

# FINE3005

## Investment Report

### Section 1

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# **1. Executive Summary**

This report provides investment recommendations for six corporations in the electronic vehicle industry, including BYD (1211, HK), Li Auto Inc. (2015, HK), Tesla (TSLA, US), CATL (300750, SZ, China A-Share), Xpeng (9686, HK) and NIO Inc (9866, HK). The stock analysis is carried out from two aspects - fundamental and technical.

- BYD (1211, HK): HOLD
- Li Auto Inc. (2015, HK): BUY
- Tesla (TSLA, US): HOLD
- CATL (300750, SZ, China A-Share): BUY
- Xpeng (9686, HK): HOLD
- NIO Inc (9866, HK): SELL

# **2. Macroeconomic Preview**

The world's electric vehicle (EV) market of 2025 exists within a complex macroeconomic scenario of modest economic expansion underpinned by lingering inflation pressures, rising trade tensions, and unpredictable financial markets. Essentially, global economic expansion is about 2.8% in 2025 underpinning EV demand, albeit tempered by the threat of trade risks.

Subsequently, 3.5–4% inflation might later drive financing costs higher, although falling interest rates might mitigate. Additionally, US-China trade duties of up to 145% might make the costs of EV components more expensive, undermining affordability. Lastly, stock markets are unpredictable as the S&P 500 dropped by 10% during the initial 2025 period while the Hong Kong-based Hang Seng demonstrates resilience. These conditions have varying impacts on EV demand, production costs, supply chain dynamics, and investor mood and pose opportunities as well as challenges for the industry.

## **2.1 Global Economic Growth**

The world economy in 2025 will expand moderately, according to the IMF's projection of a 2025 global GDP of 2.8%, a reduction of its initial 2025 estimate of 3.3% due to the risks of adverse trade policy. The World Bank also makes a conservative projection of 2.6%, citing risks of adverse trade policy and geopolitical tensions. Regional differences exist: the United States will

grow by 1.8%, a sharp decline from 2.7% due to the risks of trade tensions and declining consumer confidence. The world's largest EV market, China, will sustain strong expansion at 4.0%, bolstered by domestic consumption and government policy support. Europe will experience slow expansion of about 1.0%, potentially slowing EV penetration due to dampened consumer purchasing power. The moderate world expansion supports the penetration of EVs as economic expansion generally relates positively to increased disposable income levels that allow consumers to invest in expensive products such as EVs. Reports like the one by ITR Economics show a tight correlation between the expansion of US GDP and the expansion of EV sales and refer to the ease of penetration of newer technologies facilitated by economic prosperity. Trade disruptions and the risks of policy uncertainties could restrict this expansion, most notably where the region depends significantly on the importation of EV parts.

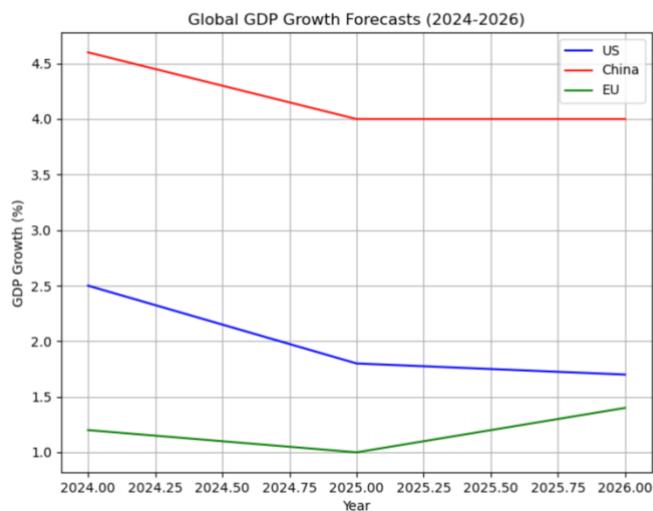


Figure 1 Global GDP Growth Forecast

## 2.2 Inflation

Inflation continues to be a challenge for the EV industry in 2025, while global headline inflation is expected at between 3.5% and 4.0%. The IMF's projection of 0.1 percentage point upward revision of the forecast since the previous estimate shows a level of around 3.6%. The Consumer Price Index (CPI) of the United States recorded a year-on-year inflation of 2.4% during the 12-month period ending March 2025 from the previous 2.8%. China's inflation should be consistent at a level of around 2.0%, as required by central banks. Sustained inflation tends to increase

interest rates, making borrowing costs for consumers buying EVs as well as for producers investing in capacity higher. The Federal Reserve left its key interest rate at 4.25%–4.5% as of the month of March 2025 but should lower rates to the range of 3.5%–3.75% by the end of the year, potentially loosening financing constraints. Financing costs remaining higher can make EVs, as they have higher initial costs than regular vehicles, less accessible and may thus dampen consumer appetite. For the producer side of the industry, higher cost of borrowing may limit investments within the area of R&D or new manufacturing sites required for the scaling up of EV making. The expected drop in interest rates may ease these pressures, propelling consumers' purchasing power as well as industry investments. In addition, the raw material cost increases due to inflation may make production costs of EVs higher while government subsidies like those under the Inflation Reduction Act of the United States may turn the tide by decreasing the effective cost for buyers.

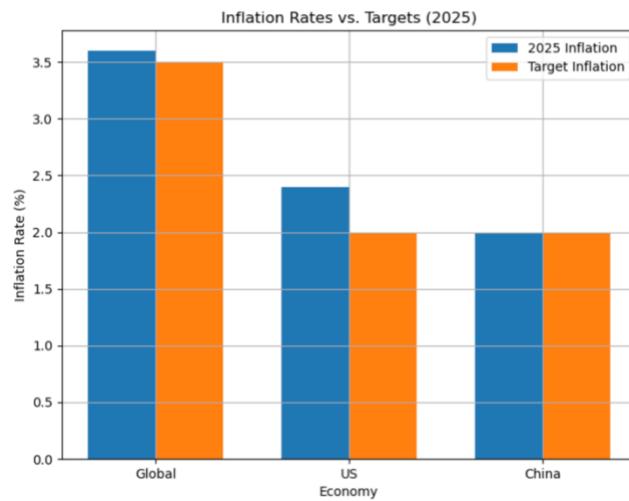


Figure 2 Inflation

### 2.3 Trade Tensions

Trade tensions between the US and China, especially between the two trading partners, pose significant risks for the EV industry. The US imposed tariffs of a maximum of 145% on Chinese imports as of 2025 while China slapped 125% tariffs on American goods. The latter disrupts global supply chains, most notably for EV batteries and key minerals such as rare earths over which the world's largest supplier happens to be China. The Peterson Institute for International Economics says the US tariffs on Chinese exports have averaged 124.1%, significantly elevating

costs on imported components. For the EV market, this means higher production costs as manufacturers have to spend more on batteries and other components from China. The US is trying to develop a domestic supply chain, including for EVs, but these initiatives are still developing and are not currently able to cope fully with Chinese imports. Rising costs could expand EV prices and thus lower consumer purchasing power, especially in price-conscious markets. Trade policy uncertainty might also deter investment in the EV industry as firms hold back from pursuing long-term initiatives amidst unstable trade relations. China's export restrictions on rare earth minerals such as neodymium deployed in EV motors add to supply chain challenges. Although there are reports of the possibility of softening tensions through talks, the current trend means that disruption continues, something likely to slow the world's shift towards EVs.

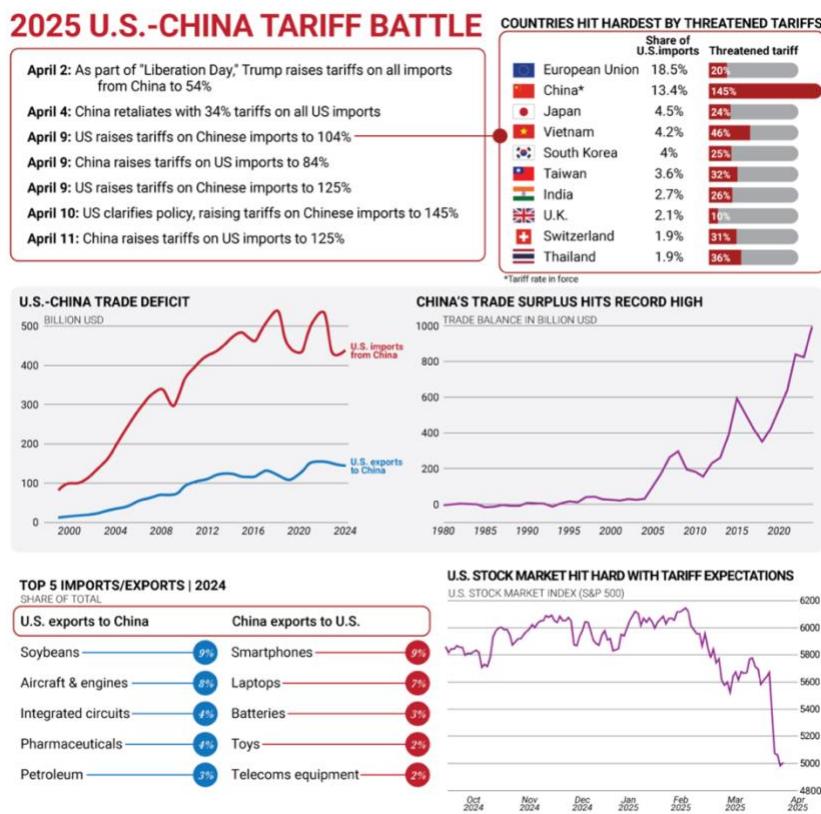


Figure 3 Tariff War

## 2.4 Stock Market

Stock markets of 2025 are characterized by high volatility due to economic uncertainty and trade tensions. International markets beat the US during the first quarter of 2025 as the Hang Seng Index of Hong Kong rose by 15.3% and the DAX of Germany by 11.3%, while the S&P 500 lost -4.6%. The S&P 500 saw a sharp drop of more than 10% at the beginning of April after President Trump's announcements on tariffs moved into correction territory. Volatility impacts EV players differently depending on where they are listed. Domestic market decline by US-listed players like Tesla weakens investor faith and restricts the ability of these players to raise capital. The situation for the Hong Kong-listed players like BYD, Li Auto, Xpeng, and NIO is the opposite as the strong show of the Hang Seng pumps up hope on China's tech industry and economic turnaround. The overall market volatility is dangerous for the EV sector as price swings of stocks have the ability to sway consumer confidence about the stability of the company as well as the ability of the sector to attract funds. The overconcentration of the return of the markets by big tech firms as identified by Goldman Sachs makes the situation even more susceptible to surprise growth misses, especially of the type that hits the growth-oriented EV players.

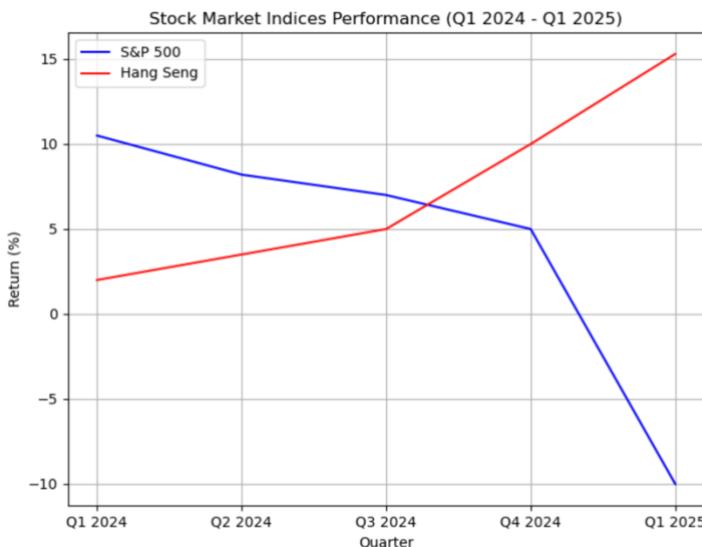


Figure 4 Stock Market

### 3. Industry Analysis

#### 3.1 Current Industry Status

In recent years, the global new energy vehicle market has witnessed a period of rapid growth. According to data, global sales of electric vehicles will exceed 14 million units in 2023, with an overall market penetration rate of about 18 per cent. Among them, China's market penetration rate of more than 30%, far ahead of the global average; European market penetration rate of about 20%, benefiting from national environmental policies and carbon neutral target of the drive; and the U.S. market penetration rate is still less than 10%, but in the Inflation Reduction Act (IRA), the introduction of the EV sales growth rate has accelerated significantly, showing catch-up trend. Overall, China remains the world's largest new energy vehicle market, with sales accounting for more than 60% of the global total. The European market is growing steadily, with obvious policy-orientation; the U.S. market is in the early stage of rapid development stimulated by policies.

In terms of technological progress, the core technology of electric vehicles continues to iterate, especially in the areas of batteries and intelligent driving. In terms of batteries, lithium iron phosphate (LFP) batteries, with the advantages of low cost and high safety, have been increasing their market share and have become the mainstream technology route adopted on a large scale by Tesla, BYD, and other car companies. Meanwhile, solid-state batteries, as the next-generation battery technology, are still in the stage of R&D and small-scale demonstration applications but have been widely regarded as the key breakthrough direction for improving energy density and safety in the future. In terms of intelligence, high-level assisted driving systems (such as high-speed NOA and urban FSD) have become the focus function of differentiated competition among major automotive companies, although they are still in the stage of landing in limited scenarios due to the restriction of regulations and technological maturity. In addition, in terms of the construction of energy replenishment system, supercharging technology (e.g., 800V high-voltage platform) and power exchange mode (promoted by Azure, Ningde Times, etc.) are being developed in parallel, which significantly improves the efficiency of energy replenishment and user experience of EVs.

In terms of policy environment, major regional governments continue to increase their support for the new energy vehicle industry. China has clearly set out its 'dual carbon' target, and although financial subsidies for vehicle purchases will be phased out from 2023, the purchase tax exemption policy will be extended to 2025, providing continued incentives for the consumption

of new energy vehicles. In Europe, legislation has been enacted to ban the sale of all fuel vehicles by 2035, to force the penetration of electric vehicles. The U.S. has passed the Inflation Reduction Act (IRA), which not only provides tax incentives for EV consumers, but also favors local battery and vehicle production in the supply chain, aiming to support the local new energy industry system and reduce reliance on overseas supply chains (especially China's).

Overall, the global new energy vehicle industry has gradually transformed from the early policy-driven stage to a new stage driven by technological progress and market demand. Especially in China, with its huge market scale, mature industrial chain foundation and rapid technology iteration speed, the future will still be the most important growth engine and competitive high ground of the global electric vehicle industry.

### **3.2 Development Trends**

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### **3.3 Competitive Landscape**

As the scale of the new energy vehicle market continues to expand, the competitive landscape on a global scale is also accelerating its evolution, and the phenomenon of stratification and cross-border integration within the industry has become apparent.

Firstly, from the perspective of the echelon division of vehicle manufacturing enterprises, the global new energy vehicle industry has formed a relatively clear competitive tier. The first echelon is dominated by Tesla and BYD. Tesla maintains a leading position in the mid-to-high-end pure electric market by virtue of its world-leading battery technology, autonomous driving

capability and brand influence; BYD has achieved comprehensive control from supply chain to vehicle through the vertically integrated mode of batteries, chips and vehicle integration, and has rapidly expanded in the global market, becoming the double champion in pure electric and plug-in hybrid markets. The second echelon consists of a group of new power car companies and traditional giants, including representatives of China's new forces such as Azure, Xiaopeng and Ideal, as well as traditional car companies such as Volkswagen Group and Hyundai Kia.

Companies in this echelon are investing more and more in intelligent driving, digital experience and product diversification, and accelerating the electrification transition to capture more share in the fierce competition. The third echelon consists of segment players such as Wuling, Nezha, and Rivian, which are looking for differentiated breakthroughs by focusing on specialized areas such as microcars, sinking markets, or electric pickup trucks.

