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Analysis of the Development and Countermeasures of China's A-share Market

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Abstract:

Against the backdrop of China's vigorous support for the development of domestic substitution in hard technology and its efforts to make breakthroughs in core technologies, chip enterprises—representing core tech sectors such as semiconductors—have attracted significant attention in the A-share market. Their stock prices often fluctuate sharply, driven by enthusiastic market sentiment and the logic of domestic substitution, while the risk of a disconnect between valuation and corporate fundamentals has become increasingly prominent. This paper takes Cambricon, known as the "first AI chip stock" and a focal point of the market in the second half of 2025, as its research subject. It conducts an in-depth analysis of Cambricon's "roller-coaster" stock price trend: after surging by over 133% in the short term, its stock price subsequently underwent a sharp correction. The analysis reveals that such extreme volatility stems from two key factors: first, the mismatch between its excessively high "dream-driven valuation" and its actual performance; second, its fragile reliance on passive investments from external index funds and the global supply chain. This study not only uncovers the unique risk structure inherent in star technology stocks but also proposes practical countermeasures from two dimensions—internal corporate governance and the security of the external industrial chain. It provides important case references and practical insights for investors to make rational decisions.

Keywords: Cambricon; High Valuation Risk; Stock Price Volatility; Valuation of Technology Stocks; Supply Chain Security.

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1. Introduction

As the world's second-largest capital market, the trend of China's stock market is not only a barometer of the national economy but also exerts a profound impact on the assets and wealth of hundreds of millions of investors [1,2]. In recent years, with "self-reliance and self-strengthening in science and technology" becoming a national strategy, the capital market has shown immense investment enthusiasm for cutting-edge technology enterprises in fields such as semiconductors and artificial intelligence. However, this enthusiasm has also given rise to new issues, including valuation bubbles and speculative behaviors that cause sharp stock price volatility [3]. Against this context, the Shanghai Composite Index serves as a benchmark for reflecting the overall performance of the Shanghai securities market. The individual performance of leading enterprises on the Sci-Tech Innovation Board (STAR Market)—especially controversial yet strategically scarce tech leaders like Cambricon—holds typical "microcosmic reference value" (analogous to a "slice sample") for understanding the overall market structure, sentiment, and risks. This raises key questions: What are the core factors driving the extreme volatility in the stock prices of such technology stocks? And what risks lurk behind their high valuations?

Academic research has extensively explored the valuation of technology stocks and stock price volatility. Traditional financial theories (e.g., the efficient market hypothesis) emphasize that corporate fundamentals are the cornerstone of a company's intrinsic value. In contrast, behavioral finance argues that psychological factors—such as market sentiment and investors' overconfidence—can lead stock prices to deviate from their intrinsic value, forming bubbles. For the A-share market, numerous studies have analyzed how phenomena like policy shocks and herd behavior in fund investment (i.e., clustered fund speculation) impact stock prices. Additionally, attention has been paid to the "price pressure effect" on constituent stocks of major indices, which arises from the passive allocation of index funds. However, for Cambricon—a latest case amid the wave of domestic chip substitution, characterized by high growth, high valuation, high volatility, and high risk—the multiple drivers behind its abnormal stock price surge and the mechanisms of risk transmission still require in-depth examination.

This paper adopts a case study approach to conduct an in-depth, "sparrow-dissection"-style analysis (a Chinese idiom referring to in-depth analysis of a typical case to derive general insights) of Cambricon's stock price performance in the second half of 2025. First, it depicts the phenomenon of extreme volatility in Cambricon's stock price. Then, it deconstructs the causes of the stock's sharp rise and fall from two core dimensions: the alignment between valuation and fundamentals, and the fragility of its external dependencies. Finally, it puts forward targeted countermeasures, including strengthening expectation management, digesting overvaluation through improved performance, and accelerating the independence and controllability of the supply chain. The significance of this study is twofold: Theoretically, it enriches the application scenarios of technology stock valuation theories in highly uncertain environments, and specifically provides an explanation for the speculative phenomenon of "dream-driven valuation." Practically, its conclusions help investor's view and engage with technology-themed speculation rationally, and offer decision-making references for regulators to identify and mitigate risks associated with similar asset bubbles.

