

# EV price gap: a divide in the global automotive industry



# 01

## Foreword

**Electric vehicles are here to stay. In many countries, the total shift away from the internal combustion engine (ICE) has been mandated via government legislation. While consumer demand for ICE vehicles will persist in the short term, production will be phased out as OEMs accelerate their electrification plans.**

Although some countries will inevitably make the switch before others, by the second half of this century most vehicles will have non-combustion powertrains.

In the last decade, new players have evolved from start-ups to large, credible corporations that have forced legacy OEMs to change the way they develop, produce, and sell EVs. China's carmakers have made huge strides forward in their ability to produce a competitive and affordable line-up at scale, and the environmental impact of mobility has become an increasing concern in the minds of consumers across the globe.

The progress made by the automotive industry to date is not to be understated, however the rate of



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change differs significantly according to the market, and the current landscape continues to present significant challenges that will only be addressed through the collective action of the industry, governments, and consumers.

To ensure a sustainable transition, solutions must respect regulations while delivering profitability for producers, as well as competitive and affordable products for consumers. As revealed by JATO Dynamics data, there is still much that needs to be done before access to electric vehicles can become a reality for all.

In this report, we focus on the issue of affordability and how the increasing competition from China across all segments is threatening to split the global automotive industry in two.

# 02 Why China is leading the shift

When thinking about electric vehicles, the majority of people now view the market as two camps: China, and the rest of the world. With the former unrestrained by stranded assets and R&D processes dedicated to ICE vehicles, its ability to leapfrog has seen them race ahead against peers in the production of EVs.

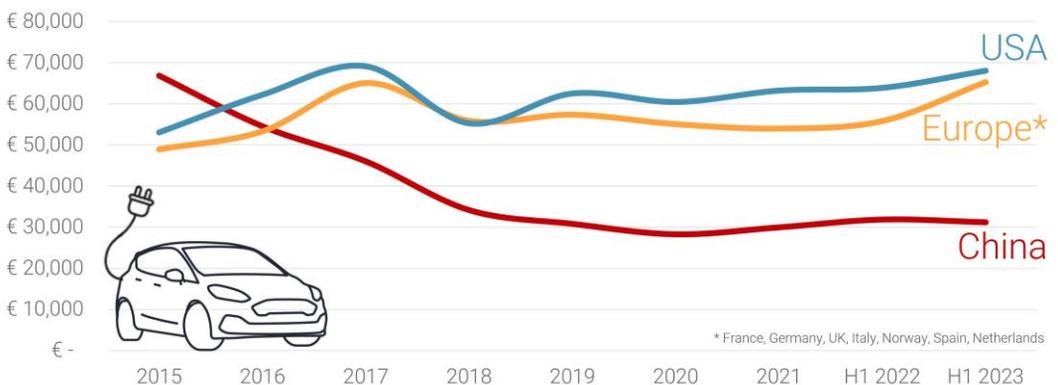
The rapid progress made by China to produce competitively priced EVs – that rival the rest of the world on both technology and model-type – comes as part of its economic growth ambitions. With the growth of the Chinese economy showing signs of slowdown <sup>(1)</sup>, its electric car industry has become increasingly important in supporting the economy with green

jobs and technological innovation <sup>(2)</sup>.

China is focusing on producing a range of models across numerous segments, while the West continues to focus its attention on the high-end electric segment. As a result, China has not only managed to reduce the average price of its EV offering, but has also kept price tags low, where others continue to rise. In China, consumers can choose from 235 different EVs, however in Europe and the US, the range is far smaller with 135 and 51 models available respectively in each market.

Over the course of H1 2022, the average price of electric cars in Europe and the US became more expensive, while falling in China over

**Average Retail Price of the Electric Cars available**



the same period, and this gap only continues to widen. In the first half of 2022, the average retail price of a BEV was €31,829 in China, €55,821 in Europe (+75% vs China), and €63,864 (+101% vs China) in the US.

