BRIEFING - October 2024

EU’s Trade Defence

Where’s next for EU’s EV and battery trade policy

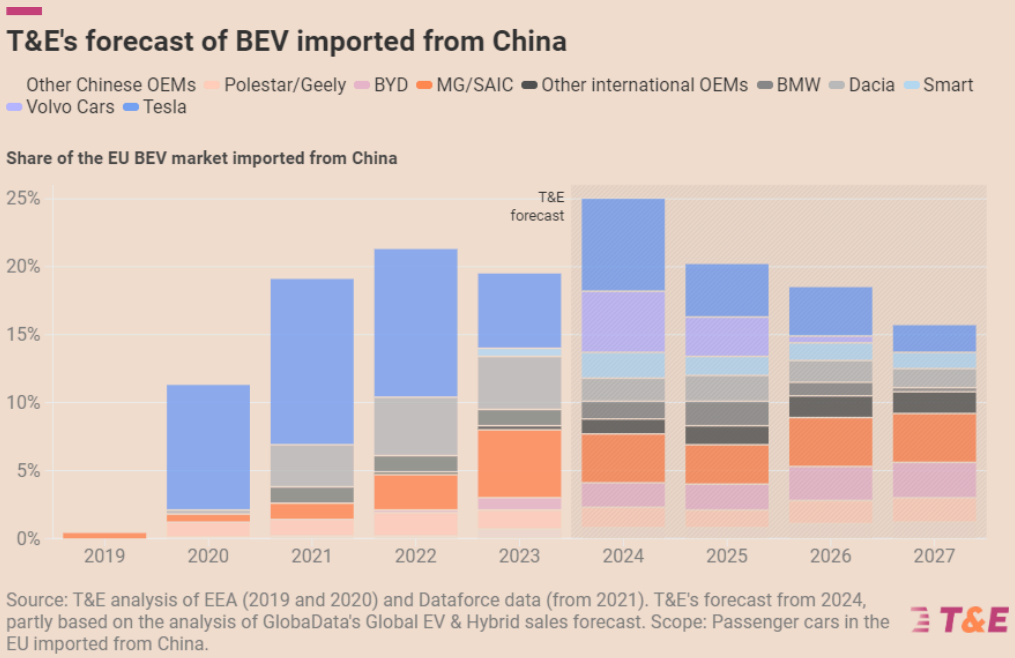
Summary

Following the anti-subsidy investigation, the European Commission has proposed additional import duties on China-made battery electric vehicles (BEV), ranging from 7,8% for Tesla to 35,3% for SAIC's MG. With 1 in 5 electric cars sold in Europe last year imported from China, the aim is to level the playing field as European carmakers ramp up their EV offering. The preliminary tariffs have been in force for 2 months, and are set to be confirmed by member states by the end of October. What's their impact? And what's next for Europe's EV trade policy?

The initial results for the EU market are mixed:

- MG has seen the largest drop in BEV sales in the last few months, with its market share falling from 4.1% of the EU BEV market in August 2023 to 2.4% in August 2024. This is a 41% decrease in market share.
- BEV imports by BYD continue to grow. Compared to 1.6% of the EU BEV market in August 2023, it reached 2.9% market share in August 2024, a 81% growth in market share.
- The impact on Geely is somewhere in between. From 1.3% in August 2023, Geely still increased its market share by 58% to 2% in August 2024.

Given these initial trends and the expected sales by GlobalData, T&E has updated its China-made BEV imports forecast to 2027.



We predict the China-made imports to peak this year, and then to slowly reduce to 20% in 2025 and around 18% of BEV sales by 2026. While imports of many Chinese brands will grow slower, some of it will be replaced by local production (notably for BYD).

While tariffs are slowing some growth in imports, they are not stopping the ascent of Chinese EV makers, who have high quality and more affordable offerings. The problem is that European mass automakers have been slow to counter that: affordable BEVs are only coming now to coincide with the 2025 car CO_2 target.

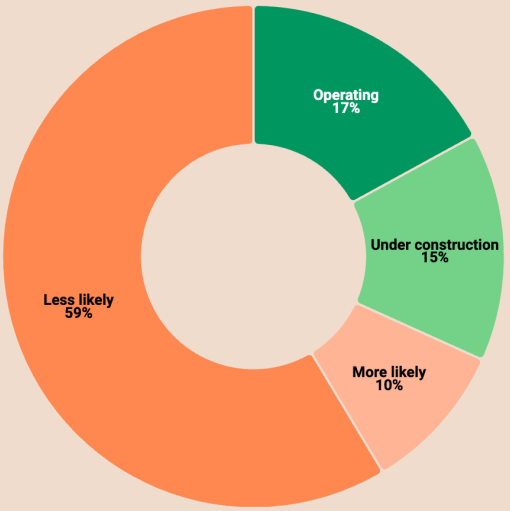
In tandem with the 2025-2035 car CO_2 targets, higher EV tariffs make sense as an important part of a coherent industrial policy as more European EV models hit the market. However, if as EU carmakers demand, EU CO_2 targets are weakened, tariffs would deprive customers of choice whilst domestic manufacturers continue to sell ICE vehicles. T&E estimates that the China-made EVs will account for 27% (or close to a third) of all BEVs available to European drivers in the scenario where the 2025 target is delayed and the current EU EV sales continue stagnating as a result.

But the EU should not stop at EVs. Many homegrown battery makers have experienced delays and setbacks in the last few months, driven by global market dynamics of cheap high quality Chinese batteries. Having poured dozens of billions into homegrown battery makers, it makes no sense to have the lowest battery tariff globally, at just above 1%.

If action is not taken, T&E estimates that just 10% of the currently announced battery gigafactory plans (apart from those operating already) are likely to go ahead. An overwhelming 60% is under risk and would likely be scrapped leading to a loss of billions of investment and close to 100k potential jobs.

European gigafactories: project status overview

Capacity 2030: 1.6 TWh (September 2024 assessment)



Source: T&E analysis of publicly announced battery cell projects by 2030 • Percentages may not add up to 100% due to rounding

T&E recommends:

- Confirming the additional EV import duties alongside the 2025 Car CO_2 target.
- Launching an investigation into battery cells to enable trade defence measures.
- Launching the EU Battery Fund and agreeing battery carbon footprint provisions without delay to reward clean local manufacturing.

