The Implication of Mixed Ownership Reform on Automobile Manufacturing: A Case Study of Anhui Jianghuai Automobile Group

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Timmy Hsieh

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Abstract

Mixed ownership has remained a key institutional innovation in China since the Reform and Opening era. It aims to combine state and private capital to improve the efficiency of state-owned enterprises and expand financing for private firms. The Chinese government has widely promoted this system, especially in automobile manufacturing, green energy, and electric vehicles. Jianghuai Automobile first introduced mixed ownership in 2013 but achieved limited results. In 2020, Volkswagen joined as a new strategic investor, marking a second reform phase. This study examines the effects of mixed ownership reform on JAC's profitability, financial structure, and market performance from 2019 to 2025. Using a case study with descriptive statistics and the DuPont model, the research compares performance before and after the reform and evaluates investor reactions. The results show that the reform did not significantly improve profitability in the short term; Net Operating Income remained negative, and Return on Equity (ROE) declined despite increased R&D and foreign participation. While stock prices rose after the 2020 announcement, investor confidence weakened between 2021 and 2023, recovering only after 2024. Overall, the reform temporarily eased JAC's difficulties but failed to address deeper efficiency issues, suggesting that ownership restructuring alone cannot achieve long-term improvement without effective transformation of resources into operational efficiency.

Keywords: Mixed Ownership Reform、Jianghuai Automobile、Ownership Restructuring、Financial Performance

摘要

混合所有制自改革開放以來，仍被視為中國具創新性的資本制度，其目的在於透過多元資本融合，提升國有企業效率並擴大民營企業的融資機會。中國政府積極推動此制度於各產業發展，特別是在汽車製造、綠色能源與電動車領域。江淮汽車曾於 2013 年引入央企建投投資完成第一次混改，但因央企監管效能有限，未能發揮混合資本的協同效果；2020 年大眾汽車作為新戰略投資者入股，為企業帶來第二次改革契機。本研究以 2019 年至 2025 年間為範圍，探討混合所有制改革對江淮汽車之獲利能力、財務結構與市場表現的影響，採用個案研究法，運用描述性統計與杜邦分析模型，比較大眾汽車入股前後之變化，並以市場資料評估投資者反應。結果顯示，混改在短期內未能有效提升江淮汽車的獲利能力，雖然研發支出上升且外資參與加強，但淨營業收益仍維持負值，即使排除整體產業下滑的因素，亦未出現顯著改善。杜邦分析顯示財務槓桿雖上升卻未帶來更高報酬，股東權益報酬率（ROE）持續下降；然而市場於 2020 年改革公告後出現正面反應，股價顯著上升，反映投資者的樂觀預期，但隨後於 2021 至 2023 年間信心減弱，直至 2024 年後公司重組完成並改善績效後才再度回升。整體而言，混合所有制改革僅暫時緩解了江淮汽車的經營困境，並未從根本上解決企業內部治理與效率問題，顯示若無制度與管理層面的深化改革，單靠資本結構調整難以實現長期績效提升。

關鍵詞：混合所有制改革、江淮汽車、所有權重組、公司績效

Table of Content

INTRODUCTION 1
Research Background 1
Research Motivation 2
Research Purpose 2
Research Questions 2
Contribution 3
Limits 3
Delimits 3
LITERATURE REVIEW 4
Mixed Ownership Reform and State of Enterprise 4
State of Enterprise 4
Mixed Ownership Reform 5
The Resource Based View Framework 7
Context and Conceptual Framework of the Study 8
Jianghuai Automobile Group 8
The Application of Resource Based View Framework in Jianghuai Automobile Group 9
Methodological Approaches in Related Study 10
Significance of Jianghuai Automobile Group for Mixed Ownership Reform 10
Method Found in Related Studies 11
Quantitative Case Study as the Methodological Approach 12
METHODOLOGY 13
Introduction 13
Research Design 13
Sources of data 14
Research Instrument and Data Collection 14
Data Analysis Technique 15
Ethical Considerations 16
Limitations of the Methodology 16
Summary 17
DATA ANALYSIS 18

Data Collection Profile 18
Analysis of Profitability and Efficiency 19
Analysis of DuPont Model 21
Net Profit Margin Analysis 21
Asset Turnover Analysis 22
Equity Multiplier Analysis 23
Return on Equity Analysis 23
Analysis of Market Performance 25
Summary of Major Findings 26
CONCLUSION 29
Discussion 30
Suggestion 31
APPENDIX 33
REFERENCE 39

Table of Content

Table 1: Data Source Table 14

Table 2: Timeline of Key Events Related to JAC period from 2019 to 2024. 15

Table 3: Jianghuai Automobile Group's Financial Statements for 2019-2024 18

Table 4: Profitability Comparison of Jianghuai Automobile from 2019 to 2024 with Automobile Industry Enterprise 19

Table 5: Profitability Comparison of Jianghuai Automobile from 2019 to 2024 with mixed ownership reform companies 20

Table 6: Net Profit Margin of Jianghuai Automobile from 2019 to 2024........ 21

Table 7: Return on assets of Jianghuai Automobile from 2019 to 2024 22

Table 8: Financial Leverage of Jianghuai Automobile from 2019 to 2024 23

Table 9: Return on Equity of Jianghuai Automobile from 2019 to 2024........ 23

Table 10: Automobile Industry Enterprises in the A-share list and basic fundamental information........ 33

INTRODUCTION

Research Background

Mixed Ownership Reform represents a major institutional innovation within China's state-owned enterprise (SOE) reform under the framework of Socialism with Chinese Characteristics. It aims to address structural inefficiencies in SOEs by introducing private and foreign capital to modernize governance, enhance competitiveness, and integrate market discipline while maintaining state control over strategic sectors.

As China enters the "New Normal" era marked by slower but higher quality growth that the government seeks to transform SOEs into more efficient and innovative However, many enterprises still suffer from overcapacity, debt pressure, and low productivity. Mixed ownership reform emerges as a policy instrument to balance state guidance with market efficiency and address the issue of stagnant enterprises.

Jianghuai Automobile Group Corp. provides a representative case of this institutional transformation. Its first reform in 2013 involved central state investors and public listing but yielded limited improvement in performance. In 2020, Volkswagen's participation significantly increased its equity share and managerial influence within the joint venture, though ultimate control of the parent company remained under state ownership. This makes JAC a critical case to examine how foreign investment interacts with state ownership in practice.

By examining how state intervention and market forces interact within China's evolving institutional framework, this study aims to offer new perspectives to the growing literature on non-traditional market economy enterprise reform. Mixed ownership reform represents the state's institutional mechanism for integrating political control with economic efficiency. The degree of openness to foreign capital participation emerges as a key factor shaping the autonomy, innovation capacity, and financial outcomes of state-owned enterprises.

Research Motivation

China's mixed ownership reform was introduced to improve the efficiency of SOEs under the "New Normal" economy, but it also increased government supervision and control. However, few studies have examined how changes in shareholding involving foreign capital which affect the performance of SOEs. This study fills that gap by analyzing the case of JAC to evaluate whether the reform truly promotes complementarity among different ownership forms and improves enterprise outcomes.

