



Accounting and reporting the effects of changing prices: Issues and challenges

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Abstract

The broad objective of this paper is to conceptually examine the accounting and reporting the effects of changing prices: Issues and challenges. Changes in the price levels of good and services especially during periods of high inflation have negative effects on reported financial results of an enterprise. This makes it difficult for relevant stakeholders to ascertain the firm's ability to continue to generate revenue now and in the future and which hampers investment decision-making. The consequences of rising prices on reported financial results are examined as well as the responses of the accounting profession to address the challenge through the issue of various accounting standards. The major methods adopted to account and report for changing prices and their strengths) and weakness are also examined. The study concluded that rapid changes in the level of prices constitute a real threat to the integrity of reported financial statement as the basis for informed decision-making. The study recommended that accounting professions should rise and tackle the challenges of price level changes.

Keywords: accounting profession, accounting standards, changes in price levels, depreciation and financial statements

1. Introduction

Generally and in accordance with conventional accounting model, assets and liabilities revenue and expenses are reported in the financial statements using the historical cost principle. That is, their values are stated in financial statements using the original costs at which they were acquired, received or incurred. This practice is based on the stable monetary postulate in accounting theory. This postulate assumes that over a period of time, the purchasing power of money either remains stable or changes insignificantly. But in real life, prices seldom remain stable. Changes in supply and demand conditions and other factors cause market prices to change resulting in changes in the purchasing power of money. This has done considerable damage to the stable monetary postulate and renders historical cost accounting information less reliable and useful.

The accounting profession and the international financial reporting community have responded to this challenge by articulating accounting and reporting the effects of changing prices. Modugu, Okafor and Nosa (2012)^[5], define accounting for price-level changes as inflation accounting and 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, which is based on the assumption of a stable currency.

Prices change in either- of two ways. It is called inflation when prices rise. According to Hanson (in Okoye, 2000)^[7], inflation occur when the volume of purchasing power is persistently running ahead of but put of goods and services, so that there is a tendency for prices of both commodities and factors of production to rise because they fail to keep pace

with the demand for them. On the other hand, when prices fall, it is called deflation.

A change in price could be specific, general and relative. It is a specific price change when it relates to a given item or commodity. If the change in price affects the market prices for all goods, it is called a general price change. Relative price change reflects the change in the price of one commodity relative to the price of another.

The change in prices affects the purchasing power of money. This purchasing power is the quantity or volume of goods and services that a given unit of currency can buy at a given period of time. A given currency units gains purchasing power if it can buy more goods or services than the quantity it bought previously. But it is said to loose purchasing power when it can only buy less volume or quantity of those good or services.

In accounting and reporting for the effects of changes in prices, an important distinction is made between monetary items and non-momentary items. A monetary item is a claim receivable and payable in a specified number of a currency. These items include cash payable, notes, interest receivable and payable, bonds and income taxes payable etc. Firms settle monetary items, that is, they collect receivables or pay payables in a specified number of a currency (Naira) and not in terms of a given number of purchasing power. Holding monetary items over time while the purchasing power of a currency changes gives rise to purchasing power (or monetary) gains or losses. A non- monetary item is any asset or liability that has no claim to or for a specified number of units of a currency. Examples are inventory, land and buildings, equipment, common stock, revenues and expenses.

Non-monetary items appear in the Statement of financial position at varying amounts of purchasing power depending on the price levels that prevailed at the time they were acquired, received or incurred.

2. Literature Review

Conceptual Issues relating to accounting and reporting the effects of changing prices

In Ratcliffe (2014)^[8], the primary focus of financial reporting is on providing information about the present and continuing ability of an enterprise to generate favourable cash flows reflected, *inter alia*, through the earnings of the enterprise. This is the object of prime interest to all users of financial statements. With this end in view, financial statements should disclose the true earnings of an enterprise and its true assets and liabilities. Ratcliffe further stated that high rates of inflation that gripped almost all economies of the world during the seventies and the eighties forced different users of financial statements, like corporate managers, accountants, academics, investors and the government to consider a new whether the accounts prepared on historical costs basis serve the purpose they are supposed to and whether some changes in the accounting system is warranted. The fears is collaborated by Okoye (2000)^[7], That inflation is one of those undesirable factors that tend to undermine the efficiency and effectiveness of accounting information.

