

# Analysis of the non-market treatment faced by CATL and its coping strategies

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### Abstract:

With the rapid rise of the new energy vehicle industry around the world, leading companies represented by CATL are constantly exploring and innovating at the forefront of battery technology. However, CATL is not only enjoying glory, but also facing unprecedented pressures and challenges. Especially in the face of policy barriers and market access problems in key regions such as the United States, CATL's strategic wisdom and adaptability have become the key to determining its future direction. This article aims to deeply analyze CATL's competitive problems and challenges in the global market, especially its non-market treatment in the United States market and the corresponding strategic adjustment strategies. It also put forward forward-looking suggestions on the future development path of CATL, emphasizing that in the wave of globalization, continuous technological innovation and social responsibility fulfillment are crucial to the long-term development of enterprises. In addition, companies also need to work together to step out of their comfort zone.

**Keywords:** Non-market treatment; battery; EV; CATL

## 1. Introduction

Today's battery industry is undergoing a technological revolution. With the development of the new energy vehicle industry, CATL and other companies continue to innovate in battery technology, such as solid-state batteries, sodium-ion batteries and high-nickel batteries. These technologies improve the energy density, safety, and cycle life of the battery, while reducing costs. With the vigorous development of the global new energy vehicle industry, the demand for high-performance power batteries is growing, and the rise of the energy storage market has also injected new vitality into the battery industry. In addition, in response to the global goal of carbon

neutrality, the battery industry is transforming in a more environmentally friendly and sustainable direction. As a leader in the EV battery market, CATL is facing fierce competition and pressure on a global scale. Against this background, this article will delve into CATL's position and challenges in the global market, especially its strategic realignment in the face of United States policy challenges.

This article provides a detailed analysis of the development of the battery industry, as well as the challenges and future directions of CATL in three parts. The first part describes the current situation of the battery industry and the situation of CATL, and points out that the current battery industry is in the wave of technological innovation, and CATL is an

industry leader in technological innovation, market expansion and environmental responsibility. The second part turns to CATL's non-market treatment in the United States market, discussing the impact of relevant policy changes on CATL's global expansion, and the company's strategic adjustment measures in this context. Part 3 further analyzes the main reasons for CATL's non-market treatment, including economic factors, social and moral responsibility, and international political and cultural differences. In addition, suggestions for the future development of CATL were put forward, emphasizing the importance of both technological innovation and social responsibility in the process of globalization.

## 2. Literature review

With the development of the global new energy vehicle industry, power battery companies are facing unprecedented opportunities and challenges. As one of the world's leading battery manufacturers, CATL's position in the international market is obvious to all. However, in addition to competitive market pressures, CATL also faces a series of non-market issues. The purpose of this paper is to explore the non-market problems encountered by CATL in the process of internationalization through the analysis of existing literature, and to provide suggestions for the long-term development of CATL in international trade.

According to the study, CATL's share of the battery market in China and even the world continues to grow. The company's lithium-ion battery production and export volume remained at a high level, reflecting its leading position in the global battery industry [1]. Xue Yan analyzed in detail the strategic choice and implementation path of CATL in the international market. The article points out that CATL has successfully coped with various challenges in the process of globalization through technological innovation, R&D investment, and improved supply chain layout. At the same time, the study also highlights the importance of PEST analysis and Porter's Five Forces model in understanding the external environment. However, this literature focuses more on the internal capabilities and strategies of firms, and the analysis of the impact of external non-market factors is relatively limited [2]. Zhou Fangyu explores in detail the situation of United States' economic sanctions against China and their potential impact on Chinese companies. The article points out that the United States economic sanctions not only affect the normal operation of Chinese enterprises, but also pose an obstacle to their entry into the international market. To mitigate these impacts, China needs to establish a sound legal system for counter-sanctions, and companies need to strengthen their own compliance management capabilities. This paper pro-

vides a perspective on the non-market issues that CATL may encounter, especially at the legal and policy levels [3]. Based on the above literature, it can be seen that CATL has not only made remarkable achievements in the process of international market expansion, but also faced multiple challenges. In particular, when dealing with non-market issues, such as economic sanctions, adaptation to laws and regulations, etc., companies need to adopt a diversified strategy. However, most of the existing research focuses on market performance and technological advantages, and there is a lack of in-depth analysis of non-market factors. Future research can further explore CATL's specific strategies in the face of specific non-market environments in different countries and regions, and evaluate the effectiveness of these strategies.

