Research on the Corporate Value of Ferrari Based on the Valuation Method

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Abstract. Ferrari as one of the main brands of luxury cars, the company's earnings, has been in focus, according to data show that in 2021, the net loss from a year earlier, the company continued to expand, some investors want to assess the value of the company to evaluate whether to continue to invest, however, the evaluation of some researchers is the lack of a large number of reliable data, the lack of a detailed explanation of the assessment. Therefore, the research topic of this paper is to evaluate the value of Ferrari Company according to its own profit and debt financial situation, and whether investors can get the ideal return. The research method of this paper is as follows: first, the earnings per share and average stock price from 2019 to 2021 are collected, and then the data are analyzed by P/E ratio. In addition, the net profit and revenue data of Ferrari and its competitors from 2019 to 2021 were collected and EV/E valuation analysis was performed on their data. The results of the two research methods show that in terms of valuation, Ferrari is overvalued, enterprise value and P/E ratio are too high. That means investing in Ferrari shares won't necessarily pay off. This may be because Ferrari is not a new automobile brand, but an old one. Secondly, its product types make it difficult for Ferrari to continue to enter a new level. The Fed raised interest rates to ease inflation caused by geopolitical crises and the COVID-19 pandemic. The policy not only affects investors, but also affects Ferrari's borrowing.

Keywords: P/E ratio; EV/E valuation analysis; Ferrari Company.

1. Introduction

With the exploding of geopolitical crisis and COVID-19 pandemic, political world, and economic world both enter a new era of troubled times. Trades between countries have been shut down for a long time during the past two years and most industries were influenced drastically. Ferrari, as one of leaders in the industry of luxury sports automobile, is experiencing a tough time at the same while. The sales of the company suffered from big loss during the pandemic time.

The sales of spare parts, engines and cars of Ferrari were decreased dramatically in the year of 2020 but quickly get recovered in the year of 2021. In this article, we are aiming to analyze the investment value of Ferrari based on the market environment and the valuation based on the stock market. The purpose of the article is to provide investors (mainly retail investors) a bottom-up analysis of Ferrari about whether the company worth a stock investment or not.

P/E ratio is an important factor created by Robert Shiller. In the stock market, based on Gottwald [1-3], P/E ratio is often used to compare the target company with others so that to analyze the price of the stock and the value of the company is overvalued or not. EV/EBITDA ratio is another method to do the valuation for a company. However, compared to P/E ratio, EV/EBITDA ratio is more intuitively to reflect the company's operating conditions. According to Mauboussin [4-7], EV/EBITDA multiple can predict the earning of buying the stock better than the profit of a company. P/E ratio is influenced by lots of factors of the market that indicated in the article of Gottwald [1-3], which means sometimes it loses some functions to objectively evaluate a company's valuation, as the fluctuations in the market value of the company are not entirely dependent on the operations of it. Two ways of valuation is actually a more complete analysis of Ferrari in a complementary way.

2. Analysis on the strategy of Ferrari

2.1 Main products of Ferrari

Ferrari's main products are Cars and spare parts, Engines, and some commercial products with sponsorship, clothes, watches, Scuderia Ferrari Replica, glasses, Ferrari Driving Shoes, Ferrari Surfboard, Ferrari Photo Frame, Silver Scuderia Ferrari Keyring and so on. But the main product is the car, it is obvious that the sales of cars and components, which account for 85.3% of total revenues, make up the majority of the sales sections. The second is commercial goods with branding and sponsorship, Which account for 9.2 percent.

About geographical location of its sales. Ferrari's main sales range is the largest in the Rest of the EMEA [8]. In terms of countries, it has the largest sales scope in the United States, followed by Canada, Mexico, Peru, Chile and other North and South American countries, and Italy.

