

# Global light vehicle production outlook

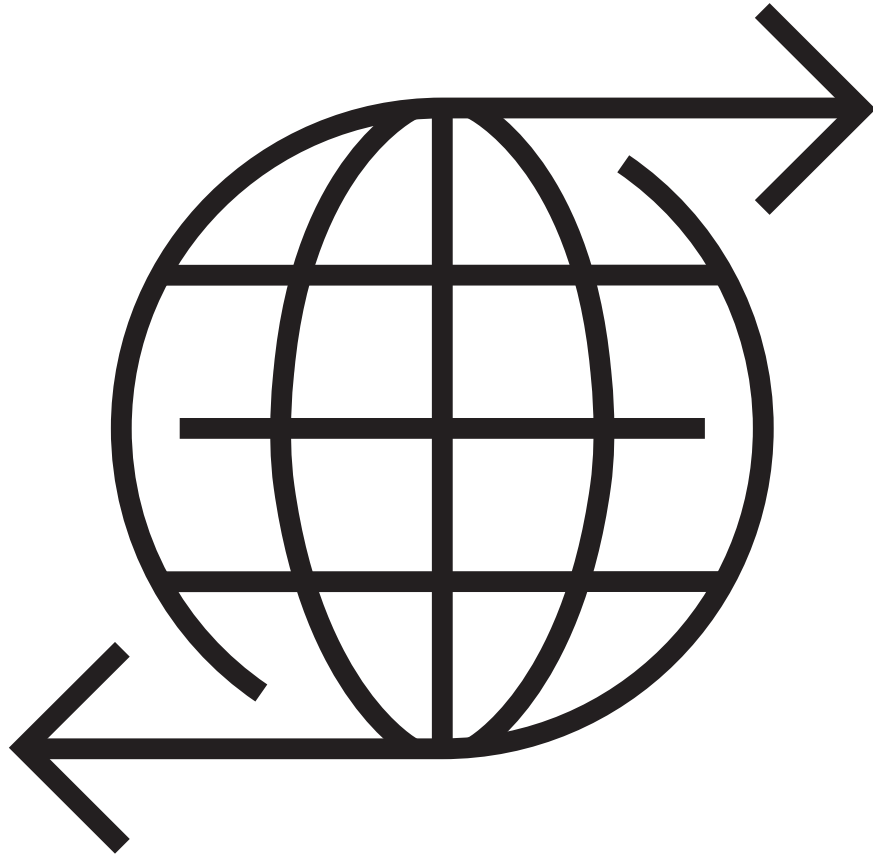
The great divergence

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Oct. 25, 2024



# The great divergence

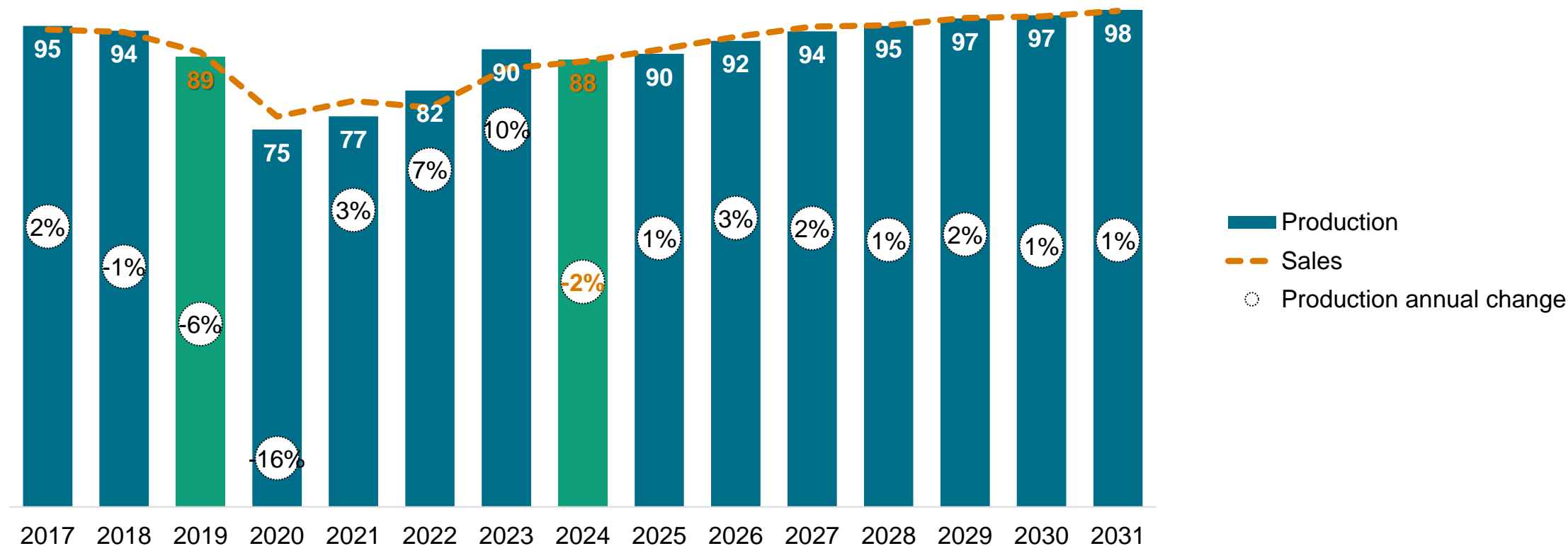


- Moving away from 'Washington consensus'
- Tariffs and incentives growing in use
- Legislators' authority under pressure
- Legacy industry in retreat as global competition increases; China becomes a challenge
  - 2009 to 2019 legacy industry output in BRICS grew by 82%, or 9.2 million units
  - 2019 to 2024 legacy industry output in BRICS fell by 24%, or 4.9 million units

# Convergence not divergence of global topline in the near term

A recoupling of supply to demand in 2024: Distortions removed, return to underlying demand levels

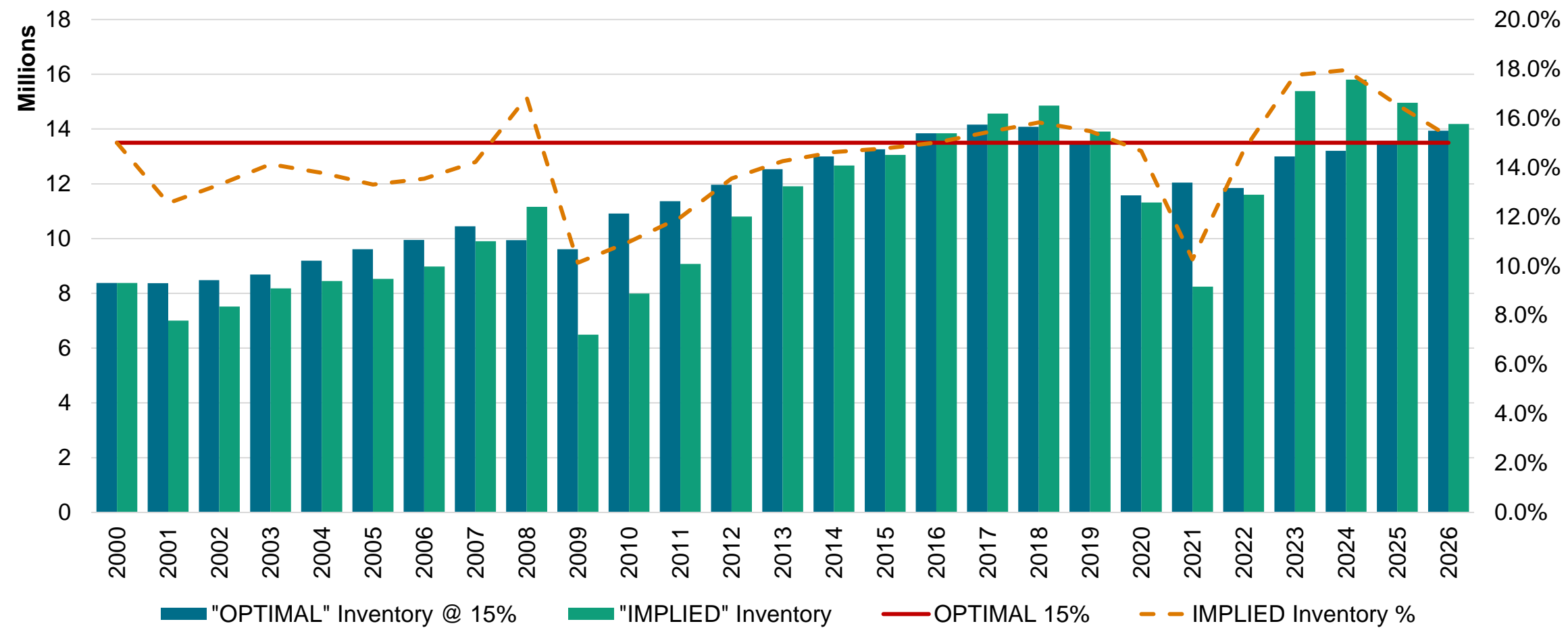
Global market volumes (millions)



Data compiled October 2024.  
Source: S&P Global Mobility.