## 3. Basic factual analysis

### 3.1 Basic overview of the battery industry

Today, the battery industry is experiencing an unprecedented wave of technological innovation. Driven by industry leaders such as CATL, new technologies such as solid-state batteries, sodium-ion batteries, and high-nickel batteries are emerging. These innovations not only improve the energy density, safety, and longevity of batteries, but also reduce production costs and promote the progress of the entire industry. With the vigorous development of the global new energy vehicle industry, consumers' demand for high-performance power batteries is growing. At the same time, the rise of the energy storage market has also injected new vitality into the battery industry, providing additional growth opportunities. In addition, the trend of upstream and downstream integration in the industry is becoming more and more obvious, and leading enterprises have established close ties with raw material suppliers, automobile manufacturers and energy storage system integrators through investment or cooperation, forming a more stable industrial ecosystem. In the context of the global pursuit of carbon neutrality, The "dual carbon strategy" is a symbolic feature of China's high-quality development, and it is also an important condition for China to stand tall in the world system as a modern socialist power. The dual-carbon strategy and low-carbon economy have promoted the rapid development of new energy, and the battery industry has also ushered in the spring of development [4]. CATL, for example, has announced a zero-carbon strategy and plans to achieve carbon neutrality across its entire value chain by 2035.

At present, the mainstream products in the battery industry are still dominated by lithium-ion batteries. They are widely used in mobile devices, electric vehicles, and

stationary energy storage systems. The lithium-ion battery family includes ternary lithium batteries and lithium iron phosphate batteries, of which ternary lithium batteries are often used in scenarios with high range requirements due to their high energy density, such as high-end electric vehicles. Lithium iron phosphate batteries, on the other hand, dominate electric buses and low-cost electric vehicles due to their high safety and long cycle life, such as BYD’s blade batteries. In addition, sodium ions demonstrate high kinetic properties due to their fast mobility and weak solvation, and hence SIBs are suitable for high power applications, especially at the low temperature. SIBs, for example, could replace lead acid batteries and supercapacitors as cranking powers in automobiles, motorcycles and so on [5]. Fuel cells are gradually becoming commercialized in specific areas such as heavy-duty transportation and some commercial applications.

The current industrial chain of the battery industry can be divided into three main links: upstream, midstream and downstream. The upstream is mainly the supply of raw materials, including metallic materials such as lithium, cobalt, nickel, manganese, as well as graphite and other carbon materials, which are used to produce cathode and anode materials. With the development of battery technology, the technical routes of lithium extraction from salt lakes and ore are also progressing to meet the growing demand for battery materials. The midstream covers the manufacturing process of the battery, including the processing of cathode and anode materials, the synthesis of electrolyte, the fabrication of separators, and the assembly of the final battery cell. At this stage, battery manufacturers use advanced manufacturing processes and technolo-

gies to improve the energy density, safety, and cycle life of batteries. For example, CATL’s Kirin battery adopts CTP 3.0 platform-based module technology to improve the overall performance of the battery system. Downstream is the battery application market, including electric vehicles, electric bicycles, energy storage systems, and consumer electronics. With the rapid growth of the electric vehicle market, the demand for power batteries has also increased, promoting the rapid development of the entire battery industry. At the same time, battery recycling and reuse is also an important part of the downstream, with the end of the battery life cycle, how to effectively recycle and dispose of waste batteries, extract valuable materials, and reduce environmental pollution has become an important topic facing the industry.

### 3.2 Analysis of the current situation of CATL

CATL was originally the power battery division of ATL Group, and was officially established after becoming independent in 2011, focusing on the R&D and production of electric vehicle power batteries and energy storage batteries. Thanks to the Chinese government’s strong support and subsidy policies for the new energy vehicle industry, CATL quickly occupied the domestic market. In 2012, BMW Brilliance took the initiative to extend an olive branch to CATL by looking for a battery manufacturer for BMW Brilliance’s all-electric vehicle “Zhinuo 1E”. This marks CATL’s official entry into the supply chain system of multinational car companies [6]. From 2011 to 2015, CATL rapidly improved its industry position and market share through technological innovation and strategic co-operation.

**Table 1 An overview of CATL’s operating performance**

Year/reporting period	Operating income (100 million yuan)	Net profit (100 million yuan)
2021	1303.6	159.3
2022	3285.94	307.29
2023	4009.17	441.21
The first half of 2024	1667.7	228.7

As can be seen from Table 1, CATL’s operating income and net profit have shown a significant growth trend in the past few years. The first is the change in operating income. In 2021, CATL’s operating revenue was 1303.6 million RMB. In 2022, CATL’s operating income increased significantly, far surpassing EVE, which ranked second in profit growth [7]. By 2023, CATL’s operating income reached a peak of 4,009.17 million yuan, an increase of 207.54%. Next is the net profit situation. Net profit in-

creased from RMB 159.3 million in 2021 to RMB 441.21 million in 2023, an increase of 176.95%.