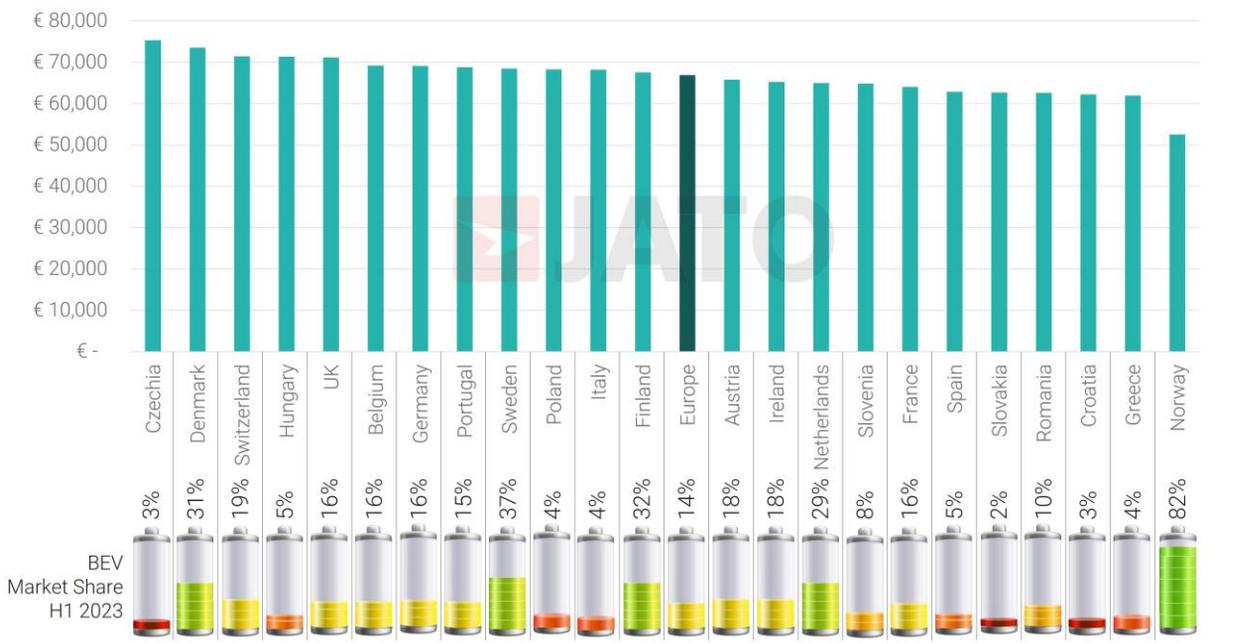
A year later, the average retail price of an electric car available in China is now less than half the price seen in both Europe and the USA. In H1 2023, an electric car cost €31,165 in China, €66,864 in Europe (+115% vs China) in Europe, and €68,023 (+118% vs China) in the US.

Put simply, where the average retail price of electric cars fell by 2% between H1 2022 and H1 2023 in China, it increased by 20% in Europe, and 7% in the US. It is this focus on affordable EVs that has seen the

Chinese industry thrive, with consumers looking to cut costs where possible. According to global JATO Dynamics sales data, over 78% of electric car sales in H1 2023 in China were for models priced below €40,000/\$43,500, with one third of these priced below €20,000/\$21,700.

As the global automotive industry has become more interconnected, some Western and Japanese OEMs have made use of growing local demand for EVs in China to partly finance their global operations. Undertaking this through joint ventures with local OEMs, they have collaborated to develop and build cars with companies such as FAW, GAC, JAC, and SAIC.

### Average retail price of electric cars available in Europe



Through collaboration, China's emerging OEMs have acquired learnings and insights from legacy carmakers, and this knowledge accompanied with the strong commitment from the central government has further supported China's ability to develop quality, affordable EVs.

While manufacturers in other parts of the world are making efforts to produce more affordable EVs, they continue to be expensive when compared to gasoline and diesel vehicles. To buy an EV, consumers would need to spend at least €18,285 in Europe and €24,400/\$26,500 in the US. This is 92% and 146% more expensive than what they would pay for the cheapest combustion car available, respectively. In contrast, the cheapest electric vehicle available in China is 8% cheaper than the cheapest combustion car.

The reasons underpinning the difference in price are specific to each market. In Europe, this is largely due to the industry's continued focus on premium EVs ahead of more widely affordable mid-range. In the US, the range of models available is even more limited and so the market is extremely sensitive to pricing movements, as seen by the impact of Tesla's ongoing price cuts. <sup>(3)</sup>

The US market has however benefited from the introduction of more affordable BEVs, such as the Chevrolet Bolt, Nissan Leaf, Hyundai Kona, Kia Niro, and Toyota bZ4X/Subaru Solterra. These vehicles are responsible for the smaller price gap between gasoline and BEV vehicles. For instance, despite the average price of BEVs jumping from €63,864/\$69,400 in H1 2022 to €68,023/\$73,900 in H1 2023, gasoline vehicles saw an increase from €44,461/\$48,300 to €50,359/\$54,700 over the same period.