Second, in terms of cross-border competition, the participation of tech companies and parts suppliers is reshaping the ecological pattern of the industry. Technology giants have layout intelligent electric car track, Huawei through the HI (Huawei Inside) mode depth empowerment asked the world, millet with SU7 high-profile cut into the field of electric cars, make full use of its accumulation of advantages in intelligent hardware and ecological chain. The traditional parts giants such as Bosch and Ningde Times are also transforming into system solution providers, not only supplying parts, but also providing overall solutions in key areas such as vehicle intelligence and energy management to strengthen the industry's right to speak. This cross-border integration has accelerated technological innovation but also intensified the competition and synergistic game between the upstream and downstream of the industry chain.

When it comes to regional competition, the Chinese market is undoubtedly the most competitive and fast-changing battlefield in the world. 2023 China's new energy vehicle market 'involution' intensified, price wars frequently broke out, and more than 50 new models of official price cuts throughout the year, which greatly compressed the industry's average profit level. In this context, only in the brand power, technical strength and cost control ability have the advantage of the enterprise, to survive in the fierce competition and expand the share. In contrast, the European and American markets rely on stronger policy protection, the United States through the Inflation Reduction Act to encourage the development of the local supply chain, set restrictions on Chinese products; Europe through the carbon emissions regulations and subsidies to give priority

to support local car companies. In emerging markets, such as Southeast Asia and Latin America, EV penetration is still in its early stages, but there is huge potential for growth. Chinese automakers, such as BYD and SAIC, have taken the lead in laying out the Southeast Asian market through local factories and joint ventures in an attempt to seize the lead in the wave of electrification in emerging markets.

Overall, the competition in the new energy automotive industry has shifted from a single dimension to a multi-dimensional competition, which not only includes the traditional dimensions of technology, cost and product power, but also covers branding, ecological construction, supply chain control and market sinking and other comprehensive capabilities. In the future, companies that can achieve a good balance between intelligence, electrification, globalization and cost efficiency will stand out in the new round of industry reshuffle and occupy a more favorable position.

### **3.4 Challenges and Opportunities**

Although the new energy vehicle industry has shown great growth potential, the industry is facing many challenges and structural opportunities both internally and externally while developing rapidly. Whether enterprises can successfully stand out in the future will depend on their ability to cope with challenges and grasp opportunities.

First, from the challenge level, the price fluctuations of upstream raw materials constitute the main uncertainties in the development of the industry. Lithium, nickel, cobalt and other key mineral resources prices have fluctuated dramatically since 2022, which not only directly pushes up the cost of battery manufacturing but also increases the pressure on the profits of vehicle manufacturers. Especially for car companies that are highly dependent on external battery supply, rising raw material prices could lead to a rapid deterioration in profitability. Secondly, the imperfection of charging infrastructure is still an important obstacle to the further popularization of electric vehicles, especially in Europe and the United States, the uneven layout of the charging network between urban and rural areas, and user range anxiety has not yet been eliminated, which affects the medium- and long-term penetration rate. In addition, lagging regulations related to automatic driving are also a key bottleneck in the process of intelligent transformation of the industry. Despite the rapid progress of high-level assisted driving technology, in most

countries, the commercialization of L3 and above automatic driving is still restricted by the lack of laws and regulations, which restricts the rapid release of technological dividends.

Correspondingly, the industry is also pregnant with abundant opportunities. First, the starting stage of electrification in emerging markets brings considerable growth space. Southeast Asia, India, Latin America and other regions in the policy guidance and the dual role of cost reduction, new energy vehicle penetration rate is rapidly increasing, is expected to form a new growth pole in the next five years. For China and some international car companies, early layout of emerging markets is expected to occupy a favorable position in the global competition pattern. Second, with the rising ownership of electric vehicles, energy storage and battery recycling and other after-market business will become a new profit growth point. Especially in the context of increased demand for grid load management and accelerated application of green energy, the deep integration of electric vehicles and the energy Internet (e.g., V2G applications) has brought new value-exploiting opportunities for the industry. In addition, intelligent software subscription models are gradually emerging, with high-level assisted driving systems (e.g. Tesla FSD, Azera NOP+) and Telematics entertainment services providing a long-term and sustainable revenue source for car companies through a continuous payment model, breaking the limitations of the traditional one-time business model of selling cars.

In summary, the new energy vehicle industry is in a critical period of transition and reshuffle. Future leaders not only need to maintain advantages in cost control and product technology, but also need to actively layout emerging markets, build after-market ecology and deepen intelligent transformation. Only enterprises that truly respond to challenges, embrace changes and capture structural opportunities can stand out in the new round of global new energy revolution and win long-term competitive advantages.

## 4. Company Analysis

### 4.1 BYD (1211, HK)

Apr 17, 2025, Close \$366.00

Recommendation: Hold

#### 4.1.1 Investment Summary

This report provides in-depth fundamental and technical analyses of BYD Company Limited (1211.HK) and offers investment recommendations based on a comprehensive assessment. BYD has consolidated its leading position in the global new energy market by virtue of its technological innovation, globalisation and vertically integrated industry chain advantages in the field of new energy vehicles. The company's new energy vehicle sales surpassed Tesla in 2023, demonstrating strong market competitiveness. On the financial front, it will achieve an average annual revenue growth rate of 30.5% between 2022 and 2024, with gross profit margin and operating profit margin continuing to improve, and a sound overall financial structure. However, continued high capital expenditure has led to a decline in free cash flow and a rise in total debt levels, requiring attention to future liquidity and financial risks.

Technical analysis shows that BYD is currently showing a cautious trend, the RSI indicator is close to the overbought area, the short-term moving average although the formation of a golden cross, but the momentum is weakening, the MACD indicator also shows that the upward momentum tends to slow down, suggesting that in the short term, the stock price may be subject to a certain degree of adjustment pressure.

Based on the combination of fundamental and technical factors, this report assigns a HOLD investment rating to BYD (1211.HK). Investors are advised to pay attention to the implementation of the company's global expansion strategy, changes in financial leverage and market technology trends, and flexibly adjust their investment strategies to capture long-term growth potential while controlling short-term volatility risks.

#### **4.1.2 Company Overview**

BYD Company Limited (stock code: 1211.HK; 002594.SZ) was founded in 1995 by Wang Chuanfu and is headquartered in Shenzhen, Guangdong Province, China. The company's name 'BYD' means 'Build Your Dreams', demonstrating its mission of driving sustainable development through technological innovation. After nearly three decades of rapid growth, BYD has evolved from a battery manufacturer to a leading global supplier of new energy solutions, with businesses in four segments: new energy vehicles (NEVs), batteries and energy storage, electronics manufacturing, and rail transport.

As of September 2024, BYD has more than 30 industrial parks around the world and over 900,000 employees, making it one of the largest private companies in China and a member of the Fortune Global 500 for many years. 2023 annual revenue of the company reached RMB 602 billion, an increase of about 42% year-on-year, showing strong momentum in the global new energy transformation tide.

In the field of new energy vehicles, BYD has realized its strategic transition from traditional fuel vehicles to new energy vehicles through its subsidiary BYD Auto. The company announced in March 2022 that it would cease production of fuel vehicles and fully transform into a new energy vehicle manufacturer, with its products covering BEVs, PHEVs and EREVs. The main product lines include the ‘Dynasty Series’ (e.g. Qin, Tang, Han) and the ‘Ocean Series’ (e.g. Seal, Dolphin), while premium brands such as Denza, Fangchengbao and Yangwang have been launched. In 2023, BYD will overtake Tesla to become the world's No.1 in the sales of new energy vehicles.

In terms of core technology, BYD adheres to independent research and development, and has the ability to vertically integrate the whole industry chain, including batteries, motors, electronic control, chips and vehicle manufacturing. Innovative technologies such as Blade Battery, e-Platform 3.0 and DM-i Super Hybrid System have not only improved product performance and safety, but also significantly reduced manufacturing costs and consolidated the industry's leading position. 2023, the company's R&D investment amounted to CNY 39.9 billion, accounting for more than 6.6 per cent of the annual revenue, reflecting its continued emphasis on technological innovation.

In addition to its automotive business, BYD is also expanding rapidly in the power battery and energy storage sectors. Subsidiary FinDreams Battery will capture about 17 per cent of the global new energy vehicle battery market by 2024, and continues to expand its energy storage systems, photovoltaic power generation and energy management solutions. In addition, BYD promotes green urban mobility through rail transit projects such as SkyRail and SkyShuttle.

BYD's globalization continues to accelerate, with its products sold in over 70 countries and regions across six continents. The company is actively building factories and sales networks in Europe, Southeast Asia, Latin America, and the Middle East, and has established partnerships

with many governments and large enterprises to promote the construction of new energy transport systems.

Looking to the future, BYD will continue to strengthen its position as a global leader in new energy through technological innovation and international expansion with ‘electrification, intelligence, low-carbonization and globalization’ as its core development direction, and make positive contributions to global sustainable development.

#### **4.1.3 Fundamental Analysis**

##### **4.1.3.1 Potential Development**

BYD is at a critical stage of rapid expansion in the global new-energy vehicle and renewable energy sectors and continues to consolidate its industry leadership with its technological innovation and internationalisation strategy. The company is actively exploring the European market and plans to launch its premium brand Denza in 2025, with the first models Z9GT and D9 expected to hit European showrooms in the fourth quarter. Meanwhile, BYD is building a 300,000-vehicle plant in Hungary and setting up a dedicated R&D centre in the UK to develop localised models that meet the preferences of European consumers. In addition, the company plans to introduce five new DM-i plug-in hybrid models to the European market in the next 18 months to meet the growing local demand for new energy hybrid vehicles. In the Asian market, BYD is aggressively expanding its sales network in Japan, targeting 100 dealerships by 2025, and launching the Shark 6 hybrid pickup truck in Australia to compete directly with mainstream best-selling models. The construction of new factories in Thailand, Indonesia and Pakistan also shows BYD's strong determination to layout emerging markets. On the technology front, BYD launched the Super e platform, equipped with 1,000-volt ultra-high-voltage battery technology capable of ultra-fast charging with a range of 400 kilometres (249 miles) in five minutes, far exceeding the industry's level. Meanwhile, the company also accelerated its layout in the field of autonomous driving, upgrading the ‘Xuan Gui System’, which integrates higher-order sensing and intelligent technologies to enhance vehicle automation. Despite the challenges of a fragmented dealership system in Europe, varying consumer acceptance of super-fast charging, complex regulatory policies in India, and potential tariff pressure in the US, BYD is expected to continue to play a key role in the transformation of new energy vehicles globally, thanks to its strong technological reserves and flexible localization strategy.

#### 4.1.3.2 Financial Statement Analysis

##### 4.1.3.2.1 Income Statement

Metric	2022	2023	2024
Total Revenue	424,060,635	602,315,354	777,102,455
Gross Profit	72,244,955	111,916,409	151,055,839
Operating Income	22,976,482	38,412,787	54,430,364
Net Income	16,622,448	30,040,811	40,254,346
Basic EPS (HK\$)	5.71	10.32	13.84

Figure 1: Income Statement Summary (RMB Thousands)

From 2022 to 2024, BYD's income statement demonstrates continued strong growth and significant improvement in profitability. The company's total revenue increased significantly from RMB 424.1 billion in 2022 to RMB 777.1 billion in 2024, achieving an outstanding compound annual growth rate (CAGR) of 30.5 per cent, which was mainly attributed to the hot sales of new energy vehicle products such as the Dynasty Series and Ocean Series, as well as the sales growth brought by the expansion in the global market. Meanwhile, gross profit increased from RMB72.2 billion to RMB151.1 billion, with gross profit margin improving from 17.0% to 19.4%, reflecting the company's significant achievements in cost control, supply chain integration and scale effect. Operating profit rose from RMB23.0 billion to RMB54.4 billion, with operating profit margin increasing from 5.4% to 7.0%, further demonstrating BYD's continued progress in operational efficiency and profit model optimization. Net profit also increased from RMB16.6 billion to RMB40.3 billion, driving earnings per share (EPS) from HK\$5.71 to HK\$13.84. Overall, BYD has achieved double growth in revenue and profit through technological innovation, vertical integration and brand structure optimization, establishing a leading position in the global new energy vehicle industry. However, as competition in the industry intensifies, one of the challenges that BYD must focus on in the future is how to maintain and improve profit margins while expanding its market share.

##### 4.1.3.2.2 Balance Sheet

Metric	2022	2023	2024
Total Assets	493,860,646	679,547,670	783,355,855
Total Liabilities	372,470,809	529,085,557	584,667,646
Total Equity	121,389,837	150,462,113	198,688,209
Total Debt	21,828,796	46,886,032	40,459,600
Debt-to-Assets Ratio (%)	4.4%	6.9%	5.2%

Figure 2: Balance Sheet Summary (RMB Thousands)

BYD's balance sheet continues to expand steadily between 2022 and 2024, reflecting its strategic investment in global production expansion and technology R&D. The company's total assets grew from 493.9 billion yuan to 783.4 billion yuan, an increase of 58.6 per cent, mainly from production capacity expansion, overseas layout and large-scale investment in R&D projects. Meanwhile, total liabilities increased from RMB372.5 billion to RMB584.7 billion, but the gearing ratio remained within a reasonable range, with the total debt to assets ratio rising slightly from 4.4% to 5.2%, demonstrating strong financial leverage management capability. During the same period, total shareholders' equity increased from RMB121.4 billion to RMB198.7 billion, benefiting from the continued accumulation of retained profits and further optimising the capital structure. Total debt increased from RMB 21.8bn to RMB 40.5bn. Although the debt scale has increased, the overall debt servicing ability and capital soundness remain good. Overall, BYD's current asset-liability structure provides a strong guarantee for its large-scale expansion and continuous innovation. However, in the face of the future changes in the global interest rate environment and the continued increase in investment intensity, how to maintain the quality and liquidity of its assets will be a financial management issue that the company needs to focus on.

#### 4.1.3.2.3 Cash Flow Statement

**Table 3: Cash Flow Statement Summary (RMB Thousands)**

Metric	2022	2023	2024
Operating Cash Flow	140,837,657	169,725,025	133,453,873
Investing Cash Flow	-120,595,997	-125,663,644	-129,082,282
Financing Cash Flow	-19,488,683	12,817,127	-10,267,547
Capital Expenditure	-97,456,862	-122,093,509	-97,359,768
Free Cash Flow	43,380,795	47,631,516	36,094,105

Figure 3: Cash Flow Summary (RMB Thousands)

BYD demonstrated a relatively robust cash flow position from 2022 to 2024 but also reflected liquidity pressures from high capital expenditures. In 2024, the company's net cash flow from operating activities amounted to RMB133.5bn, down from RMB169.7bn in 2023 but still at a strong level overall, with the main supporting factor being the continued growth in sales of new energy vehicles resulting in the main supporting factor is the sales return from the continuous growth in sales of new energy vehicles. Meanwhile, cash flow from investing activities has always been negative, with capital expenditure reaching RMB97.4 billion in 2024, mainly for new plants, capacity expansion and investment in research and development of new technologies. Cash flow from financing activities, on the other hand, turned negative at -10.3 billion yuan in 2024, mainly due to debt repayment of 50.1 billion yuan, reflecting the Company's gradual adoption of a more prudent strategy in capital operations. As for free cash flow, it declined from \$47.6 billion in 2023 to \$36.1 billion in 2024, a significant drop, indicating that the high-intensity expansion phase has put significant pressure on the company's free capital pool. Although the current operating cash flow can support the company's development, the company will still need to maintain a high degree of vigilance in liquidity management and debt structure optimisation if investment continues to intensify and sales growth slows down in the future.

#### 4.1.4 Fundamental Analysis



Figure 4: Price Trend (RMB)

The recent technical trend of BYD Company Limited (1211.HK) has shown mildly strong signals, but the overall trend is cautiously optimistic, with a number of technical indicators suggesting that the stock may face some adjustment pressure in the near term. First, looking at the Relative Strength Index (RSI), the current RSI value is 61.64, which is in the neutral-strong range. An RSI above 50 means that there is some upside momentum, but it has not yet entered the overbought range of 70 or above, so technically there is still some room for gains. However, with the RSI gradually approaching the overbought line, history has shown that there is usually a certain amount of volatility at this point, so investors need to be vigilant.

