Investment Suggestion in Chinese Automobile Industry: Evidence from Chang' an Automobile and Great Wall Motor

Jiaqi Cao

Pearl River College, South China Agricultural University, Guangzhou, Guangdong, China

1911411138@mail.sit.edu.cn

Abstract. The burgeoning automotive industry in China is witnessing a surge in local automobile companies, intensifying competition within the sector. This research conducted a meticulous and thorough examination of the financial statements of two prominent automobile companies in the Chinese market, Chang'an Automobile and Great Wall Motor. The primary objective of this paper was to obtain accurate insights into their respective financial conditions, ascertain their developmental trajectories, and identify key success factors. The data for this research was collected from the financial statements of these two companies. The findings of this study serve as a valuable reference for decision-makers within these enterprises. During this analysis, the financial reports of both companies were scrutinized and compared. The outcome of this comparative assessment indicates that Great Wall Motor Corporation demonstrates strong financial stability. As a result, this research recommends that investors consider Great Wall Motor Corporation as a favourable investment choice.

Keywords: Chang' an Automobile, Great Wall Motor, analysis, financial ratios.

1 Introduction

The burgeoning automotive industry in China is witnessing a surge in local automobile companies, intensifying competition within the sector. This article aims to analyze two prominent players in the Chinese automotive landscape comprehensively: Chang'an Automobile Co., Ltd. (hereafter referred to as Chang'an Automobile) and Great Wall Motor Co., Ltd. (hereafter referred to as Great Wall Motor). The primary objective is to offer valuable investment insights to prospective investors by scrutinizing and contrasting the financial statements of these two companies. Ratio analysis is the chosen methodology to assess the financial performance of the two companies under scrutiny, utilizing financial data extracted from their 2021 and 2022 statements. The subsequent sections of this paper are structured as follows: section 2 is a basic introduction of the two candidate companies, section 3 will introduce the methodology, section 4 is a

K. Elbagory et al. (eds.), *Proceedings of the 9th International Conference on Financial Innovation and Economic Development (ICFIED 2024)*, Advances in Economics, Business and Management Research 281,
https://doi.org/10.2991/978-94-6463-408-2_60

detailed analysis and discussion, section 5 is the conclusion and investment suggestion are provided in this part.

2 Company Background

2.1 Great Wall Motors

Great Wall Motors was listed in the Hong Kong H-share market in 2003 and the domestic A-share market in 2011. Great Wall Motors is the largest SUV and pickup truck manufacturer in China. It has two brands, Haval and Great Wall. Great Wall Motors has six complete vehicle production bases with a capacity 800,000. It can independently develop the core parts of the engine and gearbox. Since 2004, it has won a series of awards, such as “Top 10 private listed Companies”, “Top 500 Chinese Enterprises”, “Top 500 China Machinery”, “Top 500 China Manufacturing”, “Top 500 China Industrial Enterprises”, “Top 30 China automobile industry sales”. In 2022, the production of Great Wall Motors was 1,111,600 units, with a gross profit margin of 19.37%, and the average sales volume of a single vehicle was ¥129,400. At present, Great Wall Motors has made remarkable achievements in intelligence. Relying on the forest ecosystem, it is determined to develop intelligent new energy. As the double champion of patent disclosure and licensing in the field of new energy for Chinese auto enterprises, Great Wall Motors will continue to increase investment in intelligence, accumulate intelligent new energy technology, deepen the global brand strategy of “One Great Wall Motor”, and move forward at a high speed to a global intelligent technology company.

2.2 Chang’ an Automobile

Chang’ an Automobile, formerly known as China Southern Industrial Automobile Co., Ltd., was established in December 2005 and renamed China Chang’ an Automobile Co., Ltd. in 2009. This company is a super large enterprise group. It is one of the four major automobile companies in China. Chang’ an Automobile mainly consists of parts: parts, powertrain, business services, and complete vehicles. The company has a solid ability to manufacture cars and parts. In 2022, Chang ‘an Automobile overcame the influence of multiple uncertain factors and achieved a sales volume of 2.346 million vehicles in the year. The independent brands of Chang’ an Automobile Group include Chang ‘an Hafei and Dong’an. In addition, the company also has many independent brands of auto parts products, such as Dong’an Auto, Jian’an Axle, Jiangbin Piston, Qingshan Transmission, Southern Trina Solar, Dong’an Power, etc.