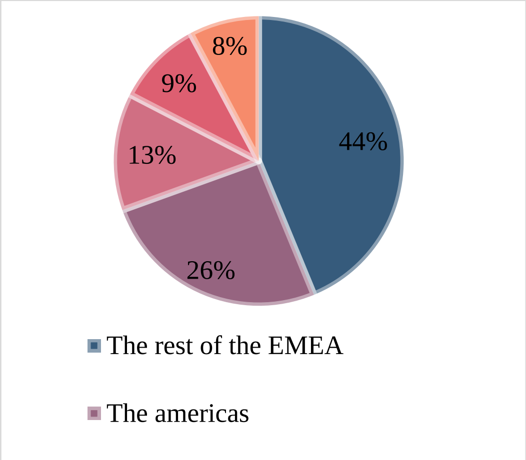

Figure 1. geographical location of XX sales

2.2 profitability of Ferrari

As shown in the figure 2 for Ferrari's profitability from 2017 to 2021, ROA showed an upward trend from 2017 to 2018, and then declined to the lowest point after 2018, especially in 2020. The reason may be caused by the epidemic, but it began to improve after 2020. Operating income growth rate fluctuates greatly, among which the growth in 2018 even reached negative, and in 2021, it has slowly recovered to 15% [8]. The Debt to asset ratio has always been in a relatively low state, the highest is not more than 18%, while the lower the Debt to asset ratio is, the better. Ferrari's Debt to asset ratio has always been in a relatively low state. Therefore, the risk of Ferrari from 2017 to 2021 is relatively low.

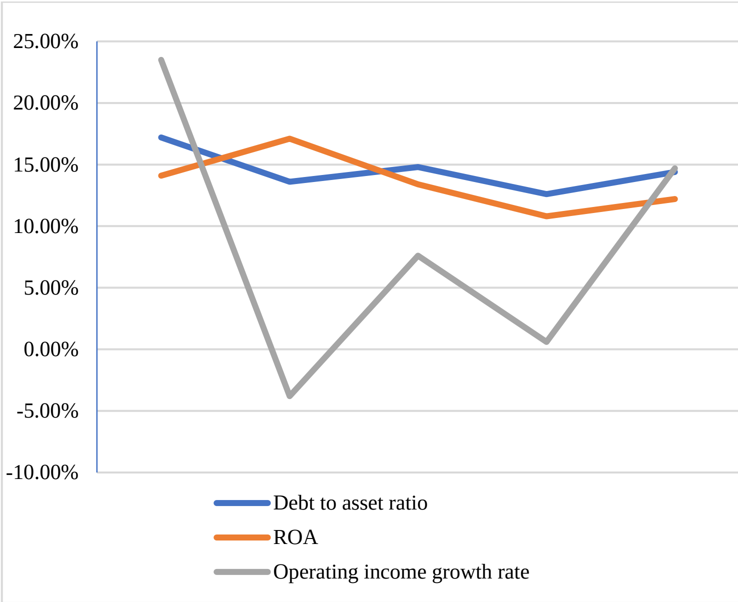

Figure 2. the data which is for analyze the profitability of Ferrari

2.3 Strategy of Ferrari

2.3.1 Keep the brand rare

The corporate strategy formulated by Ferrari is Ferraris must Remain Rare. The reason why the company makes such a strategy is to make the brand more special and unique. In 1947, Ferrari sold only two 125s, which was its first Road car. To this day, this corporate strategy for Ferrari remains in place. An analysis shows that Ferrari Shipped just over 10,000 cars in 2019, compared with established giants like Ford, which sold about 4.3 million cars. Although Ferrari sells only a limited number of cars, it is profitable. Ferrari Shares Trade on the New York Stock Exchange at nearly 15 times its 12-month net profit, one of the best in the car industry.

2.3.2 Waiting time

In order to realize Ferrari's strategy of "keeping rare", Louis Camilleri, CEO of the Company's Current, proposed a new strategy of "waiting time". Waiting time means that consumers need to wait for more than one year to buy a Ferrari car, which is also the best indicator to measure the brand value and core of Ferrari. Ferrari took their exclusivity in marketing to the point where even if a potential buyer has the means to purchase a Ferrari, the firm may still decline to sell to them if they believe their profile does not satisfy its standards. It can be difficult to buy a new Ferrari, and virtually always you need to provide documentation of previous ownership. The buyer must provide proof that they have previously owned or are presently in possession of at least a used Ferrari.

