

Analysis of Enterprise Valuation and Future Development Trends of BYD Company

Ye Lai ^{1, *}, Dongliang Li ², Yida Luo ³, and Guosheng Wu ⁴

¹ Department of Finance, South China Agricultural University, Guangzhou, China

² Department of Finance, The University of Manchester, Manchester, British

³ Department of Business Administration, Xi'an Jiaotong-liverpool University, Suzhou, China

⁴ Qingzhenboya International Experimental School, Guiyang, China

* Corresponding author: 2987807778@stu.scau.edu.cn

Abstract. Due to the depletion of fossil fuels required by traditional vehicles and a series of environmental problems, new energy vehicles have gradually entered the public's vision with the advantages of low pollution, low price and high comfort. In recent years, BYD's new energy vehicles have occupied a place in China's new energy market with strong competitive advantages. This paper selects BYD as the research object, conducts valuation research on BYD enterprise, and provides suggestions for the development of new energy automobile enterprises. We mainly analyze BYD's financial performance from four aspects: profitability, debt paying ability, operating ability and development ability. Subsequently, the BYD's financial data is used to calculate WACC, FCFF in the next 3-5 years, and finally uses DCF method to evaluate the enterprise. According to the analysis, BYD's core competitiveness continues to improve, its financial performance is high, and its enterprise value in the next 3-5 years is still increasing, which is worthy of investment. This is of great significance to the research of the future development trend of new energy.

Keywords: Financial analysis, WACC, DCF method, enterprise valuation.

1. Introduction

With the continuous growth of global energy demand, traditional fossil fuels are faced with environmental problems caused by energy depletion and the use of traditional fossil energy, forcing governments to demand renewable clean energy as an alternative to traditional fossil energy [1]. In the process of the gradual development of the new energy industry, new energy vehicles have attracted more attention for their characteristics of less environmental pollution, lower use cost, more intelligent and convenient. Recently, a series of new energy vehicle policies have been issued by The State Council of China, which has attracted the attention of the majority of consumers, which has brought opportunities for the development of China's new energy vehicle industry. Meanwhile, with the steady increase of China's national income, the social consumption structure continues to improve and upgrade, and the people have also put forward higher quality requirements for low carbon travel. New energy vehicles can not only reduce the travel cost of the masses, but also meet the people's convenient and fast travel needs [2]. The development of new energy vehicle industry is not only the only way for China to move from an automobile country to an automobile power, but also an important part of the target of carbon peak and carbon neutrality. At present, the international new energy vehicle market is highly competitive, but the Chinese government still unites with many departments to provide good conditions for the creative development of the new energy vehicle industry. Through stable policy assistance, it will promote the key breakthrough of domestic new energy technology [3]. The new energy vehicle industry is mainly composed of upstream raw material and component suppliers, midstream vehicle manufacturers, and downstream logistics and service operators. Major participants in the industry are BYD, Tesla, Nio, Ningde Times, Ganfeng Lithium, etc. Among them, BYD company has become a prominent representative in China's new energy vehicle industry, and is also the industry's leader, with its own brand influence and technical advantages to occupy a place in China's new energy market.

BYD company has unique industrial advantages in the field of new energy vehicles, which benefits from its complete industrial chain of independent research and development. In the upstream supply chain, BYD has abundant and stable important resources that can make up automotive batteries, such as lithium mines, mainly including the sources of Qinghai Salt Lake lithium and Tibet Salt Lake lithium; in the middle supply chain, BYD develops core components (e.g., battery, motor and electronic control system), providing solid technical support for the downstream, automotive production field. BYD's battery technology has been leading the industry. Its independent research and development of large capacity, high safety battery, for its electric models to provide excellent endurance performance. BYD's newly released blade-shape battery improves on its low energy density defects, while lithium iron phosphate batteries do not contain any high cost metals, and the required raw materials such as iron and lithium carbonate are abundant in China, reducing manufacturing costs and increasing downstream profits. With independent research and development of electronic control system, BYD can accurately control the energy conversion between the battery and the motor, realize the efficient use of energy, so as to optimize the vehicle performance, improve the range, to meet the needs of consumers for convenient and efficient driving. BYD has a first-class international sales market and technology market. In recent years, BYD has entered the overseas market with different models. In Europe, BYD has been deeply engaged in the new energy vehicle market for more than 20 years. Its commercial vehicles in more than 70 countries and regions as well as more than 400 cities, continuously receiving positive reviews from global consumers. In addition, BYD focuses on exploring the international technology market, exchanging and learning innovation resources and leading technologies with overseas new energy industry. As a result, BYD's sales rose 58.6% from 2019 to 2022. In terms of long-term development, it has a strong market advantage. Based on the development background of BYD, industry status and competitive advantages, as the global leader of new energy vehicles, it is significant for us to study its corporate value and analyze its development trend in the future [4].