2. Case Description

2.1 Current State of Development of China's A-Share Market

The A-share market remained quite active in 2025. The Shanghai Composite Index (000001.SH) closed at 3,812.51 points on September 5, 2025. From a broader perspective, since the tariff wars between China and the United States and between the United States and other countries, the market has maintained a "slow bull" trend. On April 7, 2025, when the United States announced additional tariffs on China, the Shanghai Composite Index dropped by approximately 245 points on that day. Around September, after a prolonged period of narrow fluctuations, the market seemed to show signs of gradually strengthening, with increased volatility, which sometimes reflects the recovery of market sentiment. Of course, Over the past decade or so, the stock market was often ridiculed for hovering around the 3,000-point mark, and there are many underlying reasons for this, such as the need for more sustainable growth in the profitability of some enterprises. Over the past decade, the Shanghai Composite Index has long been a subject of jest for many, as it has been hovering around the 3,000-point mark [4]. There are numerous reasons behind this. For instance, the impact of the COVID-19 pandemic in 2020 inflicted a severe blow on China's economy—and the secondary stock market essentially serves as a barometer of economic trends. From a technical perspective, the so-called "large funds" (i.e., major institutional funds) have been accumulating chips and operating within this range. From a macro perspective, driven by the Federal Reserve's successive interest rate cuts and domestic economic policy stimulus, the index finally broke through a decade-high in August 2025 (Figure 1).

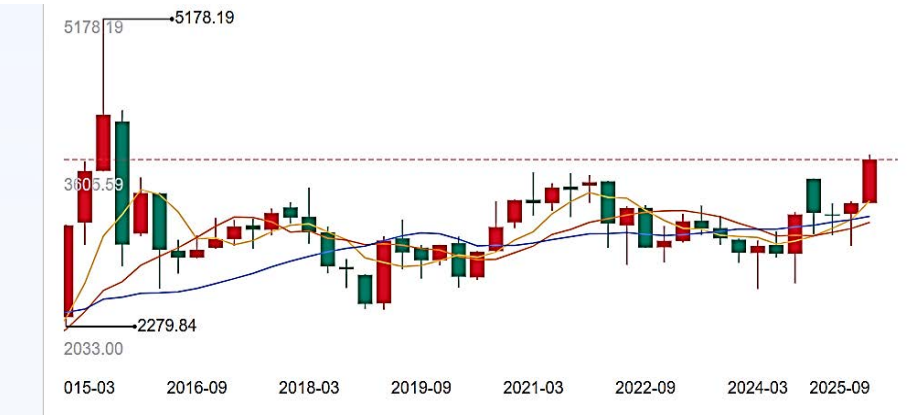

Fig.1 The trend chart of the Shanghai Composite Index over the past decade

2.2 Description of Cambricon Technologies Corporation

Cambrian Technology has been the absolute "focus" in the A-share market recently in August, with an extremely high level of discussion.

The stock price of Cambricon Technologies Corporation Limited was like a roller coaster ride during the period from the end of July to the end of August 2025. From July 28th to August 28th, its closing price soared by 133.86%, surpassing even Kweichow Moutai to become the "stock king" of the A-share market, reaching a peak of 1,595.88 yuan. However, such a rapid increase raised concerns, and the company itself issued an announcement stating that the stock price might have deviated from its fundamentals. As expected, in September, the stock price experienced a significant correction. Particularly on September 4th, it plunged by more than 12% in a single day, with some reports suggesting a drop of 14.45%, causing its market value to evaporate by hundreds of billions of yuan in one day. On September 5th, the stock price rebounded by 6.61%, closing at 1,281.46 yuan. Such volatility was quite thrilling for short-term traders.

However, there seems to be a disconnect between the company's business fundamentals and its valuation: Cambricon's performance in the first half of 2025 was explosive, with revenue reaching 2.881 billion yuan, a staggering 43-fold increase year-on-year. It also turned a profit, with a net income of 1.038 billion yuan. The company projected that its full-year revenue for 2025 would be between 5 and 7 billion yuan. Despite such impressive results, its valuation metrics remain extremely high, with a trailing price-to-earnings ratio (PE TTM) in the hundreds, far exceeding the industry average. This has led to much debate in the market: some believe its high valuation reflects expectations of future high growth, while others think it has already priced in several years of future performance, suggesting a significant bubble (Figure 2).