In terms of Moving Average (MA), the 5-day SMA (HK\$382.16) has already crossed the 10-day SMA (HK\$378.00), forming a short-term ‘golden cross’, which is generally regarded as a bullish signal, suggesting that the short-term trend of the stock is still strong. However, it is worth noting that if we look at the pattern of the two SMAs, we can see that there is a certain degree of top blunting, and if the 5-day SMA crosses the 10-day SMA in the future to form the so-called ‘dead cross’, it could trigger a short-term pullback in the stock price. Therefore, although the current golden cross is still established, but the overall trend shows a certain weakness, the follow-up need to pay close attention to changes in the averages.

From the MACD (Exponential Smoothing Moving Average of Difference and Difference) indicator, the DIF line (32.90) is currently above the DEA line (30.24), and the histogram is

maintained in the positive range (2.66), which shows that there is still a certain amount of upward momentum in the market. However, it is worth warning that the MACD histogram has shown a gradual narrowing trend in recent trading days, indicating that the bullish momentum is weakening. If the future DIF line down through the DEA line to form a ‘dead fork’, it may indicate a short-term retracement of the stock price pressure.

From a comprehensive perspective, the current technical signals of BYD generally show a cautious pattern, the RSI indicator shows that the stock price still has a certain amount of upward space but is approaching the overbought zone; short-term averages show a golden cross but weakening kinetic energy; MACD is still in the bullish range but the upward momentum tends to slow down. Therefore, at the current stage, it is recommended that investors hold a ‘cautious holding’ attitude towards BYD, neither excessive chasing high, but also should pay attention to possible signs of technical adjustment, in order to flexibly adjust the position strategy according to the subsequent technical signals.

#### **4.1.5 Investment Suggestions**

Based on a comprehensive analysis of the fundamentals and technicals of BYD Company Limited (1211.HK), and taking into account the industry environment and the company's own operating conditions, this report gives a ‘HOLD’ investment recommendation on BYD. BYD has established a solid competitive advantage in the global new energy industry by virtue of its world-leading R&D capability in new energy vehicles, vertically integrated industrial chain layout, and proactive international expansion strategy. 2023 BYD's new energy vehicle sales surpassed Tesla's to become the world's top-selling vehicle, which is a testament to its strong market expansion capability and brand influence. In addition, the company continues to increase investment in R&D, launching a number of industry-leading technologies such as blade batteries, e-platform 3.0, and super hybrid DM-i system, and continuously consolidating its technological moat. In the future, with the accelerated layout of the European, Southeast Asian and Latin American markets, BYD is expected to further increase its global market share, supporting medium-to long-term performance growth.

At the financial level, BYD has demonstrated excellent growth. between 2022 and 2024, the company achieved an average annual revenue growth rate of 30.5%, gross profit margin increased from 17.0% to 19.4%, and operating profit margin increased from 5.4% to 7.0%,

demonstrating good profitability and cost control ability. Assets expanded to RMB783.4 billion, shareholders' equity grew steadily and the overall financial structure remained sound. However, it is worth noting that high-intensity capital expenditure has led to a decline in free cash flow from RMB 47.6 billion in 2023 to RMB 36.1 billion in 2024, while the level of total debt has risen to RMB 40.5 billion. Although the overall leverage ratio is still within a reasonable range, the mismatch between the pace of future investment and the speed of capital return may put some pressure on liquidity management, so it is necessary to keep a constant eye on the company's cash flow and Debt dynamics.

From a technical point of view, BYD is currently showing a cautious pattern of more RSI is located at 61.64, showing that the stock price still has room to move up, but close to the overbought area need to be vigilant about the risk of retracement; 5 days and 10 days SMA formed a short-term golden cross, suggesting that the short-term uptrend, but the momentum is gradually weakening, there is the possibility of the formation of a dead fork; MACD still maintains the multi-trend range, but the upward energy tends to be weaker, and in the future if there is a dead fork signal MACD still maintains a long range, but the upward momentum is weakening, if there is a dead-cross signal in the future, the stock price may retrace to a certain extent. Therefore, in the short term, BYD shares may face some risk of oscillation, investors are advised to take a cautious wait-and-see attitude.

Comprehensive fundamentals, financial situation and technical performance, BYD has a good long-term investment value, but the risk of short-term fluctuations rise, maintain the 'Hold' rating is more reasonable. Investors should pay close attention to the global new energy vehicle policy changes, overseas market expansion progress, changes in financial leverage and technical trends, and flexibly adjust the investment strategy to ensure that while enjoying the long-term growth dividends, to control the potential downside risks.

#### **4.2 Li Auto Inc. (2015, HK)**

Date: April 17, 2025

Ticker: Li Auto Inc. (2015.HK)

Exchange: HKSE

Industry: Electric Vehicles

Current price: 66.85 HKD

Target price: 107.69 HKD

Upside: +33.9%

Recommendation: Buy

#### **4.2.1 Investment Summary**

Li Auto Inc. is a leading Chinese new energy vehicle (NEV) manufacturer, specializing in intelligent electric vehicles targeted at family users. Established in 2015 and headquartered in Beijing, the company differentiates itself by pursuing a dual strategy of extended-range electric vehicles (EREV) and pure battery electric vehicles (BEV), offering versatile solutions to mitigate range anxiety while transitioning toward full electrification.

As of 2024, Li Auto has firmly established itself as one of the fastest growing and most profitable EV companies in China. The company achieved RMB 144.5 billion in total revenue (+16.6% YoY) and delivered 500,508 vehicles (+33.1% YoY), maintaining strong momentum despite an increasingly competitive and complex market environment.

Fundamentally, Li Auto benefits from:

- Robust revenue and profit growth, achieving consecutive annual profitability.
- A strong balance sheet with RMB 93.9 billion in cash reserves and minimal debt.
- A clear strategic focus on family-use scenarios and technology-driven product innovation.

Technically, recent indicators show:

- A MACD golden cross and a positive histogram, signaling short-term bullish momentum.
- RSI at 46, indicating neutral-to-recovering market sentiment without immediate overheating risks.
- The current price is consolidating above major support levels (~HK\$80) and approaching a breakout point near HK\$102.

Given the company's solid fundamentals, resilient financial health, attractive valuation multiples (P/E ~26x), and improving technical setup, Li Auto presents a compelling long-term investment opportunity.

#### Major Investment Highlights:

- Strong fundamental growth supported by steady profitability and market expansion.
- Strategic clarity with a differentiated product positioning aimed at family users.
- Technical indicators suggesting the potential for a short-term price breakout.

#### Key Risks:

- Potential macroeconomic headwinds, including overall market volatility.
- Intensified competition in China's EV sector from both domestic players (NIO, Xpeng, Huawei AITO) and international brands (Tesla).
- Policy uncertainty regarding EV subsidies and regulatory shifts impacting industry growth.

Based on comprehensive fundamental and technical assessments, we recommend a Buy rating for Li Auto Inc. (2015.HK), with a target price of HK\$120, representing an upside of approximately 33.9% from the current price of HK\$89.65 as of April 17, 2025.

#### 4.2.2 Company Overview

Li Auto Inc. was founded in 2015 by founder Li Xiang and is headquartered in Beijing, China. Originally known as CHJ Automotive, the company launched its first extended range electric vehicle (EREV) model, the Ideal ONE, in 2019, quickly distinguishing itself in the market with its innovative range solutions. In 2020, Ideal Automotive completed its initial public offering (IPO) on the NASDAQ exchange (stock code: LI) in the U.S., successfully raising more than US\$1 billion, and in 2021, the company further completed a dual primary listing on the Stock Exchange of Hong Kong (stock code: 2015.HK), broadening its access to international capital markets. Subsequently, between 2022 and 2023, Ideal launched a new generation of SUV product lineup, including the Ideal L9, L8 and L7, further consolidating its leading position in the family premium SUV market. 2024, the Company released its first all-electric premium MPV, the Ideal MEGA, formally entering the pure electric vehicles, marking a new stage in its

technology and product diversification strategy. This series of important milestones fully reflects the rapid growth trajectory of Ideal Motors from a start-up to a mature car company.

In terms of product layout, Ideal Auto focuses on creating high-end, family-centric intelligent mobility products and is committed to enhancing the family mobility experience through advanced technology. By 2025, the Company's major products include: the pure electric large MPV Ideal MEGA, which is aimed at large family users and equipped with high-level intelligent driving and luxury comfort features; the flagship six-seat extended-range SUV Ideal L9, which emphasizes on family safety and spaciousness; the mid-to-large premium extended-range SUV Ideal L8, which offers flexible seating layouts; and the five-seat flagship SUV Ideal L7, which is designed for small families; As well as the newly launched mid-sized SUV Ideal L6, which serves as a more approachable entry product in the Ideal ecosystem. By segmenting the needs of different families, Ideal Auto has formed a product matrix that covers a wide range of products.

Ideal Motors has applied several core technologies uniformly across its entire product line, further consolidating its competitive advantages. The AD Max and AD Pro intelligent driver assistance systems independently developed by the company are at a high level in the industry; the in-vehicle entertainment system adopts a large-size multi-interactive screen to enhance the intelligent cabin experience; meanwhile, RISO has continued to work hard on occupant safety protection, battery technology innovation and driving comfort to ensure that each product has outstanding family-friendliness and technological attributes. This product design concept, which focuses on the needs of family users, effectively distinguishes Ideal Auto from its competitors, such as Azera and Xiaopeng, which are more inclined to individual driving experience or sports performance.

Overall, Ideal Auto has established a solid leadership position in the high-end segment of China's new energy vehicle market by virtue of its clear strategic positioning, solid technological capabilities, continuous product innovation and good market response, and is actively laying out its plans for the broader pure electric and intelligent mobility sectors, with the potential for sustained growth and international expansion.

#### **4.2.3 Competitive Positioning**

Ideal Vehicle has developed a unique and clear strategic positioning in China's new energy vehicle market, building up a differentiated competitive advantage by focusing on family user scenarios. Compared with brands such as Azera and Xiaopeng, which focus more on individual driving experience or sports performance, Ideal Vehicle precisely focuses on meeting the practical needs of multi-member family travelling and emphasizes the comprehensive performance of the vehicle in terms of space, safety and intelligent experience. This 'family-centred' product strategy has helped Ideal occupy a unique position in the market segment, enhancing user stickiness and brand recognition, especially in the mid- to high-end six-seat SUV and large MPV segments, forming a clear leading edge.

In terms of technology layout, Ideal adopts the strategy of parallel development of the dual routes of Extended Range Electric Vehicle (EREV) and Pure Electric Vehicle (BEV), which reflects its precise grasp of different user needs and infrastructure maturity. The extended-range technology effectively solves the range anxiety problem, which is especially suitable for users in areas where charging facilities are not yet perfect; meanwhile, Ideal has actively responded to the market's trend of transitioning to full electrification by launching pure electric platform models such as Li MEGA. This flexible technology route enables Ideal Motor to take into account the preferences of different consumer groups during the transition period and reduces the business risks caused by market fluctuations.

In the intelligent competition, Ideal Auto has continued to strengthen its independent R&D capability, formed an intelligent driver assistance system represented by AD Max and AD Pro, and constructed its own operating system, Li OS, which covers the core functions of driver assistance, intelligent interaction and entertainment system. The company continues to invest highly in R&D, with R&D expenditure reaching approximately RMB 7.2 billion in 2024, accounting for more than 5% of total revenue, significantly higher than the industry average. By mastering intelligent core technologies, Ideal has not only enhanced its product differentiation advantages, but also consolidated its technical barriers in long-term competition.

In terms of market performance, Ideal Vehicle has achieved rapid improvement in delivery volume, brand recognition and user satisfaction. 2024 annual delivery volume reached over 500,000 units, ranking at the forefront of China's high-end new energy vehicle market, and becoming one of the most influential new energy brands in China, alongside Tesla China and

BYD. In the family car segment, Ideal Vehicle has gained wide recognition and good reputation with its comprehensive advantages in product design, intelligent configuration and practical experience.

In terms of the overall competition situation, China's new energy vehicle industry is extremely competitive, with price wars and intelligent technology competitions alternating, and market concentration rising. Ideal Vehicle has effectively resisted the impact of changes in the external environment through its differentiated positioning, autonomous and controllable technology and precise market segmentation strategy, and has established a relatively solid competitive moat among the new force automobile enterprises. Meanwhile, as the company gradually accelerates the layout of pure electric vehicles and deepens the construction of intelligent system capacity, it has the potential to further expand and increase its market share in the field of intelligent high-end family vehicles in the future.

In summary, Ideal Vehicle has demonstrated significant advantages in terms of strategic positioning, product layout, technical capability and market performance, and has a solid foundation for sustained competition and growth in China and the global new energy vehicle industry.

#### **4.2.4 Fundamental Analysis**

##### **4.2.4.1 Profitability & Growth**

RISO has demonstrated the rare dual characteristics of high growth and sustained profitability in the new energy vehicle industry. in 2024, the Company achieved total revenue of RMB144.5 billion, a year-on-year increase of 16.6%, while deliveries for the year reached 500,508 units, an increase of 33.1% compared to 2023. In an environment of intense competition and intensified pricing pressure, Ideal was able to maintain double growth in revenue and deliveries, highlighting its excellent market execution and product competitiveness.

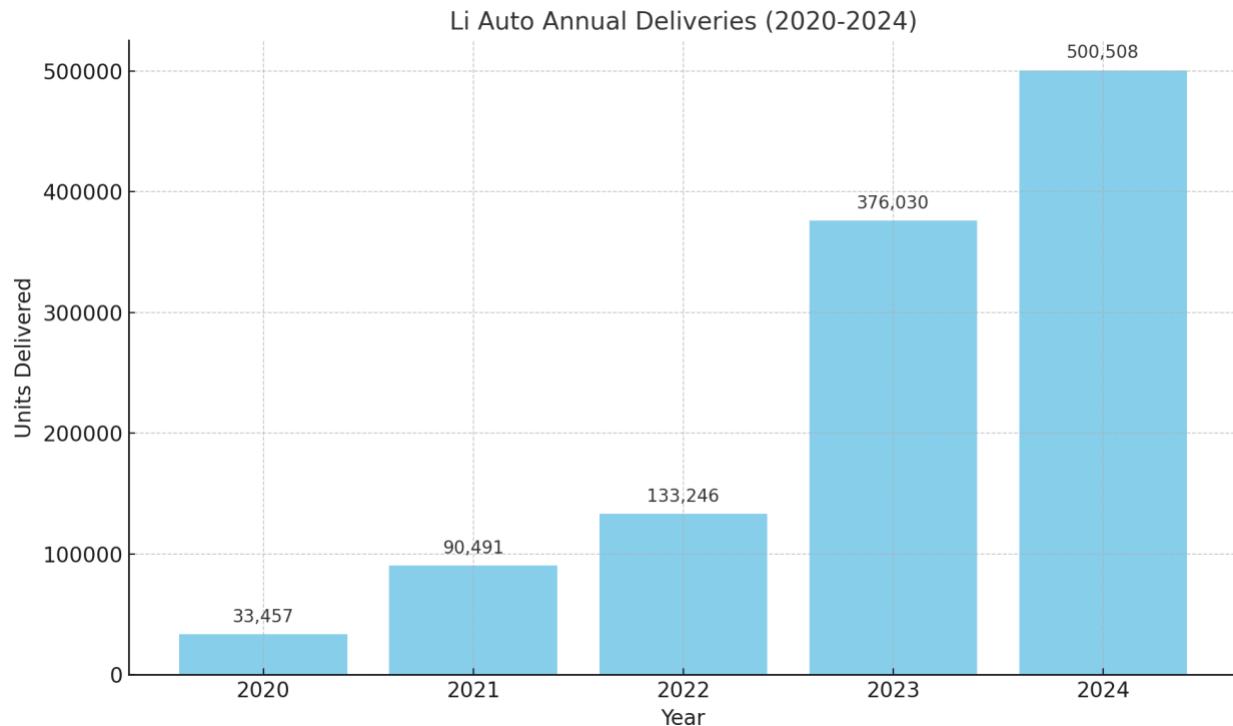


Figure 1: Li Auto Annual Deliveries (2020-2024)

Although net profit in 2024 will be RMB8.03 billion, a decline from 2023, it still maintains a growth trend, which mainly reflects the company's effective balance of profitability with increased R&D investment and market expansion efforts. The continued hot sales of Ideal L-series SUVs and Li MEGA have provided the company with stable cash flow and revenue security, further strengthening the foundation of profitability.

