

A Perspective on the Evolving Plug-In Electric Vehicle Landscape Amid Trade Tariffs and Strategic Responses

Rubal Dua and Tamara Sheldon

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Abstract

Various explanations have been proposed for the recent slowdown in the growth of global plug-in electric vehicle (PEV) sales. Considerable uncertainty also remains regarding future PEV adoption rates due to evolving consumer incentives and newly announced Western tariffs on Chinese PEV imports. This study offers an expert opinion-based perspective on how the PEV landscape may evolve amid ongoing policy and market shifts. Specifically, we survey PEV experts in the U.S., Germany, and China to explore (i) the reasons behind Western tariffs; (ii) the potential strategic responses of Chinese and Western policymakers and automakers; and (iii) how the PEV market might evolve in the coming years in light of the global landscape. The surveyed experts attribute the recent slowdown in global PEV sales growth to technological factors and a consumer preference for hybrids. They view Chinese automakers' expansion into Western PEV markets as primarily driven by profit and market share considerations, rather than domestic factors. Experts anticipate that the tariffs will moderately reduce the price competitiveness of Chinese PEVs in the West and that China will likely seek ways to circumvent these tariffs. Additionally, they believe that China's response will likely include tariffs on non-vehicle goods and restrictions on partnerships within China. Rather than trade policies, experts identify the changing stringency of existing emissions regulations as the main non-technological factor expected to influence global and regional PEV sales shares over the next three to five years. We find evidence of variation in expert opinions based on their region of focus (China vs. U.S./Germany) and their role (strategic vs. technical).

Keywords: Battery Electric Vehicles, Chinese Automakers, Electric Vehicle Adoption, Emissions Regulations, Global EV Market, Plug-In Electric Vehicles, Trade Policy, Trade Tariffs, Vehicle Electrification, Western Tariffs

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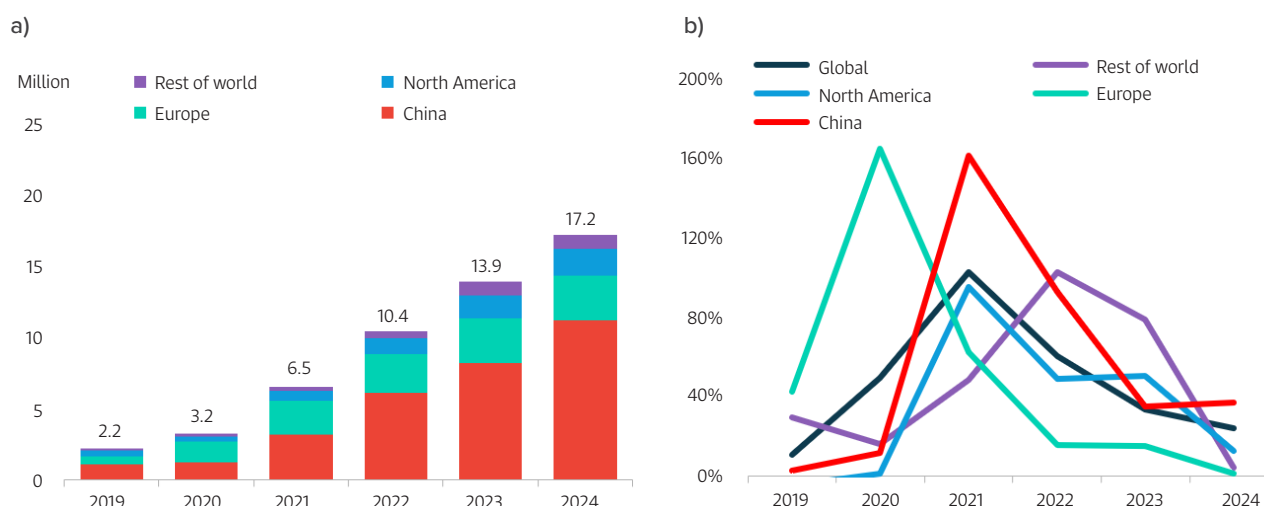
Introduction

Decarbonization of transportation, including fleet electrification, is a key component of many countries' plans to achieve environmental and net-zero targets (Uratani et al. 2025; Dua 2024). The global growth rate for new battery electric vehicle sales in 2023 was 29%, which was less than half the rate in 2022. Although there was a decline in early 2024, sales rebounded in late 2024, ultimately ending the year with a 25% increase (Gupta 2024; Parodi 2025).

Plug-in electric vehicle (PEV) sales, which include battery electric vehicles (BEVs) and plug-in hybrid electric vehicles (PHEVs), slowed in the United States and Europe in 2024, as illustrated in Figure 1b. Notably, Tesla experienced particularly sharp declines (Moreno and Russell 2024; Krisher 2024; Lyon 2024; Randall 2024; Kim 2024). In China, the PEV market cooled according to some measures (Winton 2024; Li, Yan, and Goh 2024), but it rebounded at the end of 2024 as a result of the central vehicle trade-in policy (Parodi 2025). Figure 1 displays PEV sales and year-on-year sales growth rates in these regions over the past six years. Various explanations have been proposed for the slowing rate of increase in global PEV sales, and there remains some uncertainty regarding future PEV adoption. New vehicle demand in the U.S. is generally depressed due to

inflation and high interest rates (Muir 2024), leading to declining profits for automakers and lower transaction prices (Palladino 2024). Nevertheless, in 2022, the U.S. effectively reaffirmed its commitment to the federal PEV subsidy policy by renewing and expanding consumer tax credits for PEVs in the Inflation Reduction Act (IRA). However, the IRA also includes various stipulations regarding the sourcing of battery components and local final assembly intended to bolster the U.S. PEV industry. This may, particularly in the short to medium term, limit the number of PEV models that qualify for the subsidy. Furthermore, early in its tenure, the Trump administration signaled its intention to eliminate the PEV credits provided by the IRA (Renshaw, Kirkham, and Eckert 2024).

Figure 1. (a) Global passenger PEV sales by region. (b) Year-on-year PEV sales growth rates by region.



Source: Taken from McKerracher 2025.



While the European Union (EU) intends to phase out conventional vehicles by 2035, several member countries have been decreasing or terminating their PEV subsidies. Most notably, Germany ended its consumer PEV subsidy in 2023 (Renshaw, Kirkham, and Eckert 2024). The reduction in subsidies, combined with high prices and concerns about declining resale values, is likely contributing to the declining PEV sales growth (Gupta 2024). Nevertheless, despite the recent PEV sales growth decrease, some experts believe EU PEV demand will accelerate in 2025, due to more stringent CO₂ emissions standards set to take effect and the introduction of lower price-point PEVs (Nicola 2024).

China recently updated its “new energy vehicle” goal to 45% of new vehicle sales by 2027 (Tabeta 2024a), a goal that it achieved in 2024 (Li, Yan, and Goh 2025). Federal and local PEV subsidies in China have been decreasing in recent years (Zhang 2024). However, a recent program to subsidize consumers for scrapping an older

vehicle and purchasing a new PEV or fuel-efficient conventional vehicle has been extended through 2025 (Rho Motion 2025). PEV prices in China have been falling due to a combination of innovation, price wars, and declining battery prices (McKerracher 2024). On average, PEVs are now cheaper than internal combustion engine vehicles in China (Figure 2). Meanwhile, in 2024, citing unfair trade practices, the U.S., Canada, and the EU announced new tariffs on Chinese-made PEVs (Grieger 2023; Boak et al. 2024; da Silva 2024; Mukherjee and Sriram 2024).

Changing political regimes and policies, the removal of subsidies, macroeconomic conditions, trade restrictions, and the potential for a trade war are likely to have substantial impacts on the global PEV market in the coming years. This, in turn, will impact the feasibility of achieving global decarbonization goals. In this study, we draw on expert opinions to assess the likelihood of various PEV market outcomes given the current trends and political landscape.

Figure 2. (a) Average vehicle transaction price by drivetrain in China. (b) Share of EV models priced above or below combustion equivalents in China.



Source: Taken from McKerracher 2024.

Specifically, we interview PEV experts in the U.S., Germany, and China. These experts are defined as having a minimum of five years of work or research experience in the PEV sector and high familiarity with policy and economic issues related to it. Through these interviews, we explore the following questions and issues: (i) What do experts believe is the reason behind the recent slowdown in PEV sales growth? (ii) What might be the impact of Western tariffs on Chinese PEV imports, and how could the Chinese PEV industry try to circumvent them? (iii) What strategies are Western automakers likely to adopt to survive in China, given the rising local competition, price wars, and the treatment of Chinese automakers by Western policymakers in their domestic markets? (iv) What are Chinese automakers' strategies beyond the European, U.S., and Canadian markets?

Most recent literature examining future PEV market growth consists of predictive, quantitative modeling. Analyses of trade policies

and tariffs are typically limited to retrospective assessments. While these studies consider past trends and policy changes, they often overlook unknown factors, such as escalating trade wars or strategic behavior. We complement this research by interviewing experts to gather their insights on how the PEV market may evolve in the medium term, accounting for these unknown factors. Expert interviews enable researchers to leverage specialized knowledge to address specific questions when quantitative analysis may not be feasible. Although there are similar expert surveys and interviews assessing the effectiveness of various adoption incentives and the significance of technical factors on PEV penetration (e.g., Dua et al. 2021), these studies have not explored the impact of newly announced Western tariffs on Chinese PEV imports or trade policies more broadly. To our knowledge, this is one of the first studies to illuminate the evolution of global PEV markets amid a shifting economic and political landscape.

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We interviewed PEV industry experts via Qualtrics to gather their opinions on the current state of the PEV market, Western tariffs on imported Chinese PEVs, and the strategies of both Western and Chinese automakers in this context. To ensure that the respondents were indeed PEV industry experts, we established several screening criteria.

To be included in the sample, respondents must (i) consider themselves experts in the PEV sector, (ii) have worked in or researched the sector for five or more years, (iii) demonstrate “high” or “very high” familiarity with at least one of five relevant aspects of the interview (see question 7 in the interview instrument), and (iv) be able to name one recent piece of legislation or policy initiative passed in their country or region aimed at supporting the PEV sector. Twenty-three experts participated in the interview. While this sample size may seem modest, it aligns with published literature that relies on expert input (Geels, Sovacool, and Iskandarova 2023; Chinda 2023; Sovacool, Iskandarova, and Hall 2023; Giri, Paul, and Debnath 2024; Sovacool et al. 2025; Dua and Guzman 2024; Sbrocchi et al. 2025; Sharma, Bansal, and Dua 2025; Upham et al. 2023; Sovacool, Upham, and Monyei 2022). The interview was restricted to experts primarily working in China, Germany, or the U.S. Since the interview was conducted in English, respondents were required to have proficiency in English.

On average, respondents took nearly 34 minutes to complete the interview, with a minimum of 23 minutes and a maximum of 50 minutes. All respondents are between 31 and 50 years old. They have an average of 6.7 years of experience in the PEV sector, with a minimum of five years and a maximum of 10 years. Additionally, 48% work primarily in China, 30% in Germany, and 22% in the U.S.

Furthermore, 65% are employed by for-profit organizations, while 35% work for nonprofits. Notably, 78% hold a master’s degree. Table 1 presents the themes of the respondents’ past and present work related to the PEV sector.

In our analysis, we often differentiate between respondents who primarily work in China and those who focus mainly on the U.S. or Germany (referred to as “Western” respondents). We also categorize the sample based on whether respondents hold primarily “strategic” or “technical” roles. Respondents are classified as strategic if they selected both “Policy and Regulation” and “Market Development and Economics” as themes relevant to their current and past work in the PEV sector. All other respondents are classified as technical. This approach results in a nearly even division of the sample, with 48% of experts classified as having strategic roles and 52% as technical.

For many of the interview questions, respondents were asked to select the top three to four responses they found most likely. They were then asked to prioritize their selected alternatives by assigning a weight to each, ensuring the total adds up to 100. In the figures presented in the results section below, the x-axis represents the average weight assigned to each alternative.

Table 1. Themes of respondents’ current and past work related to the PEV sector.

