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Charging Ahead

How China is Driving Innovation to Dominate the Global Electric Vehicle Market

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Executive Summary

Within the last decade, Chinese companies have risen to the top of the global battery electric vehicle (BEV) market, surpassing U.S. and other international manufacturers in sales and market share. This success can be largely attributed to persistent state direction and planning dating back to the early 2000s. It was further accelerated by initiatives like the People's Republic of China (PRC) government's "Made in China 2025" strategy, underscoring the Chinese Communist Party's (CCP's) long-term vision toward building core competencies in what it perceives as strategic emerging industries. These government strategies ultimately resulted in effective industrial policy, especially state subsidies, and fostered an environment of aggressive pricing. Today, China is a BEV manufacturing and technological powerhouse.

American industry leaders have warned that failing to build out America's capabilities in this area will have economic and security implications beyond the auto sector itself. An electric vehicle (EV) is more than a car that runs on electricity — it is an amalgamation of manufacturing prowess, complex software, computer vision, energy storage, network technology, data collection, compute power, and other technologies — ultimately a technology platform that exemplifies the transformational impact innovation power can unlock for our societies. The competition in EVs is a case study for how America might lose leadership in a critical technology. Understanding the history and state of play can inform the lessons needed to avoid potential mistakes in the future.

This report is the first of several forthcoming Special Competitive Studies Project (SCSP) papers that analyzes the development of China's BEV sector and Beijing's policies, as well as global sales data, to explain the rising proliferation of Chinese EVs around the world. Specifically examining battery electric vehicles, fully electric automobiles with rechargeable batteries and no gasoline engine, this report tells the story of how China built its BEV industry and visualizes the global BEV competition to date.

The development of China's BEV sector progressed through three phases: 1) government policy (2001-2015) that spurred innovation through projects like the 863 Program and "Ten Cities, Thousand Vehicles"; 2) domestic market development (2015-2020) fueled by subsidies, tax exemptions, and infrastructure expansion; 3) and global expansion (2020 onwards) driven by strategic plans like the 14th Five-Year Plan and the New Energy Vehicle Industry Development Plan. Chinese companies, particularly "China's Big 3" (BYD, SAIC-GM-Wuling, and Geely), have rapidly expanded their global footprint, driven by low prices, government EV promotion in various countries, greenfield investments in overseas manufacturing plants, and increasing brand recognition.

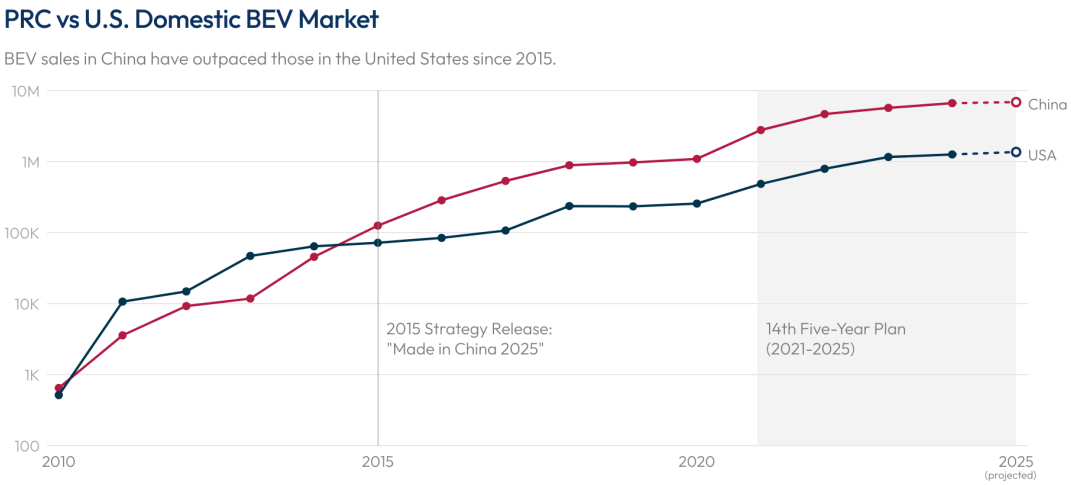
There are three main implications of the data analysis from this report. **First, it is critical to understand that strategic government policy was the key driver of PRC success.** Despite traditional criticism of PRC state-industrial policy by Western observers, the CCP's long-term national strategy, "Made in China 2025," provided the reliable political support and directed the large-scale investments required to help China build the technology, infrastructure, and market it needed to dominate globally. **Second, Chinese BEVs are now a symbol of China's broader technological leadership and innovation power.** The PRC's success in this sector, and its ability to showcase this abroad, has bolstered its image overseas as a tech and industrial powerhouse — and a contemporary model of luxury and success. **Third, in an era of dual-use technologies, where civilian technologies can be weaponized for military or geostrategic uses, China's growing BEV sales around the world pose significant challenges to U.S. economic competitiveness and national security.** American automakers are already struggling to reshore domestic manufacturing and develop comparable, price-competitive products. More critically, connected Chinese EVs introduce national security risks related to data privacy and potential data exploitation by the Chinese Communist Party.

Chinese companies are pulling ahead in the global BEV competition, with firms like BYD, Geely, Xpeng, NIO, and Chery rolling out breakthroughs in ultra-fast charging, AI-powered driving systems, luxury interiors, and entertainment features that often outpace technologies available abroad. These innovations showcase China's growing edge in design and consumer experience, even as CCP Chairman Xi Jinping has warned against over-investment and duplicative development in AI and EVs. Despite strong global sales, questions remain about the sustainability of China's rapid growth, especially as markets mature, U.S. and allied automakers introduce more competitive models, and domestic BEV makers slash prices in a cutthroat battle for customers.

Beyond the marketplace, China's BEV surge highlights its broader ambition to dominate supply chains, set mobility standards, and control data streams, raising strategic concerns for the United States and its allies. This dominance poses a critical challenge for the United States and its allies, requiring robust investment in and incentives for domestic production, agile regulation, and stricter security frameworks for connected vehicles to avoid ceding critical industrial capacity and data control to a strategic competitor. It also calls into question whether America's innovation ecosystem will help maintain our position as the shining city on the hill — or if China's BEV industry has created a new summit of success.

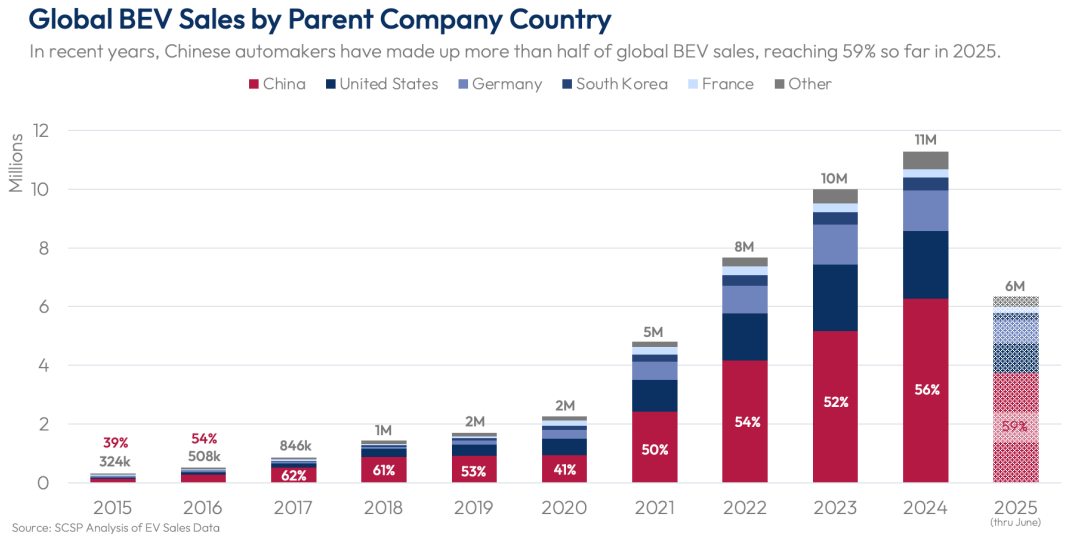
Key Findings

1. The PRC is the world's largest BEV market. China overtook the United States in BEV sales in 2015.[1] In 2024, BEV sales within China were five times greater than in the United States: 6.7 million compared to 1.3 million. (China's population is four times that of America's.)



Source: SCSP Analysis of EV Sales Data

2. Chinese companies sell the majority of the world's BEVs. Since 2015, Chinese automakers have held the plurality or majority share of the global BEV market, driven in large part by the size of the domestic PRC market (see next finding). American companies held an average of 20% global market share in the same time period. Thus far in 2025, PRC companies hold 59% of the market, while U.S. sales only account for 16%.



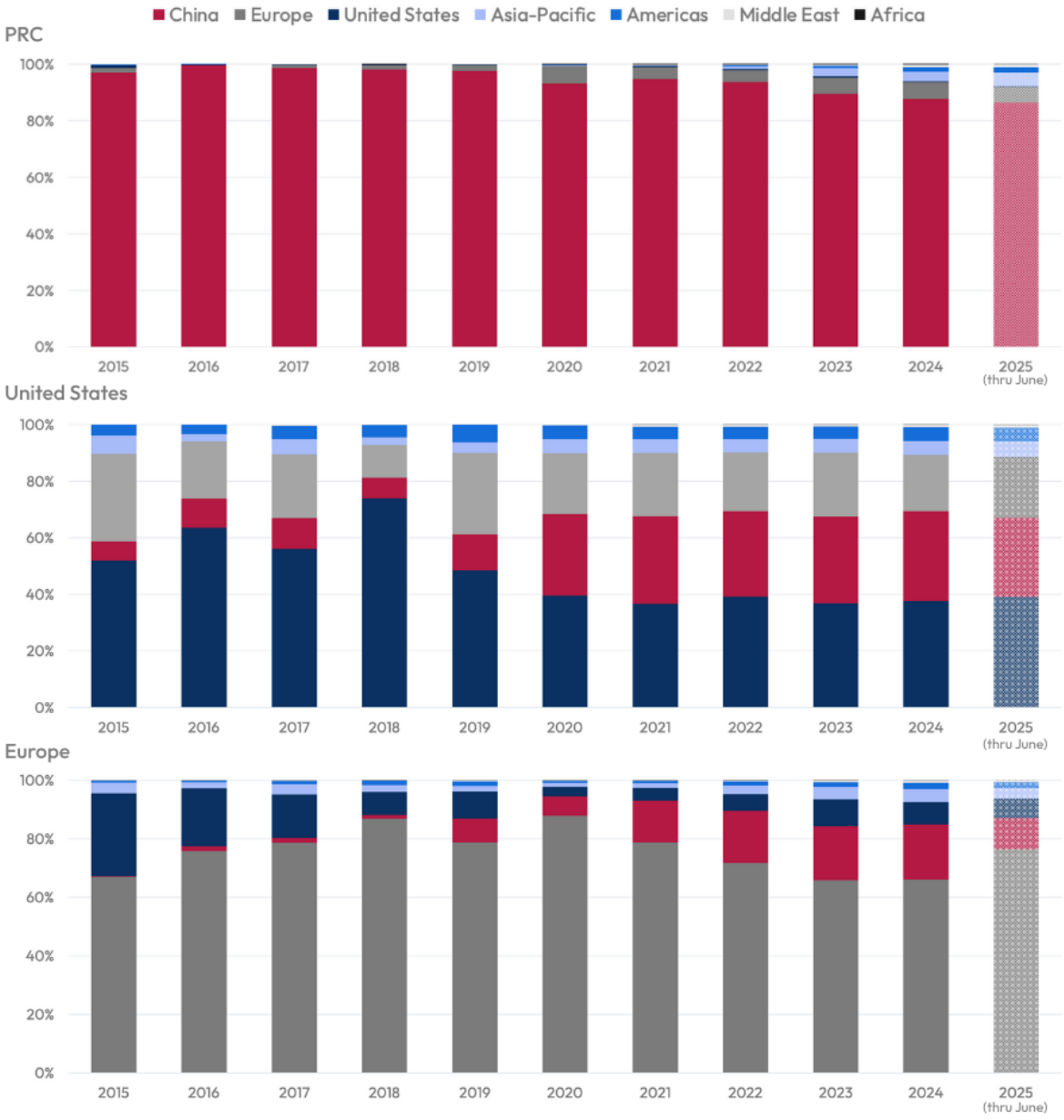
Source: SCSP Analysis of EV Sales Data

[1] The findings in this report are based on SCSP analysis of EV sales data from EV-Volumes.com and other sources as cited. For questions regarding this analysis, reach out to our team via email at info@scsp.ai.

3. Chinese companies sell overwhelmingly to their domestic market. Over the past decade, an average of 94% of all Chinese BEV sales occurred in China. In contrast, 48% of U.S. BEV sales occurred in the United States, and 76% of European BEV sales occurred in Europe, perhaps reflecting the greater availability, competitiveness, and appeal of their vehicles around the world. Nevertheless, sales of Chinese BEVs abroad have steadily increased — from 3% (3,750) of total annual Chinese BEVs sold in 2015 to 12% (760,000) in 2024. Chinese sales abroad in 2025 have reached 14% (510,000) through June; this compares to foreign sales of 61% for the United States and 24% for Europe during the same time period.

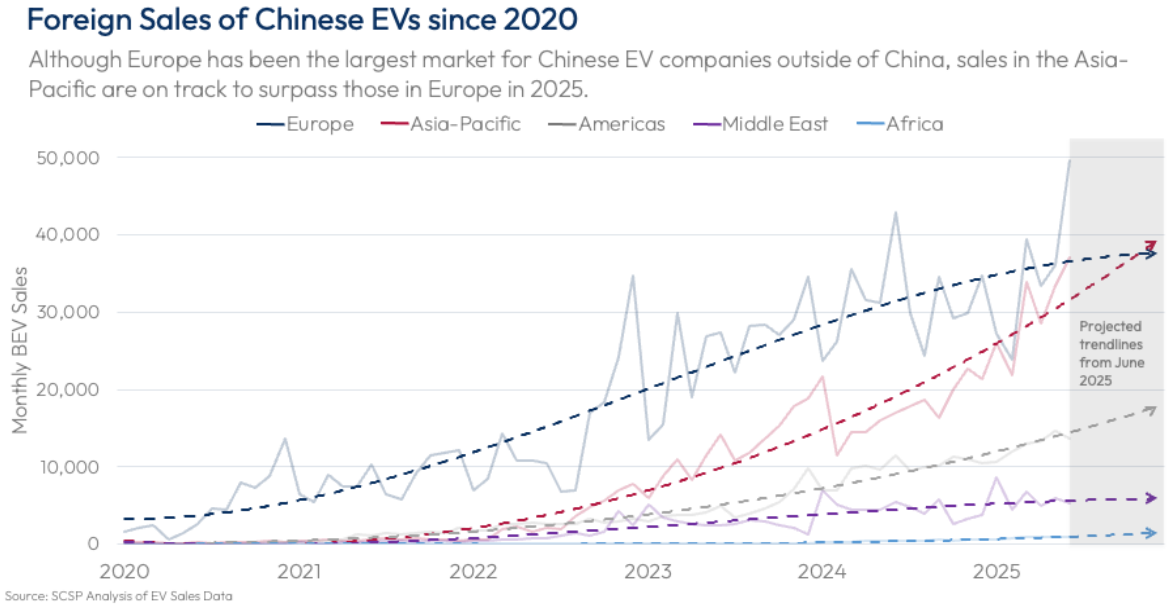
Global Chinese, U.S., and European BEV Sales by Region

In contrast to U.S. and European BEV companies, Chinese BEV companies sell overwhelming to their domestic market, though foreign sales have been increasing in recent years.