Research Purpose

The purpose of this study is to examine the impact of China's mixed ownership reform on the financial performance of SOEs. It focuses on JAC to analyze the relationship between changes in shareholding structure, foreign participation and enterprise outcomes, such as efficiency and profitability. By using a case study approach, the research aims to provide practical and theoretical insights into whether the reform achieves the government's goal of promoting complementarity among different ownership forms.

Research Questions

1. To what extent has JAC's profitability and efficiency changed after mixed ownership reform?
2. How does JAC's financial performance compare with the A-share automotive industry median and mean from 2019 to 2024?
3. How did the stock market respond to JAC's mixed ownership reform announcement, and did the reform lead to significant short-term or long-term changes in the company's stock performance

Contribution

This study aims to the understanding of how foreign participation affects the financial outcomes and market performance of SOEs under China's mixed ownership reform. It provides both academic and practical insights by linking ownership transformation with financial outcomes, offering evidence to evaluate whether the reform achieves its policy goals. The findings can also help policymakers and scholars better understand the balance between state control and market efficiency in China's mixed economy.

Limits

This study is limited by its focus on a single case, JAC, which may not fully represent all state-owned enterprises in China. The analysis also depends on secondary data such as financial reports and government documents, which might not capture internal management or policy decisions in detail.

Delimits

The study is delimited to the period between 2019 and 2025, when JAC implemented major ownership changes through its partnership with Volkswagen. It also focuses mainly on financial and market performance, rather than broader social or political effects of the reform.

LITERATURE REVIEW

Mixed Ownership Reform and State of Enterprise

State of Enterprise

State-owned enterprises hold significant ownership and control rights, combining public policy objectives with commercial operations. Meanwhile, SOEs have become major actors in both national and international economies. This organizations represent approximately 10 percent of global gross domestic product.[1] From a theoretical perspective, SOEs also represent a hybrid institutional form where political control coexists with market participation.

However, SOEs face some unique governance challenges. North argues that inefficient incentive structures arise when formal institutions fail to impose clear accountability and market-based discipline.[2] Kornai's concept of the soft budget constraint also describes how enterprises expect financial rescue from the state when losses occur.[3] In this sense, the soft budget constraint can be viewed as a behavioral outcome of institutional inefficiencies that weaken incentive for innovation, cost control, and profitability to institutional inefficiencies. Similarly, Boardman and Vining claims that a majority of the studies, in several sectors and competitive environments, find that privately owned companies outperform state-owned enterprises.[4]

In addition, Agency Theory provides a micro-level explanation for the internal governance problems faced by state-owned enterprises. According to Jensen and Meckling,

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[1] Garry D. Bruton et al., "STATE-OWNED ENTERPRISES AROUND THE WORLD AS HYBRID ORGANIZATIONS," *Academy of Management Perspectives* 29, no. 1 (2015), http://www.jstor.org/stable/43822076.
[2] Douglass C. North, "Institutions, Institutional Change and Economic Performance," *The Economic Journal* 101, no. 409 (1990), https://doi.org/10.2307/2234910, https://doi.org/10.2307/2234910.
[3] J. Kornai, ""HARD" AND "SOFT" BUDGET CONSTRAINT," *Acta Oeconomica* 25, no. 3/4 (1980), http://www.jstor.org/stable/40728773.
[4] Anthony E. Boardman and Aidan R. Vining, "Ownership and Performance in Competitive Environments: A Comparison of the Performance of Private, Mixed, and State-Owned Enterprises," *The Journal of Law & Economics* 32, no. 1 (1989), http://www.jstor.org/stable/725378.

when ownership and control are separated, managers may pursue personal or political objectives rather than those of the owners.[5] In SOEs, the state acts as a diffuse principal with multiple and sometimes conflicting goals. This ambiguity weakens accountability mechanisms and increases agency costs.

Mixed Ownership Reform

Mixed ownership reform has become a core component of China's ongoing state-owned enterprise reform, representing a major institutional innovation under the framework of socialism with Chinese characteristics. Originating from early enterprise reforms under Deng Xiaoping, the policy of separating government administration from enterprise management introduced shareholding structures to combine market incentives with public ownership. This policy emphasizes the mutual investment of capital from different sectors. Waikei R. Lam and Alfred Schipke mentioned that key strategic principles include classifying SOEs for respective reforms, improving SOE efficiency by repositioning the state as a capital investor rather than operator.[6] Through private enterprises as shareholders, the capital of SOEs can be increased while the efficiency of SOEs can be improved. Lee Shou-Jang said that these arrangements reflect the regime's attempt to address the urgent issue of surplus labor by promoting strategies that develop both individual and collective economies.[7] These experiments laid the foundation for a system that integrates state leadership with market mechanisms.

Mixed ownership. There are various viewpoints regarding this issue. On the one hand,

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[5] Michael C. Jensen and William H. Meckling, "Theory of the firm: Managerial behavior, agency costs and ownership structure," *Journal of Financial Economics* 3, no. 4 (1976/10/01/ 1976), https://doi.org/https://doi.org/10.1016/0304-405X(76)90026-X, https://www.sciencedirect.com/science/article/pii/0304405X7690026X.

[6] Waikei R. Lam and Alfred Schipke, "Chapter 11. State-Owned Enterprise Reform Modernizing China," (USA: International Monetary Fund, 2017).

[7]李守正。「中國經濟制度變化之研究，1977-1987：歷史制度論之政治經濟分析」。博士論文，國立政治大學東亞研究所，。

mixed ownership actually improves the efficiency of SOE. Yu-fei Zhang and De-qiang Liu mentioned that the reform significantly increases the profitability of reformed SOEs.[8] Meanwhile, Zhang-Kai Huang ET AL. said that this type of ownership restructuring helped ease the unemployment burden in the local labor markets, and was more likely to occur in firms located in provinces led by an official without strong political status in the Chinese Communist Party.[9] In addition, SOEs are the key factor to lead China economics development in Xi's plan. Therefore, mixed ownership could make China break the New Normal situation.

On the other hand, other scholars claims that mixed ownership reform has increased the risk associated with Rent-Seeking. The DHP of NCCU, Hsia Lo-Sheng said that recent pro-SOE policies have fueled concerns of "state advances, private retreats," prompting calls to curb SOEs' unfair takeovers of private firms.[10] Chang Yu-Tung mentioned that the coexistence of market and planning mechanisms within an institutional framework reduces the cost and risk of rent-seeking when the boundaries between the two are blurred.[11] Moreover, it would also contributed to the phenomenon of "the state advances while the private sector retreats" (國進民退). Lin Yi-Ping highlighted that the rise of state-owned enterprises has squeezed private firms, threatening the legacy of reform and opening-up since Xi took office.[12]

In summary, mixed ownership reform is still controversial policy. While empirical

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8 Zhang, Yufei, and Deqiang Liu. "China's Mixed-Ownership Reform and Soe Profitability." Economic Analysis and Policy 83 (2024/09/01/ 2024): 496-520. https://doi.org/https://doi.org/10.1016/j.eap.2024.05.025. https://www.sciencedirect.com/science/article/pii/S0313592624001383.

9 Zhangkai Huang et al., "The reversal of privatization in China: A political economy perspective," *Journal of Corporate Finance* 71 (2021/12/01/ 2021), https://doi.org/https://doi.org/10.1016/j.jcorpfin.2021.102115, https://www.sciencedirect.com/science/article/pii/S0929119921002376.