In this paper, DCF model is selected to value BYD enterprises, and the future cash flow estimated by discounted to evaluate the investment. If the DCF is higher than the initial cost and the project or investment is profitable, the future cash flow, terminal value and discount rate should be reasonably estimated and the DCF analysis should be conducted. The main advantage of DCF is that it can be applied to a wide variety of companies, projects and many other investments, as long as future cash flow can be estimated. Moreover, DCF reflects the intrinsic value of the investment, reflecting the necessary assumptions and characteristics of the investment. Therefore, it is not necessary to find peer objects for comparison. P/E is simple and easy to use, using the recent profit estimate, while the recent profit estimate is generally more accurate. The disadvantage of this method is that profit is not equal to cash, which is greatly affected by accounting and ignores the risks of the company, such as high debt leverage. In addition, the P/E ratio can not take into account the forward earnings, the cyclical and loss-making enterprise valuation is difficult. The P/E valuation ignores the amortization of depreciation, capital expenditure and other important capital projects to keep the company running. The advantage of EV / EBITDA is not only stock valuation, but also "enterprise value" valuation, regardless of the capital structure. In addition, EBITDA has added cash items such as amortization and depreciation, whose disadvantage is that the valuation effect of companies with many holding structures is not good, because EBITDA does not reflect the cash flow of minority shareholders, but too much reflects the cash flow of the holding company, does not reflect the capital expenditure demand, and overestimate the cash. Compared with other methods, DCF is more important and reasonable, and the final decision is to use DCF valuation.

2. Methods and Data

First of all, we will quote the financial statements of BYD to find out the company's debt situation, marketing profit and cash flow data, detail and comprehensively analyze the financial situation of BYD, and forecast the general direction of its future development. Second, BYD can generate stable

free cash flow or generate cash flow growing at a fixed rate, so we will use the DCF valuation method to reflect the value of the company's stock through the discount of free cash flow. In order to get more accurate cash flow data, we will use WACC, namely the weighted average cost of capital, to reflect the average cost of capital of BYD company, and use the modified data to measure whether the company is worth investing [5]. We use the absolute valuation method to value BYD's development trends in the next 3-5 years. As a market and technology leader in the new energy vehicle industry, BYD has a relatively stable cash flow. Therefore, we chose the DCF for our valuation. As a technology-related new energy vehicle company, its valuation results may deviate from the reality. We calculate BYD's WACC and use it as a discount rate, and then use the cash flow to estimate the future value of BYD's stock.

The first step is to calculate the WACC. WACC considers the relative weight of each component in the capital structure and reflects the expected cost of the company's new assets. The short-term interest rate adopts the short-term loan benchmark rate of the Bank of China, and the long-term interest rate adopts the medium-term loan benchmark rate of the Bank of China. The market yield follows the 10-year average yield of the Shanghai Composite Index and the Shenzhen Composite Index. The second step is to use the DCF to value BYD for the next five years. The intrinsic value of the enterprise in the future is a combination of future free cash flow discount and perpetual annuity discount. The sustainable growth rate is the compound growth rate of BYD's net profit over the past five years. As a new energy vehicle company focusing on independent research and development, BYD spends most of its money on investment and research and development. The amount of investment and research and development is relatively high, and the difference is large every year, which can not well reflect the actual operation situation. In addition, BYD's net profit is stable, in line with its business strategy and market rules, can reflect BYD's operating conditions and intrinsic value.

