

CATL Investment Value Fundamental Analysis Report

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Abstract: As the leader in the field of power batteries, CATL has expanded its overseas cooperation to further open up foreign markets. Through CATL' huge capital aura, its "Ningde experience" in technological innovation and large-scale manufacturing is of even greater value to the new energy industry and Chinese business. This report determines the investment value of CATL New Energy Technology Company Limited [300750.SZ] by collecting financial data from its audited reports from 2016 to 2020 and making a prudent judgment on the investment target's business performance.

Keywords: CATL; Investment Value; Financial Data

1. Macro strategy

Entering 2021, the world economy showed a recovery trend after coming out of the shock of the New Crown Pneumonia epidemic in 2020. According to preliminary estimates, GDP in the first quarter was RMB 2,493.1 billion, with Q1 GDP growth of 18.3% year-on-year at comparable prices and 0.6% sequentially over Q4 2020 due to the low base effect. The macro strategy for the second half of 2021 will be analysed below from both domestic and international perspectives.

1.1 Domestic macro situation

In 2020, China's national economy recovered rapidly after the impact of the epidemic, with an annual GDP of approximately RMB101.6 trillion, an increase of 2.3% over the previous year. The national consumer price index rose by 2.5%, with price increases generally manageable.^[3] GDP per capita was approximately US\$10,500 and private consumption expenditure accounted for approximately 40% of GDP, indicating a further increase in China's residents' spending power and a gradual recovery in consumer market demand.^[7]

1.2 Macroeconomic conditions in the US

The most serious problem facing the macroeconomic situation in the US since 2021 lies in the contradiction between inflation and monetary policy. In order to cope with high inflation, the Federal Reserve is bound to adopt a tightening strategy. According to the Bloomberg Finance database, the decline in the price of the US ten-year Treasury note has widened since 2021, with the corresponding yield rising rapidly and breaking the key level of 1.6% several times, peaking at 1.77% intraday in the week of the end of March, triggering violent shocks in global equity markets. By the end of May, the yield on the US 10-year Treasury note closed at 1.5943%.^[7] Expectations of a Fed rate hike have been very bad for financial markets, and whenever the Fed puts expectations of a rate hike on the market, US equities then fall, with funds showing anxiety about tightening liquidity. However, if the Fed chooses not to raise interest rates, it will be difficult to curb the rapid growth of inflation, which will further widen the gap between the rich and the poor and asset price bubbles in the US, putting the US economy at systemic risk.

2. Business analysis

In this section of the report, CATL' audited financial reports for a total of five years from 2016 to 2020 have been selected to analyse its profitability and financial position. At the same time, the non-financial aspects of CATL will be studied in terms of its management capabilities, technological strengths, upstream and downstream industry chains, development strategies and corporate risks, to provide a comprehensive analysis of CATL' investment value.

2.1 Analysis of financial data[4]

2.1.1 Analysis of growth and profitability - income statement and other

comprehensive income statement

From 2016 to 2020, CATL' operating revenue was RMB14.8 billion, RMB19.9 billion, RMB29.6 billion, RMB45.7 billion and RMB50.3 billion, respectively, with operating revenue growth consistently maintaining a high growth rate of over 34% and continuing to rise from 2017 to 2019 in a period of rapid growth upturn. 2020 saw significant operating revenue growth due to the impact of the epidemic declined, but still maintained a high growth rate of nearly 10%. At the same time, while operating revenue is growing rapidly, the proportion of operating revenue accounted for by the main business is steadily decreasing, with the proportion of operating revenue accounted for by power battery production starting to decline steadily since 2016 and the proportion of revenue accounted for by the basic materials side rising. The strategy of enriching product lines and diversifying operations has enhanced the anti-risk capability of CATL' revenue.

2.1.2 Analysis of sustainable operations and operating capacity - balance sheet

CATL' current ratio and acid ratio are below the industry median, but still maintain strong solvency and are able to settle short-term debts quickly. CATL has a strong voice over its downstream customers, and its accounts receivable management capability is significantly stronger than that of its competitors in the industry; at the same time, CATL' inventory turnover days are also smaller than the median of the industry, and despite the decline in inventory turnover ratio in recent years, CATL still maintains a stronger inventory management capability than its competitors. In addition, CATL' full business cycle is much smaller than the industry median, and remains petty and volatile, significantly stronger than its competitors in terms of the company's business operations. This indicates that CATL has very strong operational capabilities.