10 夏樂生, "從「國退民進」及「國進民退」現象看大陸民營企業之發展," [From the Phenomenon of "SOEs withdraw PREs expand" and "SOEs expand PREs withdraw": Examining the Development of Privately-run Enterprises in China Mainland.] *展望與探索月刊* 5, no. 10 (2007), Article/Detail?docID=P20200116001-200710-202003180013-202003180013-18-47.

11 張羽彤, "中國經濟改革成效之初探" (碩士 義守大學, 2012), https://hdl.handle.net/11296/679t95.

12 林憶萍, "中國經濟體制變化之發展研究" (碩士 國立中興大學, 2020), https://hdl.handle.net/11296/jfkjfx.

evidence suggests that reforms can enhance profitability and employment within SOEs, concerns persist regarding rent-seeking behavior and the marginalization of private enterprises. Thus, the reform remains a double-edged instrument economic framework.

The Resource Based View Framework

The Resource Based View Framework serves as the theoretical foundation of this study to explain how Mixed Ownership Reform enhances the performance of state-owned enterprise. The RBV asserts that a firm's sustainable competitive advantage stems from the acquisition and strategic use of resources that are valuable, rare, inimitable, and non-substitutable. Porter mentioned that firms should analyze their competitive environment, choose their strategies, and then acquire the resources needed to implement their strategies.[13] These resources include tangible assets and intangible capabilities such as managerial knowledge, organizational learning, and innovation capacity.

From this perspective, MOR can be understood as a resource recombination process that allows SOEs to access and integrate new strategic resources through ownership diversification. By introducing private and foreign investors, the reform enables SOEs to obtain advanced technologies, managerial expertise, and global market experience that complement the state's political legitimacy and infrastructural support. In this way, mixed ownership expands an enterprise's resource base, improves coordination efficiency, and strengthens its adaptive capabilities in a competitive environment.

The RBV framework in this study is structured around three interrelated dimensions: resource acquisition, resource integration, and capability development. The first dimension, resource acquisition, highlights how SOEs obtain strategic inputs through external collaboration. Foreign participation provides capital infusion, technological transfer, and

[13] Michael E Porter, "Competitive strategy," *Measuring business excellence* 1, no. 2 (1997).

management experience that enrich the firm's resource endowment. The second dimension, resource integration, focuses on how these heterogeneous assets are combined to create synergy. Effective integration requires aligning managerial practices, organizational culture, and governance mechanisms to achieve coordination between state and non-state stakeholders. The third dimension, capability development, emphasizes the transformation of resources into dynamic capabilities that sustain long-term competitiveness. Through learning, innovation, and adaptive restructuring, SOEs can internalize foreign knowledge and develop independent technological and managerial capacities.

In this study, the RBV is applied in an empirical and simplified way. Rather than examining abstract organizational capabilities, the analysis focuses on observable resources reflected in financial data. These include capital expansion measured by total assets and equity, technological input represented by R&D expenditure, and resource utilization captured through indicators such as asset turnover and return on assets. According to RBV, improvements in these resources should lead to better profitability and financial performance. This framework provides a basis for evaluating whether mixed ownership reform successfully transformed new resources into actual performance gains in the case of JAC Group.

Context and Conceptual Framework of the Study

Jianghuai Automobile Group

This study chose Jianghuai Automobile Group, evolving from a regional truck producer into a comprehensive automobile enterprise engaged in the production of passenger cars, commercial vehicles, and electric vehicles. As a provincial state-owned enterprise, JAC plays a central role in Anhui's industrial development strategy and China's broader automotive modernization plan.

In 2013, Jianghuai Automobile Group introduced JIC Investment as its strategic investor. The reform's intended objectives were not fully achieved. Due to the institutional nature of JIC Investment's central SOE background, its capacity to effectively supervise and discipline state owned capital remained limited. Furthermore, the low proportion of managerial shareholding weakened internal incentive mechanisms, thereby constraining the potential for aligning management interests with enterprise performance. Shen Meng-Die claims that, in 2019, due to the impact of the U.S.-China trade war and the phasing out of new energy vehicle subsidies, automobile sales in mainland China declined further compared to the previous year.[14] The 2020 reform tried to address these inefficiencies through foreign capital infusion, technology transfer, and management restructuring, aligning with national goals to develop the new energy vehicle industry.

As the first automobile manufacturer to engage in mixed ownership reform with foreign capital, the result of the reform could be observed in the influence of operational efficiency, financial structure, and market perception to this industry. Although profitability remained modest in the short term; however, the whether this outcome can be sustained over the long term is the key factor that this reform needs to focus on. As the first automobile manufacturer to engage in mixed ownership reform with foreign capital, the result of the reform could be observed in the influence of operational efficiency, financial structure, and market perception to this industry. This findings contribute to explore the different aspects of mixed ownership reform feasibility.

The Application of Resource Based View Framework in Jianghuai Automobile Group

[14] 沈夢蝶, "中國大陸新能源汽車產業績效分析 -二階段 DEA 模型" (碩士 國立臺北科技大學, 2023), https://hdl.handle.net/11296/2vjnq9.

This study choose Resource Based View, explaining how mixed ownership reform can help state-owned enterprises improve their performance. According to this framework, a company gains a long-term competitive advantage when it owns and uses resources that are valuable, rare, hard to copy, and difficult to replace. These resources can be both tangible and intangible, such as capital, technology, management skills, learning ability, and innovation capacity.

JAC's 2020 reform can be understood as a resource expansion process rather than a full structural transformation. The reform mainly involved a capital increase and equity expansion, in which Volkswagen Group invested about one billion euros to acquire 50% of JAC Holdings and strengthen its role in the JAC. This external investment expanded JAC's financial base and provided access to international automotive technology and global management knowledge. Rather than changing ownership control, the reform focused on enhancing JAC's technological capacity and product development capability through capital and resource sharing.

The application of the RBV framework suggests that JAC's reform outcomes depend not only on ownership change, but also on the firm's ability to utilize newly acquired resources effectively. From the theoretical perspective, Volkswagen's participation make JAC's increased efficiency, and innovation performance. Although short-term profits remained modest, the reform could probably improve JAC's long-term competitiveness and created the basis for sustainable growth.

Methodological Approaches in Related Study

Significance of Jianghuai Automobile Group for Mixed Ownership Reform

Jianghuai Automobile Group serves as a typical case of a provincial-level state-owned enterprise undergoing mixed ownership reform in China's automotive industry. JAC evolved from a regional truck manufacturer into a diversified automobile producer engaged in passenger cars, commercial vehicles, and new energy vehicles. This firm remains the controlling shareholder, while Volkswagen Group became a major foreign investor through a capital increase and joint venture partnership in 2020.

The features of JAC are state ownership and foreign participation, making it a representative population for analyzing how resource acquisition and integration affect enterprise performance under MOR. The case illustrates a reform pattern focused on equity expansion rather than full control transfer, allowing the assessment of how foreign capital and technology improve resource efficiency while state control is retained.

JAC's context is also relevant to China's industrial modernization and the national goal of developing the new energy vehicle sector. As one of the key players in China's automotive industry, whether Jianghuai Automobile can accurately identify and effectively respond to emerging opportunities and challenges will directly determine the company's future survival and development.[15] Therefore, JAC stands as a significant case for examining the methodological and theoretical implications of mixed ownership reform in state led.