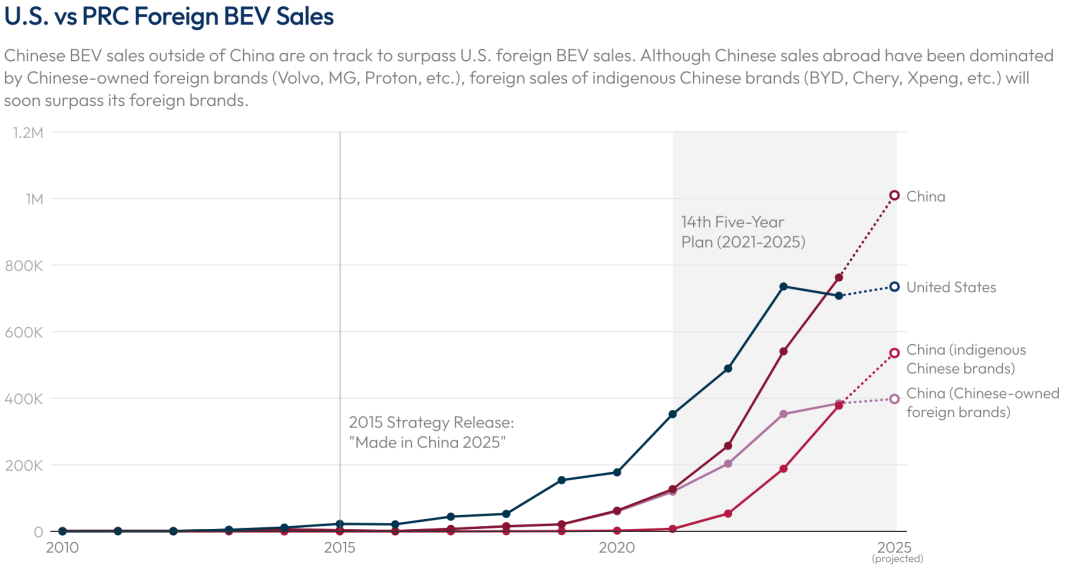


Note: "Americas" excludes the U.S. market, and "Asia-Pacific" excludes the Chinese market.
Source: SCSP Analysis of EV Sales Data

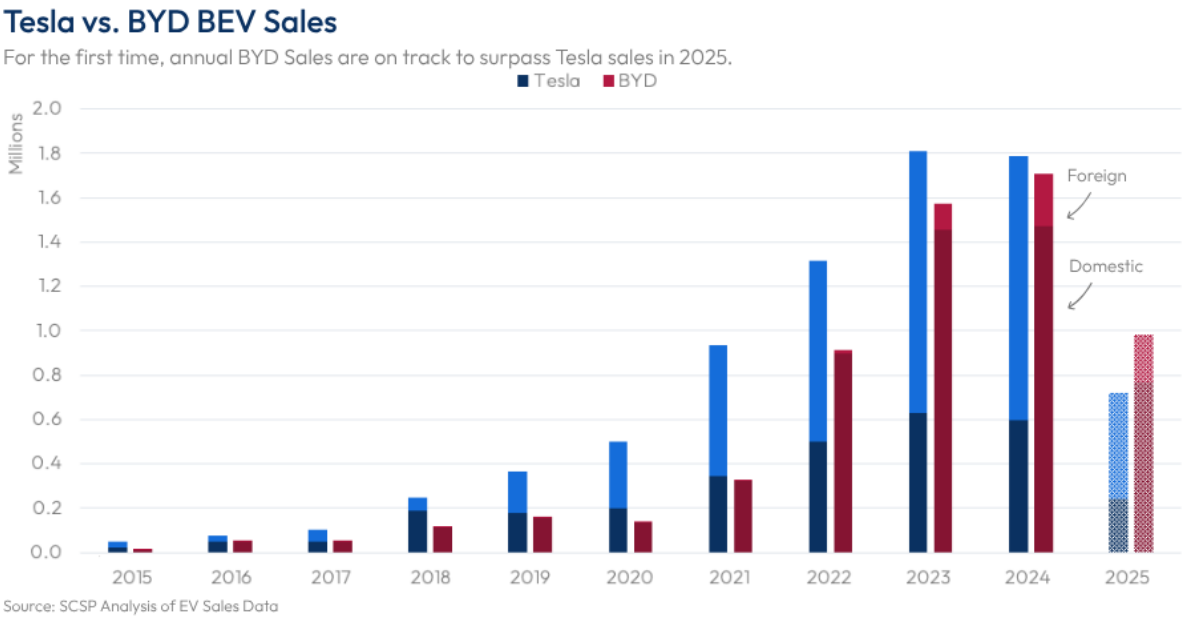
4. Outside of China, Europe has been the biggest market for Chinese BEVs. However, sales in the Asia-Pacific are rapidly increasing and on track to surpass Europe as the top destination for Chinese BEVs by the end of 2025.



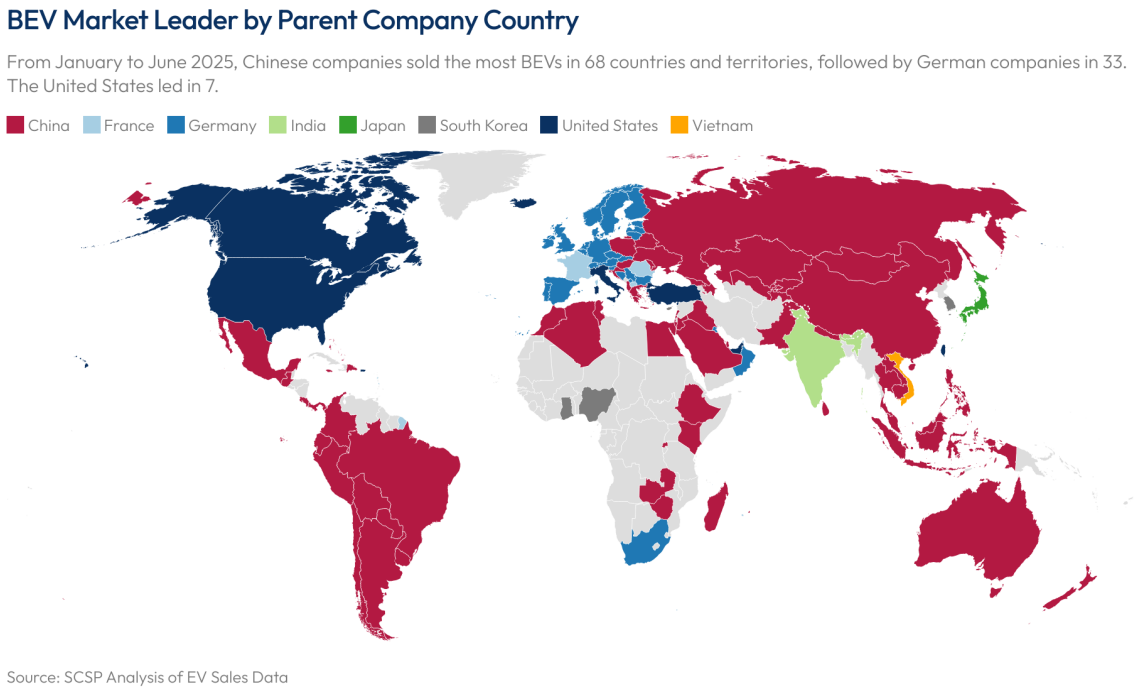
5. Foreign Chinese BEV sales are growing more rapidly than foreign U.S. BEV sales. Conversely, U.S. BEV sales outside of the United States are either slowing down or plateauing. While Chinese sales overseas have been led by foreign brands that Chinese automakers own, sales of indigenous Chinese brands are on track to surpass them.



6. In 2025, BYD has surpassed Tesla as the world's top seller of BEVs. While most of BYD's sales occur in the Chinese market, a drop in 2025 of Tesla sales globally may also result in BYD becoming the largest BEV exporter to foreign markets.



7. While most automakers lead the markets closest to home, Chinese BEV companies have ventured further, creating new markets in Latin America, Southeast Asia, and Africa. Thus far in 2025, Chinese companies have already outsold global competitors in 68 countries and territories, compared to the United States in 7.



Introduction

In 2006, the State Council of the PRC released its first comprehensive science and technology strategy. While it did not attract too much global attention at the time, the plan quietly named new energy vehicles (NEVs) like electric vehicles as one of ten key priorities for development, paving the way for the infamous national industrial policy that followed a decade later. Appropriately named "Made in China 2025" (中国制造 2025), the May 2015 strategy outlined a clear end-state: build China into a manufacturing powerhouse that both reduces dependence on foreign goods and leads the global manufacturing industry by the end of the decade.[2] China would aim to achieve this objective through a variety of ways, from improving national innovation capabilities to implementing "green" manufacturing. The state would provide strategic support and assurance by means of government policies, loans, subsidies, talent cultivation, and institutional reform.

A decade has passed since the rollout of "Made in China 2025." Despite international skepticism about Beijing's true intent with this policy in subsequent years,[3] electric vehicles (EVs), or what Chinese state planners refer to as "new energy vehicles" (新能源汽车), have emerged as the strateggy's hidden ace. After years of cultivating its advanced battery sector, Chinese brands like BYD burst onto the global automobile market scene with their electric vehicles. Since the release of "Made in China 2025," **Chinese companies[4] have sold over 25 million BEVs worldwide.** U.S. companies, led primarily by Tesla, sold just shy of 10 million BEVs in the same time frame. China has transformed the global electric vehicle game — and the industry's future.

BEVs fulfill all of Made in China 2025's primary goals: Chinese companies built internationally-recognized name brands, fostered advancements in smart manufacturing, and underscored the national emphasis on green manufacturing.[5] BEVs have also fulfilled a number of national goals: bolstering energy security by reducing dependence on foreign oil, securing the sector's supply chain dominance, from rare earth mining to final production and sales, and providing job opportunities to boost the economy of 1.4 billion people.[6] Most importantly, by identifying and

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[2] Notice of the State Council on the Publication of "Made in China 2025" (国务院关于印发《中国制造2025》的通知), PRC State Council (国务院) (2015).

[3] Once international media began reporting on the PRC's MIC25 strategy, Beijing began downplaying its significance in public. See Facing US blowback, Beijing softens its 'Made in China 2025' message, CNBC (2018).

[4] In this report, "Chinese BEV companies" are defined as those whose parent companies are headquartered in China.

[5] Various analyses have determined that NEVs is one technology in which the PRC has broadly succeeded in reaching its production benchmarks and goals, such as aspiring to 70% of vehicles to be "new energy" by 2020 and over 80% by 2025. See Jost Wübbeke, et al., MADE IN CHINA 2025: The making of a high-tech superpower and consequences for industrial countries, MERICS (2016); Camille Boullenois, et al., Was Made in China 2025 Successful?, Rhodium Group (2025).

[6] Noriyuki Doi, China's EV industry, led by BYD, drives job growth, Nikkei Asia (2024).

developing an industry that was not yet globally mature, Beijing gave Chinese citizens another reason to take pride in Xi Jinping's "Chinese dream" of national rejuvenation.[7]

The emergence and projected dominance of China's EV sector is not a trend that exists in isolation. Over the past decade, governments around the world have implemented policies to promote the purchase of EVs in their countries, from subsidies to tax incentives to CO2 emissions standards. Yet the aspired demand did not consider the available supply – while traditional automakers floundered to bring new EV models to market,[8] Chinese companies quickly emerged as one of the only options for those seeking to take advantage of government incentives, and they soon rose to prominence.[9] China is now home to the most BEV companies and largest BEV market worldwide. Chinese companies have also surpassed U.S. companies in global market share of BEVs, becoming the top BEV producer worldwide. With its current pace of technological advancement and rapid expansion of operations worldwide, China is poised to not only lead the next generation of automotive innovation, but also leave little room for the rest of the world to catch up.

The first of several SCSP analyses on China's EV industry, this paper aims to draw attention to the growth of Chinese EVs by offering a broad picture of the competition at stake. It specifically takes a deep-dive into battery electric vehicles (BEVs), fully electric automobiles with rechargeable batteries and no gasoline engine. It will first provide an overview of how China's BEV sector developed, from high-level government policymaking, to domestic market creation, to global expansion. The paper will then examine the global landscape of BEVs and the competition between the two largest players in the global BEV industry, the United States and PRC, before concluding with a discussion on implications of this data and future trends to watch. Future papers will take a deep-dive into how these trends converge or diverge in various regions of the world, including how fuel cell (FCEVs) and plug-in hybrid electric vehicles (PHEVs) fit into the equation, as well as the availability of charging infrastructure, to provide a more comprehensive picture of the global EV competition.

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[7] Since Xi Jinping took power as General Secretary of the Chinese Communist Party in 2012, he began promoting the idea that achieving the "Chinese dream (中国梦)" would unlock the great rejuvenation of the Chinese nation (振兴中华民族); see 习近平关于实现中华民族伟大复兴的中国梦论述摘编 (Excerpts from Xi Jinping's remarks on realizing the Chinese Dream of the great rejuvenation of the Chinese nation), Communist Party Member Network (last accessed 2025). Subsequent state media has directly linked China's EV success with the Chinese dream; see 汽车强国梦 寄望"新能源" (The dream of becoming a strong automobile nation relies on "new energy"), Economic Daily (2014).

[8] Even today, Western automakers struggle with manufacturing delays, uncertain government policies, and a lack of charging infrastructure that leads to consumer hesitation. See, for example, Sam Meredith, Car giants are being forced to confront some hard truths over the EV transition, CNBC (2024).

[9] See, for example, the case of Brazil: Somini Sengupta, Chinese Car Giants Rush Into Brazil With Dreams of Dominating a Continent, New York Times (2025).

The Road to Electric Vehicles: How Did China Get Here?

