Investment Recommendation on Apple Inc. Through Ratio Analysis

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Abstract. Apple Inc.'s stock price kept rising because of the introduction of new technology. The decline in China's sales affected Apple Inc.'s total sales because of domestic competition in China. Apple Inc. announced its collaboration with Alibaba to improve Chinese consumers' service. This also led to an increase in stock prices. The uncertainty of the global economy made its sales and profit unstable. This essay will collect Apple Inc.'s financial ratios regarding liquidity, solvency, profitability and market value. Facts are also included in evidence collection. This essay will give investment recommendations by analysing Apple Inc.'s advantages and problems. This essay found that Apple Inc. had a strong ability to diversify products and save costs. The company kept issuing bonds and repurchasing, bringing shareholders debt risks. The research result is that market expectations drove Apple Inc.'s stock price, and the product innovation was not capable enough to compete with global competitors. In conclusion, this essay doesn't recommend investing in Apple Inc.

Keywords: investment, ratio analysis, Apple Inc., stock

1 Introduction

As one of the biggest tech giants globally, Apple Inc. has drawn the attention of numerous investors due to its financial results and product launches. The company's global net sales for the 2022, 2023, and 2024 financial years were $391.035 billion, $383.285 billion, and $394.328 billion, respectively [1]. These figures indicated the fluctuations in its sales due to the change in consumer behaviour and uncertainty in the global economy. Additionally, Apple Inc. has highlighted the volatility of its share value over the past three financial years.

China is one of Apple's key reportable segments, significantly influencing its overall sales and profitability. In 2024, net sales in China declined by 8%, making it the most substantial factor affecting Apple's financial performance that year. Recently, it was confirmed that Apple would cooperate with Alibaba to provide more AI-based services for Chinese customers. Following this announcement, Apple Inc.'s stock value has been consistently rising. While investors may benefit from high returns, they also face considerable risks.

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Under this scenario, it is essential to analyse Apple Inc.'s financial performance and investment reliability. A ratio-based evaluation can address this issue by providing a structured analysis of Apple's financial performance. Thus, this essay addresses this gap by utilising Apple Inc.'s financial reports to analyse key financial ratios related to solvency, profitability, and market value. The objective is to provide investors with a rational and data-driven investment recommendation.

2 Methodology

This essay analyses Apple Inc.'s financial performance in terms of solvency, profitability, and market value. Several ratios would develop each aspect.

2.1 Ratio Explanation

The analysis will present the trend of each ratio from 2022 to 2024 by listing facts and data to analyse the reasons for change. Additionally, the conclusion of the analysis will point out Apple Inc.'s challenges and problems.

2.1.1 Current Ratio.

$$current\ ratio = \frac{Current\ Asset}{Current\ Liability} \tag{1}$$

A high current ratio means that a company has strong liquidity. In contrast, a low current ratio may signify a company's low liquidity and credit issues [2]. (Equation (1))

2.1.2 Debt Ratio.

$$debt\ ratio = \frac{Total\ Liability}{Total\ Asset} \tag{2}$$

In the shareholder's view, they hopefully keep the overall capital profit margin greater than the borrowing interest rate. Therefore, shareholders prefer a lower debt ratio. However, the company's manager should balance the conflicts between solvency and enterprise vitality. A high debt ratio may lead to difficulty in funding and financing, and a low debt ratio may represent a company's stagnant vitality [3]. (Equation (2))

2.1.3 Net Profit Margin.

$$Net\ Profit\ Margin = \frac{Net\ Profit}{Revenue} \tag{3}$$

It's a comprehensive indicator that measures and evaluates a company's profitability and cost control. A high net profit margin represents efficiency in asset utilisation and cost balance [4,5]. (Equation (3))

2.1.4 EPS (Earnings Per Share).

$$EPS = \frac{Net\ Income - Preferred\ Dividends}{Weighted\ Average\ Number\ of\ Common\ Shares\ Outstanding} \quad (4)$$

Horizontally, comparing EPS with peers can evaluate profitability, and vertically tracking a company's history can help EPS judge a company's profitability trends [6]. (Equation (4))

2.1.5 P/E Ratio (Price to Earnings Ratio).

$$\frac{P}{E} ratio = \frac{Price\ per\ Share}{EPS} \quad (5)$$

The PE ratio is a standardised way to measure different companies' stock values [7, 8]. (Equation (5))

3 Analysis

3.1 Current Ratio

As shown in Fig. 1, the current ratio peaked at 1.07 because Apple Inc. expanded the green bond project in 2023 [1]. Issuing bonds boosts cash equivalents/assets, raising the current ratio. In addition, enhanced net profit margins may generate surplus cash flows retained in the business. Lower net profit in 2024 reduced cash inflows and current assets, lowering the current ratio below 2022. Additionally, the EU fined Apple for music streaming practices [1]. The EU's hefty fine against Apple could have directly reduced its 2024 cash equivalents and may be classified as a current liability for the same year. A decrease in current assets and an increase in current liability could trigger a sharp decline in Apple's 2024 current ratio.