Theme	Percentage of respondents whose current and past work has related to the theme (select all)	Percentage of respondents selecting theme as most representative of work (select one)
Policy and regulation	39%	13%
Environmental impact and sustainability	78%	35%
Market development and economics	70%	13%
Technical and engineering	48%	39%

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Results

3.1 Current State of the PEV Market

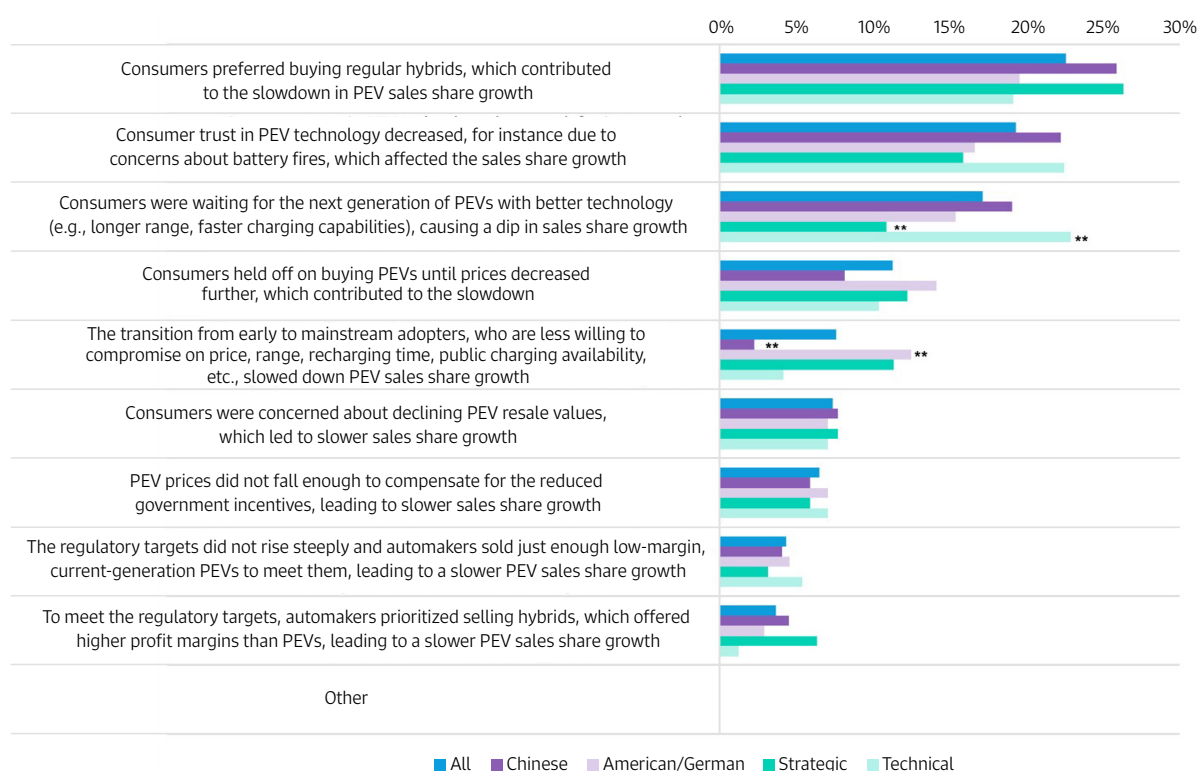
The first part of the interview focused on recent market trends and drivers, particularly the recent global deceleration in the growth of PEV sales share. All respondents indicated that, prior to the interview, they believed the rate of PEV sales share growth was slowing. The following questions explored the reasons behind this slowdown and gathered predictions for future PEV sales share growth.

Despite recent PEV policy changes, as shown in Figure 3, the most commonly cited reason for the slowdown in PEV sales share growth among respondents was a consumer preference for regular hybrids,¹ followed closely by a decrease in consumer trust in PEV technology² and a desire to wait for the next generation of PEVs with improved technology. Experts focusing on Western markets (the U.S. and Germany), rather than China, attributed significantly more weight (12.5% vs. 2.3%) to the transition from early to mainstream adopters, who are less willing to compromise on price, range, recharging time, and public charging availability as a reason

for the slowdown. Those in technical roles placed considerably more emphasis on consumers waiting for the next generation of PEVs compared to those in strategic roles (22.9% vs. 10.9%).

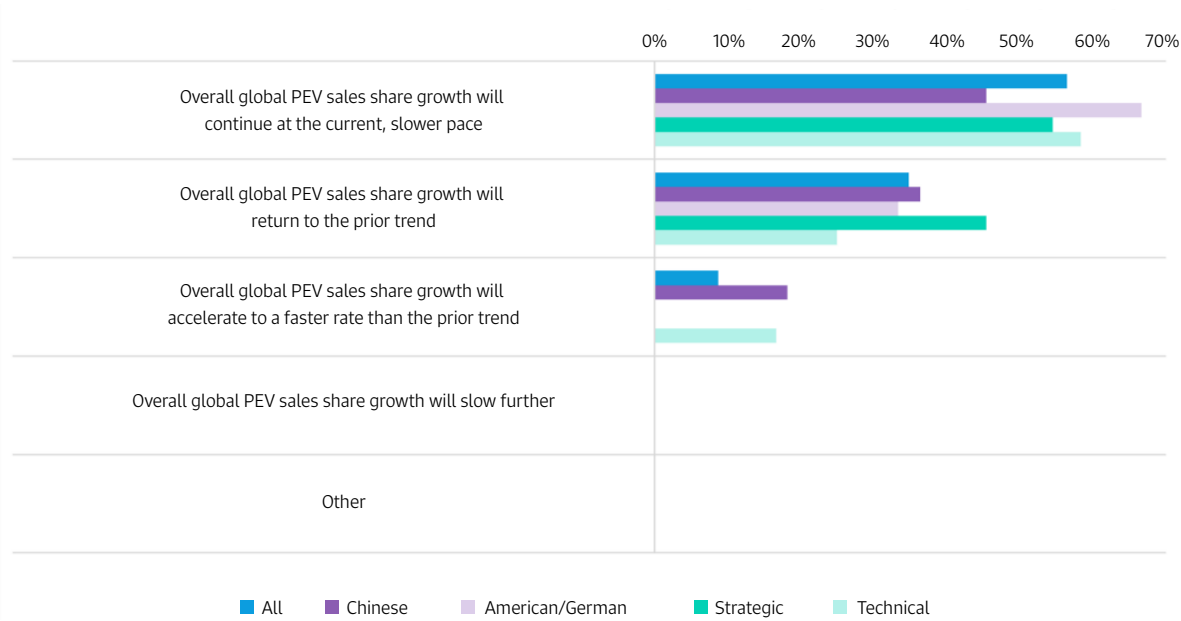
Figure 4 shows that the majority of respondents believe global PEV sales share growth will fluctuate significantly over the next three years due to economic and geopolitical uncertainties. A large minority believes that over the next three years, growth will continue at the current, slower pace, while the remainder (<20%) of respondents believe growth will return to the prior trend.

Figure 3. What do you believe were the main reasons behind the recent slowdown in global PEV sales share growth?³



Source: Authors.

Figure 4. Which of the following do you most agree with regarding the overall global PEV sales share growth over the next three years?



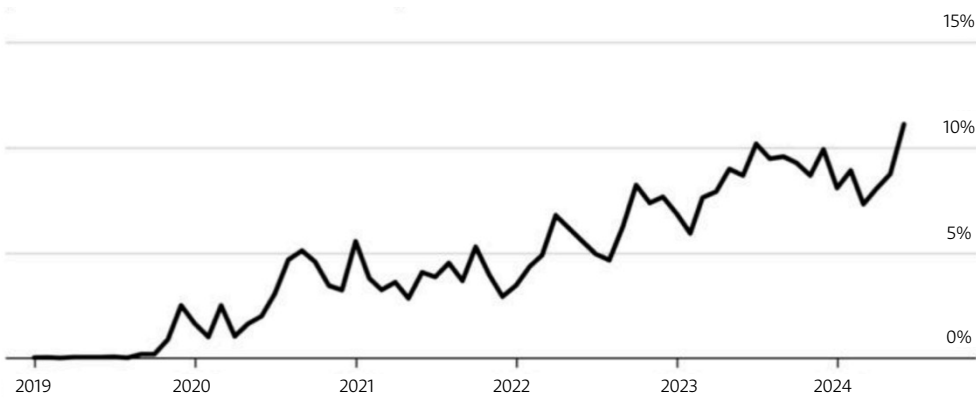
Source: Authors.

3.2 Global Trade and Tariffs

The Chinese share of the U.S. PEV market is currently fairly small at roughly 2% (Coffin and Walling 2024). The Chinese share of the EU market is somewhat larger than in the U.S., and growing. As of

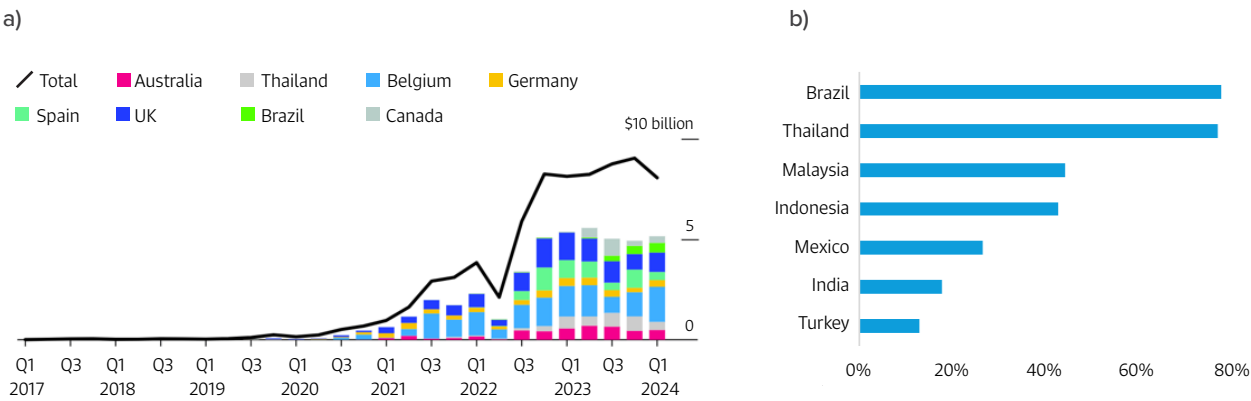
June of 2024, Chinese PEVs accounted for 11% of the European PEV market (Figure 5) (Palazzo 2024). Over the past five years, China has been ramping up its PEV exports (Figure 6).

Figure 5. Chinese automakers' share of European EV sales.



Source: Taken from Palazzo 2024.

Figure 6. (a) Chinese EV exports to different countries. (b) Share of 2023 electric vehicle sales in different countries from Chinese manufacturers.

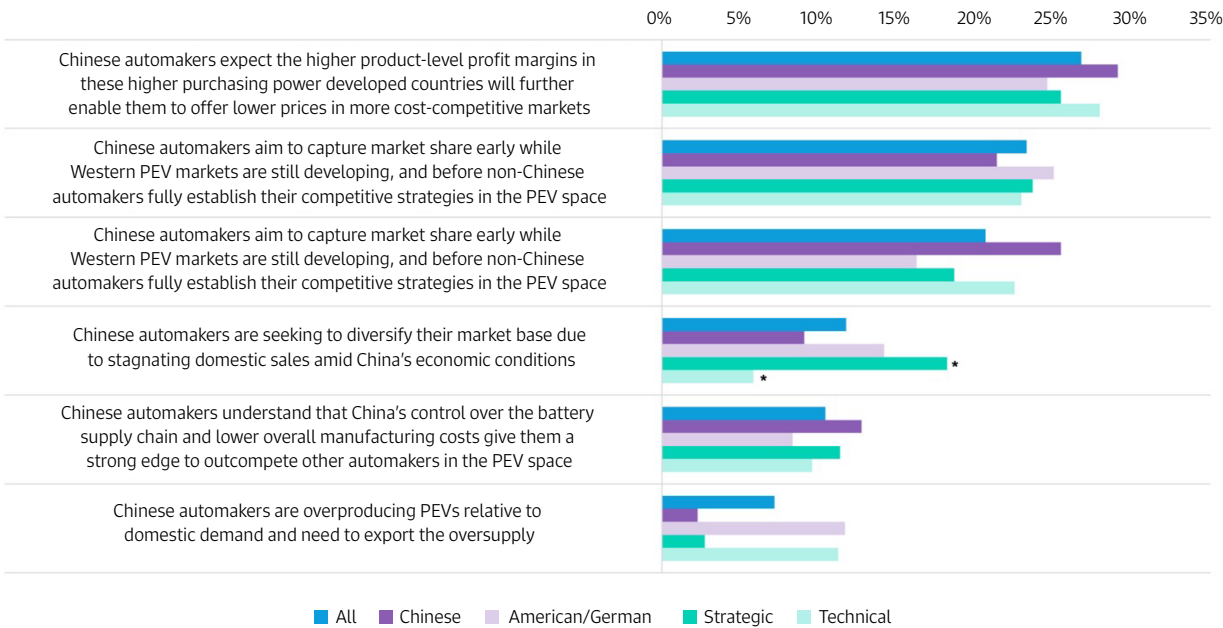


Source: (a) Taken from Bloomberg News 2024a. (b) Taken from Chu 2024.

Figure 7 shows the reasons respondents provided for why Chinese automakers are attempting to enter Western PEV markets. The most commonly cited reasons include higher profit margins,⁴ enhancing brand reputation and presence in global markets, and capturing market share while these markets are still developing.