However, the rise in popularity of electric pickup trucks - such as the Ford F-150 Lightning and the Rivian R1T - while not yet shaking the market, may have an impact on its average prices in time.



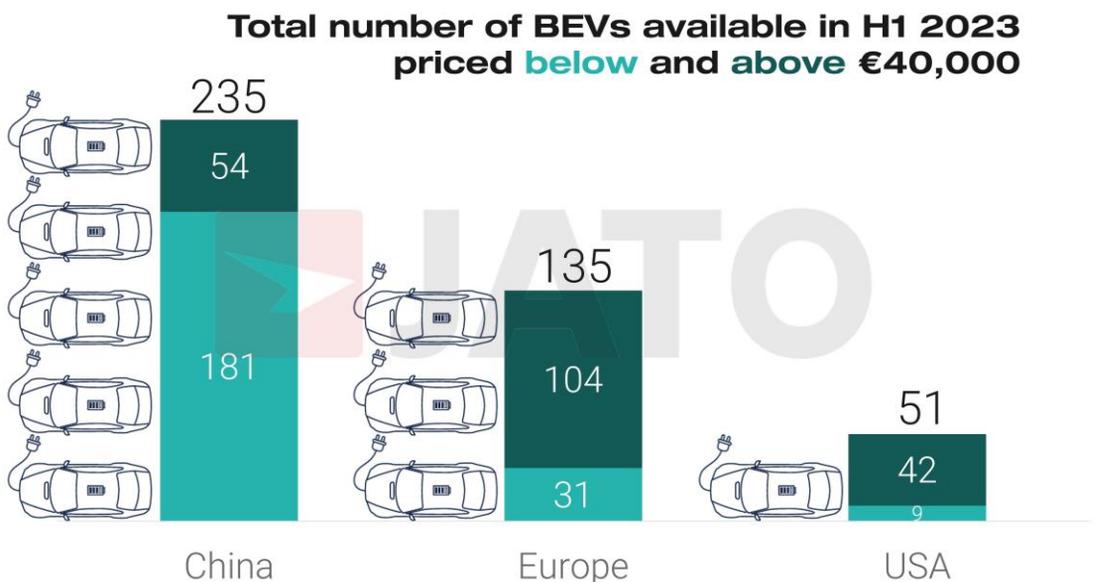
## China’s international ambitions: a model for every market

With global ambitions, China’s manufacturers have made efforts to ensure they have a range of EVs to meet the needs of all consumers. With annual domestic sales reaching over 25 million units, there is more than enough room for local brands to produce additional models, unlike in developed economies where markets are generally more mature and therefore saturated.

While Western OEMs have historically positioned EVs as premium products, across the 170 local Chinese car brands, manufacturers are targeting every segment with models suited to

the preferences of consumers across markets. For example, BYD’s Dolphin has been performing well across emerging markets while the Atto 3, a family sized SUV, was the best-selling BEV in Thailand in H1 2023. Meanwhile in Europe, MG has been making inroads with both the MG 4 and the ZS.

From the 235 BEVs available in China, in H1 2023, only 23% were priced above €40,000/\$43,500, while the proportion was 77% in Europe, and 82% in the US.



A factor that has increased this price gap between Chinese and Western EVs is related to finance. In response to the semiconductor shortage and global supply chain issues that followed the Covid-19 pandemic in 2021, many Western carmakers increased their prices while consumers were made to wait longer for new vehicles.

For many OEMs this strategy paid off. In 2022, most of these companies reported fewer units sold, but higher revenue and record profits. Last year, the operating income of 24 Western OEMs increased by 17% to €155.3 billion/\$168.8 billion, while their sales in units fell by almost 4%.

This focus on quality over quantity and profitability over volumes has persisted. While this allowed OEMs to deliver strong returns for shareholders, it has also created an opening for Chinese competitors.

While Chinese OEMs are still marginal players in Europe – with 2.3% market share between January-August 2023 – some brands, more than others, are shaking the market with quality at competitive prices.