Mueller, Gernon and Meek (1997)^[6], listed the level of inflation as one of those environmental factors accounting for differences in financial accounting practices around the world. They disclosed for example, that in Latin America where the countries have contended with huge inflation rates for long, accounting for price level changes is an issue to serious for accountants to ignore.

Concept of inflation

Inflation is a persistent increase in the general level of prices. It is a phenomenon, which has come to the forefront of the economic problems of most countries, especially in the last decade or so. Government regard inflation as a critical problem once it moves from a one digit increase to double-digit inflation. Anti-inflation policy measures are guidely desired to relieve the problem. These policies will be known to most accountants. What accountants have not been able to grapple with so easily is the method of reflecting the effects of changes in price levels in the accounts. (Emerson, 2010)^[2].

Consequences of changing prices of financial reports

As stated earlier, historical cost accounts suffer from serious limitations during the periods of rapidly changing prices because the monetary postulate underlying historical cost accounting does not hold good during such periods. The consequence is that a lot of problems begin to creep into the reported accounts. These problems include the following:

Distortion in accounting results

Changing prices distort accounting results in various forms. In Glautier, Underdown & Morris (2011)^[4], accounting measurements based on historic costs under conditions of high inflation distort the meaning of accounting income and the underlying reality of financial position values. During periods

of rising prices (inflation) reported profits are overstated while assets are understated. But during periods of falling prices (deflation), reported profits are understated and assets are overstated.

There distortions are due to the following three primary factors

Depreciation of non-current assets

In the profit and loss account, depreciation provisions based on the original or historical cost of investment in non-current assets are matched with sales proceeds at current (inflated) prices measured in monetary unites having less purchasing power. Hence reported profits are over-stated/swollen by a capital element representing under provision for depreciation. Similarly in the financial position, assets are reported at lower amounts because they are reported at the original/historical monetary costs invested in them at the time they were acquired relative to their present market values at the reporting date.

Cost of inventory consumed

Under historical cost accounting, inventories consumed are valued at their costs of acquisition or market prices, whichever is lower. But they are matched with sales revenue expressed at current inflated prices and the end result like in depreciation of non-current assets, is overstating of reported profits by a capital element representing inventory gain.

Purchasing power gains and losses

Firm holds monetary assets and liabilities which gain or loss purchasing power during inflation. Historical cost financial reports do not reflect these gains or losses resulting in distortion of the accounts.

Non-recovery of costs

It is an accepted principle that sufficient provisions should be made out of current revenue to recover fully the purchasing power equivalent of the used up portions of assets used in operating the business. But the under-provision of depreciation and the incorrect matching of cost of inventories consumed as stated above, means that the costs of carrying on the business have not been fully recovered.

Problem of replacement of assets

The non-recovery of cost of exhaustion of non-current assets and the consumption of inventories makes it difficult for firms to replace business assets. This problem although less acute with inventories but it is quite serious in respect of non-current assets in terms of replacing them either with similar assets or an entirely new one.

Financial strain on the business

The historical cost accounting treatment of inventories and depreciation creates a gap between revenue and the amount needed to replace assets used up in running the business. This leads to shortages of funds (both circulating and fixed working capital) urgently needed to finance replacement and growth activities during inflation.

Problem of capital levy and capital distribution

It has been stated that the historical cost treatment of inventories consumed and depreciation on non-current assets leads to an over statement of profits. The taxation of such over stated profit amounts to capital levy and the payment of dividends out of such profit as distribution out of capital. This means the business is “living on capital” which further erode working capital and cause financial strain.

Interpretative value of financial statements

A crucial argument often put-forward against historical cost accounting system is its negative impact on the interpretative value of financial statements. During periods of prolonged inflation various items of the financial position are based on different levels of costs and prices and hence they are not comparable in any real sense. Secondly profits from inventory and similar capital gains get mixed up with operating profit in the income statement, thus making a proper assessment of the earning capacity of the firm and true financial position difficult if not impossible. This makes it difficult to interpret and make proper use of financial statements as a tool for managerial decision-making.

Responses from the accounting profession

Over the years, the accounting profession and the international financial reporting community have been making concerted efforts in addressing the challenges price levels on reported financial information.

In the USA, the Accounting Principles Board (APB) of the American Institute of Certified Public Accountants (AICPA) and its predecessor, the Committee on Accounting Procedures (CAP) undertook extensive studies on the subject of accounting for price changes as early as 1947. A major study on the subject was published in 1963 by the AICPA under the title. “Reporting the financial effects of price-level changes”. Between this period and 1977 a lot of exposure drafts and discussion memoranda were issued by the Financial Accounting Standard Board (FASB) newly created in July 1973 (Emerson, Karim & Rutledge 2010) ^[2]. In September 1979 the FASB issued Statement of Financial Accounting Standard (SFAS) No. 33: Financial Reporting and Changing Prices. SFAS. 33 required that information about the effects of changing prices should be available to investors, creditors and others involved in resource allocation decisions including government policy makers. The information was intended to help in assessing future cash flows, evaluating enterprise performance and operating capability and judging erosion of general purchasing power (Afolabi 2006) ^[1].

The board reviewed SFAS No. 33 in the light of its experimental period of ten years (1980-1984) and in December 1986 the FASB issued SFAS No. 89, which is the current status of inflation accounting in the USA. It requires that a business enterprise that prepares its financial statements in US dollars and in accordance with US GAAP is encouraged but not required to disclose supplementary information on the effects of changing prices. In the UK, formal pronouncement on accounting and reporting for changing prices came in the form of Recommendation No. 12 issued by the Institute of Chartered Accountants in England and Wales (ICAEW) in 1949. This recommendation discussed the problems associated with historical cost account during inflation and hinted at

some solutions. Not much effort was put on the subject matter until the rise in the rate of inflation after 1967-1968. In 1968 the Research Foundation of the ICAEW brought out a paper titled. “Accounting for stewardship in a period of inflation”. This paper dealt with the impact of inflation on companies and showed the procedures for adjusting accounts for changes in the purchasing power of money. In 1973 the newly formed Accounting Standard Steering Committee (ASSC) published Exposure that 8: “Accounting for changes in the purchasing power of money” which required quoted companies to produce general purchasing power (GPP) statements on a supplementary basis using the consumer price index. The use of general purchasing power accounting (GPPA) method in the UK gathered support with the appointment of the Barran Committee (Chair Sir David Barran) in 1972 to examine the problem of inflation accounts. The final report of the Committee that was issued in September 1973 concluded that the ED-8 proposals should be adopted by all quoted companies and by all corporations in the public sector. This led to the issue of provisional Statement of Standard Accounting Practice (SSAP) - 7 by ASSC requiring all quoted companies, and others where possible to follow the standard not later than 14th May 1974. In September 1975 the Sandilands Committee released its report that proposed the use of current cost accounting (CCA). This development drew down the curtain on GPPA in the UK. Based on the proposals of the Sandilands Committee, the ASSC issued ED-18 in December 1976 for public comments. In the light of the comments received on ED-I 8, the ASSC prepared ED-24 in May 1979 and in April 1980 it issued SSAP-16: Current Cost Accounting, closely following the structure laid down in ED-24. In Canada, in 1982 the Canadian Institute of Chartered Accountants (CICA) issued pronouncement on “Reporting the effects of changing prices” drawn upon SSAP-16 of the UK and SFAS33 of USA. The standard required large publicly held companies to provide supplementary information about the effects of changing prices on their annual reports with effects from 1 January 1983. Unlike the UK, the standard called for a complete set of supplementary financial statements but like USA it required information on certain items for which the effects of changing prices were likely to be most significant. Like UK and USA, Canada has also made these disclosures voluntary. International Accounting Standard Committee (IASC). The International Accounting Standard Committee (IASC) was formed on 29 June 1973 and charged with the responsibility and authority to issue in its own name, pronouncements on international accounting standards. On 1 April 2001 the new International Accounting Standard Board (IASB) took over the responsibilities of the IASC. According to Ezejelue (2008) ^[3], the committee first issued the International Accounting Standard (IAS) 6: Accounting responses to changing prices. This was superseded by IAS 15: Information reflecting the effects of changing prices, which became effective January 1, 1983. But this was also withdrawn in the late 1989.

The committee later issued IAS 29: Financial reporting in hyper inflationary economies and IFRIC 7-applying the restatement approach under IAS 29. The standard requires that the financial statements of an entity that reports in the currency of a hyper inflationary economy be restated in the

measuring unit current at the reporting date. The restated financial statements replaces the unrevised financial statements and do not serve as supplementary to them.

Methods for accounting and reporting the effects of changing prices

Despite agreement on the needs for adjustments in historical cost accounts for inflation, there is lack of uniformity of opinion regarding the technique or methods to be adapted for such adjustments. The main proposals so far put forward for dealing with the problem of inflation in accounts include the following; Writing up/revaluation upwards of non-current assets along with adoption of LIFO, Replacement cost accounting covering non-current assets and inventories (RCA), Present values accounting (PVA), Current Cost Accounting (CCA), General Purchasing Power Accounting (GPPA), Real Replacement Cost Accounting (RRCA), Cash Flow Accounting (CFA).