Domestic factors in China were mentioned less frequently. Experts in strategic roles placed significantly more emphasis on the notion that Chinese automakers are seeking to diversify their market base due to stagnating domestic sales (18.2% vs. 5.8%).⁵

Figure 7. Why are Chinese automakers specifically attempting to enter the PEV space in Western car markets, where they have historically not been very successful in the internal combustion engine vehicle (ICEV) space?⁶



Source: Authors.

The U.S. and the EU have been concerned about China flooding the market with inexpensive PEVs (due partly to Chinese subsidies). While relatively cheap Chinese PEVs are good for EU and other foreign consumers in the short run, the fear is that domestic PEV makers would not be able to compete with such low prices and could go out of business, leaving Chinese firms with too much market power in the future – a practice known as dumping. Earlier this year, the EU completed an anti-subsidy investigation (Grieger 2023), during which it was reported that “Brussels said its probe revealed the PEV supply chain was ‘heavily subsidized in China, and that imports of Chinese [electric vehicles] presented a threat of clearly foreseeable and imminent injury to EU industry’” (Lowe 2024). Analysis by the Center for Strategic and International Studies found that Chinese PEV automakers received \$231 billion in government subsidies over 15 years (Kennedy 2024).

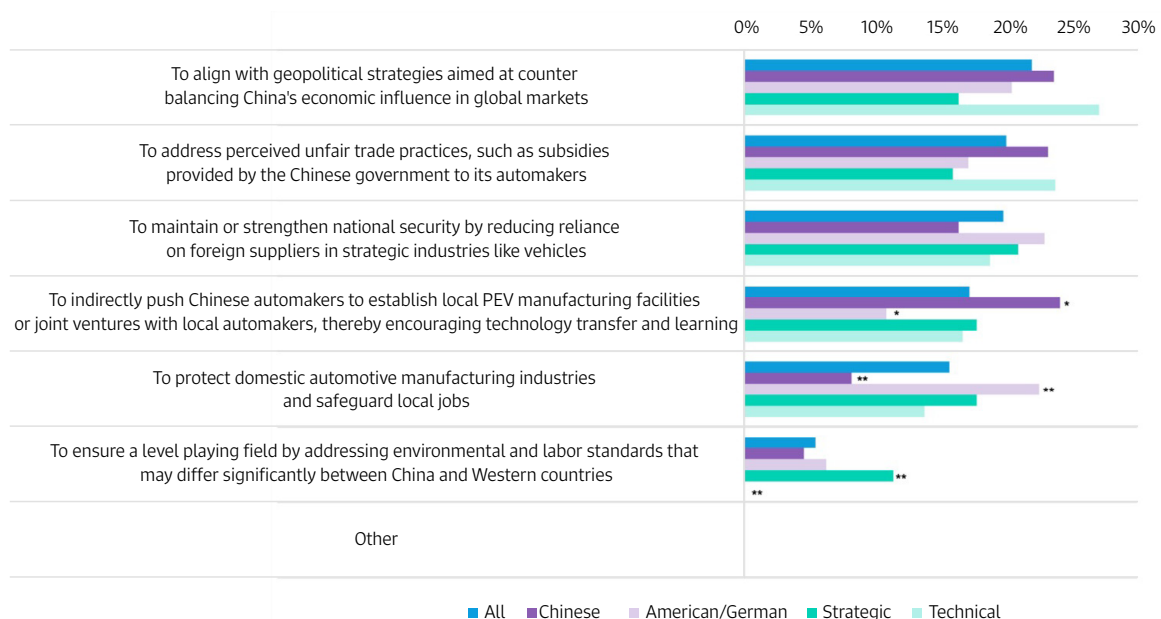
Legacy automakers have been responding to price competition from China. Volkswagen and Toyota have recently lowered prices on some ICE vehicles to counter aggressive discounts offered by Chinese PEV producers (Lee 2024). Additionally, Chinese competition has spurred innovation in Europe; Citroën recently introduced its least-expensive PEV made in Europe, aimed at competing with lower-priced Chinese PEVs (Torsoli 2024).

In response to alleged aggressive pricing by China, the U.S. announced a 100% tariff on Chinese PEVs earlier this year (Boak

et al. 2024). Following an anti-subsidy investigation, the EU implemented a tariff on Chinese PEVs ranging from 17.4% to 37.6%, depending on the automaker, in addition to the existing 10% duty (da Silva 2024). Most recently, Canada announced a 100% tariff on Chinese PEVs, mirroring the U.S. approach.

As per the expert responses, there appear to be a multitude of reasons motivating the Western governments’ new tariffs on China (Figure 8). The reason given the most weight was geopolitical – counterbalancing China’s economic influence in global markets – followed by pushing Chinese automakers to establish local PEV manufacturing facilities or joint ventures (JVs) with the aim of facilitating technology transfer and learning,⁷ addressing unfair trade practices, maintaining or strengthening national security, and protecting domestic automotive industries and jobs. The least weight was given to addressing uneven environmental and labor standards. Experts who focus on Western rather than Chinese markets gave considerably more weight to protecting domestic automotive industries and jobs (22.5% vs. 8.2%). Experts in a strategic role rather than a technical one put more weight on addressing differing environmental and labor standards (11.5% vs. 0%), while those who focus on Chinese markets put more weight on pushing Chinese automakers to establish local PEV manufacturing facilities or JVs for transferring technological know-how (24.1% vs. 10.8%).

Figure 8. Why are Western policymakers imposing tariffs on Chinese PEV imports?^a

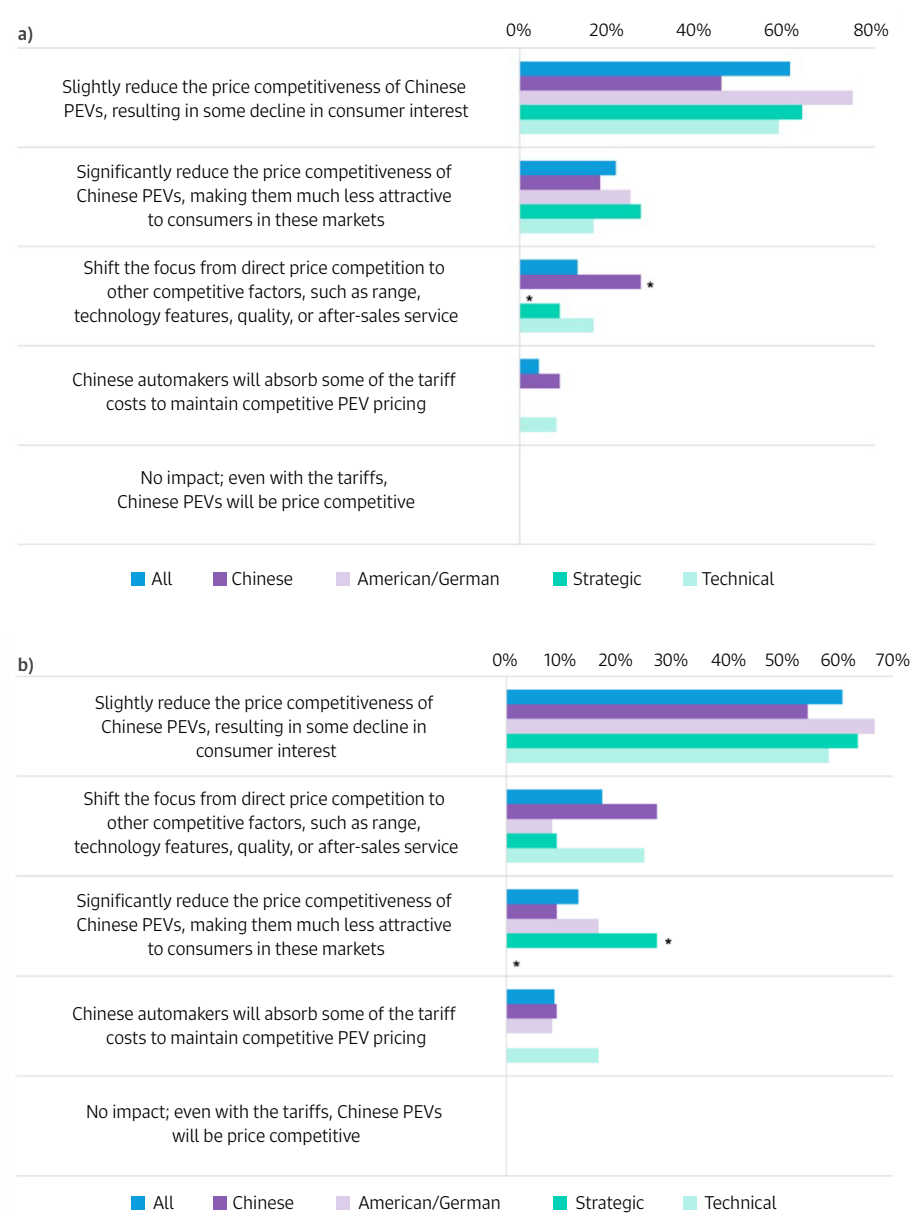


Source: Authors.

Figures 9a and 9b display respondents' predictions of the impact of Western tariffs on the competitiveness of Chinese PEVs in the U.S./Canada and the EU, respectively. The majority believe the tariffs will slightly reduce the price competitiveness of Chinese PEVs,⁹ resulting in some decline in consumer interest in both regions. Experts who focus on China rather than the West place more

weight on tariffs, shifting the focus from direct price competition to other competitive factors in the U.S./Canada (27.3% vs. 0%). Experts in strategic rather than technical roles place more weight on the tariffs, significantly reducing the price competitiveness of Chinese PEVs within the EU (27.3% vs. 0%).

Figure 9. (a) What will be the impact of the tariffs on the competitiveness of Chinese PEVs in the U.S. and Canada? (b) What will be the impact of the tariffs on the competitiveness of Chinese PEVs in the EU?¹⁰



Source: Authors.

3.3 China’s Response to U.S. and EU Tariffs

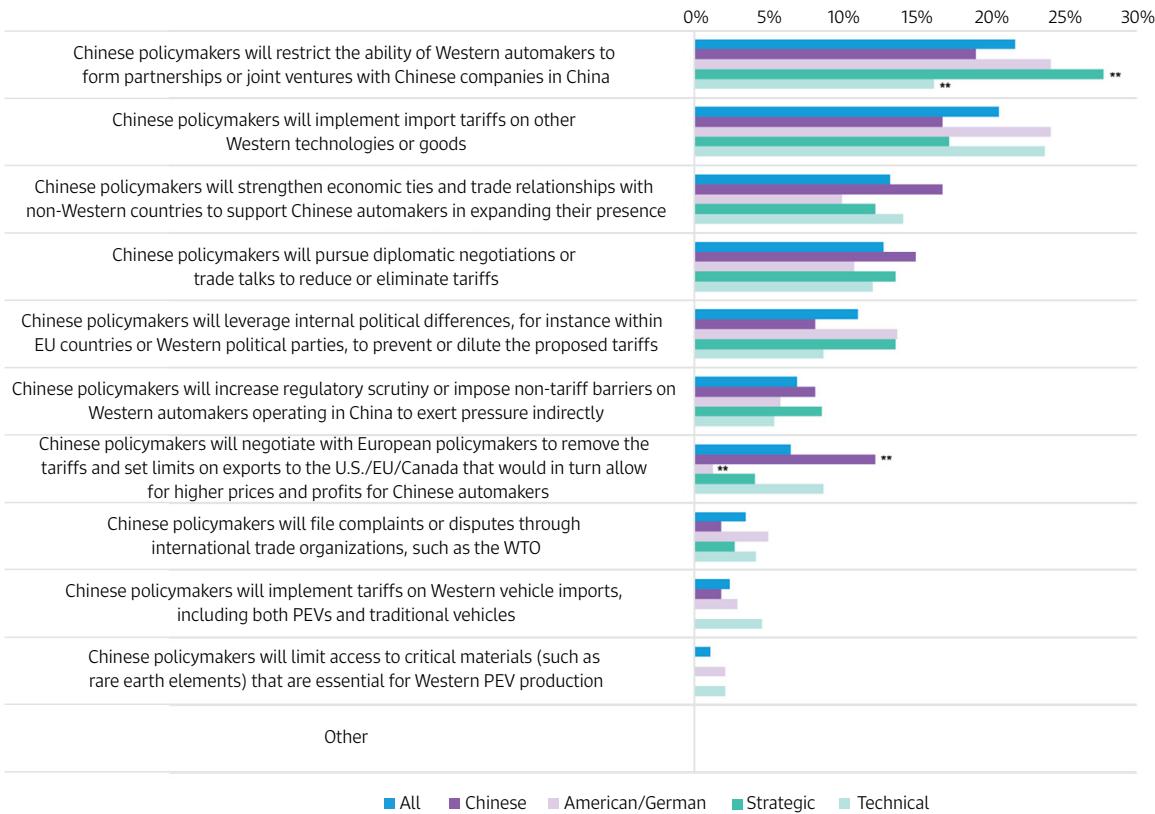
China has already retaliated against the EU tariffs by launching an anti-dumping probe into EU pork imports (Leahy et al. 2024). One Chinese PEV maker, Great Wall, announced the closure of its European headquarters in Munich following the announcement of the EU tariffs, citing an “increasingly challenging environment in Europe” (Lew 2024a). China has also threatened to increase its tariff on cars with large engines to 25%, which would especially impact European luxury carmakers (Trudell 2024). Germany has been critical of the EU tariffs on China (Bounds 2024), in part because China has suggested it could lower existing tariffs on cars with large engines if the EU drops the proposed tariffs (Kowalcze and Nardelli 2024).

