depreciation and inventories are suggested for adjustment purposes. The original costs of acquisition have no proper relevance to the determination of current operating income in this approach; they are useful to management only in the determination of current or probable future costs and are used by good management solely for this purpose (Graham, 1949) [32].

The publication of the Sandilands report in 1979 led to the subsequent publication of ED-18 in 1976 and ED_24 in 1979. As a result SSAP-16 ‘current cost accounting’ was issued in March 1980. This statement on CCA blends both replacement cost and real value principles in adjusting historic measurements for inflation [33].

Current Cost Accounting is a variant of replacement cost accounting since it uses replacement cost as one of the basis of valuation for determining ‘value to the business’. One way of determining ‘value to the business’ is to reverse opportunity cost concepts and to define opportunity value as the least costly sacrifice avoided by owning the assets. Bonbright (1973) [31] defined opportunity value in the following terms.
“The value of a property to its owner is identical in amount with the adverse value of the entire loss, direct and indirect, that the owner might expect to suffer if he were deprived of the property”.

The historical cost doesn’t measure the value of an asset to the business because it is not related to the amount which would have to be paid for the asset, the amount that might be gained from disposing of it or the amount to be gained by holding it. Therefore, the other three bases of valuation to be considered are:

a) Replacement Cost (RC)

b) Net Realizable Value(NRV)

c) Present Value of expected future earnings(PV)

Solomon was the 1st to set out the ‘value to the owner’ rules in the familiar inequality. This is given below, using the format adopted by Ma (1976).[33]

<table>
<thead>
<tr>
<th>Case</th>
<th>Inter-relationship</th>
<th>value to the owner</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asset in use</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>PV&gt;RC&gt;NRV</td>
<td>RC</td>
</tr>
<tr>
<td>2.</td>
<td>PV&gt;NRV&gt;RC</td>
<td>RC</td>
</tr>
<tr>
<td>3.</td>
<td>RC&gt;PV&gt;NRV</td>
<td>PV</td>
</tr>
<tr>
<td>Asset in trade</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>NRV&gt;PV&gt;RC</td>
<td>RC</td>
</tr>
<tr>
<td>5.</td>
<td>NRV&gt;RC&gt;PV</td>
<td>RC</td>
</tr>
<tr>
<td>Asset in divestiture</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The first column classifies three broad possibilities of asset holding activity.

‘Asset in use’ describes the three cases in which a rational, profit-maximizing decision would imply that the asset be held for use in the firm because PV in use in the firm is the most profitable opportunity. In case 3, PV is less than RV which means that asset would not be replaced after use, but PV is the most profitable opportunity available given that the asset is already owned by the firm, the two opportunities being hold for use (PV) or sell (NRV).

‘Asset in trade’ describes an asset, which in a profit maximizing firms, would be held for resale, since the resale value (NRV) exceeds value in use (PV), but which would be replaced, since selling price (NRV) exceeds buying price (PV). i.e. it would be profitable for the firm to trade continuously in the asset.

Asset in divestiture case is the one in which sale is the most profitable use of an asset held by the firm (NRV>PV), but replacement is not worthwhile (RC>NRV), i.e. once for all, sale rather than continuous trade is appropriate. The six cases listed above exhausted all of the possible relationship between the three values, so that the rules deal with all possible contingencies.

The ‘value to the business’ criterion was supported by the Sandilands Committee which recommended that an accounting system known as “Current Cost Accounting” should become the basis of financial reporting. Current Cost Accounting is based on the concept of ‘operating capability’ which may be
viewed as the amount of goods and services which an entirely is capable of providing with its existing resources during a given period (ICAI, 1982).[17]

The principal features of CCA are:

1. Current Cost Accounts consisting of an income statement and balance sheet with explanatory notes should be published in addition to historical cost inflation as part of the annual financial reports.

2. The current cost operating profit or loss is arrived at by making three adjustments to trading profit calculated on the historical basis before interest and taxation in respect of depreciation adjustment, cost of sales adjustment (COSA) and monetary working capital adjustment (MWCA). The current cost profit attributable to shareholders is obtained by making gearing adjustment.

3. Current cost earning per share, based on the current cost profit attributable to shareholders, should be disclosed.

4. The current cost balance sheet includes a separate current cost reserve or capital maintenance reserve showing the effects of the three elements:

   (i) Unrealized revaluation surpluses or deficits arising from price changes in respect of fixed assets, inventory and investments.

   (ii) Realized amounts equal to total of the current cost adjustments, i.e. depreciation adjustment, working capital adjustment and the gearing adjustment.

5. The current cost balance sheet should include fixed assets and inventories at their value to the business.
The chief merit of CCA is to allow for the impact of specific price changes on the net operating assets and thus the operating capability of the business.