In addition, Ideal maintained a good level of profitability per unit of vehicle, operational efficiency and other indicators, and the average selling price per vehicle and gross profit margin ranked among the top in the industry, demonstrating strong cost control and value premium ability, laying the foundation for further market share expansion in the future.

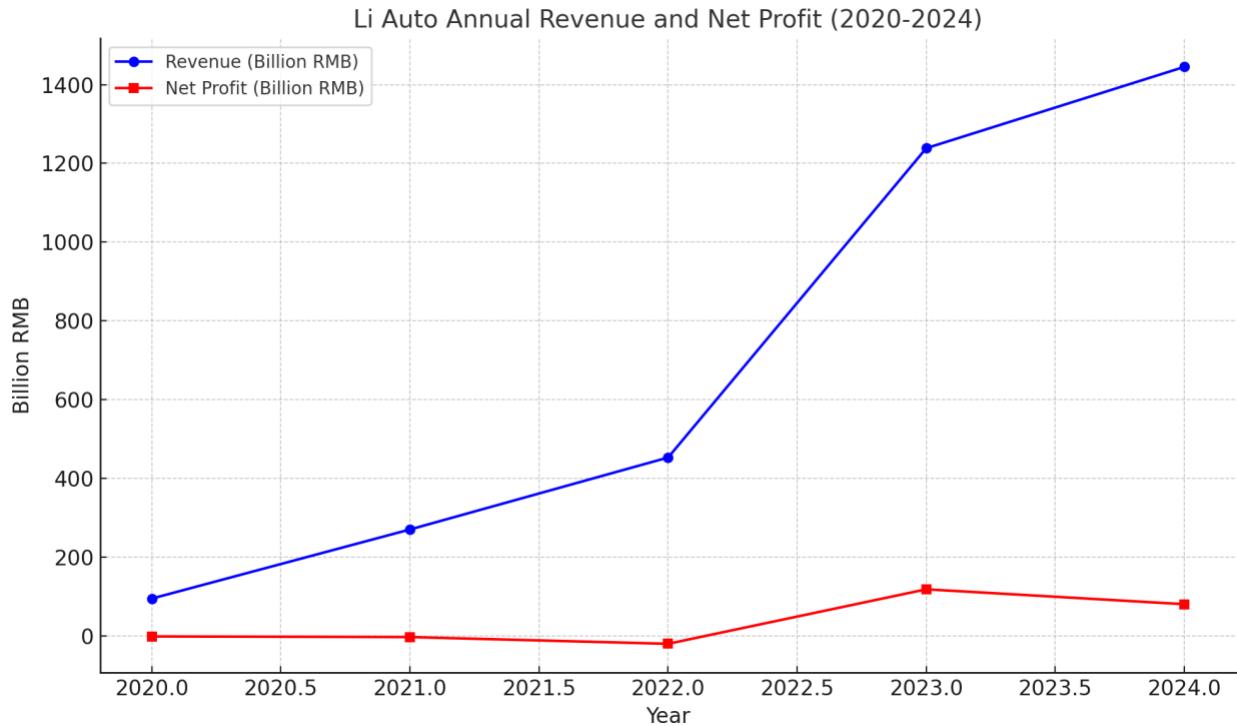


Figure 2: Li Auto Annual Revenue and Net Profit (2020-2024)

#### 4.2.4.2 Financial Health

Ideal Vehicle has an extremely robust financial structure, making it one of the few companies in the new energy vehicle industry with both excellent cash flow and balance sheet positions. As of the end of 2024, the scale of cash and cash equivalents held by the company reached RMB93.9 billion, providing strong financial security for daily operations, R&D investment and potential market fluctuations.

In terms of liabilities, Ideal has maintained a low leverage level, with the current ratio remaining above 2 times and sufficient short-term debt servicing capacity. The company has achieved positive free cash flow for two consecutive years, demonstrating the continuous enhancement of its self-blood-supporting ability and its ability to support rapid development without relying on external financing.

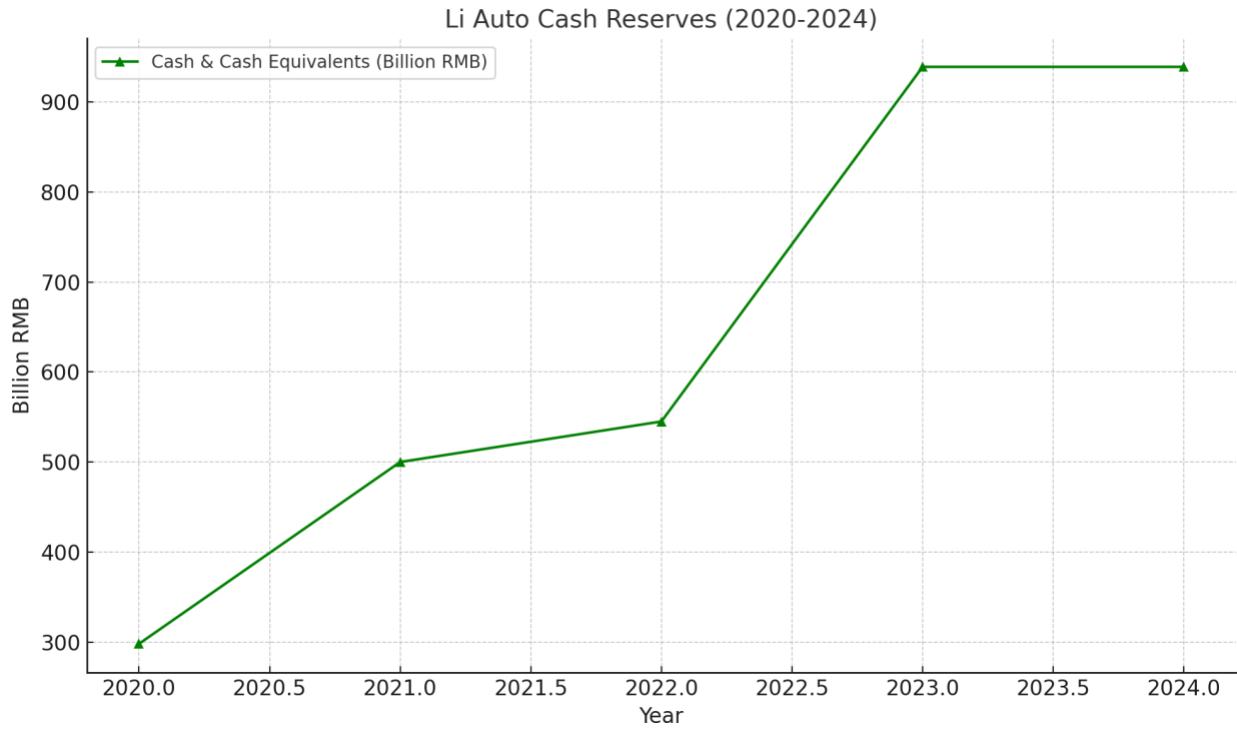


Figure 3: Li Auto Cash Reserves (2020-2024)

Ideal Auto's financial health is among the leading positions in the industry, enabling it to maintain sound business advancement and flexibility in strategic expansion amidst uncertainties such as fluctuations in the global supply chain, rising raw material prices, and policy changes.

#### 4.2.4.3 Valuation

From a valuation perspective, Ideal Auto's current market pricing is reasonable or even low compared to its growth potential and profitability. As of 17 April 2025, the company's price-to-earnings (P/E) ratio is approximately 26 times and price-to-sales (P/S) ratio is approximately 1.6 times, which is much lower than that of the world's leading new energy automobile brands, such as Tesla (P/E of approximately 53 times), and other new power automobile enterprises that are still in the loss-making stage.

Considering Ideal Auto's continuously expanding delivery scale, stable profitability and rising technological barriers, its PEG (price-to-earnings-to-growth-rate ratio) is below 1, indicating that the company's current valuation does not fully reflect its future growth potential.

Against the backdrop of the global new energy vehicle industry entering the value investment stage, Ideal Vehicle has the dual characteristics of ‘growth’ and ‘reasonable valuation’, providing an attractive layout opportunity for medium- to long-term investors.

#### **4.2.4.4 Strategy & Edge**

The core competitiveness of Ideal Vehicle is not only reflected in the products themselves, but also in the foresight of its strategic planning and the efficiency of its execution. The company adheres to the product positioning centered on family users, and through the parallel development route of extended range + pure electric, it effectively covers different vehicle scenarios and consumer demands, forming a differentiated competitive advantage.

In terms of intelligence, Ideal has built a more complete intelligent ecological closed loop through the independent research and development of intelligent driving system (AD Max and AD Pro) and operating system Li OS, which has enhanced the consistency and stickiness of user experience. Meanwhile, the company continues to optimise its intelligent manufacturing, supply chain management and channel construction, and improves its overall operational efficiency through its direct management model and quick response mechanism.

Ideal Auto's ability to rapidly expand its market share in the increasingly competitive new energy vehicle market relies on its comprehensive advantages in four aspects: clear strategy, excellent products, leading technology and efficient management. These factors provide a solid foundation for the company's further penetration into the high-end pure electric vehicle market, overseas expansion and intelligent mobility ecological layout in the future.

#### **4.2.5 Technical Analysis**

##### **4.2.5.1 Price Trend & Moving Averages**

During the period from April 2024 to April 2025, the share price of Ideal Motors (2015.HK) has shown an overall medium-term oscillator consolidation and short-term stabilization. In terms of moving average structure, the short-term 20-day SMA has recently shown signs of stabilization and slightly raised its head, reflecting that short-term sentiment has been repaired, while the 50-day SMA has continued to move down since February 2025, and is still exerting some pressure

on the share price, suggesting that the medium-term trend has yet to be fully reversed, and the 200-day SMA is slowly declining, indicating that the long-term trend is still on the weaker side.

As of 17 April 2025, Ideal Motor's share price closed at HK\$89.65, near the 20-day line, slightly below the 50-day SMA and well below the 200-day SMA. Overall, the share price is currently in intertwined medium and long-term pressure and short-term support, and the subsequent trend will depend on whether it can effectively break through the medium-term resistance level and thus reverse the long-term downtrend.



Figure 4: Stock Trend + SMA (20/50/200 Day) Technical Analysis Chart

#### 4.2.5.2 MACD

Looking at the MACD indicator, as of mid-April 2025, Ideal Auto's main MACD line has gone up through the Signal Line (Signal Line), forming a golden cross signal, while the MACD histogram has turned from negative to positive and the red bar is gradually enlarging. This change indicates that the short-term short-side momentum significantly weakened, the long side of the force began to strengthen, the market sentiment is gradually shifting from cautious to positive.

Especially noteworthy is that the golden cross appeared near the strong support level (HK\$80 range), which coincides with the technical bottom area, and has a strong technical rebound significance. If the subsequent volume can be effectively enlarged to match, the MACD golden cross is expected to push the stock price to achieve further upward movement, opening short-term upside space.

#### 4.2.5.3 RSI

As of 17 April 2025, Ideal Auto's 14-day Relative Strength Index (RSI) value was 46.32, which is in the 40-50 range and belongs to the stage of recovery with neutral market sentiment. Previously the RSI had briefly fallen below 30, entering the technical oversold zone, and began to recover in early April, reflecting a return of buying power as oversold repairs were made.

Currently the RSI is in neutral territory, neither entering overbought territory ( $>70$ ) nor falling back into oversold territory ( $<30$ ), suggesting that the market is in a relatively healthy, not overheated and not extremely pessimistic state. This RSI structure could help the stock to oscillate further upwards in the short term, providing technical support for a potential rebound move.



Figure 3: MACD and RSI Latest Technical Indicators Chart

#### 4.2.6 Investment Risks

Although Ideal Vehicle has demonstrated strong competitive advantages in terms of fundamentals, technological layout and market performance, its future development still faces a series of potential risk factors, and investors need to remain vigilant. Firstly, from the macro environment, there is uncertainty in the global and Chinese economic growth, and the overall market sentiment fluctuation has intensified due to inflationary pressure, monetary policy adjustment and geopolitical conflicts, which may form a stage impact on the valuation level and consumer demand of new energy automobile industry. Secondly, in the domestic market, the new energy automobile industry competition intensified, price war frequently broke out, superimposed on the intelligent configuration of the involution, resulting in the whole car profit space is continuously compressed. Although Ideal Vehicle currently maintains a high gross profit margin level, its market share and profitability may be squeezed in the future if it fails to maintain product differentiation and brand premium ability.

In addition, the uncertainty of the policy environment also constitutes an important risk factor. The development of China's new energy automobile industry has largely benefited from the support of purchase tax exemption, local subsidies, and double-points policy, etc. If the policy direction is adjusted or the subsidy is further reduced in the future, it may have a certain impact on the industry's growth pace. At the same time, in the field of intelligent driving, automatic driving related regulations are still not perfect, and different regions have different standards, if the regulations are not promoted as expected, it will slow down the pace of commercialization of Ideal in the field of intelligent realization.

At the product and execution level, Ideal is actively shifting from add-on technology to pure electric technology. If the newly launched BEV models (e.g., Li MEGA) fail to meet market expectations in terms of performance, price or user experience, there will be insufficient product acceptance and technical risks. In addition, Ideal remains highly dependent on supply chain stability, especially in core components such as batteries and chips, and any future disruption in the supply chain, significant fluctuations in raw material prices or overseas policy restrictions may result in higher production costs or delayed deliveries, which may affect the Company's operations and profitability performance.

In summary, although Ideal has good fundamentals and long-term growth potential, investors still need to pay full attention to key factors such as fluctuations in the macro-economy, changes in the competitive landscape of the industry, risks of policy adjustments, challenges of product transformation and stability of the supply chain, and to comprehensively assess the impact of potential uncertainties on the company's future development.

#### **4.2.7 Investment Recommendation**

We have assigned a BUY investment rating to Li Auto Inc. (2015.HK) based on our comprehensive analysis of the company's fundamentals, financials, technology trends and industry environment. The company has demonstrated excellent profitability and growth over the past few years, achieving revenue of RMB144.5bn and deliveries of over 500,000 units by 2024, and maintaining robust cash flow and low debt structure, reflecting strong financial resilience. Meanwhile, Ideal has precisely focused on family users in its product positioning, and effectively covered different market demands through its parallel technology route of extended range and pure electric power, forming a clear and differentiated brand image.

In terms of valuation, as of 17 April 2025, the company's price-to-earnings ratio is about 26 times, and the price-to-sales ratio is only 1.6 times. Considering its continuous growth in delivery scale and profitability, the current valuation is at a reasonably low level, with a good margin of safety. Compared with the main competitors in the same industry, such as Azure, Xiaopeng is still in the loss-making stage, Tesla valuation is significantly higher, Ideal Motors in both growth and profitability of the background, with relatively outstanding investment cost performance.

From a technical point of view, the current MACD indicators appeared golden fork, RSI indicators in the neutral zone, the stock price in the region of 80 Hong Kong dollars to form a strong support, if it can break through the 102 Hong Kong dollars short-term resistance, is expected to open up further upward space, short and medium-term technical trend with the fundamentals of the positive, support the stock price stabilized and rebounded.

At the same time, we are also concerned about the potential risks, including global economic fluctuations, intensified competition in the industry, changes in policy support and new model

transformation challenges, but within control, and Ideal Motors by virtue of its financial strength, brand accumulation and technological moat, is expected to effectively hedge some of the uncertainties.

