Allianz Trade

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Automotive: Will the Middle East crisis supercharge EV momentum?

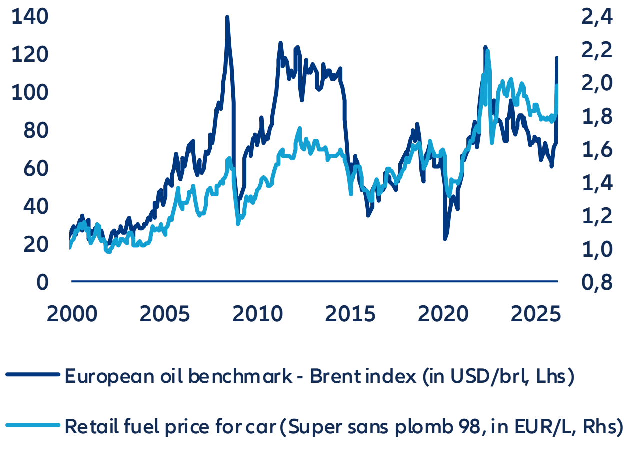
In Summary

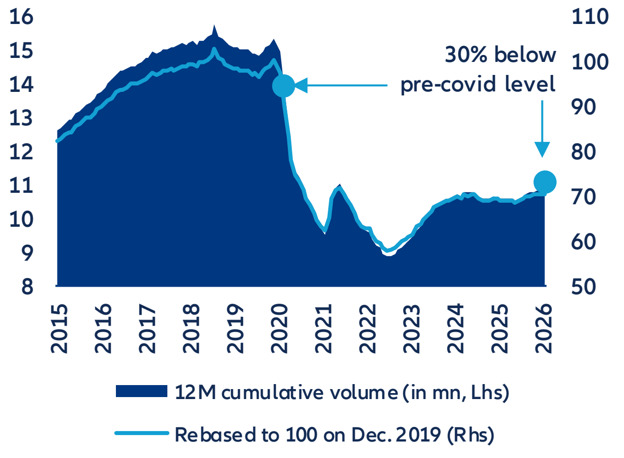
- **An electric tilt boosted by energy volatility.** After a bruising 2025, Q1 2026 data reveal a striking reversal. BEV market share hit 19% EU-wide (+4pps vs; Q1 2025) and surged to 28% in France and 23% in Germany. The 30% oil spike fueled by Middle East tensions has sent pump prices back above EUR 2.0/L, reviving the cost-of-ownership debate and accelerating a shift that was already structurally underway. This is notably thanks to price compression over other powertrain models on primary markets and rising supply on second-hand markets.
- **Consumers are more sensitive than ever before to energy costs.** Fuel costs are hitting European households already squeezed by a post-Covid cost spiral across all car-related services with repair, maintenance and parts costs up between 20-30% since 2021, 10% higher than the increase in average disposable income. Car-usage costs absorb 7–8% of disposable income on average in France and Germany but rise to 11% for lowest-income quintiles during periods of volatility (e.g. 2022), making fuel-consumption costs a critical issue for low-income households. Currently, switching to BEVs would offer material energy consumption savings – equiv. to a 4–5% purchasing-power gain per capita on average in Western Europe – with an energy-cost differential range estimated at 5-7x regardless of price volatility.
- **But turning current momentum into a durable energy shift will require firing on all four policy cylinders in parallel: increasing local battery production, building sufficient grid infrastructure implementing effective carbon pricing and consistent subsidies.** While there have been positive signs of structural progress (e.g. average battery range crossing 500km psychological barrier, faster charging times), Europe remains exposed to China's technological dominance on batteries and powertrains. Its infrastructure deficit gets structural, with only 1.1mn charging points in Q1 2026 (mostly concentrated in 4 countries) – far from the European Commission's 3.5mn target by 2030. Moreover, AI-driven data-center expansion will compete directly with EV electrification for constrained grid capacity: EU consumption is projected to grow from 70TWh in 2024 to 115TWh by 2030. To reach its electrification targets by 2030, Europe needs carbon pricing that makes the fossil-fuel cost signal permanent, purchase subsidies that bridge the affordability gap for mass-market buyers, technological acceleration that makes BEVs the cheaper option without government support and grid decarbonization that ensures electrification delivers on its promise.
- **We find that even the most generous subsidy scenario (at least EUR5,000) reaches only 70% BEV share by 2030.** Carbon pricing under NDC commitments lifts the EU BEV share from roughly 29% to 42% by 2030 – meaningful, but still not enough to be on the Net Zero target which estimates 79% of BEV share in the EU by 2030. On the technology side, battery costs have fallen -93% since 2010 and are heading toward USD 60–70/kWh by 2030, the level at which EVs become cheaper than combustion vehicles in most segments without any grant. But ultimately an EV is only as clean as the electricity it runs on: even full fleet electrification falls short of its environmental potential without a cleaner grid. Moving Europe's low-carbon electricity share from 70% to 80% by 2035 would cut per-vehicle EV emissions by over 40%.
- **What if energy volatility continues beyond Q2?** EV resiliency is likely to be tested, notably as the progressive phase-out of subsidies reduces public support buffers against energy shocks. However, relatively strong purchasing power among EV buyers, ongoing technology improvements and intensified competition from Chinese OEMs should continue to underpin demand. The main downside risk lies upstream: renewed semiconductor supply disruptions could disproportionately impact EV production and pricing, given their higher chip intensity.