3 Method

This paper aims to conduct a comparative analysis of the financial ratios of two companies from 2021 to 2022. The financial ratios will be derived from the financial statements of Great Wall Motors and Chang’ an Automobile for this specified time frame. The ensuing sections will present a comprehensive comparison of the financial performance of these two companies, focusing on key dimensions such as profitability, liquidity, efficiency, and gearing.

4 Financial analysis and discussion

This section provides an overview of the financial positions of both Chang'an Motors and Great Wall Motors. It further conducts a comparative and analytical examination of the financial standing of these two companies.

4.1 Financial status of Chang'an Automobile

Table 1. Key asset account performance of Chang'an (Unit: Millions CNY)

	2021	2022	Percentage of change
Accounts receivable	16.75	30.68	83.16%
Advance payment	32.14	7.50	-78.03%
Trading financial assets	1.96	2.51	28.06%

(Source: financial statement of Chang' an Automobile, 2021&2022)

As can be seen from Table 1, the accounts receivable of Chang' an Automobile increased by 83.16% from 2021 to 2022, which shows that on the one hand, due to the fierce market competition, to expand sales and increase the competitiveness of enterprises, these factors often force enterprises to win customers and expand market share using credit sale, that is, issuing credit, while many enterprises deliberately default on their accounts. The market credit system is not perfect. On the other hand, it may be that the enterprise managers do not pay enough attention to it, and the internal control and incentive system are lacking, which leads to the untimely collection of accounts receivable. Subjectively, enterprise managers generally only focus on sales and ignore internal management, including accounts receivable management. Objectively, they lack experience and theory in accounts receivable management. Using the prepayment item to analyze, Chang' an Automobile decreased by 78.03% from 2021 to 2022. The following reasons may cause it: first, the prepayment has exceeded the accounts payable. Second, the company has no significant procurement projects at the end of the year, or the procurement projects do not need to be paid. Third, with the increase in the company's size, its bargaining power is enhanced, and it is no longer necessary to obtain discounts through prepayment. Fourth, the company's economic downturn and sales decline led to lower procurement.

Transactional financial assets refer to debt securities and equity securities that enterprises intend to obtain profits through active management and trading. Enterprises usually buy and sell such securities frequently to make profits in the short-term price changes. The increase in trading financial assets from Chang 'an Automobile indicates an increase in current assets. The increase in current assets will lead to an increase in capital cost, but the liquidity of enterprises is enhanced, and the solvency is strong.

Table 2. Key liability account performance of Chang'an (Unit: Millions CNY)

	2021	2022	Percentage of change
Long term borrowings	6.00	0.36	5.64%
Long term payables	8.25	5.54	-2.18%

(Source: financial statement of Chang' an Automobile, 2021&2022)

As seen from Table 2, long-term loan is one of the main sources of funds in project investment. An investment project needs a large amount of funds. Self-owned funds are often not enough. It needs to borrow money from outside. From 2021 to 2022, the long-term borrowings of Chang' an Automobile increased by 5.64%. It shows that the increase in long-term borrowings indicates insufficient cash flow, and borrowing money for project construction and staff costs is necessary. The disadvantages of this approach are as follows: 1. The financing risk is high; 2. There are many restrictive clauses; 3. The amount of financing is limited. Accounts payable refer to debts owed by enterprises to other companies or individuals.

Accounts payable are usually generated from an enterprise's purchase of goods or services. When purchasing goods or services, an enterprise signs a contract with a supplier or service provider, agreeing on the payment method and time limit. However, the long-term accounts payable of Chang 'an Automobile decreased by 2.18% from 2021 to 2022, which indicates that the turnover rate of accounts receivable of the enterprise has decreased; that is, the realization time of accounts receivable is relatively long.

4.2 Financial status of Great Wall Motors

Table 3. Key asset account performance of Great Wall (Unit: Millions CNY)

	2021	2022	Percentage of change
Trading financial assets	60.46	20.54	-66.02%
Derivative financial assets	0.06	0.13	116.66%
Inventory	2.72	0.04	-98.52%

(Source: financial statement of Great Wall Motors, 2021&2022)

As seen from Table 3, trading financial assets refer to debt and equity securities in which enterprises intend to obtain profits through active management and trading. Enterprises usually buy and sell such securities frequently to make profits in the short-term price changes. Great Wall Motors increased by 66.02% from 2021 to 2022. It indicates that the company has newly purchased trading financial assets in the current period, or that the fair value of trading financial assets previously purchased has increased in the current period.