2.3.3 Veblen Effect

Ferrari is undoubtedly a luxury brand in the field of automobile brands, so the company also has the Veblen Effect that all luxury companies have a 200-year-old hypothesis that contends that customers consider more expensive things to be worth more merely because they cost a great deal more, is the cornerstone around which all luxury companies have been created. As a result, contrary to the rule of demand, demand for the product rises as the price rises. Taken from the Ferrari yearly report. Ferrari's gross margin improved from 47 percent to 52 percent between 2013 and 2019, which caused the EBIT margin to expand from 15.6 percent to 24.4 percent [8]. Analysts contend that Ferrari consumers not only are prepared to spend more, but really want to pay more since it admits them to this privileged club.

2.3.4 Corporate structure strategy

Talent development is the first driving force for innovation. In order to introduce talents, Ferrari put forward a new strategy on the company's organizational structure on January 10, 2022, which is consistent with its marketing strategy objectives. its strategic objectives to nurture the exclusivity of the Ferrari Brand, enrich product excellence, The new organizational structure will further foster innovation, optimize processes and increase collaboration both internally and with partners, broadening the leadership team through both the promotion of internal talent and a number of key strategic external Hires.

3. Analysis on Competitors of FERRARI

The criteria of competitors of Ferrari should be contained the following conditions. Firstly, the competitor company should be on the market. The next term is that these company should have their own F1 team as one of the main parts of income of Ferrari comes from F1 competitions. Last but not least, although some of the competitors are much stronger than Ferrari cause this company operates many different brands, the size of the companies may affect the situation of sales, the firms which have the huge scale can pay more money in propaganda and D&R. Therefore, the subsidiary brand companies' magnitude of income level is not considered as a threshold. In addition, how much the corporates are focus on the sales of luxury cars is also the major factor.

What's more, this paper finds one company which have the similar scale as Ferrari----- Aston Martin. These two companies may be the main competitors. These firms have the similar structure, similar size, approaching scale of the capital chain as Ferrari, especially they are all just focus on the luxury car market. Although the scale of Mercedes-Benz Group AG, Ford Motor, Honda Motor, Volkswagen AG are much larger than Ferrari and Aston Martin Lagonda, however, they both have the subsidiary brand which can be the rivals of Ferrari. These corporates both have the sales of sport cars or race cars.

3.1 Analysis of data of Ferrari and its competitors' Share price

The average Share Price is the figure which displays the situation of a firm. In the term of share, according to the figure 3, the average share price in these collected data, Volkswagen AG occupied the most, 258.40 Euros. The second one was Ferrari, 185.25. The rest of the numbers were both under 100 Euros. Mercedes-Benz Group AG was 59.82 Euros, Honda Motor was 17.24 Euros, Ford Motor was 17.24 Euros and Aston Martin Lagonda was 15.87 Euros. For the return, The Volkswagen AG profited the most, the Earning per shares was 29.59 Euros. Next one was Mercedes-Benz Group AG 4.50 Euros. Then Ferrari was 9.50 Euros, Honda Motor was 2.65 Euros, Ford Motor was 0.59 Euros. Only the data of Aston Martin Lagonda was negative, -3.11 Euros. It shows that the general situation of Ferrari and Volkswagen leaned to be the most positive in these comparison corporates.

