

The Investment Choice of Soft Drinks Industry by Valuation of Companies

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Abstract. Recently, more and more investors enter the market with increasing investment demand, but due to the diversity of the market and investors are not familiar with the market, so many failed investments. This paper will focus on the soft drink industry and evaluate three companies in the soft drink industry: Coca-Cola, Pepsi and Monster Beverage to select the most suitable companies for investors. All three companies are showing solid growth and this trend is expected to continue. This article focuses on the stock, profitability and capital structure of three companies, Coca-Cola, PepsiCo and Monster Beverage. First, from the stock side, through the comparison of Earnings per share and Price Per Earnings over five years, Coca-Cola has the most EPS growth, which means it is the most promising company, and Coca-Cola has the lowest PE value, the lower PE value means it has a higher stock price. So in terms of these two figures, Coca-Cola is the most suitable investment. Secondly, in terms of profitability, this paper starts with six financial data: revenue, net income, gross profit margin, EBIT margin, net profit margin and ROE. Although PepsiCo has high total revenue, net income is similar to Coca-Cola Company. On the contrary, Monster Beverage Company has a high net income to revenue ratio, although it is only medium-sized. Finally, from the capital structure perspective, this paper uses the discounted cash flow method to estimate the value of the three companies. Coca-Cola's equity value is the highest among the three companies, so it is the most suitable for investment. Therefore, it is concluded that Coca-Cola is the most suitable investment among the three companies at present.

Keywords: Value analysis, investment choice, soft drink industry

1. Introduction

The beverage industry is a burgeoning new industry, a hot spot and a new growth point in consumer goods. In the past 30 years, the beverage industry has been developing and maturing, gradually changing the situation of small scale, single product structure and disorderly competition in the past. The scale and intensification degree of beverage enterprises are increasing, and the product structure is becoming more and more reasonable. Many beverage brands have achieved remarkable results. Carbonated beverages and energy drinks account for a high proportion of the global soft drink market. At present, the global soft drink market is dominated by carbonated drinks and carbonated beverages. Energy drinks, fruit juices, packaged water (including bottled mineral water, filtered water, tap water and many flavored water containing sweeteners, vitamins or minerals) accounted for 56.9%, 19% and 17.2% of the market in 2019, respectively. From the perspective of sales volume, the global soft drink sales showed an increasing trend year by year from 2011 to 2019, and the global soft drink sales rose to 714.81 billion liters in 2019, with a year-on-year increase of 2.87%. Global soft drink sales are still rising, but at a slower pace. Soft drink sales declined in 2020 due to the COVID-19 pandemic, but the decline was limited due to demand.

From a global perspective, the soft drink industry has the ability to incubate large-cap companies, so more and more investors are willing to invest in the soft drink industry. In terms of region, the largest sales region of soft drinks in the world is the Asia-Pacific region, which accounted for 27.73% of the sales volume in 2020. This is mainly due to the large population and strong consumption power of East Asian countries. The second largest sales volume is North America, accounting for 24.49% of the total sales volume, mainly contributed by the United States. The third is Western Europe, which accounts for 18.58% of the sales volume. This is mainly due to the developed economy and high living standard of the people in Western Europe, which also has a large demand for soft drinks.

Among all industries, Coca-Cola has become a leading enterprise in the soft drink industry with a share of 14.9% in the global soft drink market by launching various products in various segments. Pepsi was in second place with 7.2 per cent of the market. Nestle is in third place with 2.8% of the market.

This paper will start with Coca-Cola, Pepsi and Monster, and conduct valuation analysis of the three companies by analyzing their five-year financial data (market share, growth rate, net margin). And through the comparison of the data of the three companies for investors to choose the most suitable for their own situation of the investment company.

2. Method

As investments in the soft drinks industry are large and the results are difficult to quantify, and the long-term impact on the company is significant. Therefore, management should ensure that the investment model is consistent with the organization's strategy by adopting appropriate guiding investment decisions [1]. In order to select the best investments in Coca-Cola, PepsiCo and Monster, this paper collects data from the financial reports of the three companies. The first part is the stock analysis, by calculating their EPS, PE ratio and market share to analyze whether these companies are undervalued or not. The second part is the profit analysis, we extract the total profit, gross profit, and profit before tax to calculate the gross profit margin and marginal profit, the company with high profit is naturally more worthy of investment than the company with low profit. The third part is the capital structure analysis, by calculating DFC for the valuation of the company. Investment decisions should be made on the basis of what will contribute to the long-term development of the company. This is because rapid economic growth and increasingly advanced technologies offer companies a wide range of investment options even with limited funds. Therefore, proper project evaluation decisions are increasingly critical [2].