However, it should be noted that although the operating income in 2023 and 2024 will still maintain a growth trend, the growth rate of net profit will show a slowing trend. In particular, in the first half of 2024, net profit declined slightly compared to the full year of 2023, reflecting the challenge of achieving further high growth from a high base. Despite this, even if the net profit growth rate

in the first half of 2024 retraces to 10.37%, this growth rate is still bright compared to the industry average. This also proves that CATL has maintained solid profitability and good development momentum in a complex market environment.

From 2016 to 2018, CATL achieved rapid development. In 2017, the company's power battery sales reached 12.0GWh, becoming the world's first for the first time. In the same year, CATL established subsidiaries in France, United States, Canada, Japan and other places, and began to deploy in the global market. In 2018, CATL was listed on the Growth Enterprise Market of the Shenzhen Stock Exchange under the stock code 300750, raising RMB 5 billion in IPO, mainly for expanding production capacity and investing in R&D. After the listing, CATL's market capitalization grew rapidly and became the focus of the capital market.

#### 4. Non-market treatment

In 2023, CATL achieved impressive financial results, with a net profit of more than 44.1 billion yuan for the year. This achievement is due to the company's continuous innovation in technology and products. By increasing R&D investment, CATL has launched a number of competitive products, such as Shenxing Plus. Based on the third-generation module-less technology CTP 3.0, the Shenxing Plus battery optimizes the topology to make full use of the energy bin space and make it possible for the vehicle to continue driving for more than 1,000 km [7-8]. Besides, in the face of fierce market competition and price war pressure, CATL has adopted a number of strategies to maintain its leading position, such as accelerating the mass production and application of Shenxing batteries, promoting fast charging technology, and further increasing its market share through the "CATL Inside" cooperation model. In addition, CATL's strong growth in overseas markets also injected strong impetus into its overall performance. In the future, CATL will continue to promote the globalization strategy and accelerate the layout of the international market.

The United States government has implemented a number of policies for CATL. First, on June 7, 2022, John Mullenard, chairman of the United States Select Committee on U.S.-China Strategic Competition, and a number of other members of the United States House of Representatives jointly sponsored a bill called the "Separation from Foreign Hostile Battery Dependence Act". The bill calls for banning the United States Department of Homeland Security from purchasing batteries from six Chinese battery companies, including CATL and BYD, while promoting supply chain decoupling from United States' geopolitical

rivals. From indirect restrictions to outright bans, United States has made frequent moves around Chinese batteries. In August 2022, Joe Biden signed the Inflation Reduction Act of 2022, announcing that eligible new electric vehicles will enjoy a tax credit of up to US\$7,500, while a used electric vehicle will get a credit of up to US\$4,000 [9]. At the same time, subsidies for vehicles are restricted by requiring that a certain percentage of battery module mining and processing must be carried out in the United States, Canada, Mexico, or countries or regions with which the United States has a free trade agreement. This means that electric vehicles with batteries produced in China will not be eligible for the tax credit.

Second, in December 2023, the National Defense Authorization Act for fiscal year 2024 passed by the United States Senate and House of Representatives clearly stated that the United States Department of Defense will be prohibited from purchasing batteries produced by six Chinese battery companies. The bill, which was signed by Biden that month, will take effect in October 2027.

In addition, in May 2024, the United States announced tariffs on a series of goods such as Chinese solar cells and electric vehicles. Among them, the tariff on power batteries will be increased from 7.5% to 25%, and the tariff on battery parts will be increased from 7.5% to 25%. In June, a group of Republican lawmakers from United States sent a joint letter to the United States Department of Homeland Security, demanding that CATL and Guoxuan Hi-Tech be added to the entity list of so-called "Uyghur forced labor" and that the companies' products be banned from United States.

Meanwhile, United States House of Representatives China Committee Chairman Mullenard and Senator Marco Rubio sent a letter to Defense Secretary Austin requesting CATL to be included in the so-called "Chinese Military Enterprise List," based on the United States Department of Defense's identification and disclosure of Chinese companies believed to be linked to the Chinese military under Section 1237 of the National Defense Authorization Act of 1999. Companies included in this list may be subject to certain restrictions for United States investors, such as United States investors are prohibited from buying or selling shares in these companies.