In Europe, the average retail price of the MG 4, a Chinese fully electric compact hatchback, in H1 2023 was €35,130/\$38,178. Its closest rivals, the German Volkswagen ID.3, and the

French Renault Megane E-Tech posted average retail prices of €45,254/\$49,181 and €45,434/\$49,376, respectively.

Similar differences in pricing can be seen with BYD. As the second most popular Chinese brand in the BEV European ranking, BYD registered almost 7,700 units in Europe between January and August 2023. The brand's Atto 3, an electric compact SUV with 204 hp, has an average retail price of €43,884/\$47,692. The closest rival in dimensions and power is the Korean-made Kia Niro, with 204 hp with an average retail price of €48,522/\$52,733. The Spanish-manufactured plug-in hybrid Cupra Formentor, has 204 hp and is priced at an average of €44,855/\$48,748.

Interestingly, a key factor holding back the spread of premium EVs in China is the availability of charging infrastructure. To date, the local strategy for charge points has focused on quantity, rather than the reliability or high-tech features of the stations.

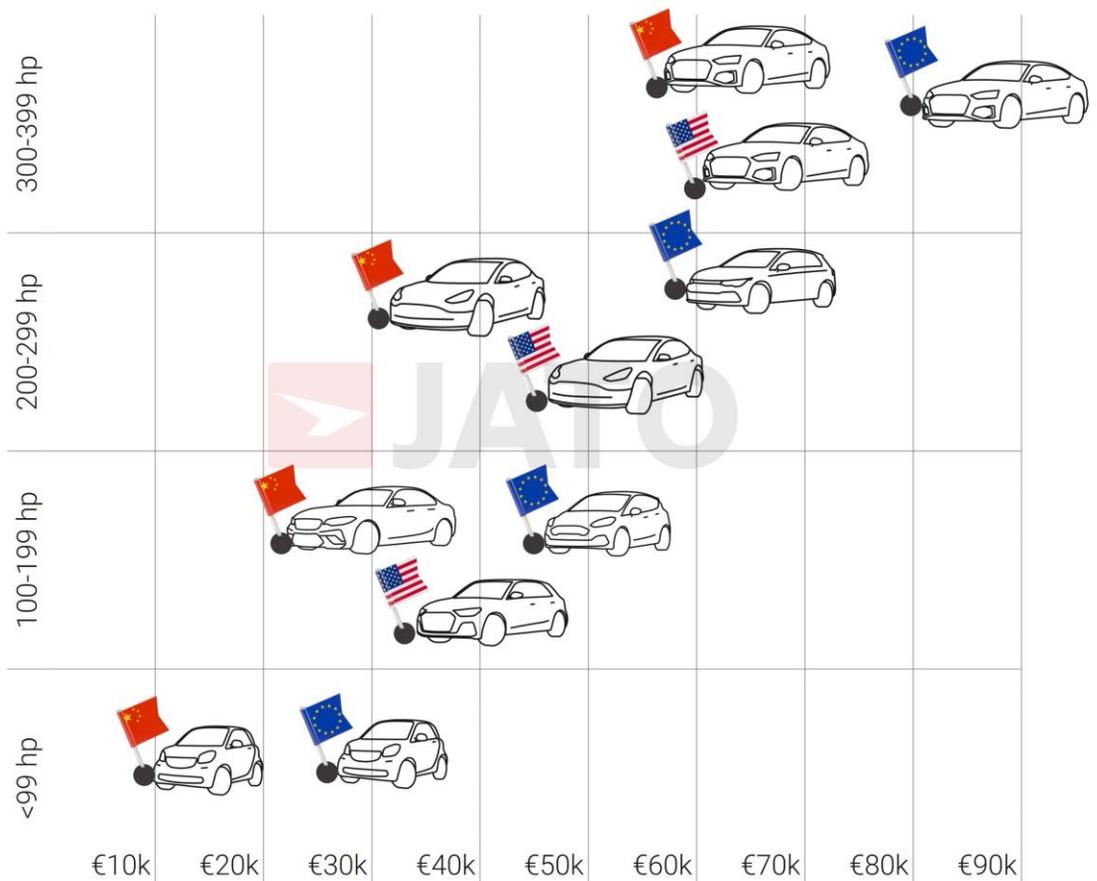
In China, current infrastructure supplies energy at very low speeds, meaning the most advanced EVs can't always make use of their fast-charging technology. Similarly, as many entry-level electric cars lack security features - such as a battery

overheating sensor – across the country, public charging points need to work for both advanced and cheaper EVs. For these reasons, it has been in the interest of many Chinese OEMs to continue to focus on more affordable vehicles rather than premium models.