3. Company Introduction

3.1 Coca-Cola

On May 8, 1886, Coca-Cola was born in Atlanta, Georgia, USA. It is the world's largest beverage company, with a 48% global market share and two of the top three beverages in the world (Coca-Cola ranks first, Pepsi is second, and low-calorie Coca-Cola is third). Coca-Cola has 160 beverage brands in 200 countries, including soft drinks, sports drinks, dairy drinks, juices, teas and coffees, and is the world's largest distributor of juice drinks. In the 21st century, 1.7 billion consumers around the world drink Coca-Cola products every day, and approximately 19,400 bottles are sold every second. In October 2016, The Coca-Cola Company ranked third among the 100 most valuable brands in the world in 2016.

3.2 Pepsi

PepsiCo Inc is a beverage and snack food company, the fourth largest food and beverage company in the world. The company is headquartered in New York City. PepsiCo was founded in 1965 through the merger of PepsiCo, Inc. and Frito-Lay, Inc. The company has nearly 100 subsidiaries, mainly PepsiCo Beverages, Frito-Lay, Inc. (fast food restaurants) and others. PepsiCo is also a major competitor of The Coca-Cola Company.

3.3 Monster

Founded in 2002, Monster Beverage, formerly a family business selling mainly fruit juices, was purchased by South African businessman Rodney Sachs in 1992, who also began developing a functional beverage, Monster Beverage, after Red Bull came to the U.S. in 1997, and the company was renamed Monster Beverage in 2002. Although the U.S. beverage industry was extremely competitive, Monster Beverage, which was benchmarked against Red Bull in the U.S., eventually

stood out and quickly gained market share with its excellent competitive strategy, overtaking Red Bull to become the number one company in the industry in 2009.

4. Stock analysis

Earnings per share is a tool to analyze the profitability and stock price of a company. A company's profitability can be accomplished by looking at past, current and projected earnings and stock prices [3]. As can be seen from the table, the EPS of all three companies held an upward trend in the last five years: Coca-Cola Company rose from 0.44 in 2017 to 2.07 in 2021, an increase of 370%. PepsiCo rose from 3.38 to 5.49, an increase of 62.4%, and even Monster achieved a growth rate of 81%, from 1.42 to 2.57. From an EPS perspective, The Coca-Cola Company is the most promising company, in other words from an investor's perspective, Coca-Cola Company is the most profitable company.

From a PE ratio perspective, The Coca-Cola Company's PE ratio falls off a cliff from 158 to 25.62 over the five-year period from 2017 to 2022, but a lower P/E ratio is better because it indicates that the stock will have higher earnings per share or a lower share price. This also this means that it is now undervalued [4]. Likewise, Monster's PE ratio has declined slightly, from 44.57 to 37.37, which also means that the company is undervalued. Conversely, PepsiCo's PE ratio increased from 30.86 to 31.01, which is a small increase, but the higher EPS price may point to PepsiCo's expected growth being inflated or the stock being overpriced. Such an increase is not beneficial to investors and is therefore not chosen by them.

Table 1. EPS and Price Per Earnings of three companies from 2017 to 2021

Year	EPS			Price Per Earnings		
	Coca-Cola	Pepsi	Monster	Coca-Cola	Pepsi	Monster
2017	0.44	3.38	1.42	158	30.86	44.57
2018	2.20	8.78	1.72	28.05	11.31	28.62
2019	2.25	5.20	2.03	24.51	24.32	31.31
2020	1.79	5.12	2.64	29.04	27.59	35.03
2021	2.07	5.49	2.57	25.62	31.01	37.37

Table 2. Market Cap

Year	Coca-Cola	Pepsi	Monster
2020	\$235.67 B	\$206.14 B	\$48.82 B
2021	\$255.75 B	\$234.74 B	\$50.81 B
Change(%)	8.52%	13.87%	4.09%

Coca-Cola is generally regarded as the best investment choice by investors because of its high market value and stable dividend. However, in terms of market share growth rate in 2020 and 2021, Coca-Cola's growth has slowed down compared with PepsiCo's. And Monster Drinks is valued at

Between \$4bn and \$5bn meets the definition of a mid-sized company. While Monster's growth rate is currently the slowest, mid-sized companies generally have more potential to grow than larger companies. But investors need to be aware that investing in mid-sized companies carries a higher risk.

