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The Electric Vehicles Boom in China: From Policy to Global Market Dominance



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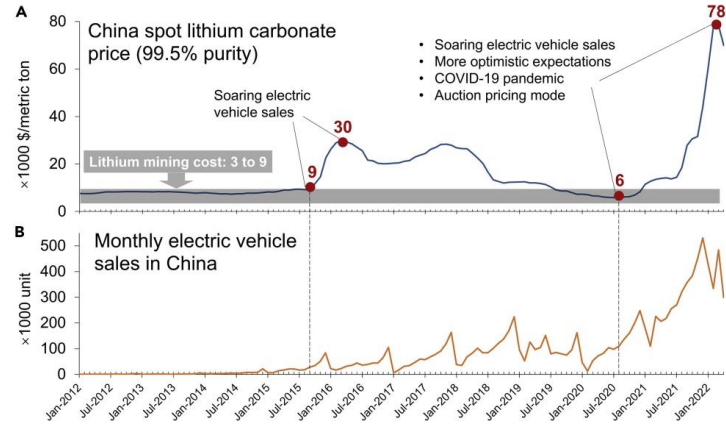
In the early 2000s, before fully venturing into the field of electric vehicles (EVs), China's automotive industry was in an unusual position. It was a powerhouse in assembling conventional gasoline-powered vehicles, yet it lacked domestic brands capable of competing with the foreign manufacturers that dominated the



market. “They understood... that they could never surpass the U.S., German, and Japanese legacy automakers in internal combustion engine innovation,” says Tu Le, managing director of Sino Auto Insights, a business consulting firm specializing in transportation. Additionally, research on hybrid vehicles—where the battery initially played a secondary role to the gasoline engine—was already being led by countries like Japan, making it difficult for China to compete in that sector.

This realization pushed the Chinese government to break away from established technologies and invest in an entirely new area: battery-powered vehicles. As a result, China became a global leader in both the production and adoption of EVs. The momentum has only grown stronger—between 2020 and 2022, annual EV sales in China skyrocketed from 1.3 million to an astounding 6.8 million. This made 2022 the eighth consecutive year in which China was the world's largest EV market. For comparison, the U.S. sold only about 800,000 EVs in 2022. The industry's rapid growth has even surprised experts. “The forecasts are always too low,” says Tu. This dominance in the EV

sector has not only provided sustained growth for China’s auto industry during the pandemic but has also reinforced China’s position as a global leader in climate policy.



Historical lithium price and electric

vehicle sales in China

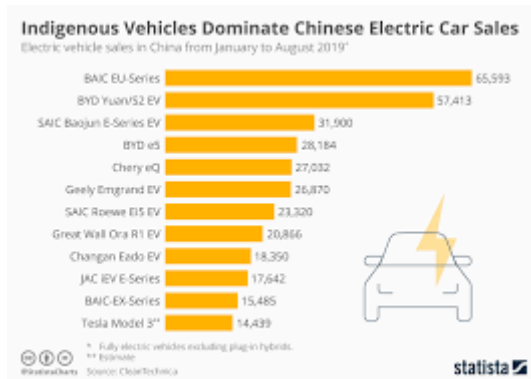
The Impact of Lithium Prices on EV Sales

A crucial analytical reference point for understanding today’s EV market is the price surge of 2015. Many consider 2015 the “breakthrough year” for EV growth, as global sales reached 550,000—a 70% increase from 2014, far exceeding previous forecasts. China played a key role in this surge, with EV sales jumping 340% from 2014 to reach 330,000, driven largely by government incentives and fiscal policies.

A similar pattern occurred in 2021 when global EV sales doubled to 6.6 million, with sales in China nearly tripling to 3.3 million.

Despite the pandemic-induced slowdown in the broader automobile market, EV sales once again exceeded expectations. Government policies, such as the Green Recovery Plan in Europe and

the United States, played a major role in sustaining this growth.





China's Role as a Global EV Manufacturing Hub

Western companies are increasingly turning to China as a key EV manufacturing platform due to its massive production capacity, favorable policies, and cost-effective manufacturing processes. While global EV sales have risen significantly, China accounts for 60% of all EV sales worldwide (IEA, 2024). With more than 50% of the global market share, China has firmly established itself as the largest EV market and continues to dominate the industry (IEA, 2024). The Chinese government has actively promoted EV adoption through tax cuts, subsidies, and regulatory easing for domestic automakers. However, rising trade tensions have led to increased tariffs on Chinese EVs. In 2024, the Biden administration raised tariffs on Chinese EVs from 25% to 100%, while tariffs on lithium-ion batteries increased from 7.5% to 25% (White House, 2024). Similarly, the European Union recently raised tariffs on Chinese EVs to as much as 45% (Bloomberg, 2024). These high tariffs have reduced the price advantage that Chinese EV manufacturers previously enjoyed in Western markets. For Chinese EV manufacturers, Europe remains a crucial market. Given their relatively low production costs, global automakers are adopting new strategies to maintain competitiveness. One of the primary strategies involves reducing vehicle prices to compete with Chinese EVs. In the U.S., the average starting price of the top 10 best-selling EVs has dropped to \$48,889—lower than it was six months ago (Fischer, 2024). Tesla, a key market leader, has introduced more affordable models and continues to lower the prices of its vehicle lineup.

In 2024, global passenger EV sales are projected to reach 17 million, with China accounting for 65% of these sales. This surge not only fuels domestic demand but also strengthens China's influence in Asian export markets, a trend expected to continue growing.

The Rise of Chinese EV Automakers

China's government-driven EV boom has fostered a thriving ecosystem of domestic automakers, many of which have become global leaders. Companies like BYD, NIO, XPeng, and Li Auto have emerged as formidable competitors,



producing innovative EV models that rival Western brands. BYD, in particular, has established itself as a global leader, not only in EV production but also in battery manufacturing. Its vertically integrated business model—spanning battery production, vehicle assembly, and energy storage solutions—has given it a significant competitive edge. Meanwhile, NIO has focused on premium EVs, offering advanced features such as battery-swapping and autonomous driving capabilities. NIO's battery-swapping technology allows users to replace depleted batteries with fully charged ones in under five minutes, addressing one of the major pain points of EV ownership: long charging times. These innovations have helped Chinese automakers capture the domestic market



while also positioning them as strong players in the global EV industry. As China continues to dominate the EV landscape, its influence over the global automotive sector will only grow. With continuous advancements in battery technology, government support, and aggressive market strategies, China is well on its way to shaping the future of electric mobility worldwide.

Conclusion

China's journey from policy-driven EV adoption to global market dominance is a testament to the nation's ability to align government strategy with industrial growth. By fostering innovation, investing in infrastructure, and securing control over critical supply chains, China has set a new standard for the global automotive industry. As the world transitions to a greener future, China's leadership in the EV sector will undoubtedly play a pivotal role in shaping the future of mobility. With its eyes set on technological advancements and international expansion, China's EV boom is not just a national success story—it's a global phenomenon.