However, it is clear that across the board, China’s EVs are not only competing on price, but also in terms of quality and power. Today, China can produce and sell an electric car

with 200-300 horsepower (hp) for an average of €30,500/\$33,150. For example, BYD offers its Seal – a midsize sedan – with 204 hp on its Elite trim in China for just €24,106/\$26,197. In Europe, the closest rival in price is a Renault Twingo Equilibre - a city-car produced in Slovenia – priced at €24,320/\$26,430 with just 81 hp.\*

### Average retail price by horsepower (hp) of electric cars available in H1 2023



# 04 How is China able to produce EVs so cheaply?

Over the past decade, the Chinese government has provided robust support for the domestic electric vehicle industry through the New Energy Vehicle Industry Development Plan (2021 – 2035) with subsidies totalling \$57 billion between 2016 and 2022 <sup>(4)</sup>. The industry has also been bolstered by notable support at the local level. For instance, the municipality of Chongqing has set its sights on contributing over 10% of China's new energy vehicle (NEV) market, while Jilin aims to establish an annual production capacity of approximately 1 million NEVs by 2025 <sup>(5)</sup>.

Perhaps the largest quantifiable financial aids are tax breaks when buying an electric car. Almost all EVs sold in China are exempt from a vehicle purchase tax, making them more affordable for drivers, which boosts overall consumer demand and revenue for automakers.

In Europe, many countries do offer some form of financial support to aid the growth of the electric vehicle market, but benefits and incentives differ widely. For example, seven EU

member states do not offer purchase incentives, however, most of them provide some form of tax reduction or exemption <sup>(6)</sup>. Meanwhile, in the US, consumers can qualify for a tax credit of \$7,500 under the condition that final assembly of the vehicle takes place in the US.

China's advantage over the US and Europe in the production of cheap electric vehicles is also owed to the country's relatively lower labour costs. In contrast, labour costs in the US are generally higher due to stronger labour protections, higher minimum wages, averaging \$7.25 per hour <sup>(7)</sup>, and more expensive benefits such as healthcare. While European countries, known for their strong workers' rights and social safety nets, typically have some of the highest labour costs in the world with an hourly minimum wage of around €30 <sup>(8)</sup>. To put this in context, Beijing has the highest hourly minimum wage in China at just at RMB 26.4 or US\$3.7 <sup>(9)</sup>.

These differences in costs and the benefits of high-scale production capacity fueled through local demand

go some way to explain the price variations of the same model across different regions. For example, the Chinese-made Volkswagen ID.4 Pure with 170 hp has a starting retail price of €24,879/\$27,038 in China, while the exact same model made-in-Germany has a starting price of €38,915/\$42,292. The difference in price is also evident in the case of the Ford Mustang Mach-e. In China, the starting retail price for the 480 hp all-wheel-drive model is €46,979/\$51,056, while the Mexican-made equivalent available in the US retails for €55,117/\$59,900.

These present good evidence of big price gaps within the same companies. A bigger divergence is then expected when a Chinese brand is compared to a Western one. And there are plenty of examples of this (see chart).

### Average retail price of electric cars available H1 2023

Chinese brands		Non-Chinese brands
€ 35,315	Australia- N. Zealand	€ 73,637
€ 24,478	China	€ 55,061
€ 48,600	Europe	€ 67,721
€ 26,145	India	€ 54,711
€ 56,748	Israel	€ 117,451
€ 27,961	Japan	€ 63,430
-	Korea	€ 74,409
€ 46,394	Latin America	€ 100,104
€ 31,710	Southeast Asia	€ 116,799
-	South Africa	€ 95,113
€ 44,183	Turkey	€ 96,994
-	USA-Canada	€ 64,630



VS



# 05

## The global response

As China takes on an increasingly influential role on the global automotive stage, Chinese vehicles are becoming a more familiar sight in countries where, just a few years ago, consumers would not have considered them a viable alternative.

With a strong product offering, spanning all segments, China's carmakers are engendering a shift in market dynamics at the expense of established Western OEMs as evidenced by major policy announcements.

