

Development and Analysis of Apple Inc.

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Abstract:

This essay analyses and discusses the prospects of Apple Inc. in four main areas: organizational structure, managerial responsibility and agency conflicts, portfolio theory and the CAPM model, and valuation using net present value. Finally, through these four aspects of analysis, it can be concluded that Apple Inc. has good growth prospects, so it can be considered to invest in the company. However, it is also important to note that the technology industry is extremely competitive, so it is important to keep an eye on Apple's ability to keep innovating and optimizing.

Keywords: organizational structure, managerial responsibility, agency conflicts, portfolio theory, CAPM model, net present value

1. Introduction

Apple Inc. is an American-originated multinational technology company headquartered in Cupertino, California [2]. It was established on 1 April 1976 by Steve Jobs, Steve Wozniak and Ronald Wayne and is one of the top five technology behemoths along with Amazon, Google, Microsoft and Meta. Apple's businesses include the design, development, and communication of mobile phones, and the sale of consumer electronics, computer software, online services, and personal computers. Apple is famous worldwide for its creative innovations and technologies like iPhone, iPad, Mac computers, Apple Watch and many more. These products have played a key role in advancing the technology industry and are often emulated by other companies. Apple's leadership in design, user experience, and branding has earned it broad market share and a loyal customer base. Not only that Apple has built a large ecosystem of services including iTunes, App Store, Apple Music and more. These services not only bring a steady stream of revenue to the company, but also strengthen the connection with customers and form a good ecological closed loop. In addition, Apple has further consolidated its market position by developing integrated solutions for hardware, software and services that provide an all-round user experience. As a result, Apple has a significant presence in the technology industry and global markets and is one of the world's largest and most valuable companies with a market capitalization that is usually among the highest in the world. The company's strong financial position and robust cash flows have enabled it to make large-scale investments in research and development,

mergers and acquisitions activities, and share buybacks and dividend payments, further strengthening its position in the technology industry. As a global company, Apple's decisions and behavior also have a significant impact on society and the environment. The company is committed to being a sustainable company by actively fulfilling its social responsibilities in the areas of sustainability, environmental protection and supply chain responsibility. Its innovative initiatives in supply chain management, energy use, and waste disposal also have a positive impact on the industry and the world. Overall, Apple is not only hugely influential and important in the technology industry, but also has a profound impact on the economy, society and the environment globally. Its continued innovation, financial strength and social responsibility have made it one of the centers of attention for investors and consumers around the world.

2. organizational structure

Apple Inc. is a publicly traded joint stock company whose equity is held by its shareholders rather than jointly owned by partners. Shares are listed on the NASDAQ stock exchange under the symbol AAPL. Its organizational structure includes shareholders, the Board of Directors, executive management, employees, customers, suppliers and the wider community. So, Apple's main stakeholders also come from the shareholders, customers, employees, suppliers and the community environment among others. Firstly, shareholders are the owners of the company who hold the shares of that company. Apple's shareholders, on the other hand, include individual investors, institutional

investors, funds, retirement plans, and so on. Shareholders have influence over the company's operations and decisions because they have the right to attend and vote at shareholder meetings. Secondly, customers are the lifeline of the company. Satisfying customers' needs and providing high-quality products and services are critical to the company's long-term success. Then, employees are equally important stakeholders of the company. They contribute to the operations and growth of the company, as well as receive wages, benefits, and career development opportunities from the company. Suppliers, on the other hand, are responsible for supplying the company with raw materials, components and other products, and are also vital to the company's production and supply chain, and so are also indispensable key stakeholders. Lastly, there is the company's local community and the environment, as Apple's business activities will certainly have an impact on the local community and the environment, so the company needs to co-operate with the local community and comply with environmental regulations to ensure sustainable operations. All the above are the main stakeholders of Apple Inc. For the difference between equity holders and debt holders of a company, equity holders of Apple are the shareholders of the company who hold Apple's shares. These shares can be traded freely in the stock market. Equity holders have some influence over the company's operations and decisions. Whereas for the debt holders of the company, as Apple may usually issue bonds to raise funds and the individuals or organizations who buy these bonds are the debt holders of the company who will provide funds to the company and as a debt, the company is required to pay back these debts as per the agreed interest rates and deadlines. So that's the difference between the two.

