



Is BYD Leading the Race in Electric Cars

When searching for innovation within the electric car industry one has to look no further than China, the world's largest EV market. The country's car manufacturers are exploiting the nation's vast natural resources and advantages in chemical and battery production to make advancements in electric vehicles which other countries cannot sustain. Tesla has yet to produce a new electric vehicle model in China since 2019, whereas domestic producers are releasing more than 100 models this year alone.

China's largest electric vehicle producer, BYD, recently dethroned Tesla, with the Chinese car manufacturer's quarterly revenues exceeding Tesla for the first time. BYD sold 1.1 million cars in the three months to September (an increase in sales of 24%), resulting in their quarterly revenue outstripping Tesla's by \$3 billion. BYD has secured their position as the market leader by introducing longer range models at lower prices, while Tesla's product range has become outdated with the company's recent focus on automation proving unsuccessful to date. High levels of vertical integration within BYD's production has given them a competitive advantage against others in the industry, resulting in higher gross margins than Tesla, as well as other Chinese rivals. This vertical integration has been one of the cornerstones of BYD's success, with the vast magnitude of their production meaning they benefit from economies of scale and their in-house battery production capabilities reducing costs. In contrast, Tesla sources most of their batteries from other companies such as Panasonic Energy and LG Energy.

However, despite BYD's recent success, with their market value rising roughly 55% YTD, a backdrop of rising protectionism and geopolitical tensions may stifle future growth. China's recent dominance in the EV market has led to the EU implementing significant import tariffs on Chinese vehicles. This is the consequence of European carmakers begging for tariffs, due to poor performance. Volkswagen for example has had to close factories in Germany for the first time and lay off tens of thousands of workers due to a loss of market share. Extensive Chinese subsidisation of cars, means that EU producers are unable to compete on price, which has meant the bloc has had to resort to protectionist measures. BYD's market dominance has meant the carmaker has been hit with EU tariffs of 17% on battery powered vehicles, on top of the already existing 10% tariff. I would argue that in the short-term this is unlikely to significantly impact BYD's upward trajectory as the vast majority of their sales are within their domestic market, with overseas sales only accounting for 7.8% of total monthly sales in September. However, in the long-term these tariffs may play a more significant role in hindering BYD's growth as analysts expect BYD to soon focus on growing their international sales. With the newly elected US President Donald Trump vowing to implement tariffs of 60% or more on China, BYD's position at the forefront of the EV market may prove to be short-lived.

BYD's rise to the top is not only due to the firm's incredible growth but also due to Tesla's decline. The recent US election has meant Tesla has reclaimed its \$1 trillion market cap for the first time since 2022. Nevertheless, the recent performance of Tesla's stock price has masked the poor sales and product showcases of the company in 2024. Tesla's Q2 net income fell 45% this year and more recently the company missed its Q3 revenue expectations (although it should be noted that the Q3 earnings release was viewed positively by investors due to high earnings per share). The company failed to impress at its recent 'cybercab' event where it unveiled plans for a fleet of autonomous robotaxis as well as household Optimus Robots intended to be 'the biggest product ever of any kind'. The two-seater taxis as well as the humanoid robots are supposed to eventually be available for less than \$30,000. The event left investors unimpressed due to a lack of detail on the technology behind the autonomous vehicles and how Tesla aimed to reduce their cost. Following the event Tesla shares fell 9% and at the time this left Tesla as 2024's worst performer on the S&P 500. This downward trajectory has only recently reversed on the back of changed investor sentiment as a result of upgraded forecasts for next year and Elon Musk's bet on Donald Trump paying off, which has caused Tesla share prices to rise more than 50% over the last month.

Has the US election offered Tesla a lifeline? Maybe Elon Musk will be able to suggest policies within the new Whitehouse administration that benefit Tesla, but investors may worry his oversight in the Department of Government Efficiency will reduce the time he can devote to growing the company. I would argue that it may have just provided a temporary relief from Tesla's downward trajectory unless the company changes its focus. If Tesla does not soon provide updates on its release of a more affordable electric car, unofficially known as the 'model 2' I feel as though Tesla's product lineup will simply become more outdated compared to its

Chinese rivals. If autonomous vehicles are the direction Musk chooses to take Tesla, he has a long way to go. The partnership between Waymo (owned by Alphabet Inc.) and Uber has already yielded success in the realm of autonomous taxis, with the companies providing ride hailing services in Phoenix, Arizona, Los Angeles and San Francisco, with new services planned for Austin and Atlanta. Tesla in comparison are not expected to release a full Cybercab fleet until 2026 and are awaiting regulatory approval, which they may not be granted given Tesla's self-driving technology relies on cameras and machine learning, which may not meet safety standards, whereas Waymo employ remote sensing technology.

Despite my trepidation about Tesla's future success, there is just as much uncertainty about BYD's growth moving forward and Elon Musk isn't someone to underestimate. The recent US election may potentially be the start of another period of rapid expansion for Tesla. But the longer Elon Musk focuses his efforts on automation, the more ground BYD and other Chinese rivals will make in the electric vehicle race.