3. Results and Discussions

3.1. Financial Analysis

As shown in Table 1, as of 2022, the company's total current assets are 240.8-billion-yuan, total non-current assets are 253-billion-yuan, total current liabilities are 333.3 billion yuan, and total non-current liabilities are 39.126 billion yuan. Notes and accounts receivable were 143.765 billion yuan, notes and accounts payable were 80.49 billion yuan, and prepayments were 8.223 billion yuan. Over the past five years, inventories have continued to increase, reaching 1,134.69 billion by 2022. From the perspective of structure, current assets and current liabilities do not fully match, and current liabilities are greater than current assets. In the short term, enterprises will have financial pressure, poor inventory liquidation ability, and unreasonable inventory overhang structure. Non-current assets are much larger than non-current liabilities. In the long run, long-term assets and long-term liabilities match to ensure the long-term earnings of the enterprise. From the analysis of working capital, it can be concluded from the above-mentioned data that BYD has huge debts in terms of suppliers, less money from clients, and there is a backlog of inventory [6]. Overall, operational efficiency needs to be improved. As shown in Table 2, by deducting operating costs from revenue, it can be clearly seen that the growth trend of gross profit since 2017 has been positive. In 2021, BYD's competitiveness in the industry has slowed down, mainly due to the impact of the epidemic. However, with the continuous expansion of production capacity and the significant growth of operating income, BYD has realized the growth rate of gross profit from negative to positive by the end of 2022 and has steady growth. From the perspective of sales and profit analysis, BYD's sales revenue has increased year by year since 2019. Affected by the epidemic, the sales growth trend from 2020 to 2021 has slowed down, but in general, it is still in a steady upward trend. By the end of 2022, BYD's sales exceeded 400 billion yuan, about double that of 2021. It can be seen that BYD's sales volume and scale are still expanding and are now in a period of rapid growth. Finally, it is estimated that the profit margin of BYD's primary business in 2022 reached 5.42%, which increased significantly compared with 3.51% in 2021, setting a new high in recent years, and higher than the industry average level, which shows

that the profitability of the enterprise is in the upper middle level, and also reflects the strong profitability of the enterprise.

Table 1. The Balance Sheet of BYD

	2022/12/31	2021/12/31	2020/12/31	2019/12/31	2018/12/31
Current assets	2408.03	1661.10	1,116.05	1,069.67	1,152.11
Long-term asset	11.18	11.70	545.85	494.43	436.79
Long-term equity investment	154.85	79.05	54.66	40.6	35.61
Total assets	4938.60	2957.80	2,010.17	1,956.42	1,945.71
YoY (%)	0.67	0.47	2.75	0.55	9.25
Current liabilities	3333.44	1713.03	1,064.31	1,080.29	1,165.69
Long-term liabilities	75.93	87.43	301.33	250.11	173.08
Total liabilities	3724.70	1915.35	1,365.63	1,330.40	1,338.77
YoY (%)	0.94	0.40	2.65	-0.63	13.32
shareholders' equity	1213.89	1042.44	644.54	626.01	606.94
Equity attributable to shareholders of the parent company	1110.29	950.69	568.74	567.62	551.98
YoY (%)	0.17	0.67	0.2	2.83	0.35
Capital Provident Fund	617.05	608.07	246.99	245.31	245.24
Surplus provident fund	68.38	50.09	44.48	40.99	38.42
Undistributed profits	409.43	264.55	244.57	210.56	204.98

Table 2. The Income Statement of BYD

	2022/12/31	2021/12/31	2020/12/31	2019/12/31	2018/12/31
Total operating income	4240.6	2161.42	1,565.98	1,277.39	1,300.55
YoY (%)	96.16	38.02	22.59	-1.78	22.79
Total cost of operations	4011.87	2126.02	1508.69	1262.51	1283.66
Operating profit	215.41	46.31	70.86	23.12	42.42
YoY (%)	365.14	-34.64	206.44	-45.49	-21.6
Total profit	210.79	45.18	68.83	24.31	43.86
YoY (%)	366.56	-33.88	183.1	-44.57	-21.97
Net profit	177.13	39.67	60.14	21.19	35.56
Net profit attributable to shareholders of the parent company	166.22	30.45	42.34	16.14	27.8
YoY (%)	346.5	-34.03	183.81	-40.41	-31.63
Non -recurring profit and loss	10.9	12.54	12.8	13.84	21.95
Net profit attributable to shareholders of the parent company after deduction	156.37	12.54	29.54	2.31	5.86
YoY (%)	1146.96	-57.5	1181.5	-60.64	-80.39
R&D expenses	186.54	106.3	86.56	84.21	85.36