Fig.2 Cambrian stock price trend chart for over the past one and half years, weekly level

The market position has placed Cambricon at the forefront: Cambricon is regarded as the "first domestic AI chip stock", and this rare label is of great significance. It has been included in several important indices, such as the SSE 50, Sci-Tech Innovation 50, and even the FTSE China A50 Index. This means that many funds and ETFs tracking these indices have to passively allocate its stocks, generating a large amount of buying pressure. Additionally, the AI craze, the logic of domestic substitution, and some market rumors such as major customer purchases have all continuously driven up its stock price [5,6].

The future still holds some challenges: Although Cam-

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bricon has performed impressively recently and has ridden the wave of AI chips, its future development path is not without obstacles. Both the company itself and its external environment present some challenges that need to be continuously monitored and addressed.

3. Problem Analysis

3.1 The Mismatch Between the Soaring Market Value Driven by Hype and the Fundamental Support

The current share price and valuation level of Cambrian, such as a P/E ratio of several hundred times, have far outpaced its existing performance and the average fluctuations of the industry [7]. Although the market holds extremely high expectations for its future, there is uncertainty as to whether these expectations can be fulfilled as scheduled. Once the subsequent growth rate of its performance slows down or fails to meet the market's aggressive predictions, the stock price may face significant downward pressure. This is why people describe it with the term "P/E ratio of dreams", meaning that the dream is beautiful, but it needs to be supported by reality [8].

3.2 Vulnerability of External Dependencies and Policy Adjustments

Cambrian's share price and capital inflows have benefited to some extent from being included in major indices, such as the passive fund allocation brought by the Sci-Tech Innovation 50 Index. However, when the index compilation rules are adjusted, for instance, the upper limit of the weight of a single component stock is set, which forces its weight to be reduced, it will trigger passive selling by related funds, amplifying the stock price fluctuations. The recent sharp decline is closely related to this. In addition, as a high-tech enterprise, its development is highly dependent on the global supply chain, such as EDA software, advanced manufacturing processes, and a stable international economic and trade environment [9]. Geopolitical risks, such as being placed on the entity list and subject to import and export sanctions, also pose a potential huge threat [10].

4. Suggestions

4.1 Appropriate Hype of Expectation Management and Communication with Investors, and Speak with Continuously Delivered Performance

In response to the issue of high valuation, Cambricon's management needs to proactively enhance communication with the capital market. For instance, the secretary of the board should respond more frequently to investors' inquiries to showcase the company's current situation. On one hand, it should disclose business progress and financial guidance in a more transparent and rational manner, actively manage market expectations, and prevent false rumors from overly influencing the stock price. On the other hand, the most fundamental aspect is that the company should continue to focus on technological research and development and product implementation, gradually digesting the high valuation with solid and sustainable growth in performance, demonstrating its status as the first Chinese AI chip company, and proving its value rather than relying solely on market sentiment.

4.2 The Urgency of Achieving Self-reliance and Domestic Substitution is Pressing

Regarding the current level of domestic chips in China, it is imperative to elevate supply chain security to a strategic height. This can be achieved by accelerating domestic substitution cooperation, increasing investment in independent research and development of key technologies, and establishing strategic inventories, thereby enhancing the ability to cope with external sanctions and fluctuations in the global supply chain.

5. Conclusion

Through an analysis of macro fluctuations in China's A-share market and the case of sharp fluctuations in Cambricon's stock price, this paper clearly reveals the operational logic behind its "roller-coaster" market performance. The study finds that this phenomenon is the result of the joint game between long and short capital forces in the market: on the one hand, it is driven by the company's scarce label as the "first AI chip stock", the market's positive expectations for domestic substitution, and the strong impetus from passive funds due to index inclusion; on the other hand, it stems from the significant disconnect between its price-to-earnings (P/E) ratio of hundreds of times and its current performance, as well as the vulnerability caused by its high dependence on the external supply chain and index adjustment policies.

For this typical case, this paper proposes solutions from two dimensions—internal value realization and external risk resistance—emphasizing that the company needs to fulfill growth expectations through solid performance, while the industrial chain must accelerate the process of achieving independence and controllability. This provides a new conceptual framework for understanding and managing risks in investments related to similar technology assets.

This study also has certain limitations. It focuses on the

qualitative analysis of a single typical case, which may restrict the scope of its findings and conclusions. Additionally, market fluctuations are difficult to predict and information-related factors are hard to control. Future research could select technology stocks from more diverse fields for comparative analysis to test the robustness of the conclusions

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