In 2022, the Biden administration in the US passed the Inflation Reduction Act. It aims to boost domestic manufacturing and accelerate the green energy transition while reducing reliance on China for components and raw materials essential for technologies like EVs and solar panels. While tax credits have led to an increase in EV adoption rates, impending rule changes related to foreign battery sourcing and manufacturing will reduce the number of vehicles that qualify <sup>(10)</sup>.

More recently, the EU has taken



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To adapt to the electric revolution, Western OEMs must accelerate research and development (R&D), particularly in areas such as software - a process that will require both workforce transformation and targeted hiring."

action to stem the tide of Chinese electric vehicle imports through the decision to launch an anti-subsidy investigation. While tariffs on imports may provide local manufacturers the time they need to adapt, European carmakers that rely heavily on the Chinese market have expressed concerns that these policies could ultimately damage sales prospects <sup>(11)</sup>.

While restrictions on imports will serve to protect jobs and local carmakers, policy alone cannot tackle the overarching issue – the affordability of EVs.

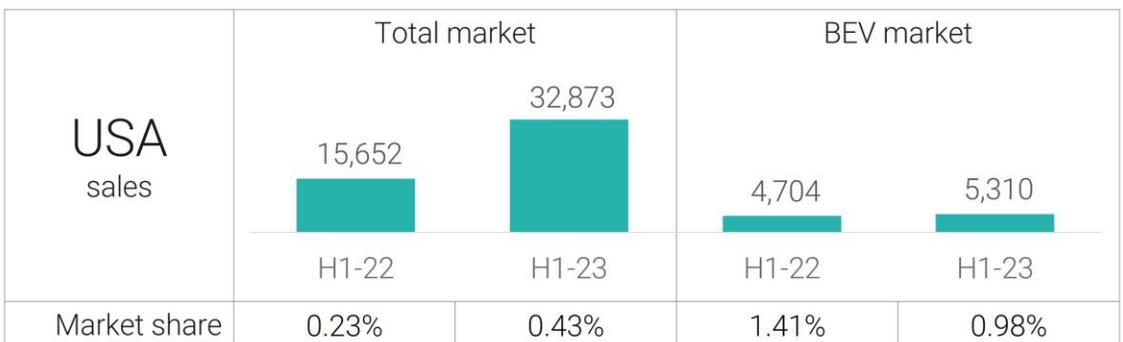
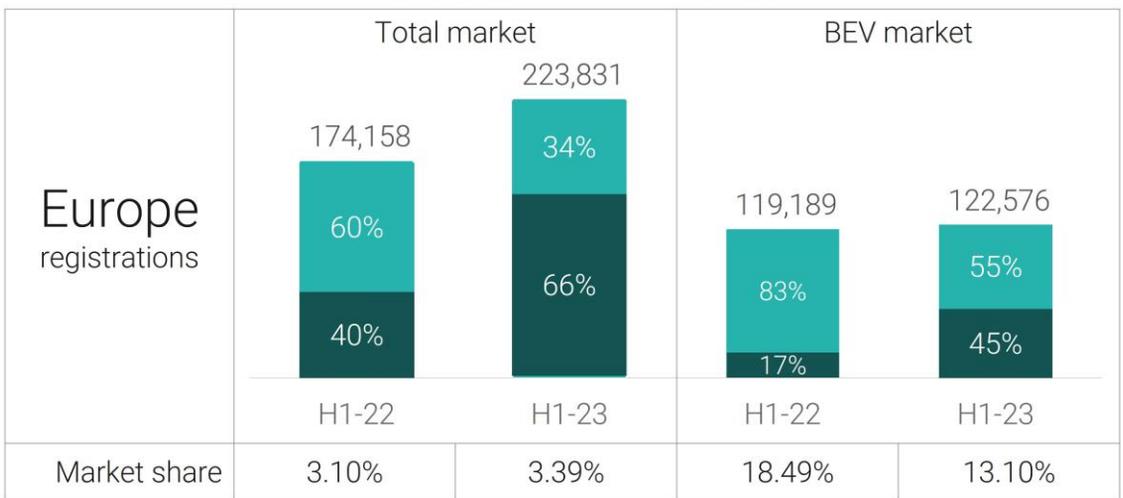
Alexander Lutz, Managing Director at Polestar Italy, identifies the development of partnerships for charging infrastructure as a priority area. Similarly, the International Energy Agency (IEA) cites a lack of charging infrastructure as a primary barrier to adoption of EVs.