1. Electric vehicle imports pre and post EV tariffs

1.1 BEV imports until now

Driven by the EU Car CO_2 targets, which resulted in better and more affordable models, the electric car market (EV) has continuously grown across the EU since 2020. As was expected, the BEV growth has slowed somewhat post 2021 as stricter CO2 standards are only coming in 2025, providing less of an incentive in the years in between for carmakers to increase EV sales. Nonetheless, the battery electric car (BEV) sales nonetheless grew by 28% in 2022, 37% in 2023, and are expected to finish 2024 with a single digit growth.

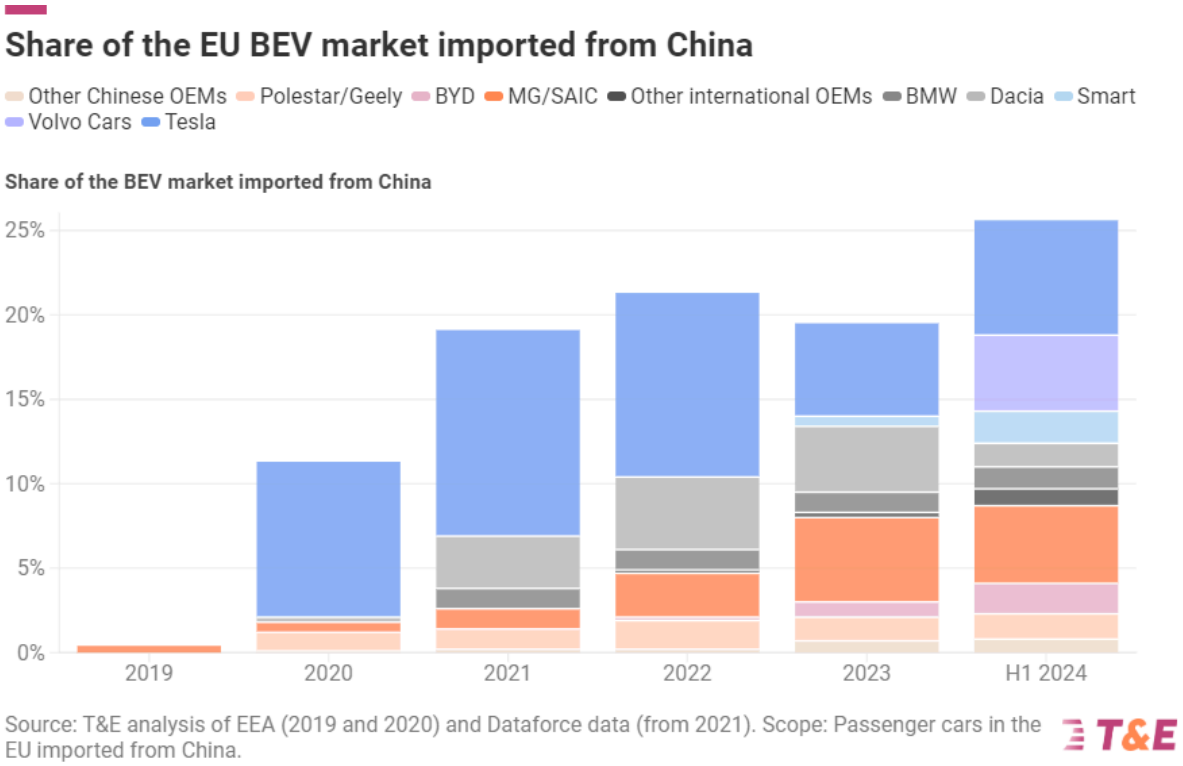
The share of China-made EVs imported into the EU - by both western and Chinese brands - has grown since the early 2020s. In 2023, 19.5% of all EV sales in the EU - or 290,000 units - were imported into the EU market. As previously shown by T&E[1], Tesla accounted for 28% of all China made EVs imported into Europe in 2023, while Dacia's Spring added an additional 20%.

However, the biggest growth in percentage terms has been seen from Chinese brands (Saic's MG, BYD, Geely, etc), which grew from 0.4% of the EU BEV market in 2019 to 7.9% over the full 2023, or by a factor of 20. Until recently MG was the leading Chinese carmaker in the EU with 25% of BEVs imported from China (notably MG 4, ZS, 5 and Marvel R models). Polestar is the second largest Chinese OEM with its Polestar 2 model accounting for 7% of Chinese imports. The third largest Chinese carmaker in the EU is BYD (4% of Chinese imports), which sold 12,700 units in 2023, close to 5 times more than a year earlier.

Based on the latest sales data for the first half of 2024, the Chinese BEV imports into the EU have continued to grow. Overall, 190,000 China made BEVs were sold on the EU market in the first 6 months of the year, 65% more than in the same period last year. Among those:

- 26% (51,000 units) by Tesla
- 18% (35,000 units) by the MG-SAIC group
- 17% (33,000 units) by Volvo Cars, that started selling its new XE30 model this year
- 7% (14,000 units) by Smart
- 7% (14,000) by BYD (mostly with the Atto 3, Seal and Dolphin models)
- 6% (11,000 units) by Geely-Polestar
- 6% (11,000 units) by Dacia

[1] T&E, https://www.transportenvironment.org/articles/how-europe-can-use-tariffs-as-part-of-an-industrial-strategy



Source: T&E analysis of EEA (2019 and 2020) and Dataforce data (from 2021). Scope: Passenger cars in the EU imported from China.

Concerned by the fast ascent of Chinese brands into the EU market, as well as the high levels of subsidisation allegedly enjoyed by Chinese manufacturers domestically, the European Commission carried out an ex-officio anti-subsidy investigation into Chinese EV imports earlier in 2024. This resulted in the preliminary countervailing duties (on top of the 10% current import tariff) imposed from 4 July 2024, and the draft definitive duties announced in August 2024, as summarised in the table below.