Method Found in Related Studies

Many researchers will study the important economic impact of state-owned enterprises in China. The majority of studies examining enterprises tend to adopt a quantitative research approach. These studies employ data analysis to investigate the impact of Element X on the financial performance of private enterprises or the aftermath of reform.

Quantitative research plays a pivotal role in MOR studies by analyzing the multifaceted impacts that enterprises experience. For instance. Yunlin Bai selected quantitative method to analysis Yunnan Baiyao financial statement to examine the influence to Corporate

[15] 高枫, "江淮汽车盈利能力分析及提升对策研究," *甘肃政法大学商学院* (2024).

Performance.[16] Yufei Zhang and Deqiang Liu also adopted quantitative method to investigate the impact of mixed ownership reform and evaluate the result with A-share list.[17] These studies highlight the critical role that quantitative methods play in generating empirical insights and enhancing the rigor of business research.

Quantitative Case Study as the Methodological Approach

This study adopts a quantitative research design to evaluate the impact of mixed ownership reform on state-owned enterprises. By analyzing firms' financial statements and closing stock prices, the study assesses changes in profitability, efficiency, and market valuation before and after the reform. To ensure that the results reflect effects rather than general industry trends, the data are compared with the mean and median indicators of the A-share automotive sector. This approach allows a multidimensional examination of MOR outcomes.

Quantitative analysis is adopted for three main reasons. First, it enables objective and comparable assessment of reform effectiveness through measurable financial indicators. Second, the complexity of MOR in China requires an integrated evaluation combining financial and market perspectives. Third, the use of transactional data from financial statements and stock prices allows longitudinal tracking of performance over time.

[16] Yunlin Bai, "Research on the Influence of Mixed Ownership Reform of State Owned Enterprises on Corporate Performance—Taking Yunnan Baiyao as an Example," (Atlantis Press International BV, 2023).
[17] Yufei Zhang and Deqiang Liu, "China's mixed-ownership reform and SOE profitability," *Economic Analysis and Policy* 83 (2024/09/01/ 2024), https://doi.org/https://doi.org/10.1016/j.eap.2024.05.025, https://www.sciencedirect.com/science/article/pii/S0313592624001383.

METHODOLOGY

Introduction

This chapter explains the research methods used in this study. The aim is to examine how China's mixed ownership reform has influenced the performance of SOEs, with JAC serving as a representative case. Building on previous research that applied quantitative approaches to evaluate policy outcomes, this study also adopts quantitative data to observe changes in profitability, efficiency, and market expectations. This chapter outlines the research design, data sources, collection procedures, and analytical techniques used to assess how ownership restructuring and foreign participation affected JAC's financial and market performance.

Research Design

This study adopts a quantitative case study design to examine the impact of China's mixed ownership reform on the financial and market performance of JAC between 2019 and 2024. This approach enables an in-depth investigation of a single enterprise that underwent ownership restructuring and foreign participation through Volkswagen's investment in 2020.

The quantitative design is based on measurable financial indicators and market data used to identify performance trends over time. This approach emphasizes objective comparison and pattern analysis, providing empirical evidence of how ownership reform influenced Jianghuai Automobile Group's outcomes. Meanwhile, it also compare with the mean and median of automobile industry A-share list. In addition, it also collected the closing price per semi-year during 2019 to 2024 to evaluate the market expectation to MOR. Finally, the transactional analysis would be conducted with those different aspects data to avoid the misinterpretation of the data.

Sources of data

This study is conducted in China's automotive industry, one of the key sectors targeted by the mixed ownership reform under the SOE restructuring policy. China provides an appropriate context as it integrates state control with market mechanisms, offering a practical setting to examine reform outcomes.

The study population includes A-share listed automotive companies that disclose standardized financial statements under the same regulatory framework, ensuring comparability of financial indicators. Within this population, JAC is chosen as the sample case because it was the first Chinese automobile enterprise to adopt the mixed ownership reform with foreign capital. This case serves as a representative example to analyze how foreign participation interacts with state ownership in a restructured enterprise. Financial data from 2019 to 2024 are used to capture performance before and after the reform. In addition, semiannual closing prices of JAC's stock from 2019 to 2024 were collected from Stock Sohu to evaluate market responses to the reform.

Table 1: Data Source Table

Data Type	Source	Period
Financial Statement	Finance Sina (Indexing all official financial reports of the company)	2019-2024
Closing Price	Stock Sohu	2019-2024

Research Instrument and Data Collection

This study uses secondary quantitative data as the main source of evidence. The primary research instruments are financial analysis tools, including the DuPont Analysis Model and ratio comparison methods, which are used to evaluate changes in profitability, efficiency, and leverage before and after the reform. Data were obtained from Finance Sina which included all official financial reports of the company to ensure accuracy and reliability.

All financial figures were standardized and organized in spreadsheets to calculate indicators such as Net Operating Income rate, Net Profit Margin, Asset Turnover, and Equity Multiplier. These metrics were compared across time and against the A-share automotive industry median and mean to measure JAC's relative performance.

Additionally, semiannual closing prices of JAC stock from 2019 to 2024 were collected from Stock Sohu to analyze market responses to the reform announcement and Volkswagen's investment.

Data Analysis Technique

The data analysis in this study applies comparative statistical techniques to evaluate the financial and market performance of JAC before and after the mixed ownership reform. Descriptive statistics are used to summarize key financial indicators, including Net Operating Income rate, Net Profit Margin, Asset Turnover, and Equity Multiplier, as defined in the DuPont Analysis Model. The analysis aligns these financial indicators with key reform events along a chronological timeline, following the **Table 2**.

Table 2: Timeline of Key Events Related to JAC period from 2019 to 2024.

Year/month	Events
2019/06	Reduction of Surplus Policy to Automobile Man
2020/06	Mixed Ownership Reform with Volkswagen Implementing
2020/12	SOL QX, a product developed in cooperation with Volkswagen, published
2023/12	Cooperation with Huawei
2024/06	Maextro S800, a product developed in cooperation with Huawei, published

A comparative benchmarking analysis is conducted by comparing JAC's annual results with the A-share automotive industry median and mean. This approach identifies whether JAC's financial performance improved beyond general industry trends following

Volkswagen's participation in 2020. In addition, observing changes in the industry median and mean helps to determine whether JAC's performance variations were driven by industry-wide volatility rather than firm-specific reform effects.

To assess market reactions, semiannual closing stock prices are analyzed through trend analysis and visualized using time-series charts to observe shifts in investor expectations before and after the reform announcement. All data are processed and analyzed using Microsoft Excel to calculate ratios, construct tables, and generate charts.

Ethical Considerations

This study entirely relies on secondary quantitative data obtained from publicly available and official sources; therefore, no human participants or confidential information were involved. All financial and market data were collected from credible databases, ensuring transparency and accuracy. The analysis and results were presented objectively without manipulation or selective reporting, and all interpretations were based strictly on verified data.

Limitations of the Methodology

This study has several methodological limitations. First, it focuses on a single case, which limits the generalizability of the findings to other state-owned enterprises or industries in China. While the case provides valuable insights, its results may reflect company-specific or industry-specific conditions rather than national trends. Second, the study relies on secondary financial and market data, which, although obtained from credible public sources, may not capture internal management decisions or policy influences that affect performance outcomes. Third, external economic factors may also influence financial and stock performance during the study period, making it difficult to isolate the precise impact of the mixed ownership reform. Despite these constraints, the chosen methodology remains appropriate for examining observable trends and contributes meaningful empirical evidence to the discussion of China's ownership reform.