Derivative financial assets are a concept corresponding to primary financial products. It refers to the derivative financial products based on the primary products or basic variables, whose price changes with the basic financial products' price (or value). At the same time, Great Wall Motors decreased by 116.66% from 2021 to 2022. It shows that the enterprise economic index has declined. However, the inventory of Great Wall Motors decreased by 98.52%. It shows that the company's products are unsalable, and the enterprise's working capital may also be in crisis. It is also possible that in a market where supply exceeds demand, the enterprise may have insufficient stock and lose sales opportunities.

Table 4. key liability account performance of Great Wall (Unit：Millions CNY)

	2021	2022	Percentage of change
Long-term receivables	22.91	17.55	-23.40%
Other non-current financial assets	0.58	1.33	129.31%
Construction in progress	44.67	83.06	85.94%

(Source: financial statement of Great Wall Motors, 2021&2022)

As seen from Table 4, Long-term receivables refer to future receivables formed by an enterprise when selling goods or providing services and are expected to be recovered in more than one year. The accounts receivable of Great Wall Motors from 2021 to 2022 decreased by 23.40%. It shows that the liquidity of enterprise funds is enhanced, the capital turnover rate is improved, and the level of enterprise financial management is improved.

Other non-current financial assets refer to financial assets with a turnover period of more than one year other than the non-current financial assets listed above in this account. Other non-current financial assets of Great Wall Motors increased from 2021 to 2022, indicating that the short-term liquidity of corporate assets is gradually increasing. Construction in progress refers to the expenditure of unfinished projects such as the construction, reconstruction, and expansion of enterprise assets or technological transformation, equipment renewal, and major repair projects. From 2021 to 2022, the construction in progress of Great Wall Motors decreased, and the book value of the construction in progress decreased. It may be that part of the project was completed and carried forward to fixed assets; It may also be that an impairment event has occurred, and the impairment treatment has been carried out.

4.3 Comparison between Chang'an Motors and Great Wall Motors

Development capacity. This chapter uses operating income, net profit, and net profit deduction to analyze the development capacity of the two companies. Siyao Li used these ratios to analyze Chongqing Gas Company's revenue analysis. [1]

Table 5. Development capacity indicators (unit: 100 million)

	Company	2020	2021	2022
Operating income	Chang' an Automobile	853.5	1,213	345.6
	Great Wall Automobile	1,033	1,364	1,373
Net profit	Chang' an Automobile	69	77.98	69.71
	Great Wall Automobile	55.62	67.26	82.66
Deduct non net profit	Chang' an Automobile	38.89	44.59	14.81
	Great Wall Automobile	38.36	42.03	44.77

As seen from Table 5, It can be seen from Table 1 that the operating revenue of Chang' an Automobile increased in 2020 and 2021 and fell to the lowest level in history in 2022, which proves that the ability of Chang 'an Automobile to sell goods has declined again, and the market demand for the goods has decreased. On the contrary, Great Wall Motors has continued to grow since 2020, which shows that Great Wall Motors has good product sales, a large enterprise scale, good profitability, and strong viability.

Profitability. This chapter analyses the profitability of the two companies by using return on net assets, return on total assets, return on sales, and gross profit margin. Gazimakin usa uses these ratios when analyzing the profitability of multinational companies. [2] Theresia C. Lebo and Hizkia H. D. Tasik used these ratios to analyze companies' return on assets. [3]

Table 6. Profitability ratio in 2020-2022

	Company	2020	2021	2022
Return on net assets	Chang' an Automobile	7.13%	6.53%	13.07%
	Great Wall Automobile	9.35%	11.25%	12.10%
Return on total assets	Chang' an Automobile	2.18%	2.14%	5.51%
	Great Wall Automobile	4.02%	4.08%	4.58%
Net profit margin on sales	Chang' an Automobile	3.89%	3.43%	6.39%
	Great Wall Automobile	5.19%	4.93%	6.01%
Net profit margin on sales	Chang' an Automobile	14.3%	16.64%	20.49%
	Great Wall Automobile	17.21%	16.16%	19.37%