However, it is also worth noting that some Chinese PEVs are priced low enough (e.g., under \$10,000) that they would still be price-competitive in the U.S. market under the new tariffs (Yoon 2024b). Indeed, given the high sticker price of PEVs in the U.S., the new

tariffs could depress future U.S. PEV market growth and increase costs for consumers (Williams 2024). Similarly, profit margins are large enough for many Chinese PEV makers to absorb the new EU tariffs (Yoon 2024a), and even with the tariffs, Chinese PEVs will be cost-competitive in Europe (White et al. 2024).

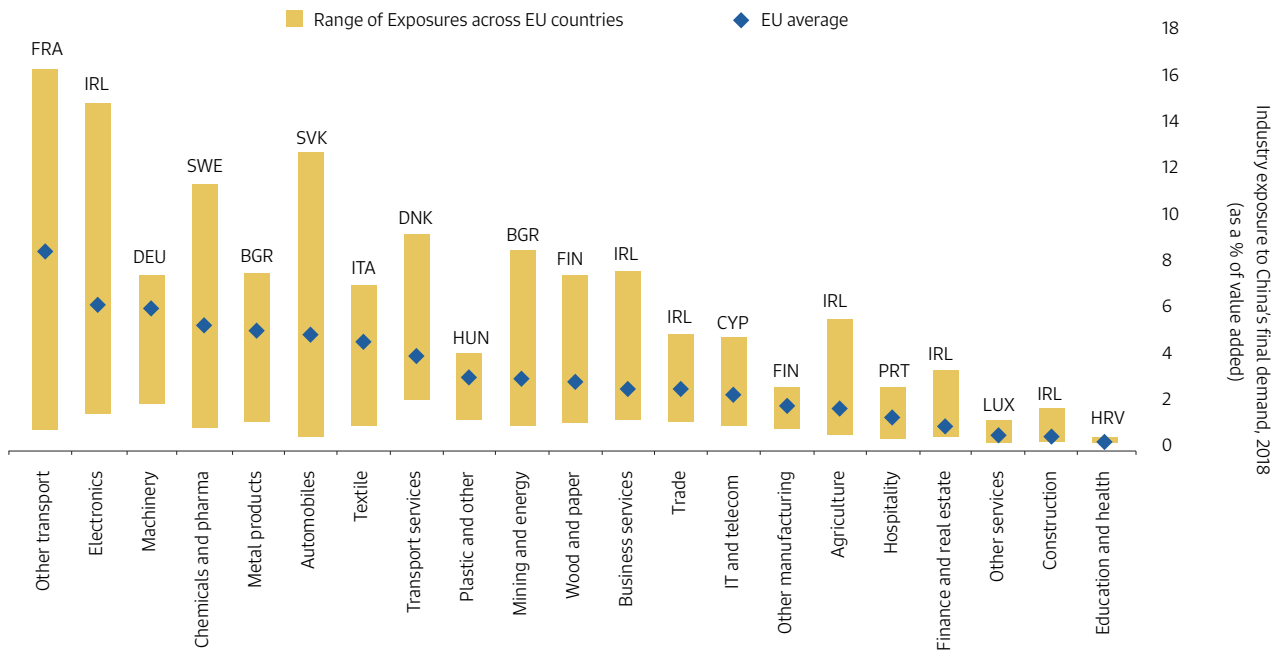
Figure 10 displays experts’ beliefs about Chinese policymakers’ responses to the newly announced Western tariffs. The response given the most weight is that China will restrict the ability of Western automakers to form partnerships within China,¹¹ followed closely by China implementing tariffs on Western goods. Figure 11 displays the manufacturing sectors within EU countries most exposed to China, which could potentially be considered for new tariffs. The least cited responses were China implementing tariffs on Western vehicles and limiting access to critical minerals essential for Western PEV production.¹² Experts who focus on China rather than the West placed substantially more weight on Chinese and European policymakers negotiating to remove the tariffs (12.3% vs. 1.3%).¹³ Experts in a strategic vs. technical role put more weight on Chinese policymakers restricting the ability of Western automakers to form JVs in China (27.7% vs. 16.3%).

Figure 10. How might Chinese policymakers respond to the Western tariffs on Chinese PEVs?¹⁴



Source: Authors.

Figure 11. EU manufacturing exposures to China.

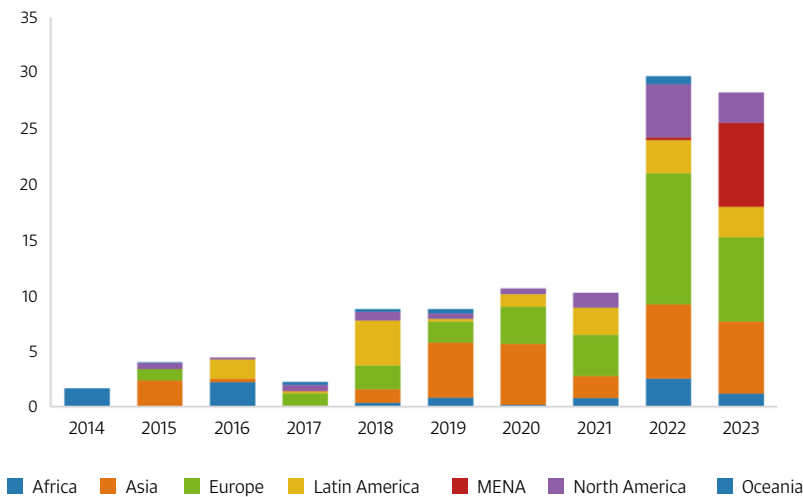


Source: Taken from DiPippo and Cousin 2024.

China has recently invested or announced investments in the PEV markets in Mexico, Brazil, Hungary, Morocco, Thailand, Indonesia, and Turkey (Figure 12) (Gergely and Lew 2023; Bloomberg News 2024b; Bloomberg News 2024c; Butler 2024; Kozok and Hacaoglu 2024; Sangwongwanich 2024; Zhang 2024). New Chinese investments in local PEV supply chains across the globe (Coppola 2024) include countries like Mexico, Vietnam, and Malaysia, through which PEVs could potentially be routed to the U.S. market (Ruehl 2024; Telling et al. 2024). New Chinese

PEV automaker investments and partnerships in Spain, Poland, Hungary, and Turkey could similarly be used as a backdoor to Europe that avoids the tariffs (Palazzo, Torsoli, and Lizarraga 2024). Leapmotor’s JV with Stellantis is also shifting some PEV production from China to Europe (Alim and Novik 2024; Coppola 2024). However, it is worth noting that China has been encouraging its PEV makers to keep advanced PEV technology on the mainland and export “knock-down” kits to send for final assembly in other countries (Lew 2024b).

Figure 12. Chinese EV-related outbound foreign direct investment by host region (\$bn).



Source: Sebastian, Goujon, and Meyer 2024.

Indeed, most respondents believe China will continue to try to circumvent the Western tariffs, likely by exporting PEV components rather than fully assembled vehicles and producing more PEVs locally with JVs with Western automakers (Figure 13). The third most cited option was indirectly routing PEVs through other

countries by producing more PEVs in countries with free trade agreements with the U.S., EU, and/or Canada. Vietnam and Mexico, for example, have strong trade ties to China and trade agreements with the U.S., EU, and Canada.¹⁵

Figure 13. How do you think Chinese automakers could try to circumvent the tariffs?



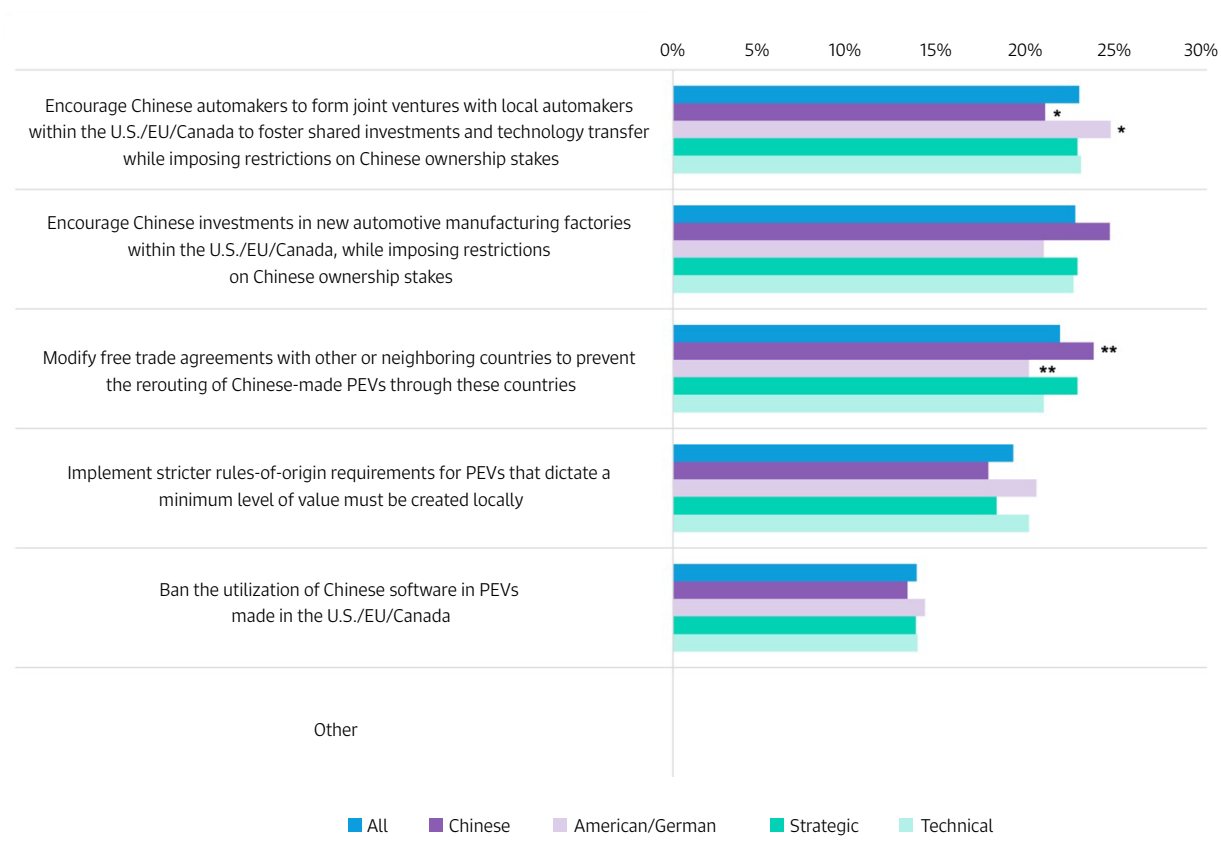
Source: Authors.

