

China Economic Update May 2024

Tariffs on China's EV exports could spark another trade war



NAB Group Economics

While American manufacturer Tesla is largely synonymous with electric vehicles (EV) to most consumers in advanced economies, it is in fact Chinese firms that have become increasingly dominant in global EV manufacturing, particularly when viewed across the entire value chain. However, this market position – and the role of government subsidies in its acquisition – has raised trade tensions in both the United States and Europe. In mid-May, the Biden Administration announced tariff increases on a range of imports from China, with the most notable being a quadrupling of the tariff on electric vehicles (from 25% to 100%), while an EU investigation into China's EV subsidies is due to be completed by early July – with countervailing duties of some degree widely expected. Such trade measures highlight competing priorities between environmental and industrial policies in advanced economies.

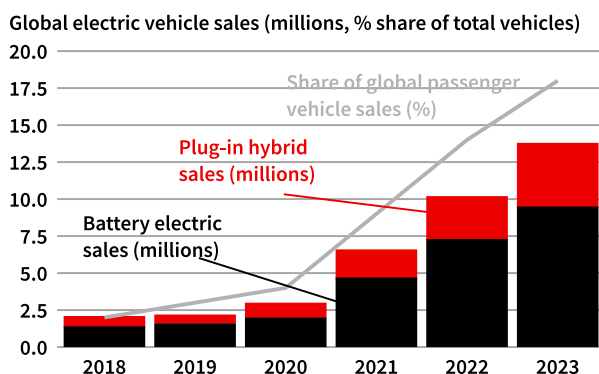
An overview of the global and Chinese EV market

Production and sales of EVs have expanded rapidly in the past decade, as high oil prices (by historical standards), improving technology (that has increased the practicality of these vehicles), expanded infrastructure (such as charging facilities) and environmental concerns (including regulatory measures in many countries) have underpinned demand. According to data from the International Energy Agency (IEA), almost one-in-five passenger vehicles sold globally in 2023 were electric (either battery only or plug-in hybrids), up from around 2.6% in 2019 and less than 1% in 2016.

That said, the market penetration of EVs in the auto market varies widely by country. Globally, the largest share of sales in 2023 were in the Nordic countries – with 95% of sales in Norway and 60% in Sweden being electric (reflecting various subsidies and other incentives for drivers), however the largest market in terms of units sold is China, where 38% of vehicles sold in 2023 were electric. Of the 13.8 million electric vehicles sold in 2023, 59% of them were sold in China (IEA).

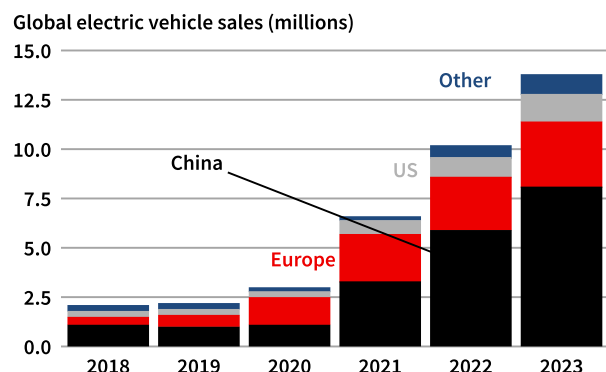
Global EV sales

Rapid increase has seen share of total passenger vehicle sales rise recently



Global EV sales by country

China accounts for over half of sales

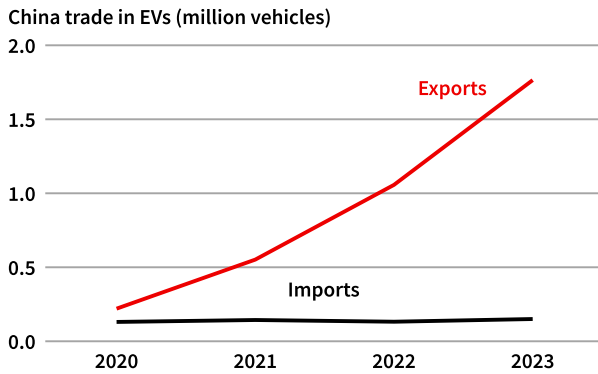


According to the China Automobile Dealers Association, the majority of these vehicles – around 70% are domestically manufactured by Chinese firms. Other vehicles are produced by foreign firms or joint ventures operating in China – for example, Tesla has a large factory in Shanghai that produces vehicles for the Chinese and export markets (accounting for over half of