Even before publishing the "Made in China 2025" strategy in 2015, the CCP recognized the strategic imperative of building its own auto industry. Facing polluted urban areas and energy resource constraints, Chinese state planners believed that vehicles powered by electricity could reduce oil dependency, improve air quality, accelerate the development of cities, and ultimately improve the quality of life for ordinary Chinese citizens.[10] As a complex technology, BEVs also presented a challenge and opportunity for indigenous R&D, technological innovation, and economic growth. At the turn of the century, China had not been able to break into the global internal combustion engine (ICE) vehicle market. BEVs were a relatively new technology with very few global players, and hence an opportunity to leapfrog ahead of legacy American and European ICE manufacturers. If China could secure first-mover advantage by focusing national attention, pooling resources, and scaling globally, BEVs could be a future source of national pride. The development of China's BEV sector can be divided into three phases: 1) government policy to spur innovation, 2) domestic market development, and 3) market consolidation and global expansion.

Phase 1: Government Policy (2001-2015)

The self-reliance goals of "Made in China 2025" can be traced back further to the State Council's 2001 863 Program (863计划), which allocated funding and guidance to stimulate the development of advanced technologies. Following the announcement of this program, electric vehicles began appearing in annual state planning documents as a focus area within science and technology. For example, in 2004, the "**Automotive Industry Development Policy**" issued by the National Development and Reform Commission asserted that "[t]he state will guide and encourage the development of energy-saving, environmentally friendly, small-displacement vehicles," paving the way for industry players to follow.[11] Two years later, the State Council released its science and tech strategy that likewise put a spotlight on the automobile sector. Formally named the **National Medium- and Long-Term Plan for Science and Technology Development (国家中长期科学和技术发展规划纲要) (2006-2020)**, the Plan emphasized technological innovation as a matter of

[10] See National Medium- and Long-Term Plan for Science and Technology Development (2006-2020), State Council of the People's Republic of China (2006).

[11] 汽车产业发展政策 (Automobile Industry Development Policy), National Development and Reform Commission (2004); see also China Revises 2004 Auto Policy, U.S. Congressional-Executive Commission on China (2010). The Ministry of Industry and Information Technology later defined new-energy vehicles as "vehicles with advanced technical principles, new technologies and new structures that use unconventional vehicle fuels as power sources (or use conventional vehicle fuels and adopt new vehicle power devices), and integrate advanced technologies in vehicle power control and drive." See 新能源汽车生产企业及产品准入管理规则 (New Energy Vehicle Manufacturers and Product Access Management Rules), Ministry of Industry and Information Technology (2009).

national importance and identified energy as the number one priority. Within that priority, efficient and new energy-based automobiles were identified as an area of focus for the transportation sector, ranked the number six priority out of a list of eleven.[12] Thus began the development of China's electric vehicle industry over the subsequent two decades.

The high-level recognition of EVs, often referred to as "new energy vehicles" or NEVs, as a strategic sector spurred provincial and city-level governments to issue their own guidance and policies, creating both the competitive environment among local governments and the mass mobilization effect needed to direct advancements in the technology. These government policies (both national and local) broadly fell into the following categories: setting national strategic direction, outlining production targets and quotas, and issuing state subsidies. For example, in January 2009, the Ministry of Science and Technology and the Ministry of Finance jointly launched the **"Ten Cities, Thousand Vehicles" program ("十城千辆"工程)** that aimed for 10 cities to add 1,000 NEVs annually over 3 years.[13] The program ultimately missed these targets with 25 participating cities and 27,432 NEVs by the end of 2012.[14] That same month, the State Council allocated RMB10 billion ($1.5 billion in 2009 dollars) to support the industrialization of new energy vehicles and key components, as well as direct consumer subsidies. In 2010, after the **Government Work Report (政府工作报告) of the Eleventh National People's Congress** called out new energy vehicles as a crucial sub-industry of focus,[15] the Ministries of Finance (MOF), Industry and Information Technology (MIIT), and Science and Technology (MOST) issued new subsidies for EVs (including PHEVs and FCEVs) and designated new EV pilot cities, including Xiamen and Guangzhou.[16] It became a sustained whole-of-government and whole-of-country effort to spur this national industry. By 2012, the State Council was issuing an **Energy-Saving and New Energy Vehicle Industry Development Plan (国务院关于印发节能与新能源汽车产业发展规划)** that outlined production targets of 500,000 NEVs annually by 2015 and 2 million by 2020.[17] Although the PRC ultimately missed these targets by a few years, their high ambitions paved the way for rapid technological advancement.

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[12] National Medium- and Long-Term Plan for Science and Technology Development (2006-2020), State Council of the People's Republic of China (2006).

[13] "万钢出席"湖北武汉'十城千辆'电动汽车启动暨百辆混合动力公交车投放仪式" (Wan Gang attended the "Hubei, Wuhan 'Ten Cities, Thousand Vehicles' Electric Vehicle Launch and 100 Hybrid Buses Launch Ceremony)," Ministry of Science and Technology (2009).

[14] "'十城千辆'工程，初探新能源汽车市场化 ("Ten Cities, Thousand Vehicles" Program, Preliminary Exploration of the Marketization of New Energy Vehicles)," China Auto News (2013).

[15] 温家宝所作政府工作报告（十一届人大三次会议） (Government Work Report Delivered by Wen Jiabao (Third Session of the 11th National People's Congress)), Central People's Government (2010).

[16] 改革委关于扩大公共服务领域节能与 新能源汽车示范推广有关 工作的通知 (Notice on Expanding Energy Conservation and New Energy Vehicle Demonstration and Promotion in Public Service Field), National Development and Reform Commision (2010).

[17] 国务院关于印发节能与新能源汽车产业发展规划（2012—2020年）的通知 (Notice of the State Council on Issuing the Energy-Saving and New Energy Vehicle Industry), State Council (2012).

Private companies like BYD (Build Your Dreams) and ATL (Amperex Technology Limited), which were founded in 1987 and 1999, respectively, to produce batteries, began venturing into the automaking business. BYD chose to build upon its battery expertise to design and manufacture indigenous electric vehicles, starting with its acquisition of Xi'an Qinchuan Automobile Company in 2003; ATL rebranded into CATL (Contemporary Amperex Technology Co., Limited) in 2011 and began partnering with foreign companies like BMW on its journey to becoming the world's largest electric vehicle battery supplier. As China's EV industry matured, it also became more self-reliant, developing a domestic supply chain for everything from critical minerals, to batteries, to vehicle manufacturing.

Phase 2: Domestic Market Development (2015-2020)

By the time PRC Premier Li Keqiang signed the "Made in China 2025" national strategy in May 2015, China had become the world's largest BEV consumer market, fueled by industrial planning. Generous subsidies and tax exemptions made BEVs affordable. Local governments provided additional support, from parking incentives to administrative and regulatory assistance to company grants for R&D centers, battery production, and vehicle manufacturing plants.[18] To maintain steady growth, the Chinese BEV industry needed to continue expanding domestic consumption and developing complementary infrastructure.

In March 2016, PRC state planners adopted the 13th Five-Year Plan (2016-2020), which contained a lengthy, targeted directive for how the country could "[p]romote the rapid growth of new energy vehicles."[19] Key goals included production and sales of over 2 million vehicles per year by 2020 (and cumulative production and sales over 5 million), acceleration of "intelligent technology innovations" to develop autonomous vehicles, establishment of more cross-industry and cross-domain collaborations to promote joint technological development, acceleration of EV infrastructure to drive national adoption, and building a globally competitive automotive battery supply chain. The Plan did not shy away from ambition, noting that by the end of the decade, Chinese companies should not only become internationally competitive in electric vehicle sales, but also develop the capacity to produce and supply the world's batteries as well.

In hindsight, Chinese companies achieved these goals easily and quietly, flying under the international radar. CATL overtook Japanese electronics company Panasonic to become the world's top car battery producer in 2017.[20] Geely began rolling out its autonomous driving

[18] See Xiaolei Zhao, et al., Policy incentives and electric vehicle adoption in China: From a perspective of policy mixes, Transportation Research Part A: Policy and Practice, Volume 190 (2024).
[19] Translation: National 13th Five-Year Plan for the Development of Strategic Emerging Industries, Center for Security and Emerging Technologies (2019).
[20] See Henry Sanderson, China's Electric Vehicle Battery King, Time (2022).

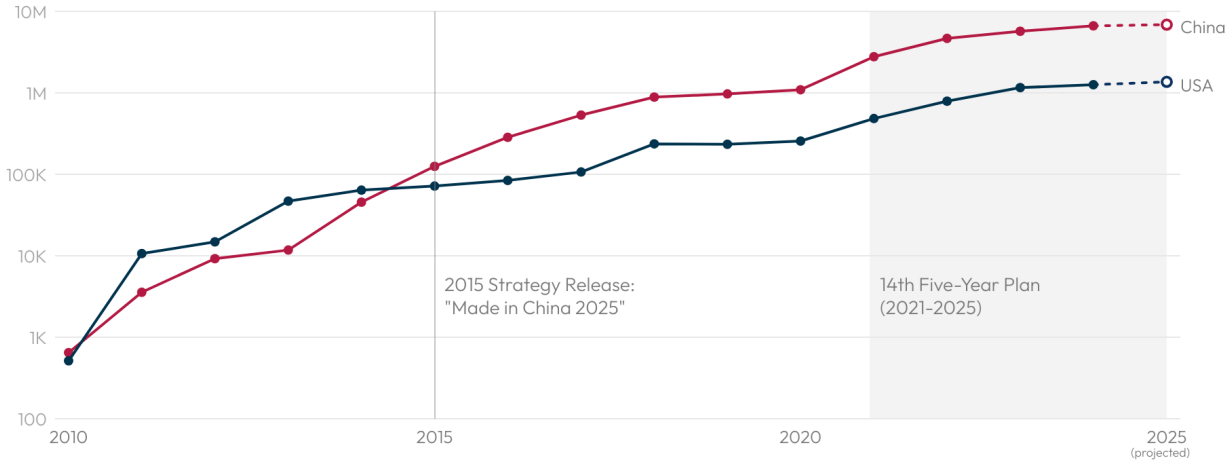
assistant G-Pilot in 2018. State-owned enterprises like State Grid[21] and China Southern Power Grid[22] increased their investments in building a nationwide network of public charging stations in 2018 and 2019, respectively. Telecommunications giant Huawei started investing USD$1 billion annually in its new Intelligent Automotive Solution unit in May 2019.[23] In 2020, total Chinese BEV sales reached 2.3 million, with 6.7 million total sales between 2016 and 2020. BYD introduced its DiPilot in April 2020. Tech giant Baidu announced a strategic partnership with Geely to develop intelligent vehicles in January 2021.[24]

BEV sales in the PRC surpassed BEV sales in the United States in 2015. (see Figure 1). By the end of 2017, a cumulative of over one million BEVs had been sold in China — the United States had barely surpassed 399,000 BEVs sold (not even 40% as many) at the time. In part due to a 2018 quota system[25] in China that mandated automakers to produce a minimum of 10% of NEVs by 2019 and 12% by 2020, the Chinese BEV market then steadily doubled each year over the next few years: One million BEVs were sold annually in China in 2020, 2.8 million in 2021, 4.7 million in 2022, 5.7 million in 2023, and 6.7 million in 2024. Annual BEV sales in the United States narrowly surpassed one million vehicles in the same time frame. **Since 2010, 27.4 million BEVs have been sold in China; 5.4 million have been sold in the United States in the same timeframe. The Chinese BEV market is now the largest in the world.**

[21] Jing Shuiyu, State Grid set to expand network of charging stations, China Daily (2018).
[22] China Southern Power Grid Guizhou Power Grid strives to build an energy-saving smart grid, EEWorld, (2019).
[23] Smart, self-driving cars, Huawei (2022).
[24] Geely Holding and Baidu Partner to Establish a New Electric Car Company, Zhejiang Geely Holding Group (2021).
[25] 乘用车企业平均燃料消耗量与新能源汽车积分并行管理办法 (Parallel Management Measures for Passenger Car Enterprises' Average Fuel Consumption and New Energy Vehicle Credits), State Council, (2017).

PRC vs U.S. Domestic BEV Market

BEV sales in China have outpaced those in the United States since 2015.

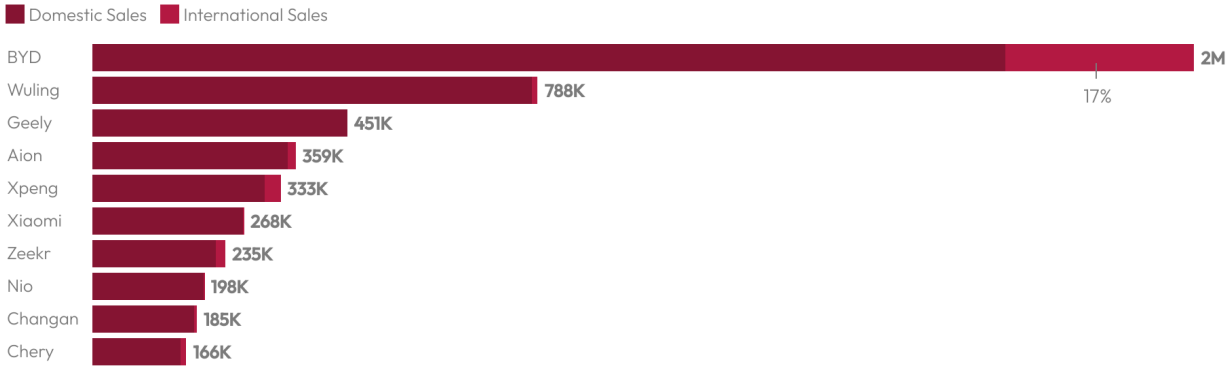


Source: SCSP Analysis of EV Sales Data

Figure 1

China's Top 10 BEV Brands

BYD is the PRC's top-selling BEV company. In the year between July 2024 and June 2025, BYD sold more than twice the number of BEVs as Wuling, which came in second place.



Source: SCSP Analysis of EV Sales Data

Figure 2

In addition to a robust domestic sales market, China is now home to the majority of BEV brands around the world. (In this report, a brand is distinguished from the parent company, i.e. Lexus as a brand of Toyota). BYD is the top-selling BEV brand, followed by Wuling, Geely, Aion, Xpeng, Xiaomi, Zeekr, NIO, Changan, and Chery (see Figure 2). Except BYD, whose international sales have reached 17% of the company's annual sales, the vast majority of Chinese BEV companies' sales occur domestically within China.

However successful these ten companies have been, however, they operate among a total of 114 Chinese car brands that have sold BEVs this year.[26] Even in spite of China's large size, this is an impressive number of car brands. For context, there have been 15 U.S. car brands that sell BEVs, followed by German companies with 10 and Japanese companies with 9 (see Figure 3).