As given in Table 3, in contrast to the income statement and balance sheet, the cash flow statement describes a company's operating, investment, and financing activities and judges the value of a company based on the discounted value of the cash it can generate over its remaining life. We see in the annual report of BYD's cash flow statement that in the past five years, the balance of ending cash and cash equivalents has increased year by year, showing an upward trend, reaching 51.182 billion in 2022, nearly 3.7 times that of 2020. In terms of cash flow generated, cash from the sale of goods and the provision of services has increased year on year over the past five years, indicating a high quality of income. The net cash flow generated by operating activities has also risen every year and is positive, and the profitability of the enterprise has been continuously improved, reducing the business risk of the enterprise. Net cash flow from investing activities has also increased annually over the past five years, but has been negative in each of the past five years. Byd's net cash flow from financing activities has been mostly positive over the past five years. The net cash flow generated by

BYD enterprise is positive in most cases, which indicates that the enterprise has a strong ability to raise funds and good investment ability. As of 2022, it has enough cash flow to invest and pay dividends. Overall, BYD's continued operation ability is strong, worthy of attention.

Table 3. The Income Statement of BYD

	2022/12/31	2021/12/31	2020/12/31	2019/12/31	2018/12/31
Cash received for the sale of goods and provision of services	4132.09	2026.66	1,386.67	1,071.66	1,038.13
Net cash flow from operating activities	1408.37	654.66	453.93	147.41	125.23
Cash paid for the purchase and construction of fixed intangible long-term assets	974.56	373.43	117.74	206.27	178.42
Cash paid for investments	105.72	35.26	18.37	10.89	8.29
Net cash flow from investment activities	-1205.95	-454.03	-144.44	-208.81	-142.31
Absorb the cash received from the	5.07	373.13	28.00	0.02	0.11
Obtain the cash received for the loan	276.35	328.72	406.34	584.78	529.65
Net cash flow from fundraising activities	-194.88	160.62	-289.07	66.1	39.17
Net cash increase	13.62	360.81	20.64	5.23	22.15
Cash balance at the end of the period	511.82	498.19	137.38	116.74	111.51
Depreciation and amortization	197.84	138.34	125.19	98.4	94.27

Table 4. Profitability data

	2022/12/31	2021/12/31	2020/12/31	2019/12/31	2018/12/31
Net profit margin	3.92	1.41	2.70	1.26	2.14
Gross profit margin	17.04	13.02	19.38	16.29	16.4
Operating profit margin	5.42	3.51	8.33	5.37	6.18
Return on equity	16.13	4.01	7.45	2.88	5.07

From the perspective of profitability, as shown in Table 4, BYD's net profit margin from 2018 to 2022 is not stable, showing a trend of decline from 2018 to 2019, a growing trend from 2019 to 2020, and a trend of repeated fluctuations in net profit margin until 2022. Operating margins have followed the same trend. The gross profit margin showed an upward trend from 2018 to 2020, fell significantly in 2021, and rebounded in 2022. BYDs said in the annual report that the decline in gross profit margin was mainly due to changes in product structure, BYD took the path of plug-in hybrid and pure electric joint development, increased research and development costs, coupled with the impact of the epidemic, making gross profit margin decreased. In general, BYD is now in a stage of rapid development, the profitability of the past five years has fluctuated, but profitability continues to improve. Compared with traditional car companies, China's largest car company SAIC Motor's gross profit margin in 2020 is only 10.76%, BYD far exceeds most traditional car companies. In the new energy vehicle circuit, BYD is the leader, its sales and profit margins are more than twice there. However, Tesla, which is also the world's leading new energy vehicle company, has exceeded 30% in 2021, and BYD still has room to rise.