5. Profit analysis

Profitability is one of the most critical data of a company, because it can reflect the possibility of a company falling into crisis and the time of cash flow maintenance.

From the table, the total revenue of PepsiCo reached 79.474billion dollars, almost twice that of Coca Cola and 16 times that of Monster. But Pepsi's net income may be smaller than Coke's. This also shows that Coca-Cola Company has created relatively high net income under the condition of

low total income, which will bring good gross profit margin, profit margin before interest and tax and net profit margin to Coca-Cola Company.

Table 3. Profitability

	Revenue	Net Income	Gross Profit Margin	EBIT Margin	Net Profit Margin
Coca-Cola	\$38.7B	\$9.771B	58.9%	26.67%	23.2%
Pepsi	\$79.474B	\$7.618B	53.35%	14.04%	9.59%
Monster	\$5.541B	\$1.38B	56.10%	32.43%	24.85%

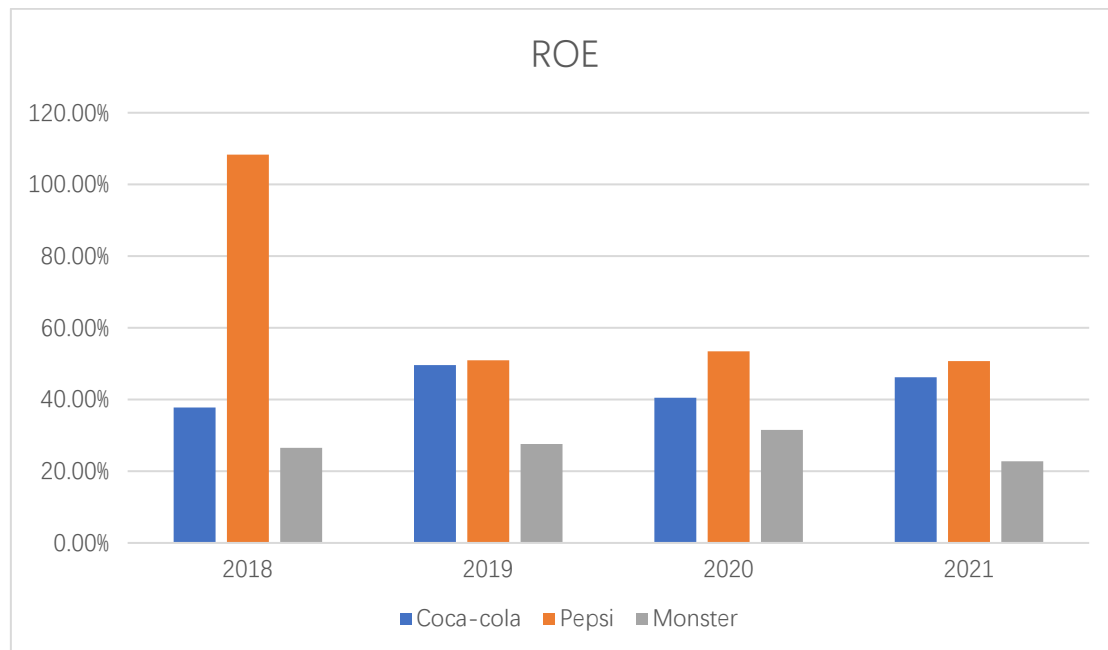


Figure 1. ROE

Return on equity is the percentage of net income to average shareholders' equity, which is the percentage ratio obtained by dividing a company's profit after tax by its net assets and reflects the level of return on shareholders' equity to measure the efficiency of a company's use of its own capital. The higher the value of the indicator, the higher the return on investment. This indicator reflects the ability of own capital to generate net income. In general, an increase in debt leads to an increase in the return on net assets. It can be delved into as a ratio with three different variables: total asset turnover, profit margin or return on sales, and the equity multiplier, which is assets divided by equity. Also known as financial leverage, the equity multiplier will measure the amount of external financing a company has, essentially their leverage. How much leverage they actually have. By simplifying this equation, you get simplified ROE, or the same net income divided by equity [5].

From the return on equity investment chart, it can be seen that PepsiCo's annual ROE is the highest among the three companies, Coca-Cola ranks second, and Monster ranks last. But with the exception of 2018, Pepsi's ROE and Coke's ROE aren't that different. But the two industry leaders have far outperformed their peers, such as Monster. It is also an advantage for the two giants. Because it means both companies are more efficient at using their owners' resources. But this does not mean that investors will necessarily get a lot of earnings or profits from investing in these two companies, because it will depend on the company's decision to retain earnings. One study mentioned that the higher the value, the higher the ROE level can generate the additional working capital profit used to finance the company's operations, which may eventually bring profits. At the same time, the theory also mentions that the higher the ratio of ROE will promote profit growth [6].