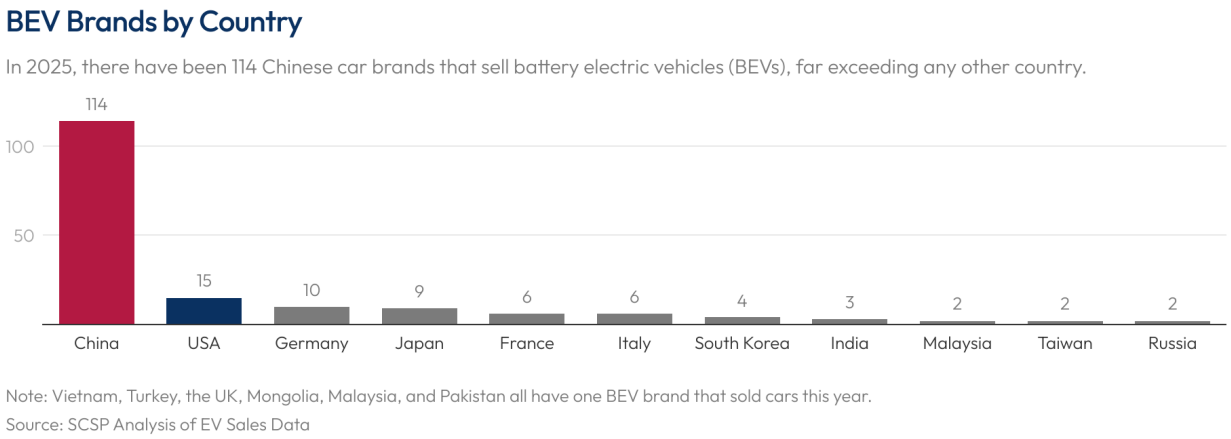


Figure 3

While some of these Chinese brands include foreign companies acquired by Chinese companies (i.e. Geely's acquisition of the Swedish Volvo, SAIC's purchase of the British MG), many of these brands are new, founded only in the last few years and producing small numbers of vehicles within China. This represents a different automotive industry model than that of traditional U.S. and western players, which are divided by OEM (Original Equipment Manufacturer) groups. Whereas traditional OEM groups rely on decades-old corporate structures and often outsource advanced tech development, maintaining a clear separation between vehicle manufacturing and digital innovation, China treats BEVs like an advanced tech sector, with multiple BEV startups popping up every year. These companies focus on rapid innovation, develop key components like batteries and software in-house, and view BEVs as software-defined platforms rather than mechanical products. Functioning as tech companies — raising capital, rapidly scaling with strong state support, and integrating with broader high-tech ecosystems — has afforded Chinese EV firms the agility and adaptability that Silicon Valley's Big Tech once enjoyed. With it has come an innovation ecosystem that will support advanced manufacturing in China writ large.

[26] To put this in historical perspective, the United States auto sector likewise began with hundreds of brands prior to industry consolidation. See Laurence W. Mazzeno, American automobile industry in the 1920s, EBSCO (2021).

Comparing the World's EV Giants

	BYD	SAIC-GM-Wuling	Zhejiang Geely Holding Company	Tesla
Year Founded	1995	2002	1986	2003
First Venture	Batteries	Tractors (Wuling)	Refrigerators	Battery electric sports car
Countries/ Territories Sold (2025)	99	76	93	73
Popular BEV Models	BYD Yuan Plus/Atto-3 BYD Seagull/Dolphin BYD Dolphin	Wuling HongGuang Mini Wuling Bingo Baojun KiWi	Geely Geome Xingyuan Zeekr 001	Tesla Model Y Tesla Model 3 Tesla Model X
BEV Brands Owned	BYD	Wuling, Baojun	Geely, Zeekr, Geometry (also: Volvo, Polestar, Lotus)	Tesla
BEVs Sold 2022 - June 2025	5.18 million	2.86 million	2.67 million	5.63 million

Figure 4

Still, there are three main players in China's BEV space: BYD, the SAIC-GM-Wuling alliance, and the Zhejiang Geely Holding Company, led by Geely Auto Group (see Figure 4). Hereinafter referred to as "China's Big 3," these three companies emerged from distinct industrial origins and now operate under different business models:

- Established in Shenzhen in 1995, **BYD, or "Build Your Dreams,"** began its journey as a producer of rechargeable batteries for mobile phones and other electronic devices.[27] Since its business focus shifted to automobiles in 2003 through the acquisition of Xi'an Qinchuan Automobile Company,[28] the company has pursued technological self-sufficiency and scalable innovation through advances such as its signature Blade Battery technology.[29] BYD introduced electric buses in the 2000s, which rapidly gained traction in public transportation systems across Asia, Europe, and North America, including in the

[27] California Dreaming: How a Chinese Battery Firm Began Making Electric Buses in America, Paulson Institute (2015).
[28] About BYD, BYD (last accessed 2025).
[29] BYD Blade Battery, BYD Europe (last accessed 2025).

United States.[30] BYD now sells its passenger BEVs around the world and has become China's top BEV brand and automaker. The company also built the world's largest electric vehicle manufacturing facility in under four years (see Figure 5).

- **SAIC-GM-Wuling (SGMW)** was formally established in 2002 as a joint venture between SAIC Motor Corporation Limited (50.1%), General Motors China (44.0%), and Guangxi Automobile Group Co., Ltd. (5.9%). Its roots, however, go back to a former Kuomintang army equipment repair and aircraft development center that manufactured tractors after the Communist takeover. Focusing on practical, affordable models tailored for the country's lower-tier cities and rural consumers, SGMW has held the title of China's top-selling single vehicle manufacturer for 14 consecutive years, with cumulative production exceeding 30 million units by January 2025.[31] The SGMW alliance owns two main BEV brands: Wuling, which emphasizes affordability and utility for the masses, and Baojun, launched in 2010 to target younger, urban, tech-savvy buyers (its slogan is "Technology for the people, fashion for the people").

- Established by entrepreneur Li Shufu (李书福) in 1986, Geely began as a small manufacturer of refrigerator parts in Zhejiang province. It entered the automotive sector in the late 1990s after producing small numbers of motorcycles. In a landmark 2010 deal, Geely purchased Volvo Cars from Ford Motor Company, a move that gave Geely access to advanced safety and drivetrain technologies, enhancing its research, development, and design capabilities.[32] Today, the **Zhejiang Geely Holding Group** is developing and acquiring multiple EV-focused sub-brands in its portfolio, such as Zeekr and Geometry. Through continuous innovation and strategic investment, the company has become one of China's leading automakers and a rising force in electric vehicles worldwide.

[30] California Dreaming: How a Chinese Battery Firm Began Making Electric Buses in America, Paulson Institute (2015).
[31] SAIC-GM-Wuling Becomes First Chinese Automaker to Produce 30 Million Vehicles, GM News (2025).
[32] Zhejiang Geely Completes Acquisition of Volvo Car Corporation. Stefan Jacoby Named President and CEO of Volvo Cars, Volvo Car Global Newsroom (2010).

Construction of BYD's Gigafactory in Zhengzhou

Within four years, BYD has built the world's largest electric vehicle manufacturing facility, spanning an area of more than 12 square miles.

Source: Planet Labs

Figure 5

Phase 3: Global Expansion (2020 onwards)

A "Golden Decade" for Chinese BEVs

Despite the tumultuous onset of the 2020s brought on by the COVID-19 pandemic, the Chinese BEV sector was primed for global expansion. Echoing former leader Jiang Zemin's early 2000s call for Chinese enterprises to "go out" (走出去战略) and engage the world, Chinese companies began seeking new markets and opportunities beyond domestic borders. At the start of 2021, People's Daily wrote that new energy vehicles would soon be ushering in a "golden decade" (黄金十年).[33]

In March 2021, China's 14th Five-Year Plan (2021–2025) built on over 15 years of progress to promote the global development of new energy and intelligent (connected) vehicles. Aiming to elevate the value-added output of these industries to 17% of GDP by 2025, the Plan once again designated electric vehicles as a strategic priority.[34] It called for further technological innovation in the automotive sector — including the integration of artificial intelligence (AI) to advance the Internet of Vehicles (IoV) — and outlined upgrades to domestic infrastructure to support the digital transformation of transportation, such as smart railways, civil aviation, ports, waterways, and parking systems.

The subsequent New Energy Vehicle Industry Development Plan (2021-2035) praised China's global standing as the leader in EV technology and laid out in detail how China's EV sector would continue to drive innovation forward.[35] Recognizing global trends toward electrification, connectivity, and autonomy, the Plan set forth a comprehensive set of goals — spanning technology development, infrastructure, industrial ecosystems, market reform, international engagement, and regulatory modernization — aimed at securing China's leadership in zero-emission, intelligent mobility. Notably, the NEV Plan viewed internationalization not just as a market opportunity but also as a strategic imperative: it encouraged Chinese companies to lead globally, shape rules and standards, and embed themselves in the evolving global value chain for EVs.

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[33] 新能源汽车产业将迎"黄金十年" (The new energy vehicle industry will usher in a "golden decade"), People's Daily (2021).
[34] Translation: Outline of the People's Republic of China 14th Five-Year Plan for National Economic and Social Development and Long-Range Objectives for 2035, Center for Security and Emerging Technologies (2021).
[35] Notice of the General Office of the State Council on Issuing the New Energy Vehicle Industry Development Plan (2021-2035), State Council (2020).

Prior to the new decade, Chinese automakers had approached global expansion differently. For SAIC and Geely, their acquisition of foreign brands equipped them with the sprawling sales and manufacturing networks to begin building their international presence. In fact, SAIC purchased Nanjing Auto in 2007 in part due to the company's ownership of MG Rover, a British brand that also had a plant in Longbridge, England.[36] Similarly, when Geely completed its purchase of Volvo in August 2010, Geely chairman and founder Li Shufu shared his vision for both reinventing Volvo as a luxury brand — "We hope and believe Volvo Cars will climb to the top of the mountain" — and using Volvo's technologies to begin producing luxury brands in China.[37] As the previous section showed, Chinese companies indeed expanded quickly over subsequent years. And by the time Beijing introduced its new planning documents in 2021, the companies were prepared to climb even higher — to take on global markets.

The Global Footprint of Chinese BEVs

Of China's Big 3, BYD became the first to sell its own passenger BEVs abroad,[38] starting in Europe (startups Xpeng and NIO also made small inroads in Europe around the same time[39]). In 2008, the company made its European debut at the Geneva auto show, showcasing plug-in hybrid technology. At the time, BYD president Wang Chuanfu said he saw great potential in the European market due to rising fuel prices and a new emphasis on environmental sustainability.[40] Having begun talks with several European car distributors, BYD had hoped to begin selling hybrids in Europe and the United States by 2010. However, it was not until more than a decade later — in 2021 — that BYD began delivering its cars in Europe, starting with Norway, the United Kingdom, and the Netherlands.[41]

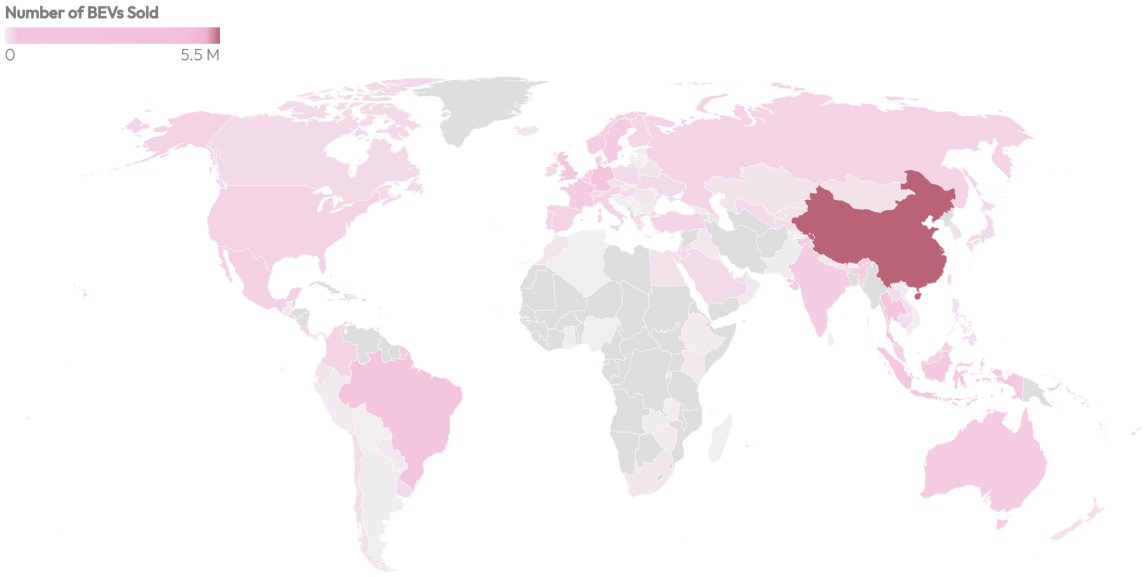
Today, Chinese BEV companies including and beyond China's Big 3 sell in 119 countries and territories worldwide (see Figure 6). However, as will be noted throughout this report, Chinese companies include both Chinese-owned foreign brands (i.e. Volvo (Sweden), Polestar (Sweden), Lotus (UK), London Electric Vehicle Company (LEVC) (UK), Proton (Malaysia), Smart (Germany), MG Motor (UK), LDV (UK), and Maxus (UK)), as well as indigenous Chinese brands (i.e. BYD, Chery, NIO, Xpeng, etc.). Hence, while Chinese BEV sales in Europe and the United States are dominated

[36] Chinese auto giant SAIC buys Nanjing, snares MG assets, Motor Trend (2007).
[37] Fang Yan and Alison Leung, China's Geely completes Volvo buy, Reuters (2010).
[38] Throughout the 2000s, BYD had been selling buses and taxis in Europe and the United States, including gas-powered, fully electric, and hybrid models, though it took another decade to begin selling passenger vehicles. At the time, Geely's electric car brands Zeekr, Geometry, Galaxy, etc. had not yet been founded, and SAIC-GM-Wuling was selling its Baojun EVs under the American Chevrolet brand abroad.
[39] See Al Root, XPeng Will Start Selling Cars in Norway, a Milestone for Chinese EVs, Barron's (2020); Evelyn Cheng, Warren Buffett-backed electric automaker BYD ships 100 cars to Norway, CNBC (2021).
[40] Wim Oude Weernink, BYD wants to sell hybrids in Europe, Gasgoo (2008).
[41] Mark Kane, BYD Delivers First Electric Cars To Customers In Norway, Inside EVs (2021).

by foreign brands like Volvo, indigenous brands comprise a majority of Chinese BEV sales in Latin America, Asia, and Africa (see Figure 7).

Chinese BEV Sales Around the World

In 2024, Chinese companies sold 6.3 million battery electric vehicles (BEVs) in 119 countries and territories. Of that total, 5.5 million (88%) were sold in China.