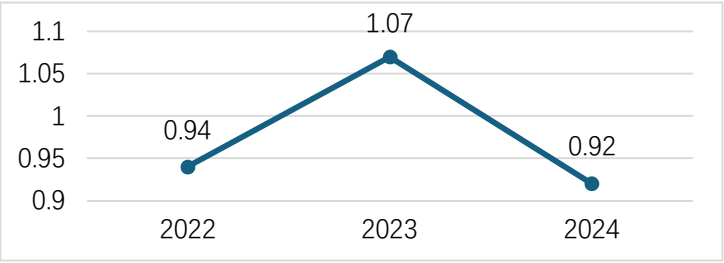

Fig. 1. Current Ratio of Apple Inc. 2022-2024)

3.2 Debt Ratio

According to Fig. 2, the 2022 debt ratio is quite high because Apple announced issuing 4.7 billion dollars in green bonds to support innovative green technology [1]. This bond

project contributes to its high debt ratio. COVID-19-induced supply shortages caused debt difficulties [1]. 2023, the company had about $106.6 billion in long-term payable notes. The increase in service gross margin and net sale optimised asset structure and debt pressure [1]. In 2024, Apple Inc. continued to expand the repurchase program and generated more dividends for shareholders. As a result, the debt ratio increased as liability growth outpaced asset growth.[1]. Overall, Apple Inc. guaranteed shareholders benefits by repurchasing and issuing bonds. Apple Inc. should guarantee profit to pay as much as it can for immense dividends and debt.

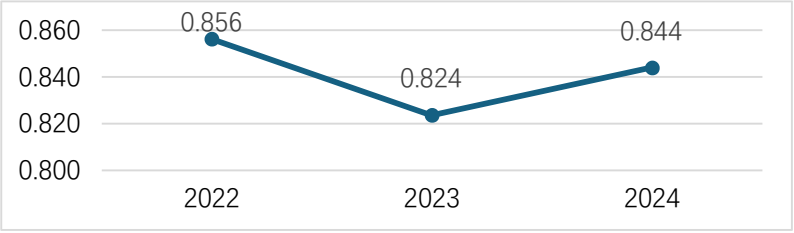

Fig. 2. Debt Ratio of Apple Inc. 2022-2024)

3.3 Net Profit Margin

According to Fig. 3, the net profit margin growth may be caused by great sales of iPhone Pro and service. The increasing investment in research and development introduced new products and services [1]. Vietnam's low inflation may save costs on supply chain management[9]. Apple Inc. announced the addition of 8 suppliers in Vietnam [1]. The European Commission's 2016 State Aid Decision led Apple to incur a $ 10.2 billion one-time income tax in quarter 2024, significantly impacting profitability and cash flow. Due to competition from other domestic brands in China, net sales in Great China dropped by 8%. Apple Inc.'s net sale was extremely affected by Chinese consumer preferences. The 5 % additional Research and Development in 2024 also brought financial pressure to Apple Inc. With product innovation, the iPhone's net sales were relatively flat, and the net sales of the iPad, Wearables, Home and Accessories decreased [1]. Therefore, Apple Inc.'s net profitability ultimately dropped lower than the 2022 level. Apple Inc. has been facing technology bottlenecks and fierce competition.

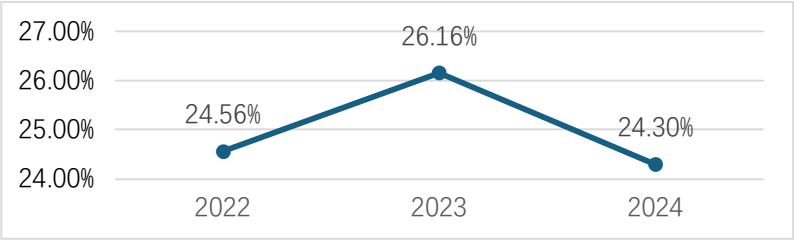

Fig. 3. Net Profit Margin of Apple Inc. 2022-2024).