the company’s production in 2022). Relatively few sales are imported vehicles; for example, Tesla exports US made high-end Model S and Model X vehicles to China.

Chinese EV trade

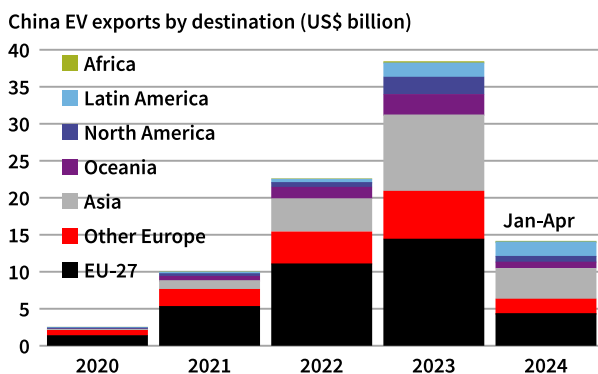
Rapid expansion in China's EV exports since 2020



The majority of China’s EVs are produced for the domestic market. Based on new vehicle registrations, total EV sales in China topped 8.1 million in 2023, while exports were around 1.8 million, with just over 150,000 vehicles imported. In US dollar terms, the largest share of exports (just over 54% in 2023) was delivered to Europe, however exports to Asia grew strongly in 2023 – up by 130%. It is worth noting that Chinese EVs have no substantial presence in the United States – with the value of exports to Australia over seven times larger than the US. In part, this reflects differing trade policies – Australian EV imports from China are not subject to tariffs (under a free trade agreement), compared with the current 25% rate in the US – as Australia has no domestic motor vehicle production to protect. In addition, there are various incentives for EV purchases (often from state governments) that support Australian demand, whereas US incentives typically favour domestic EVs.

Chinese EV trade by destination

Europe the key market for China's EVs in 2023, though Asia growing



How did China come to dominate the EV market?

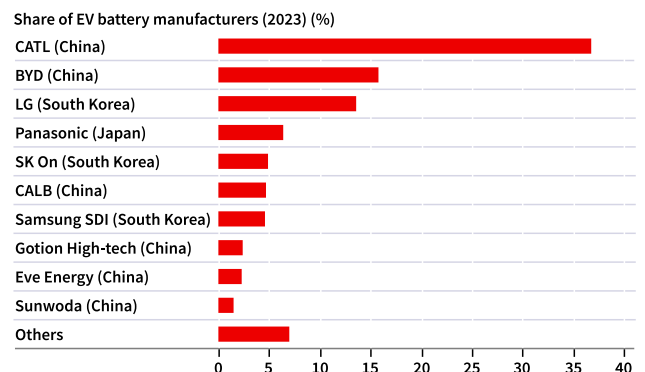
According to a research paper by the MIT Technology Review, China’s policy makers identified the potential for electric vehicles in the early 2000s, in part reflecting concerns that closing the gap with internal combustion engine technology in advanced economies would take too long. The tenth Five Year Plan (running between 2001 and 2005) included EV technologies as a priority science research project.

From 2009 onwards, electric vehicle manufacturers began to receive substantial government support. This included subsidies to EV makers that lowered the cost of vehicles for end consumers, various tax breaks and preferential procurement contracts (particularly for public transport networks). Several local governments provide additional incentives to encourage purchases. These policy measures ensured a steady revenue stream in the early stages of EV development, supporting research & development and further investment.