Summary

This chapter presented the research methodology used to examine the impact of China's mixed ownership reform on the financial and market performance of JAC. It described the quantitative case study design, data sources, and collection procedures, emphasizing the use of secondary financial and market data from 2019 to 2024. The DuPont Analysis Model, ratio comparison, and trend analysis were applied to assess profitability, efficiency, and market expectations before and after Volkswagen's investment in 2020. Ethical considerations were addressed through transparent data use and objective analysis, while the methodological limitations were also acknowledged. Overall, the methods established a clear and reliable foundation for analyzing the reform's financial and market outcomes.

DATA ANALYSIS

This chapter analyzes Jianghuai Automobile Group's financial and market performance before and after the mixed-ownership reform. By examining changes in profitability, efficiency, and market reactions, the study evaluates how the reform influenced the company's overall performance within China's automotive industry. Specifically, it addresses three main research questions: (1) To what extent have JAC's profitability and efficiency changed following the mixed-ownership reform? (2) How does JAC's financial performance compare with the A-share automotive industry median and mean from 2019 to 2024? (3) How did the stock market respond to JAC's mixed ownership reform announcement, and did the reform result in significant short-term or long-term changes in the company's stock performance?

Data Collection Profile

Table 3: Jianghuai Automobile Group's Financial Statements for 2019-2024

	2019	2020	2021	2022	2023	2024
Operating revenue (billion)	47.29	42.83	40.21	36.49	44.94	42.12
COSG (billion)	42.29	38.85	36.93	33.42	40.23	37.70
Selling Expenses (billion)	2.10	1.54	1.44	1.46	1.47	1.47
Administrative Expenses (billion)	1.81	1.79	1.75	1.60	1.66	1.79
R&D expenses (billion)	1.18	1.68	1.37	1.54	1.59	1.76
Net Operating Income (billion)	-0.10	-1.02	-1.28	-1.52	-0.01	-0.60
Net Income (billion)	0.17	0.25	0.01	-1.73	-0.07	-1.99
Average total assets (billion)	43.85	42.12	46.37	47.08	46.76	49.08
Shareholder equity (billion)	13.70	13.91	15.87	14.07	14.49	12.43

Table 3 presents the main financial data of Jianghuai Automobile Group from 2019 to 2024. The dataset which is from Finance Sina includes operating revenue, cost of sales (COSG), selling and administrative expenses, research and development costs (R&D) and net operating income. It also reports JAC's net income, average total assets and shareholder

equity, which are used later in the DuPont analysis. All figures are taken from JAC's official financial statements and are expressed in billions of Chinese yuan.

Analysis of Profitability and Efficiency

According to **Table 3**, JAC's operating revenue declined from 47.29 billion yuan in 2019 to 36.49 billion in 2022 but later recovered to 42.12 billion in 2024. Meanwhile, R&D expenditure increased from 1.18 billion in 2019 to 1.76 billion in 2024, reflecting sustained investment encouraged by foreign participation. However, the Net Operating Income rate remained negative after 2020, showing that efficiency improvements lagged behind capital restructuring.

The downturn in 2020 to 2021 coincided with the firm's ownership restructuring and integration of Volkswagen's capital, during which production and sales were temporarily adjusted. Although the capital infusion expanded JAC's total assets from 42.12 billion in 2020 to 47.08 billion in 2022, the company still recorded consecutive operating losses, indicating the short-term adjustment costs of equity expansion. Shareholder equity fluctuated between 13.91 billion and 14.49 billion before declining to 12.43 billion in 2024, suggesting that, despite increased assets, the reform's profitability impact had not yet fully materialized.

Table 4: Profitability Comparison of Jianghuai Automobile from 2019 to 2024 with Automobile Industry Enterprise

	2019	2020	2021	2022	2023	2024
Net Operating Income rate	0%	-2%	-3%	-4%	0%	-1%
Industry Median	7%	8%	7%	6%	7%	7%
Industry Mean	6%	7%	6%	6%	7%	7%

Table 4 compares JAC's net operating income rate with the A-share automotive industry median and mean from 2019 to 2024. Before the reform, JAC's NOI rate was 0 percent in 2019, far below the industry median of 7 percent and mean of 6 percent, indicating weaker

profitability compared with most peers. After the mixed ownership reform began in 2020, JAC’s NOI rate declined to – 2 percent and reached – 4 percent in 2022. During the same period, the industry median and mean decreased slightly from 7 to 6 percent, showing that part of JAC’s downturn was also affected by general market conditions. However, JAC’s losses were deeper than the sector trend, suggesting firm-specific adjustment costs following Volkswagen’s investment.

From 2023 onward, both the industry median and mean stabilized at 7 percent, while JAC’s NOI rate improved to 0 and – 1 percent. This mild recovery indicates that JAC’s performance began to follow the industry’s upward trend but still lagged behind the average level. Overall, the comparison shows that the reform contributed to stabilizing performance and supported partial recovery, yet the company has not fully closed the profitability gap with the broader automotive industry.

Table 5: Profitability Comparison of Jianghuai Automobile from 2019 to 2024 with mixed ownership reform companies

Net Operating Interest rate	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**
Jianghuai Automobile	0%	-2%	-3%	-4%	0%	-1%
MOR Company Median	3%	4%	4%	3%	4%	3%
MOR Company Average	3%	2%	2%	0%	2%	1%

Table 5compares JAC's net operating income rate with the median and average of other automobile enterprises that also implemented mixed ownership reform between 2019 and 2024. Following **Table 5**, the data show that JAC consistently underperformed the MOR company group. Before the reform, JAC’s NOI rate was 0 percent in 2019, while the MOR median was 3 percent. Following Volkswagen’s equity investment in 2020, JAC’s NOI rate declined to – 2 percent and remained negative until 2024, whereas most MOR enterprises maintained positive NOI rates between 2 and 4 percent. This divergence suggests that JAC faced higher short-term adjustment costs and slower efficiency improvement compared with

its peers. The comparison indicates that, although mixed ownership reform in general contributed to moderate profitability in the sector, JAC's individual reform outcome was weaker, reflecting firm's management and integration challenges rather than a failure of the policy itself.

Analysis of DuPont Model

Net Profit Margin Analysis

Table 6 shows the trend of JAC's net profit margin compared with the A-share automotive industry median and mean between 2019 and 2024. Before the reform, JAC's net profit margin was close to zero in 2019, much lower than the industry median of 5.32 percent. After Volkswagen's investment in 2020, JAC's margin remained almost unchanged at 0.01, showing that the reform did not produce immediate profit improvement. During 2021 to 2022, JAC's margin turned slightly negative, while the industry median stayed stable at around 5 to 6 percent.