3.4 U.S. and EU Counter-Response

Figure 14 shows experts’ responses to the interview question about how Western policymakers might prevent Chinese automakers from circumventing the tariffs. The top two options given the most weight by respondents relate to encouraging Chinese investment in Western markets (the first through JVs and the second through

opening factories directly) while imposing restrictions on Chinese ownership stakes. Western experts placed more weight on the JV option than Chinese experts (24.6% vs. 20.9%). The third-most weighted option is modifying free trade agreements with other or neighboring countries to avoid Chinese-made PEVs being routed through them, with Chinese experts putting more weight on this option than Western experts (23.6% vs. 20.0%). The least cited option was banning the utilization of Chinese software in Western PEVs.¹⁶

Figure 14. How might Western policymakers prevent Chinese automakers from circumventing the PEV tariffs?¹⁷

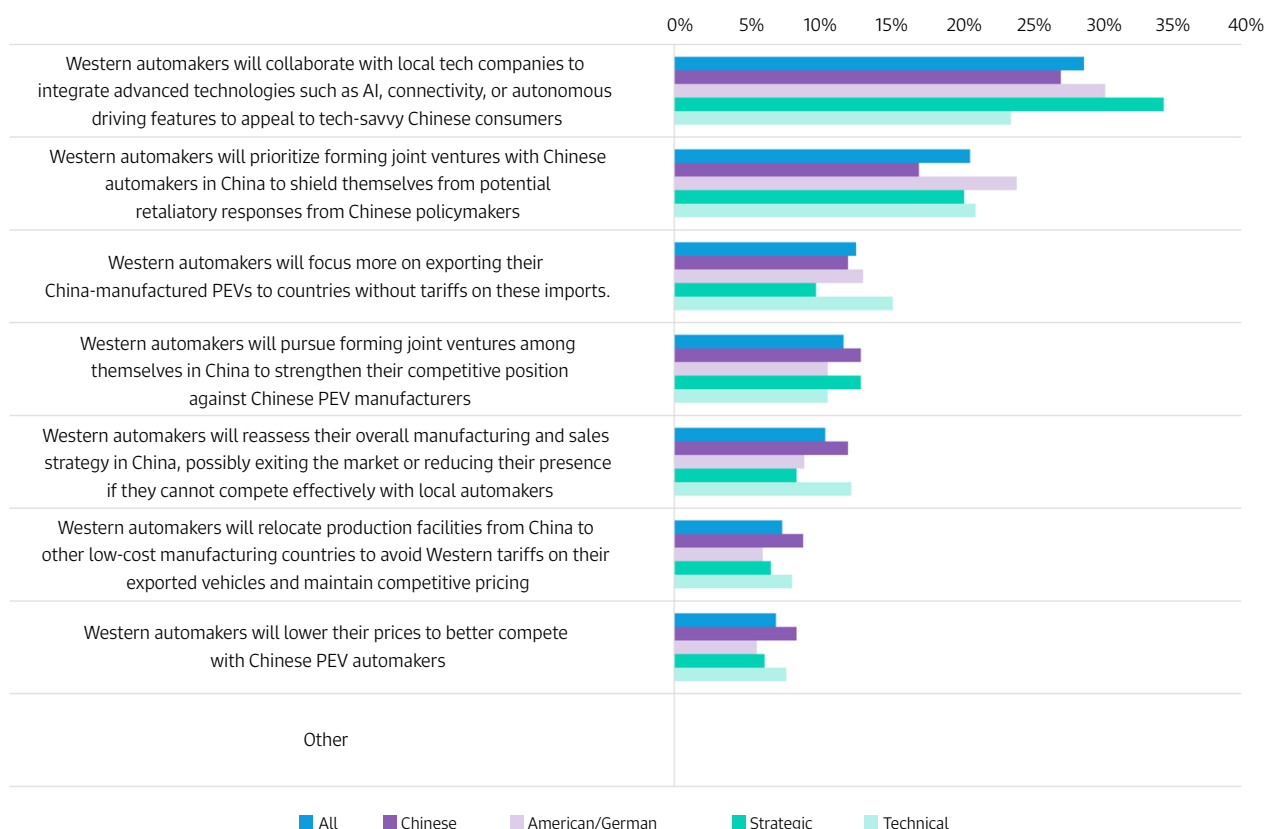


Source: Authors.

Indeed, the U.S. is currently trying to amend the U.S.-Mexico-Canada Agreement provisions to prevent China from routing PEVs to the U.S. via Mexico, but these changes would not help if the exports are actually made in Mexico (Beattie 2024; Saito 2024; Yang and Lew 2024). Canada is considering policies to block Chinese investment in new factories within Canada, rather than allowing them to proceed with ownership restrictions (Platt 2024). Despite some new industrial ties between the EU and China, there is also a trend of European companies reducing dependence on China (Langley and Ho-him 2024). Furthermore, a minimum level of value will need to be produced in the EU, according to EU rules-of-origin requirements (Lew 2024a).

As shown in Figure 15, regarding Western automakers' strategy in China, many interviewed experts emphasized collaborating with local technology companies to integrate advanced technologies to appeal to tech-savvy consumers (such as Tesla's partnership with Baidu (Tabeta 2024b)). Many also emphasized Western automakers prioritizing the formation of JVs with Chinese automakers (like Stellantis' recent JV with Leapmotor (Piovaccari 2024)) to shield themselves from Chinese retaliation against the new tariffs.

Figure 15. Which of the following do you agree with regarding Western automakers' production and sales strategy in China?



Source: Authors.

3.5 Chinese PEVs and the Rest of the World

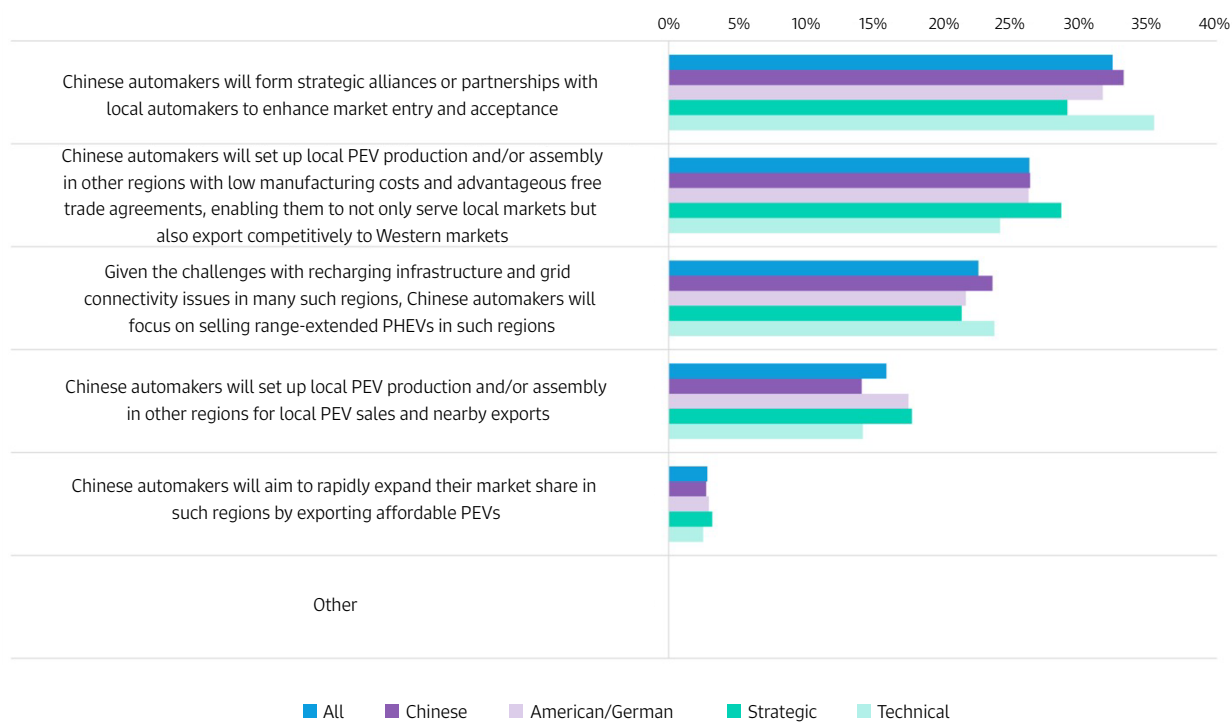
As Chinese PEV companies navigate and respond to U.S. and EU tariffs, they continue their push into other countries. China-made PEVs accounted for the majority of PEVs sold in Brazil and Thailand in 2023 and between 15% and 45% of PEVs sold in Malaysia, Indonesia, Mexico, India, and Turkey (see Figure 6). One major Chinese PEV maker, BYD, recently announced a partnership to enter Pakistan (Dilawar 2024).

Regarding Chinese automakers’ strategies in countries and regions outside of the U.S., EU, and Canada, many respondents emphasized the importance of Chinese automakers forming alliances with local automakers to enhance market entry (see Figure 16). For example, BYD recently announced a partnership with Mega Motors that

involves opening a production plant in Pakistan (Shahid and Bukhari 2024). Many experts, in turn, believe that policymakers in these other countries and regions are likely to strengthen partnerships with Western automakers to enhance domestic competitiveness against Chinese imports, rather than implement tariffs or restrict domestic subsidies and incentives to make domestic PEVs more cost-competitive (Figure 17).¹⁸ Experts in a strategic rather than technical role placed significantly more weight on other countries introducing local content requirements for PEV subsidies (15.5% vs. 4.6%).

Figure 18 displays the non-U.S./EU/Canadian countries and regions that experts believe Chinese automakers will most focus their efforts on. The most cited locations are South America, the Middle East, India, Eastern Europe, and Mexico. The least cited locations are Africa, Japan, and Russia.

Figure 16. Which of the following do you agree with regarding Chinese automakers’ strategy toward regions other than the U.S., EU, and Canada, particularly developing regions?



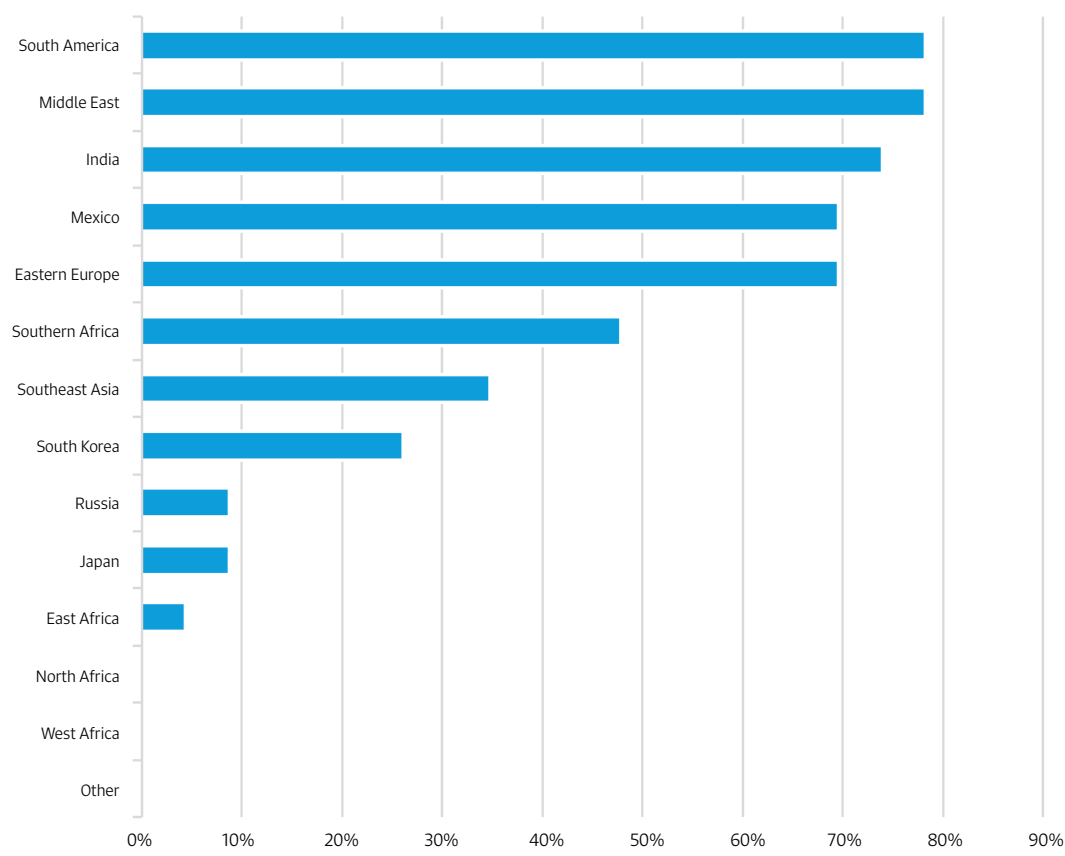
Source: Authors.

Figure 17. How might policymakers in other regions, particularly in developing economies, respond to Chinese automakers' strategies?¹⁹



Source: Authors.

Figure 18. Given the import tariffs on Chinese-made PEVs in the U.S., EU, and Canada, which other PEV markets do you expect Chinese automakers to most focus their efforts on? (Select all that apply)



Source: Authors.