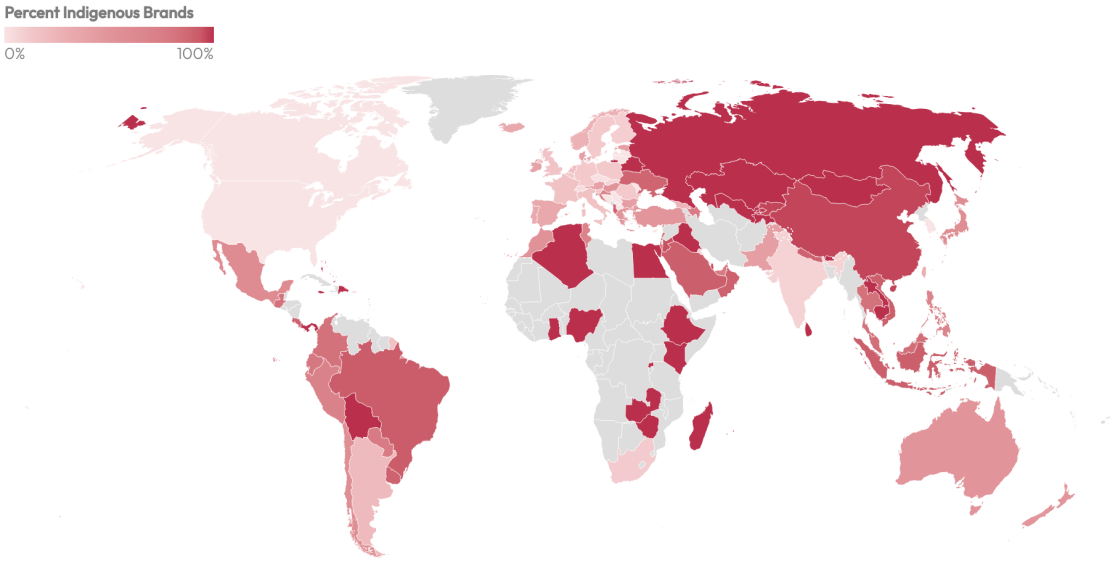


Source: SCSP Analysis of EV Sales Data

Figure 6

Share of Indigenous Chinese Brands in China's Global BEV Sales

In 2024, homegrown brands accounted for most of China's BEV sales in Latin America, Africa, and Asia.



Note: Chinese companies own many foreign brands, such as Volvo and Polestar. Indigenous Chinese brands refer to homegrown brands like BYD and Chery.
Source: SCSP Analysis of EV Sales Data

Figure 7

Most of the global Chinese BEV footprint was built in just the past few years, and it has progressed at different speeds based on different regions (see Figure 8).

- Europe has been the largest overseas market, but its growth appears to be leveling off.
- The Asia-Pacific has been the second-largest market, but it appears on pace to overtake Europe by late 2025.
- Sales in the Americas are rising steadily, although monthly sales are only about half the Asia-Pacific volume.
- The Middle East is opening up more slowly, and Africa remains an insignificant market for now with only a few hundred vehicles sold a month.

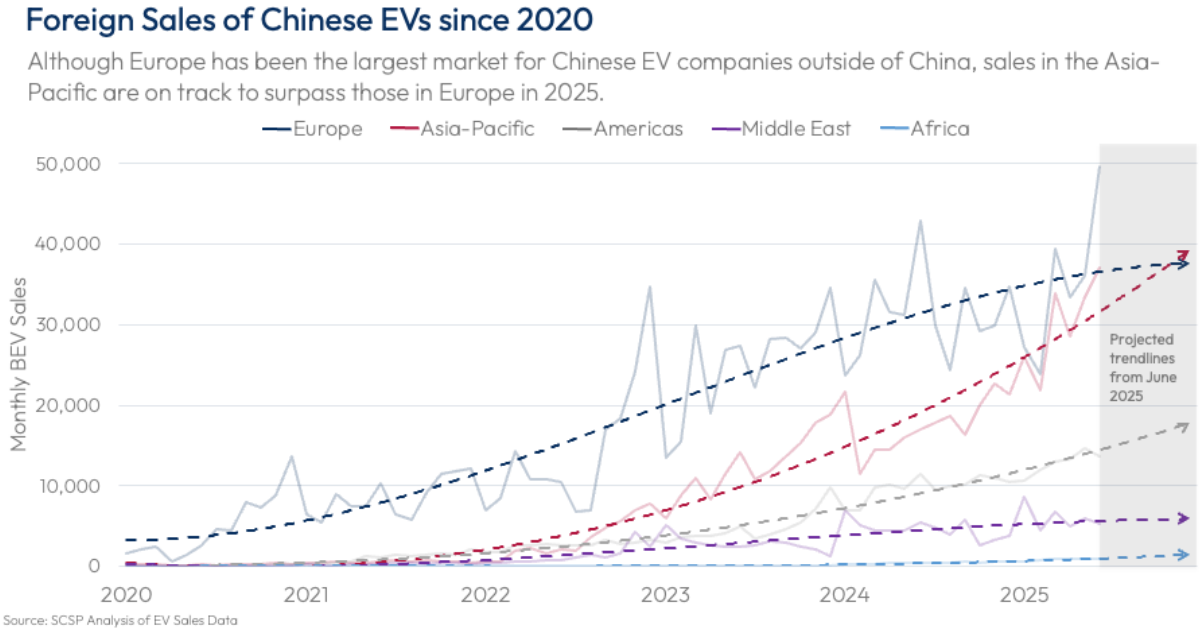


Figure 8

Since 2020, the United Kingdom has been the top sales country for Chinese BEVs outside of China, with 220,000 BEVs sold between January 2020 and June 2025. Germany came in second with 214,000 BEVs sold; Thailand followed with 192,000. Over 100,000 Chinese BEVs have been sold in Israel, Sweden, Brazil, Norway within that time frame, and Brazil's is the fastest-growing market. Since 2020, Chinese EV companies have sold 2.3 million BEVs outside of China.

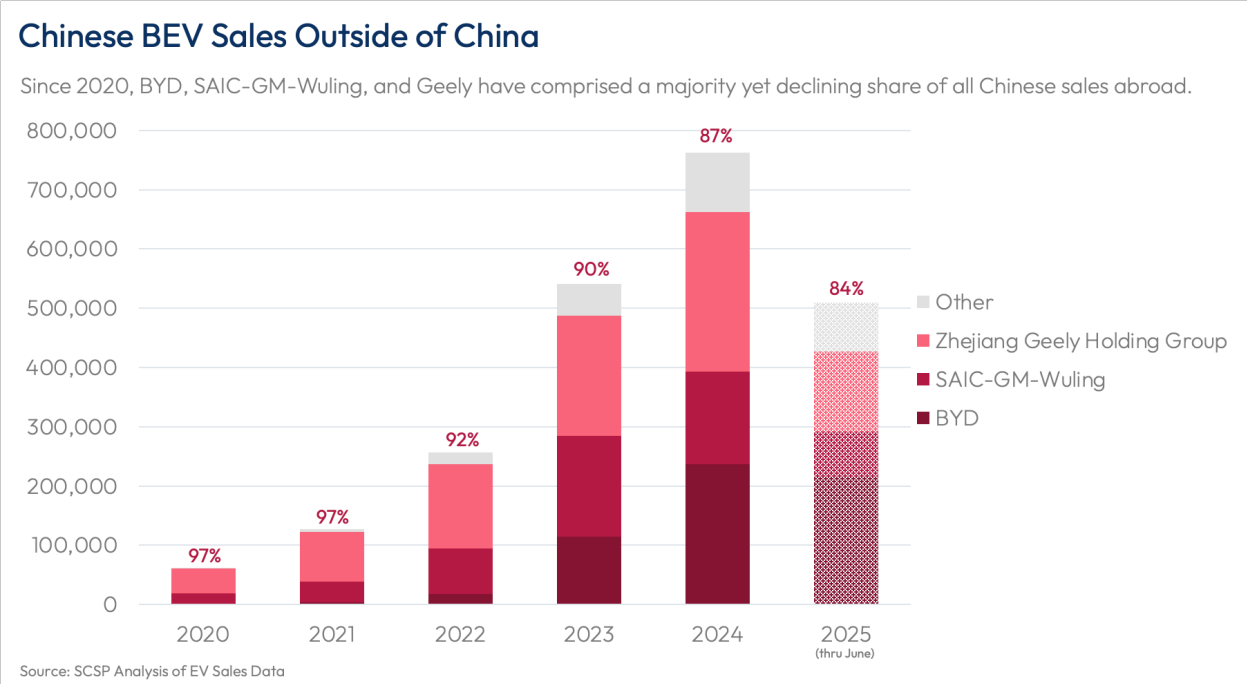


Figure 9

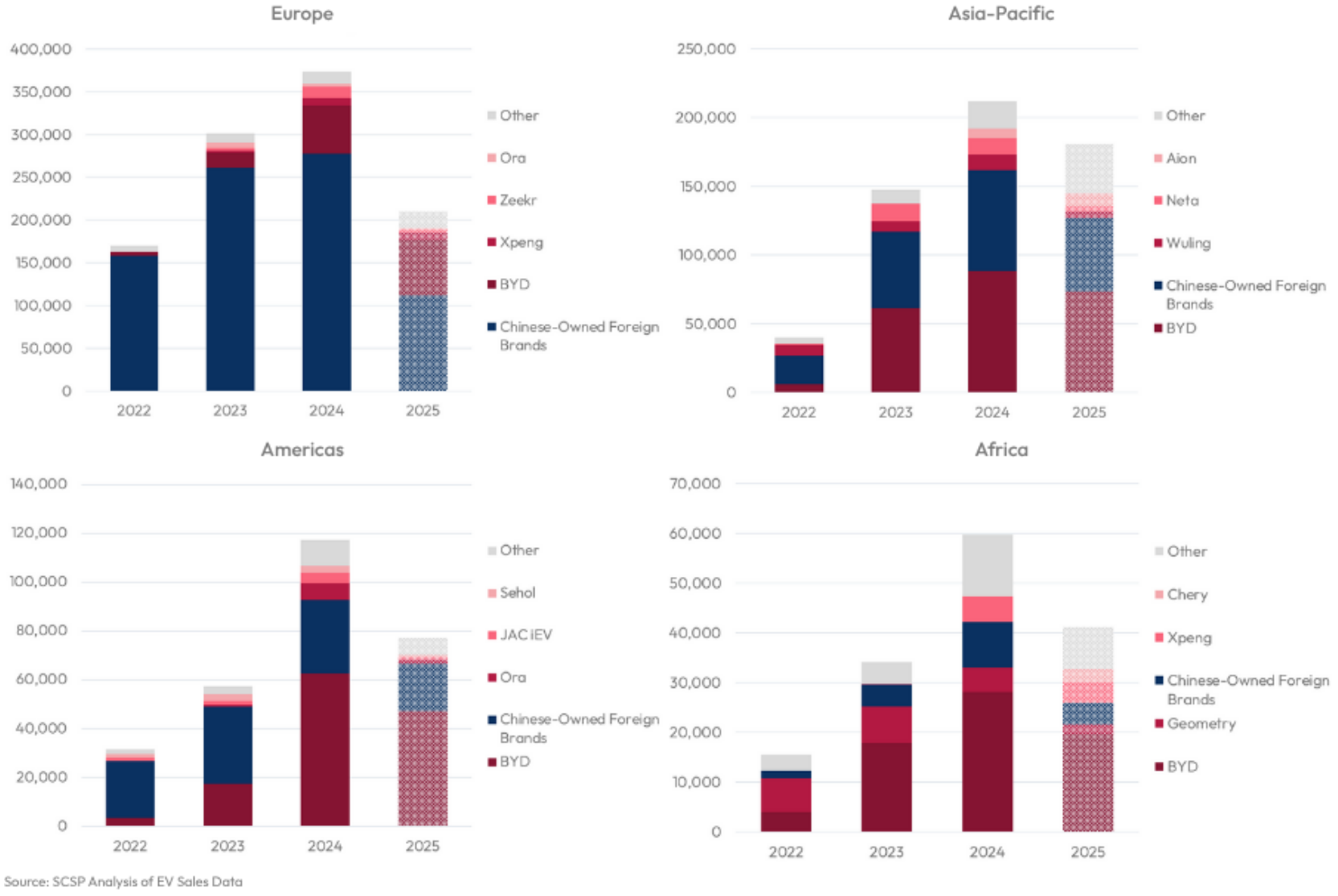
Chinese car brands owned by China's Big 3 account for the majority of Chinese sales abroad (see Figure 9). BYD is growing especially quickly, already accounting for 42% of Chinese EV sales outside of China this year. The growth of BYD's share of Chinese EV sales primarily cannibalizes Geely's share of China's BEV market abroad, though all companies have seen a substantial increase in sales each year. As of June 2025, Chinese BEV sales appear on pace to surpass their 2024 numbers.

A close look at Chinese BEV sales in various regions of the world provides an even starker picture of BYD's rapid expansion worldwide (see Figure 10):

- BYD is the fastest-growing Chinese BEV brand by far, doubling and tripling their sales in all regions of the world outside of China over the last two years.
- Geely continues to occupy the highest market share of Chinese BEV sales in Europe, is second-most present in the Americas, and retains a consistent, smaller market share in Africa and the Asia-Pacific. (Again, Geely retains its dominance in Europe due to its ownership of Volvo, though BYD sales have nonetheless grown rapidly in the last year.)
- Other car brands, such as JAC, Chery, and NIO, have begun selling their BEVs in handfuls of countries around the world, though their market share has not reached the levels of China's Big 3.

Chinese BEV Sales Around the World by Top Brands

Foreign brands owned by Chinese companies still comprise a large percentage of Chinese BEV sales overseas.



Source: SCSP Analysis of EV Sales Data

Figure 10

There are many reasons why Chinese BEV sales have seen such rapid growth around the world, including:

- Low Prices: As demand for electric vehicles continues to increase (it is estimated that electric vehicles will reach 25% of all cars sold in 2025[42]), Chinese vehicles are a price-competitive option, produced at low cost (largely due to horizontal integration), equipped with advanced technology, and increasingly available for sale in new markets.
- Government EV Promotion: The European Union's CO2 emission standards,[43] Japan's subsidies for EV purchases,[44] Brazil's (former) import tax waiver for EVs and hybrids,[45] and Kenya's vision for 5% of all vehicle imports to be electric by 2025[46] are all examples of how governments have promoted the expansion of their countries' EV markets.
- Greenfield Investments: Some government policies have attracted large-scale investments by Chinese BEV companies. BYD has opened manufacturing plants in Thailand,[47] Cambodia,[48] Brazil,[49] and Uzbekistan,[50] and plans for more facilities in Hungary,[51] Turkey,[52] Pakistan,[53] Indonesia,[54] and others are underway. With each new manufacturing facility comes new market access for surrounding areas, and Europe and Southeast Asia are likely the targets for these expansion plans.
- Brand Recognition: Chinese BEV companies have improved their brand recognition — achieving a key goal from "Made in China 2025" — by making good quality products with growing consumer recognition and demand.

In short, with surging demand fueled by government policies around the world, Chinese BEVs have become the affordable, high-tech, and increasingly recognized option. Future analysis will dive deeper into the push and pull factors of different regions.