Current cost accounting will indicate more clearly than existing accounting conventions the effect of inflation on company’s affairs and that it is urgent that is should be introduced as soon as possible. However, it should not be assumed that accounting for inflation is in itself a panacea for the difficulties of companies during a time of inflation. By demonstrating the effects of post inflation on profits, current cost accounting will provide companies with more useful information than existing conventions on the amounts they can distribute in the form of dividends or pay in increased wages and other costs without eroding the capital required to carry on their business. Moreover, in providing information about the past in a more useful form, current cost accounting may help a company to make an assessment of the possible effects of future inflation (Sandiland).

SSAP-16 states that the current cost operating profit is derived by making three main adjustments to the historical cost trading profit (before interest on net borrowing), to allow for the impact of price changes on the funds needed to maintain the net operating assets. The adjustments are depreciation adjustment, cost of sales adjustment and monetary working capital adjustment.

**Depreciation adjustment (DA)** represents the difference between the amount of depreciation to be provided on the current cost basis and the depreciation actually provided in the historical cost basis accounts.
The effect of depreciation adjustment is to match the current cost of fixed assets consumed with the current revenues. Depreciation on current cost basis is computed as follows:

Gross current replacement cost of fixed assets at the yearend \( \times \) historical cost depreciation / origin cost of fixed assets at the year end

**Cost of Sales Adjustment (COSA)** is made to change the current value of raw materials consumed or goods sold in earning the revenue during an accounting period. It is the difference between the value to the business and the historical cost of the stock consumed in the period. This adjustment assumes significance in an enterprise engaged in manufacturing or trading. Theoretically current cost of sales should be determined on an item by item basis but in reality, it would be impracticable to do so. Therefore, groups of similar items may be used.

**Monetary working capital adjustment (MWCA)** represents the amount of additional or reduced financed needed for monetary working capital as a result of changes in the input prices of goods and services used and financed by the business. Monetary working capital (usually represented by the difference between trade debtors and trade creditors) is an integral part of the net operating assets of the business. In time of rising prices, a business needs more funds to finance monetary working capital. The MWCA is made in the calculation of current cost operating profit and takes the form of a charge or credit to profit and loss account with the corresponding credit or change to current cost reserve.
The three adjustments—depreciation COSA and MWCA have been made to make the provision for the impact of price changes on all the net operating assets, however financed. Where a proportion of the net operating asset is financed by borrowing, a gearing adjustment is required in arriving at the current cost profit attributable to shareholders. Gearing adjustment is calculated by expressing net borrowing as a proportion of the net operating assets using average figures for the year from the current cost balance sheets, and multiplying the total of the changes on the net operating assets of the business by the proportion so determined.[34]

2.10.4 Specific and General Price Level Accounting (SPLA), FAS-33

Current cost accounting works well in the balance sheet but not for income. Current purchasing power is better able to measure both income and loss on monetary items but not for assets. Unfortunately, neither can by itself provide a good cure. A hybrid of CCA and CPP is needed, if inflation accounting is ever to function well and such a hybrid is not too hard to install (Baxter, 1985).[35]

This method is the combination of two approaches; CPP and CCA. By combining general price level adjustment with the use of current prices of specific items, all the asserted advantages of both can be obtained. The major impact of the use of general price level adjustments is the measurement of price level gains on net monetary working capital and long term debt. The measurement of price level gains and losses is the unique product of price level adjustments. The major impact of the use of current prices of specific
items is the measurement of holding gains and losses on non monetary items, particularly inventory and fixed assets. The major incremental information supplied by combining general price level adjustments with the use of current prices for specific items is the disaggregation of holding gains and losses into real and nominal components.

This method in its conceptual form has not been proposed so far by any professional accounting body. FASB-33 issued by AICPA comes closest to adopt such a method. It requires information on income from continuing operations stated on both the constant dollar basis and the current cost basis and holding gains in nominal as well as in real terms.

The principal advantages of this method are summarized below:

i) The balance sheet reports assets and liabilities both monetary and non monetary at their current prices at the end of the period.

ii) The comparative balance sheet for the beginning period reports all assets and liabilities at the beginning of the period general purchasing power and thus reflects a common measuring unit.

iii) The income statement separates the results of operating activities from holding activities. Operating income is the different between revenue recognized and expenses reported. Expenses are measured in terms of the current prices of goods and services at the time of their sale or use. Changes in the prices of non monetary assets up until the end of the period are recognized as holding gains and losses are disaggregated into their nominal component (change in the specific prices equal to the change in the general price level) and real component (change in specific price greater or less than the change in the general price level).
2.11 Inflation Rate

In economics, the inflation rate is a measure of inflation, or the rate of increase of a price index such as the consumer price index. It is the percentage rate of change in price level over time, usually one year. (1) The rate of decrease in the purchasing power of money is approximately equal.

The inflation rate is used to calculate the real interest rate, as well real increase in wages. Official measurements of this rate input variables to COLA adjustments and inflation derivatives prices.

If \( P_0 \) is the current average price level and \( P_{-1} \) is the price level a year ago, the rate of inflation during the year might be measured as follows:

\[
\text{inflation rate} = \frac{P_0 - P_{-1}}{P_{-1}} \times 100\%\
\]

After the year the purchasing power of a unit of money is multiplied by a factor \( 1/(1+ \text{inflation rate}) \).