An electric tilt boosted by energy-price volatility?

Another energy crisis or another reason to switch to EVs? The recent 30% spike in Brent crude triggered by the Middle East crisis has sent retail fuel prices in several major European economies like France, Germany or Netherlands surging back above EUR 2.0/L, approaching historical peaks last seen when Russia's invasion of Ukraine unleashed an unprecedented shock across oil, gas and power markets. For most European economies – structurally exposed as net energy importers – such volatility is far from abstract: A decade of data reveals a stubborn negative correlation between rising pump prices and new car registration volumes in Germany, confirming that fuel costs remain a decisive purchasing factor. Each price shock becomes a powerful advertisement for electrification. Indeed, in Q1 2026, Europe's BEV market share reached a record 19%, up 4pps year-on-year, confirming a structural shift already underway. While Nordic countries lead the EV penetration trend – Norway records almost 100% – some large markets like France and Germany have seen a strong impulse for EVs, with market share increasing by +10% and +6%, respectively, over the past 12 months to 28% and 23% in Q1 2026. Indeed, Germany hit the 1mn milestone in EV sales amid the energy crisis of 2022 and just crossed the 2mn mark in early 2026. Nevertheless, overall demand remains relatively moderate (in absolute terms) and fully electric vehicles account for only around 3% of the total European fleet. Moreover, the momentum remains highly uneven: Nearly half of EU countries still post BEV shares below 10%, while only a small core – around 15% of members – exceeds one-third penetration. The growing popularity of EVs also reflects a broader decline in ICE appeal, a movement amplified by energy price volatility but rooted in deeper market dynamics. Falling retail prices, driven by intensified competition – particularly from Chinese OEMs – and a growing secondary market fueled by off-lease vehicles are easing affordability constraints and stabilizing residual values, unlocking new demand segments. Still, headline gains should be interpreted cautiously: they occur in a stagnant market where total registrations remain roughly 30% below pre-Covid levels, meaning higher shares partly mask weak volumes. Even leading BEV markets such as Norway, Belgium or the Netherlands have recently seen declining sales in absolute terms.

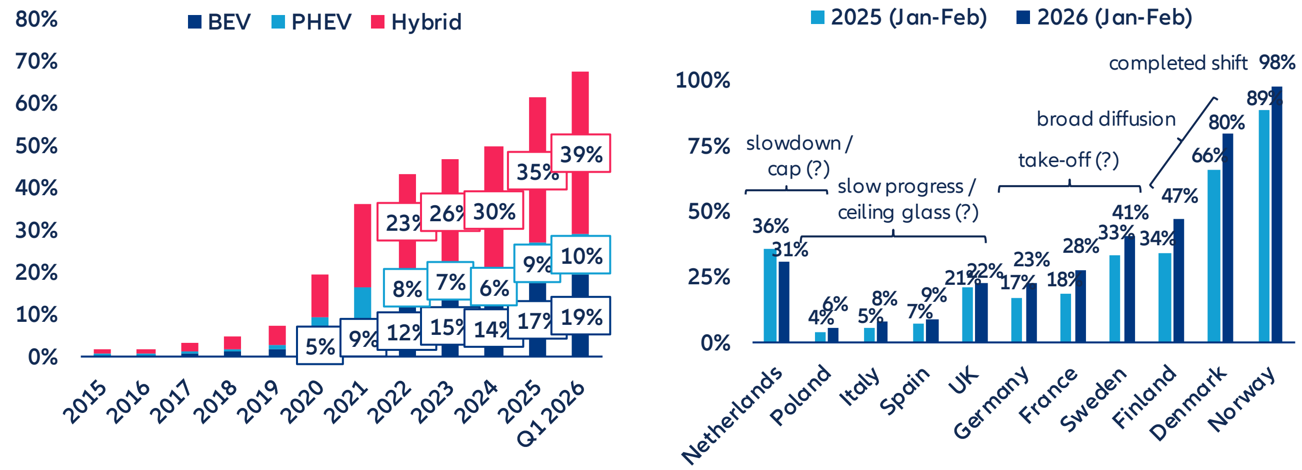
Figure 1 & 2: Oil price benchmark in Europe (Brent) vs retail car fuel price in France / 12-month trailing cumulative registration of new passenger cars in EU-27





