

Q Why are electric cars made in China so much cheaper than those made in other countries?

China has emerged as the world's most cost-competitive centre for car manufacturing, particularly for electric vehicles (EVs), increasingly shaping global markets. Central to China's cost advantage is its ability to manufacture at large scale: Some of the largest EV factories in the country can produce over 1 million cars per year, well above typical outputs of plants elsewhere. These economies of scale generate major cost savings, as fixed costs can be spread across more vehicles.

Generous subsidies and preferential financing were also instrumental in enabling China to reach such scale, helping manufacturers expand production and reduce prices during the early years of market growth. It is likely that these policies continue to influence cost structures today, but they alone are not sufficient to explain the consistently lower prices.

Producing an internal combustion engine (ICE) car in China is 30% less costly than in Germany. This cost advantage is partially driven by lower labour costs, which are roughly three to five times lower than in most advanced economies. Energy costs account for between 1% and 4% of the cost of manufacturing a car, meaning that differences in energy prices do not significantly affect the overall cost gap.

When it comes to electric cars, China's production cost advantage is even greater, because of lower battery costs.

Chinese firms dominate global production of battery components, cells and packs, reaching economies of scale that manufacturers elsewhere cannot yet match. Over a decade of mass production experience enables China to build and efficiently operate highly automated factories: manufacturing efficiency alone accounts for over 40% of the battery production cost gap between China and Europe. The widespread adoption of lithium iron phosphate (LFP) batteries further strengthens this advantage by avoiding the costlier materials used in nickel-based chemistries, which remain more common in advanced economies.

However, cost structures can evolve. Other regions could narrow the gap by scaling up EV production, developing specialised EV industrial clusters and benefiting from learning by doing in battery manufacturing. Strategic choices including the adoption of cheaper chemistries, industrial partnerships and sustained electric car demand could enable other regions to close the cost gap.

PRICE ESTIMATES OF A SMALL SUV IN SELECTED COUNTRIES IN USD, 2024