There are other ways of defining the inflation rate, such as \( \log P_0 - \log P_{-1} \) (using the natural log), again stated as a percentage. In this case after the year the purchasing power of a unit of money is multiplied by a factor \( e^{-\text{inflation rate}} \).

There are two general methods for calculating inflation rates - one is to use a base period, the other is to use "chained" measurements. Chained measurements adjust not only the prices, but the contents of the market basket involved, with each price period. More common, however, is the base period reference. This can be seen from inflation reports from the "relative weight"
assigned to each component, and by looking at the technical notes to see what each item in an inflation basket represents and how it is calculated.\[^{36}\]

### 2.11.1 India Inflation Rate

The inflation rate in India was recorded at 7.55 percent in May of 2012. Historically, from 1969 until 2012, India Inflation Rate averaged 8.0 Percent reaching an all time high of 34.7 Percent in September of 1974 and a record low of -11.3 Percent in May of 1976. Inflation rate refers to a general rise in prices measured against a standard level of purchasing power. The most well known measures of Inflation are the CPI which measures consumer prices, and the GDP deflator, which measures inflation in the whole of the domestic economy. This page includes a chart with historical data for India Inflation Rate.

**Calculation of a Specific Inflation Rate:**

Normally, we want to know how much prices have increased since last year, or since we bought our house, or perhaps how much prices will increase by the time we retire or our kids go to college. Fortunately, the method of calculating Inflation is the same, no matter what time period we desire. We just substitute a different value for the first one. So if we want to know how much prices have increased over the last 12 months (the commonly published inflation rate number) we would subtract last year's index from the current index and divide by last year's number and multiply the result by 100 and add a % sign.

The formula for calculating the Inflation Rate looks like this:
So if exactly one year ago the Consumer Price Index was 178 and today the CPI is 185, then the calculations would look like this:

\[
\frac{(185-178)}{178} \times 100
\]

or

\[
\frac{7}{178} \times 100
\]

or

\[
0.0393 \times 100
\]

which equals 3.93% inflation over the sample year. (Not Actual Inflation Rates).

If prices go down:

If prices go down and we experienced Price Deflation then "A" would be larger than "B" and we would end up with a negative number. So if last year the Consumer Price Index (CPI) was 189 and this year the CPI is 185 then the formula would look like this:

\[
\frac{(185-189)}{189} \times 100
\]

or

\[
\frac{-4}{189} \times 100
\]

or

\[
-0.021 \times 100
\]

which equals negative 2.11% inflation over the sample year. Of course negative inflation is deflation.
2.12 Inflation Index

An inflation index is a tool used to measure the rate of inflation in an economy. There are several different ways to measure inflation, leading to more than one inflation index with different economists and investors preferring one method to another, sometimes strongly. This brief overview should help you understand how an inflation index works, some of the more popular models, and perhaps even help you decide for yourself the one you think represents the "true" inflation rate.

Before we can begin, you need to understand the definition of an "index". Basically, an index is just a collection of data that serves as a baseline for future reference. We use the index model in all areas of life, from the stock market (the most famous of which is probably the Dow Jones Industrial Index), to inflation. We index wage levels, corporate profits as a percentage of GDP, and almost anything else that can be measured. We do this to compare where we are now to where we have been in the past.

In order to apply the appropriate index in the first year in which the system is being used, a company will need to ascertain the year of acquisition of the asset concerned or the year of its most recent revaluation, if it is interred in the account at a valuation (SSAP, 7). Once these basic data are established, the current replacement cost may be estimated. In the first year by applying the change in the index between the base data and the balance sheet date, and in subsequent years by applying the change in the index between the opening and closing balance sheet dates. For this purpose it will be necessary for the indices to be published in relation to previous years. [37]
2.13 How to calculate inflation

Inflation rate of a country is the rate at which prices of goods and services increase in its economy. It is an indication of the rise in the general level of prices over time.

Since it’s practically impossible to find out the average change in prices of all the goods and services traded in an economy (which would give comprehensive inflation rate) due to the sheer number of goods and services present, a sample set or a basket of goods and services is used to get an indicative figure of the change in prices, which we call the inflation rate.

Rising inflation was the most recent ticklish political issue that hit the Indian government. But was it because of price rise in essential commodities or because of the erroneous method of calculating inflation?

So how does India calculate inflation? And how is it calculated in developed countries?

- India uses the Wholesale Price Index (WPI) to calculate and then decide the inflation rate in the economy.
- Most developed countries use the Consumer Price Index (CPI) to calculate inflation.

Continuing from the last post, I'll try to discuss how India calculates Inflation and how is that different from the rest of the world. But first let's discuss what are Wholesale Price Index (WPI) and Consumer Price Index (CPI).
2.13.1 Consumer Price Index (CPI)

CPI is a statistical time-series measure of a weighted average of prices of a specified set of goods and services purchased by consumers. It is a price index that tracks the prices of a specified basket of consumer goods and services, providing a measure of inflation.