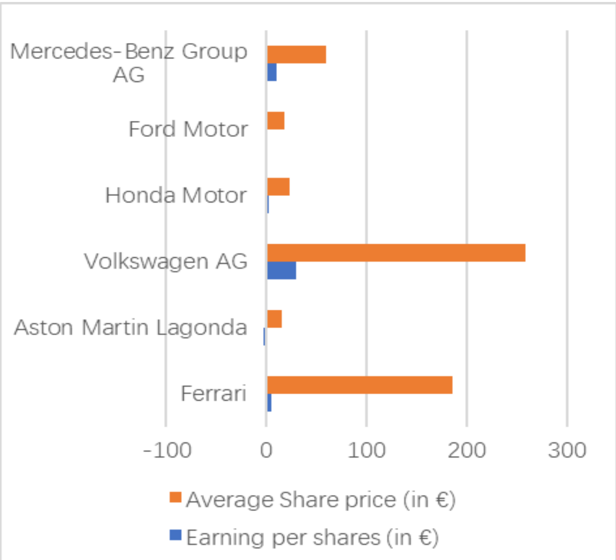

Figure 3. Analysis of data of Ferrari and its competitors' Share

3.2 Analysis of data of Ferrari and its competitors' revenue

In the term of the capital chain, the data are shown on the figure 4, the size of enterprise of Mercedes-Benz Group AG, Ford Motor, Volkswagen AG were similar, and in the high value level, which were 170184.00 million Euros, 162036.00 million Euros, 186336.00 million Euros. Honda Motor had the 69160.00 million Euros of enterprise value, which was in the medium level. The enterprise value of Ferrari and Aston Martin Lagonda were in the low level, which were 4810.00 million Euros and 3289.16 million Euros. Because the scale of these companies is not in a same level, thus there is not comparability in term of EBITDA. As the information collected, the EBITDA of Mercedes-Benz Group AG was 18381.72 million Euros, Ford Motor was 13630.00 million Euros, Volkswagen AG was 31609.00 million Euros, Honda Motor was 12541.20 million Euros, Ferrari was 1076.00 million Euros, Aston Martin Lagonda was 164.22 million Euros.

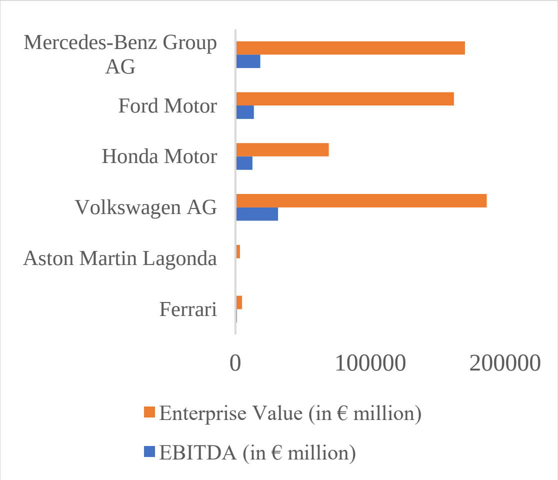

Figure 4. Analysis of data of Ferrari and its competitors' Enterprise Value and EBITDA

With Combining these two kinds of data, the situation of the figure 5, there is a type of ratio formed, EV/EBITDA ratio. This ratio can show the profitability of the corporates, if the ratio is smaller, the profitability may be seem as higher, on the contrary, it may be seem as lower. The EV/EBITDA ratio of Mercedes-Benz Group AG was 9.26, Ford Motor was 11.89, Volkswagen AG was 5.90, Honda Motor was 5.51, Ferrari was 4.50, Aston Martin Lagonda was 20.03. As comparison, the ratio of Ferrari was the lowest one. Otherwise, the ratio of Aston Martin Lagonda was the highest.

