CURRENT PURCHASING POWER AND ITS UTILISATION ON ANNUAL REPORTS OF THE COMPANIES (WITH SPECIAL REFERENCE TO INDIAN STEEL COMPANIES)

Hilda Shamsadini, M.R. Yavarzadeh,
Islamic Azad University, Islamic Azad University,
Bam Branch, Iran Bam Branch, Iran

ABSTRACT

This paper investigates the use of inflation accounting by current purchasing power method and its effects on financial statements of steel companies in India. Therefore the annual reports of 8 steel companies listed in Bombay Stock exchange, India has been collected. All the companies prepare the annual reports in historical cost method; therefore conversion to Current Purchasing Power (CPP) has been done. Then the ratios were calculated on both historical cost and CPP of financial statements to form two sets of ratios. An analysis of paired sample t test has been conducted on some financial ratios of these companies to see the differences between two methods. At the end the results show that a significant difference between adjusted cost based financial ratios and historical cost based financial ratios occurs only for return on equity (ROE) and return on asset (ROA) and there is no significant change in operating profit ratio (OPR), current ratio (CR) and quick ratio (QR).

Keywords: inflation accounting, CPP, annual reports, Steel Companies.
INTRODUCTION:

Financial statements are usually reported in the traditional accounting framework commonly referred to as historical cost accounting, in which money is based as a unit of measures. In times of inflation the purchasing power of money is falling and thereby, this unit of measures does not have a constant value. As such, in accounts based on historical cost income, expenditure, assets and liabilities have a mixture of value depending on the date at which each item was originally brought into the accounts. During a period of rising prices, financial statements based on historical cost do not adequately portray financial position. There are three potentially serious problems:

- An erosion of the equity base may not be clearly recognized;
- The assets of the business will tend to be understated; and
- Any gains and losses from holding monetary items will not be recognized.

The distorting effects of inflation on the conventional financial statements can be severe. Even relatively low inflation rates can have a significant cumulative effect overtime. To combat the problem, various methods of accounting for inflation have been proposed and there has been much debate as to which should be adopted. At the heart of the debate lies the problem of equity maintenance and, in particular, how equity maintenance should be defined. By resolving this problem, other problems, such as the way in which profit is measured and how assets should be reported, can then be resolve financial transactions occurring at different dates will be expressed in terms of their purchasing power at a single, common date – the end of the accounting period. This is done by adjusting for the change in the price index between the date of the transaction and the end of the accounting period. Profit available for distribution will be derived by expressing both the revenue received and the cost of the goods sold for the period in terms of their current (end-of-accounting-period) purchasing power. The cost of assets acquired will also be expressed in terms of their current purchasing power.

The sales revenue is already expressed in terms of current purchasing power as the sale of inventories took place on the last day of the accounting period. The cost of sales figure is adjusted as the inventories were acquired at an earlier date. Where there are lots of sales and purchases that accrue evenly over the period, an average index for the period is used.

Cash has not been adjusted as it is a monetary item that stays fixed irrespective of changes in the purchasing power of the monetary items. (There is no loss on holding cash during the period as it was received at the end of the month.) The CPP approach is often commended for its reliability. The historic cost of items is normally used as the basis for making adjustments and the adjustments are made using an objective index. Inflation is usually estimated using the Inflation rate. Inflation rate is usually calculated as the percentage change in a Price Index year on year. Usually Consumer Price Index is considered the ideal price index for calculating inflation rate. But in India Wholesale Price Index or WPI released by the Reserve Bank of India is considered for calculating the Inflation rate of the Indian National Rupee.

REVIEW OF LITERATURE:

A research was conducted by Okumus, he evaluated the effect of inflation on measures of profitability in Turkish Banking [H. Saduman Okumus (2002 Vol.13)]. In this paper, profitability ratios (ROA, ROE and NIM/AA) based on pre- and post-inflation adjusted financial statements, are compared for the Turkish banking industry over the period 1989-1995. It appears that inflation adjustment, based on the CPP procedure, decreased the level profitability and altered the ranking of profitability ratios by bank groups significantly. This reflects the importance of considering the potentially distorting effects of inflation.

Another work has done by J. S. Arora, he has deliberated study of Price Level accounting in India, in this research work deals with the study of corporate practices in India regarding the preparation and presentation of inflation accounting in their annual reports.

Karaoinar and F.Zaif examined the Impact of Inflation Accounting Application on Key Financial Ratios. To this end, the financial statements of 132 companies listed in the Istanbul Stock Exchange are studied. An analysis of paired samples t test has been conducted on the financial ratios of the companies. The results show that a significant difference between adjusted cost based financial ratios and historical cost based financial ratios occurs only for current, ratios, equity ratios and noncurrent turnover ratios.