CPI is a fixed quantity price index and considered by some a cost of living index. Under CPI, an index is scaled so that it is equal to 100 at a chosen point in time, so that all other values of the index are a percentage relative to this one.

2.13.2 Wholesale Price Index (WPI)

WPI was first published in 1902, and was one of the more economic indicators available to policy makers until it was replaced by most developed countries by the Consumer Price Index in the 1970s.

WPI is the index that is used to measure the change in the average price level of goods traded in wholesale market. In India, a total of 435 commodities data on price level is tracked through WPI which is an indicator of movement in prices of commodities in all trade and transactions. It is also the price index which is available on a weekly basis with the shortest possible time lag only two weeks. The Indian government has taken WPI as an indicator of the rate of inflation in the economy.

India is the only major country that uses a wholesale index to measure inflation. Most countries use the CPI as a measure of inflation, as this actually measures the increase in price that a consumer will ultimately have to pay for.
WPI does not properly measure the exact price rise an end-consumer will experience because, as the name suggests, it is at the wholesale level.

WPI is basically helpful to measure the inflation at business level but mostly use this to measure the inflation at consumer level. Moreover, it doesn't take into account most of the services relevant to today's consumer since it was last updated in 1993-94. Economists Shunmugam and Prasad say it is high time that India abandoned WPI and adopted CPI to calculate inflation. "CPI is the official barometer of inflation in many countries such as the United States, the United Kingdom, Japan, France, Canada, Singapore and China. The governments there review the commodity basket of CPI every 4-5 years to factor in changes in consumption pattern". But why is India not switching over to the CPI method of calculating inflation?

Finance ministry officials point out that there are many intricate problems from shifting from WPI to CPI model.

First of all, they say, in India, there are four different types of CPI indices, and that makes switching over to the Index from WPI fairly 'risky and unwieldy.' The four CPI series are: CPI Industrial Workers; CPI Urban Non-Manual Employees; CPI Agricultural labourers; and CPI Rural labour.

Secondly, officials say the CPI cannot be used in India because there is too much of a lag in reporting CPI numbers. In fact, as of May 21, the latest CPI number reported is for March 2006.

The WPI is published on a weekly basis and the CPI, on a monthly basis. And in India, inflation is calculated on a weekly basis. India uses Wholesale Price Index (WPI) to calculate inflation. At before wholesale Price Index measured the average of the changes of goods and services price on the
basis of wholesale price. 435 commodities price level was being tracked through wholesale price index in India. It is also the price index which is available on a weekly basis with the shortest possible time lag of only two weeks. India considered 1993-94 financial year as base year for present WPI index calculation. The 435 commodities are divided into different groups & subgroups. The list of 435 commodities can be found here. Each commodity has some weightage in the WPI index. Below are the weightages of commodities group wise:

1. Primary Articles (weight age: 22.02525%)
2. Fuel, Power, Light & Lubricants (weight age: 14.22624%)
3. Manufactured Products (weight age: 63.74851%)


2.14 A More realistic & Indicative WPI

Overhauling the dynamics of calculating inflation (or Wholesale Price Index) – It is yet another reformist movement in India; though not a big reform, but nonetheless an important change to keep pace with current times.
The Commerce Ministry has released a new series of annual rate of inflation, based on monthly Wholesale Price Index (WPI), which stood at 8.51% for the month of August, 2010, as compared to 9.78% for the previous month. The figure as per the old base year came in at around 9.5%, just in case you need a better understanding of the comparative parameters.

**The base year against which the price rise is measured has been advanced by a decade from 1993-94 to 2004-05.**

Moreover, the new WPI index will be more accurate and indicative about the actual price movement, than the previous one – in a bid to produce more relevant indicators of inflation based on modern consumption.

![Comparative statement of weights, number of items and quotations between new and current series](image)

(Source : Business Line)

The new series would comprise of different weight-age levels, relative to the changes in the economy over a period of time. For instance, the weight of manufactured products would surge from 63.74% as per 1993-94 base price levels to 64.97% now. On the other hand, the weight of primary articles in the new index would come down to 20.11% as against 22.02 earlier. As such, the food prices would still comprise a big fifth of a share in the WPI index.

Interestingly, the new WPI index now also includes the more commonly used items such as refrigerator, washing machine, microwave oven, computer and Television sets – which have now turned into basic needs, from wants. In fact, even Consumer items widely used by middle class such ice-
cream, mineral water, readymade and instant food products, canned meat, leather products, dish antenna and even precious metals like gold and silver finds its place in the new index

The new WPI series now measures a total of 676 items, an improvement by 241 items from the previous list comprising of 435 items only. The basket of manufactured products has surged from earlier 318 items to 555 items now. The list under primary article group has gone up from 98 to 102.

