The Analysis of Coca-Cola HBC AG

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Abstract. This paper specifically introduces three sections: agency conflicts, the CAPM model, and NPV from definition to application. Coca-Cola HBC AG is the object of study, and I use those sections to analyze the investment feasibility.

Keywords: Agency Conflicts; Capm Model; Portfolio Theory; Net Present Value.

1. Introduction

The food industry is essential to global economic development, directly affecting the public's daily life and health. A well-known and straightforward stock index, the S&P 500 is frequently regarded as one of the key gauges of the stock market's overall performance[1]. According to the 20-year index performance, the development trend of the food industry is positive and better than the overall market performance (Figure 1).

Figure 1. 20-Year Index Performance

Consequently, in the European market, the food industry has an important position. This paper focuses on the financial information of a beverage company in Greece called COCA-COLA HBC AG. Founded in 1969, Coca-Cola HBC AG is a Swiss company that bottles Coca-Cola beverages[2]. According to the firm's history, AG Leventis launched the Nigerian bottling company in 1951. Since then, the company has expanded to include multiple bottling supply factories and enterprises in Ibadan, Greece, Ireland, and other locations, including established, developing, and growing markets (Figure 2).

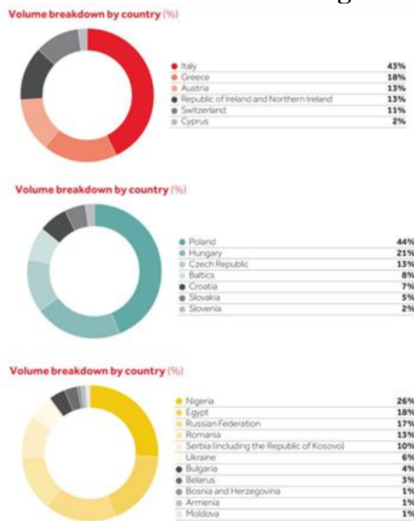

Figure 2. Proportion of the Growing Market

Coca-Cola Corporate (TCCC) partners with Coca-Cola HBC AG (Coca-Cola HBC) to bottle, sell and distribute ready-to-drink non-alcoholic beverages. The company uses three reportable segments to categorize its business operations: Developed, Emerging, and Established. Coca-Cola HBC, which generates over €7 billion in revenue annually, is a prominent bottler of The Coca-Cola Company's brands. With operations in 28 countries and a customer base of over 600 million, it has a wide geographic reach. In the following categories, Coca-Cola HBC offers a large assortment of ready-to-drink non-alcoholic drinks: effervescent, juice, water, tea, coffee, energy, and sports (Coca-Cola HBC AG -Growth Story 2021, 2021)[3]. Furthermore, this company has always been at the forefront of

According to the corporate report, The

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sustainability—introducing its first social responsibility report in 2003 and its first set of sustainability pledges in 2011—it should come as no surprise that Coca-Cola HBC continues to lead the beverage industry in sustainability (King, 2024)[4].

It is a limited company listed on the Athens Stock Exchange and the London Stock Exchange. The main financing approaches are equity(share) and debt. Furthermore, there are three funding sources in their plan including outstanding bonds, a commercial paper program, and a revolving credit facility to maintain a well-balanced debt redemption profile and decrease the cost of finance. As per their stakeholder engagement guidelines, Coca-Cola seeks to build enduring connections with suppliers, customers, non-governmental organizations, and other stakeholders to optimize the impact of their community activities. According to Section 172 of the UK Companies Act 2006, directors must promote the company's success for the benefit of all members, as stated in the integrated annual report 2023, considering stakeholders' interests when making decisions[5]. Interacting with stakeholders is an essential aspect of Coca-Cola HBC's business operations. Among the various stakeholders, the key part is shareholders. Their main shareholders are Kar-Tess Holding and The Coca-Cola Company, which each hold approximately more than 20 percent of our outstanding ordinary shares. And the remaining shares flow through the free market (Figure 3).