Thies and Sturrock conducted a research over a sample of 50 large manufacturing firm using replacement cost data for the period 1977-1983. The findings showed that rankings of historical cost-based financial ratios did not match well with rankings of replacement cost-based ratios. The data also indicated that
historical cost-based financial ratios often grossly misrepresent the relative financial strengths of companies.

RESEARCH METHODOLOGY:

The researcher has selected 8 steel companies in India for the purpose of study by simple random system, so 5 year’s annual reports (balance sheet and profit and loss account) of these companies for the periods of 2005-06 to 2010-11 have been taken from published data in Bombay Stock Exchange, for the purpose of data collection. All the companies prepare financial statements according to historical cost accounting, therefore researcher have converted the figures of financial statements into Current Purchasing Power (CPP) basis, and used WPI (Wholesale Price Index), and then according to related formulas conversions have been done. CPP method seeks to use general purchasing power price of money rather than specific price indices to convert the historical figures into relevant figures of purchasing power for the end of the period in review. In simple term, the conversion of historical figures into CPP figures is as follows:

Multiplying the historical cost figures by the price index at the end of the period, and divide by the index which existed at the date of original transaction

The conversion process is discussed below in following 3 sections:

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

And net gain or loss on monetary assets also should be calculated.

For data analyzing has used 5 ratios such as; OPR (operating profit ratio), ROA (return on assets), ROE (return on equity) and, CR (current ratio) and QR (quick ratio). For analyzing the variables, the independent T-test has been used, to see the difference between each variable in historical accounting and in inflation accounting.

RESULT:

The following table is showing mean and Std. Deviation of six variables NPR, GPR, OPR, ROE, ROI, and ROWC as per historical cost accounting and inflation accounting:

<table>
<thead>
<tr>
<th>Group Statistics</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>OPR H</td>
<td>40</td>
<td>20.5387</td>
<td>12.03954</td>
<td>1.90362</td>
</tr>
<tr>
<td>OPR I</td>
<td>40</td>
<td>15.6790</td>
<td>10.98890</td>
<td>1.73750</td>
</tr>
<tr>
<td>ROI H</td>
<td>40</td>
<td>12.7269</td>
<td>16.85148</td>
<td>2.66445</td>
</tr>
<tr>
<td>ROI I</td>
<td>40</td>
<td>5.6370</td>
<td>10.97549</td>
<td>1.73538</td>
</tr>
<tr>
<td>ROE H</td>
<td>40</td>
<td>14.2068</td>
<td>14.59251</td>
<td>2.30728</td>
</tr>
<tr>
<td>ROE I</td>
<td>40</td>
<td>6.6762</td>
<td>13.97364</td>
<td>2.20943</td>
</tr>
<tr>
<td>CR H</td>
<td>40</td>
<td>180.3340</td>
<td>105.27713</td>
<td>16.64578</td>
</tr>
<tr>
<td>CR I</td>
<td>40</td>
<td>181.7313</td>
<td>105.47906</td>
<td>16.67770</td>
</tr>
<tr>
<td>QR H</td>
<td>40</td>
<td>124.2770</td>
<td>101.30746</td>
<td>16.01812</td>
</tr>
<tr>
<td>QR I</td>
<td>40</td>
<td>124.2770</td>
<td>101.30746</td>
<td>16.01812</td>
</tr>
</tbody>
</table>

Table : independent t- test for variables between the two methods of historical cost and CPP

<table>
<thead>
<tr>
<th>Levene's Test for Equality of Variances</th>
<th>t-test for Equality of Means</th>
<th>95% Confidence Interval of the Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>F</td>
<td>Sig.</td>
<td>df</td>
</tr>
<tr>
<td>---</td>
<td>------</td>
<td>----</td>
</tr>
<tr>
<td>OPR</td>
<td>1.043</td>
<td>.310</td>
</tr>
</tbody>
</table>

CONCLUSION:
The p-values obtained by t-test shows that amounts of ROI and ROE are smaller than 0.05, therefore we can say there are significant differences between these two ratios as per historical cost accounting and current purchasing power method. Other p-values are all less than 0.05, so there is no significant difference between two methods.

The analysis of result shows that all the profitability ratios (OPR, ROI, ROE) declined in CPP compared to historical accounting, but the result were double in ROE and ROA as the numerator were understated and denominator were overstated after adjustment.

Since the fixed assets are valued at historical cost (in all steel companies), the assets are stated at a much lower figure than their current replacement costs. This makes a company vulnerable to takeover bids and leads to lower valuations for the shareholders.

According to descriptive statistics calculations, the current ratio has increased.

The result in current ratios is a sign that inventory investments among companies’ assets can reach to low amounts. Liquidity ratio is current asset divided by current liabilities. Current items are largely monetary. The nonmonetary item among current items is inventories, that this amount is low in this work. Change in liquidity ratios will fluctuate depending on their magnitude.

And the amount of QR was same in both methods as the denominator and numerator figures all are monetary and no need to convert monetary item as they are already in CPP.

REFERENCES: