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Ratio Analysis & Interpretation for Apple Inc.

# Table of Contents

[List of acronyms 2](#_Toc182139994)

[List of definitions 3](#_Toc182139995)

[1. Introduction 4](#_Toc182139996)

[2. Detailed Ratio Analysis 4](#_Toc182139997)

[a. Liquidity 4](#_Toc182139998)

[b. Profitability 4](#_Toc182139999)

[c. Solvency 5](#_Toc182140000)

[d. Asset Utilisation 5](#_Toc182140001)

[e. Market Valuation 6](#_Toc182140002)

[3. Financial Performance and Growth 7](#_Toc182140003)

[4. Comparative Analysis 7](#_Toc182140004)

[5. Risk Factors and Outlook 8](#_Toc182140005)

[6. Conclusion 8](#_Toc182140006)

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# List of acronyms

COGS Cost of Goods Sold

EBIT Earnings Before Interest and Taxes

EBITDA Earnings Before Interest, Taxes, Depreciation, and Amortisation

EPS Earnings Per Share

P/E Price-to-Earnings Ratio

ROA Return on Assets

ROE Return on Equity

# List of definitions

**Liquidity Ratios:** Financial ratios that measure a company's ability to meet its short-term obligations.

* Current Ratio: The ratio of current assets to current liabilities.
* Quick Ratio: The ratio of quickly convertible assets (excluding inventories) to current liabilities.
* Cash Ratio: The ratio of cash and cash equivalents to current liabilities.

**Profitability Ratios:** Financial ratios that measure a company's ability to generate profits relative to its revenue, assets, or equity.

* Gross Margin: The percentage of revenue remaining after subtracting the cost of goods sold.
* EBIT Margin: The percentage of revenue remaining after subtracting operating expenses, but before interest and taxes.
* Net Margin: The percentage of revenue remaining after subtracting all expenses, including interest and taxes.
* Return on Assets (ROA): The percentage of net income relative to total assets.
* Return on Equity (ROE): The percentage of net income relative to shareholders' equity.

**Solvency Ratios:** Financial ratios that measure a company's ability to meet its long-term obligations and its financial leverage.

* Debt-to-Equity Ratio: The ratio of total debt to shareholders' equity.
* Debt-to-Assets Ratio: The ratio of total debt to total assets.
* Times Interest Earned: The ratio of operating income (EBIT) to interest expenses.

**Asset Utilisation Ratios:** Financial ratios that measure how efficiently a company uses its assets to generate revenue.

* Total Asset Turnover: The ratio of net sales to average total assets.
* Inventory Turnover: The ratio of cost of goods sold to average inventory.

**Market Valuation Ratios:** Financial ratios that measure the market value of a company's stock relative to its financial performance.

* Price-to-Earnings (P/E) Ratio: The ratio of a company's stock price to its earnings per share.
* Price-to-Book Ratio: The ratio of a company's stock price to its book value per share.
* Earnings Per Share (EPS): The portion of a company's profit allocated to each outstanding share of common stock.

# 1. Introduction

Apple Inc. is a global technology leader known for its innovative products and strong brand loyalty. This report provides an in-depth analysis of Apple's financial performance for the fiscal years 2020-2022, focusing on key financial ratios and metrics across liquidity, profitability, solvency, asset utilisation, and market valuation. The purpose is to assess Apple's financial health, identify trends, and provide insights for investors and stakeholders.

# 2. Detailed Ratio Analysis

## a. Liquidity

Apple's liquidity ratios, including current ratio, quick ratio, and cash ratio, have declined steadily from 2020 to 2022 (see Figure 1). This trend suggests a weakening in Apple's short-term liquidity position. The cash ratio, which measures the company's ability to cover short-term liabilities with cash and cash equivalents, decreased from 0.36 in 2020 to 0.15 in 2022. While Apple still maintains a strong cash position, management should closely monitor liquidity and ensure sufficient cash reserves to meet short-term obligations and maintain financial flexibility.

**Figure 1: Liquidity Ratios Graph**

## b. Profitability

Apple has demonstrated impressive profitability, with gross margin expanding from 38% in 2020 to 43% in 2022 (see Figure 2). This improvement indicates Apple's ability to control costs and command premium prices for its products. The company's EBIT margin and net margin have also increased significantly over the same period, reaching 30% and 25%, respectively, in 2022. The margin expansion, coupled with robust revenue growth, led to a 74% increase in net income from $57.4 billion in 2020 to $99.8 billion in 2022. Apple's strong profitability is a testament to its brand power, innovative products, and operational efficiency.

**Figure 2: Profitability Margins Graph**

## c. Solvency

Apple's debt-to-equity and debt-to-assets ratios have increased from 2020 to 2022, indicating a higher reliance on debt financing (see Figure 3). The debt-to-equity ratio reached 5.96 in 2022, up from 3.96 in 2020. While this increase in financial leverage may raise concerns, Apple's strong profitability and cash flow generation mitigate the risk. The times interest earned ratio, which measures the company's ability to cover interest expenses with operating income, improved from 22.1 in 2020 to 41.7 in 2022. This suggests that Apple can comfortably service its debt obligations. However, investors should monitor Apple's leverage and ensure that the company maintains a balanced capital structure.

**Figure 3: Solvency Ratios Graph**

## d. Asset Utilisation

Apple's asset utilisation ratios have shown significant improvement from 2020 to 2022. The total asset turnover ratio increased from 0.85 in 2020 to 1.12 in 2022 (see Figure 4), indicating that Apple is generating more revenue from its asset base. This improvement in asset efficiency contributes to better profitability and return on assets. Apple's inventory turnover ratio also increased from 21.8 in 2020 to 28.7 in 2022, reflecting more efficient inventory management and faster conversion of inventory into sales. These asset utilisation improvements demonstrate Apple's operational excellence and ability to maximise the productivity of its resources.

**Figure 4: Asset Turnover Ratios Graph**

## e. Market Valuation

Apple's stock has experienced significant appreciation, with the price-to-earnings (P/E) ratio reaching a high of 69 in 2020 before moderating to 37 by 2022 (see Figure 5). This moderation in P/E ratio can be attributed to the substantial growth in earnings per share (EPS), which increased from $3.31 in 2020 to $6.15 in 2022. The strong EPS growth reflects Apple's ability to increase profitability while managing its share count through buybacks. Apple's robust earnings growth has been a key driver of its stock price appreciation and has helped maintain investor confidence in the company's future prospects.

**Figure 5: P/E Ratio and EPS Graph**

# 3. Financial Performance and Growth

Apple has achieved impressive financial performance, with total net sales growing 33.3% in 2021 and 7.8% in 2022 (see Figure 6). This growth was driven by strong performance across both product and service segments. Product sales grew 34.7% in 2021 and 6.3% in 2022, while service revenue increased 27.3% in 2021 and 14.2% in 2022. Apple's ability to consistently innovate and expand its product offerings while growing its high-margin services business has been key to its financial success.

**Figure 6: Revenue Growth Graph**

Apple's profitability has also seen significant growth, with gross profit increasing 45.6% in 2021 and 11.7% in 2022. This profitability expansion can be attributed to a combination of higher sales, improved margins, and operational efficiencies. Apple's strong brand loyalty and pricing power have allowed it to maintain robust profitability despite competitive pressures and global economic challenges.

# 4. Comparative Analysis

Apple's financial performance and ratios compare favourably to its main competitors in the technology industry. Apple's gross margin of 43% in 2022 is higher than many of its peers, reflecting its premium brand positioning and pricing power. To provide more context, Apple's gross margin of 43.3% in 2022 is higher than most of its hardware-focused competitors, such as Samsung (37.39%)[[1]](#footnote-1), Lenovo (16.8%)[[2]](#footnote-2), HP (20.4%), and Dell (19.49%)[[3]](#footnote-3). This reflects Apple's ability to command premium prices for its products and maintain a strong brand image. However, Apple's gross margin is lower than some software and service-oriented peers, like Microsoft (68.4%)[[4]](#footnote-4), as these businesses typically have higher gross margins compared to hardware businesses. Amazon, with a mix of e-commerce and cloud computing, has a gross margin (43.8%)[[5]](#footnote-5) similar to Apple's.

Apple's profitability metrics, such as net margin and return on equity, also tend to outperform industry averages[[6]](#footnote-6). However, Apple's high valuation ratios, such as P/E and price-to-book, are above industry norms, indicating higher investor expectations for growth and profitability.

# 5. Risk Factors and Outlook

Despite Apple's strong financial performance, the company faces several risks that could impact its future prospects. Intense competition in the technology industry, particularly in smartphones and other hardware products, could pressure Apple's market share and pricing power. Apple also faces the risk of supply chain disruptions, as evidenced by the global chip shortage[[7]](#footnote-7) affecting many technology companies. Regulatory risks[[8]](#footnote-8), such as potential antitrust actions or privacy concerns, could also impact Apple's operations and profitability.

Looking ahead, Apple's continued success will depend on its ability to innovate and introduce new products and services that resonate with consumers. The company's strong brand loyalty and ecosystem of products and services provide a solid foundation for future growth. However, Apple will need to navigate the evolving competitive landscape, technological disruptions, and global economic uncertainties to maintain its financial performance and market leadership.

# 6. Conclusion

Apple's financial analysis for 2020-2022 reveals a company with strong profitability, efficient operations, and impressive growth. Apple's margin expansion, revenue growth, and asset utilisation improvements highlight its operational excellence and competitive advantages. However, the company's declining liquidity ratios and increasing leverage deserve close monitoring. Apple's high valuation ratios reflect market expectations for sustained growth and profitability but also indicate potential overvaluation risks.

Based on this analysis, investors and stakeholders should have confidence in Apple's financial strength and future prospects. However, they should also be aware of the risks and challenges the company faces in the dynamic technology industry. Apple's ability to innovate, adapt to changing market conditions, and maintain its competitive edge will be critical to its long-term financial success.

1. September 2022, <https://ycharts.com/companies/SSNGY/gross_profit_margin> [↑](#footnote-ref-1)
2. March 2022, [https://finbox.com/DB:LHL/explorer/gp\_margin/](https://finbox.com/DB%3ALHL/explorer/gp_margin/) [↑](#footnote-ref-2)
3. October 2022, <https://www.macrotrends.net/stocks/charts/HPQ/hp/gross-margin> [↑](#footnote-ref-3)
4. June 2022, [https://finbox.com/NASDAQGS:MSFT/explorer/gp\_margin/](https://finbox.com/NASDAQGS%3AMSFT/explorer/gp_margin/) [↑](#footnote-ref-4)
5. December 2022, [https://finbox.com/NASDAQGS:AMZN/explorer/gp\_margin/](https://finbox.com/NASDAQGS%3AAMZN/explorer/gp_margin/) [↑](#footnote-ref-5)
6. <https://csimarket.com/Industry/industry_Profitability_Ratios.php?s=1000#google_vignette> [↑](#footnote-ref-6)
7. <https://www.techrepublic.com/article/global-chip-shortage-cheat-sheet/> [↑](#footnote-ref-7)
8. <https://www.marsh.com/en/industries/technology/insights/tech-risk-study.html> [↑](#footnote-ref-8)