Lutz continues: “While leveraging brand heritage and quality is important, OEMs must ensure that their EVs are not only high performing, but also sustainable and enjoyable to drive. Focusing on

efficiency, in terms of range per/kWh, and full lifecycle emissions is non-negotiable. Neglecting sustainability would compromise the entire electric transition for any OEM.”

While Western OEMs have largely been focused on sustaining their position in core markets, China’s OEMs have started to gain traction in emerging markets that are set to be the key drivers of growth in the coming years.

### Made-in-China cars H1 2023 Western and Chinese brands





# Emerging markets: a lost opportunity for the West?

While previous analysis of EV adoption has largely focused on China, the US, and Europe – the three largest markets globally – emerging markets, offering huge potential for OEMs, are beginning to demand attention.

In 2022, the 17.2 million units registered in Southeast Asia, South Asia, Eurasia, Africa, Turkey and the Balkans, and Latin America, represented almost 22% of all global light vehicle sales, and 21% of all passenger vehicle sales with 13.8 million units. This is equal to that of the US, Canada, and Korea combined.

In recent years, China's OEMs have rapidly become the preferred choice among consumers in emerging markets. In H1 2023, Chinese vehicles accounted for the majority of BEV sales in Israel (61%), Russia (91%), and Thailand (79%), and more than a quarter in Brazil (27%), Malaysia (28%), Mexico (30%), the Philippines (33%), Chile (27%), and Indonesia (29%).

The same trend is also evident in developed economies like Australia and New Zealand where Chinese



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What is perhaps most interesting is that the long-standing family-owned local importers of legacy OEMs have recently introduced Chinese brands to their portfolios. For example, the BMW Group Importer for Dubai and the Northern Emirates have added Geely, while the Toyota Importer for the UAE has introduced BYD, and the Volkswagen, Audi & Porsche Importer for Abu Dhabi has added MG. From this, it seems they are acutely aware of the potential growth and shifting consumer needs across the region”

OEMs are making asserted efforts to fuel their growth ambitions through international exports. To read more about this, you can access JATO Dynamic's recent report, [Perception: the last barrier for Chinese cars](#).

China's gains in these markets have been driven by the affordability of its offering, and local governments

embracing the green energy transition – with investment and incentives playing a key role.

For instance, earlier this year, Saudi Arabia signed a \$5.6 billion deal with Chinese EV manufacturer, Human Horizons, to produce and sell electric cars <sup>(12)</sup>. When it comes to consumer incentives, in Turkey, those looking to purchase an EV will be exempt from the special consumption tax, which can amount to 60% of the vehicle sale price <sup>(13)</sup> – providing a clear incentive for consumers to consider an EV from all providers.

Despite this, with many countries within these markets economically constrained by lower average incomes and limited infrastructure, the shift away from traditional powertrains is likely to be more gradual. However, in an environment of heightening international pressure to reduce carbon emissions, it is imperative that Western OEMs find new ways to cater for the needs of all consumers.

Samir Sawalhi, Vice President at JATO Dynamics Middle East, says: “In the Middle East, legacy OEMs are mindful of the growth of Chinese brands. There are clear efforts by them to maintain their position in the market by reviewing their value proposition against Chinese entrants,

and with additional marketing activity.”

In H1 2023, the cheapest EVs available in Mexico, Thailand, India, and Chile were Chinese models. Similarly, in Brazil, a Chinese model was only 2% more expensive than the cheapest EV available.

For the likes of Tesla, focused on the upper segments, these developing markets are not a priority, but for carmakers that cater to a wider range of consumers, they present an opportunity to close the gap on China in the electrification race.

That being said, the lack of progress in developing an affordable offering, even in established markets, suggests these legacy OEMs may not see notable market share gains in the near future.