Sources: INSEE, ACEA, LSEG Datastream, Allianz Research

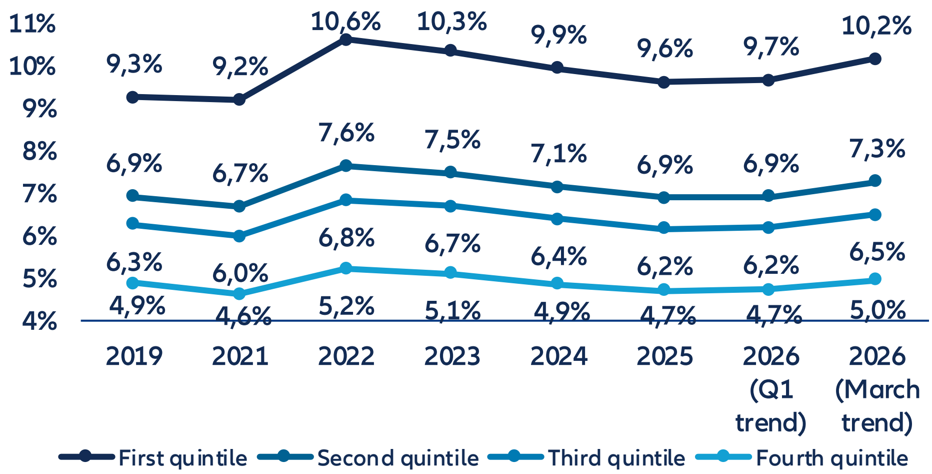
Figure 3 & 4: Annual powertrain car market share in EU-27 / BEV market share in top EU markets (Q126 vs. Q125)



Data as of Q1 2026. Sources: ACEA, Allianz Research

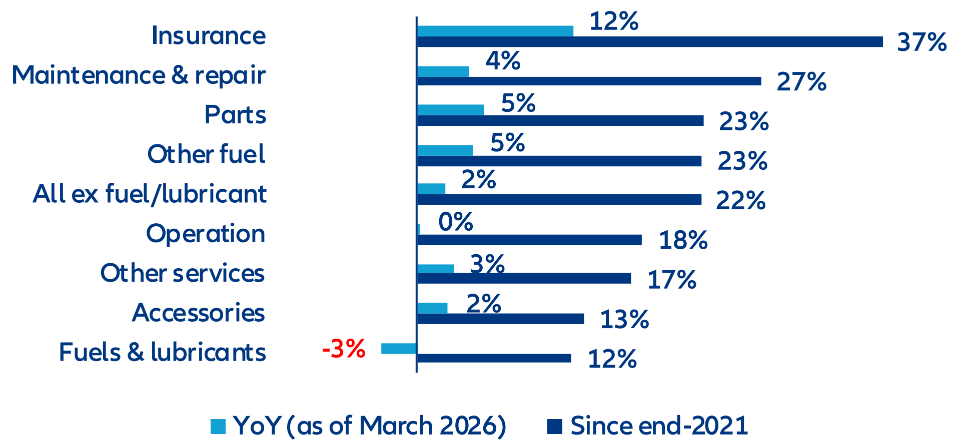
Car-running costs have become a genuine financial burden for European households – and the current oil-price spike is exposing once again how structurally vulnerable consumer budgets remain to energy volatility, which could accelerate the shift to electrification. In France and Germany, car-usage spending (fuel, insurance, maintenance – excluding the purchase price) accounted for 7-8% of annual disposable income on average, with the lowest earners hit hardest (11% of annual disposable income). This share visibly surged during the 2022 energy crisis and is trending sharply upward again in early 2026 (Figure 5). Car-usage spending is among the heaviest fixed-cost categories in the family budget and one of the least compressible, given the structural dependency on personal mobility in both urban peripheries and rural areas, notably for commuting to work. In the past, social movements such as the Yellow Vest protests in France erupted due to the rising burden of energy costs on personal transport. The pressure has intensified after the pandemic and the 2022 crisis as car-related services were entangled in a broader cost spiral: Across the EU-27, insurance prices have climbed +37% since end-2021, while maintenance, parts and repairs are up 20-27%, driven by the increasing electronic complexity of modern vehicles and the costlier battery components embedded in new powertrains (Figure 6). The 2021-2022 period has left a permanent scar in the mindset of European households, with inflation being by far the most deterrent downside risk in the main European consumer barometers since then.