Manufacturer	Preliminary duty[2]	Definitive duty (proposed)
BYD	17,4%	17,0%
Geely	19,9%	18,8%
SAIC (MG)	37,6%	35,3%
Tesla	20,8% (as below)	7,8%
Other cooperating companies (including EU OEMs)	20,8%	21,3%
Non-cooperating companies	37,6%	35,3%

1.2 Preliminary impact of EV tariffs

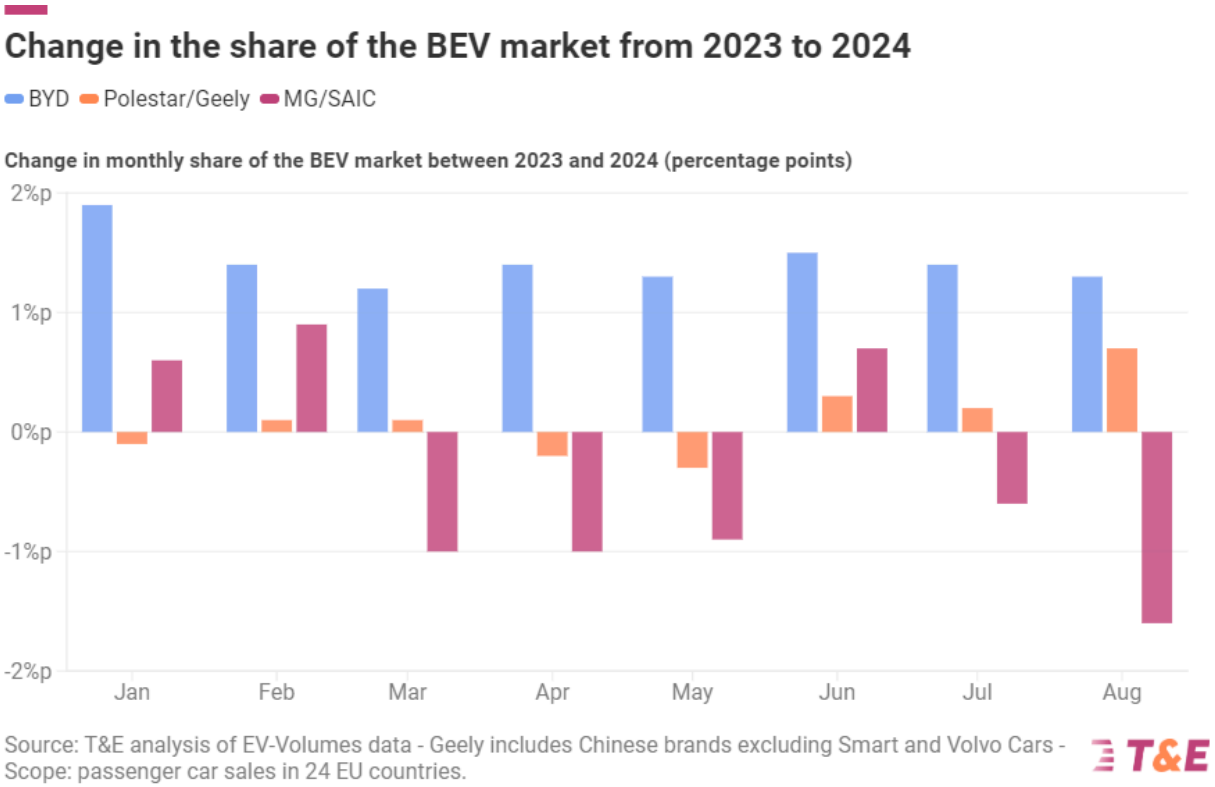
The preliminary tariffs, following the investigation, entered force on 1 July 2024. These have now been applied for 2 months[3] on all BEV imports from China. T&E has analysed the monthly sales (January -

[2] European Commission
[3] By the time of the September 2024 publication

August 2024) data by EV-Volumes for 24 European markets to understand what is happening in the market.

The initial results show that:

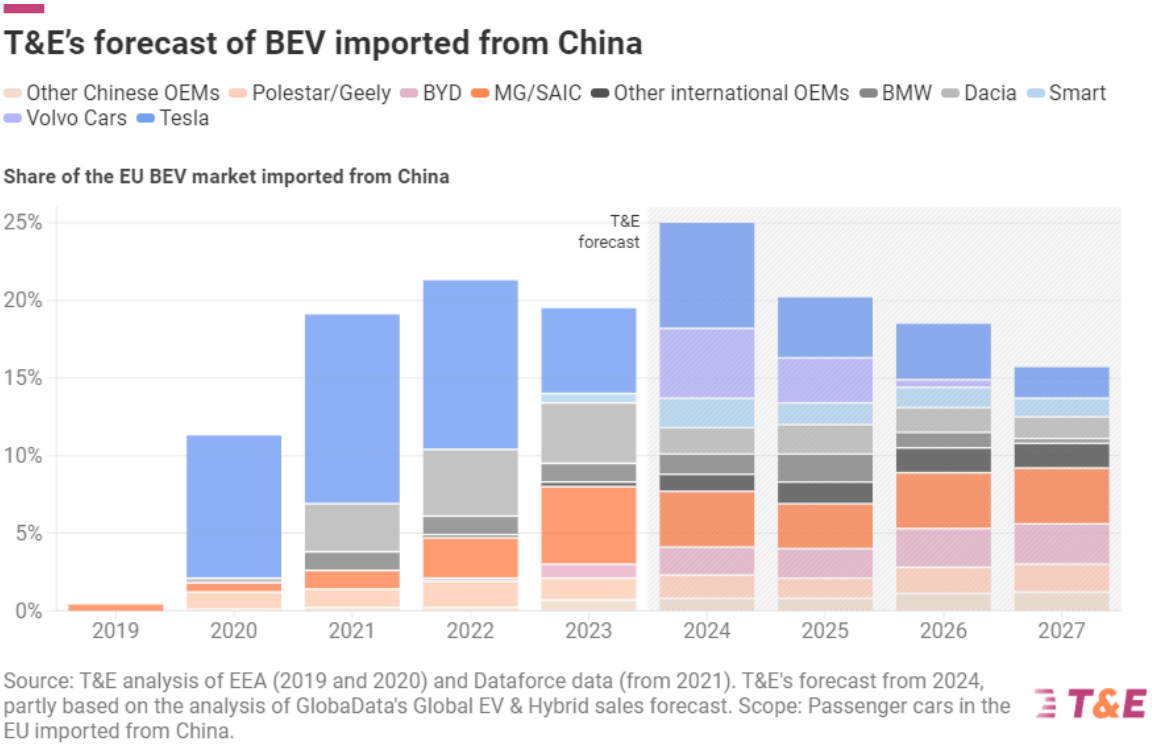
- MG is experiencing the largest drop in sales. While it appears to coincide with the highest individual tariff applied to the carmaker, the drop in market share has in fact been happening since March 2024 (and can also be explained by MG prioritising the UK market where the ZEV mandate kicks in this year). MG share of the EU BEV market decreased by 12% from 5% in July 2023 to 4.4% in July 2024 (-0.6% percentage points decrease (%p) in the figure below). In August, the MG market share declined further by 41% compared to last year to a market share of 2.4% (-1.6%p). This is a 67% decrease year-over-year in terms of sales volumes.
- BYD BEV imports continue to grow with a market share increase of 94% in July 2024 compared to last year and a 81% increase in August (+1.4%p in July and +1.3%p in August). BYD is now the Chinese brand with the largest market share: 2.9% of the BEV market in August 2024. In terms of volumes, BYD sales grew by 1% year-over-year in August.
- The impact on Geely appears to be somewhere in between. Compared to last year, Geely increased its market share by 11% in July and 58% in August 2024 (+0.2%p in July and +0.7%p in August), reaching 2.0% of the BEV market. This increase in market share coincides with a 12% decrease in sales volume year-over-year in August 2024, given the overall decrease of the EU BEV market.