2.1.3 Cash capacity analysis - cash flow statement

In terms of cash flow ratios, the cash flow ratio is the ratio of EBITDA divided by the sum of interest or principal and interest, which reflects the ability of the company's cash flow to settle its current liabilities. The cash flow ratio of CATL is slightly higher than the industry median of 28.1%, indicating that CATL has a good ability to settle its current liabilities. After significant investments in company formation and capacity expansion, Ninted's free cash flow has continued to grow and is well above that of its peer group competitors, reflecting the company's ability to generate long-term profitability and value.

2.2 Analysis of non-financial data

2.2.1 Core Competitiveness of Products

From the perspective of the product competition pattern of the power battery and energy storage equipment industry, the core competitive advantage of Ningde Time lies in the high energy density and low cost of power batteries. The core cost factor of the new energy vehicle industry is the electric power system and energy storage equipment. The single energy density of the ternary square lithium battery and lithium iron phosphate battery cells developed by CATL ranks first among the relevant products, lagging behind

only less than 10% of the energy density of cylindrical battery cells and soft pack battery cells adopted by foreign counterparts. At the same time, CATL has also made outstanding achievements in cost control for its power batteries. From 2016 to 2019, CATL power battery costs decreased by more than 15% on average, and in 2017, it achieved a battery cost of less than RMB1/Wh for the first time. Through the research and development iteration of new technologies and the synergistic effect of the industry chain, CATL' cost advantage is expected to be further strengthened.

2.2.2 Technology iteration and R&D

CATL has continued to invest in technological innovation, focusing on the service life, production process, battery density and charging speed of power batteries. The CTP technology developed by CATL has greatly simplified the production process and the number of parts by integrating the cells directly into the battery pack, increasing production efficiency by 50% and also further reducing production costs. In terms of service life, CATL has focused on the research of self-sleeping passivation film technology for the positive electrode, low lithium consumption technology for the negative electrode and bionic electrolyte technology, enabling the cells to achieve a service life of 15 years of use and 15,000 cycles of charging and discharging, enhancing product competitiveness.^[2] In terms of super fast charging technology, CATL has increased the input current and thus shortened the charging time through a technology that controls the cathode potential above the precipitating lithium potential threshold. The development of new technologies enables NINGDE to maintain its core competitive advantage and bring growth opportunities.

2.2.3 Closed loop industrial chain

By laying out the upstream and downstream of the industry chain, CATL has formed industry chain synergies and created an industry closed loop, which has widened the moat of the enterprise.^[5] In terms of upstream suppliers, CATL has laid out lithium ore, nickel ore, positive and negative electrode materials and electrolyte companies, including multiple suppliers, and has adopted a decentralised procurement strategy to strengthen the right to speak to suppliers and promote healthy competition among supply chains, improve the quality and stability of its own supply chain system, enhance supply chain flexibility and reduce raw material and parts procurement costs.^[1]

3. Investment Conclusion

At the macroeconomic level, the global economy is under certain pressure in the short term, and investors should be concerned about the systemic risks and the risks of broad-based shocks in the financial markets in the short term, but generally optimistic about the economic growth and financial market trends in the medium and long term. At the industry level, there is a huge market demand for the new energy vehicle industry, the industry Matthew effect is obvious, and in line with the national development strategic plan, is with investment value in the medium and long-term track. At the company level, CATL' overall profitability and growth capacity are significantly stronger than its competitors in the industry, and it has a high market share and is in the leading position in the industry, with a wide moat and strong competitiveness. Although the valuation given by the market is high in the short term, CATL is an investment target with value investment potential in the new energy industry track in the medium to long term.

This report determines the investment value of CATL New Energy Technology Company Limited [300750.SZ] by collecting financial data from its audited reports from 2016 to 2020 and making a prudent judgment on the investment target's business performance.

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