Table 6: Net Profit Margin of Jianghuai Automobile from 2019 to 2024

	2019	**2020**	**2021**	**2022**	**2023**	**2024**
Net profit Margin	0.00	0.01	0.00	-0.05	0.00	-0.05
Industry Median	5.32	0.05	0.06	0.05	0.06	0.06
Industry Mean	18.03	-0.01	1.61	1.99	8.31	9.26

Although both the industry median and mean improved after 2022, JAC's profit margin continued to fluctuate near zero or below, reaching – 0.05 again in 2024. This result suggests that JAC's profitability lagged behind overall industry recovery. The mixed ownership reform provided new capital but did not quickly translate into higher profit margins, implying that short-term gains were offset by integration expenses and weak cost control. In comparison, **Table 6** shows the reform that positive effects on profitability remained limited during the observation period.

Although JAC's net operating income remained negative after the 2020 reform, this pattern may indicate that the short-term costs of ownership restructuring and resource integration outweighed the immediate benefits of capital inflow. From a resource-based perspective, the expansion of assets and R&D investment increased the firm's cost base before efficiency gains could materialize, resulting in continued operating losses during the adjustment period.

Asset Turnover Analysis

Table 7: Return on assets of Jianghuai Automobile from 2019 to 2024

	2019	2020	2021	2022	2023	2024
Return on assets	1.08	1.02	0.87	0.78	0.96	0.86
Industry Median	0.01	0.58	0.62	0.60	0.60	0.60
Industry Mean	0.14	0.63	0.63	0.61	0.62	0.62

Table 7 presents the trend of JAC's Return on Assets compared with the A-share automotive industry median and mean from 2019 to 2024. JAC's ROA was relatively high at 1.08 percent in 2019, exceeding both the industry median of 0.01 percent and the mean of 0.14 percent. This indicates that before the reform, JAC maintained a stable level of asset efficiency. However, after Volkswagen's investment in 2020, ROA gradually declined from 1.02 percent in 2020 to 0.78 percent in 2022. The decline coincided with the period of ownership restructuring and reflected the adjustment costs of integrating foreign capital and management practices.

After 2022, JAC's ROA showed a modest recovery to around 0.9 percent, remaining consistently higher than the industry average of 0.6 percent. This suggests that, despite early inefficiencies, the reform eventually helped JAC maintain a moderate advantage in asset utilization. Nevertheless, the trend remained flat, implying that the reform did not significantly improve productivity or operational efficiency. In short, while JAC's asset efficiency was stronger than the industry benchmark, the improvement was largely stable rather than transformative, showing that structural reform effects had yet to fully materialize.

Equity Multiplier Analysis

Table 8: Financial Leverage of Jianghuai Automobile from 2019 to 2024

	2019	**2020**	**2021**	**2022**	**2023**	**2024**
Financial Leverage	3.20	3.03	2.92	3.35	3.23	3.95
Industry Median	5.70	1.72	1.78	1.77	1.79	1.86
Industry Mean	5.54	2.00	2.04	2.47	2.19	2.49

Table 8 presents the trend JAC which maintained a leverage ratio of around 3.2, which was lower than the industry median of 5.7. This suggests that the company had a relatively conservative capital structure with limited reliance on external debt. After Volkswagen's participation in 2020, leverage decreased slightly to 2.9 in 2021, reflecting the capital injection from foreign investment that temporarily strengthened JAC' s equity base and reduced its financial dependence.

However, from 2022 onward, the equity multiplier gradually increased from 3.35 to 3.95, indicating that JAC began to use more external financing to support its post-reform expansion and product development. During the same period, the industry median remained stable at around 1.7–1.8, suggesting that JAC's leverage level became significantly higher than most of its peers. This change implies that, although the mixed ownership reform improved JAC's access to capital markets, it also raised its exposure to financial risk.

Return on Equity Analysis

Table 9: Return on Equity of Jianghuai Automobile from 2019 to 2024

	2019	**2020**	**2021**	**2022**	**2023**	**2024**
Return on Equity	0.01	0.02	0.00	-0.12	- 0.00	-0.16
Industry Median	0.24	0.07	0.07	0.05	0.07	0.07
Industry Mean	0.23	0.06	0.04	- 0.04	0.04	0.03

Table 9 shows the trend of JAC's Return on Equity compared with the A-share automotive industry median and mean from 2019 to 2024. Before the reform, JAC's ROE was 0.01 in 2019 and increased slightly to 0.02 in 2020, remaining below both the industry median and mean. This shows that JAC's profitability for shareholders was already weak prior to the ownership restructuring. After the mixed ownership reform began, ROE declined sharply, dropping to – 0.12 in 2022 and – 0.16 in 2024. This negative return indicates that the capital injected through the reform increased the firm's asset base faster than its ability to generate profits. From an RBV perspective, this suggests that resource acquisition alone is insufficient if integration and utilization are delayed.

While the industry median stabilized between 0.05 and 0.07 during the same period, JAC's ROE continued to fluctuate around zero or negative values. This persistent gap suggests that the increase in financial leverage and total assets did not translate into improved shareholder returns. Instead, losses in net profit and limited asset efficiency offset any potential benefits of the capital injection. The mixed ownership reform, therefore, appears to have strengthened JAC's financing ability but failed to enhance profitability and shareholder value in the short to medium term.

The decline in ROE after the reform may indicate that the increase in total assets and financial leverage was not matched by sufficient growth in net profits. From an analytical perspective, this suggests that capital expansion alone diluted returns to shareholders when profitability remained weak. The result implies that mixed ownership reform strengthened JAC's financing capacity but failed to improve shareholder value in the short to medium term.

Analysis of Market Performance

Figure 1: Change of closing price of Jianghuai Automobile before and after the mixed reform

Figure 1 presents the changes in the closing price of Jianghuai Automobile from 2019 to 2025, reflecting how the market responded to the company's mixed ownership reform and later developments. In 2019, the stock price was around 5.02 yuan, but it increased sharply to 12.23 yuan by the end of 2020, following Volkswagen's announcement of its capital injection and increased shareholding. This strong growth clearly indicates that investors had high expectations for the reform and believed foreign participation would improve the company's performance.

Between 2021 and 2023, the stock price stabilized near 17 yuan before gradually declining to 12.6 yuan, suggesting that the initial optimism began to fade as JAC's financial results and efficiency did not improve as quickly as expected. The slowdown in profitability and limited reform outcomes likely caused investors to adjust their expectations.

After 2024, the company's stock price rose sharply again, reaching 37.5 yuan at the end of 2024 and 40.1 yuan by mid-2025. However, this strong increase was not directly linked to the mixed ownership reform. The sharp rise in 2024 was likely influenced by JAC's strategic partnership with Huawei, which may have shifted investor attention toward technological innovation rather than ownership structure. This collaboration generated new market enthusiasm but reflected technological innovation potential rather than ownership restructuring success.

The market reaction followed a three-stage pattern: an initial surge in confidence during the 2020 reform period, a gradual decline as reform outcomes remained unclear, and a later rally caused by external technological cooperation. This pattern supports the earlier DuPont analysis results, which showed that ownership reform alone did not bring immediate performance gains. Instead, sustainable market recovery appears to depend on both institutional reform and strategies.

Summary of Major Findings

This session summed up the impact of China's mixed ownership reform. The findings reveal that while the reform brought new capital and technology through Volkswagen's participation, its short-term financial outcomes remained limited. JAC's profitability, as reflected in its Net Profit Margin and Return on Equity, stayed below the industry median, showing that ownership restructuring did not immediately translate into higher returns.