These are all unfair non-market treatments suffered by CATL. On June 7, 2022, CATL issued an official statement saying that the United States congressman sent a letter to CATL on June 5, accusing CATL of having links with so-called "forced labor", which is groundless and completely wrong. CATL adheres to the highest business and ethical standards and has effective policies in place to ensure that its supply chain meets the highest global standards. For CATL, in the face of these policy challenges,



the company needs to adjust its international market strategy to adapt to the changing geopolitical environment. At the same time, CATL also needs to take legal measures to protect its rights and interests, or seek international cooperation to mitigate the negative impact of such non-market factors.

## 5. Discussion

### 5.1 Cause analysis

The reasons for CATL's sanctions are varied. From an economic point of view, CATL, as a leading enterprise in the EV battery market, has an important impact on the global economic landscape through its market position and supply chain advantages. However, with the introduction of the United States Inflation Reduction Act of 2022, the United States government's support for domestic electric vehicles and related industrial chains and strict restrictions on the source of imported battery raw materials have posed a challenge to CATL's global market expansion. This economic policy adjustment is aimed at promoting the development of the domestic electric vehicle industry in the United States and reducing dependence on foreign supply chains, thus creating some economic pressure on international companies like CATL.

From a social perspective, the sanctions storm faced by CATL also involves issues of social responsibility and moral standards. United States politicians have accused CATL of "forced labor" in its supply chain, an allegation that, if established, would seriously damage CATL's brand image and social reputation. In modern society, enterprises not only need to pursue economic benefits, but also need to assume corresponding social responsibilities to ensure that production activities meet moral and ethical standards. Therefore, the raising of this social issue poses a potential social pressure on the future development of CATL.

From a political and cultural point of view, the issue of CATL's sanctions also reflects the political game and cultural differences in international trade relations. Through sanctions and other means, the United States government is trying to safeguard its interests in global trade while promoting the revival of its domestic industry. The rise of Chinese companies such as CATL in the global market is seen as a challenge to United States's traditional industrial status. In addition, cultural differences may also lead to differences in the understanding of labor rights and environmental protection standards between the two sides, which further exacerbates the conflict between the two sides. The combination of these factors has made CATL a focus of attention on the international political stage.

### 5.2 Future outlook

CATL occupies a leading position in the global EV battery market, and its development strategy needs to be considered in the face of United States policy challenges. First, the company should maintain its technological advantage by increasing R&D investment, which will not only ensure the leading position of its products in terms of energy density, charging speed and safety, but also enhance its competitiveness in the global market. In addition, CATL can look to establish closer partnerships with domestic United States automakers, such as Ford Motor Co., Ltd., which will help it better adapt to the needs and policy environment of the United States market. At the same time, CATL should also actively adjust its supply chain structure to ensure that the source of raw materials meets the strict requirements of the United States government and reduces potential supply chain risks.

In response to the United States government's concerns about labor rights in the supply chain, CATL should also adopt a strategy of transparent operations. The company need to actively participate in international organizations, such as the Responsible Cobalt Initiative, which is one of the materials used in lithium-ion batteries, and its extraction is a concern in terms of human rights abuses, child labour, and tragic working conditions [10]. This transparency helps to raise CATL's international profile and address concerns about its business practices. Meanwhile, CATL should also explore market diversification strategies to diversify risks and reduce dependence on the United States market by exploring markets in other countries and regions.

Finally, CATL can work with EV manufacturers through a technology licensing model, allowing them to produce their own batteries using CATL's technology, which may help circumvent direct production constraints. By strengthening brand and market communications and emphasizing its commitment to environmental, social and governance, CATL can enhance its brand image and demonstrate its leadership in the global EV industry, thereby continuing to consolidate and expand its market leadership while addressing United States policy challenges.

## 6. Conclusion

This article analyzes the non-market treatment experienced by CATL in the United States and the main reasons behind it, and discusses the company's future development strategy. As a leader in the EV battery market, CATL is facing challenges due to United States strict restrictions on the source of imported battery raw materials in the

Inflation Reduction Act of 2022 and policy adjustments to support the development of the domestic EV industry chain. These economic policy changes, aimed at boosting the domestic EV industry in United States and reducing reliance on external supply chains, have put pressure on international companies like CATL. In addition, social-level allegations of “forced labor” in CATL’s supply chain also pose a potential social pressure on the company, affecting its brand reputation. In the face of these challenges, CATL has not only advanced its strategic presence in the European and North American markets, but also established partnerships with Asian automakers to expand its international business through asset-light cooperation models and technology licensing. In the future, CATL should continue to promote the globalization strategy, accelerate the layout of the international market, and pay attention to social responsibility, ensure that production activities meet moral and ethical standards, so as to maintain brand image and social reputation.

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