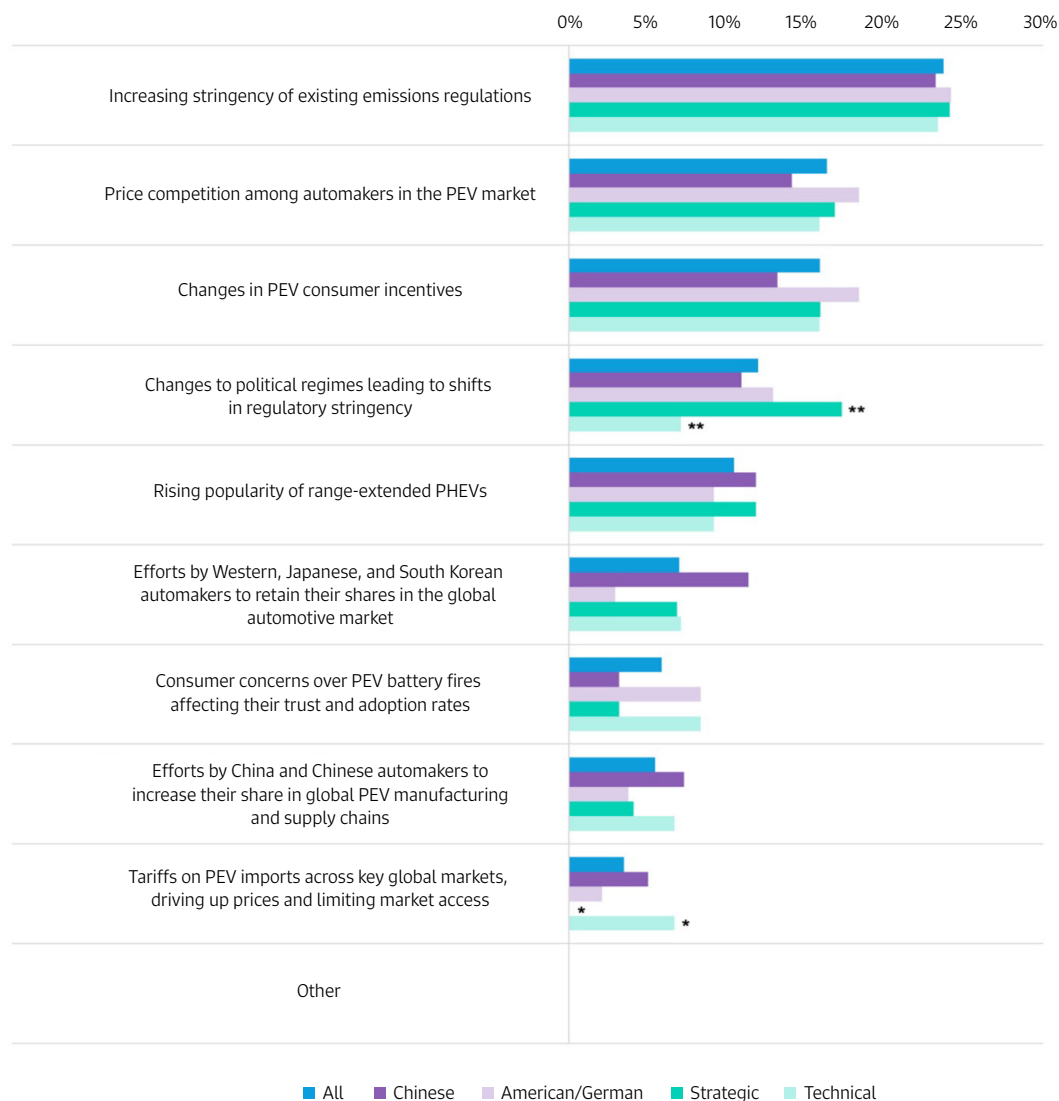
3.6 Future PEV Sales Share Growth

When asked which non-technological factors will impact global and regional PEV sales share growth in the coming three to five years, the most cited response from the interviewed experts was the increasing stringency of existing emissions regulations (Figure 19). This answer had a very small range, suggesting a high degree of agreement among the respondents with differing backgrounds. The subsequent three most cited responses were price competition among automakers, changes in PEV consumer incentives, and changes to political regimes leading to shifts in regulatory stringency (on which experts in a strategic rather than technical role placed more weight at 17.3% vs. 7.1%).

Despite the media splash surrounding the recently announced Western tariffs, the least cited response to this question was tariffs on PEV imports across key global markets, which are driving up prices and limiting market access (on which more weight was placed by experts in technical versus strategic roles, 6.7% vs. 0%).

Furthermore, the Chinese yuan weakened in the weeks following Donald Trump’s election and may weaken further if the Trump administration imposes new tariffs on China (Venkatraman 2024). The devaluation of the yuan, concurrently with new tariffs, could offset one another, leading to little to no change in dollar-denominated import prices (Brooks 2024). This could mitigate the impacts of the tariffs on the competitiveness of Chinese PEVs in Western markets.

Figure 19. What non-technological factors will impact global and regional PEV sales share growth in the coming three to five years?²⁰



Source: Authors.

04



Conclusion

Our study finds that experts believe the recent slowdown in global PEV sales share growth is primarily due to technological factors and a consumer preference for hybrids, rather than policy factors. The majority predict that growth will be volatile over the next three years.

Experts also believe the Chinese drive into Western PEV markets is motivated more by profit and market share reasons and less so by domestic factors. While they acknowledge multiple motivations behind the recently announced Western tariffs on imports of Chinese PEVs, they predict that these tariffs will only moderately negatively impact Chinese PEV sales in the West by reducing their price competitiveness. Experts anticipate that China's most likely response to the tariffs will be to impose other (non-vehicle) tariffs or restrict partnerships within China. Most experts also believe that China will attempt to circumvent the tariffs, particularly by exporting PEV components instead of fully assembled vehicles and by increasing PEV production abroad through joint ventures. They find it likely that Western policymakers will encourage Chinese investment (either through joint ventures or factory construction) with restrictions on Chinese ownership stakes, as well as modify free trade agreements with neighboring countries to prevent China from rerouting PEVs through those nations in an attempt to bypass the tariffs.

In terms of Chinese strategy beyond the U.S., Canada, and the EU, experts believe that Chinese automakers will continue to form alliances with local manufacturers to enhance market entry. They also think that the likely response from other countries will be to strengthen partnerships with Western automakers to boost domestic competitiveness against Chinese imports, rather than implementing tariffs or making other policy changes.

We find that the beliefs expressed in the survey exhibit heterogeneity based on the region of focus (China versus the West, i.e., the U.S. and Germany) and the type of expert role (strategic versus technical). Despite the trade frictions and changing PEV incentives in many regions, experts identified the increasing stringency of existing emissions regulations as the most important non-technological factor likely to impact global and regional PEV sales shares in the coming years.

In our view, the perspectives gathered in this study suggest that the global PEV market is entering a more fragmented and politically charged phase, where trade restrictions, industrial policy, and geopolitical dynamics increasingly shape both production and adoption trajectories. A critical area for further exploration is how these tariff regimes affect cross-regional technology diffusion and market integration. Another research priority is understanding how other developing economies – largely excluded from current PEV trade restrictions – may be impacted by diversifying Chinese PEV exports or shifting Western regulatory standards. More broadly, our findings highlight the need for a closer examination of the evolving intersection between trade policy, industrial strategy, and clean technology deployment in an increasingly multipolar world.



Endnotes

¹ Hybrid vehicle sales, especially economy models, rose sharply in late 2024 (Autobody News Staff 2024; EIA 2024; Parodi and Fondahn 2024; Catterall 2025).

² Specifically, the option read, “Consumer trust in PEV technology decreased, for instance, due to concerns about battery fires, which affected the sales share growth.” This option was included in the survey given recent high-profile battery fires, such as in South Korea (Yang and Park 2024).

³ To evaluate whether the responses from the two sub-samples are statistically different, we use p-values from a two-sided t-test. The significance levels are indicated as follows: *** for p-values below 0.001, ** for p-values between 0.001 and 0.05, and * for p-values between 0.05 and 0.1.

⁴ Reports suggest that even with large markups over domestic prices, Chinese EVs are price competitive in the EU (White et al. 2024; Yoon 2024a).

⁵ Though overall 2024 PEV sales growth was strong, it was slower in the first half of 2024 and could stall again in 2025 (Li, Yan, and Goh 2024; Li, Yan, and Goh 2025; Moritsugu and Soo 2025).

⁶ To evaluate whether the responses from the two sub-samples are statistically different, we use p-values from a two-sided t-test. The significance levels are indicated as follows: *** for p-values below 0.001, ** for p-values between 0.001 and 0.05, and * for p-values between 0.05 and 0.1.

⁷ Some such partnerships have already been announced, including a Ford plant in Michigan to use Chinese battery technology and BYD constructing a plant in Hungary (Bomey 2023; Eddy 2024).

⁸ To evaluate whether the responses from the two sub-samples are statistically different, we use p-values from a two-sided t-test. The significance levels are indicated as follows: *** for p-values below 0.001, ** for p-values between 0.001 and 0.05, and * for p-values between 0.05 and 0.1.

⁹ As mentioned above, Chinese EVs are expected to remain price competitive in Western markets even after the tariffs (White et al. 2024; Yoon 2024a).

¹⁰ To evaluate whether the responses from the two sub-samples are statistically different, we use p-values from a two-sided t-test. The significance levels are indicated as follows: *** for p-values below 0.001, ** for p-values between 0.001 and 0.05, and * for p-values between 0.05 and 0.1.

¹¹ While this has yet to come to pass, recent reports suggest Western automakers in China are struggling more than ever (Chang 2025; Isidore 2024). Meanwhile, GM has written down its Chinese JV and is in the process of restructuring it (Eckert 2024).

¹² Note that in 2023, China restricted exports of graphite, a key component of PEV batteries (Munroe and Lv 2023).

¹³ Indeed, the EU and China engaged in such negotiations in late 2024, including discussions on price undertakings – a mechanism aimed at regulating export prices and volumes. However, the parties were unable to reach an agreement (Strupczewski 2024).

¹⁴ To evaluate whether the responses from the two sub-samples are statistically different, we use p-values from a two-sided t-test. The significance levels are indicated as follows: *** for p-values below 0.001, ** for p-values between 0.001 and 0.05, and * for p-values between 0.05 and 0.1.

¹⁵ Mexico has free trade agreements with the U.S., EU, and Canada. Vietnam has a free trade agreement with the EU and a bilateral trade agreement with the US. Vietnam and Canada are both members of the Comprehensive and Progressive Agreement for Trans-Pacific Partnership, a free trade agreement.

¹⁶ The U.S. is indeed currently finalizing new rules that were proposed in fall 2024, restricting key Chinese software and hardware from being utilized in vehicles sold in the country (Sanger, Ngo, and Ewing 2024; Shepardson 2025)

¹⁷ To evaluate whether the responses from the two subsamples are statistically different, we use p-values from a two-sided t-test. The significance levels are indicated as follows: *** for p-values below 0.001, ** for p-values between 0.001 and 0.05, and * for p-values between 0.05 and 0.1

¹⁸ For example, Ford, LG Energy Solution, and Koç Holding formed a JV in 2023 to build EV battery cell facilities in Turkey (Ford Media Center 2023)

¹⁹ To evaluate whether the responses from the two subsamples are statistically different, we use p-values from a two-sided t-test. The significance levels are indicated as follows: *** for p-values below 0.001, ** for p-values between 0.001 and 0.05, and * for p-values between 0.05 and 0.1

²⁰ To evaluate whether the responses from the two subsamples are statistically different, we use p-values from a two-sided t-test. The significance levels are indicated as follows: *** for p-values below 0.001, ** for p-values between 0.001 and 0.05, and * for p-values between 0.05 and 0.1