The DuPont analysis indicated that the company's overall financial efficiency was constrained by negative profit margins and limited asset utilization, even though financial leverage increased after the reform. This suggests that while the reform enhanced JAC's access to capital markets, it also raised its exposure to financial risk without improving operational efficiency. Comparisons with other MOR enterprises further confirmed that

JAC’s recovery was slower, implying firm-specific management and integration challenges rather than a general policy failure.

The market performance analysis showed that investor sentiment followed a three stage pattern: initial optimism after the reform announcement in 2020, adjustment during the 2021 to 2023 integration period, and renewed confidence in 2024 to 2025 driven by new technological partnerships rather than ownership restructuring. This pattern demonstrates that market confidence in mixed ownership reforms depends on tangible performance outcomes and innovation potential.

A comparison around key reform events highlights the difference between market response and financial results. Before the mixed ownership reform in 2020, JAC’s stock price remained low and stable, and ROE was slightly positive but weak. After Volkswagen joined as a strategic investor in 2020, the stock price increased quickly, showing strong market expectations. However, ROE did not improve at the same time and stayed close to zero.

In the period after the reform from 2021 to 2022, ROE fell into negative values, while the stock price stopped rising and began to adjust. This shows that the early market optimism was not supported by later financial performance. After 2024, the stock price rose again following the cooperation with Huawei, but ROE remained negative. This comparison suggests that stock prices reacted mainly to major announcements and innovation signals, while ROE reflected deeper financial limits and slower adjustment inside the firm.

Although the mixed ownership reform increased JAC’s access to capital and technological resources, these inputs did not translate into immediate improvements in financial performance. From the perspective of the RBV, this gap indicates that acquiring valuable resources is only the first step toward performance enhancement. In JAC’s case, the post reform period was characterized by rising asset size and R&D expenditure, while profitability and return indicators remained weak. This pattern suggests that the integration and effective utilization of newly acquired resources were delayed, limiting their short-term impact on firm performance. Therefore, the findings imply that mixed ownership reform may expand a firm’s resource base, but sustainable competitive advantage can only emerge when these resources are successfully transformed into operational capabilities over time.

In conclusion, the findings indicate that mixed ownership reform changed JAC’s capital structure and market image, but did not lead to clear short-term improvement in financial performance. While foreign participation and later technological cooperation helped raise investor attention and stock prices at specific time points, these changes were not matched by sustained gains in profitability or ROE. The results suggest that ownership reform alone was not sufficient to improve firm performance without further improvement in operational efficiency. Therefore, the case of JAC shows that the effectiveness of mixed ownership reform depends not only on capital participation, but also on how new resources are used and integrated within the firm.

CONCLUSION

This study examined how China's mixed ownership reform influenced the financial and market performance of Jianghuai Automobile between 2019 and 2024. The results show that although the reform introduced new capital and technology through Volkswagen's participation, it did not lead to significant short-term improvement in profitability or efficiency. From the perspective of the Resource-Based View, this outcome suggests that access to resources alone was not sufficient to improve firm performance.

The DuPont analysis indicates that JAC's Net Profit Margin and ROE remained below industry averages, mainly due to weak profit generation and limited operational efficiency. Although financial leverage increased after the reform, it raised financial risk rather than shareholder returns. Comparisons with other mixed ownership reform enterprises further show that JAC's recovery was slower, pointing to firm-specific management and integration challenges instead of a general failure of the reform policy.

Stock market analysis shows that investor sentiment improved immediately after the reform announcement in 2020, but later weakened as financial performance did not meet expectations. In contrast, the rise in stock price after 2024 was driven mainly by technological cooperation with Huawei rather than ownership restructuring. This difference suggests that RBV became more relevant when resources were closely linked to specific innovation activities and product development.

Overall, the findings highlight that capital participation alone does not guarantee better efficiency or performance. The effectiveness of mixed ownership reform depends on how new resources are used and integrated within the firm, as well as on deeper changes in management incentives.

Discussion

1. RQ1: To what extent has JAC's profitability and efficiency changed after mixed ownership reform?

The findings show that JAC's profitability and efficiency did not improve after the implementation of mixed ownership reform. Although foreign participation expanded the firm's resource base, key indicators such as net profit margin and ROE continued to decline. This suggests that ownership restructuring alone is insufficient to generate performance improvement in SOE. From a broader perspective, the case indicates that mixed ownership reform may change ownership structure without immediately altering operational outcomes.

2. **RQ2: How does JAC's financial performance compare with the A-share automotive industry median and mean from 2019 to 2024?**

Compared with the A-share automotive industry median and mean, JAC consistently underperformed in profitability despite maintaining relatively stable asset utilization. This finding implies that mixed ownership reform does not guarantee convergence toward industry-average performance. Instead, firm-specific factors and the pace of post-reform adjustment appear to shape outcomes more strongly than ownership change itself. The comparison highlights that while MOR may help firms avoid further decline, it does not necessarily enable them to catch up with industry leaders in the short to medium term.

3. RQ3: How did the stock market respond to JAC's mixed ownership reform announcement, and did the reform lead to significant short-term changes in the company's stock performance

The stock market response to JAC's mixed ownership reform followed a clear three-stage pattern: initial optimism after the 2020 reform announcement, adjustment during the post-reform integration period, and renewed confidence driven by technological cooperation after 2024. This pattern suggests that investor expectations are highly sensitive to reform signals but ultimately depend on observable performance and innovation outcomes. The case implies that while mixed ownership reform can generate short-term market confidence, sustained investor support is more closely linked to tangible improvements in products and technological capability rather than ownership restructuring alone.

Suggestion

This study finds that the limited success of mixed ownership reform in the case of JAC does not stem from flaws in the policy design itself, but from the gap between ownership restructuring and actual performance outcomes. Although the RBV suggests that access to valuable resources should improve firm performance, the empirical results show that resource expansion alone did not lead to immediate efficiency gains. This indicates that the effectiveness of mixed ownership reform depends on whether newly acquired resources can be transformed into operational capabilities over time.

From this perspective, ownership restructuring may expand a firm's resource base, but it does not automatically generate sustainable competitive advantage. The case of JAC suggests that performance improvement is more closely related to how resources are utilized than to changes in ownership structure alone. In addition, the market response to JAC's partnerships with Volkswagen and Huawei indicates that technological innovation and product development may play a more decisive role in shaping investor expectations than ownership reform itself.

Therefore, future research may further examine the interaction between foreign participation, technological upgrading, and firm performance under mixed ownership reform. Such studies could help clarify how resource integration and innovation dynamics influence long-term growth in Chinese enterprises, which lies beyond the scope of the present analysis.