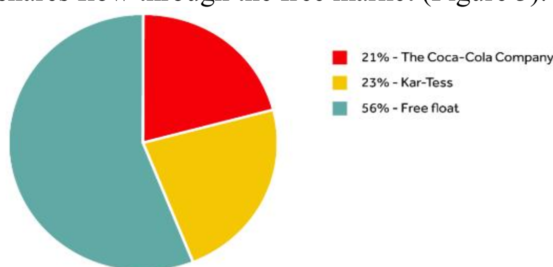

Figure 3. Share Allocation

2. Analytical Model

2.1 Managerial Responsibilities & Agency Conflicts

The board of directors (BoD) is a corporation's governing body. If the company is publicly traded, shareholders choose the board's members formulating the company's strategy, supervising the management team, and defending the interests of stakeholders and shareholders fall under the purview of the Board of Directors. The majority of publicly listed corporations must have a board of directors and participate in several private and nonprofit organizations (Chen, 2024)[6]. This is achieved by authorizing the company strategy, monitoring the degree to which strategic goals are being reached, overseeing the plan's execution by the Operating Committee, and approving matters that the Articles of Association reserve for Board judgment. The Board assigns specific responsibilities to its nomination, remuneration, audit and risk, and social responsibility committees. In keeping with global best practices, Coca-Cola as a Swiss firm listed on the London Stock Exchange (LSE) and secondary listed on the Athens Exchange, strives to maintain our corporate governance frameworks (Figure 4).

This structure increases the consideration in different areas. Additionally, in Coca-Cola's corporate governance, the Board is responsible for the long-term goal of the company and the creation of sustainable value for shareholders. The board recognized the importance of developing close connections with different stakeholders not only shareholders. Consequently, the various opinions from key stakeholders are the main content of the board's discussion. The key activities of the board in 2023 are set opposite.

The remuneration report of Coca-Cola (2020) reported that the committee decided to raise the salary award of the Performance Share Plan to 450%, to emphasize the performance value of the Chief Executive Officer. However, whilst the decision was admitted with the remuneration policy limits, some shareholders the conditions were not special and therefore not change the ratio. In other words, the increase in the award of managers will decrease the dividend shareholders receive. That is agency conflicts occurred in the process of policy change.

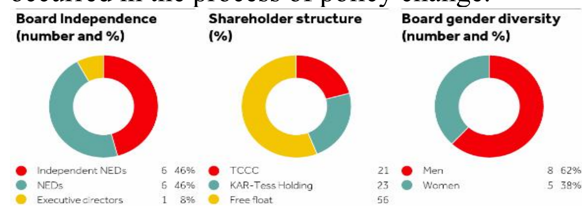

Figure 4. Corporate Governance Frameworks

2.2 Portfolio Theory & CAPM

Portfolio theory describes how to make the best portfolio and how that affects asset pricing.

According to an Investopedia team (2023)[7]. This mathematical model is used to build an investment portfolio that maximizes expected return for a given level of risk. Since the first mean-variance framework was presented by Markowitz in 1952[8], the theory has experienced significant progress. Most investments have two characteristics: either low risk and low return, or high risk and great return. For instance, for the fiscal year 2023, interest revenue of Coca-Cola was €118.1 million (2022: €119.8 million), while the net profit for the same year was €13.2 million (2022: €19.8 million). Increased interest costs from bonds and commercial paper, intercompany loans, and the interest differential on derivative contracts were the main causes of the year-over-year profit before taxes of €18.5 million, which was down €8.3 million from the previous year. However, these expenses were somewhat offset by higher interest income from time deposits and positive fair value changes in investments. By assessing the level of risk they are ready to accept, investors can choose the best mix of the two, according to Markowitz. Therefore, portfolio theory is a useful tool in the practice of investing. The key factor in the content of the portfolio is risk, but there are differences in different people about the attitudes toward considering risk. The psychological attitudes of decision-makers toward risk are known as risk preferences, and they can be broadly categorized into three categories: risk neutral, risk aversion, and risk preference. The Company has formally classified these contracts as cash flow hedges and has entered into swaption contracts to hedge the interest rate risk of the anticipated bond issuances. The swaption contracts were settled in May and November of 2019. The €7.5 million cumulative loss (cost of hedging) was reclassified to interest expense over the relevant bond issuance term and reflected in other comprehensive income in 2019. A sum of €1.3 million (2022: €1.3 million) is included in the interest expense for 2023 for these contracts. Firstly, the tendency of an economic agent to strictly prefer certainty over uncertainty is known as risk aversion. Risk-averse is normally like the low-risk project or invests more in projects to spread risk which is also known as do not put all eggs in one basket. Secondly, an individual's attitude toward financial risk, which influences their propensity to invest in assets with uncertain returns, is referred to as their risk preference. It is a crucial element influencing financial decision-making and investment behavior. It is the opposite of risk aversion. Because of the varying degrees of acceptance, the investing decisions will change with the degree. Finally, an individual who may be assessing investing options is said to have a risk-neutral mentality. A person is considered risk-neutral if they only consider possible advantages, regardless of the risk. An investor who is risk averse would not view the option of risking $1000 in loss with a potential $50 gain as being equivalent to risking only $100 to generate the same $50 gain. Nonetheless, a risk-neutral person would (Scott, 2022)[9]. Under the constraints of available resources, time, and expertise, activities aimed at accomplishing tactical and strategic goals are frequently structured by first recognizing a wide range of options, and then choosing those that are most likely to help achieve the relevant goals (Liesio, et al., 2021). There are a lot of investment projects with different problems, but they are comparable structurally that decision analytic approaches to resource allocation and portfolio selection can be used to address them. The widely used mathematical model of the relationship between risk and return (Figure 5) is the capital asset pricing model (CAPM) of Sharpe (1964), Lintner (1965), and Mossin (1966). Academics teach it in business schools at undergraduate and graduate universities, as well as in executive education programs (Dessaint, 2021)[10].