6. Capital structure analysis

DCF method is considered by many enterprises as a very efficient and accurate enterprise asset evaluation method. Because this method includes the relationship between the present value and the expected future value of the firm's assets. This method first predicts expected future cash flows and then converts the predicted value to present value at the opportunity cost of funds. Finally, the predicted value is converted into present value by adjusting time and risk [7]. DCF is a theoretically impeccable valuation model, especially for those industries with high predictability of cash flows, such as utilities and telecom, but for industries with frequent and unstable cash flow fluctuations, such as technology, the accuracy and credibility of DCF valuation will be reduced. In real-life applications, DCF is rarely used as the only valuation method alone to price stocks due to the difficulty of making accurate cash flow forecasts for the next decade or so, and simpler relative valuation methods such as P/E ratios are used more frequently. The DCF is usually considered the most conservative valuation method, and its results are used as a floor for the target price. For investors, regardless of the valuation criteria used to price a stock, a DCF model will help to develop a quantitative grasp of the long-term growth of the company you are investing in.

The cash flow of these three companies are analyzed and predicted by using the formula: $FCFF = EBIT \times (1 - Tax Rate) + Depreciation - Capital Expenditures - Increase in the Net Working Capital$

(USD in millions)	5M/2022	2023	2024	2025	2026	Terminal
Profit before tax	5,700	15,183	16,258	17,330	18,662	17,417
(-) Net interest income/expense	538	1,359	1,386	1,414	1,463	1,421
(+) Depreciation & Amortization	659	1,642	1,609	1,759	1,884	1,750
EBITDA	5,820	15,467	16,481	17,675	19,083	17,746
(-) Tax	1,202	3,203	3,430	3,656	3,937	3,674
(-) Capex	733	1,851	1,888	1,926	1,993	1,936
(-) Change in NWC	398	13	(42)	262	98	106
Free Cash Flow (FCF)	3,487	10,400	11,204	11,831	13,056	12,030
Terminal value						371,647
WACC / Discount rate	6.9%					
Long-term growth rate	3.5%					
Timing of FCF (mid year)	0.21	0.92	1.92	2.92	3.92	4.42
Present value of FCF	3,439	9,787	9,868	9,752	10,072	277,355
Enterprise value	320,273					
Projection period	42,917	13.4%				
Terminal value	277,355	86.6%				
(-) Current net debt	32,925					
Equity value	287,348					
(/) Outstanding shares	4,325					
Fair price	66					

Figure 2. Coca-cola DCF valuation method

(USD in millions)	6M/2022	2023	2024	2025	2026	Terminal
Profit before tax	1,481	3,183	3,497	3,837	4,230	3,854
(-) Net interest income/expense	12	25	27	28	30	29
(+) Depreciation & Amortization	195	444	467	465	482	471
EBITDA	1,664	3,602	3,937	4,273	4,681	4,297
(-) Tax	385	827	908	997	1,099	1,001
(-) Capex	217	450	477	506	541	508
(-) Change in NWC	121	(119)	(54)	(22)	(102)	(59)
Free Cash Flow (FCF)	941	2,444	2,605	2,792	3,144	2,847
Terminal value						83,941
WACC / Discount rate	7.0%					
Long-term growth rate	3.5%					
Timing of FCF (mid year)	0.25	1	2	3	4	4.5
Present value of FCF	925	2,284	2,275	2,279	2,398	61,881
Enterprise value	72,040					
Projection period	10,160	14.1%				
Terminal value	61,881	85.9%				
(-) Current net debt	11,872					
Equity value	60,168					
(/) Outstanding shares	1,416					
Fair price	42					

Figure 3. PepsiCo DCF valuation method

(USD in millions)	6M/2022	2023	2024	2025	2026	Terminal
Profit before tax	1,035	2,414	2,805	3,233	3,707	3,249
(-) Net interest income/expense	2	5	5	6	6	6
(+) Depreciation & Amortization	36	81	85	102	122	103
EBITDA	1,069	2,490	2,885	3,329	3,823	3,346
(-) Tax	239	557	647	746	856	750
(-) Capex	50	110	121	133	146	134
(-) Change in NWC	(49)	127	148	73	139	120
Free Cash Flow (FCF)	829	1,696	1,968	2,376	2,682	2,342
Terminal value						60,802
WACC / Discount rate	7.5%					
Long-term growth rate	3.5%					
Timing of FCF (mid year)	0.25	1	2	3	4	4.5
Present value of FCF	815	1,578	1,703	1,914	2,010	43,935
Enterprise value	51,954					
Projection period	8,019	15.4%				
Terminal value	43,935	84.6%				
(-) Current net debt	(1,131)					
Equity value	53,085					
(/) Outstanding shares	527					
Fair price	101					