Taking the above considerations into account, we set a target price of HK\$120 for Ideal Auto (2015.HK) for the next 12 months, compared with the closing price of HK\$89.65 on 17 April 2025, with a potential upside of about 33.9%, a cost-effective investment, and we recommend investors to actively focus on it and lay out on the low side.

### 4.3 Tesla (TSLA, US)

Apr 17, 2025, Close \$241.37

Recommendation: Hold

#### 4.3.1. Company Introduction

Martin Eberhard and Marc Tarpenning established Tesla on July 1, 2003, which is well known for its leadership in electric vehicles (EVs) and clean energy solutions. In 2004, Elon Musk became the chairman of the board of directors of Tesla. Then, Tesla stepped on the path to lead the EV industry (Wikipedia, 2024).

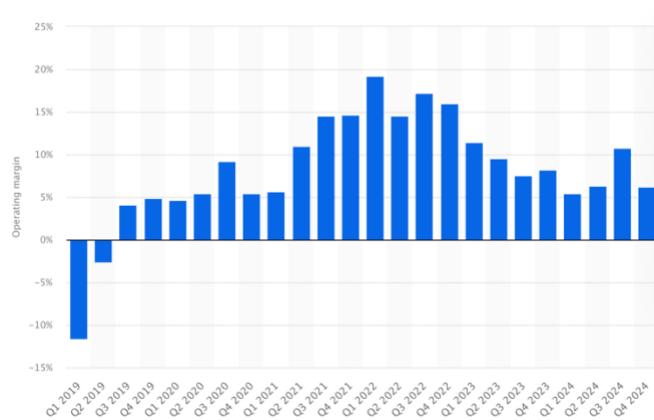


Figure 1 Tesla's operating margin from 1st quarter 2019 to 4th quarter 2024 (Statista, 2025)

#### 4.3.1.1 Development

Tesla's journey began with the Roadster in 2008, the first highway-legal all-electric car using lithium-ion batteries (Wikipedia, 2020). After that, Tesla produced tons of subsequent models include the Model S (2012), Model X (2015), Model 3 (2017), Model Y (2020), Semi (2022), and Cybertruck (2023).

Tesla Models			
Name	Year Made	Seats	Notes
Roadster	2008	2	Discontinued in 2012
Model S	2012	5/7	
Model X	2015	5/6/7	
Model 3	2017	5	
Model Y	2020	5/7	
Semi	2022	2	
Cybertruck	2023	5	
Roadster 2		2/4	Planned for 2025
Cybercab		2	Planned for 2026
Robovan		20	No stated timeframe

Figure 2 List of Tesla models (Wikipedia, 2024)

Due to the success of the start, Tesla went public via an initial public offering on NASDAQ in 2010, raising \$226 million, and acquired SolarCity in 2016 for \$2.6 billion to bolster its energy division (Wikipedia, 2024). Up to 2020, Tesla became the most valuable American automaker and keeping growing rapidly.

#### 4.3.1.2 Business Components

Tesla offers three core areas: The major area is the Electronic Vehicles (EV) which takes up around 78.9% of total revenue. Moreover In 2023, Model Y even became the best-selling EV model. Then is the Energy Products which takes up around 10.3% of total revenue. Including solar panels, Solar Roof, Powerwall, and Megapack. In 2023, Tesla deployed 14.7 GWh of battery storage, up 125% from 2022. Last is the Services which takes up around 10.8% of total revenue. Including Autopilot, Fully Self-Driving (FSD) software, Tesla insurance and the Supercharger network. Up to 2025, Tesla has more than 7,000 Superchargers and a total of 65,800 charging posts worldwide. (Wikipedia, 2024).

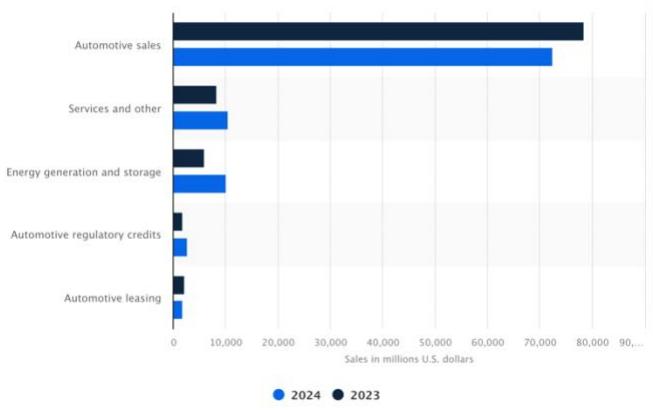


Figure 3 Tesla's revenue between FY 2022 and FY 2024, by segment (Statista, 2025)

#### 4.3.1.3 Market Role

Tesla leads the EV industry which is also the world's most valuable EV brand. According to Figure 4 and Figure 5, in 2023, Tesla held a 19.9% share of the global EV market, delivering 1.8 million vehicles, up 38% from 2022. However, in 2024, BYD took the place of Tesla whose market share dropped to 10.4% next year.

Top EV Brand by Market Share (2023)			
Rank	Brand	Country	Market Share
1	Tesla	US	19.90%
2	BYD	China	17.10%
3	GAC Aion	China	5.20%
4	SAIC-GM-Wuling	China	4.90%
5	Volkswagen	Germany	4.60%
6	BMW	Germany	3.60%
7	Hyundai	South Korea	2.90%
8	Mercedes-Benz	Germany	2.60%
9	MG	China	2.30%
10	KIA	South Korea	2.00%

Figure 4 Market share of EV industry in 2023

(Road Genius, 2023)

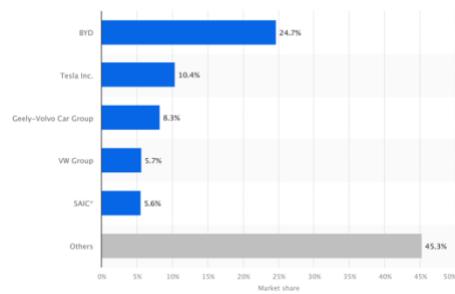


Figure 5 Market share of EV industry in 2024

(Statista, 2025)

Shown in Figure 6 Due to the high competition pressure, the sales of Tesla dropped slightly in 2024.

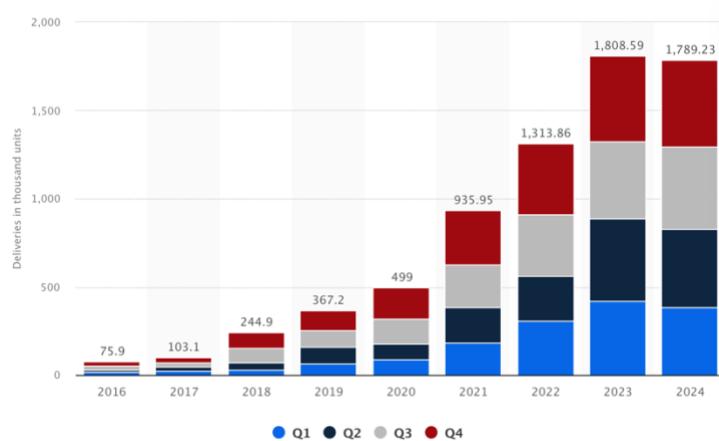


Figure 6 Number of sales of Tesla vehicles (Statista, 2025)

#### 4.3.2. Fundamental Analysis

##### 4.3.2.1 Financial Performance

According to Figure 7, in 2024 Tesla reported that firstly, the total revenue of 2024 was \$97,690 million, up 1% compared with \$96,773 million from 2023. Then, the total cost of revenue in 2024 was \$80,240 million, up 1.4% compared with \$79,113 million from 2023. Last the net Income of 2024 was \$7,153 million, down 52% compared with \$14,974 million from 2023.

	Year Ended December 31,		
	2024	2023	2022
<b>Revenues</b>			
Automotive sales	\$ 72,480	\$ 78,509	\$ 67,210
Automotive regulatory credits	2,763	1,790	1,776
Automotive leasing	1,827	2,120	2,476
Total automotive revenues	77,070	82,419	71,462
Energy generation and storage	10,086	6,035	3,909
Services and other	10,534	5,319	6,091
Total revenues	97,690	96,773	81,462
<b>Cost of revenues</b>			
Automotive sales	61,870	65,121	49,599
Automotive leasing	1,003	1,268	1,509
Total automotive cost of revenues	62,873	66,389	51,108
Energy generation and storage	7,446	4,894	3,621
Services and other	9,921	7,830	5,880
Total cost of revenues	80,240	79,113	60,609
<b>Gross profit</b>			
	17,450	17,660	20,853
<b>Operating expenses</b>			
Research and development	4,540	3,969	3,075
Selling, general and administrative	5,150	4,800	3,946
Restructuring and other	684	—	176
Total operating expenses	10,374	8,769	7,197
<b>Income from operations</b>			
Interest income	7,076	8,891	13,656
Interest expense	1,569	1,066	297
Other income (expense), net	(350)	(156)	(191)
Income before income taxes	695	172	(43)
Provision for (benefit from) income taxes	8,990	9,973	13,719
<b>Net income</b>			
Net income (loss) attributable to noncontrolling interests and redeemable noncontrolling interests in subsidiaries	1,837	(5,001)	1,132
Net income attributable to common stockholders	62	(23)	31
	\$ 7,091	\$ 14,997	\$ 12,556

Figure 7 Consolidated Statements of Operations (millions) (Tesla, 2024)

The drop of next income may come from two main points: Above all, Tesla got a price cut. Due to the high competition pressure especially from Chinese EV brands, the prices reduced, furtherly cutting the automotive revenue by 6.5% from \$82,419 million in 2023 to \$77,070 million in 2024 as shown in Figure 7 (Gitlin, 2025). Apart from that, the cost was also increased. In 2024, the total cost of revenue increased 1.4% as mentioned before, at the same time, total operating expenses also up 18.3% from \$8,769 million to \$10,374 million.

From the financial report, total gross profit could be calculated by subtracting total cost of revenue from total revenue, furthermore net profit margin and total gross margin could be calculated by using net profit and total gross profit to divide by total revenue. As shown in the Figure 8. Total gross profit in 2024 dropped 210 million showing a slightly increasing cost, which is also reflected from a lower total gross margin. While the net profit as well as net profit margin dropped significantly, which further provides evidence of increasing competitive pressure and higher cost.

	2024	2023	2022
Total Gross Profit	\$17,450	\$17,660	\$20,853
Net Profit Margin	7.3%	15.5%	15.5%
Total Gross Margin	17.9%	18.2%	25.6%

Figure 8 Total gross profit and two margins calculated from Figure 6 (million)

#### 4.3.2.2 Valuation

As of Apr 17, 2025, Tesla's close price was \$241.37. From Figure 9 and Figure 10, P/E ratio of Tesla is 113.16 much lower than the five-year average P/E ratio which is 229.65. This seems to indicate that, Tesla is underestimated, but from above, the net profit of Tesla dropped sharply, then the formula of P/E ratio is  $P/E = \text{Price}/\text{EPS}$  while  $\text{EPS} = \text{Net income}/\text{shares}$ . So that the decline of P/E ratio is due to the price falling much faster than EPS thus it is a valuation trap showing a signal of hold or sell rather than the signal of buy. Besides, PEG ratio is -2.25 far more less than the 5-year average of 1.62.  $\text{PEG} = \text{PE}/\text{EPS Growth Rate}$  since P/E is positive, then the EPS growth rate of Tesla is negative, indicating that Tesla has probability to have a worse performance with a decreasing earning. It also shows a holding signal.

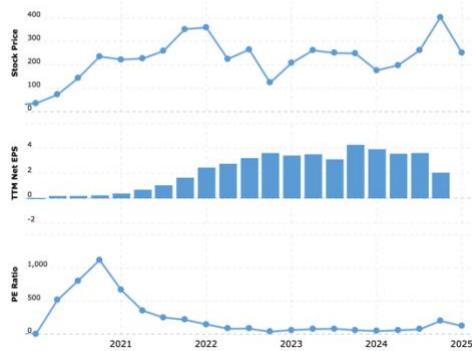


Figure 9 P/E ratio of Tesla  
(macrotrends, 2009)



Figure 10 PEG ratio of Tesla  
(FinanceCharts, 2025)

#### 4.3.2.3 Growth Prospects

In 2025, Tesla's new layouts may make a difference which leads to the recommendation of holding rather than selling. Even though from the financial valuation, the performance of Tesla is not so well, its new steps may still attract a high expectation in the market. First, Tesla plans to build new EV model "Redwood", which may bring new sales and profits to the company (Jin & White, 2024). Besides, Tesla plans to publish Full-Self Driving (FSD) technology that will lead the future trend (Lambert, 2025). Last, Tesla is also going to start the production of Optimus which is Tesla's Humanoid robot this year, that could also affect the company's expectation and performance (Alvarez, 2025). So that Tesla has great potential although the current financial performance is bad.

### 4.3.3 Technical Analysis

#### 4.3.3.1 Stock Price Trend

Up to Apr 17, 2025, the close price was \$241.37 remains nearly unchanged from the previous day but down 5% from 2 days before. The 52 weeks high and low are \$488.54 and \$158.36 respectively (Yahoo Finance, 2025). The current price near the lower end reflecting market pessimism about Tesla.

#### 4.3.3.2 Simple Moving Average (MA) Curve

From Figure 11, black line is the short-term MA curve (50 period), green line is the long-term MA curve (200 period). MA curve shows the movement of the price. As shown, short-term MA

curve goes down while long-term MA curve goes up, as a result, short-term curve crosses below the long-term curve which forms a death cross, that is the signal of falling trend and the following days price decrease also proofed that trend, while in the long-term, Tesla still has a potential since the long-term MA curve is slightly increasing, so that the recommendation is hold.



Figure 11 Short-term and long-term MA curve of Tesla (MarketWatch, 2019)

#### **4.3.3.3 Moving Average Convergence Divergence (MACD) and Relative Strength Index (RSI)**

As shown in the Figure 12, MACD is -9.18 which is calculated from short-term exponential moving average – long-term moving average. It shows that the short-term MA is less than long-term MA same as the 3.2, which also means the market is weak in the short term, with relatively strong short-side forces. Besides, MACD signal is also negative and less than MACD which further reflecting a decreasing trend.

When it comes to RSI, relative strength index is used to assess the degree of shock, on Apr 17, 2025, RSI is 43.56 which is between the oversold and overbought range from 30 to 70. So that RSI is in the neutral position.

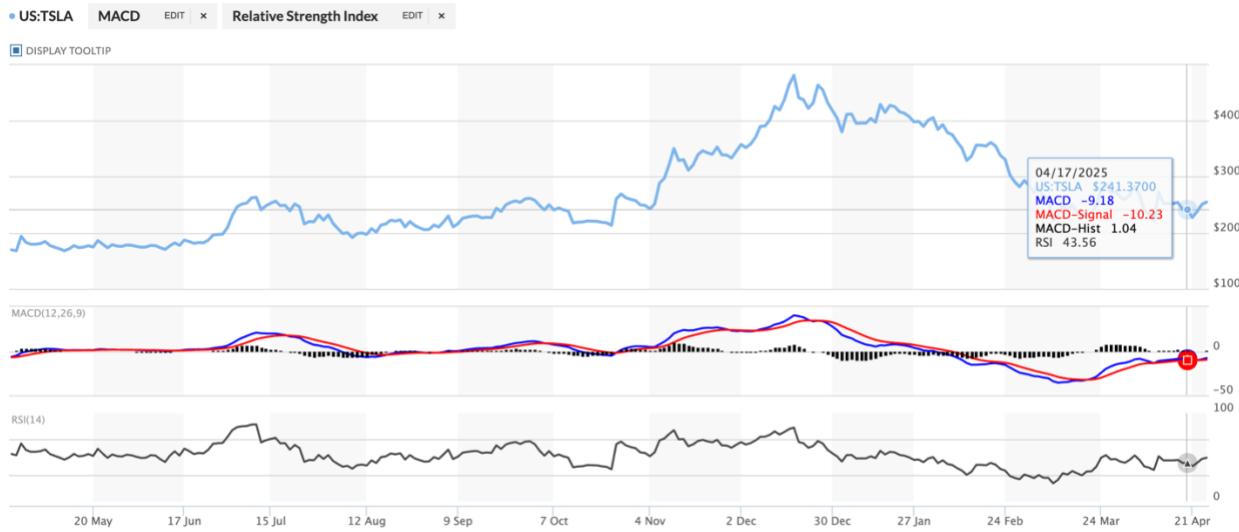


Figure 12 MACD and RSI of Tesla (MarketWatch, 2019)

#### 4.3.3.4 Combined Analysis

From the above, a death cross in MA curve and a negative MACD both showing a bearish trend, which means the stock price will be decreasing in the future. But the long-term MA curve shows an increasing trend meaning that Tesla gets potential in the long run. Last the RSI is in the neutral position. So, the recommendation analyzed from technical analysis is holding.