The Department of Industrial Policy and Promotion has also said that it would tinker with the Services Price Index by the end of 2010-11 – for services such as banking and finance and trade and transport. Other services which could be taken up at a later date could include ports, aviation, telecom and post and telegraphy among others.[39]

So, at last, we have an updated inflationary index – something that financial analysts keenly track, to keep a tab on, to make comparative analysis of the investment instruments to fetch inflation-adjusted returns.

2.15 Wholesale price index and inflation

WPI is the index that is used to measure the change in the average price level of goods traded in wholesale market. The characteristics of Wholesale Price Index are as follows:-

1. A new WPI series with 2004-05 bases was released on 14th Sep 2010 with 676 items in the commodity basket. Previously, WPI used a sample set of 435 commodities as an indicator of movement in prices of commodities in all trade and transactions.
2. The prices are taken from wholesale market.
3. It is also the price index which is available on a weekly basis.
4. It has the shortest possible time lag of only two weeks ie the data available in the current week is calculated on the basis of prices two weeks back.

Read further for calculation of WPI and of inflation using WPI.

Calculation of WPI

WPI is calculated on a base year. The WPI for the base year is pinned at 100.

Let’s assume the base year to be 2004. The data of wholesale prices of all the 435 commodities in the base year and the time for which WPI is to be calculated is gathered.

Let’s calculate WPI for the year 2010 for a particular commodity, say wheat. Assume that the price of a kilogram of wheat in 2004 = Rs 6.00 and in 1980 = Rs 6.50

The WPI of wheat for the year 2010 is calculated as follows:-

First calculate,

\[
\frac{(\text{Price of Wheat in 2010} - \text{Price of Wheat in 2004})}{\text{Price of Wheat in 2004}} \times 100
\]

i.e. \( (6.50 - 6.00)/6.00 \times 100 = 8.33 \)

Since WPI for the base year is assumed as 100, WPI for 2010 will become 100 + 8.33 = 108.33.

In this way individual WPI values for the remaining 675 commodities are calculated and then the weighted average of individual WPI figures are found out to arrive at the overall Wholesale Price Index. It is to be noted that
Commodities are given weight age depending upon its influence in the economy. Like weight age of petrol is lesser than that of diesel.

2.16 Calculation of Inflation

Let us say that we have WPI for the beginning and the end of year.

Inflation rate for the year will be = (WPI of end of year – WPI of beginning of year) / WPI of beginning of year x 100

For example,

Say, WPI on Jan 1st 2010 is 108.33

WPI on Jan 1st 2011 is 112.33

Therefore, inflation rate for the year 2011 = (112.33 – 108.33)/108.33 x 100 = 3.69%.

That is to say that the inflation rate for the year 2011 is 3.69%.

Since WPI figures are available every week, inflation for a particular week (which usually means inflation for a period of one year ended on the given week) is calculated based on the above method using WPI of the given week and WPI of the week one year before. This is how we get weekly inflation rates in India.

2.17 Previous work

Many empirical studies have been conducted on the subject of inflation accounting in India and abroad. The major emphasis of researcher has been on testing various techniques of price level accounting as proposed by various committees, professional bodies groups and institutes from time to time.
It has been reviewed to indicate that the general way the type of work done on this subject in India. It is expected that the critical examination of the studies would give focus to our problem and help to indicate the areas which have remained neglected at the hands of the researchers.

Sen Gupta (1976)\textsuperscript{[40]} conducted a study on “Inflation Accounting in India”. The study highlighted the problem of measurement of price changes through price indices. In addition, he discussed various methods of construction of price indices and their availability in India. The alternative methods of inflation accounting have also been discussed in a cursory manner with special emphasis on general purchasing power method. The author suggested a combined method of Current Purchasing Power Accounting and Current Value Accounting for use. The study was a theoretical framework on various methods of price level accounting. Since no company in India was publishing the effects of price level changes in their annual reports, much empirical work on corporate practices was not possible.

Nigam (1978)\textsuperscript{[37]} in his study of “Valuation of Corporate Property and Inflation Accounting” focused on:

1. The creation of awareness of the need for reorientation of the tools, techniques and technology of accounting for fighting inflationary trends.

2. Evolution of suitable modification of financial statements so as to make them more realistic models of productivity, profitability and financial health of the enterprise.

4. Development of appropriate information technology and management information systems to highlights the problems of enterprises in the light of inflationary trends so that financial accounts forming the basis of managerial decisions reflect a realistic model of the physical situation.

The study also seeks to present the problem that arise due to the change in the value of monetary unit with respect to both price indices and the adjustments required in individual items in the accounts to reflect the price changes. The author also compared the alternative methods of incorporating the effects of inflation on the value of assets and liabilities in the company accounts. He tried to develop a method which could be applied for incorporating the changes in the value, showing thereby a “true and fair view” of the corporate affairs.

The researcher recommended that as the Historical Cost Accounts adjusted for inflation by applying the Current Cost Accounting techniques would meet the dominant requirements of the users of these accounts, the companies should adjust their accounts on the basis of current cost. The balance sheet should shown assets and liabilities at their “value to the business”. The profit should be struck by charging against sales proceeds the “value to the business” of the assets consumed in generating those sales.