Source: T&E analysis of EV-Volumes data - Geely includes Chinese brands excluding Smart and Volvo Cars - Scope: passenger car sales in 24 EU countries.

The preliminary post-tariff dynamics point to a mixed picture. While the BEV imports have slowed for some Chinese OEMs, notably Saic's MG, they continue to grow for some key players such as BYD. Overall, T&E expects the China-made BEV imports to slightly slow down in the coming years due to the effect of the tariffs as well as the localisation strategy of BYD, Geely, Chery and others.

Based on the recent dynamics, as well as the GlobalData's Global EV & Hybrid Forecast, T&E has updated its BEV import forecast for the EU by both Western and Chinese brands for the coming years.



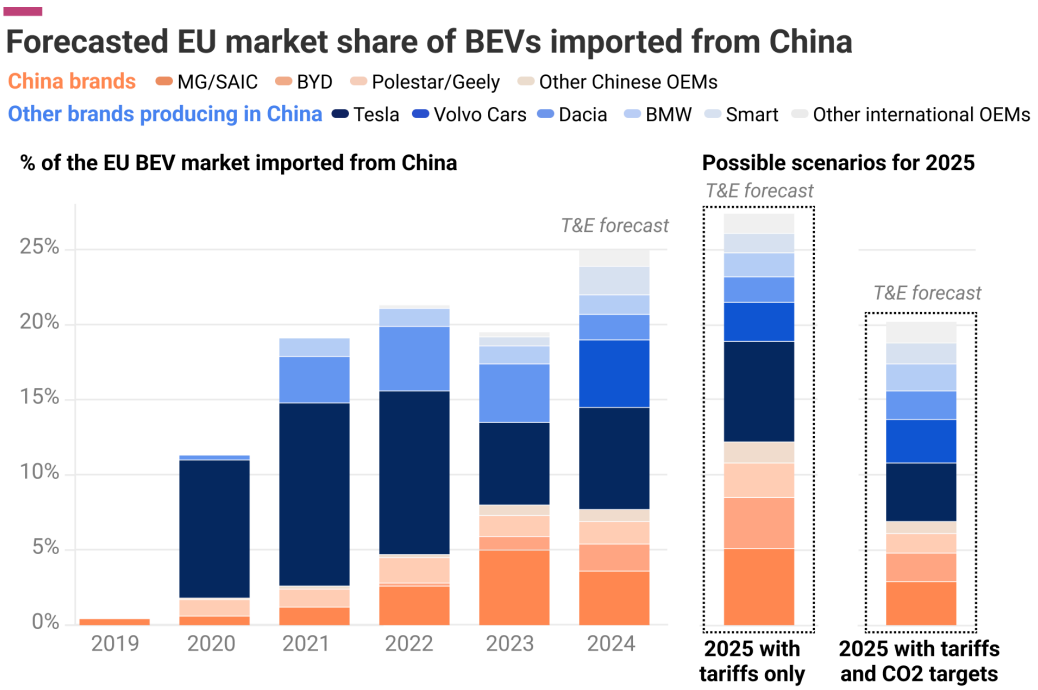
In the short term, the EV push of European carmakers to meet their 2025 targets (if these remain in place) is expected to lead to a small contraction of Chinese brand market share from 8% of the EU BEV market to 7%. In the mid-term, T&E expects SAIC to try to maintain a constant market share compared to 2024, possibly to the detriment of its profit margins. BYD's imports are expected to continue to grow, but at a slower pace as it starts to produce vehicles in Europe. Other Chinese brands are also expected to continue to grow at a slower pace.

Based on this methodology, we expect the total share of BEVs imported from China to fall from 25% in 2024 to around 16% in 2027. While the share of Chinese brands would increase slightly from 8% in 2024 to 9% in 2027, other international carmakers such as Tesla and Volvo Cars are expected to reduce their imports as they ramp up production at their European plants. As a result, the share of imports from China by non-Chinese carmakers is expected to fall from 17% in 2024 to 6% in 2027.

1.3 EV imports and EU Car CO_2 targets

T&E forecast presented in section 1.2 is based on the assumption that European carmakers will meet their 2025 CO_2 targets, meaning that they will increase EV production (including more affordable models) so that BEV sales grow to 24% of the EU car market in 2025. However, carmakers have called on the European Commission to provide a delay for the 2025 CO_2 targets, and some are openly asking for delays.

In the absence of the EU target in 2025, the BEV market is expected to stagnate at a 14% market share, as carmakers would continue to focus on high-margin EVs and delay more affordable mass market ramp up. In this scenario, Chinese EVs are expected to become a more significant part of the BEV market: representing 27%, or close to a third, of all BEV available (and often more affordable), compared to the 20% share in the T&E scenario with the 2025 target in place (and more EU EV models). This includes 12% of BEVs coming from Chinese, notably more affordable offerings (breakdown available in Annex 4).



Source: T&E analysis of EEA (2019 and 2020) and Dataforce data (from 2021). T&E's forecast from 2024. Scope: Passenger cars in the EU imported from China.

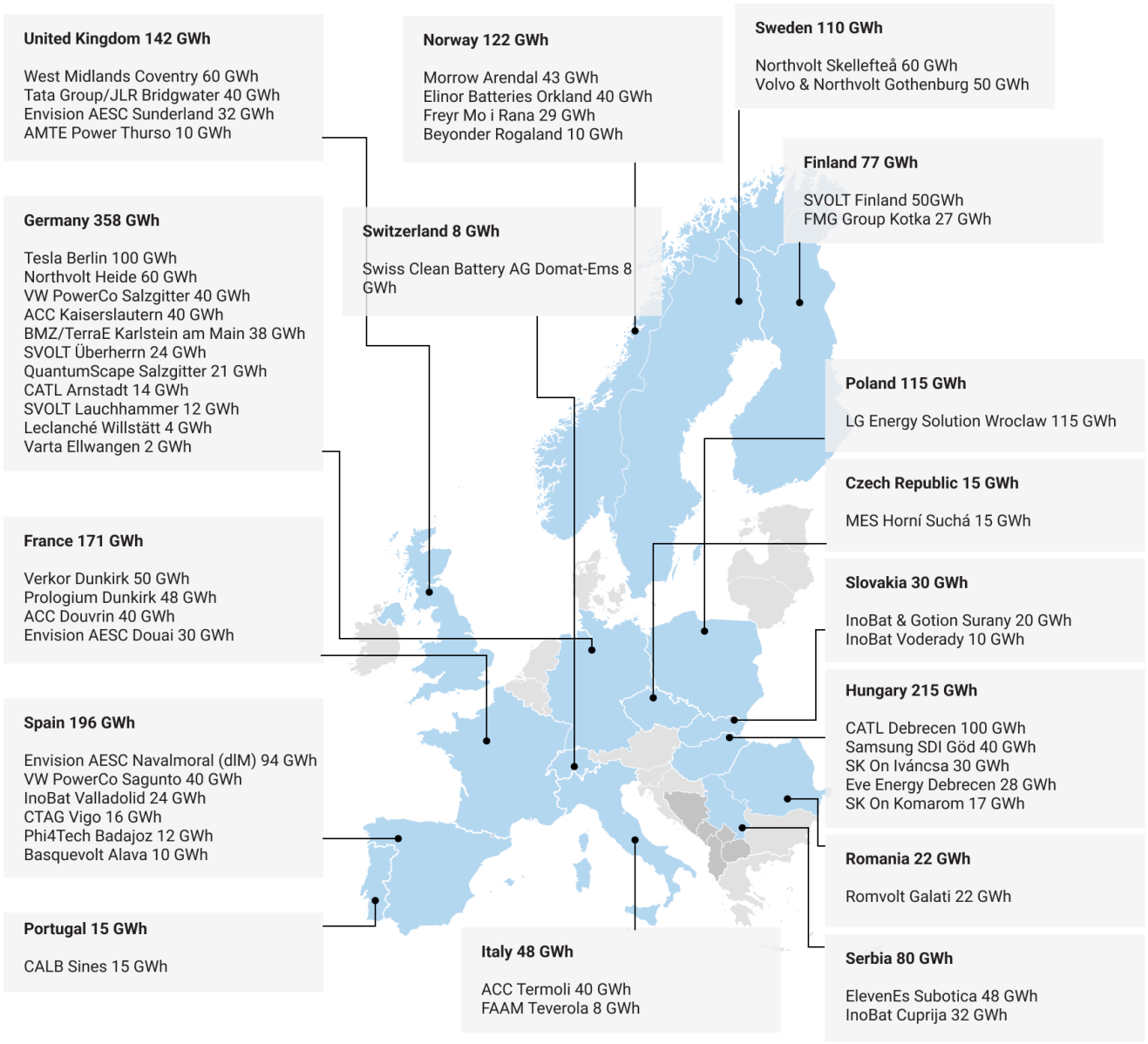
This underscores the importance of China made EVs for European consumers, especially if European supply continues to stagnate. The EV tariff therefore makes sense, and comes hand in hand with the 2025 CO_2 target which ensures European carmakers ramp up more affordable EV models (and therefore can benefit from the level playing field as they ramp up). However, if the 2025 target is delayed or weakened, Chinese carmakers would play a significant role in providing the affordable EVs needed by European consumers and therefore tariffs would have a negative effect.

2. European efforts to set up battery cell manufacturing

One of the objectives, or at least a desired outcome, of the proposed countervailing duties is to strengthen the case for local EV and related value chain manufacturing in Europe. Within that value chain, battery cell manufacturing is one of the most critical and valuable parts to develop. Until recently, dozens of battery gigafactory plans with the capacity of up to 1,725 TWh have been announced across Europe, as summarised in the below graph.

Planned battery cell capacities in Europe: up to 1.7 TWh* in 2030

Gigafactories with expected capacity above 2GWh



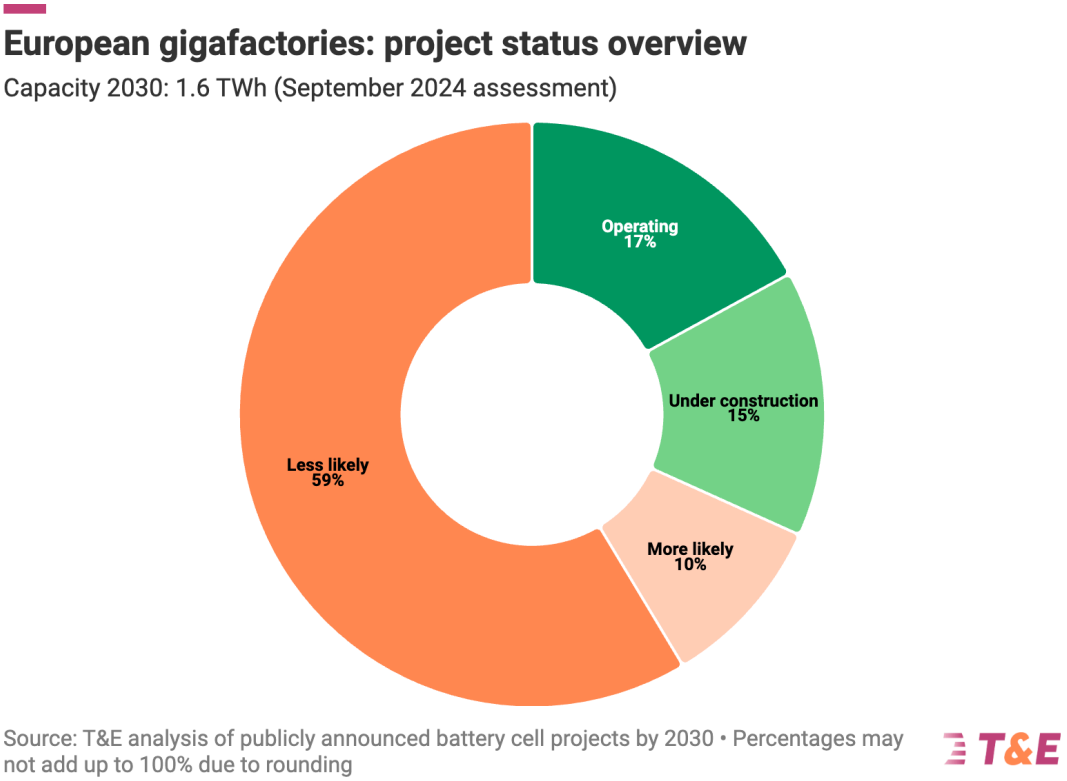
Source: T&E monitoring of public announcements on planned battery cell production capacity. *Announced nameplate capacity including uncertain projects

However, many of the more advanced local plans have come under pressure recently. This most prominently includes:

- Northvolt's announcement of a "strategic overview" of their business plan, hinting at delaying the current expansion plans beyond the gigafactory in Skelleftea, Sweden.
- ACC putting two of their factories in Germany and Italy on hold (likely reviewing the battery chemistry choice as well as start dates).
- VW scaling back its battery plans in Europe, beyond the two facilities in Germany and Spain (out of the six previously announced).
- Svolt cancelling 12 GWh of planned capacity in Germany.

- ABEE Group cancelling Romvolt in Romania (and searching for alternative locations).

This reduces the overall European pipeline by almost 100 GWh, to 1,630 GWh (compared to May 2024), and puts a lot more projects at high risk. This includes the expansion plans of Northvolt Skellefteå and ACC France to a less likely status.[4]



Beyond the often mentioned short-term slower growth in European EV sales, which is expected to pick up in 2025 in line with the EU vehicle regulations, a number of other crucial dynamics are at play:

1. Significant overcapacity in the global market, leading to abundant supply at low prices. The manufacturing capacity of 2.2 TWh in China in 2023 alone (86% of the global total) was more than 3 times the domestic demand, and is equally significantly more than the current global demand. It is widely reported that, on average, many battery factories in China operate at utilisation rates below 50%, leading to a downward pressure on prices. This means there is an abundant supply of cheap high quality lithium-ion batteries available for western carmakers to buy, denting their commitment to new European supply, which is more expensive and slower to ramp up.
2. Against this backdrop, there is no EU-level investment support to commercialise battery cell manufacturing at scale (beyond national state aid favouring a few locations like Germany and France). Large EU-level budget programmes, such as Horizon e.g., prioritise research and innovation, while the newly announced EU Battery Fund is not yet operational or clear whether it will prioritise large scale deployment (against mere innovation).
3. Finally, the import duty on lithium-ion battery packs/modules into Europe remains at a mere 1.3%, making it easy to import cheaper batteries from Asia. This does little to make efforts to scale

[4] Compared to previous reports, T&E has modified its methodology for classifying gigafactories from risk-based to status-based categories. The current approach assesses the status of the plants (operating, under construction, etc) based on public announcements and expert opinions.

local battery cell manufacturing in Europe attractive. In comparison, the US has recently increased its battery cell import duty to 25%, and even China has a 10% import tariff.

Scaling cell manufacturing in Europe will not be easy. While a lot of potential exists - including by South Korean, Chinese and European companies - the current market dynamics make it difficult for many of those to be built. The European start-ups in particular, understandably, are facing scaling and quality challenges reminiscent of the "manufacturing hell" automotive business often goes through. None of this will be easy, and not all companies will succeed.

Given the abundance of cheap good batteries that can be imported from abroad, shall Europe drop its localisation efforts?

At this stage, it would be a mistake. Some European players are not far off from being successful. The EU has so far invested at least 20 bln in public support, including via the IPCEI framework and the EIB. And while short-term, relying on cheap imports sounds attractive, there are significant risks longer term.

First, lithium-ion batteries are a major climate technology solution at the heart of electrifying cars, trucks, vans and buses (one of the largest CO_2 emitters globally), as well as indispensable for a fully renewable zero carbon energy generation. Missing out on onshoring some of the expertise is like being a diesel superpower without the factories to make engines.

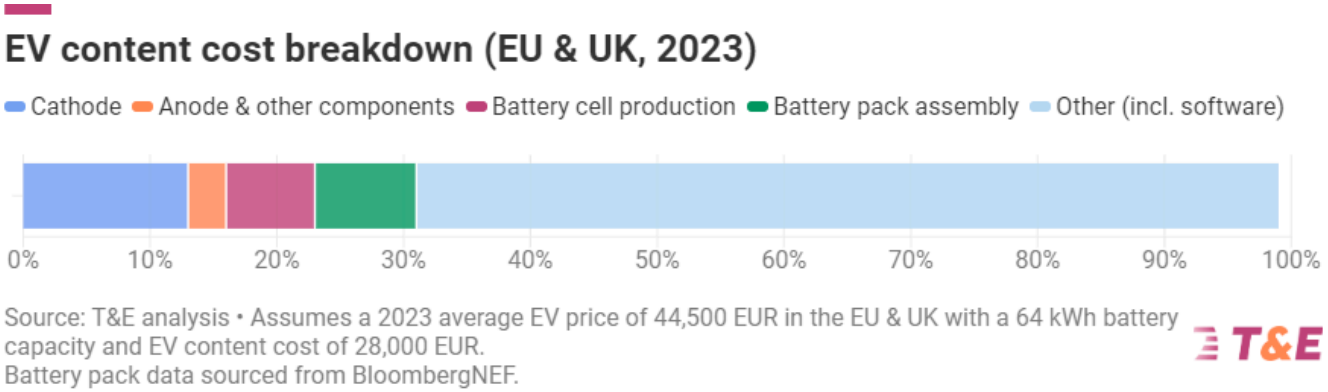
Second, one should not underestimate the risks of outsourcing a key future industry abroad. The recent semiconductor crisis exposed the risks of production concentration. While supporting local manufacturing comes at a cost, it brings resilience and the long-term security against volatile prices and geopolitical uncertainty. Longer term, local manufacturing guarantees affordable prices to European consumers more than short-term reliance on cheaper products.