#### 4.3.4 Conclusion and Investment Recommendation

Tesla remains a leading position in the EV and clean energy areas, with strong growth potential driven by new models, new products and FSD technology. However, its 2024 financial performance, marked by a 52% profit decline, and a 38% stock price drop in 2025 highlight near-term challenges. The high P/E ratio of 113.16 raises valuation concerns, while technical indicators suggest continued downward pressure.

**Investment Recommendation:** A cautious “Hold”. Investors should monitor Tesla’s Q1 2025 earnings on April 22, 2025, for signs of demand recovery and cost management. Long-term investors may find value in Tesla’s innovation and market leadership, but short-term risks, including competition and reputational issues, warrant careful consideration.

#### 4.4 CATL (300750, SZ, China A-Share)

Closing Date: Apr. 18. 2025

Ticker: CATL (300750, SZ, China A-Share)

Exchange: SZSE

Industry: Power Batteries

Current price: CNY 225.46

Target price: CNY 260-375

Recommendation: Buy

#### **4.4.1 Investment Summary**

Global power battery leader: CATL has been the world's first power battery installed capacity for many years, with a global market share of about 37% in 2023, and over 50% in China. Coverage of Tesla, BMW, Mercedes-Benz, Azera, Ideal and other headline car companies, and set up joint venture factories with several car companies (e.g. SAIC, GAC), deeply binding downstream demand.

Strong net operating cash flow to support capacity expansion and R&D investment: Good financial performance, reasonable business structure, abundant operating cash flow, continuous increase in R&D investment, large number of patents, and strong technical reserves.

Stock price is at a low level in the long term: from the long-term trend, 2024 by the market style switch, competition intensification and other factors to pull back, is currently in the historical valuation of the low sideways adjustment. Short-term by the long-term average suppression, volume shrinkage, the market wait-and-see mood is strong.

Future development opportunities:

- Active layout of the lithium mining industry, to ensure the security and stability of the supply chain through decentralized suppliers.
- Through sustained high-intensity investment in R & D, to maintain the status of a leader in new technologies; global production capacity to avoid trade barriers.

Risks:

- Industry overcapacity, facing technology iteration
- Raw material price fluctuations: customer concentration is too large
- Overseas policy and geopolitical risks

Investment advice: As a global power battery leader, with leading technology and the whole industry chain layout, it has an advantage in the industry reshuffle. Despite the pressure of overcapacity and raw material fluctuations, its long-term growth logic remains unchanged. It is expected that operating profit is expected to maintain a more stable level, and it is recommended to buy gradually at the current price.

#### 4.4.2 Fundamental analyses

##### 4.4.2.1 Company Overview and Industry Status

Founded in 2011 and headquartered in Ningde, Fujian Province, CATL is a leading global provider of power batteries and energy storage systems, with business covering materials research and development, core manufacturing, battery system integration and recycling of the whole industry chain. By 2023, the company's global market share of power batteries exceeded 35%, and the market share of storage batteries for the third consecutive year first and steadily ranked in the leading position of the global new energy industry.

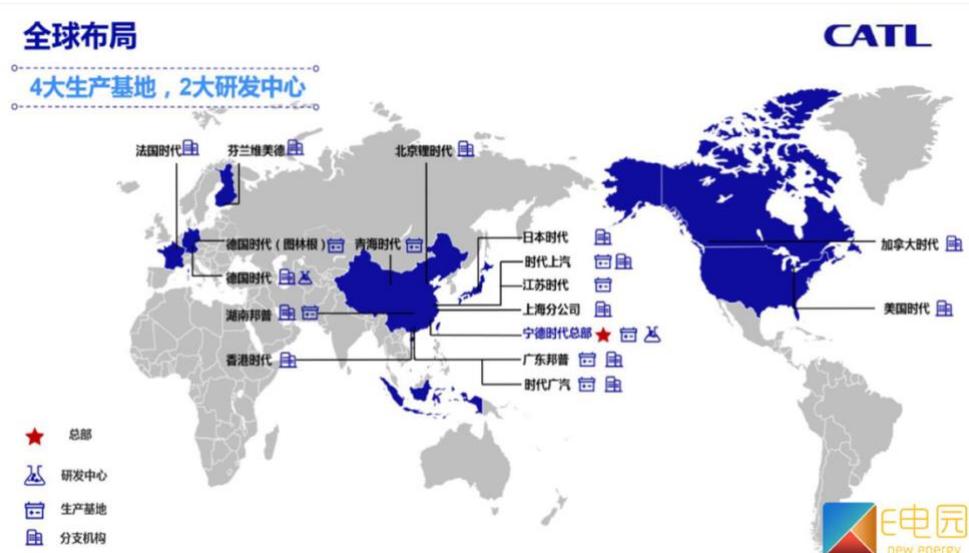


Figure 1 CATL's global industrial deployment

#### 4.4.2.2 Financial Performance.

##### 4.4.2.2.1 Revenue & Profit

In 2023, revenue of 400.917 billion yuan (+22.01%), net profit of 44.121 billion yuan (+ 43.58%), gross margin 22.91% (+2.66% y/y), net margin 11.66% (+1.48%). In 2024, revenue of 302.013 billion yuan (-9.70%), net profit of 50.745 billion yuan (+15.01%), gross margin of 24.44% (+1.53% year-on-year), net margin of 16.80% (+5.14%).

##### 4.4.2.2.2 Business Structure & Cash Flow

In 2024, power batteries will contribute 70 per cent of revenue, energy storage will account for 16 per cent, battery materials and recycling will account for 8 per cent, and mineral resources will account for 2 per cent.

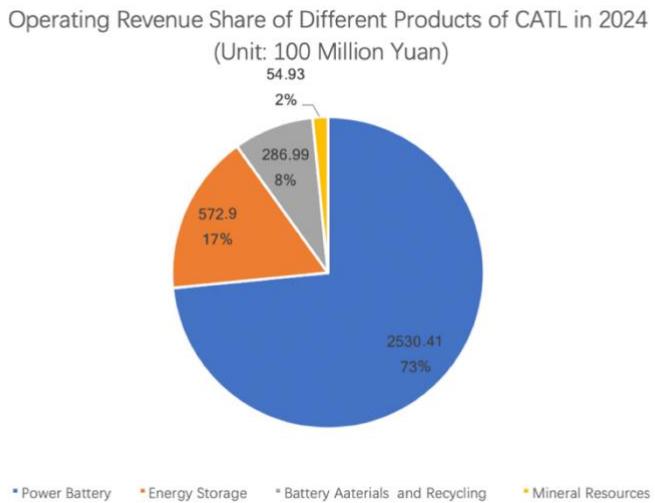


Figure 2 Operating Revenue Share of Different Products of CATL in 2024

In 2023, net cash flow from operating activities of 92.826 billion yuan (+51.65%), gearing ratio of 69.34%. In 2024, net cash flow from operating activities of 96.990 billion yuan (+4.49%), gearing ratio down to 65.24%.

#### **4.4.2.3 Competitive advantages.**

##### **4.4.2.3.1 High R&D Investment**

In 2023, the company allocated 18.356 billion yuan to research and development, which accounted for 4.58% of its total revenue. This investment underscored the firm's commitment to innovation, though the proportion of R&D spending relative to revenue remained at a moderate level. In 2024, R&D investment increased slightly to 18.607 billion yuan. More notably, it represented 5.14% of revenue, indicating a greater strategic emphasis on R&D. This upward trend in both the absolute amount and the percentage of revenue allocated to R&D suggests the company is intensifying its efforts to drive growth through technological advancements.

##### **4.4.2.3.2 Extensive Patent Layout**

CATL has 43,354 domestic and foreign patents owned and under application. CATL's patent layout is extensive, with technology reserves covering lithium ternary, lithium iron phosphate, sodium batteries and switching technologies (such as Kirin batteries and Shenxing supercharged batteries), and full life cycle solutions to enhance customer stickiness.

##### **4.4.2.3.3 Rich Technical Reserves**

Through continuous high R&D investment and extensive patent layout, CATL has consolidated its technology leadership in the field of power battery and laid a solid foundation for future technology iteration and market expansion.

Overall, CATL has a clear competitive advantage.

#### **4.4.2.4 Risk and Challenges**

The lithium battery industry faces significant risks and challenges in 2024, driven by both market dynamics and technological evolution. Industry risk emerges from severe overcapacity, with lithium battery production capacity nearly doubling demand, while supply for key components like negative electrode materials and electrolytes exceeds demand by over threefold. This imbalance has intensified price competition, threatening profit margins across the sector.

Technology iteration further compounds uncertainties, as emerging innovations such as solid-state batteries and hydrogen energy threaten to disrupt existing market structures. To maintain competitiveness, companies must prioritize sustained R&D investment to stay ahead of these disruptive trends.

On the operational front, raw material volatility poses a critical challenge, with lithium carbonate prices projected to plummet by 65% in 2024. While long-term supply agreements and strategic inventory management help mitigate market risks, persistent cost pressures remain a concern. Customer concentration adds another layer of vulnerability, as the top five clients account for over 40% of sales. This reliance heightens exposure to order diversion risks, particularly as major automakers like BYD and Tesla increasingly invest in in-house battery production capacities.

Additionally, policy risks loom large, exemplified by the U.S. "1260H list," which restricts the use of Chinese batteries in defense-related supply chains. Such regulations could hinder market expansion efforts in North America, underscoring the need for adaptive global strategies. Collectively, these factors demand proactive risk management and agile strategic planning to navigate an increasingly complex landscape.

#### **4.4.2.5 Future Development Drivers**

##### **4.4.2.5.1 Industry Growth Dividend**

Industry Growth Dividend is underpinned by two key pillars: the power battery and energy storage markets. For the power battery segment, the global electric vehicle (EV) penetration rate is projected to surpass 30% by 2030, and CATL has solidified partnerships with leading automakers such as Tesla and BMW, deepening technological collaboration—evidenced by its cooperation with Tesla's U.S. factory—to capitalize on this growth. Concurrently, the energy storage market is poised for robust expansion, with global demand expected to rise by 30% annually; the company has already secured over 40MWh worth of projects, counting major clients like NextEra and the National Energy Group among its partners. This dual focus on leveraging the EV power battery boom through strategic partnerships and capturing the surging energy storage demand via large-scale project execution positions the company to harness

substantial industry growth dividends, strengthening its market leadership and long-term growth trajectory.

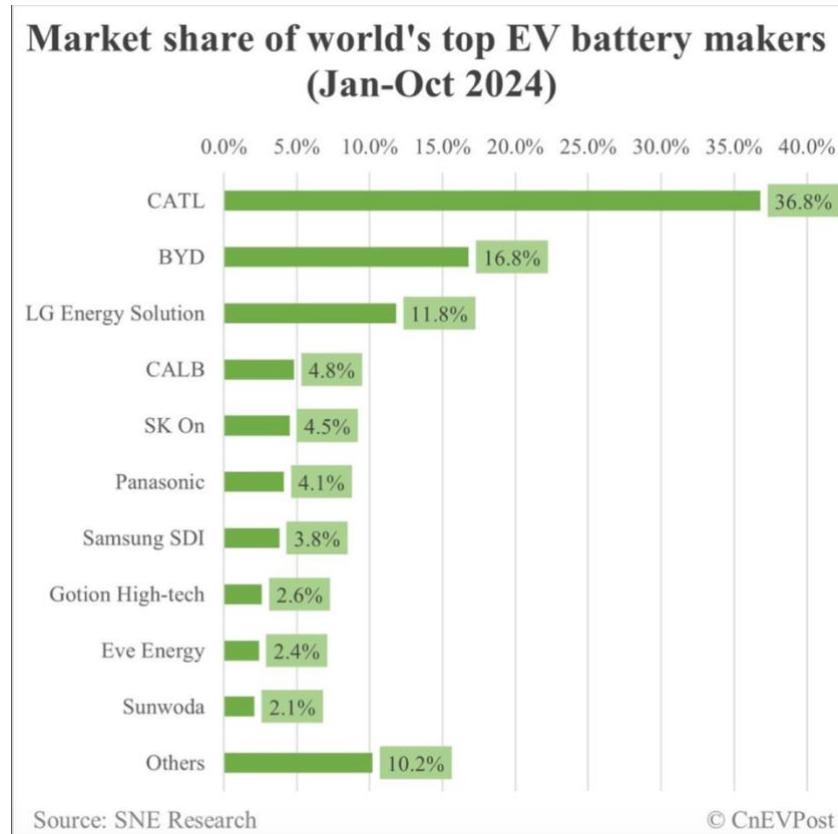


Figure 3 Market Share of World's Top EV Battery Makers

#### 4.4.2.5.2 Technological Innovation Layout

The company has strategically secured its supply chain through upstream resource control and downstream recycling optimization: it has laid out lithium mine resources such as those in Jiangxi Yichun and developed nickel-cobalt projects in Indonesia to lock in upstream supplies, thereby reducing the impact of raw material price fluctuations; simultaneously, it has established a global battery recycling network with a lithium recycling rate exceeding 90%, significantly decreasing dependence on virgin mineral resources. This dual approach of integrating upstream resource acquisition and downstream sustainable recycling not only stabilizes the supply chain

against market volatility but also promotes long-term resource efficiency and environmental sustainability, enhancing the company's resilience and competitive edge in the industry.

#### **4.4.2.5.3 Extension of Industrial Chain**

The company is strategically securing upstream supply chains to stabilize resource access and mitigate volatility risks. This includes investments in lithium mining projects, such as those in Jiangxi Yichun, and partnerships to develop nickel and cobalt resources through initiatives like the Indonesia-based projects. By vertically integrating these critical raw material sources, the company aims to reduce exposure to market fluctuations and ensure long-term supply stability. Concurrently, efforts to enhance downstream recycling are strengthening sustainability and resource efficiency. The global battery recycling network established by the company achieves a lithium recovery rate exceeding 90%, significantly lowering reliance on virgin mineral extraction. This circular economy approach not only minimizes environmental impact but also reinforces supply chain resilience by creating a closed-loop system for critical battery materials. Together, these upstream and downstream strategies form a comprehensive framework to address both resource security and sustainable growth in the evolving energy storage market.

### **4.4.3 CATL Valuation**

#### **4.4.3.1 PE Ratio**

PE ratio reflects how much investors want to pay for each 1¥ of the company's earnings.

P/E Ratio (TTM) = current share price/earnings per share (EPS) = 233.35/(past year's net profit of 54.19bn/total share capital of 4.403bn) = 18.96. Compared to the median P/E ratio of 34.3 for comparable domestic companies, CATL's valuation level is significantly low. In addition, from a historical dimension, the company's current P/E ratio is at a near-decade low, well below its historical average (66.63) and median (45.92). This gap highlights the market's underestimation of its growth, especially against the backdrop of the company's sustained high revenue growth.