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[42] EVs to reach 25% of global car sales this year, potential China emissions peak and other nature and climate news, World Economic Forum (last updated 2025).
[43] See Regulation (EU) 2019/631 of the European Parliament and of the Council (2019).
[44] Subsidies Upgraded for the Purchase of Clean Energy Vehicles toward the Realization of GX in the Automobile Sector, METI Agency for Natural Resources and Energy (2024).
[45] This zero-tax policy for EV imports helped jumpstart the EV market in Brazil, but ended last year. Imposto de importação para veículos eletrificados será retomado em janeiro de 2024 (Import tax on electrified vehicles will resume in January 2024), Brazil Ministry of Development, Industry, Trade and Services (last updated 2023).
[46] Draft National E-Mobility Policy, Kenya Ministry of Roads and Transport (2024).
[47] BYD Thailand Factory Inauguration and Roll-off of Its 8 Millionth New Energy Vehicle, BYD (2025).
[48] BYD breaks ground on Cambodian car factory, Chinese embassy says, Reuters (2025).
[49] First BYD 100% Electric Vehicle Rolls off the Line in Brazil, BYD (2025).
[50] BYD hosts Presidential Visit at BYD Uzbekistan Factory and Formalizes Green Transportation Agreement, BYD (2024).
[51] BYD to Build A New Energy Passenger Vehicle Factory in Hungary for Localised Production in Europe, BYD (2023).
[52] China EV maker BYD to build $1-bln plant in Turkey, Reuters (2024).
[53] China's BYD plans car plant in Karachi as part of Pakistan entry, Reuters (2024).
[54] China's BYD to complete $1 billion Indonesia plant by year-end, executive says, Reuters (2025).

Domestic vs. International Sales

Despite this global growth, vehicle sales for Chinese companies abroad still pale in comparison to those at home (see Figure 11). Even as Chinese vehicle sales increased outside of China starting of Chinese BEVs grew at an average annual rate of 115% per year, from 646 vehicles sold in 2010

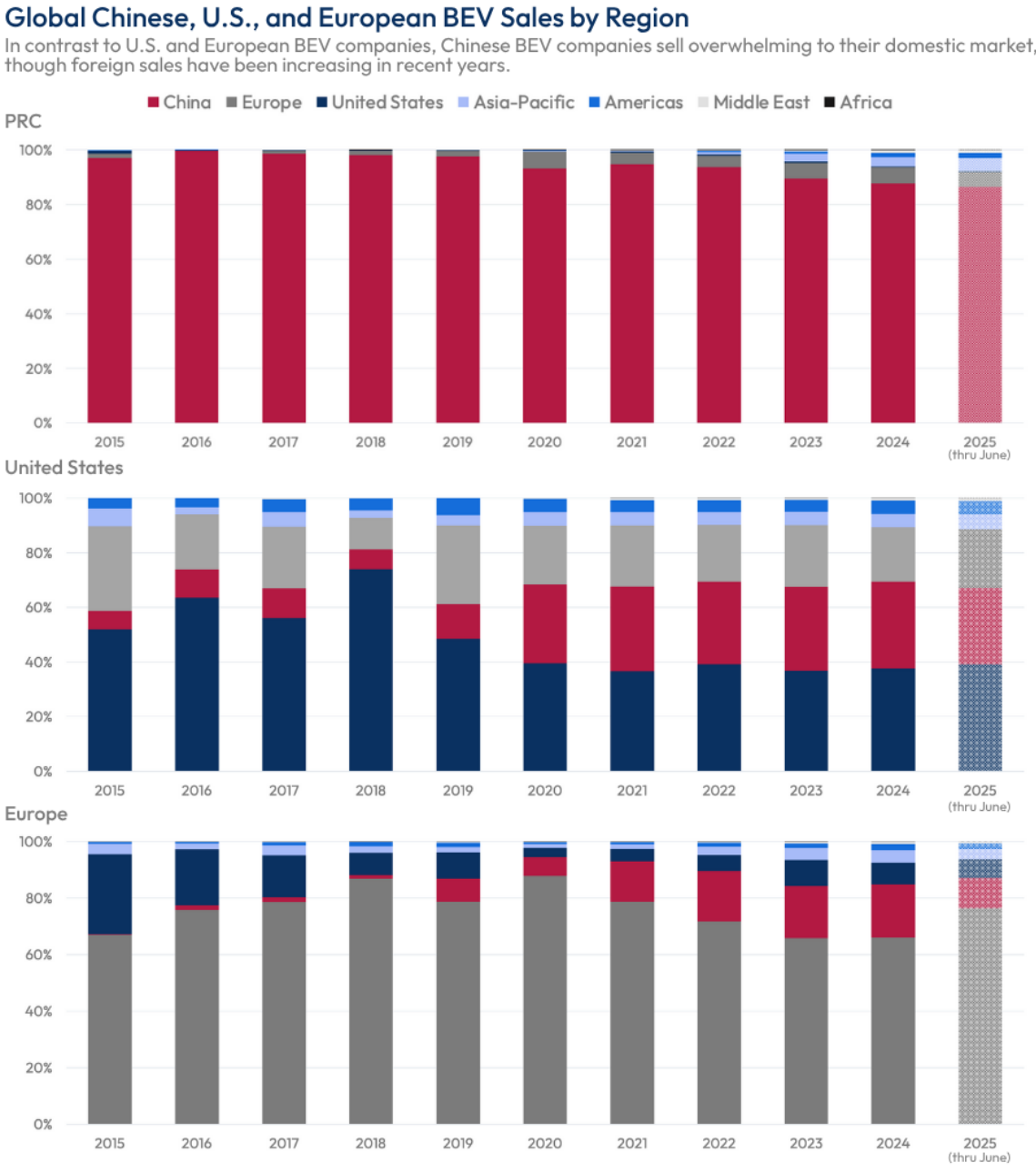


Figure 11

around 2020, the domestic market continued to grow. Between 2010 and 2024, domestic sales to over 5.5 million in 2024. Foreign sales did not reach 10% of Chinese BEV sales until 2023, when just over 540,000 cars were sold abroad compared to 4.6 million domestically. In 2024, foreign sales reached a new high of 760,000, yet those sales were still dwarfed by the 5.5 million BEVs sold domestically. Thus far in 2025, foreign sales have comprised 14% of all Chinese BEV sales (both inside and outside of China), already surpassing previous years. At this rate, foreign sales will continue to comprise an increasing share of Chinese companies' revenue.

This stands in contrast to how U.S. and European automakers have sold their vehicles domestically and overseas over the past decade. Between January and June of 2025, foreign sales accounted for nearly three-fifths (61%) of U.S. BEVs sold, reflecting a clear free-market approach from U.S. automakers. In Europe, foreign sales comprised just under one-quarter (24%) of European BEV sales, reflective of its efforts to protect the homegrown auto industry yet also its robust overseas success. These market differences will be addressed in more detail in future SCSP analysis.

Within China's domestic market, the landscape of Chinese EV sales diverges significantly from its international presence. Over recent years, established players BYD and Wuling (owned by SAIC-GM-Wuling) have consistently maintained their market share amidst overall BEV sales growth (see Figure 12). Since 2022, BYD has accounted for an average of 26% of all Chinese BEV sales in China, followed by Wuling at 11%. Interestingly, a diverse array of other car brands — from emerging mid-sized companies selling thousands of vehicles to nascent startups selling only a handful — together form the bulk of China's BEV market. Foreign brands owned by Chinese companies have only comprised an average of 1% BEV market share in China. This reflects the competitive nature of China's young but vibrant — and homegrown — NEV market.

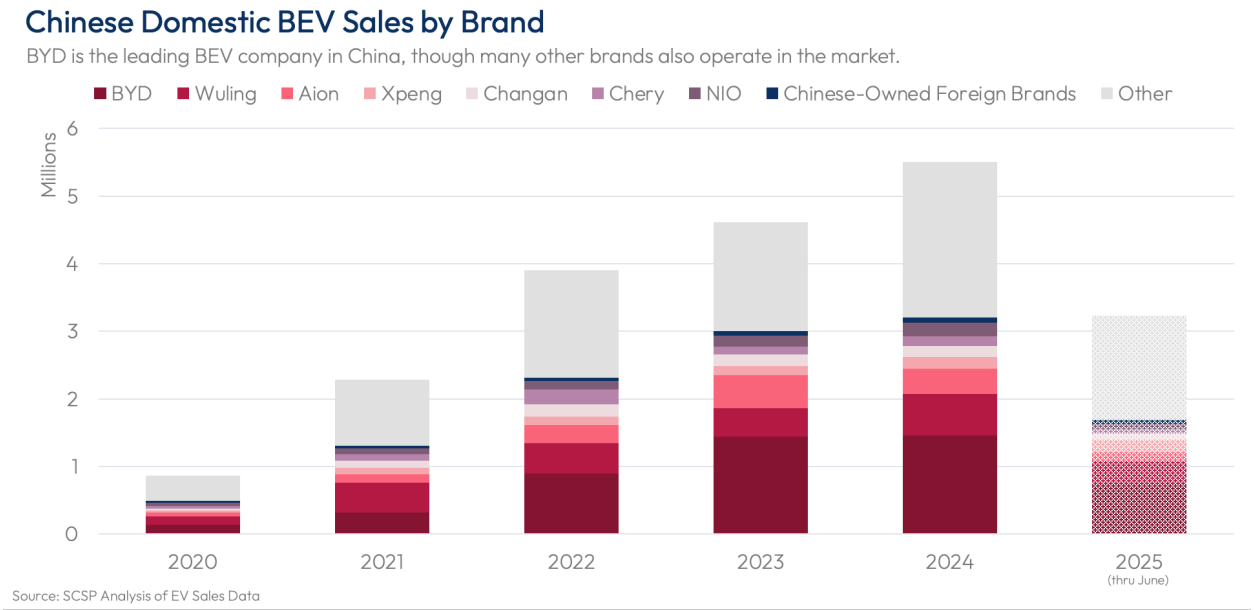


Figure 12

It is now the mid-point of China's "golden decade" for new energy vehicles, and China's BEV industry has shown few signs of slowing down, at home and abroad. In a mere few decades, the nation has cultivated a world-class industry, already disrupting and redefining the traditional automotive sector. China's success, while initially catalyzed by government initiatives from Beijing, is no longer solely reliant on state planning. Rather, consumer preferences are changing, and the burgeoning demand for BEVs both inside and outside of China provided an opening for Chinese automakers to move first. Now, China stands at the forefront of global BEV innovation and production.

The Global Competition to Sell BEVs

The United States and PRC are engaged in a fierce competition to dominate the next generation of emerging technologies. The United States leads in some technologies, while the PRC leads in others, and some gaps are rapidly closing.[55] But when it comes to the leading player in electric vehicles, Chinese companies are winning.

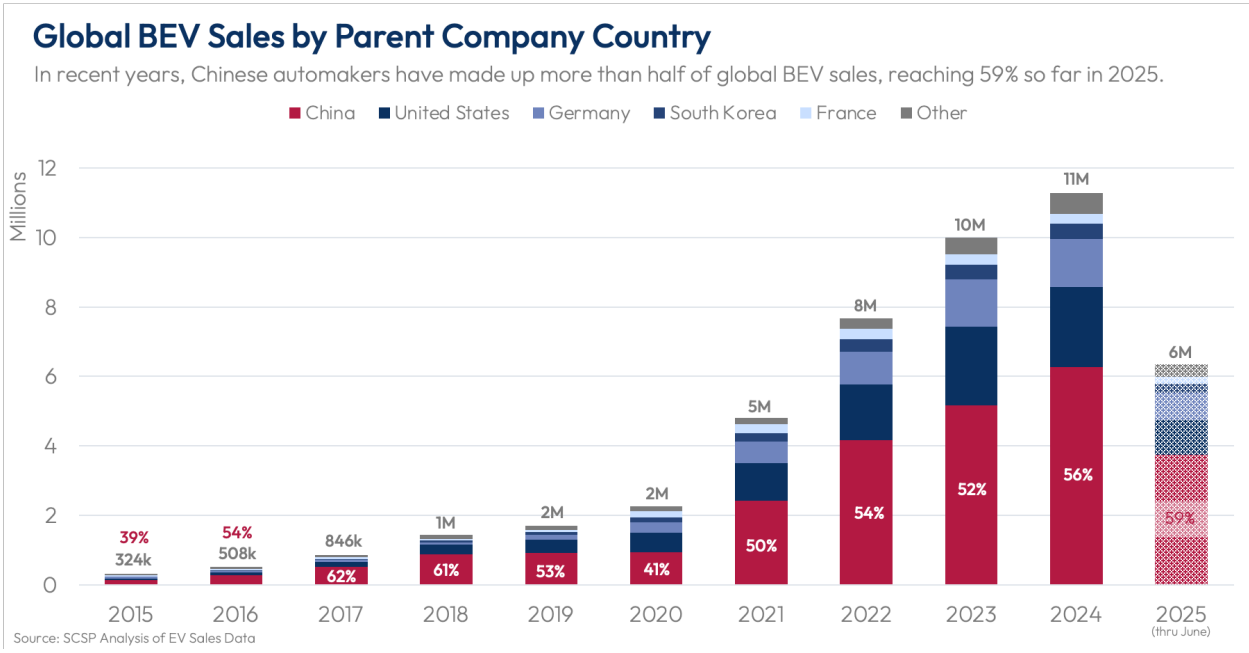


Figure 13

Over the last decade, Chinese companies have steadily increased their share of global BEV sales, from 39% in 2015 to nearly 60% in 2025 (see Figure 13). BYD alone sold more than 6.0 million BEVs, accounting for 24% of all Chinese BEVs sold, followed by the SAIC-GM-Wuling Group with 3.9 million, and Zhejiang Geely Holding Group with 3.2 million. Tesla has sold the most BEVs during this time period (7.9 million), though U.S. companies together have sold an average of only one-fifth of all EVs worldwide, with 81% of U.S. sales sold by Tesla and 11% by General Motors. German (Volkswagen, BMW, Mercedes-Benz, etc.), South Korean (Hyundai, Kia, etc.), and French (Peugeot, Citroën, etc.) brands follow, respectfully. Of these other brands, only Volkswagen's sales volumes are competitive with the top Chinese and U.S. brands, as the company sold 3.4 million BEVs between 2015 and June 2025. Hyundai sold 2.0 million, while others failed to surpass that 2.0 million mark during that time period.

[55] Welcome to the Arena: Who's Ahead, Who's Behind, and What's Next in the U.S.-China Technology Competition, Special Competitive Studies Project (2025).

The U.S. vs. PRC EV Competition

For the longest time, Tesla had set the global standard for battery electric vehicles. Since the company announced its first all-electric Model S in 2009[56] (and began delivering in 2012[57]), Tesla has consistently ranked the top-selling brand worldwide. A few years later, in 2018, Tesla announced its first overseas gigafactory to be built in Shanghai — a celebratory occasion for the budding American automaker, which was eyeing China's large domestic market. Backed by "full support" from the municipal government, the agreement between Tesla and Shanghai also included plans for joint research and development of EV technology.[58] This investment into China aligned well with the CCP's 13th Five-Year Plan, which aimed to elevate the country's EV industry internationally. In retrospect, it is clear that, while Tesla profited immensely in the few years after the factory opened in October 2019, Tesla's manufacturing presence and investments in China directly contributed to the rise of China's BEV sector.