From the perspective of solvency, as shown in Table 5, BYD's quick ratio from 2018 to 2021 is within the range of 70%-80%, which will decrease in 2022, and the quick ratio is lower than the industry-wide average of 85%, indicating that BYD has insufficient capital flow and poor debt repayment ability. The current ratio remained at around 100% from 2018 to 2021 and declined in 2022, again below the industry average of 125%. The cash ratio was in the range of 10%-15% from 2018 to 2020, and exceeded 30% and 20% respectively in 2021 and 2022, indicating that BYD's liquidity was poor in 2018-2020 and improved in 2021-2022. Byd's asset-liability ratio is in the range of 65% to 75%, which is nearly 10% higher than the entire industry during the same period, indicating that the company may have capital flow risks. In general, BYD's solvency is lower than the industry level, the ability to repay debt in the short term is weak, and the risk of capital flow is higher. However, since 2020, BYD's liquidity has increased and its solvency has improved, and it needs to continue to pay attention to this indicator in the future to avoid corresponding risks.

Table 5. Debt service capability

	2022/12/31	2021/12/31	2020/12/31	2019/12/31	2018/12/31
Asset-ability ratio	0.75	0.65	0.68	0.68	0.69
Quick ratio	0.49	0.72	0.75	0.75	0.76
Current ratio	0.72	0.97	1.05	0.99	0.99
Operating cash flow ratio	0.22	0.33	0.14	0.12	0.11

From the perspective of operation capacity, as shown in Table 6, the development capacity index rates of BYD shows an annual increasing trend from 2018 to 2022. Compared with the industry, BYD's inventory turnover rate, current assets turnover rate, accounts receivable turnover rate and total assets turnover rate are higher than the industry average, indicating that the enterprise has accelerated the conversion of inventory into funds, the speed of enterprise realization is accelerated, and the operating efficiency is improved year by year. Therefore, we can conclude that BYD's management level is gradually improving, and the operation capacity of the enterprise is constantly improving.

Table 6. Operating capacity

	2022/12/31	2021/12/31	2020/12/31	2019/12/31	2018/12/31
Inventory turnover ratio	5.75	5.03	4.43	4.12	4.71
Current assets turnover	2.08	1.56	1.43	1.15	1.19
Turnover of accounts receivable	11.3	5.58	3.68	2.74	2.57
Total assets turnover	1.07	0.87	0.79	0.65	0.7

Table 7. Developing capability

	2022/12/31	2021/12/31	2020/12/31	2019/12/31	2018/12/31
Total assets growth ratio	0.67	0.47	2.75	0.55	9.25
Operating revenue growth ratio	96.16	38.02	22.59	-1.78	22.79
Net profit growth ratio	346.5	-34.03	183.81	-40.41	-31.63

From the perspective of development ability, as shown in Table 7, the growth rate of BYD's total assets increased significantly in 2018 and 2020, fell in 2021, and developed steadily in 2022. The growth rate of operating income reached a low value in 2019 and has increased every year since, approximately doubling in 2022. From this, we can see that BYD has been in a stage of rapid development since 2020, and its development capacity has been continuously improved and far exceeded the level of the same industry. The growth rate of net profit has been more volatile, negative in three of the past five years, and positive and over 300% in 2022. From this, we can see that BYD's net profit growth fluctuates greatly, but in general, BYD's development is in a rapid upward trend, with a high growth rate in the short term, and it may be flat in the next 3-5 years.

3.2. DCF Valuation

The formula for calculating the weighted cost of capital WACC is:

$$WACC = \frac{D}{D+E} r_d (1 - T) + \frac{E}{D+E} r_e \quad (1)$$

As shown in Table 8, the following data can be obtained by using the average tax rates for 2018-2022: 14.5%, the average sum of short-term and long-term debt for 2018-2022: 3.7546E+8, the average of total equity value for 2018-2022: 827966700000, the ratio of interest to liabilities in 2022: 4.6%, interest rates on Treasury bonds: 0.0239, r_e is calculated as follows: 0.02536 Based on the above data $WACC = 0.0517$.