Figure 4. Monster Beverage DCF valuation method

The three tables below show how the Discounted Cash Flow Method calculate the equity value and fair price. First, obtaining the profit before tax from the Statement of Cash Flow and subtracting net income and adding depreciation gets EBITDA. Then excepting the tax, capital expenditure and change in working capital, free cash flow appears, which is very important in calculating DCF. To

calculate the terminal value, we used the FCF for 2021 because it represents a period of stability. During this period, revenues have grown at a constant rate for two periods, with equal levels of capital expenditures and depreciation [8]. By using perpetuity approach, the terminal value is calculated. In this way, we obtained an equity value. It is easy to find out the enterprise value of Coca-Cola is the highest, reaching 287,348 billion dollars. Although Monster Beverage has the lowest of 53,085 billion dollars, it is still worthy of investing considering the market cap of Monster Beverage (45.72 billion) is approximately one fifth of Coca-Cola's market cap (250.53 billion). As for PepsiCo, because of the low integration rate of resources, PepsiCo is not the best investment choice from the perspective of investors, even though many data are larger than Coca-Cola in numerical terms [9].

7. Conclusion

The purpose of this article is to help investors who want to invest in the soft drink industry make investment decisions. The reason why these three companies are selected for value analysis is that Coca-Cola and Pepsi are the industry leaders with large scale, while Talon, as a rising star in recent years, has a medium scale but is developing rapidly. Therefore, by comparing these three companies together, we can have a more intuitive and thorough understanding of the soft drink industry investment field. From the perspective of stock analysis, the P/E ratio of Coca-Cola Company has continued to decline in the past five years, indicating that the stock of Coca-Cola Company will have higher earnings per share or lower stock price. And that means it's undervalued right now. The same thing happened to Monsters Inc. But small and medium-sized companies are riskier. From the perspective of profit, first of all, from the chart of return on equity investment, we can see that PepsiCo's annual ROE is the highest among the three companies, and Coca-Cola ranks the second, which shows that the performance of these two industry leaders far exceeds that of their peers like Monster. It also means the two companies are more efficient at using their owners' resources. However, considering that the ratio of net income to revenue of Coca-Cola Company is higher, the profitability of Coca-Cola Company is higher. Finally, from the perspective of capital, Coca-Cola has the highest valuation through DFC method. Additionally, compared with PepsiCo, which operates not only in the beverage industry but also in the snack and food business, Coca-Cola's focus on the beverage industry is more reassuring to investors [10]. Therefore, Coca-Cola is the most suitable for investors to invest in these three companies. From global scale, in recent years, the world market for soft drinks has been growing, mainly due to the increase in consumption in developing countries and changes in beverage consumption patterns. Consumers in developed countries are gradually reducing alcoholic beverages while pursuing natural, healthful food and beverages with less sugar. To this end, on the one hand, to promote the development of the soft drinks industry; on the other hand, and to promote the gradual inclination of beverage products like bottled drinking water and juice drinks, carbonated beverages have been challenged by the status. Although the soft drink market in North America, Western Europe, Japan and other developed regions is huge, including carbonated beverages and other mature markets, but the future prospects are not optimistic. Currently, large beverage manufacturers are shifting their strategic targets to the emerging soft drink market.

The regions with better growth prospects for soft drinks will be Eastern Europe, Africa, the Middle East and Southeast Asia. In general, the world's soft drink development prospects are good, the future competition will be the competition of product variety diversification, developed countries market will be the development direction of health and natural drinks. 2001 world beverage sales have reached more than 200 billion U.S. dollars.

From the perspective of the development trend of the main products of soft drinks, carbonated drinks are the traditional mainstream products of soft drinks. In recent years, fruit juice drinks, bottled drinking water, coffee drinks and tea drinks have developed rapidly and become the direction of beverage development. Developed countries attach great importance to the development of new beverage products, the theme is health, convenience, novelty and fun, focusing on nutritional fortification, non-general ingredients and the use of spices. New product development includes

functional beverages, health drinks, sports drinks, tea drinks, coffee drinks, flavored mineral water, etc.

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