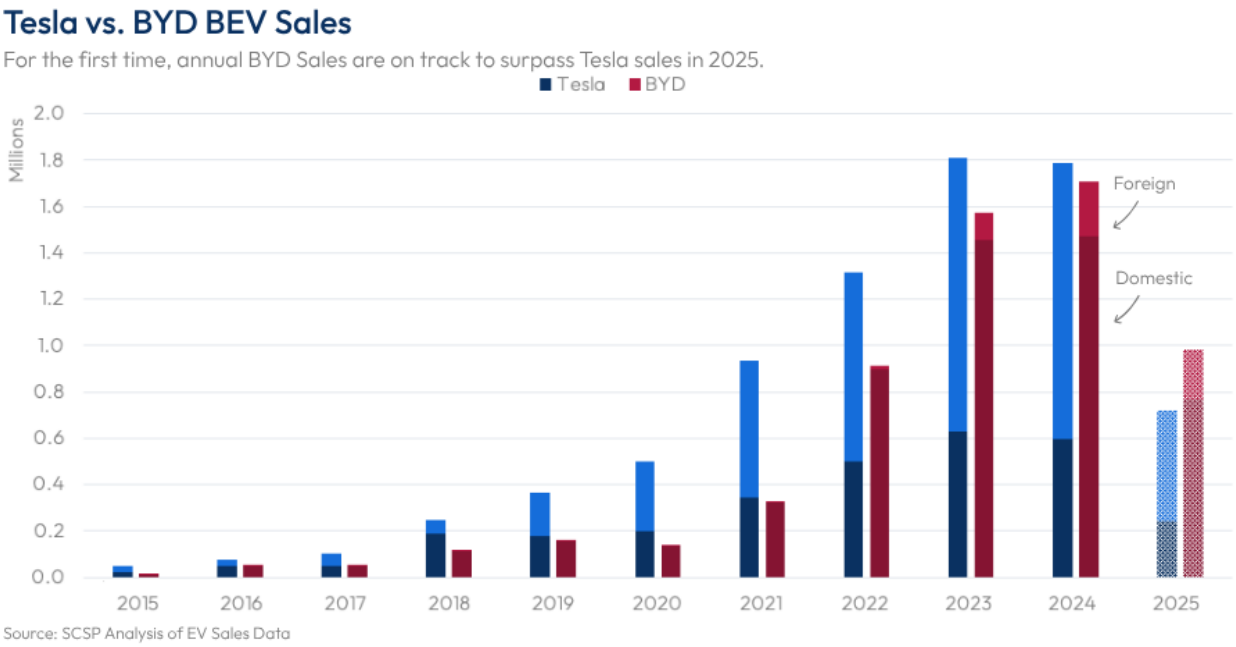


Figure 14

Tesla is no longer the world's lone BEV producer, and the company's position as the top BEV company is being dethroned. This year, 2025, marks the first time that global annual sales of BYD BEVs will likely exceed those of Tesla (see Figure 14). By the end of June, BYD had already sold 37% more BEVs than Tesla, becoming the top seller of BEVs worldwide. The data also shows that, in just half of this year, BYD has already sold more vehicles in China and around the world than it did just three years ago in 2022.

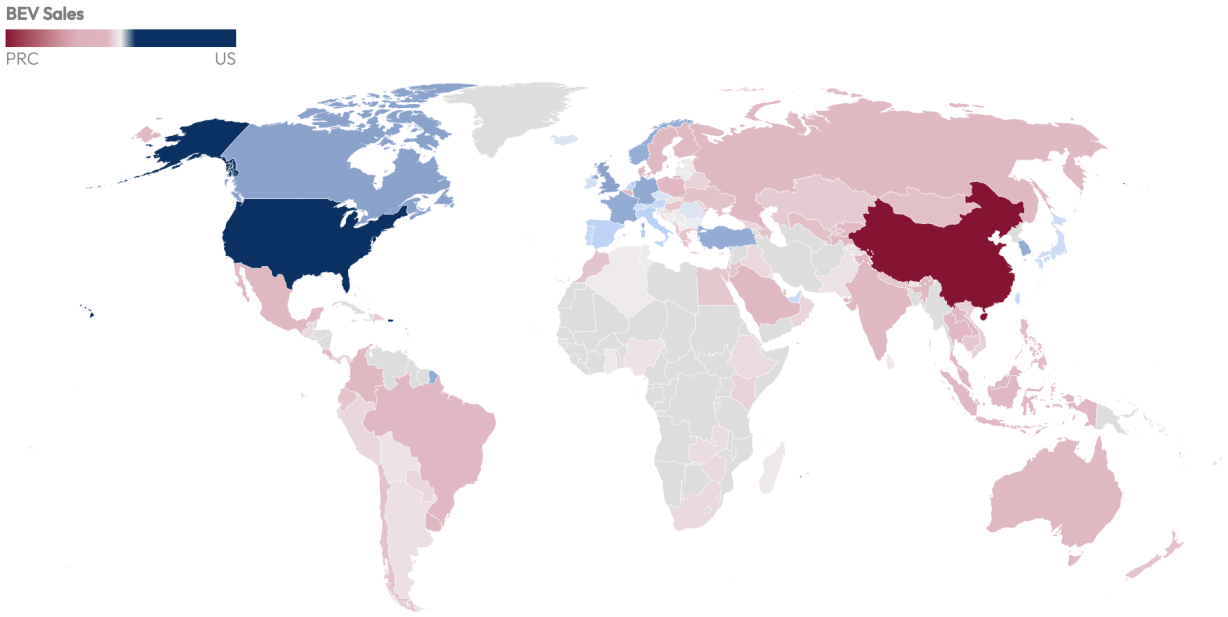
[56] Tesla unveils world's first mass-produced, highway-capable EV, Tesla Motors (2009).
[57] Tesla Motors to Begin Customer Deliveries of Model S on June 22nd, Tesla Motors (2009).
[58] Tesla to build super factory in Shanghai, Shanghai Pudong New Area Government (2018).

This is an achievement that many had not previously thought possible, as global BYD BEV sales did not pick up until 2022. But BYD's future trajectory appears promising: as the company enters new global markets and builds the necessary factories to sustain its new operations abroad, BYD is becoming too big for the PRC government to allow it to fail. Indeed, evidenced by its worldwide success, BYD is taking its place alongside Huawei as a household Chinese brand name.

Following the lead of Huawei and other Chinese companies that have ventured beyond China's borders, BYD has sold an impressive number of vehicles by entering markets in every region around the world. While Tesla has concentrated its sales in developed economies like the United States, Europe, and East Asia, BYD has entered new markets in Southeast Asia, Latin America, and Africa, including many countries in which Tesla has not yet begun operating. Since Tesla sales have slumped this year, Tesla will likely continue trailing BYD in the near future.

U.S. vs PRC Competition in BEV Sales

From January to June 2025, Chinese companies have outsold U.S. companies in 91 countries and territories, while U.S. companies have outsold Chinese companies in 29.



Note: The above data does not include EVs sold by other countries, including Germany, France, Japan, the Republic of Korea, India, Vietnam, and Turkey.
Source: SCSP Analysis of EV Sales Data

Figure 15

Of course, BYD is not the only Chinese BEV player to have gone global. In fact, companies like NIO, Xpeng, and Chery have not merely picked up where BYD might have slacked; their entry into even more markets has further expanded Chinese companies' reach around the world. A head-to-head comparison of all U.S. and PRC vehicle sales around the world this year reveals that Chinese companies have sold more BEVs than U.S. ones in 91 countries and territories, while U.S. companies have more than Chinese ones in 29 countries and territories (see Figure 15).

Chinese companies are not only selling more BEVs than U.S. companies in more countries — their marginal sales are also considerably higher in each country. Thus far in 2025, Chinese companies occupied an average market share of 47% in all countries and territories around the world, while U.S. companies only averaged 11%. The numbers show even deeper penetration in markets where either the United States or PRC is ahead: in countries where Chinese companies sold more than U.S. companies, Chinese companies occupied an average market share of 59%, while U.S. companies averaged only 24% market share in the countries where they sold more than Chinese companies. Put differently, Chinese firms enjoy nearly five times the global market share of U.S. competitors overall, and more than double the market share of U.S. companies even in head-to-head winning markets. Moreover, Chinese companies have captured 100% of BEV market share across seven countries (i.e. Guatemala, Laos, and Tajikistan) — countries where U.S. companies remain absent.

While Tesla led the development and adoption of BEVs in the last decade, Chinese companies are poised to take over. As Chinese firms introduce electric vehicles — still a relatively new technology — into more markets, consumers around the world are increasingly likely to see Chinese EVs as the default option. Regardless of whether Chinese companies lead by having sold a few hundred or a few thousand vehicles in any given country, the early success of Chinese automakers sets market trends and signals a pattern for the future: just as Apple and Samsung shaped the global standard for smartphones, Chinese companies are shaping a world in which purchasing an electric vehicle naturally leads consumers to consider Chinese brands first.

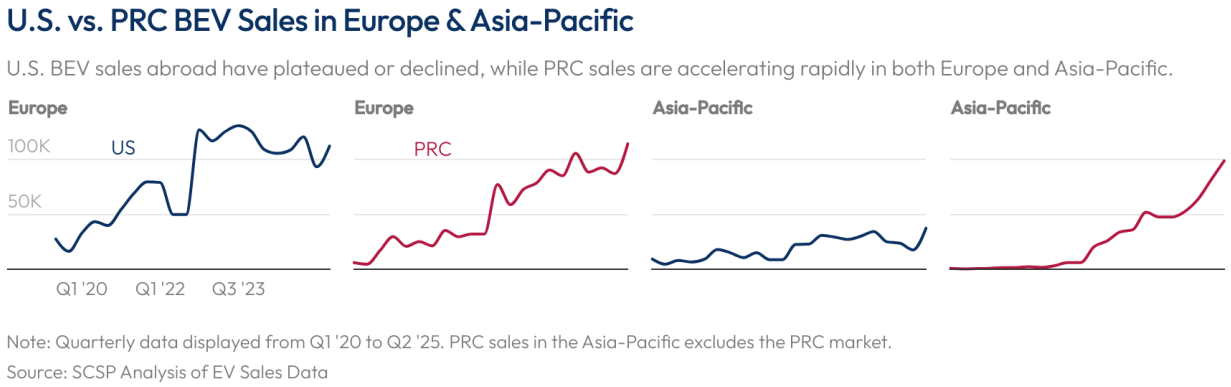


Figure 16

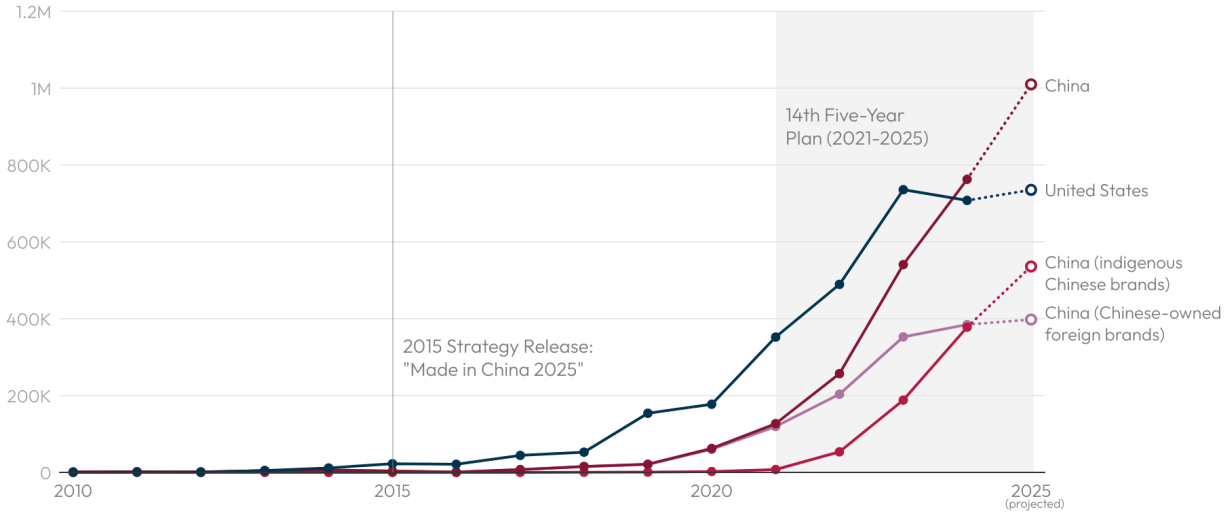
Importantly, while the map illustrates the numerous countries in which Chinese and U.S. automakers operate, it is a frozen snapshot that does not capture the divergent trends among regional markets, as well as the change over time. Specifically, a comparison of U.S. and PRC BEV sales abroad — i.e. U.S. sales outside the United States and PRC sales outside of the PRC — in the two largest foreign markets, Europe and the Asia-Pacific, reveals that U.S. sales abroad are

either plateauing or trending down, while PRC sales are trending up (see Figure 16). These trends once again underscore how Chinese BEV sales are likely to continue exceeding U.S. BEV sales in the foreseeable future. At a critical adoption phase of BEVs in most markets, China's industrial policy has yielded a level of market success that will create a lasting economic moat.

Yet Chinese automakers also own many foreign brands, such as Swedish brand Volvo, British brand MG, and Malaysian brand Proton. Thus, when taking out BEV sales from these Chinese-owned foreign brands, solely analyzing foreign sales of home-grown Chinese companies like BYD, Xpeng, and NIO, it appears that Chinese companies still have much catching up to do with U.S. companies like Tesla and the likes of Volvo in terms of total annual BEVs sold (see Figure 17). However, even with this new point of analysis, the upward growth trend remains strong, and Chinese indigenous brands are experiencing significantly steeper cumulative growth than U.S. ones, suggesting they are poised to become even more dominant players in the BEV market in the coming years. In fact, of the subsections shown in the graph below, only indigenous Chinese BEV brands continue to show hockey-stick growth.

U.S. vs PRC Foreign BEV Sales

Chinese BEV sales outside of China are on track to surpass U.S. foreign BEV sales. Although Chinese sales abroad have been dominated by Chinese-owned foreign brands (Volvo, MG, Proton, etc.), foreign sales of indigenous Chinese brands (BYD, Chery, Xpeng, etc.) will soon surpass its foreign brands.



Note: Chinese-owned foreign brands include Volvo (Sweden), Polestar (Sweden), Lotus (UK), London Electric Vehicle Company (LEVC) (UK), Proton (Malaysia), Smart (Germany), MG Motor (UK), LDV (UK), and Maxus (UK). Due to different industry maturation rates, projections for China and China (indigenous Chinese brands) are calculated from 2020; projection for the United States and China (Chinese-owned foreign brands) are calculated from 2015.