The formula for the capital asset pricing model is as follows (Figure 6):

Risk free return

$$Re = Rf + \beta\,(Rm - Rf)$$

Expected rate of return — Market risk premium

Figure 5. CAPM Formula

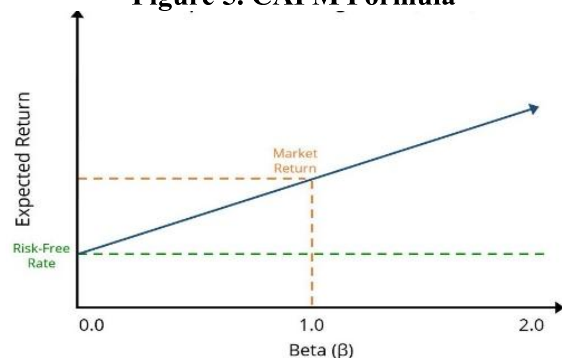

Figure 6. Capital Asset Pricing Model

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It calculates the expected return of an asset with a given risk. There are three factors in the formula including risk-free rate, beta, and market average expected return of investment affect the final calculation. Firstly, all investors experience the same risk-free rate of return, which is solely dependent on the hazards inherent in the economic system, including macroeconomic variables, political developments, alterations to laws, emergencies caused by man-made or natural disasters, etc. The lowest return that an investor can accept is reflected in the risk-free rate (Andrii, 2020). Besides, Andrii (2020) reported that there are two categories of risk-free rates. The one is the actual risk-free rate, which is calculated by deducting the current inflation rate from the nominal rate.

(Graham et al., 2006). The interest rate for common investment categories with the least amount of risk is the other (Smit and Polakow, 2018). Consequently, the risk-free rate displays investors' anticipated return using the time value of money. The other components of the CAPM formula account for the investor taking on additional risk called risk premium. In finance, the difference between the rate of return on a risky investment instrument and the rate of return without risk is called the "risk premium". Generally, the yield of Treasury bonds is regarded as the risk-free rate of return. Secondly, the Beta coefficient is a risk index that measures the price movement of individual stocks or equity funds relative to the overall stock market. By taking the whole market as a reference, the risk-return ratio of a single asset is compared with the average risk-return ratio of the whole market According to CAPM, the relationship between expected stock returns and CAPM betas—which represent how sensitive asset returns are to market returns—is positive linear, and the latter is adequate to explain expected stock returns. In practice, if the beta is greater than one, the market has less risk than this stock. The conclusion from beta may give an external investor the expected return or discount rate that they can use to measure the value of an asset and make investment decisions.

2.3 Valuation Using NPV

Listed companies generally have three financial statements including income statements, cash flow statements, and balance sheets. The balance sheet reveals how much money is left behind; The income statement reveals how much money the business makes; The cash flow statement reveals how much money a business receives and pays. Profit and cash flow are both important information to measure the development of the company. Still, in the short term, cash flow reflects more on whether the company can continue to develop in this period.