3. Management responsibility and agency conflicts

Apple's Board of Directors oversees the management of the company and protects the interests of shareholders. The executive management team, led by the CEO (currently Tim Cook), is responsible for the day-to-day operations and strategic direction of the company. Their Executive Management, on the other hand, is the company's core executive team, responsible for implementing the Board's decisions and driving the company's day-to-day operations. Their main responsibilities are therefore focused on maximizing shareholder value, ensuring transparency and accountability, and upholding ethical business practices.

And the issue of agency conflict also occurs between shareholders and managers in Apple Inc. In the early days

of Apple, it was still in the start-up stage, so to attract investment and raise capital, the founders were forced to sell a large part of their ownership to investors and the wider stock market. At the time, this seemed to solve the immediate need and attract investment, but as Apple grew, these investors now have enormous influence over the running of the company. By utilizing this power, they have greatly controlled Apple's executives and have instituted many policies, but most specifically cash flow distribution [1]. So, in 2012, Apple shareholders launched a "revolt" versus their management, requesting that the corporation should disburse a portion of its cash reserves to shareholders in the amount of dividends or share repurchases [1]. Although Apple's management refused, arguing that it was more important to preserve cash reserves for future expansion and growth, in the end the shareholders' force was overwhelming, so over the next few years, Apple covered 72% of its operating cash streams [1]. So, the problem with this executive compensation agency conflict is that the shareholders used their management power to push themselves to solve the problem and were rewarded with a large portion of Apple's profits. The agency conflict that exists between shareholders and managers is also not only about pay, but also about corporate governance. Issues like Apple's opposition to shareholder calls for greater transparency on forced labor, which is a major difficulty as Apple is working to prevent a shareholder vote and calls for greater transparency on the use of forced labor in its supply chain and on how it decides which apps to remove from the App Store [3]. Now SumOfUs is also asking Apple to be more transparent in its response to allegations of forced labor in its So there are a lot of agency conflicts that exist at Apple, some of which have been resolved and some of which are still waiting to be resolved.

4. Portfolio Theory and CAPM Models

Investors can achieve risk diversification, asset correlation, risk and return balance and optimize overall portfolio allocation by adding Apple shares to their portfolios. As for how to use the principles of a portfolio to guide this decision, it can first be optimized through diversification, meaning allocating funds to different stocks or different sectors to reduce the risk of a single stock or sector, which improves the stability and safety of the portfolio, but also potentially sacrifices some of the rate of return. Because Apple, as being a leader in the technology industry, adding Apple stocks to its portfolio can provide a degree of sector diversification. Next, consider investing for the long term, as the market will more effectively reflect the true value of the company over the long term. Fundamental analysis of the company can then also be considered to assess Apple's

financial position, profitability, cash flow, market position and product outlook, which can help investors assess the company's long-term potential. Finally, a balance needs to be found between risk and reward. After all, Apple has the stability and growth of a mature technology company, and investors can expect more stable returns while accepting a certain degree of risk. After discussing the principles of portfolio decision making, the next step is to evaluate the expected returns of Apple's stock using the CAPM model, which is an important methodology to help evaluate the expected returns of a company's stock, which is affected by three main factors. The first one is the risk-free rate (R_f), which refers to the rate of return that an investor can earn without risk, and the treasury bond rate is usually used as the risk-free rate. So, a higher risk-free rate means that investors demand a higher premium for risk as well, which may lead to a higher expected stock return. The second is the market risk premium ($R_m - R_f$), which refers to the difference between the expected return on a market portfolio and the risk-free rate. Specifically, it represents the additional return above the risk-free rate that an investor requires when placing a portfolio of assets at risk to the market, so the level of the market risk premium will have a direct impact on an investor's expectation of the expected rate of return on equities. The third is a stock's beta, which measures the sensitivity of a stock to overall market volatility. If a stock's beta is greater than 1, it means that the stock's volatility is higher than the market average, while if the beta is less than 1, it means that the stock's volatility is lower than the market average. So, these are the three factors that can affect the expected return on a company's stock.