From Table 6, it can be seen that using the return on equity analysis, Great Wall Motors. It has a more stable growth rate than Chang'an Motors, and Great Wall Motors' annual return on equity is increasing, indicating that it will bring higher profits to investors. However, Chang'an Automobile is relatively unstable and brings too many uncertain factors, making investment risky. By analyzing the return on total assets, Great Wall Motors is also continuously growing, while Chang'an Motors is experiencing high and low returns. Using the sales net profit margin to analyze these two companies, both companies' data is relatively unstable, but Chang'an Automobile's net profit margin in 2022 is relatively high. Finally, using the sales gross profit margin to analyze, Chang'an Motor s continues to grow annually and has a higher gross profit margin compared to Great Wall Motors, indicating that Chang'an Motors has lower production costs, higher product-added value, and strong profitability. In summary, the return on equity and return on total assets of Great Wall Motors are relatively high, while the sales net profit margin and sales gross profit margin of Chang'an Motors are relatively high, indicating that Chang'an Motor s' advantage lies in sales, while Great Wall Motors' advantage lies in stable and sustained growth.

Liquidity. This chapter uses the current ratio, quick ratio, and asset-liability ratio to analyze the solvency of the two companies. Renzi Yang used these ratios in his analysis of BYD company's liquidity. [4] Yiyun Zhang used these ratios to analyze FAW Group's liquidity. [5]

Table 7. Solvency ratios of the company in 2020-2022

	Company	2020	2021	2022
Current ratio	Chang' an Automobile	1.16	1.26	1.35
	Great Wall Automobile	1.22	1.13	1.12
Quick ratio	Chang' an Automobile	1.07	1.17	1.28
	Great Wall Automobile	1.13	0.99	0.89
Asset liability ratio	Chang' an Automobile	55.77%	58.74%	56.9%
	Great Wall Automobile	62.77%	64.58%	64.82%

As seen from Table 7, the current and quick ratios of Chang'an automobiles are relatively stable, and both are greater than 1, indicating that enterprises can repay short-term loans. The current ratio of Great Wall Motors is decreasing every year, indicating that the ability of enterprises to repay short-term loans is decreasing, and there are no more current assets to repay loans.

Comparing the asset-liability ratio of the two companies, we can see that the data of Great Wall Motors are higher than that of Chang'an Motors, which shows that the debt burden of enterprises is heavy, the ability to repay loans is weak, and the protection of assets to liabilities is low.

Efficiency. This chapter uses the accounts receivable turnover rate, inventory turnover rate, and total asset turnover rate to analyze the enterprise operation ability. Xiaolin Liused these ratios to analyze Yunnan Baiyao company's efficiency. [6] Zhizhong Zhang used these ratios to analyze Kaixingda Multimedia company's efficiency. [7]

Table 8. Operational capacity indicators (unit: times)

	Company	2020	2021	2022
Account receivable turnover	Chang' an Automobile	2.9	3.74	0.9
	Great Wall Automobile	28.98	21.75	15.3
Inventory turnover rate	Chang' an Automobile	9.67	13.5	3.04
	Great Wall Automobile	12.45	10.66	6.05
Total Asset turnover	Chang' an Automobile	0.22	0.86	0.22
	Great Wall Automobile	0.77	0.83	0.76

As seen from Table 8, generally speaking, the higher the accounts receivable turnover rate, the better. However, the turnover rate of accounts receivable of Great Wall Motors has declined year by year, indicating the risk of bad debt losses, slow asset liquidity, and slow short-term solvency. The inventory turnover rate is also declining year by year, which indicates that the inventory of goods in enterprises is unsalable, and the capital of enterprises may also be challenging.

Using the accounts receivable turnover rate to analyze the two companies, Great Wall Motors was higher than Chang'an Motors in three years, while the inventory turnover rate was lower than Chang'an Motors in 2021 and higher than Chang'an Motors in the other two years. To sum up, the operation capacity of Great Wall Motors is at a medium level.

Stock Market Performance. This chapter uses the earnings per share, net assets per share, undistributed profits per share, and operating cash flow per share of the company's shares to analyze the stock earnings of the two companies. Xiaoping Wang used these ratios to analyze Gere Electric Appliances' stock market performance. [8] Ming Cai used these ratios to analyze Moutai company's stock market performance. [9] Zhihui Ming used these ratios to analyze Anhui Golden Seed Wine Company's stock market performance. [10]

Table 9. Stock market performance of the company in 2020-2022 (unit: CNY)