In the formula of NPV, the discount rate is the central composition investors need to consider. It accounts for the fact that, as long as interest rates remain positive, a dollar now is worth more than a dollar tomorrow (Fernando, 2024). In other words, the discount rate is the foundational baseline rate of investors' return that investment must exceed. The discount rate is indeed generally based on the market interest rate of the asset. Since cash flows are real and must be discounted at a real rate, they are estimated without taking inflation expectations into account. If the projected inflation rate in your cash flows is included, the same expected inflation rate must be included in your discount rate.

\Since the close of business on September 20, 2013, Coca-Cola has been a constituent of the FTSE 100 and FTSE All-Share indices. The company issues its stock on the London Stock Exchange and the Athens Stock Exchange. The dividend yield reached 8% which is the highest in the recent 10 years (Figure 7). Because of the high dividend yield, the high annual return attracted more investors in that year.

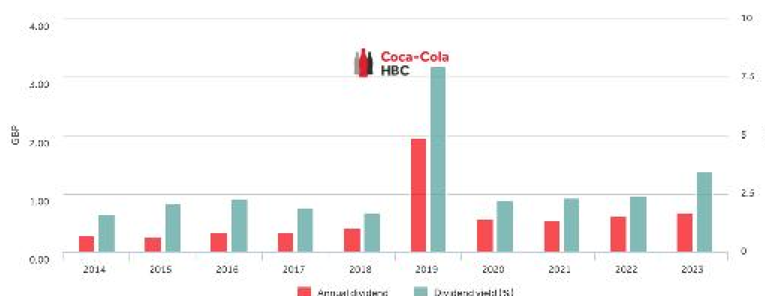

Figure 7. Annual Dividends and Dividend Yield

3. Literature References

I searched a large number of articles and finally selected eleven pieces of literature to explain the contents under the topic including the role of the board of directors, portfolio decision analysis, risk-free rate of return, and other aspects. All financial data is extracted from the company's official website and summarized to reach the investment results to ensure the accuracy of decisions. Smit and Polakow focused on factor loadings and three currency loadings including the risk index which is also referred to by Kozlovskyi. Furthermore, most of the company's data comes from the official website, which is more authoritative. Dessaint provided the model of CAPM which is a significant tool for investment decisions.

4. Conclusion

This paper focuses on the accounting information of Coca-Cola HBC AG. CAPM and NPV are analyzed specifically with the factors that will affect the decisions of different external investors. Coca-Cola HBC AG has a total risk score of 3.04, which is considered medium risk based on Global Data's proprietary risk methodology (Figure 8). Despite an 11.14% decline in revenue from FY2020 to $6.99 billion in the fiscal year 2021 (FY2021), Coca-Cola HBC remains a prominent player in the non-alcoholic beverage sector. FY2021 also saw a 13.37% yearly decrease in net income. The sector average is lower than Coca-Cola HBC's total risk score. Leaders in the industry include Monster Beverage Corp., National Beverage Corp., and Nongfu Spring Co Ltd. With risk preference, Coca-Cola HBC AG is a good choice to invest as the economy is recovering and the company's products are becoming easier to export. Besides, the goal of the Coca-Cola HBC Group is to keep a cautious financial profile, and the Investment Grade credit ratings that Standard & Poor's and Moody's have retained serve as proof of this. The Board of Directors does not anticipate a material departure from the Company's current goals and policies in 2024. Preliminary projections indicate that 2024's outcomes won't deviate greatly from those of recent years. Consequently, I will consider to invest it.

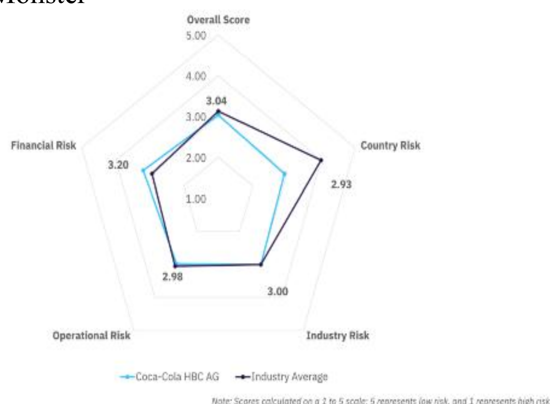

Figure 8. Coca-Cola HBC AG- Risk Profile

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