Figure 4 CATL's PE Ratio

#### 4.4.3.2 P/B (Price-net Ratio)

PB reflects the higher premium the market is willing to pay for its net assets. CATL's PB = market price/net asset per share =  $233.35/59.4 = 3.93$ . While this is moderately higher than the domestic peer median of 2.06. Its technological advantage and economies scale give it greater pricing power over net assets. From a global perspective, LG New Energy's PB is about 2.65, Panasonic's PB is about 0.91, CATL's P/B remains reasonable. From a historical perspective, the current P/B sits near the 20% of CATL's 5-year range, reinforcing its undervaluation.

#### 4.4.3.3 PEG

PEG reflects whether the market overestimates or underestimates growth potential. According to institutional forecasts, CATL's next three years (2025-2027) net profit compound growth rate (CAGR) of 20.26%, 20.74%, 17.81%, an average growth rate of 19.6%, combined with the current

P/E value of 18.96, then the current PEG is  $18.96/19.6 = 0.97$   $\text{PEG} < 1$ , indicating that the current stock price is somewhat undervalued.



Figure 5 CATL's PEG Value

#### 4.4.3.4 Market Sentiment

On April 7, 2025, affected by Trump's tariff policy, there was a gap-down decline of 11.46%, the trading volume exceeded 15.8 billion yuan. Net outflow of main funds was 828 million yuan, accounting for 5.24% of the total trading volume. Net inflow of hot money funds was 194 million yuan, accounting for 1.23% of the total trading volume. Net inflow of retail funds was 634 million yuan, accounting for 4.01% of the total trading volume. So even with the current downward trend in the share price, the share price may show some signs of rebound in the future.



Figure 5 CATL's Stock Price

#### 4.4.4 Technical Analysis (Stock charts and data extracted on 23 Apr 2025)

Price: ¥233.35

The year's high: \$301.50

52-week low: ¥140.40

##### 4.4.4.1 Stock price trend for CATL in 2024

###### 4.4.4.1.1 Share price volatility in 2024 - 2025

Market data reveals that the stock exhibited pronounced volatility in 2024. Driven by factors like macroeconomic shifts, industry competition, and internal corporate changes, its price fluctuated wildly, soaring on good news and plummeting on negative developments. As of April 18, 2025, the share price stood at around 225 yuan. It had reached a high of 301.50 yuan previously, buoyed by bullish sentiment and heavy capital inflows, but later hit a 52 - week low of 140.40 yuan. These price extremes highlight the intense market dynamics at play.

###### 4.4.4.1.2 widely rated ‘buy’ by institutions

In the last 90 days, a total of 32 institutions have given ratings, of which 27 buy ratings, 5 hold ratings, institutions are generally bullish on Ningde Times, give ‘buy’ rating, and its future share

price performance is bullish, the expected average target price of \$332.33, the highest \$450. The expected average target price is \$332.33 and the highest is \$450.

#### 4.4.4.2 Indicators of the CATL stock chart

Weekly chart shows that since May 2023, the stock price has been in a long-term low sideways trading, in September 2024, the stock price broke through the 60-day SMA, and then continued to consolidate near 260 yuan, and on April 7, 2025, it fell down below the consolidation area, and the current weekly is located in the vicinity of the 60-day SMA, the weekly RSI, KDJ and other indicators are located in the lows, and the MACD formed a dead cross above the zero axis, which all indicate that the current share price Medium-term adjustment trend is obvious. From the daily chart, the stock price broke below the key price level of 240 yuan on April 7, 2025. Currently, the KDJ, RSI, and MACD are at the bottom of the oversold area.



Figure 6 CATL Stock's MA Line

## **4.4.5 Investment Recommendations**

### **4.4.5.1 Long-term Value**

The core investment logic is the certainty of long term growth in the new energy industry, CATL maintains a solid leading position with significant technology, scale and cost advantages. The target price is derived from the 2025 EPS range of \$13-15, and with a price-to-earnings (PE) ratio of 20-25x, analysts estimate a reasonable share price range of \$260-375, a valuation that is consistent with the industry's long-term growth trajectory and CATL's dominant position in the market. The combination of fundamental strengths and quantitative valuation metrics form the basis of a long-term investment recommendation, highlighting the potential for CATL stock to realise value as the industry expands and the company maintains its competitive advantage.

### **4.4.5.2 Operation Strategy**

In the short term, focus on capturing the entry point of a price pullback to below ¥215. In the long term, adopt a holding strategy to capture the industry's growth dividends. Additionally, to avoid the competitive risks inherent in the sector, diversify by allocating to new energy ETFs or pairing positions with second-tier battery companies (e.g., lithium-ion batteries) to diversify risk and reduce over-concentration in a single market segment or company. This portfolio approach ensures active positioning in target stocks while implementing risk mitigation measures, aiming to optimise returns in the dynamic new energy sector through market timing and sector diversification.

### **4.4.5.3 Monitoring Indicators**

#### **4.4.5.3.1 Industry Data**

Key metrics shaping the sector include global EV sales, driven by policy mandates and consumer adoption, energy storage tender volumes (expanding at over 30% annually since 2022 due to renewable energy integration needs), and lithium carbonate prices, currently stabilizing around 100,000 yuan/tonne. This reflects improved supply-demand dynamics from

expanded mining and recycling, though prices remain a critical cost variable for battery producers.

#### **4.4.5.3.2 Company Trends**

Critical internal benchmarks include progress on overseas factory production (e.g., Germany/Hungary facilities), commercialization of new technologies (e.g., Shenxing ultra-fast charging batteries), and order fluctuations from major clients (e.g., Tesla, BMW). These factors directly reflect operational execution, innovation traction, and customer dependency risks.

#### **4.4.6 Conclusion**

To sum up, as a global power battery leader, CATL has taken advantage of the industry reshuffle by virtue of its technological leadership and the layout of the entire industrial chain. Despite the pressure of overcapacity and raw material fluctuations, its long-term growth logic remains unchanged. So, considering the long-term favorable, we give a "buy" rating.

### **4.5 Xpeng (9868.HK)**

Apr 17, 2025, Close \$73.55

Recommendation: Hold

According to the latest available market data, the stock closed at HK\$73.55 on April 17, 2025. After detailed evaluation of the company's own financial results as well as industry trends and market opinion, our current recommendation on this stock stands at "Hold." In our view, the company holds the promise of good returns over the medium to long term. Our target price estimate for the stock stands at HK\$85 - HK\$110, or 15% - 49% upside from the current closing price. Our target price estimate comes from integrating fundamental analysis, technical analysis as well as comparable company valuations. There may be short-term vagaries of the market; our

view remains that the company's longer-term outlook makes holding on at this juncture a better decision than a knee-jerk one of buying or selling.

#### **4.5.1 Investment Summary**

Xpeng has consistently proven itself a powerful tech-driven disruptor of the electric vehicle (EV) segment of the industry through its expertise on auto-driving and intelligent mobility solutions. Operating in a crowded market environment, the firm proved resilient and resilient through 2024 by producing a resounding 218,000 vehicles, a significant 28% year-over-year jump. Its triumph was most largely a boon of the success of its G9 SUV and P7 sedan models, where the vehicles captured the hearts and attention of Chinese and international consumers alike. Several key features characterize Xpeng's status within the industry. Its leadership in technology plays a key role among these, as the firm's XNGP 5.0 (full-scenario Advanced Driver-Assistance System) technology stands as a testament. The advanced technology boasts a 90% penetration level on a highway basis and 40% on a city-basis within China, reflecting the company's expertise at creating advanced auto-driving technology. The firm is not without problems, however. During the fourth quarter of 2024, Xpeng dealt with a sharp margin squeeze as its margin fell to 10.2% from 12.9% during the comparable period of 2023. The drop-off was due in part to a mix of inflated battery costs and the heightened price war within the EV market. On a global basis, Xpeng made significant strides towards broadening its footprint by producing the G6 model within Europe and successfully delivering 5,000 units of the vehicle during 2024. While a good starting point towards expansion on a global basis, the company's ultimate impediment remains the significant wall of EU tariffs at the present time of 145% of Chinese EVs. These duties represent a substantial threat level towards Xpeng's profitability within Europe and will challenge Xpeng's ability to sustain profitability. From a technical analysis point of view, Xpeng's stock holds a blend of positive and negative signals. The Moving Average Convergence Divergence (MACD) signal took a recent bullish cross where the signal line was at -2.1 while the MACD line was at +1.8, indicating a potential upward price movement. The Relative Strength Index (RSI) was at 54, reflecting a level where the stock was neither overbought nor oversold. On support and resistance levels, the 200-day Moving Average (MA) of HK\$68 represents a level of support while the 50-day MA of HK\$92 represents the level of resistance. On both the fundamental challenges and opportunities and the technical analysis, our investment suggestion

on Xpeng currently stands at "Hold." On a near-term basis, the margin risks such as battery cost inflation, price war and the effects of EU duties present cautionary concerns. That notwithstanding, the long-term prospects for Xpeng remain strong fueled mainly by its technology differentiation and leadership within the EV market. As the company continues to grow and face these short-term challenges, there remains a substantial level of upside potential such that a hold position remains a wiser decision for investors holding a long-term view.

#### **4.5.2 Company Overview**

Established by entrepreneur He Xiaopeng in 2014 and listed on the NYSE as XPEV and HKEX as 9868, Xpeng has established a niche for itself in the global car market by having a forte for AI-based electric vehicles (EVs). Its journey has been marked by a number of key milestones that reflect its drive towards innovation and leadership. Xpeng's product offerings are diverse and strategically positioned to accommodate a variety of consumer needs. The G9 SUV was a top seller in 2024 and contributed 30% towards the total sales of the company. Its popularity is due to a mix of sleek appearance, advanced features, and top-grade performance. The sedan P7 was another top contributor towards sales, generating 25% of sales. It is famous for elegant styling and innovative technology. The X9 MPV that was launched fresh was also a significant contributor towards sales by capturing 15% of the sales. The X9 demonstrates Xpeng's strength of venturing into new segments by offering innovative products that address the changing needs of consumers. At the core of Xpeng's competitiveness stands its cutting-edge tech stack. Its proprietary XNGP 5.0 system speaks of its leadership position in the area of autonomous driving technology. Being L4-enabled means the XNGP 5.0 enables a very high level of automation that not just makes the driver's journey safer and convenient but also supports a very high level of customer experience. The 800V SIC platform is another game-changer as far as technology is concerned. It facilitates 10-minute fast charging, solving one of the key detriments of EVs - the time required for charging. It not just makes Xpeng cars convenient but also attractive within a very charged-up market. To top these hardware achievements is the Xmart OS 5.0 that ensures over-the-air (OTA) seamless updates. The updates keep Xpeng cars up to date with the newest features and optimisations, giving customers a progressively better driving experience. Xpeng has also formed alliances at the right time to fuel its rapid expansion and technology growth. Its partnership with DiDi on the robotaxi front marks a big step towards the mobility of the near

future. Xpeng and DiDi collaborate on bringing about a revolution of urban transportation by introducing the use of autonomous robotaxis. The company's partnership with Volkswagen on the co-development of an electric vehicle architecture (EE architecture) marks a big win. While the partnership gives Xpeng access to the substantial funds and engineering talent of Volkswagen, it also marks the recognition of the company on the international stage. It allows for new opportunities for cross-pollination of technology and ideas as well as reinforces Xpeng's leadership in the global EV space.

#### **4.5.3 Fundamental Analysis**

Financial Performance (2022-2024, RMB bn):

Metric	2022	2023	2024
Revenue	26.8	38.5	45.2
Gross Margin	9.4%	11.1%	9.8%
Net Loss	(9.1)	(6.8)	(5.2)
R&D Spend	5.2	6.1	7.4

Xpeng's expansion and investment attractiveness are supported by a number of key drivers that make it stand out from the crowded electric vehicle (EV) competition space, while its valuation multiples present a nuanced comparison against peers and industry average. One of the key growth drivers for Xpeng is its strength coming from autonomous driving. The company's XNGP (Xpeng Navigation Guided Pilot) solution has not just been a technology highlight but a key driver of revenues as well. In 2024, XNGP subscription revenues saw a stunning 120% year-over-year expansion at RMB 1.2 billion. Such a dramatic expansion in revenues speaks of the rising consumer interest in advanced automated driving features and Xpeng's ability to monetize its tech advancement. As drivers increasingly want enhanced safety and convenience on the highway, the continuing development of XNGP and expansion of its footprint are likely to remain key drivers of the company's top-line expansion. Another key driver of Xpeng's strength and competitiveness is the company's emphasis on cost management through vertical integration.

The company has attained a remarkable level of self-sufficiency when producing batteries, where 30% of the company's battery demands are fulfilled internally. Such a move as a hedge against the mercurial prices of lithium as a raw material used extensively in EV batteries makes perfect sense. By cutting its dependence on external vendors for producing batteries internally, Xpeng can manage costs more effectively, enhance its margin of profit and keep stability of costs even as raw materials' prices fluctuate. Such a cost-management move not just fortifies Xpeng's bottom line but also ensures the ability of the company to price competitiveness in the market. When looking at Xpeng's valuation, its multiples present a mixed picture. The Enterprise Value to Sales (EV/Sales) ratio of the company stands at 2.1x, a touch higher than NIO's 1.8x and far lower than Tesla's 5.3x. That means the market values Xpeng's sales somewhat higher than NIO's, almost certainly because of its more advanced technology and more diversified product mix. Comparatively speaking, Xpeng's valuation remains underappreciated when considered next to Tesla. On a Price-to-Book (P/B) ratio basis, Xpeng's figure of 3.2x underperforms the industry average of 4.1x. That suggests the market discounts Xpeng's worth when adjusting for its tangible assets compared to the larger industry, possibly because of concerns about its prospects for expansion or generally about the risks of the EV industry. That said, these metrics of valuation also offer Xpeng the ability to prove its worth and boost its valuation as the company continues to work on its expansion initiatives and leverage its key drivers.

#### **4.5.4 Technical Analysis**

The stock price of Xpeng is currently experiencing consolidation at a level close to its 2024 low of HK\$68. The stability of this period is marked by very low volatility as can be determined from the width of the Bollinger Band, which sits at a very minimal level of 18%. The Bollinger Band measures the price volatility of a security, and a narrow width of the band generally implies that the market is indecisive and the price range is very much compressed.

On the trading volume side of things, the stock averages a daily trading volume of 20 million shares, a 15% decline on a year-over-year basis. This decline on the volume side indicates diminishing momentum within the market. Lower trading volumes generally mean lower interest and participation by investors and the possibility of a lack of buying or selling pressure that may catalyze significant price swings.

A more complete picture of the stock's performance requires a 1-year candlestick chart supported by Moving Averages (MA), the Relative Strength Index (RSI), and the Moving Average Convergence Divergence (MACD). Such a chart would give very good insights into the stock's price trends, the momentum of the past year as well as trend reversals. At the time of this writing, such a chart is a placeholder, awaiting the actual creation and examination of the visual display.

#### **4.5.5 Risks**

Xpeng also faces a myriad of substantial risks that have the potential to affect its future results. On the side of regulations, the company stands susceptible to the EU and the US imposed tariffs. At a price point of €45,000 as its average selling price (ASP), Xpeng's cars are more expensive than the cars of BYD that have an ASP of €25,000. Such high prices combined with the added cost of the imposition of tariffs may make Xpeng's products less competitive on these key overseas markets, thus constraining its potential for expansion and market share.

A significant threat also comes from the tech commoditization angle. With industry heavy hitters such as Huawei and Baidu entering the market offering proprietary Advanced Driver-Assistance Systems (ADAS) solutions of their own, Xpeng's own technological premium stands the risk of being diminished. Xpeng's differentiating factor through advanced autonomous driving and intelligent mobility technology has long paid off by allowing the company a premium price. Yet as competition heats up on the tech side of the industry, consumers will have more choices on the table and this may exert downward pressure on pricing and put Xpeng's profit line under pressure. It may also compel Xpeng to spend even more on research and development merely to sustain its technological advantage on the back of strained finances.