# Global inventory proxy shows alignment is underway, painful in places

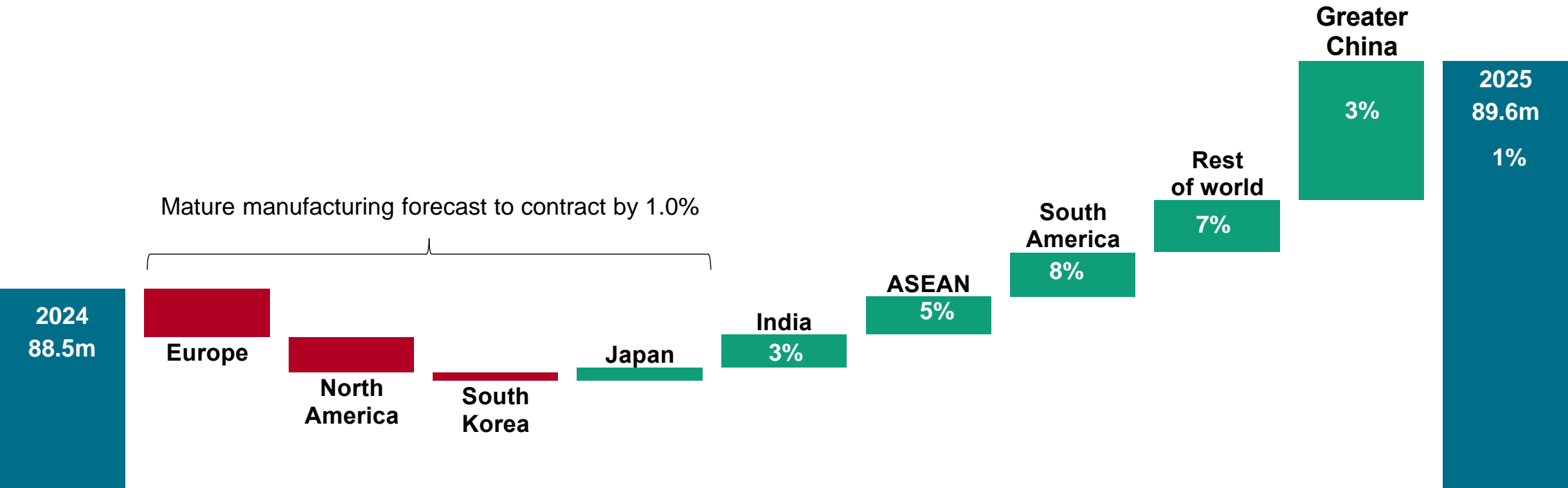
Upside pressures that grew during recovery cycle being released especially as sales levels ease short term



Data compiled October 2024.  
Source: S&P Global Mobility.

# 2025 offers limited fragile growth

Pressures weigh on mature bases, China stimulus to do the heavy lifting with support from South Asia

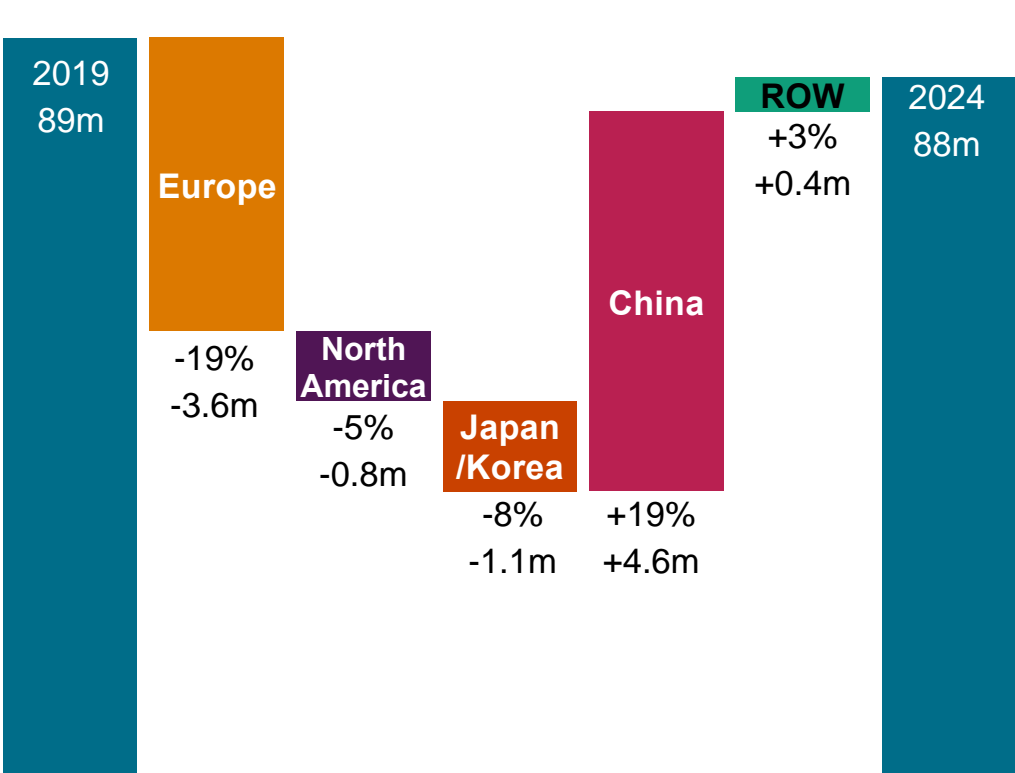


Data compiled October 2024.  
Europe excludes Russia, Belarus, Kazakhstan, Ukraine, Uzbekistan.  
Source: S&P Global Mobility.

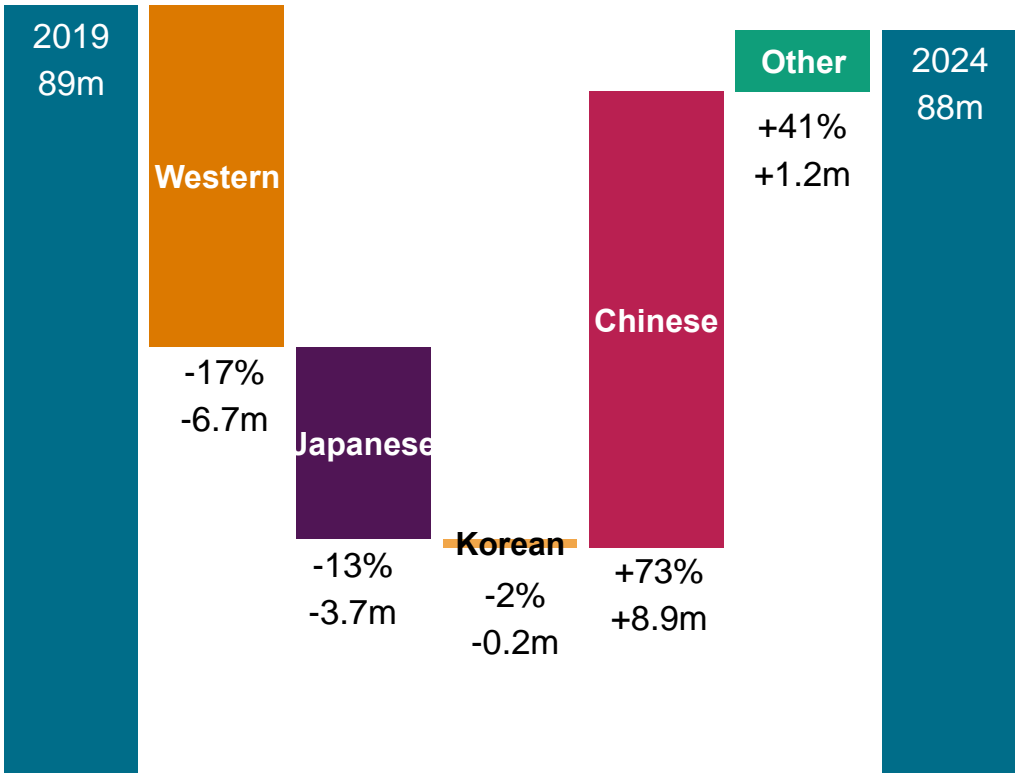
# China dominates in stalled growth environment