APPENDIX

Table 10: Automobile Industry Enterprises in the A-share list and basic fundamental information

Enterprises Name	Net Operating Income (billion) in 2024	ROE in 2024	MOR Implementing
美力科技	0.06	0.09	
新泉股份	1.29	0.17	
富临精工	0.18	0.09	
华懋科技	0.38	0.07	
隆基机械	0.08	0.02	
常熟汽饰	0.32	0.08	
成飞集成	0.07	- 0.00	Yes
正裕工业	0.21	0.07	
金固股份	0.12	0.01	
江铃汽车	2.11	0.11	Yes
江淮汽车	-0.60	- 0.16	Yes
奥联电子	-0.02	- 0.02	
鸿特科技	0.06	0.03	
一汽富维	0.59	0.07	Yes
中通客车	0.38	0.08	
安凯客车	-0.06	0.01	
宇通客车	0.00	0.30	
威孚高科	0.44	0.08	Yes
海联金汇	0.40	0.01	
天成自控	0.07	- 0.02	
潍柴动力	17.34	0.12	Yes
天润工业	0.34	0.05	
万里扬	0.37	0.04	
美晨科技	-0.16	- 2.58	
万丰奥威	1.32	0.09	
长城汽车	17.58	0.16	
中国重汽	2.40	1.69	
登云股份	0.04	0.01	
松芝股份	0.12	0.04	
美湖股份	0.23	0.08	
华达科技	0.37	0.07	
双林股份	0.41	0.19	
南方精工	0.12	0.01	
继峰股份	0.21	- 0.14	

蓝黛科技	0.19	0.05	
上汽集团	-1.21	0.02	Yes
渤海汽车	-0.64	- 0.36	
比亚迪	0.67	0.21	
宁波华翔	1.88	0.10	
ST 八菱	0.02	0.08	
福达股份	0.21	0.08	
华域汽车	5.34	0.11	Yes
福田汽车	0.81	0.00	Yes
宁波高发	0.19	0.09	
东风科技	0.05	0.04	Yes
富奥股份	0.36	0.10	Yes
日上集团	0.08	0.02	
长安汽车	5.42	0.08	Yes
东风股份	-1.08	0.00	
拓普集团	3.41	0.15	
广东鸿图	0.43	0.05	
北特科技	0.14	0.04	Yes
万向钱潮	1.15	0.10	
模塑科技	0.33	0.18	
千里科技	-0.40	- 0.03	
凌云股份	1.15	0.10	Yes
广汽集团	-5.43	- 0.00	Yes
苏奥传感	0.17	0.08	
贝斯特	0.29	0.09	
奥特佳	0.35	0.02	
飞龙股份	0.33	0.10	
航天科技	0.15	0.01	
跃岭股份	0.01	0.05	
襄阳轴承	0.02	- 0.06	
金龙汽车	0.13	0.06	
亚太股份	0.19	0.07	
浙江世宝	0.22	0.09	
德尔股份	0.12	0.02	
联明股份	0.09	0.03	
海马汽车	-0.31	- 0.11	
赛力斯	9.65	0.40	

光洋股份	0.06	0.02	
众泰汽车	-0.31	- 4.16	
新坐标	0.24	0.16	
一汽解放	-1.79	0.02	Yes
星宇股份	1.54	0.14	
新朋股份	0.32	0.06	
凯众股份	0.10	1.32	
建设工业	0.18	0.07	
双环传动	1.30	0.11	
腾龙股份	0.34	0.11	
中原内配	0.39	0.06	
长春一东	0.01	0.01	
浙江仙通	0.21	0.15	
贵航股份	0.17	0.06	Yes
银轮股份	1.12	0.13	Yes
云意电气	0.43	0.14	
远东传动	0.12	0.03	
曙光股份	-0.28	- 0.25	Yes
万安科技	0.28	0.07	Yes
精锻科技	0.21	0.04	
兴民智通	-0.11	0.15	
湖南天雁	-0.03	0.01	Yes
东安动力	-0.08	0.00	Yes
峰璟股份	0.46	0.08	
和胜股份	0.10	0.05	
天汽模	0.17	0.03	
金麒麟	0.15	0.04	
山子高科	-0.40	- 1.41	
金杯汽车	0.36	0.32	Yes
汉马科技	-0.34	0.03	Yes
常青股份	0.25	0.03	
北汽蓝谷	-6.21	- 0.67	Yes
圣龙股份	-0.01	0.02	
信质集团	0.11	0.01	
今飞凯达	0.25	0.02	
铁流股份	0.14	0.06	
万通智控	0.14	0.11	

秦安股份	0.24	0.07	
香山股份	0.40	0.09	
雷迪克	0.13	0.09	
中马传动	0.04	0.02	
保隆科技	0.55	0.09	
日盈电子	0.03	0.02	
迪生力	-0.11	- 0.47	
英搏尔	0.04	0.03	
隆盛科技	0.24	0.11	
旭升集团	0.51	0.06	
岱美股份	1.02	0.17	
兆丰股份	0.11	0.05	
金鸿顺	-0.01	- 0.01	
爱柯迪	1.10	0.11	
豪能股份	0.50	0.11	
西菱动力	0.12	0.04	
科华控股	0.17	0.07	
伯特利	1.25	0.18	
文灿股份	0.33	0.03	
欣锐科技	-0.10	- 0.05	
亚普股份	0.60	0.12	Yes
鑫湖股份	0.09	0.04	
华培动力	0.11	0.04	
泉峰汽车	-0.35	- 0.28	
科博达	0.91	0.15	
祥鑫科技	0.40	0.09	
华阳变速	-0.01	- 0.07	
同心传动	0.02	0.07	
大地电气	-0.05	- 0.15	
吉冈精密	0.07	0.12	
安徽凤凰	0.08	0.11	Yes
骏创科技	0.06	0.13	
邦德股份	0.10	0.16	
泰德股份	0.04	0.07	
舜宇精工	0.01	0.03	
明阳科技	0.09	0.21	
华原股份	0.06	0.12	

易实精密	0.07	0.13	
开特股份	0.16	0.20	
长源东谷	0.26	0.08	Yes
雪龙集团	0.05	0.06	
松原安全	0.36	0.19	
长华集团	0.09	0.04	
上海沿浦	0.22	0.08	
卡倍亿	0.25	0.12	
沪光股份	0.88	0.30	
冠盛股份	0.42	0.11	
西上海	0.12	0.03	
合兴股份	0.31	0.14	
神通科技	0.03	- 0.02	
博俊科技	0.86	0.25	
嵘泰股份	0.23	0.07	
恒帅股份	0.23	0.17	
英利汽车	0.10	0.01	
中捷精工	-0.01	- 0.05	
中集车辆	1.54	0.06	Yes
德迈仕	0.06	0.08	
超捷股份	0.03	0.00	
无锡振华	0.49	0.16	
正强股份	0.09	0.09	
金钟股份	0.10	0.08	
浙江黎明	0.06	0.04	
精进电动	-0.24	- 0.75	
东箭科技	0.26	0.10	
纽泰格	0.08	0.06	
标榜股份	0.11	0.08	
铭科精技	0.13	0.09	
东利机械	0.08	0.07	
晋拓股份	0.07	0.04	
泰祥股份	0.05	0.07	
捷众科技	0.06	0.11	
坤泰股份	0.06	0.06	
亚通精工	0.20	0.04	
多利科技	0.51	0.09	

一彬科技	0.10	0.02	
三联锻造	0.16	0.10	
锡南科技	0.10	0.06	
恒勃股份	0.13	0.09	
溯联股份	0.13	0.06	
威迈斯	0.00	0.13	Yes
维科精密	0.04	0.04	
福赛科技	0.14	0.08	
上海汽配	0.23	0.09	
斯菱股份	0.17	0.11	
宏鑫科技	0.06	0.06	
新铝时代	0.31	0.13	
富特科技	0.10	0.09	
科力装备	0.17	0.14	
林泰新材	0.10	0.18	

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