#### **4.6 NIO Inc (9866.HK)**

Apr 17, 2025, Close \$27.35

Recommendation: SELL

NIO Inc closed on the Hong Kong Stock Exchange at HK\$27.35 as of April 17th, 2025. On the basis of a detailed evaluation of the company's finances, market situation, and technicals, our recommendation for NIO is "Sell." Our target price is set at HK\$22 - HK\$30, implying a

downside of 18% or an upside of 10% from the then-current closing price. The broad range indicates the great uncertainties and challenges the company is facing.

#### **4.6.1 Investment Summary**

NIO's plan of positioning as a luxury electric vehicle (EV) maker is facing existential challenges that cloud its future. Despite the delivery of 310,000 vehicles in 2024, a 22% year-over-year jump, the company's finances deteriorated sharply. The net loss of 2024 increased sharply to RMB 18.2 billion from RMB 14.5 billion of 2023. The rising deficit indicates the ineffectiveness of conversion of higher sales volume into profitability.

One of the most daring ventures by NIO, the battery swap network, turned out to be a two-edged sword. Having 2,400 swap sites of which 85% are based in China, the utilization level continues to be dishearteningly meager at below 30%. Sustaining this large number of sites costs a staggering RMB 1.2 billion a year, placing a heavy burden on the finances of the company without yielding adequate returns.

The release of the lower-priced Alps brand for the purpose of broadening market share has backlashed for cannibalizing sales of NIO's mainstream models, the ET5 and ET7. During the first quarter of 2025 sales of the two models dropped by 15% quarter-over-quarter, implying the brand dilution effect was worse than expected.

Technically speaking, NIO's stock shows a worrying picture. There has been a “death cross” where the 50-day Moving Average (MA) of HK\$29 dropped below the 200-day MA of HK\$35. The technical chart pattern of the death cross tends to be a bearish sign signifying a long-term downward trend. The Relative Strength Index (RSI) level of 38 places the stock as oversold. There are no obvious signs of a reversal, and there is a possibility of continued price drops. The stock did get support at the crucial psychological level of HK\$25, but for the overall bearish trends prevailing, this support might prove fragile.

Given NIO's unsustainable cash burn of RMB 4.2 billion of free cash flow deficit in 2024, our "Sell" recommendation stands justified. Its financial unsustainability and absence of evident routes towards profitability make the stock the present high-risk investment.

#### **4.6.2 Company Overview**

Founded in 2014 by William Li, NIO (listed on NYSE as NIO and HKEX as 9866) has staked its claim in the premium EV segment, with an average selling price (ASP) of RMB 350,000. The company has several key assets that define its market positioning.

NIO's product portfolio is headlined by the ES6, which accounts for 40% of its sales, and the ET5, contributing 25%. The recently launched Alps brand represents an attempt to diversify into a more price - sensitive market segment, though as mentioned, it has had unintended consequences on its existing product line.

NIO Power, the company's Battery - as - a - Service (BaaS) initiative, along with its extensive network of 2,400 battery swap stations, is a unique selling point. The BaaS model aims to reduce the upfront cost of purchasing an EV for consumers by allowing them to lease the battery instead. However, as noted, the high costs associated with operating the swap stations have offset some of the potential benefits.

NIO has also built a large community, boasting 1.2 million app users. Unfortunately, the average revenue per user (ARPU) has declined by 18% year - over-year to RMB 1,050. This drop in ARPU suggests that NIO is struggling to monetize its user base effectively, adding another layer of concern to its financial and operational challenges.

#### **4.6.3 Fundamental Analysis**

Financial Performance (2022-2024, RMB bn):

Metric	2022	2023	2024
Revenue	49.3	55.6	62.1

Gross Margin	13.7%	10.4%	8.1%
Net Loss	(14.4)	(14.5)	(18.2)
Cash Reserves	48.6	38.2	22.1

NIO faces several critical key issues that significantly impact its financial performance and market competitiveness, while its valuation metrics highlight a challenging position compared to peers and the industry average. One of the most pressing concerns is the substantial losses incurred by its Battery-as-a-Service (BaaS) model. To maintain and offset the high operational costs of its extensive network of battery swap stations, NIO is forced to provide a subsidy of RMB 8,000 per unit. This large-scale subsidy not only eats into the company's profit margins but also creates a heavy financial burden, especially considering the already wide net losses NIO has been reporting. The inefficiency of this model in generating sustainable returns raises questions about its long-term viability and the company's ability to achieve profitability without significant adjustments. Another major issue is the cannibalization effect caused by the introduction of the Alps brand. Since the launch of Alps, NIO has witnessed a sharp decline in the sales of its higher-end models, most notably the ET5. In the quarter following the Alps launch, ET5 sales plummeted by 30% quarter over quarter. This unexpected and significant drop indicates that the lower-priced Alps brand has attracted customers who would otherwise have purchased the ET5, undermining NIO's strategy to maintain a premium brand image while expanding market share at a lower price point. The cannibalization not only affects revenue from its core models but also complicates NIO's efforts to optimize its product portfolio and pricing strategy. When it comes to valuation, NIO's metrics paint a stark contrast to its competitors and the industry average. The company's Enterprise Value to EBITDA (EV/EBITDA) ratio stands at -12.4x, a negative figure that underscores its lack of profitability and the challenges it faces in generating earnings before interest, taxes, depreciation, and amortization. In comparison, Li Auto, a rival in the EV space, boasts an EV/EBITDA ratio of 18.5x, highlighting Li Auto's relatively stronger financial position and market confidence in its earnings potential. Similarly, NIO's Price-to-Sales (P/S) ratio is 0.9x, which is significantly lower than the sector average of 2.3x. This indicates that the market values NIO's sales less than its peers, likely due to concerns about its growth prospects, profitability issues, and the key challenges it faces, such as BaaS losses and product

cannibalization. These valuation metrics suggest that NIO has a long way to go to regain investors' trust and improve its financial standing in the competitive EV market.

#### **4.6.4 Technical Analysis**

The technical analysis of NIO's stock reveals a concerning and downward - trending picture. The stock price has plummeted by 60% from its 2023 peak of HK\$68, and it currently finds itself trapped within a descending channel. This channel, characterized by a series of lower highs and lower lows, is a strong bearish technical pattern that indicates persistent selling pressure in the market. It suggests that, for the foreseeable future, the stock is likely to continue its downward trajectory unless there is a significant shift in market sentiment or fundamental factors.

The Moving Average Convergence Divergence (MACD) indicator further reinforces the bearish outlook. Currently, there is a bearish divergence, with the MACD histogram at -1.8. Bearish divergence occurs when the price of the stock makes higher highs while the MACD makes lower highs, signaling that the upward momentum is weakening and a potential price decline may be imminent. In NIO's case, the negative value of the histogram indicates that the bearish momentum is dominant, and the stock may face continued selling pressure.

To gain a more comprehensive understanding of NIO's stock performance over a longer period, a 2 - year price chart overlaid with volume and the Relative Strength Index (RSI) is required. Such a chart would provide valuable insights into the stock's historical price movements, trading volume trends, and momentum levels. However, at present, this remains a placeholder, awaiting the actual creation and analysis of the visual representation.

#### **4.6.5 Risks**

NIO is grappling with several existential risks that could have a profound impact on its survival and long - term viability. One of the most immediate and critical threats is the looming liquidity crisis. Based on the current cash burn rate, the company's cash runway is estimated to be less than 12 months. This means that if NIO is unable to secure additional funding or significantly reduce its expenses, it could run out of cash within a year, potentially leading to insolvency. Such

a situation would not only halt its operations but also have far-reaching consequences for its employees, suppliers, and customers.

Another major risk lies in the potential collapse of its battery swap network. Approximately 70% of NIO's users lease batteries through its Battery - as - a - Service (BaaS) model. This high reliance on battery leasing makes the company vulnerable to any changes in its subsidy policy. If NIO is forced to end the generous subsidies it currently provides to offset the costs of battery swaps, there is a significant risk of user churn. Customers who have been attracted to NIO's offers due to the cost-effective battery-leasing options may switch to competitors, especially if they find more affordable alternatives. The loss of a large portion of its user base would not only reduce NIO's revenue but also undermine the viability of its swap network, which depends on enough users to remain operational and cost - effective.

## **5. Comparison and Recommendations**

### **5.1 Financial Performance Comparison**

The comparative financial performance of BYD, CATL, Tesla, Li Auto, Xpeng, and NIO shows dramatic differences in scales of revenue and rates of expansion reflecting their differential positions in the market as well as differing abilities of strategies. BYD clocked a commanding 777.1 billion RMB of revenue in 2024, registering a compound annual growth rate (CAGR) of 30.5% between 2022 and 2024. The company grows on the back of its leadership of the world's pure electric and plug-in hybrid vehicles and its massive expansion of the footprint of its businesses in the European market as well as the Asian and Latin American markets. CATL, the battery industry's dominant industry position holder, reported 302 billion RMB of revenue for 2024 though facing a 9.7% decline on a year-on-year basis due to a spate of increased competition and price pressures for batteries; this notwithstanding, it holds a 37% market share of the world's power batteries. Tesla registered a revenue of 976.9 billion USD (approximately 683.8 billion RMB) of sales for 2024, though its modest 1% year-on-year expansion and declining market share from 19.9% of 2023 to 10.4% of 2024 reflect the mounting threat of Chinese players. Li Auto registered a sales revenue of 144.5 billion RMB, up by 16.6% as a year before, supported by a 33.1% growth of deliveries to 500,500 units that reinforce its leading position of strength within China's luxury electric cars segment. Xpeng recorded 45.2 billion

RMB of sales revenues, a 17.4% increase, while deliveries rose 28% to 218,000 units, though this expansion remains adversely affected by the threat of tariffs. NIO's sales revenue of 62.1 billion RMB expanded by a margin of 11.7% while deliveries went up by 22% to 310,000 units though this expansion trails behind peers.

Profitability was a key indicator of operational effectiveness and market competitiveness among the firms. CATL remained the top performer by reporting a net profit of 50.745 billion RMB and a net profit margin of 16.8% in 2024 due to its cost advantage and technology leadership at the cost of battery production. BYD recorded a net profit of 40.3 billion RMB and a net profit margin of 5.2% and recorded a jump in the gross margin from 17.0% in 2022 to 19.4% in 2024. Li Auto recorded a net profit of 8.03 billion RMB and a net profit margin of 5.6% by registering consistent profitability within the premium family car market. Tesla's net profit sharply dropped by 52% at 7.153 billion USD (c. 50.1 billion RMB) by reporting a 7.3% net profit margin as a result of price battles and inflated costs. Xpeng cut its net loss from 6.8 billion RMB back in 2023 to 5.2 billion RMB in 2024 but recorded a drop in the gross margin to 9.8% due to battery costs and the pressure of competitive pricing. NIO's financial woes deepened from a net loss of 14.5 billion RMB in 2023 to a net loss of 18.2 billion RMB in 2024 and a mere gross margin of 8.1%, reflecting inefficiencies within its operations.

The finances of these firms as represented by debt levels and the amount of cash on hand demonstrate long-term stability. Li Auto's 93.9 billion RMB of cash on hand and minimal debt and positive free cash flow for two years indicate a sound foundation. CATL's 2024 operating cash flow of 96.99 billion RMB and reduction of its leverage ratio from 69.34% to 65.24% reflect strong cash production. BYD's operating cash flow was 133.5 billion RMB, while free cash flow fell from 47.6 billion RMB in 2023 to 36.1 billion RMB in 2024 as debt increased to 40.5 billion RMB and the leverage ratio was 5.2%. Tesla's individual cash flow values were not reported, though its past performance indicates positive free cash flow. Xpeng's consecutive losses mean possibly negative free cash flow, though specific figures are unknown. NIO's

significant financial strain includes a free cash flow deficit of 4.2 billion RMB and decreasing cash on hand from 38.2 billion RMB in 2023 to 22.1 billion RMB in 2024.

## 5.2 Stock Performance Comparison

Valuation multiples reveal the market's expectations of these firms' own development prospects. Li Auto's price-to-earnings (P/E) ratio of around 26 times, price-to-sales (P/S) ratio of 1.6 times, and price/earnings-to-growth ratio under 1 indicate that it's underpriced based on its potential for expansion. CATL's P/E ratio of 18.96 times, PEG of 0.97, and price-to-book (P/B) ratio of 3.93 times put its valuation at a decade low, making it attractive. Tesla's price-to-earnings (P/E) ratio of 113.16 times, far higher than its five-year average of 229.65 times, and a PEG of -2.25 reveal the market's skepticism regarding its own expansion prospects. BYD's individual P/E ratio isn't available, but its leadership and expansion make it fairly valued. Xpeng's enterprise value-to-sales (EV/Sales) multiple of 2.1 times and price-to-book (P/B) multiple of 3.2 times below the industry average of 4.1 times show a moderate valuation. NIO's EV/EBITDA of -12.4 times and price-to-sales (P/S) ratio of 0.9 times far lower than the industry average of 2.3 times point towards the concerns of investors regarding its stability.

Technical indicators provide short-term market trend insights. Li Auto exhibits a MACD golden cross, positive histogram, and RSI of 46.32 (in the middle but on the rise), its stock price hovering above the 80 HKD support level, indicating short-term bullishness. CATL exhibits a MACD death cross over the zero line and declining RSI levels, indicating oversold conditions with a possible rebound. BYD's RSI of 61.64 approaches overbought levels, with a 5-day moving average crossing over the 10-day moving average (golden cross), although declining MACD momentum suggests caution for short-term corrections. Tesla's 50-day moving average crossing below the 200-day moving average (death cross), MACD of -9.18, and RSI of 43.56 confirm short-term bearishness. Xpeng's MACD bullish crossover and RSI of 54 indicate a neutral trend supported by the 200-day moving average of 68 HKD and resisted by the 50-day moving average of 92 HKD. NIO's tech remains bearish, featuring a death cross, MACD of -1.8, RSI of 38 (in the oversold zone but without reversal signals), and stock price having dropped 60% of its 2023 high.

### **5.3 Risk Analysis**

All six companies confront intense competition, particularly from Chinese manufacturers and emerging technology players. Regulatory challenges impact BYD, Tesla, and Xpeng due to global trade tensions, including EU and US tariffs, while CATL faces potential US policy risks, such as inclusion on the “1260H list.” Financial risks are pronounced for NIO, which faces a liquidity crisis with cash reserves sufficient for only 12 months of operations, and Xpeng, which contends with significant profit margin pressures. Operationally, NIO’s battery swap network incurs annual costs of approximately 1.2 billion RMB, while BYD’s high capital expenditures could strain its cash flow.

### **5.4 Investment Recommendations**

Based on this analysis, investment recommendations for each company as of April 17, 2025, are as follows: Li Auto (Buy) provides consistent profitability, steady revenue expansion (16.6% YoY in 2024), and 93.9 billion RMB of cash reserves and provides a low-risk, upside-heavy option with a P/E ratio of around 26 times and a target price of 120 HKD (a 33.9% gain from 89.65 HKD). CATL (Buy), the world's number one battery producer, shines with a 50.745 billion RMB 2024 net profit and 16.8% net profit margin and a favourable P/E of 18.96 times as well as a target price of 260-375 RMB supported by innovations such as the Kirin battery. BYD (Hold) amazes with a 30.5% CAGR for revenues but heavy capex costs and 40.5 billion RMB of debt caution investors and makes it a hold suitable for investors holding for the long run. Tesla (Hold) continues innovative strengths but a 52% net profit decline and a 113.16 times P/E indicate caution over the short term while long-term upside rides on new models such as Redwood. Xpeng (Hold) holds promise for autonomous driving and a 28% delivery hike, although a 9.8% gross margin and tariff exposure yield a target price of 85-110 HKD and appeals to risk-prone investors. NIO (Sell) is seriously under severe financial strain as a 18.2 billion RMB net loss and a target price of 22-30 HKD supports avoidance or divestment.

### **5.5 Summary**

In summary, Li Auto and CATL stand out as top investment choices in the electric vehicle sector due to their financial stability and growth potential, while BYD, Tesla, and Xpeng suit higher-risk appetites, and NIO’s challenges make it less favorable.

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