However, China also rapidly came to dominate the battery industry – with estimates that batteries comprise around 40% of the cost of an electric vehicle in 2020. The two largest producers of EV batteries – CATL and BYD – accounted for over half global production, with a further four companies in the top 10 in 2023. It is worth noting that these major producers operate globally – for example, CATL have factories in Europe, as do South Korea’s LG (along with a plant in China), and Japan’s Panasonic has two factories in the United States – meaning that market share by company does not correlate to country of production.

Global EV battery makers

Chinese producers dominate EV battery supply



In addition, China’s control of the battery sector extends further down the value chain. It has the dominant share of refining capacity of key inputs, such as cobalt, nickel sulfate, lithium hydroxide and graphite, while it also has substantial investment interest in mining facilities for these mineral ores in key producing regions outside China.

There is currently massive overcapacity in the global EV battery sector – particularly in China. According to estimates by the IEA, battery output from China comprised less than 40% of the industry’s capacity in 2023. This saw battery prices resume their long-term downward trend in 2023 (having risen on higher input costs in 2022). As is the case in many green industries – most notably solar panels – the excess capacity in China and falling global prices reduces the viability of investments in capacity elsewhere – reducing the ability to bypass China in the EV supply chain.

Interestingly, a recent study by Bloomberg suggested that overcapacity was not a major issue among China’s EV producers. Most of the largest firms – such as BYD, Tesla, SAIC and Li Auto – were operating at 80% utilisation rates (or above) – with low utilisation appearing to be more of an issue in the traditional internal combustion engine sector. EV producers with sizeable excess capacity tended to be smaller producers or recent entrants. Tesla triggered a price war in late 2022 – with major competitors slashing prices as China’s domestic sales started to slow. This hit profitability in 2023, and some smaller and less efficient producers may exit the market in coming years.

Conclusions – trade tensions triggering policy responses

Weakness in China’s domestic consumption has seen the country’s export volumes rise rapidly from the second half of 2023 onwards, with policy makers in various countries accusing China of dumping its excess industrial capacity into global markets, negatively impacting manufacturers worldwide. Electric vehicles are among the goods highlighted by officials, with exports rising by 67% in 2023.

The increase in US tariffs on EVs was eye catching – rising from 25% to 100% - but not particularly significant, given that China’s EV exports to the US were negligible to begin with. This may instead be a case of electioneering – given that considerable US auto production occurs in “swing states” and 2024 is a Presidential Election year.

In contrast, the current EU import tariff for Chinese vehicles is 10% - which is not prohibitive enough to substantially impact sales. Unlike the US, where incentives to purchase EVs favours domestic producers, EU incentives do not specify a country of origin. Research by the European Federation for Transport and Environment, one-in-five EVs sold in the EU in 2023 were manufactured in China, and they expect this to rise to one-quarter in 2024. This includes Teslas built in Shanghai for the export market.

In October 2023, the European Commission commenced an anti-subsidy investigation into China’s electric vehicle exports, with the results due to be delivered by July. An

increase in the tariff is widely expected, with Rhodium anticipating an increase to between 15% and 30% – however they note that Chinese vehicles would remain competitive in European markets unless tariffs were raised to 45-55%. That said, any tariff increase could result in retaliation from China, sparking a similar trade war to the one between the US and China starting in 2018.

Raising tariffs on Chinese EVs may favour domestic producers in the EU, but it may negatively impact its ability to meet environmental targets. Internal combustion engine vehicles are banned from sale in the EU from 2035, however it is not clear that the region would be able supply sufficient numbers of EVs without China – particularly given its dominance through the value chain.

Chinese manufacturers may seek to bypass tariff measures via expanding production capacity within favourable trade blocks. For example, China’s largest producer BYD has existing plans for factories in Hungary and Mexico – within European and North American free trade blocks. In addition, producers may also seek to increase trade with neighbours in Asia, given the rapid growth in exports seen in 2023.

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