References

- Alim, Arjun Neil, and Mari Novik. 2024. "Stellantis to Shift Some Chinese EV Production to Europe." *Financial Times*, June 13. <https://www.ft.com/content/cf9e7399-84cd-4a26-ab58-663f22256ea1>.
- Autobody News Staff. 2024. "Hybrid Car Sales Surge As Economy Squeezes Auto Market." *Autobody News*, October 9. <https://www.autobodynews.com/news/hybrid-car-sales-surge-as-economy-squeezes-auto-market>.
- Beattie, Alan. 2024. "Blocking China's Mexican Backdoor into Fortress America." *Financial Times*, July 15. <https://www.ft.com/content/e3523f3b-de49-4c8b-b300-fe6ff20a7ef8>.
- Bloomberg News. 2024a. "China's EV and Solar Exports Are Powering Ahead as Prices Slide." *Bloomberg News*, April 30. <https://www.bloomberg.com/news/articles/2024-04-30/china-s-ev-and-solar-exports-are-powering-ahead-as-prices-slide?embedded-checkout=true>.
- Bloomberg News. 2024b. "Chinese EV Giants Hammered by Biden Tariff Are Welcome in Brazil." *Bloomberg*, May 16. <https://www.bloomberg.com/news/articles/2024-05-16/chinese-ev-makers-byd-great-wall-join-19-billion-investment-race-in-brazil>.
- Bloomberg News. 2024c. "Tsingshan Unit Plans Indonesian Battery Plant as Trade Frictions Mount." *Bloomberg*, March 26. <https://www.bloomberg.com/news/articles/2024-03-26/tsingshan-unit-plans-indonesian-battery-plant-as-trade-frictions-mount?embedded-checkout=true>.
- Boak, Josh, Fatima Hussein, Paul Wiseman, and Didi Tang. 2024. "Biden Hikes Tariffs on Chinese EVs, Solar Cells, Steel, Aluminum — and Snipes at Trump." *Associated Press*, May 14. <https://apnews.com/article/biden-china-tariffs-electric-vehicles-evs-solar-2024ba735c47e04a50898a88425c5e2c>.
- Bomey, Nathan. 2023. "Chinese Companies Gain Momentum in U.S. Electric Vehicle Supply Chain." *Axios*, February 14. <https://www.axios.com/2023/02/14/china-ev-electric-vehicles-battery-supply-chain>.
- Bounds, Andy. 2024. "EU Capitals Set to Back Tariffs on Chinese Electric Cars, Trade Chief Says." *Financial Times*, August 5. <https://www.ft.com/content/e9b32eb9-bee6-49bb-a907-953f3324723a>.
- Brooks, Robin. 2024. "Big Changes Are Coming for Dollar and Emerging Markets." *Financial Times*, November 12. <https://www.ft.com/content/c9617ae5-8b8d-450d-a45f-6e3b539225a9>.
- Butler, Kelsey. 2024. "BYD Mexico Plant Will Create 10,000 Jobs, Executive Says." *Bloomberg*, June 21. <https://www.bloomberg.com/news/articles/2024-06-21/byd-mexico-plant-will-create-10-000-jobs-executive-says?embedded-checkout=true>.
- Catterall, Peter. 2025. "China's Electric and Hybrid Vehicle Sales Jump 40.7% in 2024." *Yahoo Finance*, January 9. <https://finance.yahoo.com/news/chinas-electric-hybrid-vehicle-sales-101020513.html>.
- Chang, Gordon G. 2025. "China Is Forcing Out Foreign Car Companies." *The Hill*, January 1. <https://thehill.com/opinion/international/5059942-honda-nissan-merger-china>.
- Chinda, Thanwadee. 2023. "Manufacturer and Consumer's Perceptions Towards Electric Vehicle Market in Thailand." *Journal of Industrial Integration and Management* 9, no. 3: 475–496. <https://doi.org/10.1142/S2424862223500100>.
- Chu, Amanda. 2024. "The Ripple Effects of the Electric Vehicle Revolution." *Financial Times*, April 25. <https://www.ft.com/content/d97e5b7e-27e4-42d7-85c2-6574c0d4c12c>.
- Coffin, David and Jeff Walling. 2024. *Chinese Vehicle Exports: Electrified*. Executive Briefings on Trade. Washington, DC: U.S. International Trade Commission. https://www.usitc.gov/publications/332/executive_briefings/ebot_china_ev_exports.pdf.
- Coppola, Gabrielle. 2024. "Automakers Deepen Ties With Chinese Rivals as Trade War Heats Up." *Bloomberg*, June 3. <https://www.bloomberg.com/news/newsletters/2024-06-03/automakers-deepen-ties-with-chinese-rivals-as-trade-war-heats-up>.
- da Silva, João. 2024. "EU Hits Chinese Electric Cars with New Tariffs." *BBC*, July 4. <https://www.bbc.com/news/articles/cy99z53qypko>.
- Dilawar, Ismail. 2024. "BYD Partners Hub Power to Sell Electric Vehicles in Pakistan." *BloombergNEF*, June 21. <https://www.bnef.com/login?r=%2Fnews%2Fsfddwrgg000>.
- DiPippo, Gerard, and Maeva Cousin. 2024. "Europe React: EU Sets China EV Duties, Response Seen Limited." *Bloomberg*, July 4. <https://blinks.bloomberg.com/news/stories/SG3LJXT1UMOW>.
- Dua, Rubal. 2024. "Net-Zero Transport Dialogue: Emerging Developments and the Puzzles They Present." *Energy for Sustainable Development* 82: 101516. <https://doi.org/10.1016/j.esd.2024.101516>.

- Dua, Rubal, and Andres Felipe Guzman. 2024. "A Perspective on Emerging Energy Policy and Economic Research Agenda for Enabling Aviation Climate Action." *Energy Research & Social Science* 117: 103725. <https://doi.org/10.1016/j.erss.2024.103725>.
- Dua, Rubal, Scott Hardman, Yagyavalk Bhatt, and Dimpy Suneja. 2021. "Enablers and Disablers to Plug-In Electric Vehicle Adoption in India: Insights from a Survey of Experts." *Energy Reports* 7: 3171–3188.
- Eckert, Nora. 2024. "GM to Take More than \$5 Billion in Charges on China Operations." *Reuters*, December 4. <https://www.reuters.com/business/autos-transportation/gm-take-more-than-5-billion-charges-china-operations-2024-12-04>.
- Eddy, Melissa. 2024. "Chinese Automakers' Answer to E.U. Tariffs: Build in Europe." *The New York Times*, September 19. <https://www.nytimes.com/2024/09/19/business/china-automakers-eu-tariffs.html>.
- Ford Media Center. 2023. "Ford, LG Energy Solution, and Koç Holding to Establish a Joint Venture to Produce Battery Cells as Ford Prepares to Bring More EVs to Customers in Europe." February 21. <https://media.ford.com/content/fordmedia/feu/en/news/2023/02/21/ford--lg-energy-solution--and-koc-holding-to-establish-a-joint-v.html>.
- Geels, Frank W., Benjamin K. Sovacool, and Marfuga Iskandarova. 2023. "The Socio-Technical Dynamics of Net-Zero Industrial Megaprojects: Outside-In and Inside-Out Analyses of the Humber Industrial Cluster." *Energy Research & Social Science* 98: 103003. <https://doi.org/10.1016/j.erss.2023.103003>.
- Gergely, Andras and Linda Lew. 2023. "BYD Car Investment Affirms Hungary as China's EU Bridgehead." *Bloomberg*, December 22. <https://www.bloomberg.com/news/articles/2023-12-22/byd-picks-hungary-for-its-first-european-ev-factory-site>.
- Giri, Puspendu, Somnath Paul, and Bijoy Krishna Debnath. 2024. "A Hybrid Graph-Theoretic Solution of Delphi and Graph Theory Matrix Approach (GTMA) to the Challenges of Sustainable Lithium-Ion Battery (LIB) Supply Chains in Electric Vehicles in India." *Journal of Energy Storage* 97: 112702. <https://doi.org/10.1016/j.est.2024.112702>.
- Grieger, Gisela. 2023. "EU Anti-Subsidy Probe into Electric Vehicle Imports from China." *European Parliamentary Research Service*, October 18. <https://epthinktank.eu/2024/07/04/eu-anti-subsidy-probe-into-electric-vehicle-imports-from-china/#:~:text=The%20probe%20alleges%20a%20recent,growing%20excess%20capacity%20in%20China>.
- Gupta, Shikhar. 2024. "Does Switching Your Gas Guzzler for an EV Make Financial Sense?" *BloombergNEF*, July 24. <https://www.bnef.com/news/se8f85t0g1kw00>.
- Isidore, Chris. 2024. "The Retreat from the World's Largest Auto Market Has Begun." *CNN*, December 17. <https://www.cnn.com/2024/12/17/cars/automakers-china-losses/index.html>.
- Kennedy, Scott. 2024. "China's EV Makers Got \$231 Billion Aid over 15 Years, Study Says." *BloombergNEF*, June 21. <https://www.bnef.com/login?r=%2Fnews%2Fsfdevqt1um0w00>.
- Kim, Heejin. 2024. "Battery Maker LG Energy's Profit Sinks on Global EV Slowdown." *BloombergNEF*, July 8. <https://www.bnef.com/login?r=%2Fnews%2Fsfzcrvt1um0w00>.
- Kowalcze, Kamil and Alberto Nardelli. 2024. "China Floats Perks for German Carmakers to Prevent EV Levies." *BloombergNEF*, June 24. <https://www.bnef.com/news/sfkpe8t0g1kw00>.
- Kozok, Firat and Selcan Hacaoglu. 2024. "China's BYD Is Poised to Build \$1 Billion EV Plant in Turkey." *BloombergNEF*, July 5. <https://www.bnef.com/news/sg59hwdwx2ps00>.
- Krisher, Tom. 2024. "New Vehicle Sales in the U.S. Rose Nearly 5% in 2024 as Buyers Defied High Interest Rates, but EV Sales Growth Slowed." *Fortune*, April 3. <https://fortune.com/2024/04/03/new-vehicle-sales-us-rose-ev-sales-growth-slowed>.
- Langley, William and Chan Ho-him. 2024. "European Companies Step Up Efforts to Decouple from China." *Financial Times*, June 9. <https://www.ft.com/content/fb448978-e4ff-4f3e-b650-13fda73f58a9>.
- Leahy, Joe, Wenjie Ding, Andy Bounds, and Alice Hancock. 2024. "China Launches Anti-Dumping Probe into EU Pork Imports." *Financial Times*, June 17. <https://www.ft.com/content/97cc2b4a-e953-453e-8407-82bd082087c6>.
- Lee, Danny. 2024. "BYD's Foes Strike Back with Combustion Car Discounts: Hyperdrive." *BloombergNEF*, July 15. <https://www.bnef.com/login?r=%2Fnews%2Fsgnxbldwrgg000>.
- Lew, Linda. 2024a. "China's Great Wall Motor Shuts European HQ and Cuts Jobs." *BloombergNEF*, June 4. <https://www.bnef.com/login?r=%2Fnews%2Fsei2w4t0afb400>.
- Lew, Linda. 2024b. "China Asks Its Carmakers to Keep Key EV Technology at Home." *Bloomberg*, September 9. <https://www.bloomberg.com/news/articles/2024-09-12/china-asks-its-carmakers-to-keep-key-ev-technology-at-home?embedded-checkout=true>.

- Li, Qiaoyi, Zhang Yan, and Brenda Goh. 2024. "China's First-Quarter EV Sales Growth Slowest in a Year." *Reuters*, April 9. <https://www.reuters.com/business/autos-transportation/chinas-car-sales-rise-57-yy-march-2024-04-09>.
- Li, Qiaoyi, Zhang Yan, and Brenda Goh. 2025. "China's EV Exports Seen Stalling in 2025." *Reuters*, January 9. <https://www.reuters.com/business/autos-transportation/chinas-car-sales-extend-gains-dec-2025-01-09>.
- Lowe, Sam. 2024. "Brussels Is Gambling That Tariffs on Chinese EVs Are a Prod, Not a Punch." *Financial Times*, June 12. <https://www.ft.com/content/5df0e9d1-110b-439a-a91e-a898b0f1b077>.
- Lyon, Peter. 2024. "EV Sales Slow as Buyers Want 20-Minute Charging and 350-Mile Range." *Forbes*, March 24. <https://www.forbes.com/sites/peterlyon/2024/03/24/why-arent-evs-selling-as-experts-predicted/?sh=2ef9d1bb2d23>.
- McKerracher, Colin. 2024. "China's Super-Cheap Batteries Power a Major Shift: Hyperdrive." *BloombergNEF*, July 9. <https://www.bnef.com/login?r=%2Fnews%2Fsgcp49dwx2ps00>.
- McKerracher, Colin. 2025. "Clean Transport: 10 Things to Watch in 2025." *BloombergNEF*, January 13. <https://www.bnef.com/insights/35651>.
- Moreno, Edward, and Karl Russell. 2024. "E.V. Sales Are Slowing. Tesla's Are Slumping." *The New York Times*, April 15. <https://www.nytimes.com/2024/04/15/business/ev-car-sales-tesla.html>.
- Moritsugu, Ken, and Zen Soo. 2025. "China's Electric Car Sales Grew in 2024 as Sales of Gasoline Cars Plunged." *Associated Press*, January 13. <https://apnews.com/article/china-autos-evs-exports-3f5860634a1d146446dd0dd9e78c2abb>.
- Muir, Martha. 2024. "Car Dealers Beef Up Incentives as U.S. Inflation Takes a Bite Out of Demand." *Financial Times*, July 22. <https://www.ft.com/content/2fbfb7bc-e6c3-4f66-a22c-0c566767969e>.
- Mukherjee, Promit, and Akash Sriram. 2024. "Canada to Impose 100% Tariff on Chinese EVs, Including Teslas." *Reuters*, August 27. <https://www.reuters.com/business/autos-transportation/trudeau-says-canada-impose-100-tariff-chinese-evs-2024-08-26>.
- Munroe, Tony, and Amy Lv. 2023. "China Curbs Graphite Exports in Latest Critical Minerals Squeeze." *Reuters*, October 20. <https://www.reuters.com/markets/commodities/china-curbs-graphite-exports-latest-critical-minerals-squeeze-2023-10-20>.
- Nicola, Stefan. 2024. "Europe's EV Slump Seen Ending Next Year on New Rules, Cheap Cars." *BloombergNEF*, June 20. <https://www.bnef.com/news/sfbglzdwrgg000>.
- Palazzo, Anthony, Albertina Torsoli, and Clara Hernanz Lizarraga. 2024. "China's Made-in-Europe EVs Pose New Threat to EU's Carmakers." *BloombergNEF*, July 26. <https://www.bnef.com/login?r=%2Fnews%2Fsh7pt1dwx2ps00>.
- Palazzo, Anthony. 2024. "Chinese EVs Nab Record 11% Share in Europe Ahead of Tariffs." *BloombergNEF*, July 30. <https://www.bnef.com/login?r=%2Fnews%2Fsh8f90t0afb400>.
- Palladino, Camilla. 2024. "Carmakers Face a Painful Hit from This Consumer Crash." *Financial Times*, July 25. <https://www.ft.com/content/2fbfb7bc-e6c3-4f66-a22c-0c566767969e>.
- Parodi, Alessandro. 2025. "Global Electric Vehicle Sales Up 25% in Record 2024." *Reuters*, January 13. <https://www.reuters.com/business/autos-transportation/global-electric-vehicle-sales-up-25-record-2024-2025-01-14/>.
- Parodi, Alessandro, and Greta Rosen Fondahn. 2024. "Hybrids Top Petrol Power for First Time in EU New Car Sales, ACEA Says." *Reuters*, October 22. <https://www.reuters.com/business/autos-transportation/hybrid-overtakes-petrol-slowing-eu-new-car-market-sept-acea-says-2024-10-22/>.
- Piovaccari, Giulio. 2024. "China's Leapmotor Started EV Production at Stellantis' Polish Plant, Jefferies Says." *Reuters*, June 17. <https://www.reuters.com/business/autos-transportation/chinas-leapmotor-started-ev-production-stellantis-polish-plant-jefferies-says-2024-06-17/>.
- Platt, Brian. 2024. "Canada to Consider Blocking Factories in Pushback on Chinese EVs." *BloombergNEF*, July 2. <https://www.bnef.com/login?r=%2Fnews%2FsgOng2t0g1kw00>.
- Randall, Tom. 2024. "The Slowdown in U.S. Electric Vehicle Sales Looks More Like a Blip." *Bloomberg*, May 28. <https://financialpost.com/pmn/business-pmn/the-slowdown-in-us-electric-vehicle-sales-looks-more-like-a-blip>.
- Renshaw, Jarrett, Chris Kirkham, and Nora Eckert. 2024. "Exclusive: Trump's Transition Team Aims to Kill Biden EV Tax Credit." *Reuters*, November 15. <https://www.reuters.com/business/autos-transportation/trumps-transition-team-aims-kill-biden-ev-tax-credit-2024-11-14>.
- Rho Motion. 2025. "China Extends Its Vehicle Trade-in Policy Scheme in a Boost to 2025 EV Sales." *Rho Motion*, January 13. <https://rhomotion.com/news/china-extends-its-vehicle-trade-in-policy-scheme-in-a-boost-to-2025-ev-sales-industry-update/>.
- Ruehl, Mercedes. 2024. "Chinese Companies Seek Assurances from Malaysia on Avoiding U.S. Tariffs." *Financial Times*, June 25. <https://www.ft.com/content/427af82a-8291-4ada-a598-7f7de66ec2cb>.