5. Valuation using net present value

When investors have an idea about Apple's stock, they go about evaluating the stock's primary cash flows without first performing a detailed valuation of the stock. For example, Apple's future dividend; after all, the stability and growth potential of Apple's dividend per share is what investors focus on. If Apple continues to maintain solid profitability, its future dividend payments will also remain stable or grow so that investors can go ahead and invest in the company with confidence. Then of course there is Apple's potential growth, and even though Apple has become a huge business, investors will still be looking at its ability and opportunities for potential growth. This could include product innovation and new markets, market share growth, expansion of its services business, and potential merger and acquisition activity. This would also be an indication of whether the company's stock can continue to appreciate. There are also investors who may also go on

to assess the impact of the competitive environment and some macroeconomic factors. After all, the technology industry is changing rapidly these days, with competitors emerging all the time, and investors will also be looking at whether Apple can maintain its market share and competitive advantage. There are also macroeconomic factors like the state of the global economy, monetary policy, and inflation that need to be watched closely, after all, they can have an impact on the stock as well. Not only that, but Apple has issued bonds before, it offered \$5.25 billion in May 2023 through a five-part dollar bond offering alone [2]. There are many possible reasons as to why the company discovered bonds; effective tax avoidance, improved capital utility, and low-cost financing could be the reasons. And what needs to be explored now is how to value these bonds using the NPV principle. Firstly, the cash flows of the bonds need to be calculated to determine the future cash flows of the bonds, including interest payments and principal repayments at maturity. Then a discount rate is calculated, which is the interest rate that investors use to discount future cash flows to their present value. For bond valuation, the discount rate is usually the yield to maturity of the bond and can be used to discount future cash flows by using an appropriate discount rate, such as the risk-free rate. This reflects the risk and expected return over the period the investor holds the bond. Finally, it is time to calculate the NPV, by adding up the discounted cash flows and subtracting the bond's issue price. If the NPV is positive, the bond's intrinsic value is higher than the issue price and may be a good positive investment. These are the proper steps for an investor to estimate value using the NPV principle.

6. Conclusion

In conclusion, Apple Inc. is a publicly listed company limited by shares with an organizational structure that includes shareholders, board of directors, executive management, employees, customers, suppliers and the wider community. So, Apple's key stakeholders also come from the shareholders, customers, employees, suppliers and community environment etc. Apple's Board of Directors oversees the management of the company and protects the interests of shareholders. The executive management team led by the CEO is responsible for the day-to-day operations and strategic direction of the company. Their executive management, on the other hand, is the core executive team of the company and is responsible for implementing the decisions of the Board of Directors and driving the day-to-day operations of the company. For investors, firstly investors can add Apple's shares to their portfolios through the three principles of diversification, long-term

investment and finding a balance between risk and return to achieve risk diversification, asset correlation, risk and return balance and optimize overall portfolio allocation. The investor can then use the CAPM model to determine the expected return of the stock using three factors: the risk-free rate, the market risk premium and the stock's beta. Finally, investors can value a company by assessing its key cash flows such as future dividends, potential growth, competitive environment and macroeconomic factors. For bonds issued by the company, investors can calculate the future cash flows, discount rate and NPV of the bonds to value them. Based on the above findings, Apple Inc. still has good growth prospects. In terms of financial position, Apple has strong financial strength and a solid balance sheet. Not only does it have a large cash reserve company, but also its gross margins have been consistently high in the industry, mainly since sales of high-margin products account for a higher percentage of total sales. In terms of market position and brand influence, Apple enjoys wide recognition and strong brand influence in the global market. Its products and services are favored by consumers and have a loyal customer base. This provides the company with a stable source of revenue and market share. So if it were me, I would consider investing in Ap-

ple because not only do they have a good outlook, but also the company's financial position, market position, and brand influence are very attractive, but still need to keep an eye on the company's future innovation ability, after all, the technology industry is very competitive, and only through continuous innovation and optimization can we reach a higher position and get a greater return.

References

- [1] Mustak, O. R. and D. (2023c, May 9). Apple sells \$5.25 billion in five-part dollar bond sale. *The Economic Times*. Retrieved from <https://economictimes.indiatimes.com/markets/bonds/apple-sells-5-25-billion-in-five-part-dollar-bond-sale/articleshow/100087088.cms?from=mdr>
- [2] Misamore, B. (2018b, June 21). Can I Trust You? How Google and Apple Approach the Principal-Agent Problem - Harvard Business School Online. Retrieved from Business Insights - Blog website: <https://online.hbs.edu/blog/post/apple-google-principle-agent-problem>
- [3] K, R. (2021, October 27). Apple fights shareholder call for more transparency on forced labour. Retrieved from [www.ft.com](https://www.ft.com/content/4444d5aa-5494-4fb0-8648-fbd303cc7981#comments-anchor) website: <https://www.ft.com/content/4444d5aa-5494-4fb0-8648-fbd303cc7981#comments-anchor>.