Source: SCSP Analysis of EV Sales Data

Figure 17

The Global EV Competition

Of course, the United States and China are not the only players in the BEV space. The global market of BEV companies include many U.S. allies and partners, such as Germany, France, Japan, and the Republic of Korea — among the traditional global leaders in internal combustion engine vehicles.

Nevertheless, even when taking into account data from the rest of the world, PRC companies continue to lead in BEV sales (see Figure 18). In the first half of 2025, PRC companies sold the most BEVs in 68 countries and territories, followed by Germany in 33, the United States in 7, South Korea in 5, France in 3, and India in 2. Japan and Vietnam each sold the most BEVs in their own country.

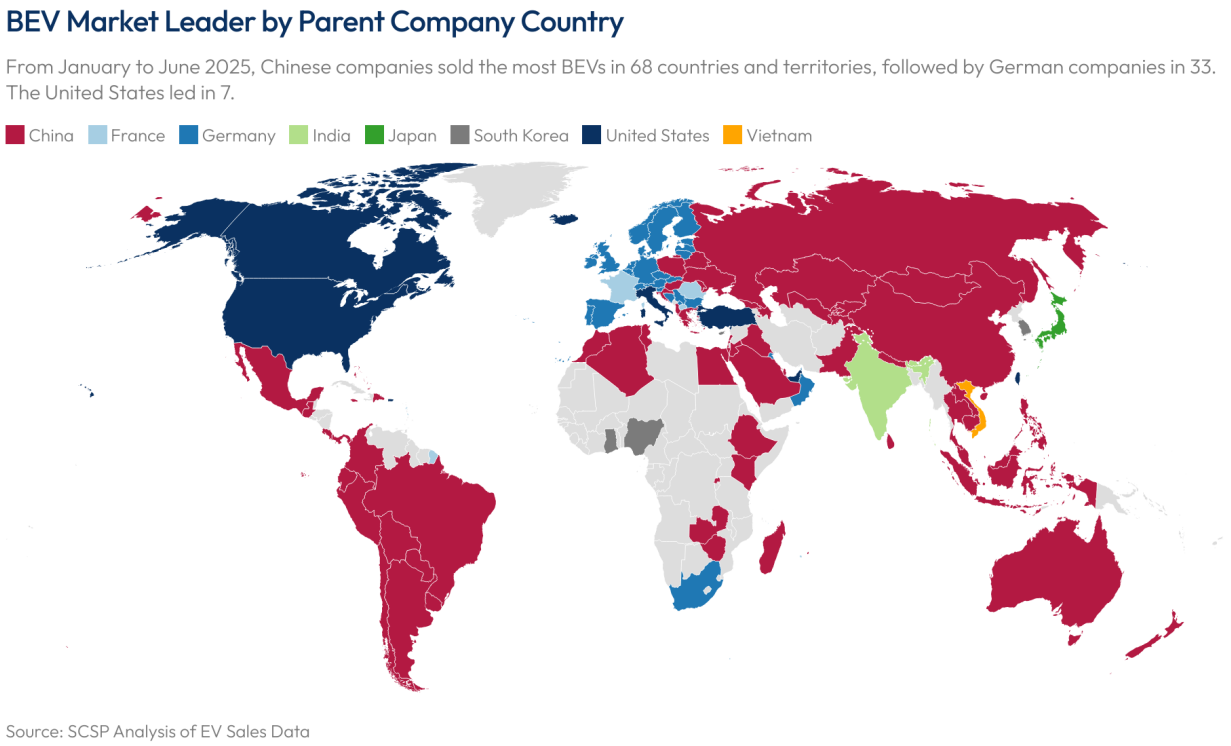


Figure 18

This map is notable not only to show that PRC companies have outsold all other BEV brands in most countries, but also to once again illustrate the diversity of markets Chinese companies have pursued. While it is expected that European automakers lead sales in Europe, that the United States leads sales in the United States and Canada, or that India and Vietnam each lead sales in their respective domestic markets, it is not obvious for Chinese companies to achieve this level of

success both in its neighborhood and across the world — in Africa, Latin America, and beyond. Yet they have, and they likely will continue to do so.

Chinese companies are increasingly leading global electric vehicle sales at home and abroad. They account for roughly half of all BEVs sold worldwide over the past decade, command a higher average market share in more countries, and lead sales in numerous key regions, growing at a pace faster than all competitors. While U.S. and other international companies remain significant players, the data demonstrates that Chinese firms have established broader geographic penetration and stronger overall market presence than U.S. companies. With few challengers among the United States and its allies and partners, and with infrastructure and innovation advantages that threaten to widen the gap, the competition is now China's to lose.

Conclusion

Why Does This Matter?

In the late 1970s and early 1980s, the United States and Japan clashed over automobile manufacturing. Following the conclusion of World War II, Japan's economy developed rapidly, and its automakers — Toyota, Honda, and Nissan — grew in international popularity, in part due to their small size and fuel efficiency. With declining market share of its own automanufacturers and tensions between the two countries mounting, the United States negotiated with Japan a series of voluntary export restraints that ultimately resulted in a shift toward U.S. production. While this trade dispute was an episode in the evolution of international trade and accelerated the globalization of the modern auto industry, today's concerns surrounding China's rising BEV exports are much more complex — and dangerous.

Since the United States and People's Republic of China are engaged in a techno-economic competition, the implications of China's success in the BEV market go beyond concerns of declining domestic manufacturing, automobile sales prices, and relations between two economies. The projected future proliferation of PRC BEVs threatens American economic competitiveness and national security.

First, as explained in this report's introduction, the remarkable success of China's electric vehicle sector exemplifies the triumph of the country's broader national strategy. In a span of merely two decades, the PRC not only constructed a thriving EV industry and domestic market but also ascended to global leadership in BEV sales by a wide margin. Such achievement cannot be attributed solely to government policymakers; rather, it reflects the concerted efforts of entrepreneurs, engineers, and a dynamic innovation ecosystem. It also rebuts the theory that China merely imitates and cannot innovate. Whether propelled by patriotic motives or personal ambition, the outcome is clear: the majority of the world's battery electric vehicles in 2025 are, unmistakably, "Made in China."

Second, as proof of concept of China's state planning, electric vehicles now epitomize the country's technology leadership. Far beyond their assembly lines, BEVs integrate software, connectivity, and data-driven services, underscoring China's rapid progress in areas such as autonomous driving systems, electric drivetrains, and battery optimization — fields poised to define the future of the auto industry. This leadership also showcases China's focus on advanced manufacturing, a key battleground that SCSP has identified in the U.S.-China technology competition.[59] With the advent of AI, Chinese BEV makers — including BYD, XPeng, GAC, and

[59] National Action Plan for United States Leadership in Advanced Manufacturing, Special Competitive Studies Project (2024).

NIO — are already leveraging breakthroughs in robotics to improve manufacturing, going so far as to develop or explore the use of humanoid robots.[60]

This reality has profound economic implications for the competitiveness of U.S. and allied automakers moving forward. China's ability to produce vehicles at scale, coupled with growing concerns over industrial overcapacity, intensifies pressure on both China's domestic market and the global auto industry. Since the BEV industry remains nascent, and new U.S. brands such as Lucid Motors and Rivian are only beginning to enter global markets, the future of non-Chinese BEVs is uncertain. Shifting consumer preferences, evolving government policies, and ongoing technological breakthroughs will continue to transform the competitive landscape. U.S. and allied automotive companies need to recognize these trends and adapt quickly to remain competitive — or risk ceding the industry entirely to China.

Finally, and perhaps most critically, the worldwide proliferation of Chinese BEVs introduces a national security challenge reminiscent of the concerns raised by 5G telecommunications. Modern electric vehicles, equipped with Bluetooth, satellite, and Wi-Fi technologies, function as "smartphones on wheels," replete with satellite navigation, sensors, cameras, and AI-driven autonomous features that collect and process vast amounts of data. If exploited by foreign adversaries, this data could pose serious risks to citizens' privacy and broader national interests. Moreover, as with Huawei, Chinese automakers remain subject to the PRC's National Security Law, National Intelligence Law, and Cybersecurity Law, which could compel data sharing with the Chinese Communist Party. In a scenario where international tensions escalate, data and systems from Chinese BEV manufacturers could be placed under heightened scrutiny or direction by PRC authorities. Thus, beyond the ongoing economic rivalry, an important national security assessment must be conducted as new, connected vehicles proliferate.

Future Challenges & Trends to Watch

Technology competition remains fierce between Chinese companies and Tesla, with both frequently announcing new advancements. In March, BYD unveiled its newest "Super-E" charging stations that claimed to complete a full charge in five minutes.[61] The following month, Geely debuted a prototype of its AI-powered Galaxy Cruiser SUV, which uses AI to switch between pure electric, hybrid, and extended range modes, as well as to adapt to diverse terrains and driving conditions.[62] Meanwhile, Tesla has been working to roll out its newest "robotaxi," an autonomous

[60] Caiwei Chen, China's EV giants are betting big on humanoid robots, MIT Technology Review (2025).
[61] BYD Unveils Super e-Platform with Megawatt Flash Charging for Electric Vehicles, Matching Refueling Speeds, BYD (2025); for further reference, the fastest charging ports in the United States take about half an hour, while Tesla Superchargers charge 200 miles in 15 minutes. Most at-home chargers, however, can take about eight hours for a full charge.
[62] "AI for All, All for Safety", Geely Auto Unveils Groundbreaking Innovations for Tech and Safety at Auto Shanghai 2025, Geely Global (2025).

ride-hailing service. In June, Tesla deployed its robotaxis for the first time in Austin, Texas, with plans for further expansion.[63] As AI unlocks new capabilities, electric vehicles are poised to become a pivotal battleground in technological competition.

China's automobile advances go beyond AI-enabled enhancements. Many companies now feature augmented reality (AR) entertainment systems with surround sound audio systems and theater-grade-resolution displays. Xpeng and Chery have designed "zero-gravity" reclining passenger seats with massage functions; some models also feature refrigerators that heat and cool on command.[64] Meanwhile, BYD has partnered with global drone giant DJI to offer "Lingyuan," a rooftop deployable drone system that captures panoramic video and follows vehicles' movements.[65] These features, not yet available outside of China, represent a turning point for Chinese innovation, ingenuity, and design.

However, it is not all smooth sailing for Chinese companies, either. In July, Xi Jinping issued a rare yet stern warning against his country's over-fixation on AI and EVs. "When it comes to projects, there are a few things — artificial intelligence, computing power and new energy vehicles. Do all provinces in the country have to develop industries in these directions?" Xi said at the Central Urban Work Conference, a high-level Communist party meeting on urban development.[66] While this comment did not signal a *lack* of state support for AI, semiconductors, and EVs — the very technologies China has sought to nourish since the turn of the century — it did offer a direct critique of excessive local government investment and duplicative development of these sectors at the expense of advancements in other tech priorities.

As this report's data has demonstrated, Chinese EV sales worldwide show little sign of slowing down. Yet similar to the PRC's seemingly miraculous economic growth throughout the 2000s, such rapid growth cannot be sustained indefinitely. As sales approach their peak — and as U.S. and allied automakers introduce more competitive models — it will be crucial to observe if and when Chinese sales begin to taper off. China's 15th Five-Year Plan, due for publication in early 2026, may offer telling signs, especially in anticipation of a new plan focused on intelligent connected vehicles (ICVs) announced in October.[67] For example, how high the government sets its next BEV production and adoption targets may indicate which path the Party seeks China's BEV industry to follow in the latter half of this decade.

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[63] Rafe Uddin, Stephen Morris, and Kana Inagaki, Tesla launches robotaxi service in Austin, Financial Times (2025).
[64] See, for example, the Xpeng X9 Ultra Smart Large 7-Seater.
[65] Wes Davis, BYD cars now have an on-vehicle DJI drone launch platform, The Verge (2025).
[66] Joe Leahy, Eleanor Olcott, and Cheng Leng, Xi Jinping warns Chinese officials against over-investment in AI and EVs, Financial Times (2025).
[67] 工信部释放政策信号：将制定"十五五"智能网联汽车规划 (The Ministry of Industry and Information Technology has released a policy signal: It will formulate a plan for intelligent connected vehicles during the 15th Five-Year Plan period), OFweek (2025).

Furthermore, when it comes to the proliferation of Chinese BEV startups, many of these companies likely will not survive into the future. Currently, Chinese BEV firms are engaged in fierce competition amongst themselves to win over customers, gain brand recognition, and ultimately come out on top. Since BEVs are a newer industry in China, and China's first-time car buyers are relatively young,[68] there is not yet a sense of brand loyalty that might exist among consumers of traditional Western OEMs. In addition to introducing new tech features, companies are also slashing prices to attract customers. For example, in May 2025, BYD announced discounts of 10-30% on 22 of its all-electric and plug-in hybrid models; the price of the BEV Seagull fell from 69,800 yuan (US$9,760) to 55,800 yuan (US$7,803) — a 20% price cut to an already astonishingly low price.[69] This race to the bottom may not be sustainable in the long term, and many brands will likely end up bankrupt. In fact, it is estimated that less than 10% of Chinese EV brands will turn a profit in the next five years.[70] This price war may also unintentionally tarnish the brand image these companies have worked so hard to build overseas, as companies issue heavy discounts on their own products.[71] In following years, we may expect the Chinese BEV industry to consolidate, with the most successful and well-known brands left standing. This next chapter will impact how much Chinese BEVs may dominate the world.

China's rapid rise to dominance in battery electric vehicles is more than a milestone in global commerce: it is a flashing indicator of Beijing's broader techno-strategic ambitions. BEVs now sit at the intersection of supply-chain resilience, advanced manufacturing, and data security — fields that will shape economic power, innovation power, and national security alike. If the United States and its allies fail to match China's scale, speed, and state-backed coordination, we risk surrendering critical industrial capacity, next-generation mobility standards, and vast streams of vehicle-derived data to a strategic competitor. As a result of Chinese BEV brands' impressive technological innovation, the world may begin viewing China, rather than the United States, as the exemplar innovator — the new shining city upon the hill.

[68] Youth driving sales in China's vehicle market, China Daily (2023).
[69] Yujie Xue & Daniel Ren, BYD's price cuts shock China's EV market, spark fears of price war escalation, South China Morning Post (2025).
[70] Daniel Ren, Only 1 in 10 EV makers may hit 2030 profit goal in China's discount war, AlixPartners says, South China Morning Post (2025).
[71] Last June, EV buyers in Thailand launched a barrage of complaints to the Consumer Protection Board about price cuts that BYD and other Chinese companies issued in quick succession. A cabinet minister ordered an investigation into the matter. See Francesca Regalado, EV price war angers Thai BYD owners as buyers wait for more cuts, Nikkei Asia (2024).

Meeting this challenge will require a whole-of-economy response: robust investment in domestic production and battery supply chains, agile regulation that levels the competitive playing field without stifling innovation, and a security framework that treats connected vehicles with the same scrutiny applied to 5G networks. Only by aligning industrial policy, technological innovation, and national-security safeguards can democratic nations ensure that the roads of the future remain both open and secure.

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