Pre-eminence of Chinese industry since COVID-19 has future implications

2019 to 2024 bridge by production region



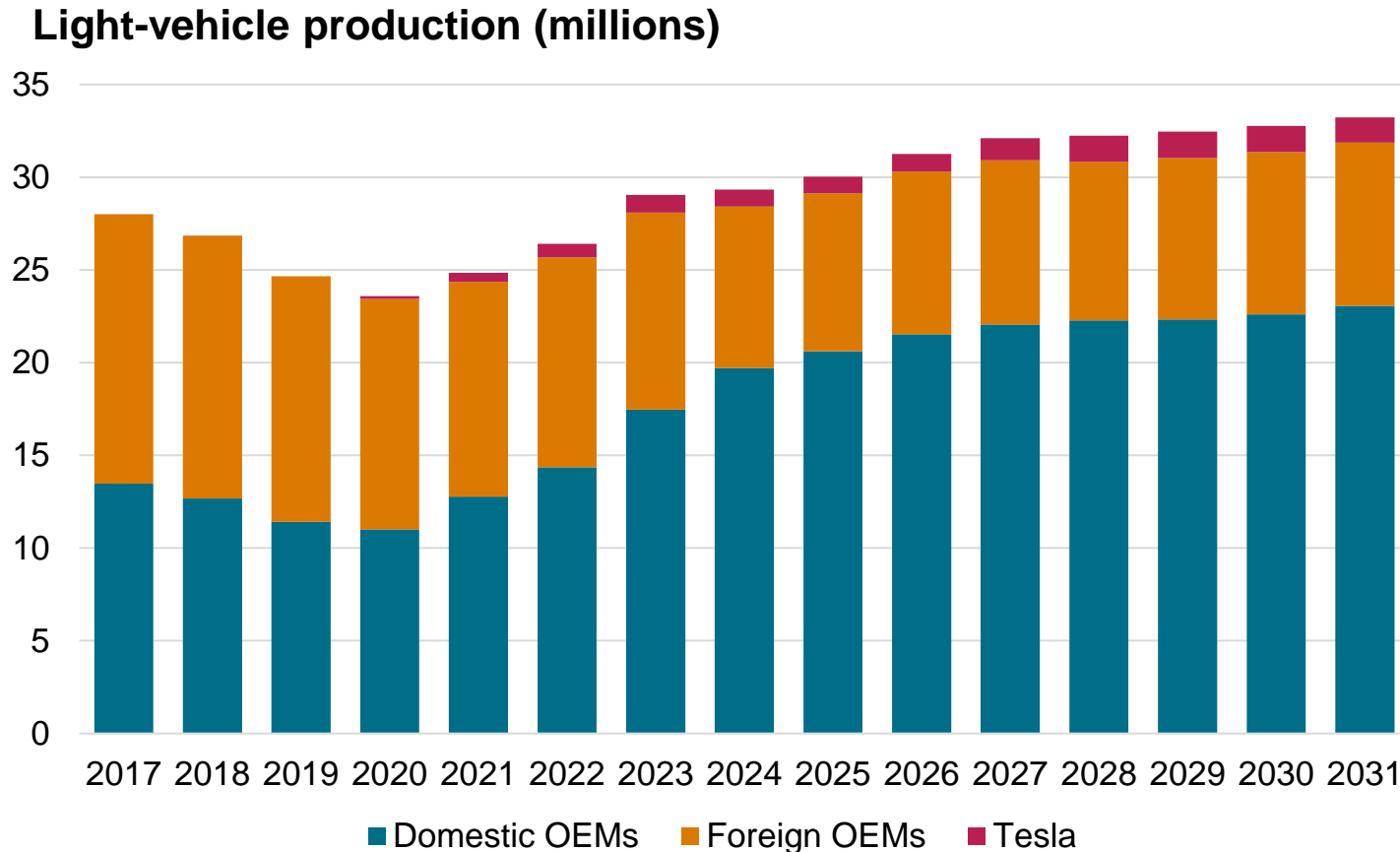
2019 to 2024 bridge by OEM ownership



Data compiled October 2024.  
Europe excludes Russia, Belarus, Kazakhstan, Ukraine, Uzbekistan, China = Mainland China, ROW = Rest of World.  
Source: S&P Global Mobility.

# China: Domestic producers dominant, boosted by NEV demand and exports

Foreign legacy OEMs face difficult task to catch up and stabilize decline



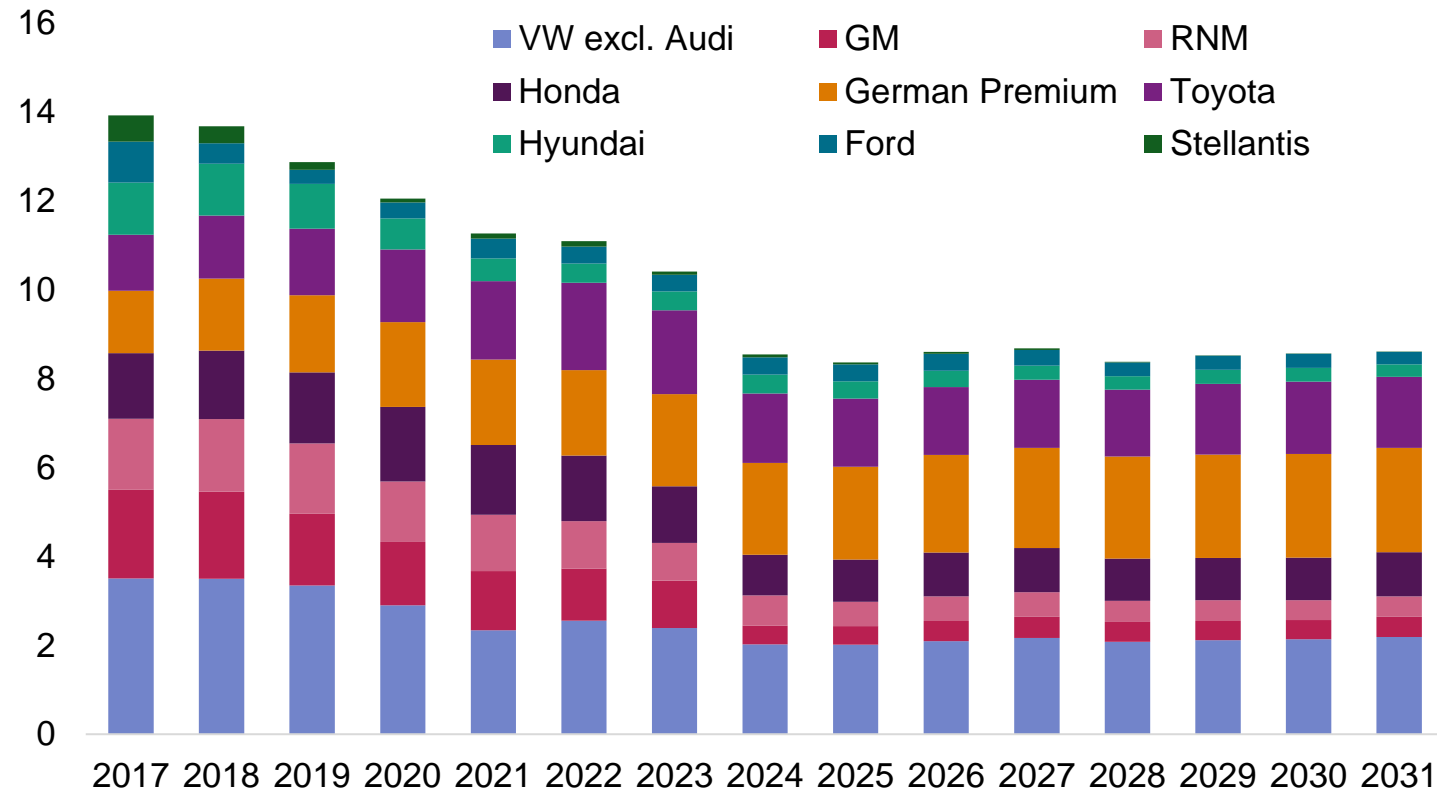
- Domestic demand supported by new-energy vehicle (NEV) incentives provides supporting scale for key local automakers
- Slower domestic growth and intense competition incentivizes export activity but challenges beginning as tariffs emerge
- US software ban latest barrier
- Localization could accelerate to avoid tariffs from EU
- Western brands struggle to compete on price, content and speed of development cycles, and increasingly look to local OEMs for quick fixes
- Pressure for consolidation remains across a diverse base

Data compiled October 2024.  
Source: S&P Global Mobility.

# China: Can foreign legacy OEMs fight back?

Dramatic fall in volume and share since pre-COVID-19 but efforts to deepen localization beyond just factories

**Foreign OEM production in mainland China (millions)**



- Volkswagen working with SAIC and Xpeng to gain access to vehicle platforms, first programs in 2025
- Tata (JLR) working with Chery to create new 'Freelander' brand
- Toyota and Honda working with local partners GAC, Dongfeng but limited effects, still prefer to be largely independent
- Stellantis adopts asset-lite approach but looks to leverage Leapmotor to provide low-cost engineering in global markets
- Japanese/Koreans turning focus more to North America and South Asia

Data compiled October 2024.

German Premium = Audi, BMW and Mercedes, RNM = Renault-Nissan-Mitsubishi

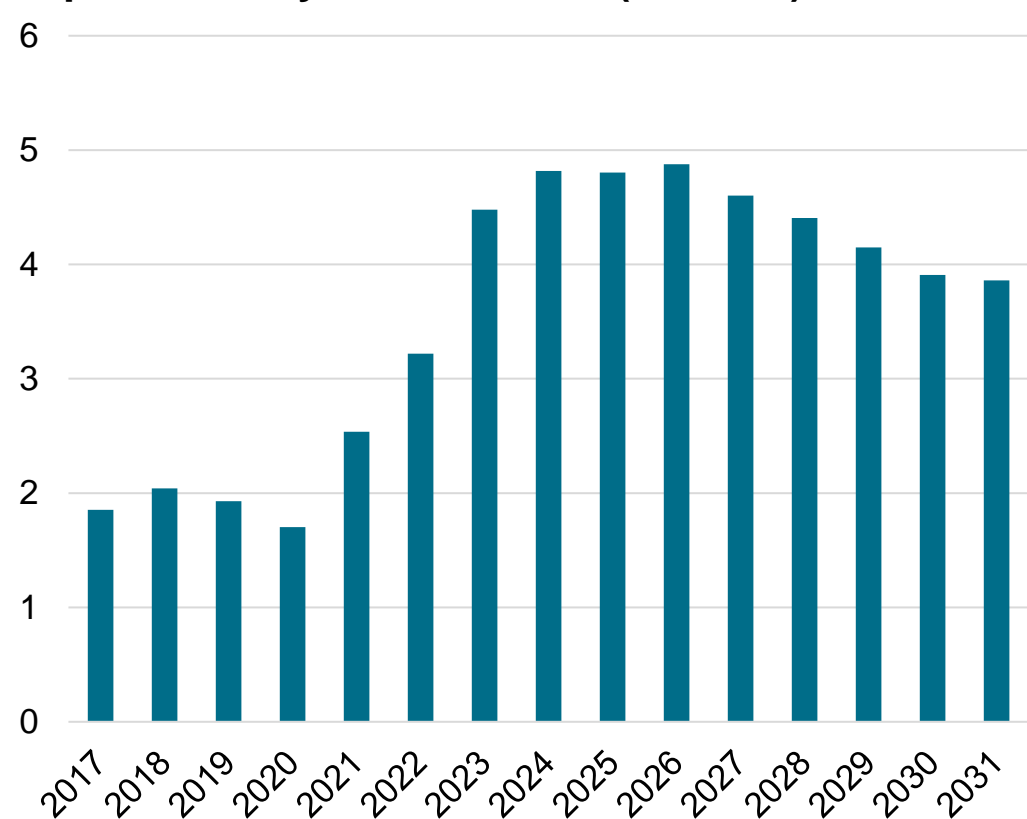
Source: S&P Global Mobility.



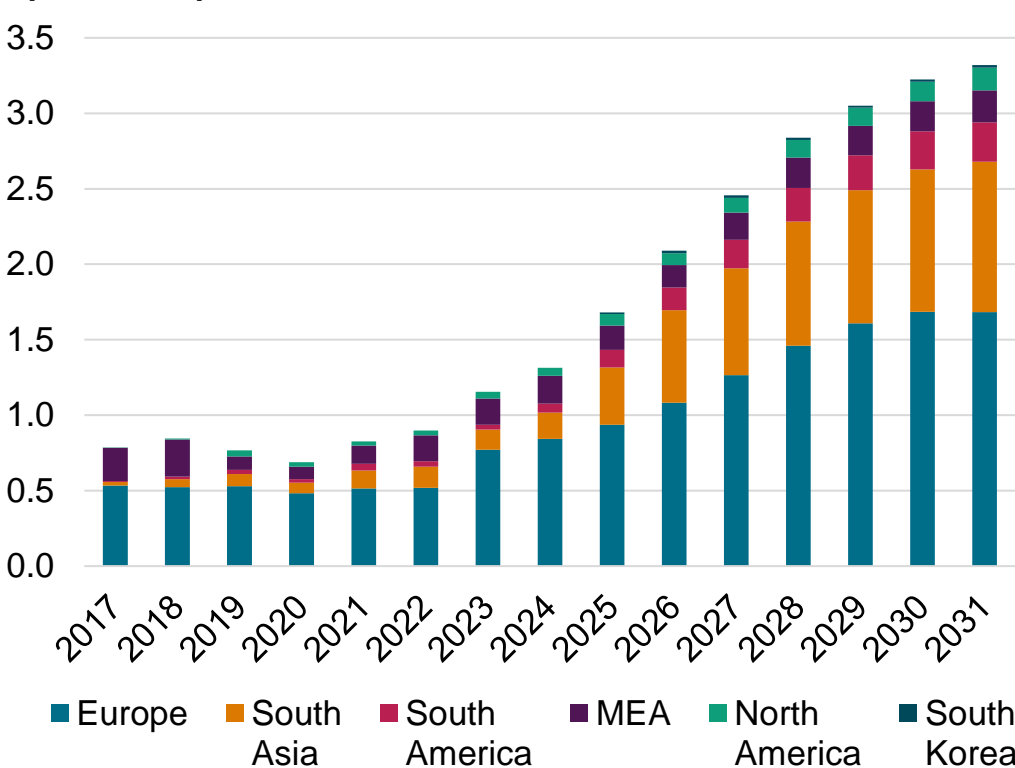
# China: Post-pandemic exports accelerating still, prelude to localization

Initial target markets Europe and South Asia, legislation and incentives could provide further boost

Exports of fully built vehicles (millions)



Chinese OEMs overseas production (millions)

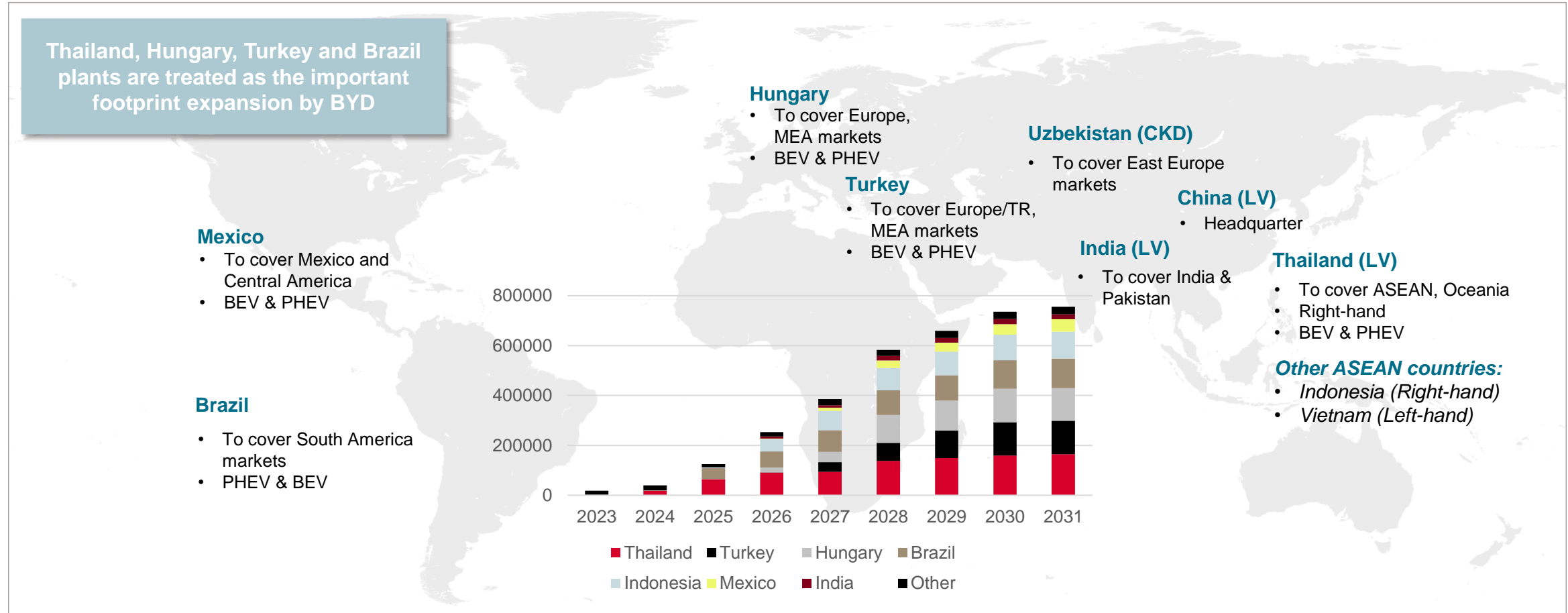


Data compiled October 2024.  
Source: S&P Global Mobility.

# Production Strategy: Case study BYD global production expansion

Overseas production to grow to more than 700k units in 2030; trade barriers accelerate localization process

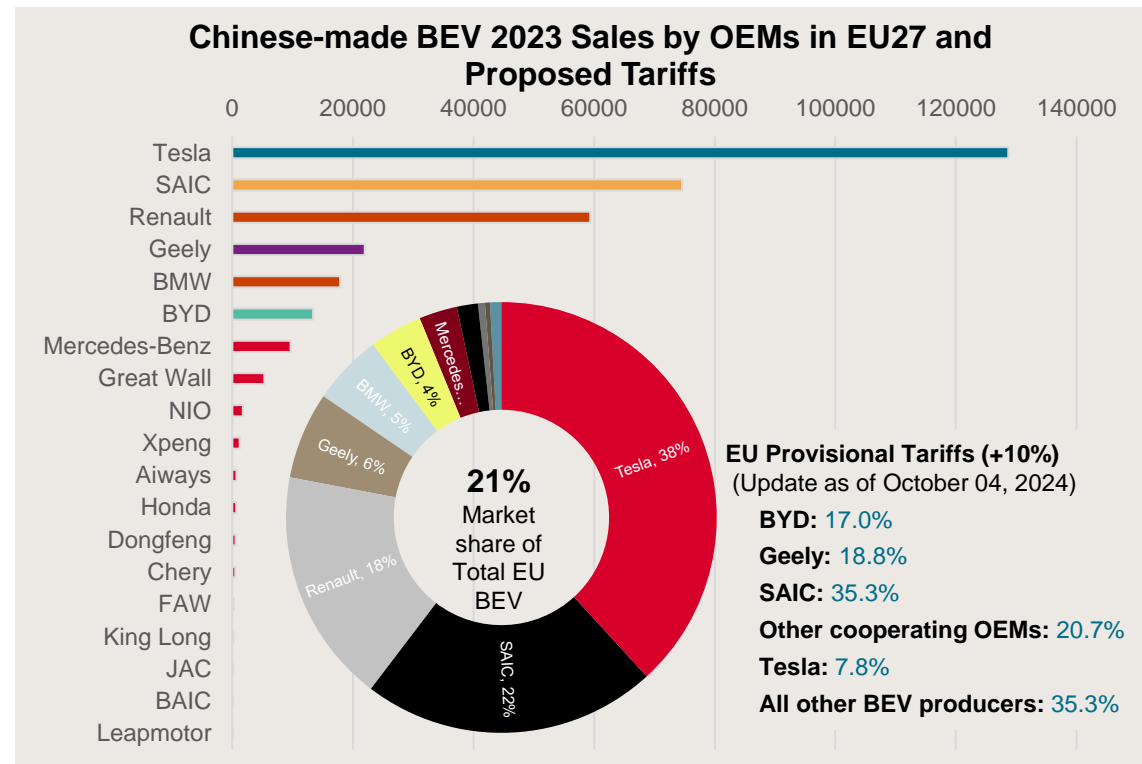
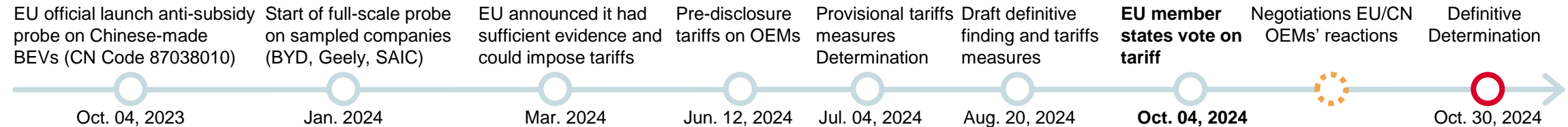
## BYD overseas production



Date compiled October 2024  
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# EU tariffs on Chinese-made electric cars leads to complex disruption

Chinese OEMs' potential responses: review product, price and powertrain strategies in EU and accelerate local production; tariffs still subject to change; policy uncertainty in UK/EFTA



As of October 2024.  
Source: S&P Global Mobility, European Commission

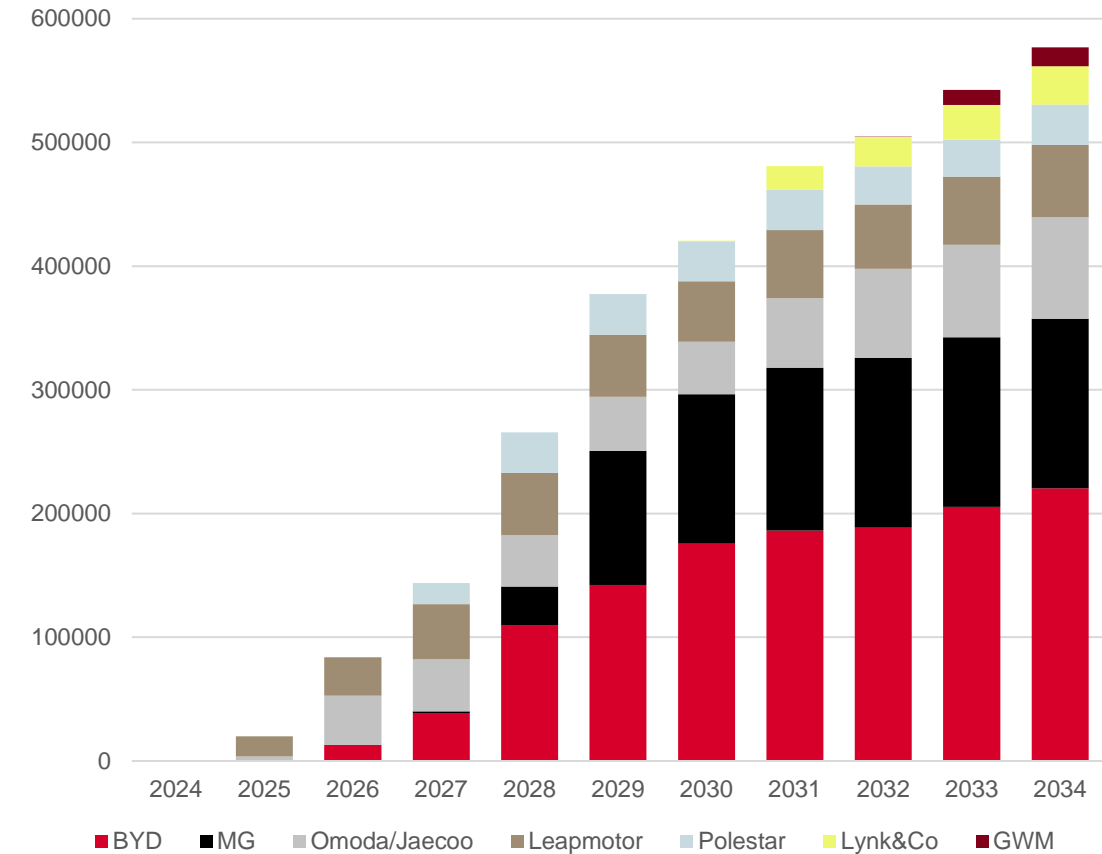
## Facts and Implications

- **EU member states voted** in favor of proposed tariffs, although negotiations between EU & China continue
- EU punitive tariffs **7.8%-35.3% varying by OEM**, slightly adjusted again compared to the pre-disclosed and provisional rates announced previously
- **No retroactive collection of duties**, a final decision will only be adopted upon the definitive regulation by 30 October 2024
- OEMs individual additional tariffs **still subject to change**
- **REEV** (Range Extender) now included for the tariffs
- Scope of **China's response** (including beyond automotive)
- Chinese OEMs to **review product, price & powertrain strategies** in EU. Could accelerate **local production** or use 3<sup>rd</sup> party locations (e.g., Turkey).
- Price strategies & EU tariff impact. Esp. if further & even heavier support by Chinese government. **Less tariff effect on some OEMs** due to much bigger cost advantages (e.g. BYD).

# Europe: Chinese OEMs' sales outlook & potential implication of tariffs

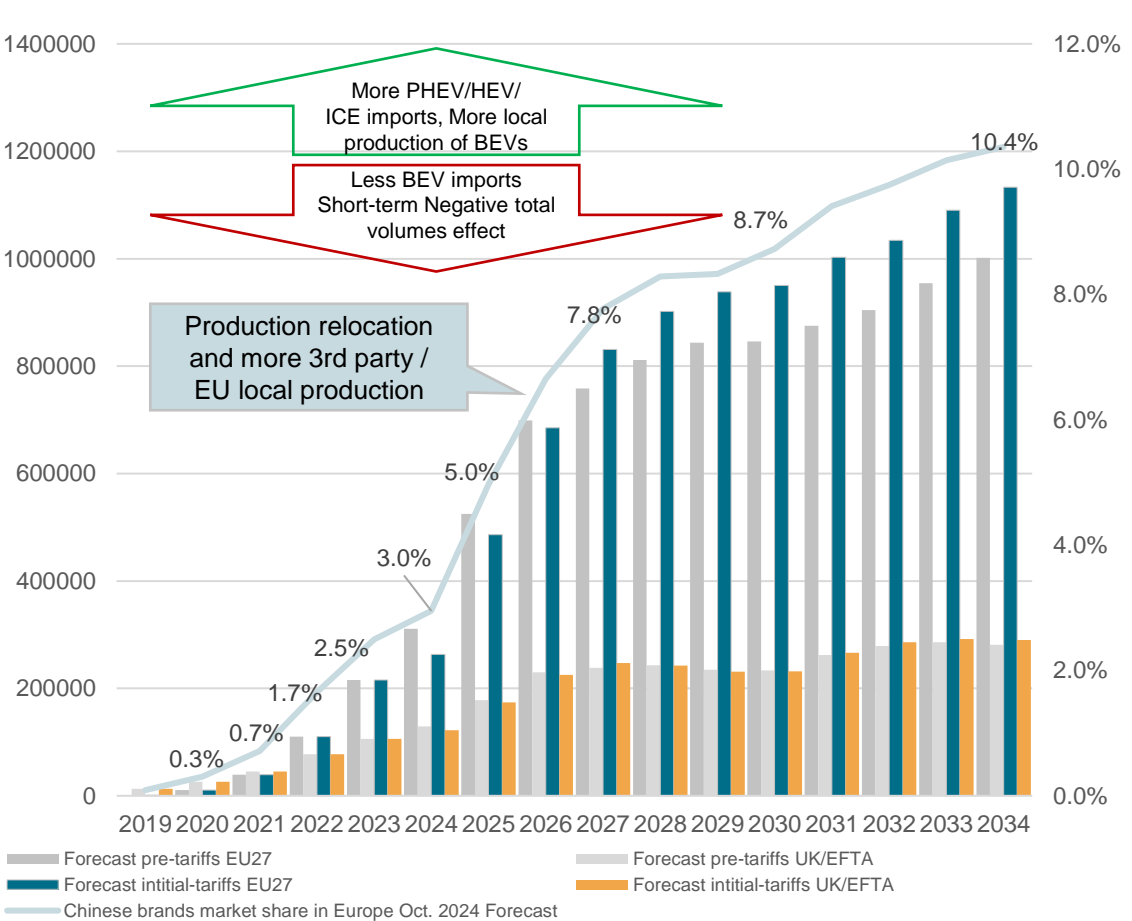
EU tariffs and multiple potential measures will weaken China's BEV imports to EU, while more local production and non-BEV products will strengthen the market presence; Policy uncertainty in UK/EFTA

Chinese Brands Sales of Europe&Turkey-made Cars



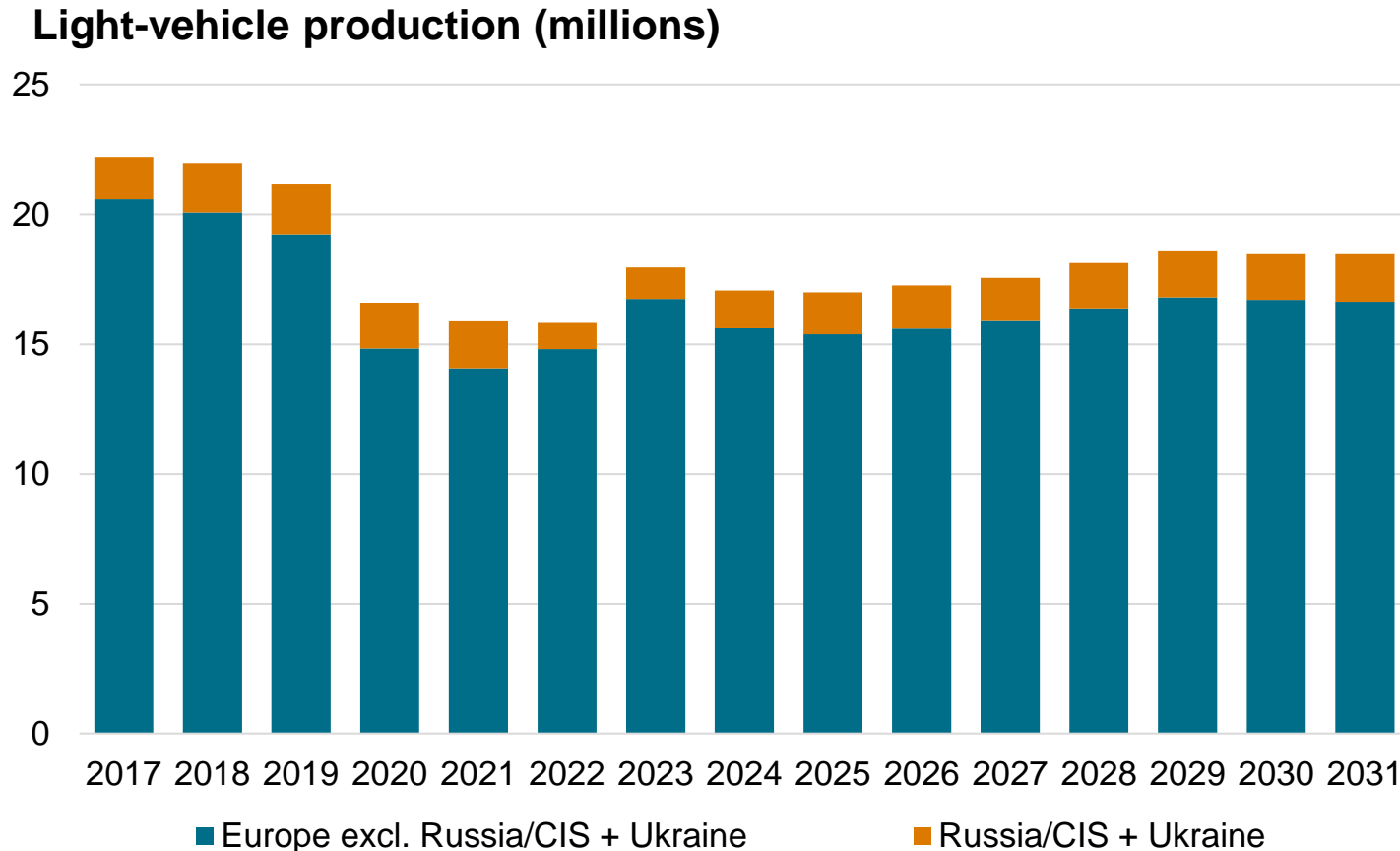
Europe refers to EU+UK+EFTA; Chinese Brands do not include Volvo  
Data compiled: October 2024.  
Source: S&P Global Mobility

Chinese Brands PV sales outlook in Europe (Initial tariff effect)



# Europe: Growth stalling on rising cost pressures; re-branded Russia rebounds

The pie gets smaller and more guests want to eat...



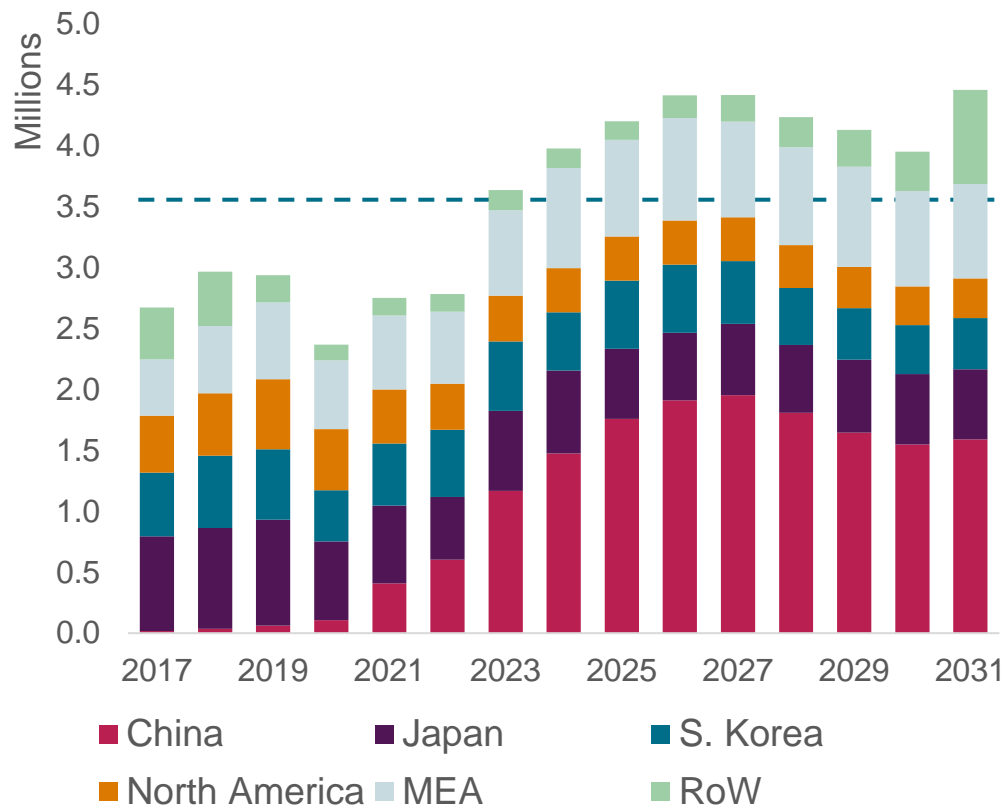
- Support from recovery cycle exhausted; pricing levers will be key to maintaining build volumes
- Regulation creates affordability squeeze midterm; GSR-2 from mid-2024 and revised CO<sub>2</sub> targets in 2025 will raise vehicle costs, especially at the entry-level; reworked Euro 7 is delayed to 2027–28 a positive
- Additional EU tariffs on fully electric imports from China in late 2024 could slow EV development in Europe
- China response awaited: Switch mix? Accelerate localization? Reciprocal actions targeting more than autos
- Russian sector isolated but expanding

Data compiled October 2024.  
Source: S&P Global Mobility.

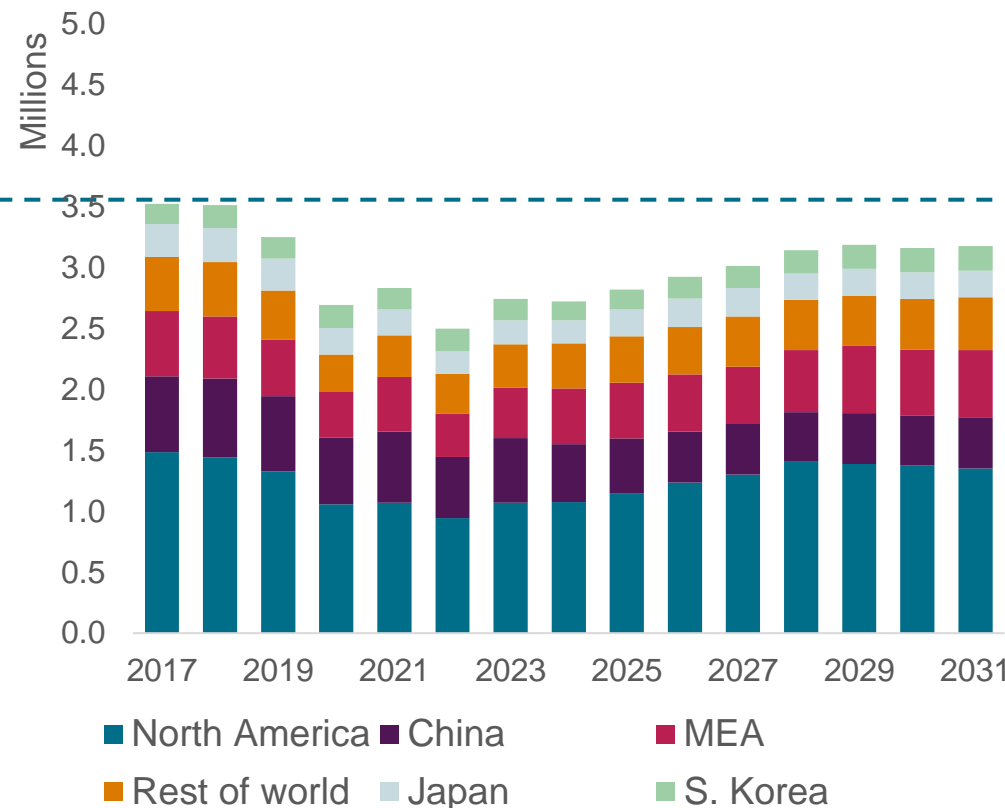
# Europe moves from net exporter to net importer

China imports surge until 2026 before localizations take effect, while exports reach new 'lower ceiling'

Imports by region of origin



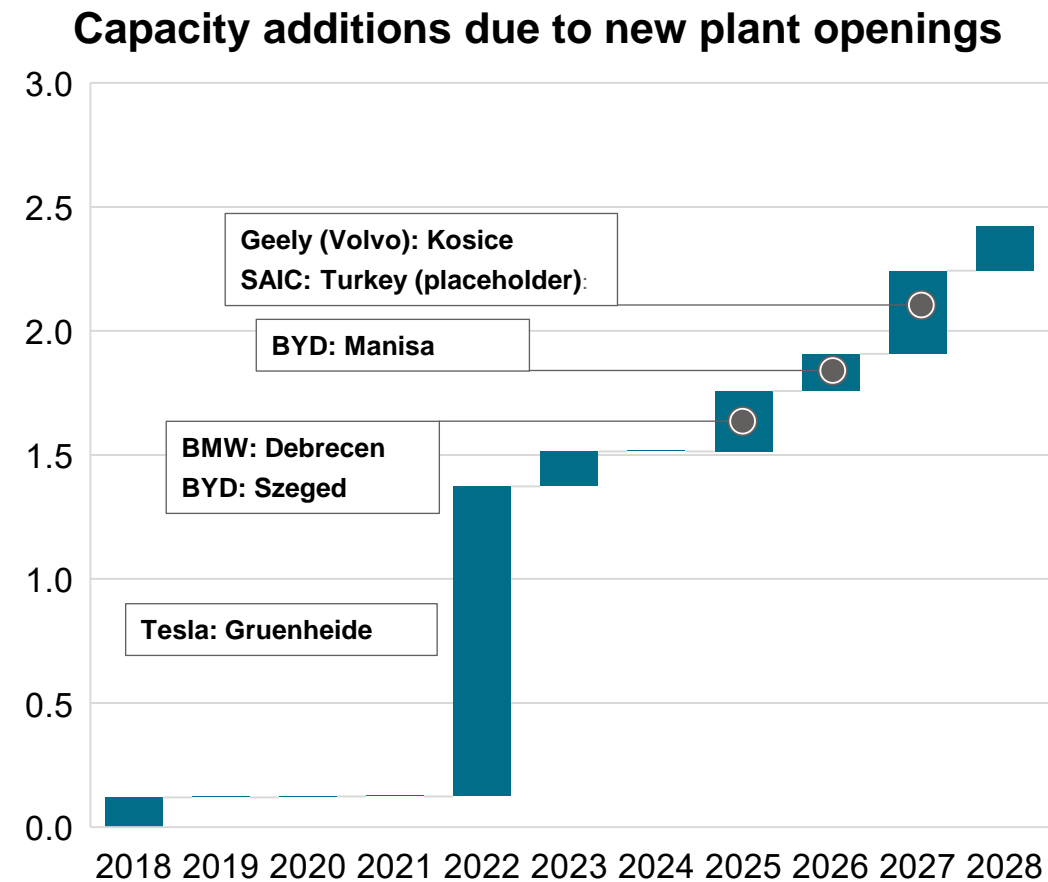
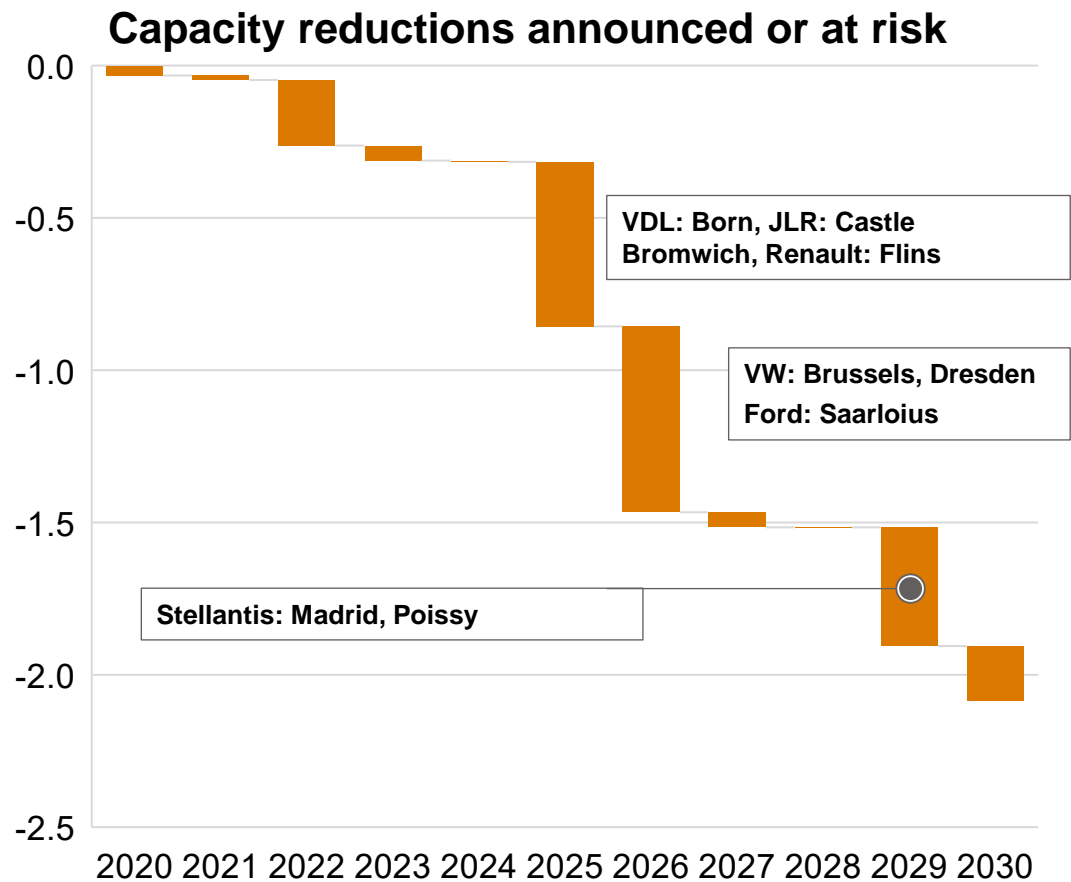
Exports by region of destination



Data compiled October 2024.  
Source: S&P Global Mobility.

# Europe restructuring with emphasis on EV capacity

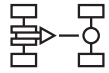
Capacity swings neutral but moving east and dominated by Tesla for now



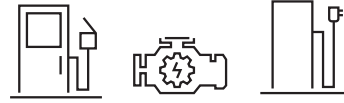
Data compiled September 2024.  
Source: S&P Global Mobility.

# BEV reality check; midterm pressure on adoption rates

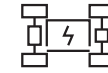
Flexibility of multi-energy architectures an advantage in the transitional phase



ICE/ICE adapted



Multi-energy



Dedicated BEV

Unlikely to be renewed like-for-like but can support limited program upgrades or life-cycle extensions

Support full-hybrid/plug-in hybrid, allowing OEMs to leverage existing assets

Initial EV entries on adapted ICE platforms; assume costly to maintain competitive offerings compared to less compromised architectures

Flexibility from the ground up; easier to flex supply to demand within a given program or production facility

Typically introduced later than ICE/ICE adapted platforms and more capable of supporting program updates than ICE/ICE adapted

Compromised packaging when compared with dedicated BEV architectures

Less compromise; no need to cater for any other propulsion systems in design or manufacturing

Better integration of vehicle management software; freedom to redesign cabin architecture

All-in at the plant and platform level; no ability to flex to demand; more reliant on development or maintenance of other architectures to provide flex

BEV = battery-electric vehicle; OEM = original equipment manufacturer; ICE = internal combustion engine.

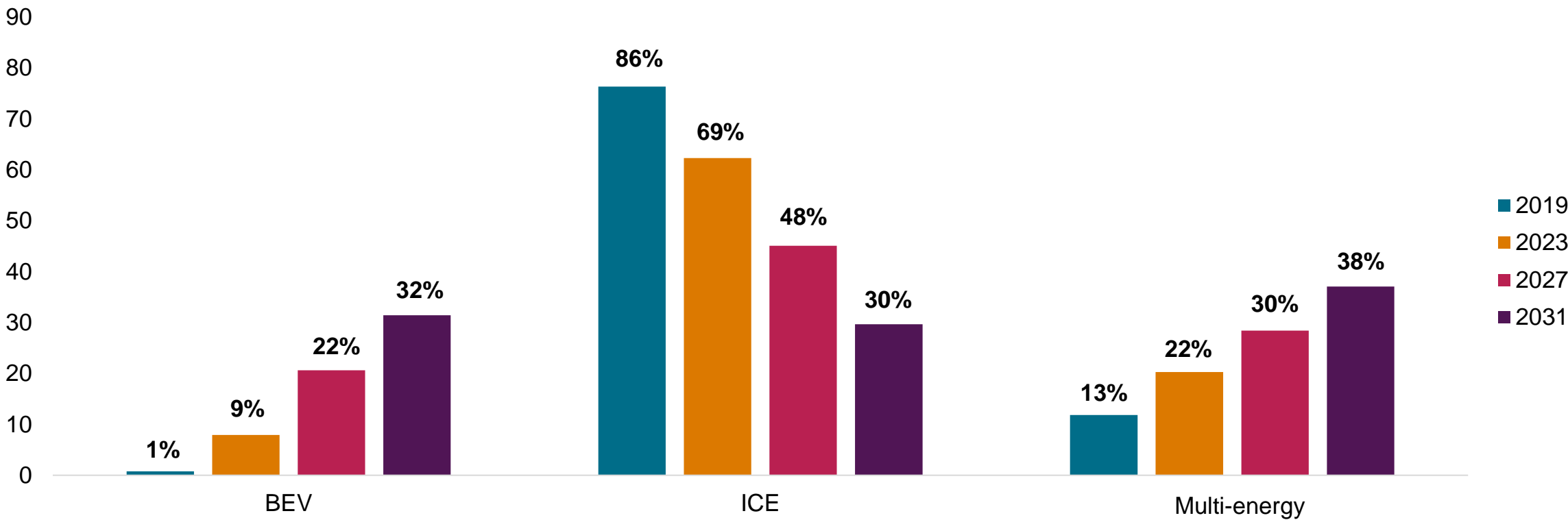
Source: S&P Global Mobility.



# BEV reality check; midterm pressure on adoption rates

Business model adaptation supported by flexible platform deployment; multi-energy share boosted

Global production by platform type: Evolution from 2019 to 2031 (millions)

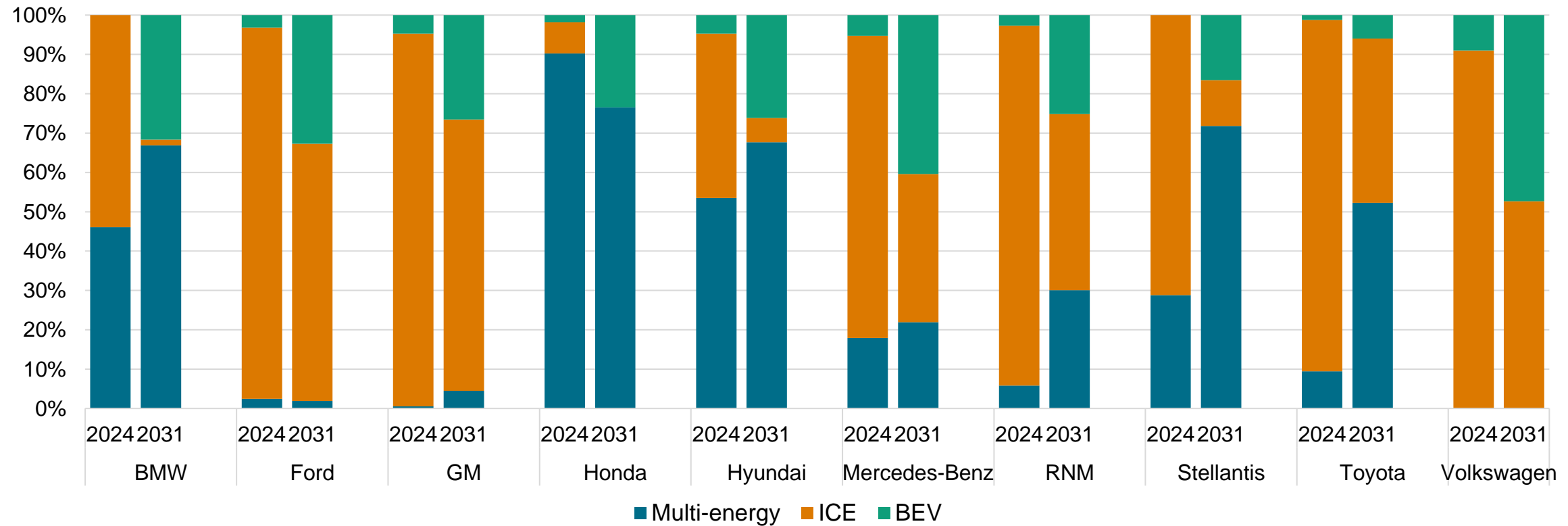


Data compiled September 2024.  
BEV = battery-electric vehicle; ICE = internal combustion engine.  
Source: S&P Global Mobility.

# BEV reality check; midterm pressure on adoption rates

Flexibility of multi-energy architectures an advantage, boosts capacity utilization opportunities

Platform design type shares by top 10 legacy OEMs



Data compiled September 2024.  
BEV = battery-electric vehicle; OEM = original equipment manufacturer; ICE = internal combustion engine.  
Source: S&P Global Mobility.

# Summary

## Divergent trends emerging

- Recovery giving way to alignment, revealing structural shift toward China
- Mainland Chinese OEMs influential in all areas, driven by volume, cost base and evident advances in vehicle development — especially for battery-electric and software-defined vehicles
- Dominance in the domestic mainland Chinese market is pressuring Western OEMs, leading to varying responses: withdrawal, downgrades and platform sharing; Western OEMs are increasingly becoming the clients
- Competitive pressure is being exported overseas, no major region is immune from these effects
- Dominance provokes a reaction and tariffs increasingly imposed, counter measures assumed but not visible; risks slowing trade beyond autos
- Notable change in attitude to midterm BEV strategies leads to adaptation of business models at the plant and program level should support this new realism; platform flexibility is key again

Source: S&P Global Mobility.

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