The current cost Accounts will provide companies with more useful information than existing conventions on the amounts they can distribute in the form of dividends, or pay increased wages and other costs without eroding
the capital required to carry on their business. In providing information about the past in a more useful form, Current Cost Accounting may help a company to make an assessment of the possible effects of future inflation.

The problems for companies caused by continually rising costs and prices will remain until inflation itself is reduced to an accepted level, and can’t be deal with by a change in the way in which companies draw up their accounts. The most immediate problem to which inflation gives rise to most of the companies is a chronic shortage of cash as the price of raw materials, labor and other inputs rises inexorably. No accounting system can deal with this problem, though it may indicate its effects and thus help companies to mitigate them as best as they can. The severe difficulties facing companies today are not the result of the existing accounting system they are the result of inflation itself.

Further, in order to overcome the limitations of current cost accounting, it is also recommended to the companies to indicate in addition to the statement of total Gains or Losses for the year as suggested by the Sandilands Committee, a statement showing the increase in purchasing power of share holders fund to the annual accounts presented on the basis of Current Cost Accounting.

The Indian Institute of Management Ahmedabad (1980) published a monograph on “Inflation Accounting Practices in India”. The institute made a survey of 200 public limited companies regarding the financial reporting practice in India. The report made it clear that several companies in 1974 tried to show the effects of inflation on their company’s financial results and conditions through their director’s reports in order to draw the attention of
their shareholders. Three companies specifically provided supplementary statements under the current purchasing power method.

Mishra (1982) in his work “Accounting for Price Level Changes” mentioned the nature of the problems that are encountered during inflation and the measures suggested for this purpose. The study was undertaken with the object of measuring the effects of price level changes on historical cost accounts by applying General Purchasing Power Accounting (GPPA) method. The study focused attention on significant aspects of the problem of price-level changes in historical cost accounts and attempted particularly:

(i) To examine the controversy relating to the choice of a suitable method of price level accounting

(ii) To show the effects of price level changes on

a) depreciation and other costs

b) earnings, dividends and taxes

c) capital, investment in assets and other balance sheet items

The author’s work was a case study of 4 companies, two each selected from two industries viz., chemicals & Iron & Steel. The two industries selected for the study are capital-intensive where there is likely to be greater investment in financial accounts and inventories the items which are most affected by price level changes of the four companies selected for the study, two each are from public and private sectors respectively. This had been done to make the study broad based and to highlight the differences, if any, in the impact of price level changes arising from sectoral considerations.

Mishra recommended the General Purchasing Power Accounting method as the more desirable are in comparison to other methods. The use of
this method is in line with the basic objective of inflation accounting which is mainly to make a correction for changes in the purchasing power of money rather than to arrive at current values or replacement cost of assets. He further recommended that the price level adjusted accounts should be presented as supplementary statements for a few years. After the adjusted accounts have been used in this form for some item, they should replace the historical cost accounts.

Porwal & Mishra (1985)[43] “Industry Practices in Inflation Accounting in India” is a macro study focused on various aspects of inflation accounting, such as:

(i) The magnitude of inflation and the distortions if creates in the financial statements prepared on historical cost basis.

(ii) The theoretical underpinnings of the various approaches to tackle the problem of changing prices.

(iii) The corporate practices and view point in India on accounting for inflation.

(iv) The viewpoint of external users on inflation adjusted accounting and reporting and

(v) A case for a system of accounting which automatically takes care of increasing/decreasing prices and provided relevant and reliable information to the users to enable them to make proper economic decisions.

The study is based on the responses obtained from 80 large private and public sector companies in India for the accounting year 1979-80, out of a
sample of 235 companies belonging to all the important industry groups. Although the responding companies showed a consensus on the need for inflation accounting, both for management and published accounts, only 9 companies were using some method (mostly Current Cost Accounting) to adjust their accounts for inflation and they all belonged to the “manufacturing” group of these, two of them were from private sector companies considered inflation only for management accounting purposes and 9 showed such information in their published annual reports. The two public sector companies, however, made adjustments for inflation in both management accounts and published accounts.

The researcher have also obtained viewpoints of the users of financial statements like investors, creditors, existing shareholders and other regarding price level accounting. It was analyzed form the responses that they were not being supplied adequate information event in situation where inflation was rampant; consequently distorting the meaning of the financial statements which they were intended to carry. Even many stock brokers at the listed stock exchanges did not have much technical knowledge to interpret the financial statements of different companies. There is need for expert technical consultancy services so that the gullible share holder is not unnecessarily waylaid. Effective share holders associations can also greatly helpful in this regard.

Regarding a case for a system of inflation accounting, it was concluded that in order to meet the primary objective of financial reporting there is an urgent need for adoption of cash flow accounting.
Federation of Indian Chambers of Commerce and Industry (FICCI) organized a workshop on inflation accounting in Bombay in 1979. The workshop highlighted, inter-alia, the followings:

The subject had received scant attention in our country in spite of the fact that inflation had averaged eight percent per annum over the last two decades, the project cost had also risen sharply in the most key industries such as sugar, steel, cement, paper, aluminum, etc. and the rate of investment had been continuously decelerating over the last three years in real trends.

The workshop on inflation accounting adds: “the government does not seem to have recognized adequately the inflationary elements while taxing income, capital gains or wealth of its citizens. Inflation accounting would reveal to Government the excessiveness and inequity of the tax structure. Government policies with regard to prices, taxation, credit or debt-equity norms would require modification in order to give effect to inflation accounting.” the workshop felt the need to create awareness of the concepts of inflation accounting within the corporate sector, Government workers, shareholders, banks and financial institutions. The workshop recommended that committee could be appointed to examine this complex subject in details on the basis of which public opinion could be mobilized and consensus could be built.

Kamal Gupta (1982) in his study “Accounting of Price Changes: Its Impact & Feasibility in India” attempted:

a) To review the accounting practices followed by selected companies in India in response to price changes.
b) To examine the impact of such practices in profit and value measurements of these companies and

c) To study the relative feasibility of adopting the major proposals regarding accounting for price changes in India, particularly in the context of the non-availability of readily usable indices reflecting changes in prices of specific items.

In order to identify the companies in India which in their internal or external reporting were following accounting for price changes, a survey was conducted and the annual reports of the top 300 companies for the period 1974-75 to 1989-81 were scanned. In all 22 companies were identified as having responded to price changes at one item or the other. Ho found an interesting fact that with a large number of accountants personally supported the introduction of accounting for price changes in their organizations but only a few reported about having taken some measure in this regard. The revaluation of fixed assets and other partial responses of eight companies have been discussed. The revaluations were partial and in most cases, they did not affect the depreciation adjustment at all.

The published statements of companies reflecting the impact of price changes were evaluated on the basis of Statement of Standard Accounting Practice (SSAP) No.16 in the case of CCA exercises and on the provisional Statement of Standards Accounting Practice No. 7 of U.K.(PSSAP-7) in case of exercises on the basis of CPP accounting. The analyses of the statements were made through selected accounting ratios. The financial statements of the companies selected for case study were recast on the basis of the methodologies laid down in PSSAP-7 and SSAP-16. In view of the need to
ensure the maintenance of the operating capability of the enterprises, the Government should take into account the current cost of inputs in fixing prices which are subject to statutory price control.

The researcher expected that the study would help the accountants, professional accounting bodies and accounting academicians in the country in designing a regular system for generating financial information and monitoring research and development on the subject which reflects the effects of price changes on the subject in India.

In his work, he scanned the annual reports of 30 companies in private sector and 25 top central Government enterprises to assess the number of companies, which were publishing current cost information, at least, for the last two years of the period covered by the study. Out of this list, companies publishing current cost information on a casual basis were eliminated. The enterprises chosen to develop case studies were BEHL, CCI, HMT LTD, HOCL and TCL.

The study seeks to:

(i) Examine critically, the concept of income propounded by economists, lawyers and accountants.

(ii) Enquire into the relationship of various approaches to maintenance of capital and the constituents of operating capability of the business enterprise.

(iii) Present a summary of and evaluate the theoretical foundations of various approaches aimed at explaining the effects of changing prices.
(iv) Estimate the magnitude of overstatement/understatement caused by changing prices in the reported income of the selected corporate enterprise by applying the general purchasing power and current CCA methods.

(v) Survey the corporate practices of measuring and reporting business income in the context of changing prices.

General purchasing power and current cost accounting based on SSAP-16 are the methods used for explaining the effects and measuring the magnitude of distortions caused by changing prices on the reported income of the selected enterprises covered by the present study.

The researcher concluded that there is no general consensus in favor of a particular approach aimed at explaining the effects of changing prices. There is a need for further experimentation so as to correct the theoretical foundations of the favored method for this it is necessary that enterprise that present financial information on the historical cost basis also provide supplementary information reflecting the effects of changing prices using a comprehensive system uniformly and regularly so that proper data base in developed for further research.

There is, however, emerging a strong trend towards publication of supplementary current cost accounting based financial information in Australia, Canada, new Zeeland, U.K. and U.S.A. the researcher recommended that Government of India, Bureau of public enterprises, stock exchanges in India, the institute of chartered accountants and the institute of cost and work Accountants in India should come forward to make necessary amendments in existing taxation laws, publishing financial information and
explaining the effects of changing prices and to establish a detailed standard. He also proposed a standard on current cost accounting.

Gupta (1983) \[^{[45]}\] in his work titled “inflation accounting” provided the self-contained explanation of inflation accounting. He described that depending on the objective to be served, there are primarily three ways to deal explicitly with changing prices viz; Current Purchasing Power method (CPP) Current Cost Accounting and Specific and General Price Level Accounting (SPLA) (GPLA) which combines CPPA and CCA. Each alternative method involves a choice of the measurement unit and the method of valuation. The choice of the measurement unit may be historical cost or current cost.

While discussing the Indian scene, he felt the need of inflation accounting in India, the author initiated a proposal to evoke a simple yet scientific system of inflation accounting which is suitable for the Indian conditions and stressed that accounting concepts and premises must adjust to realistic.

Bhasin (1986) \[^{[46]}\] in his study attempted to measure and record by applying suitable methods, the effects of price level changes on the historical cost accountants of Bharat Heavy Electronics Limited. The need for attention to be paid to this subject was also felt by businessmen, accountants, managers and the Government of India. The work is a case study of Bharat Heavy Electronics Ltd. (BHEL), the only company which has been reporting effects of price level changes since 1975-76 regularly. The study is essentially an exploratory one. It covers a period of nine years from 1975-76 to 1983-84. The officially published annual reports of BEHL formed the main source of information and other accounting data. Besides, a questionnaire was also
prepared to collect information in respect of such accounting practices as depreciation method, inventory valuation method inflation accounting practices and other information generally not available in the annual reports. The Wholesale Price Indices are taken from the Bulletin of such indices published by the office of the Economic Advisors, Government of India, New Delhi.

The general Purchasing Power Accounting (as per SSAP-7) and Current Cost Accounting (as per SSAP-16) methods have been used in order to measure the magnitude of distortions caused by price level changes on growth in sales income and capital employed, payment of dividend and taxes. He has analyzed and interpreted the information from financial statements by computing range trend to study the effects of price level changes.

Naresh Kumar (1982)[47] in his study "some aspects of Inflation Accounting" attempted to examine theoretically various methods and applied General Purchasing Power Accounting and Current Cost Accounting methods of inflation accounting on HOCL and Tata chemicals Ltd. in order to measure the magnitude of distortions caused by Price Level changes on:

a) Growth in sales, income and capital employed
b) Payment of dividend and taxes

J. S. Arora (1988)[48] in his research study "Inflation Accounting in India-corporate practices and perceptions of Chartered Accountants" did an exploratory work and attempted to analyze the view of local Chartered Accountants regarding price level accounting.

Subash Chander and J. S. Arora (1992)[49] in their research paper "Inflation Accounting in India: perceptions of Chartered Accountants
attempted to analyze the views of Chartered Accountants regarding the effects of inflation on various aspects of accounting and auditing. A survey of the empirical studies conducted in the field of accounting for changes in India reveals that no comprehensive study has been undertaken to examine the corporate practices and regards accounting for price changes in private and public sector. Besides this, no attempt has been made to know the perceptions of the Chartered Accountants and corporate executives regarding this vital issue. Since the Chartered Accountants are both preparers as well as auditors of financial statements hence it is necessary that their views should be analyzed.

H. Saduman, Okumus (2002)[50], “The effects of Inflation on measures of profitability in Turkish Banking”, this aims to demonstrate the distorting effects of inflation on the financial statements of Turkish banks, and the corresponding effects on measures of profitability performance. To this end, Current Purchasing Power Accounting with a variant of the Brazilian method (CPPBM) is employed. It is observed that after inflation adjustment(via CPPBM) the level of profitability in Turkish banking over the period 1989-1995 is lower (overall) with respect to profitability measures calculated using historical cost based financial statements. In addition to this, a significant change in ranking by bank group, according to profitability performance is noted. This clearly reflects the importance of considering the potential distorting effects of inflation on the financial statements of Turkish banks.
2.18 The institute of chartered accountant of India

The institute of chartered accountant of India (ICAI) is a national professional accounting body of India. It was established on 1 July 1949 as a body corporate under the Chartered Accountant Act, 1949 enacted by the Constituent Assembly of India to regulate the profession of Chartered Accountancy in India. ICAI is the second largest professional accounting body in the world in terms of membership second only to American Institute of Certified Public Accountants. ICAI is the only licensing cum regulating body of the financial audit and accounting profession in India. It recommends the accounting standards to be followed by companies in India to the National Advisory Committee on Accounting Standards (NACAS) and sets the accounting standards to be followed by other types of organizations.

ICAC is one of the founder members of the International Federation of Accountants (IFAC), South Asian Federation of Accountants (SAFA), and Confederation of Asian and Pacific Accountants (CAPA). ICAI was formerly the provisional jurisdiction for XBRL International in India.

ICAI is solely responsible for setting the auditing and assurance to be followed in the audit of financial statements in India. It also issuers other technical standards like Standards on Internal Audit (SIA), Corporate Affairs Standards (CAS) etc. to be followed by practicing Chartered Accountants. It works closely with the Government of India, Reserve Bank of India and the Securities and Exchange Board of India in formulating and enforcing such standards.[51]
References

1. AAA, American Association Accounting, 1936.


37. Nigam, Ram Narin, “Valuation of Corporate Property and Inflation Accounting, A research study of Indian council of social science research, New Delhi, 1977-78.

38. en.wikipedia.org/wiki/Wholesale_price_index


51. ICAI, icai.org/new_category. html? c_id=197