Table 8. WACC data

Weighted Average Cost of Capital		
Equity Capital		
Value of common stock	415.42	95%
Value of preferred stock	0.00	0%
Owners' equity	82796.67	
Debt Capital		
Short-term debt	21975.90	
Long-term debt	15570.96	0.7%
Stock Capital Cost		
The risk-free ratio of interest	The five-year Treasury yield	2.39%
Beta	0.73	
Market profitability		2.59%
Expected return	0.02536	
Cost of Debt		
Short-term(long-term) interest rate	4.93	
Bond adjustment factor	2	
Tax rate		14.51%
Cost of debt	17.39	
Weighted average cost of capital (wacc)%		5.17%

The formula for predicting stock prices over the next five years is:

$$EV = \frac{FCF_1}{(1+WACC)^{0.5}} + \frac{FCF_2}{(1+WACC)^{1.5}} + \frac{FCF_3}{(1+WACC)^{2.5}} + \frac{FCF_4}{(1+WACC)^{3.5}} + \frac{(EBITDA_5 * Exit Multiplier)}{(1+WACC)^5} \quad (2)$$

Through consulting relevant literature, the growth rate of the sustainable growth stage is set: $g = 4\%$. After the end of the rapid growth phase, it is more reasonable to set the annual growth rate of the sustainable growth phase as the inflation rate. The annual growth rate of the sustainable growth phase must be less than the annual growth rate of the rapid growth phase in order for the calculation to converge. The forecast of BYD's stock price in 2023-2027 is shown in Table. 9. Its stock price in the first half of 2023 is 269.80, 241.20, and 251.30 on average. Through the discounted cash flow method, BYD's stock price is predicted to be 316.38 in 2023, which is quite different from the real stock price. From the estimated value, BYD's stock price will maintain rapid growth in the short term, but to a certain extent, it reflects that the discounted cash flow method will overestimate BYD's stock price.

Table 9. Forecast data

	2023	2024	2025	2026	2027
FCF	44020.20	47338.32	51030.30	56376.43	61805.02
EV	316.38	355.20	380.45	420.97	453.20

4. Risk Analysis and Outlook

BYD, as a leading new energy vehicle manufacturer in mainland China, is well regarded in the market. Other new energy car manufacturing new forces continue to pour into the market, bringing market competition and their own challenges, so that BYD company has to face a series of risks. BYD's profitability has improved in the past two years; Poor solvency and risk of repayment; Enterprises have certain development potential, but the investment risk is greater [6]. Here we discuss in depth the range of risks BYD faces. We will analyze from three aspects: the intensification of market competition, the continuous improvement and innovation of technology, and the uncertainty of policy. The first is increased competition for BYD. At present, there are countless new energy vehicle brands available on the market, such as overseas manufacturers Tesla, Mercedes-Benz EQ

series, etc., as well as domestic BYD, NIO, Ideal and so on. In China, the development of new energy vehicle industry is in line with the current low-carbon economic development background, some key technologies of China's new energy vehicle industry have been in a leading position in the world, but there are still some problems such as low independent innovation ability and lack of independent brands [7]. The new energy market has ushered in vigorous development, but also brought brutal market competition. Price reduction is a strategy of many manufacturers to increase market sales by lowering prices. Especially in the current new energy market demand surplus, price reduction companies abound, which may lead to BYD company in the price of competitive pressure. Recently, 16 enterprises led by the China Automobile Association jointly signed the "Commitment to maintain Fair Market Order in the Automobile Industry", the gist of which is not to fight a price war and jointly maintain the new energy market. However, it was suspected of violating anti-monopoly law and was eventually deleted. Taking the BMW i3 as an example (Chinese market), in 2023, the whole system will be directly reduced by 80,000 yuan, plus a series of preferential policies. The final transaction price may be about 260-280,000 yuan, at this time for consumers, compared with the same level of cars but for domestic brands, because of the brand effect, I believe that more people choose the former. Such a large price cut is easy to make consumers confused about the positioning of the product, which will make consumers unclear about the positioning of the product, which may lead to damage to the brand image, lead to a decline in sales, and finally lead to no market competitiveness.