3.4 ROE (Return of Equity)

Apple Inc. announces the repurchase of common stock every year. The trend of repurchased stock change is identical to the trend of income change. However, the change rate of income is slower than that of repurchased common stock. Based on the ROE format, ROE will decrease when income growth is slower than shareholders' equity growth [10]. With ROE decreasing, Apple Inc. increased dividends yearly to boost investors' confidence. However, ROE is a more significant indicator for measuring investors' returns. (Fig. 4)

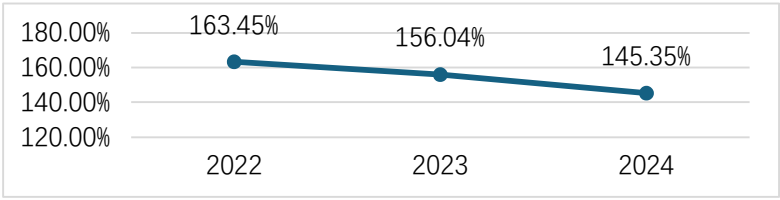

Fig. 4. ROE of Apple Inc. 2022-2024

3.5 EPS (Earnings Per Share)

Based on the EPS format, it's necessary to consider the weighted average of outstanding common stocks, net profit and preferred stock dividends. According to Fig. 6, Apple Inc.'s EPS slightly rose in 2023. Apple Inc. kept repurchasing stocks. Net income declined due to the iPhone 15 series's insufficient innovation and the impact of Chinese domestic competition. The decline in outstanding shares can offset the decline in net income. Additionally, EPS sharply decreased in 2024 amid a widening net income decline. The decline in net income was not enough to offset the repurchase intensity [1]. Therefore, net income is the main factor to affect Apple Inc.'s EPS. That may be caused by product innovation and cost savings. (Fig. 5)

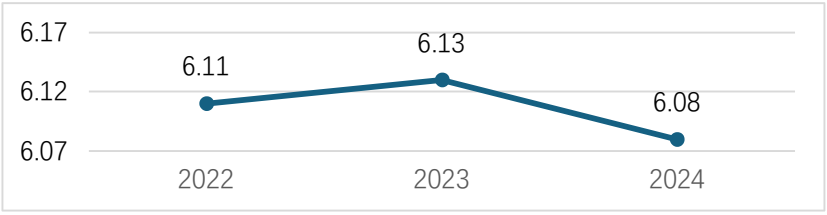

Fig. 5. EPS of Apple Inc. 2022-2024

3.6 P/E Ratio

When analysing the P/E ratio, the stock price and EPS should be considered. As shown in Fig. 6, Apple Inc.'s P/E ratio steadily rose. The macroeconomic condition improved, and Apple Inc. performed well in the service business in 2023. That's why the price of stock rose. The impact of the slight increase in EPS in 2023 on PE could be ignored.

The sharp increase in stock price mainly caused it. Due to the introduction of Vision Pro and other AI technology, the market had a higher expectation of Apple Inc.'s stock price [1]. In 2024, the price-to-earnings (P/E) ratio rose because stock prices increased while earnings per share (EPS) decreased. Overall, the increase in stock price and repurchase program led to the rise of the P/E ratio. (Fig. 6)

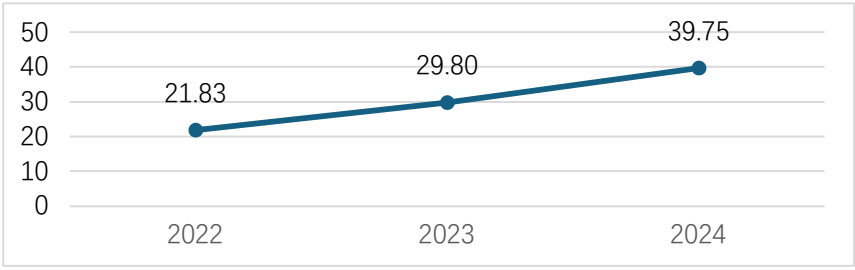

Fig. 6. P/E Ratio of Apple Inc. 2022-2024)

4 Conclusion

Due to the Apple Inc. and Alibaba collaboration and the introduction of new technology, Apple Inc.'s stock price has kept rising. However, the financial report indicated its unstable profit. This essay analyses Apple Inc.'s liquidity, profitability, and market value based on ratio-driven data. The aim is to conclude an investment recommendation on Apple Inc. As a result, this essay doesn't recommend investing in Apple Inc. because of debt risk and profit instability. The company's research and development are not efficient enough to make a profit. This essay may be limited by the timeliness of the data in Macrotrends.com and Apple Inc.'s annual report. In-depth research can be conducted to stabilise the profitability of technology companies in the future.

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