Finally, as the local supply scales, costs will come down. While some claim Europe can't match China on costs, the evidence points to the contrary. An analysis by BNEF, which has looked at the underlying technology, energy, labour and other costs, has concluded that a country like Hungary can match China on battery cell costs. Places like Spain and Sweden are already a global match for affordable large scale renewables, while a largely European battery value chain also offers significant CO2 savings. And a lot of cost saving in China today comes from automation and process efficiency, something that can easily be replicated in Europe.

All this means that having expertise and capability in battery cells - as well as key components, such as cathode active material - manufacturing in Europe is needed. This does not have to come from EU companies alone: it is the location of manufacturing that brings value, not the nationality of the manufacturer. Europe should be open to global expertise as Chinese companies today produce high-quality cost-competitive batteries, but it should make a bigger use of joint ventures and licensing agreements to benefit locally. The problem is that the current EU framework in place - low battery tariffs, no significant EU investment or policy to require local content - is insufficient to onshore this critical supply chain given the global dynamics outlined above.

The EV tariffs on their own will not be sufficient. One likely outcome of those is expected to be a larger localisation of EV manufacturing by Chinese, as well as western, brands. But this risks being a mere final assembly of vehicles (or battery packs), resulting in Europe missing some of value addition from cell and component manufacturing, as well as mineral processing.

To understand where the value is, a deeper look at the EV and battery value chain is required.



Almost a third of an entire EV value comes from battery cell manufacturing and assembly, including components like cathode active materials, or CAM (which contain cobalt, lithium, manganese and nickel, so key battery minerals). CAM alone accounts for over 40% of the battery's overall value, and - together with cell manufacturing - represents 20% of the EV value (and over 60% of the battery pack value).

These two parts - battery cell and cathodes - are the most valuable battery components that Europe should strive to develop expertise and manufacturing of. Thus, Europe should aim to obtain up to a third of the EV value chain[5] domestically to capture expertise and some production capability in cells and cathodes.

3. Conclusion & recommendations

The preliminary data following the introduction of the additional EV tariffs shows mixed results. T&E predicts the China-made imports to peak this year, and then to slowly reduce well below 20% of BEV sales by 2026/7. While imports of many Chinese brands will grow slower, some of it will be replaced by local production (notably for BYD).

While tariffs are slowing some growth in imports, they are not stopping the ascent of Chinese EV makers, who have superior and more affordable offerings. The problem is that European mass automakers have been slow to counter that: affordable BEVs are only coming now to coincide with the 2025 car CO_2 target. In tandem with the 2025-2035 Car CO_2 targets, higher EV tariffs make sense and should be confirmed, to ensure that locally produced affordable EV models are reaching consumers. However, if the 2025 target is relaxed, the Europeans are likely to miss out on those local affordable models, making the supply of China-made EVs more important.

In addition, given their critical place as a climate change solution, as well as resilience and affordability aspects, having expertise and capability in battery cell - as well as as cathode active material - manufacturing in Europe is needed. This does not have to come from EU companies alone: it is the location of manufacturing that brings value and jobs. Europe should be open to global expertise as Chinese companies today produce high-quality cost-competitive batteries, but it should make a bigger use of joint ventures and licensing agreements to ensure that benefits indeed accrue locally.

[5] The overall EV value also includes software & connectivity, which is outside the scope of this analysis, and is another critical part of the value chain.

The problem is that the current EU framework in place - low battery tariffs, no significant EU investment or policy to require local content - is insufficient to onshore this critical supply chain given the global dynamics.

Beyond the confirmation of the EV tariffs, European policy-makers should:

1. Ensure EU OEMs accelerate production of small affordable EU made electric cars, including by **keeping the 2025-2035 car CO_2 standards** and adding targeted incentives, such as EU-wide low-cost leasing programmes or the EU Innovation Fund.

2. Put in place a robust framework to make local battery and component manufacturing attractive: this should include an **anti-subsidy investigation into battery cells and packs**, as well as a quick introduction of battery carbon footprint thresholds to reward cleaner manufacturing. The EU Battery Fund should be rolled out no later than the end of 2024 and focus on scaling commercial production.

3. Create clear European **conditions for expertise and IP sharing around Chinese-EU joint ventures** (or similar partnerships) and licensing deals. This can be done as part of anti-circumvention measures under the current EU anti-subsidy EV investigation to ensure mere EV assembly plants are not set up to avoid tariffs, or as part of the "balancing test" in the EU Foreign Subsidies Regulation. As part of these, there should be a clear minimum value set to ensure both battery cells and cathodes are made locally.

