

# Inflation Accounting: Price Index During Inflation vs. Historical Cost

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## Abstract

This paper explores the significance of inflation accounting in adjusting financial statements to account for the impact of inflation on the economy. It examines the restatement of balance sheets and income statements, and it discusses the limitations of historical cost using price indices to reflect changes in the value of monetary and non-monetary assets and liabilities. By considering the erosion of the purchasing power of money and the appreciation of non-monetary assets, inflation accounting provides a more precise illustration of a company's financial position, performance, and cash flows. The constant purchasing power Accounting (CPPA) method is highlighted as a useful technique to address the limitations of historical cost accounting in inflationary environments. However, the application of inflation accounting varies across countries and depends on economic and regulatory factors. The paper suggests the need for further research to investigate the implications of inflation accounting on different industries, economies, and financial reporting frameworks. It emphasizes the ongoing relevance and discussion surrounding inflation accounting methods and their implementation in practice, aiming to provide stakeholders with a better understanding of financial performance in inflationary contexts.

**Keywords:** *Inflation accounting, constant purchasing power accounting, financial statements, price index*

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## Introduction

This paper examines the implications of inflation on financial reporting and accounting practices, with a focus on the comparison between price index and historical cost accounting methods. It also considers the use of the Constant Purchasing Power Accounting (CPPA) method and the regulations outlined in IAS 29 and FAS 33 for adjusting net assets in the presence of inflation. The study aims to highlight the importance of accurate inflation accounting and its impact on financial statements. It aims to:

1. Investigate the effects of inflation on financial reporting and accounting practices.
2. Compare the price index method with historical cost accounting, taking into account the regulations outlined in IAS 29 and FAS 33.
3. Examine the use of the Constant Purchasing Power Accounting (CPPA) method for restating financial statements.
4. Analyze the implications of different accounting methods on financial ratios and performance indicators.
5. Contribute to the corpus of knowledge by providing insights into the benefits and challenges of inflation accounting methods.

## Methodology

The research methodology includes a comprehensive analysis of restated financial data tables using the Constant Purchasing Power Accounting (CPPA) method with different inflation assumptions. Research design focuses on practical application and scenario analysis. Ethical considerations related to the use of financial statements and adherence to accounting principles and standards are essential in conducting the research.

To illustrate the practical application of the CPPA method, the balance sheet, income statement and cashflow statement of Royal Dutch Airlines Company are considered. The study explores three scenarios with different levels of inflation and applies the restatement methodology. Assumptions are made regarding the indexing of revenues. The corresponding ratios are computed and compared to assess the impact on performance indicators. The analysis reveals that indexing revenues improves liquidity, profitability, and solvency ratios, particularly in the cash flow statement analysis where corrections are minimized compared to historical cost accounting.

Inflation accounting using the CPPA method provides additional information to analysts and stakeholders, enhancing the understanding of financial performance.

The CPPA method involves adjusting the balance sheet and income statement based on the relationship between non-monetary assets (N), monetary assets (M), liabilities (L), and proprietor's net worth (P) as demonstrated by the balance sheet equation:

$$(N_t + M_t = L_t + P_t) \dots \dots \dots \text{eq.1}$$

The opening balance sheet is corrected using a general price index (p) to derive the restated closing balance sheet

$$(P_{t+1} = N_t(1+p) + M_t - L_t) \dots \dots \dots \text{eq.2}$$

Additionally, the CPPA profit (YCPP) is calculated by subtracting the restated opening balance sheet from the restated closing balance sheet, highlighting the impact of inflation on profits, including gains on borrowings and losses on lending and holding money.

Overall, the research contributes to the understanding of the effects of inflation on financial statements and highlights the benefits of the CPPA method in providing additional insights to analysts and stakeholders.

## Findings

The restated financial statements with the CPPA method account for the impact of inflation on historical costs, allowing for a more accurate assessment of the company's financial performance and position.

The restated balance sheets reveal the significant impact of different inflation assumptions on the company's financial position. Higher inflation rates result in substantial increases in both assets and liabilities, highlighting the importance of considering the effects of inflation when evaluating a company's financial statements.

The restated income statement shows higher revenues, EBITDA, income from current operations, and profit for the year. This reflects the impact of inflation on the financial performance of the company.

## Conclusion

Inflation accounting plays a crucial role in adjusting financial statements to reflect the impact of inflation on the economy.

By restating balance sheets and income statements using price indices, inflation accounting provides a more accurate representation of a company's financial position, performance, and cash flows.

The constant purchasing power accounting (CPPA) method, which adjusts historical costs based on changes in a general price level index, is a useful technique for addressing the limitations of historical cost accounting in inflationary environments.

The application of inflation accounting varies across countries and depends on economic and regulatory factors.

Companies operating in hyperinflationary economies may have specific inflation accounting standards, while others may have the option to choose between historical cost accounting and inflation accounting methods.

The financial ratios analyzed with respect to inflation and compared to price index and historical costs provide insights into the company's profitability, asset utilization, debt levels, and solvency under different inflation assumptions.

Recommendations and suggested areas for further research to enhance understanding of the implications and implementation of inflation accounting in various settings:

1. Investigate the implications of inflation accounting on different industries, economies, and financial reporting frameworks.
1. Explore the impact of inflation on financial ratios and the comparability of financial statements across countries with different inflation rates.
2. Analyze the challenges and practical considerations in implementing inflation accounting in practice.
3. Examine the ongoing relevance and discussion surrounding inflation accounting methods and their implementation in different contexts.
4. Understand the implications of inflation accounting on decision-making by investors, creditors, and other stakeholders.

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