However, a study of the various standard issued by professional bodies in the USA, UK and Canada and the works of the IASB reveals that most of them fall under either of two broad categories, viz, the replacement cost accounting (RCA) or the general purchasing power accounting (GPPA). The real replacement cost accounting method is a middle of the road approach based on RCA and GPPA. Another approach that has emerged on the horizon is the cash flow accounting.

Replacement Cost Accounting (RCA)

The replacement cost accounting method, also called the replacement value method is based on the principle that charges of depreciation and cost of inventories consume to the income statement should be sufficient to meet the cost of replacing those assets (non-current assets and inventories) as and when they wear out by use or consumption. This means that the annual depreciation provision should be made sufficient enough to provide for replacement cost of non-current assets and the inventories consumed should provide for the replacement of used-up inventories.

The Current Cost Accounting (CCA)

This is one of the many variants of the replacement cost approach. Under the current cost accounting (CCA), assets and liabilities in the financial position are stated at their current values at the reporting date and measure income after matching current costs with current revenues. This practice is based on the concept of "operating capability" which is viewed as the amount of goods and services, which an entity is capable of providing with its existing resources during a given period. To maintain this operating capability of the enterprise, it is necessary to take into account the rising costs of assets consumed in generating revenues and the CCA achieves this by substituting the current costs of assets consumed in the place of the corresponding historical costs. In support of this CCA method, Ratcliffe and Munter (2014) ^[8] stated that the "truth in accounting" can only be attained when financial statements display the current value of assets and the profits or losses resulting from changes from in the value of the assets.

Main features of the current cost accounting

Money is the unit of measurement, assets and liabilities are shown in the statement of financial position at valuation. The current cost operation profits is shown by charging the value to the business of assets consumed during the period after allowing for the impact of price changes. It is calculated before interest on net borrowings and taxation. The current cost operating profit is arrived at by making three main adjustments to trade profit calculated on the historical cost basis before interest: Depreciation adjustment, cost of sales adjustment and monetary working capital adjustment. The current cost financial position includes a new item called current cost reserve or capital maintenance reserve made up of: Unrealized revaluation surpluses on non-current assets, inventory and investment, Realized amount equal to the cumulative new total of the current cost adjustment, that is, depreciation adjustment, working capital adjustment and gearing adjustment. In the statement of financial position, land and buildings, plants and machinery, and inventories (subject to cost of sales adjustment), would be shown at their values to the business. Current assets other than those subject to a cost of sales adjustment and all liabilities would be shown on historical cost basis. The financial position should be supported by summaries of the non-current statement assets and the movements on reserves.

Strengths of the current cost accounting

The greatest merit of the CCA is its objective to maintain intact the operating capability of an enterprise by closely approximating the impact of inflation (specific price change) on the enterprise. It recognizes that it is current costs of goods and services that effects the operating results of an enterprise and should be used in the determination of income. The break up of the assets and liabilities as given by the CCA represents a more accurate and real financial picture of an enterprise than that given by the historical cost accounting since the CCA figures are with reference to the current prices.

Weaknesses

One of the most important weaknesses of the method is the element of subjectivity inherent in periodic valuations. The CCA figures of operating profit and capital employed in different years are not comparable because current cost accounts are prepared in monetary units. The CCA operating gains do not reflect the real earnings of the firm and if the CCA profits are distributed in full this will lead to what is in effect a payment out of capital and in that case the operating capability of the firm would not be maintained. The CCA will not be applicable to cash flow statement. This implies that external users will not be able to successfully predict future cash flows necessary for investment decision-making. The valuation method is ill defined and it has not yet developed into an integrated and comprehensive body of procedures.

General Purchasing Power Accounting (GPPA)

This method shows the affairs of an enterprise in terms of a unit of measurement of constant value when costs and prices are changing. The unit of measurement used in this method is the purchasing power unit, and not money. Thus the method eliminates the effects on accounts of changes in the value of

money. The GPPA method drives theoretically from the principle that the profit of an enterprise should be so computed as to maintain intact the purchasing power of the shareholders capital originally invested in the business. The method removes the distortions in the historical cost accounts arising due to changing value of money. This is achieved by converting accounting numbers composed of a currency of different purchasing power into uniform money units of uniform purchasing power using a general index of prices of goods and services that portrays changes in the general purchasing power of the reporting currency. The system of adjustment of historical cost accounts for changes in the purchasing power of the reporting currency, in brief, is:

General: All items in the financial position and the income statement are restated/adjusted in terms of current values. The items in the historical cost financial statements are classified into monetary and non-monetary groups, monetary item are simply restated in current values; they do not require adjustment. Non-monetary items on the other hand are adjusted in accordance with changes in the purchasing power of the reporting currency. Transactions, both capital and revenue are assumed to have taken place evenly throughout the year, i.e at the average price-level of the year.

Adjustment in the statement of comprehensive income

Items such as sales, purchases, expenses, etc. are adjusted in terms of the year-end values by applying the average price index for the year, opening and closing inventories are adjusted by the price index of the average date of their acquisitions. For computing adjusted depreciation, the non-current assets are first aged and grouped according to the date of their acquisition and then their cost in the reporting currency is obtained. The depreciation charges are computed with reference to such adjusted costs either by applying regular rates or on a proportionate basis.

Adjustments in the statement of financial position

Non-current assets are adjusted with reference to the index numbers of the date of their acquisition or if deemed satisfactory, with reference to the index number of the average date of their acquisition. The method of adjusting inventories is the same as stated above in (ii) (b). The remaining current assets and all liabilities require no adjustment as they are monetary in nature. The equity share capital at the beginning of the year is adjusted by index number at the date of issue, if deemed satisfactory, by the average index of the year. The preferences share capital is treated as a monetary item and is simply restated.

Strengths of General Purchasing Power (GPPA) method

Firstly, the GPPA method, by permitting the retention of historical cost accounts, meets a very important feature of an ideal accounting system that accounts should be based on the results of actual business transactions. Secondly, the method removes the shortcomings of money as a measuring rod during inflation. Thirdly, because the GPPA method uses a uniform purchasing power as the measuring rod, the accounts under this method are free from the pitfalls common to different asset valuation techniques, which discard transaction criterion and are subjected to varying degrees of individual

judgment and opinion. The method can therefore lay claim among others to such qualities as objectivity, comparability and uniformity, which ordinarily lack in accounting methods based on property appraisals.

Weaknesses

An important weakness of this method is its concern about changes in the general level of prices as opposed to those in the specific prices. It is argued (by the opponents of the purchasing power approach) that the GIPPA method, by not considering change in specific prices does not solve, except indirectly and incidentally, the problem of the gradual depletion of operating capability of an enterprise during inflation. That is probably one of the reasons why this method has now lost most of the professional support it once enjoyed. The purchasing power unit proposed by the GPP method is not easily perceived by the users of financial statements. Whereas a monetary units is easily understood and perceived. This weakness gets further magnified because, unlike a monetary unit, a purchasing power unit is not capable of being exchanged as physical object between parties to a transaction. Further, it is maintained that the purchasing power gains/losses arising due to price-level changes, which are recognized by the GPPA method, are likely to get confused with operating profits of the enterprise. This is likely to obscure the results of managerial skills and decisions. It is also argued that the amount of work and costs involved in the reproduction of price-level adjusted accounts is so large that smaller companies may not opt for the method.

Real replacement cost accounting

This method is essentially a compromise formula based on replacement cost accounting and general purchasing power accounting. It seeks to remove the effects of inflation from the replacement cost accounts and where necessary, restate the real balance in end-of-period money units. In the context of this arrangement, the adjustments of noncurrent assets and inventories are to be made with reference to specific indices, and the monetary items are considered for calculating purchasing power gains and losses. It is claimed that by combining general price-level adjustment with the use of current prices of specific assets, all the advantages of both the methods can be obtained. It is also subject to the criticisms of both methods.

3. Methodology

This paper is qualitative in nature and therefore no quantitative tool was used. The study was conducted on the basis of library desk research and survey of extant literature. Journals and textbooks are referred to in writing the paper.

4. Conclusion and Recommendation

Rapid changes in the level of prices constitute area' threat to the integrity of reported financial statements as basis for informed decision-making. Although the accounting profession has responded positively but there is yet no consensus as to the particular method to be adopted in tackling the problem. Hence international comparability of financial statements remains unachievable during periods of rising prices even in the light of IAS 29. The accounting profession

should rise and tackle the challenges ahead of a country for price level changes.

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