## Cheapest brand-new electric car in H1 2023

Market			Base retail price (1)	...vs cheapest ICE car (2)
Australia-N. Zealand		MG ZS 44.5kWh Essence	€ 26,182	+164%
China		BAW Yuanbao 9kWh Xindong Auto	€ 3,772	-8%
Europe		Dacia Spring 27.4kWh Comfort Plus Orange	€ 18,285	+92%
India		MG Comet 17kWh Pace Auto	€ 8,947	+100%
Israel		LeapMotor T03 41kWh Auto	€ 24,878	+30%
Japan		Nissan Sakura 20kWh S	€ 15,847	+190%
Korea		Chevrolet Bolt EV 66kWh Premier Auto	€ 30,810	+351%
Latin America		JAC E10X 30kWh Auto	€ 23,593	+281%
Southeast Asia		Wuling Hongguang Mini EV 9kWh LV1 Auto	€ 9,296	+117%
South Africa		Mini SE 135kWh Cooper SE Auto	€ 34,060	+336%
Turkey		LeapMotor T03 41kWh Auto	€ 26,376	+112%
USA-Canada		Chevrolet Bolt EV 65kWh LT Auto	€ 24,384	+146%

(1) Excludes all kinds of incentives, rebates, discounts

(2) Includes all the brand-new gasoline, diesel, mildhybrid, hybrid models available  
Car images by IMAGIN.studio and Yiche.com

# 07

## Bridging the gap

The global automotive industry has made huge strides forward in the shift away from ICE powertrains over recent years. However, as revealed by this report, a division is emerging.

China continues to make rapid progress in the production of affordable EVs that are both competing with, and in many cases outperforming, the offer of established legacy OEMs. In contrast, Western OEMs, limited by their heritage in the production of ICE vehicles, have continued to focus on premium models in the upper segments with average prices increasing. As a result, for many consumers, EVs remain too expensive to be considered a viable alternative to their ICE counterparts.

While brand familiarity and issues related to perception continue to pose challenges in mature markets like Europe, China's OEMs are also fast gaining traction in less developed economies. This is thanks to both the range of their offer and their ability to invest at scale, fueled by the strength of the domestic market and control

over the supply of components and key raw materials.

Both the US and the EU have responded to the challenge posed by China through major policy decisions, but this alone will not be enough to address the issue of affordability. For their ambitions to be realised, further investment in charging infrastructure will be required. Meanwhile, Western OEMs must shift their focus towards the research and development of new technologies and production processes designed specifically for a fully electrified future.

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\* West intended as 23 European countries (Austria, Belgium, Switzerland, Czechia, Germany, Denmark, Spain, France, UK, Greece, Hungary, Croatia, Italy, Ireland, Norway, Netherlands, Portugal, Poland, Romania, Sweden, Finland, Slovakia, Slovenia), USA, Canada, Japan, Korea, Australia.

\*\* BEV: Battery Electric Vehicles, aka electric cars, or fully electric cars.

\*\*\* All prices indicated in this report are retail price. They exclude any kind of discount or incentive.

## Notes

(1) <https://www.bloomberg.com/news/articles/2023-09-05/china-slowdown-means-it-may-never-overtake-us-economy-be-says?leadSource=uverify%20wall>

(2) <https://energy5.com/assessing-the-impact-of-chinas-electric-car-industry-on-its-economy>

(3) <https://www.reuters.com/business/autos-transportation/tesla-cuts-us-prices-ahead-earnings-report-2023-04-19/>

(4) <https://www.reuters.com/business/autos-transportation/what-is-driving-chinese-ev-exports-their-price-competitiveness-2023-09-14/>

(5) <https://www.iea.org/reports/global-ev-outlook-2023/policy-developments>

(6) <https://www.acea.auto/fact/electric-cars-tax-benefits-purchase-incentives-2023/>

(7) <https://www.dol.gov/general/topic/wages/minimumwage>

(8) <https://www.statista.com/statistics/1211601/hourly-labor-cost-in-europe/>

(9) <https://www.china-briefing.com/news/minimum-wages-china/>

(10) <https://www.bloomberg.com/news/articles/2023-08-16/one-year-after-biden-s-ira-electric-vehicle-adoption-tax-credits-hit-obstacles?leadSource=uverify%20wall>

(11) <https://www.bloomberg.com/news/articles/2023-09-13/who-are-the-new-chinese-ev-manufacturers-and-why-do-they-worry-the-eu>

(12) <https://www.reuters.com/business/energy/saudi-arabia-signs-56-bln-deal-with-chinese-ev-company-state-media-2023-06-12/>

(13) <https://medium.com/extrawest/turkish-ev-charging-market-2023-current-state-and-future-opportunities-5edaa03574f5>

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