The second is continuous innovation and improvement of technology. First, technological innovation and improvement cannot be separated from the correct direction of market demand and sufficient funds to support normal research and development. If the R&D direction is opposite to the correct market direction or the R&D capital chain is broken, the impact on the product in the market will be great. A lot of today's technology is not mature, there are still some safety risks, which have a very clear example, such as Tesla launched the single-pedal mode, some users can not use it well, and finally lead to death in a car accident, and the current mainstream is driverless technology, but now there are few manufacturers can boldly say that my research and development of technology will not cause accidents. In China, the development of new energy vehicle industry is in line with the current low-carbon economic development background, some key technologies of China's new energy vehicle industry have been in a leading position in the world, but there are still some problems such as low independent innovation ability and lack of independent brands [8]. Now the technological development of new energy vehicles is extremely rapid, BYD company should adjust the technical strategy direction in time. Here are the risks at the technical level. First, capital investment risk. Technological improvement and innovation require a large amount of capital investment, if there is a shortage of funds, technological development will stagnate, and eventually lead to enterprises in the market competition in the backward and passive, unable to cater to the market. Some manufacturers will put some immature technologies on the market to use and get improved feedback from user feedback. However, immature technology is always accompanied by a variety of security risks, but when these security risks are induced, they often affect the user's experience, and finally, the user's level will not show how good reputation, which will gradually affect the brand's sales in the new energy market, and eventually may go bankrupt. Third, technology is moving too fast. The iteration of new energy technology is very rapid, and the competing enterprises in the market continue to develop various new technologies in order to seize market share. This is also a kind of technical pressure on BYD company, to adapt to the needs of the market and consumers, while not lagging behind the industry's advanced technology. Therefore, this has put forward high requirements for BYD company, the company must pay close attention to the direction of technological changes in the market and the actual needs of users, and finally make the right choice [9].

Finally, there is policy uncertainty. In the domestic new energy market, the Chinese government will issue some special preferential policies for new energy vehicles, such as continuing to reduce and reduce the purchase tax of new energy vehicles, building a high-quality charging infrastructure system, and promoting automobile consumption activities. The uncertainty of the policy will also cause consumers to stay on the sidelines and wait for the best price, which directly affects BYD's car

sales. Looking at the international market, people in different regions have different preferences, there is no clear market positioning, there will be no different countries to treat new energy vehicles have their own policies, which brings risks to BYD in expanding overseas markets. For example, BYD may face the risk of vehicle recalls when certain technologies do not meet foreign standards, raising questions about quality among overseas consumers. Finally, it leads to poor reputation in overseas markets and can not cater well to the international market, which means that it can not establish a solid market position in the international market [10]. In this regard, we can take relevant measures: continue to pay attention to policy changes. Keep an eye on government policies so that companies can adjust their own responses. Pay attention not only to the relevant policies in mainland China, but also to overseas markets, so that you can seize the dividends and opportunities brought by policy changes and maintain a competitive advantage; strengthen brand promotion. Increase investment in publicity, improve BYD's worldwide visibility and trust, maintain a good reputation, in order to maximize the expansion of the market.

5. Conclusion

Based on the analysis of BYD's financial status, we concludes that BYD's sales volume is leading in the world and its profitability is constantly improving. However, its profitability in the past five years has fluctuated and there is still room for improvement. Its asset-liability ratio is higher than the average level of the whole industry, the ability to repay debt in the short term is weak, and it faces the risk of capital flow. Its management level is also constantly improving, and the operation capacity of the enterprise shows an increasing trend year by year. On the whole, BYD has been in a stage of rapid development in the past five years, with a high growth rate in the short term and a flattening in the future. Using the discounted cash flow method to evaluate the company and predict the company's stock price in the next five years, it is concluded that the company's stock price in the next five years will rise rapidly, and it is likely to be overvalued, which reflects that BYD is still in the stage of rapid development in the next 3-5 years to a certain extent. BYD's financial analysis and corporate valuation not only give us a deeper understanding of BYD, but also increase our confidence in the future development of the new energy industry.

6. Author Contribution

All the authors contributed equally and their names were listed in alphabetical order.

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