- Saito, Yasufumi. 2024. "China EV Makers Have Room to Absorb EU Tariffs, Find New Markets." *BloombergNEF*, June 13. <https://www.bnef.com/login?r=%2Fnews%2Fsezw1et0g1kw00>.
- Sanger, David E., Madeleine Ngo, and Jack Ewing. 2024. "Biden Administration Proposes Ban on Chinese Software in Vehicles." *The New York Times*, September 23. <https://www.nytimes.com/2024/09/23/us/politics/chinese-software-ban-cars-biden.html>.
- Sangwongwanich, Pathom. 2024. "More China EV Makers Eye Thailand as Production Base, Group Says." *Bloomberg*, June 25. <https://financialpost.com/pmn/business-pmn/more-china-ev-makers-eye-thailand-as-production-base-group-says>.
- Sbrocchi, Alexandra, Léa Ravensbergen, Mark Ferguson, Sadia Tasnim, and Moataz Mohamed. 2025. "The Neglected Electric Vehicle Adoption Context: Expert Perspectives Concerning Barriers to Uptake in Rural Communities." *Journal of Transport Geography* 126: 104220. <https://doi.org/10.1016/j.jtrangeo.2025.104220>.
- Sebastian, Gregor, Reva Goujon and Armand Meyer. 2024. "Pole Position: Chinese EV Investments Boom amid Growing Political Backlash." *Rhodium Group*, February 29. <https://rhg.com/research/pole-position-chinese-ev-investments-boom-amid-growing-political-backlash/>.
- Shahid, Ariba and Mubasher Bukhari. 2024. "China's BYD Plans Car Plant in Karachi as Part of Pakistan Entry." *Reuters*, August 17. <https://www.reuters.com/business/autos-transportation/chinas-byd-plans-car-plant-karachi-part-pakistan-entry-2024-08-17>.
- Sharma, Ishant, Prateek Bansal, and Rubal Dua. 2025. "Breaking Down Barriers: Emerging Issues on the Pathway to Full-Scale Electrification of the Light-Duty Vehicle Sector." *Energy* 326: 136230. <https://doi.org/10.1016/j.energy.2025.136230>.
- Shepardson, David. 2025. "Biden Administration Finalizes U.S. Crackdown on Chinese Vehicles." *Reuters*, January 14. <https://www.reuters.com/business/autos-transportation/biden-administration-finalizes-us-crackdown-chinese-vehicles-2025-01-14/>.
- Sovacool, Benjamin K., Marfuga Iskandarova, and Jeremy Hall. 2023. "Industrializing Theories: A Thematic Analysis of Conceptual Frameworks and Typologies for Industrial Sociotechnical Change in a Low-Carbon Future." *Energy Research & Social Science* 97: 102954. <https://doi.org/10.1016/j.erss.2023.102954>.
- Sovacool, Benjamin K., Frank W. Geels, Allan Dahl Andersen, Michael Grubb, Andrew J. Jordan, Florian Kern, Paula Kivimaa, Matthew Lockwood, Jochen Markard, James Meadowcroft, Jonas Meckling, Brendan Moore, Rob Raven, Karoline S. Rogge, Daniel Rosenbloom, Tobias S. Schmidt, Johan Schot, Darren Sharp, Janet Stephenson, Irja Vormedal, and Kejia Yang. 2025. "The Acceleration of Low-Carbon Transitions: Insights, Concepts, Challenges, and New Directions for Research." *Energy Research & Social Science* 121: 103948. <https://doi.org/10.1016/j.erss.2025.103948>.
- Sovacool, Benjamin K., Paul Upham, and Chukwuka G. Monyei. 2022. "The 'Whole Systems' Energy Sustainability of Digitalization: Humanizing the Community Risks and Benefits of Nordic Datacenter Development." *Energy Research & Social Science* 88: 102493. <https://doi.org/10.1016/j.erss.2022.102493>.
- Strupczewski, Jan. 2024. "EU Not Close to Deal with China on EV Tariffs, Officials Say." *Reuters*, November 25. <https://www.reuters.com/business/autos-transportation/eu-not-close-deal-with-china-ev-tariffs-officials-say-2024-11-25>.
- Tabeta, Shunsuke. 2024a. "China Moves NEV Target Forward to 45% of Auto Sales by 2027." *Nikkei Asia*, January 13. <https://asia.nikkei.com/spotlight/electric-cars-in-china/china-moves-nev-target-forward-to-45-of-auto-sales-by-2027>.
- Tabeta, Shunsuke. 2024b. "Baidu Builds Up Ties with Apple and Tesla in Diversification Drive." *Nikkei Asia*, May 21. <https://asia.nikkei.com/business/china-tech/baidu-builds-up-ties-with-apple-and-tesla-in-diversification-drive>.
- Telling, Oliver, William Langley, Andy Lin, and Chan Ho-him. 2024. "Chinese Businesses Target Vietnam and Mexico as Trade Tensions with U.S. Rise." *Financial Times*, June 3. <https://www.ft.com/content/ede919f5-0d3e-43e5-8ef9-407a17551bb9>.
- Torsoli, Albertina. 2024. "Citroen Unveils Second EV, Sees China Tariffs Protecting Lineup." *BloombergNEF*, June 19. <https://www.bnef.com/login?r=%2Fnews%2Fsfbd18t0afb400>.
- Trudell, Craig. 2024. "EV Slowdown Steers the World Further Off Course from Net Zero." *BloombergNEF*, June 12. <https://www.bnef.com/login?r=%2Fnews%2Fseygsit0g1kw00>.
- U.S. Energy Information Administration (EIA). 2024. "U.S. Share of Electric and Hybrid Vehicle Sales Increased in the Second Quarter of 2024." *Today in Energy*, In-Brief Analysis, August 26. <https://www.eia.gov/todayinenergy/detail.php?id=62924>.
- Upham, Paul, Neil Simcock, Benjamin Sovacool, Gerardo A. Torres Contreras, Jenkins Kirsten, and Mari Martiskainen. 2023. "Public Support for Decarbonisation Policies: Between Self-Interest and Social Need for Alleviating Energy and Transport Poverty in the United Kingdom." *Energy and Climate Change* 4: 100099. <https://doi.org/10.1016/j.egycc.2023.100099>.

- Uratani, Joao M., Darrick Evensen, Benjamin K. Sovacool, and Steve Griffiths. 2025. "Benchmarking and Tailoring Electric Vehicle Policies to Stimulate Adoption." *Energy Research & Social Science* 125: 104074. <https://doi.org/10.1016/j.erss.2025.104074>.
- Venkatraman, Janane. 2024. "Global Investment Banks Rush to Trim Yuan Forecasts under Looming Trump Tariff Threats." *Reuters*, November 17. <https://www.reuters.com/markets/currencies/global-investment-banks-rush-trim-yuan-forecasts-under-looming-trump-tariff-2024-11-12/>.
- White, Edward, Thomas Hale, Gloria Li, and Andy Bounds. 2024. "What the EU's Tariffs on Electric Vehicles Mean for China." *Financial Times*, June 13. <https://www.ft.com/content/d9a32016-a03b-452f-9d20-4d85a612c4c7>.
- Williams, Aime. 2024. "Why Americans Are Not Buying More EVs." *Financial Times*, June 19. <https://www.ft.com/content/072d7dc3-c290-47d5-b8f1-7ec5ba2c2629>.
- Winton, Neil. 2024. "Is European EV Sales Growth Slowing or Accelerating?" *Forbes*, May 31. <https://www.forbes.com/sites/neilwinton/2024/05/31/is-european-ev-sales-growth-slowing-or-accelerating>.
- Yang, Charlotte and Linda Lew. 2024. "A Trader's Guide to China EV Stocks as EU Tariff Deadline Looms." *BloombergNEF*, June 6. <https://www.bnef.com/login?r=%2Fnews%2Fsej6gwt0g1kw00>.
- Yang, Heekyong and Ju-min Park. 2024. "South Korean Alarm over EV Fires Puts Spotlight on Safety Concerns." *Reuters*, August 14. <https://www.reuters.com/business/autos-transportation/south-korean-alarm-over-ev-fires-puts-spotlight-safety-concerns-2024-08-15/>.
- Yoon, June. 2024a. "Tariffs Will Do Little to Slow BYD's Advance in Europe." *Financial Times*, June 13. <https://www.ft.com/content/def42bce-2acd-4ed4-b6e8-817a529a570f>.
- Yoon, June. 2024b. "How Chinese EV Makers Will Respond to Steep US Tariffs." *Financial Times*, May 28. <https://www.ft.com/content/1f8ff066-875c-45a4-afa6-ff29e19ade64>.
- Zhang, Chunying. 2024. "China Is Building Europe Battery Supply in Morocco, VW Unit Says." *Bloomberg*, June 19. <https://www.bloomberg.com/news/articles/2024-06-19/china-is-building-europe-battery-supply-in-morocco-vw-unit-says>.

About the Team



Tamara Sheldon

Tamara Sheldon is an Associate Professor of Economics in the Darla Moore School of Business at the University of South Carolina. Her research interests include environmental and energy economics and how these fields interact with public policy. She holds a Ph.D. in Economics from the University of California, San Diego.



Rubal Dua

Rubal Dua, a Research Fellow at KAPSARC, is actively engaged in exploring emerging challenges and priorities in sectors that critically influence transportation and infrastructure, viewed through the lens of energy economics, policy, and sustainability. He holds a Ph.D. from KAUST, Saudi Arabia, an M.Sc. from the University of Pennsylvania, USA, and a B.Tech. from the Indian Institute of Technology (IIT), Roorkee.

About the Project

The project seeks to explore current challenges, opportunities, and priorities in the transport sector. It focuses on identifying emerging trends and translating them into research questions and insights that can inform policy.