	Company	2020	2021	2022
Earnings per share	Chang' an Automobile	0.7	0.8	0.71
	Great Wall Automobile	0.59	0.73	0.91
Net asset value per share	Chang' an Automobile	6.23	6.34	7
	Great Wall Automobile	6.25	6.69	7.4
Undistributed profit per share	Chang' an Automobile	4.13	4.17	4.87
	Great Wall Automobile	4.47	4.54	5.61
Operating cash flow per share	Chang' an Automobile	0.38	0.57	0.34
	Great Wall Automobile	0.56	3.82	1.4

It can be seen from Table 9 that the earnings per share of Chang' an automobile stock increased from 2020 to 2021, while the earnings decreased in 2022, which to some extent reflects the decline of the company's operating ability and profitability in 2022, and investors may get fewer dividends or even no bonus. However, the earnings per share of Great Wall Motors have risen steadily every year, reflecting the improvement of the operating ability and profitability of listed companies and means that investors may get more dividends from the company. The net assets per share of the company's shares, Chang'an Motor and Great Wall Motor, rose steadily. The higher the net assets per share, the more muscular the economic strength of the two companies, and also means that the company has a more vital ability to operate and resist external factors.

5 Summary

By comparing and analyzing the operating revenue of the two companies, the Great Wall Motor will be better than that of Chang'an Motor in the future. As for the net profit, Great Wall Motor is relatively stable and safe compared with Chang'an Motor, and the net profit of Chang'an Motor has too much uncertainty, up and down. From the perspective of return on total assets, Chang'an Motor suddenly increased in 2022 with too much uncertainty. Although the annual growth rate of Great Wall Motor is small, it is rising steadily every year. However, from the perspective of gross profit margin, the gross profit margin of Chang'an Motor is higher than that of Great Wall Motor, indicating that Chang'an Motor has lower production costs and higher sales prices.

From the perspective of the current ratio, it is found that Chang'an Motor is higher than Great Wall Motor, while Great Wall Motor is declining every year, and Chang'an Motor is growing steadily. From the analysis of earnings per share, it can be seen that the earnings per share of Great Wall Motor are higher than that of Chang'an Motor, indicating that investors will pay more dividends every year.

6 Conclusion

This research provides investment suggestions between Chang'an and Great Wall Motor. Financial statements of both companies between 2020 and 2022 were selected for the analysis. Ratios analysis was used as the research method to evaluate the profitability, solvency, efficiency and stock market performance.

1) Profitability: From 2020 to mid-2022, Great Wall Motors' profitability was higher and steadily increasing in all aspects. There is also a possibility of steady growth in the future.

2) Solvency: From 2020 to mid-2022, both companies have shortcomings in their debt repayment ability, but Chang'an Motor s is relatively more stable than Great Wall Motors. Stable growth is also possible in the future.

3) Efficiency: From 2020 to mid-2022, both companies' efficiency decreased, but Great Wall Motors was relatively stable compared to Chang'an Motors. Stable growth is also possible in the future.

4) Stock market performance: From 2020 to 2022, Great Wall Motors' earnings per share have been growing. From a stock perspective, Great Wall Motors is better than Chang'an Motors.

According to the analysis, Great Wall Motors will have a better financial performance. Chang' an Automobile has relatively high volatility. It is recommended to invest in Great Wall Motors.

References

1. Li S, Yang Y (2021) Financial analysis of Chongqing Gas Co., Ltd. Industrial & Science Tribune 20:80–82.
2. Behcet, F. (2019). A Comparative Study of Financial Ratios of Automotive Industry: A Cross Country Analysis (Master's thesis, Eastern Mediterranean University-Doğu Akdeniz Üniversitesi).
3. Lebo, T. C., Saerang, D. P., & Tasik, H. H. (2017). The impact of financial ratios on price to book value (PBV) in automotive and component sub sector listed in IDX within 2007-2016 periods. Jurnal 5(3).
4. Yang R, Wei M (2020) Financial analysis of BYD Co., Ltd.
5. Zhang Y (2020) An empirical study on the linear correlation between the asset-liability ratio and earnings per share of listed automobile companies.
6. Lin X, Li S (2021) Financial analysis and evaluation of Yunnan Baiyao Group Co., Ltd.
7. Zhang Z Comparative analysis of financial investment value between Kaixingda and Skyworth, Konka and TCL.

8. Wang X (2017) Research on the correlation between debt management and earnings per share based on regression model - taking listed companies in the home appliance industry as an example.
9. Cai M, Wang L (2019) Kweichow Moutai earnings per share research.
10. Min Z, Li F (2021) An empirical study on the operating performance of listed companies in my country—taking the brewing industry as an example.