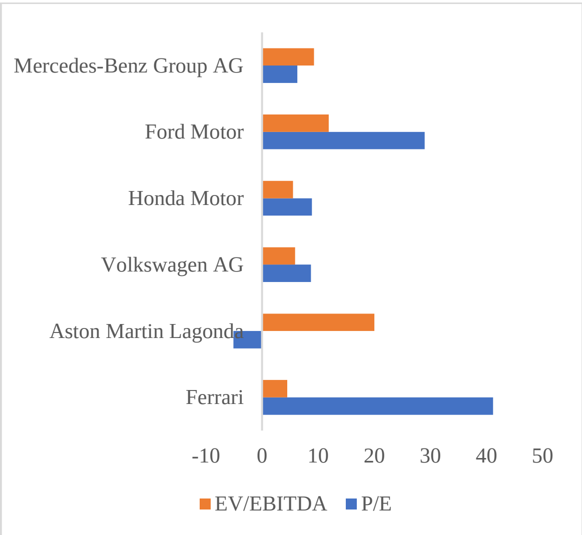

Figure 5. Analysis of data of Ferrari and its competitors' EV/EBITDA and P/E ratio

With all this data, Ferrari had a great profitability in the market and a positive general situation of firms. However, in these six companies, there are 4 businesses have great enterprise value and larger scale, that means they have more source which can change the present situation through some particular methods, for instance, increase the intensity of propaganda and so on.

In the term of the revenue, the figure 6 displays the information that comparing with the Ferrari, Aston Martin Lagonda, and the sub-brand of Stellentis, Maserati. The net revenue of these three companies were quite different. The net revenue of Maserati which is as a sub-brand was 2003 million Euros, Ferrari was 4271 million Euros, and Aston Martin Lagonda was 1095.3 million Euros. These shows the great profitability of Ferrari compare with these three firms.

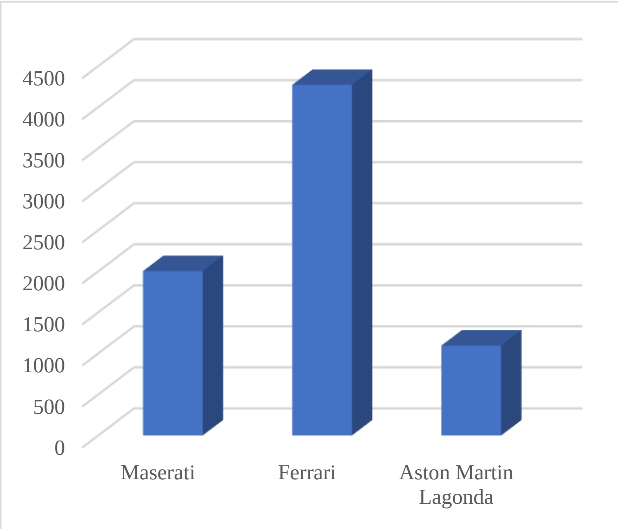

Figure 6. Analysis of data of Ferrari and its competitors' Net Revenue

4. Investments Analysis based on Valuation Methods

Investments on Ferrari should be considered prudentially, and there are two ways of investing Ferrari which are financing and stock investments. Several standards of investments would be presented in the following content to provide investors detailed information of Ferrari.

4.1 Analysis based on valuation from P/E multiple

As one of the standards, P/E ratio is the most intuitive data to reflect the situation of the stock value of a specific company. Ferrari remains high P/E ratio for the recent years, and it reaches the highest level during the most serious time of COVID-19 period which is the year of 2020. A high P/E ratio generally demonstrates the confidence of investors as they perform optimistically about the future of Ferrari. Ferrari proved its ability to investors through the performance of 2021 and maintained the leadership in the industry of premium cars. From the P/E ratio in Table 1, it decreased from 49.64 to 41.17 until the end of 2021 [8] since the earning per shares increased remarkably from 2.88 to 4.50 which even surpassed the level before the pandemic period.