Further information

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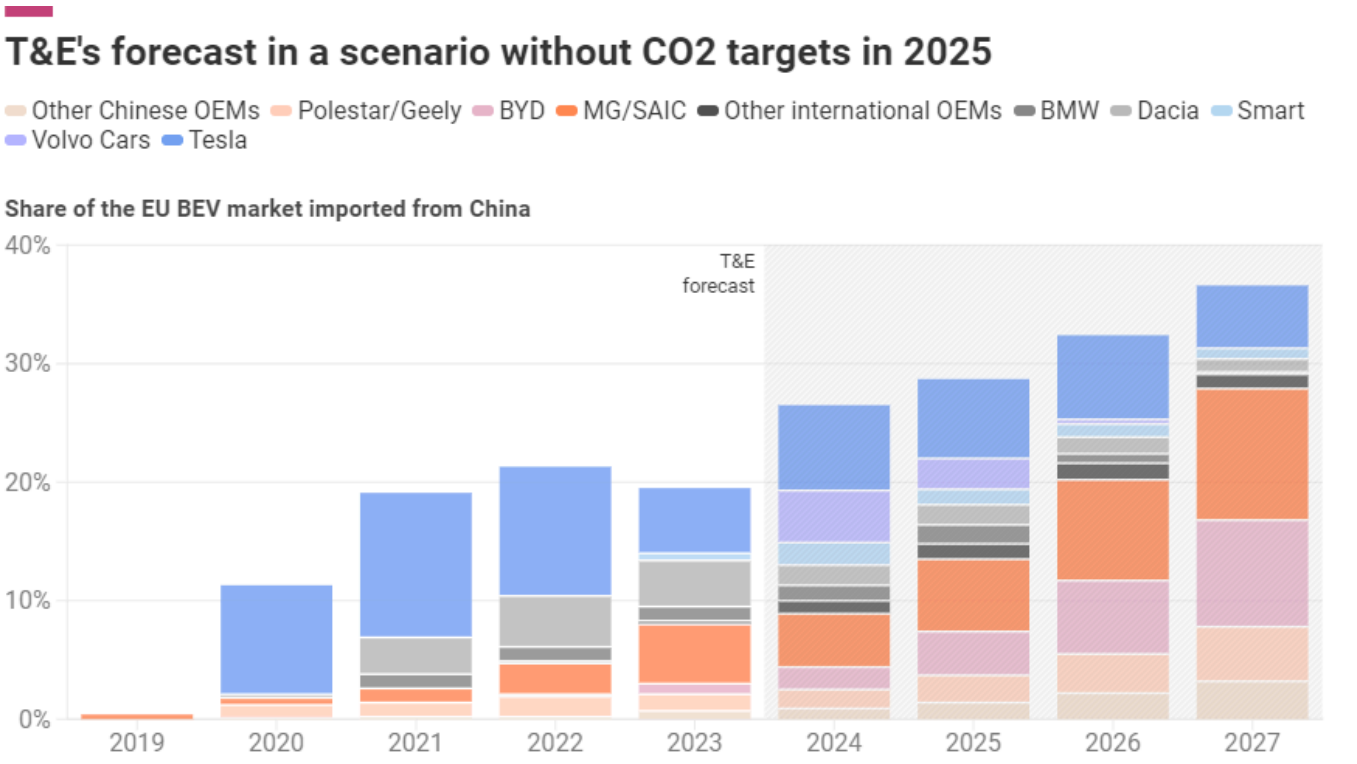
4. Annex

4.1 Forecast in a scenario without CO_2 targets in 2025



Source: T&E analysis of EEA (2019 and 2020) and Dataforce data (from 2021). T&E's forecast from 2024, partly based on the analysis of GlobaData's Global EV & Hybrid sales forecast. Scope: Passenger cars in the EU imported from China.

4.2 Methodology and assumptions

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T&E has acquired historical sales data of passenger cars in the EU supplied by Dataforce (2021 to H1 2024) and the European Environment Agency (2019-2020). T&E has filtered datasets to exclude commercial vehicles in a geographical area representative of the EU (H1 2024 data includes 23 EU countries). BEV models imported from China are identified based on T&E's in-house classification.

T&E has acquired historical monthly sales data of passenger cars in the EU supplied by EV-Volumes (Data update from September 20, 2024). T&E has filtered the dataset to exclude commercial vehicles. The geographical scope is the EU excluding Cyprus, Malta and Slovakia as the August data were not

complete in these countries. BEV models imported from China are identified based on EV-Volumes' classification.

Our baseline forecast is based on GlobalData's Global EV & Hybrid sales forecast (Q2 2024), with the addition of T&E's internal adjustment to the Chinese brand market share forecast, based on our understanding of how Chinese carmakers reacted to the introduction of tariffs in July and August 2024 (as presented in section 1.2). Based on GlobalData's forecast, BEV models imported from China are identified using T&E's in-house classification.

The brand and group classification is based on T&E classification. Volvo Cars and Smart are not included in the Geely group, but are counted separately as international carmakers. Chinese carmakers are defined as brands owned by Chinese carmakers with all production in China.

Our baseline scenario uses GlobalData's forecast of a 20% BEV market share in 2025. From this baseline scenario, two additional scenarios have been generated:

- The main T&E scenario presented in section 1.2 is based on the additional assumption that all European carmakers would meet their CO_2 targets in 2025, increasing the BEV market share to 24%.
- The hypothetical scenario without 2025 CO_2 targets assumes that the BEV market share would stagnate at H1 2024 level (14% BEV share) if the 2025 CO_2 targets are cancelled.

This means that in the T&E scenario, the BEV share increases while the volume of Chinese imported BEVs remains the same compared to the baseline, so that the Chinese carmakers' BEV market share decreases. On the other hand, in the scenario without CO_2 targets, the overall BEV share stagnates and the volume of imported cars from Chinese carmakers remains the same compared to the baseline, so that the Chinese carmakers' share increases.

The following assumptions have been used in addition to GlobalData's forecast:

- In all scenarios, we expect that BYD's share of the BEV market in 2024 to be similar to H1 2024, as tariffs did not have a significant impact on the year-over-year market share growth in July and August. In our baseline scenario, we expect that the growth rate of BYD's imported vehicle market share will gradually decline each year as BYD locates production in Europe. In the T&E scenario, BYD's market share is reduced in 2025 due to higher BEV sales by European carmakers, who are expected to increase sales to meet their targets.
- In all scenarios, we expect that Geely's share of the BEV market in 2024 would be similar to H1 2024 as tariffs did not have a significant impact on the year-over-year market share growth in July and August. Then, in our baseline scenario, a linear forecast of Geely's market share based on its 2023-2024 growth is applied to future years. In the T&E scenario, Geely's market share is reduced in 2025 due to higher BEV sales by European carmakers, who are expected to increase sales to meet their targets.
- In all scenarios, we expect SAIC's share of the BEV market to continue to decline in H2 2024, bringing its 2024 market share in line with GlobalData's expectations. In our baseline scenario, we expect SAIC's market share to remain constant. In the T&E scenario, SAIC's market share is reduced in 2025 due to higher BEV sales by European carmakers, who are expected to increase sales to meet their targets.
- In all scenarios, other Chinese carmakers' shares of the BEV market in 2024 are in line with GlobalData's forecast. Our baseline scenario applies a linear forecast of Chinese carmakers' market share, based on its 2023-2024 growth, to future years. In the T&E scenario, other Chinese carmakers' market share is reduced in 2025 due to higher BEV sales by European carmakers, who are expected to increase sales to meet their targets.

- In our baseline scenario, other international carmakers' market shares are based on GlobalData's forecast. In the T&E scenario, we expect the total share of other international OEMs (except Tesla) to increase in order to meet their CO_2 targets. In this case, the share of BEVs imported from China in their total BEV sales is assumed to be similar to GlobalData's forecast.

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