Table 1. Share price and P/E ratio of Ferrari from 2019 [9] to 2021

	2019	2020	2021
Earning per shares (in €)	3.73	2.88	4.50
Average Share price (in €)	122.9	142.95	185.25
P/E ratio	**32.95**	**49.64**	**41.17**

Table 2. Sales Revenue of Ferrari (2019-2021) [8-10]

	2019	2020	2021
Total sales of cars	10,131	9,119	11,155
Cars and Spare parts (in € million)	2,926	2,835	3,573
Engines (in € million)	198	151	189
Net Revenue (in € million)	3,766.615	3,459.790	4,270.894

From the other aspects of Ferrari, the biggest part contributes to the revenue of Ferrari, sales directly response to the confidence of investors. In Table 2, the total sales of cars increased to 11,155 which is approximately 22 percent higher than 9,119 in 2020 [10]. The growth in net revenue is simultaneously significant which increased 23 percent when comparing to the year of 2020. With the opening of the trade worldwide from the low level in pandemic period, the financial situations of Ferrari, in general, tends to become optimistic. On the other hand, these sales figures further prove that Ferrari's reputation and products are recognized by the public. Combined with P/E, Ferrari's stock price and future development do not seem to collapse suddenly.

However, a high P/E ratio mostly represents that the stock price of the company is higher than other companies in the industry. Based on Table 3, the P/E ratio of Ferrari is 41x which is much bigger than the average 9.57x P/E ratio of the industry. The stock price at the end of 2021 is 185.25€ per share [8], and the investors can apparently notice the gap between it and price per share of other competitors. Ferrari is overvalued to the aspect of valuation through P/E multiple, which means the investment in stock may not bring investors desired return if they believe in that investing in Ferrari shares could payback them considerable wealth in the future.

Table 3. Valuation of Share Price of Ferrari on P/E multiple [8]

	Ferrari	Industry-based (Average)	Industry-based (Median)
P/E ratio (2021):	41.17	9.57	8.73
Price per share (2021, in €):	185.25	43.05	39.30

4.2 Analysis based on valuation from EV/EBITDA multiple

Back to the company itself, the comparison between the operation status of Ferrari and its own profitability needed to pay attention to. Till 31st Dec 2021 [8], the enterprise value of Ferrari was near 49 billion in euro dollar, and the EBITDA was 1,531 million Euro dollar. The EV/EBITDA multiple was over 30 based on the data in Table 4 which is 3 times larger than the level of the industry. These two methods of valuation seem to tell investors that they would not earn a large amount of return through investing in the stock of Ferrari. The total debt of Ferrari was nearly 3 billion euros till the end of 2021 and the Enterprise value of Ferrari was 43.15 billion euros at the same period, which means the market capitalization of the company remains large. The large market capitalization is due to the high price of the stock which analyzed in the part of P/E multiple. High EV/EBITDA demonstrates that Ferrari is overvalued which presents the same result as the valuation through P/E multiple, however, another important point that worth investors no notice is that the total debt of Ferrari is not that large as other big corporations. Based on the annual report of 2021, the total assets of Ferrari were 6.864 billion euros, hence the debt/assets ratio of the year 2021 was approximately 0.44 which is in a low and safe level.

Table 4. Valuation of Ferrari based on EV/EBITDA Multiple [8]

	Ferrari	Industry-based (Average)	Industry-based (Median)
EV/E ratio (2021)	31.99	10.52	9.26
Price per share (2021)	143.96	47.33	41.66

4.3 Analysis based on recent policy

Recently, FED hiked the rate for 0.75 percent to alleviate excessive inflation caused by the epidemic and crisis of geopolitics. Stock market responded to FED policy with wild jolt that Nasdaq index decreased about 13 percent within two weeks before and after the release of the policy, and Dow Jones index fell to 29,888.78 on June 17th, approximately 10 percent lower than the week before the policy, which is the lowest level since the beginning of 2022. The rate hike releases a clear signal to the stock market that the Federal Government wants to decrease the turnover and circulation of funds, which means they prefer investors to save their money. Furthermore, this policy from FED not only influence the investors but also may affect the borrowing of Ferrari. The total debt of Ferrari was 2,630-million-euro dollars until the end of 2021[8], and this is obviously larger than 1,531-million-euro dollars of the EBITDA. Rate hike will make it harder for Ferrari to borrow from lenders and banks in the U.S since the high interest rate increases the risk of the turnover of cash flow and debt crisis.

Table 5. EPS and Earning Yield of Ferrari

	2019	2020	2021
Earning per shares (in €)	3.73	3.29	4.50
Average Share price (in €)	122.90	142.95	185.25
Earning Yield	**3.03%**	**2.30%**	**2.43%**

In fact, the policy will not affect Ferrari a lot since Large-scale and well-established companies are difficult to be defeated by a single government policy. The APY of saving and chequing accounts in the U.S increased to approximately 0.1 percent and the High-Yield saving accounts only provide 1.6 percent APY in average. Compared to the stock investment of Ferrari, the earning yield maintains between 2 percent and 3 percent based on Table 5, which means investing in the stock of Ferrari will bring investors more earnings than saving the money in financial institutions. The EPS is predicted to increase to 4.90-euro dollars at the end of 2022 and the financial report of the first quarter of 2022 published by Ferrari shows that the overall status of operating is better on the YOY basis based on Table 6, and the net profit has been increased for 16.02 percent. An excellent and stable operating condition will be reflected on the stock market that the analysts predict the stock price would be hiked to near 300-euro dollars per share at the end of July 2022.

Table 6. Operation status of Ferrari from 2021 to 2022 on YOY basis

	2021 Q1	2022 Q2	Comparison (in %)
Net Profit (in € million)	206	239	**16.02%**
Net Revenue (in € million)	1,011	1,186	**17.31%**
All Expenses (in € million)	746	881	**18.10%**
Investment Result (in € million)	1	2	**100.00%**

4.4 Discussion

Both valuation methods present that Ferrari now is overvalued, which means investors, especially retail investors can hardly expect to be paid ideal return through buying the stocks. There are two main reasons that resulting in poor returns on investment in Ferrari stock. Firstly, Ferrari is not a start-up company like Tesla, and second one is that the type of product determines the company is difficult to forward to the next level. The growth in the annual earnings of Ferrari performed poorly compared to the industry in the last five years; 8.5 percent growth of the company is lower than 21.5 percent of the industry, and this is mainly due to the two reasons mentioned above. However, it is not that risky to invest stocks of Ferrari comparing to buy stocks of other companies since its operation status is exceedingly stable as what stated above. The increasing repurchases of shares from the 130 million euros to 231 million euros prove that shareholders are confident about the ability of making higher profit of the management and operation status. As a result, it is wise to include Ferrari's stock investment in the low-risk investment part of your investment portfolio, although the overall risk of stock investment will be higher than that of wealth management products.

5. Conclusion

Through research, this study finds that Ferrari is overvalued in terms of valuation, and the enterprise value and P/E ratio are overvalued. In addition, both in corporate strategy and human resource strategy, Ferrari adopts the strategy of "rare is precious" and "elite talent". In 2020, the P/E ratio reached its highest level, indicating that the stock was trading at a significant premium to the rest of the industry, so unlike many research reports, this means that investing in Ferrari stock will not necessarily give investors the desired return. The reason might be that Ferrari is not a newly started company. Secondly, the product type of the company determines that it is difficult for Ferrari to continue to enter a new level. Meanwhile, the Federal Reserve has raised interest rates to ease excessive inflation caused by geopolitical crises and the pandemic. The policy not only affects investors but could also affect Ferrari's borrowing. The main contribution of this paper is to make up for the comparison between annual data of Ferrari, and the company valuation conclusion obtained has a longer time span, richer data support, and a more grounded conclusion. Moreover, the comparison between the operating conditions of Ferrari and its own profitability is more comprehensive. It can be used as a reference for researchers who rely on quarterly data analysis to compare the differences between the two groups of data analysis, and further study the differences, advantages and disadvantages of quarterly data reference and annual data reference, as well as the main advantages and functions of each. In addition, according to the research results, the influence strategy of the company can be improved and analyzed. According to its own profit and debt situation, the new product types that Ferrari can develop can be explored to promote the company's brand to enter a new stage.

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