Figure 5: Share of annual disposable income allocated to car usage spending* in France, per income distribution quintile



**This includes all costs except car purchase (fuel & lubricant, maintenance, repairing, insurance.). 2025 and 2026 figures are estimates calculated on the basis of HICP statistics for fuel, repairing & maintenance and insurance for personal transport. Sources: SDES (Chiffres clés des transports, April 2026), Eurostat, Allianz Research*

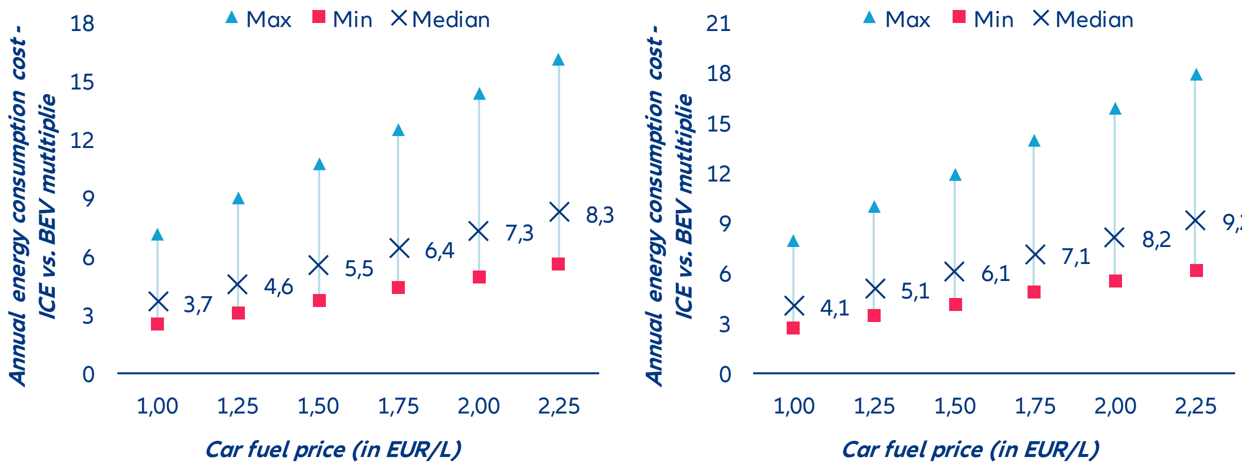
Figure 6: EU-27 HICP index for personal transport index (2015 = 100), trailing 12-month average growth



Sources: Eurostat, Allianz Research

Powertrain technology arbitrage offers a 4-5% purchasing power boost. At today's fuel price of around EUR 2.0/L across Western Europe, the annual energy bill for an ICE car runs roughly 7–8 times higher than for an equivalent BEV – 7x based on the most efficient models available, rising to 8x when taking into account the current European fleet average, of which EVs still account for less than 3%. That spread is wide by any historical standard but even before the Middle East crisis, when fuel hovered between EUR1.50 and EUR2.00, the multiplier was already sitting at 5–7x – enough to settle the budget debate in favor of EVs regardless of geopolitical tailwinds. Country dispersion adds another layer: Depending on local electricity tariffs, the cost advantage ranges from a modest 5x to a striking 14x, meaning the weakest case for EVs still represents a substantial saving. When translated into purchasing power, that energy differential amounts to a 4–5% income boost for the average Western European driver – not negligible in an inflationary environment. Add the narrowing total cost of ownership (BEVs now show roughly twice fewer recalls than ICE models per ADAC's latest figures, offsetting higher upfront battery costs) with public purchase subsidies closing much of the residual price gap and the picture is clear: the structural economics of the technology shift do not hinge on an oil-price spike. The total cost of ownership equation is quietly, but decisively, tilting toward electric.

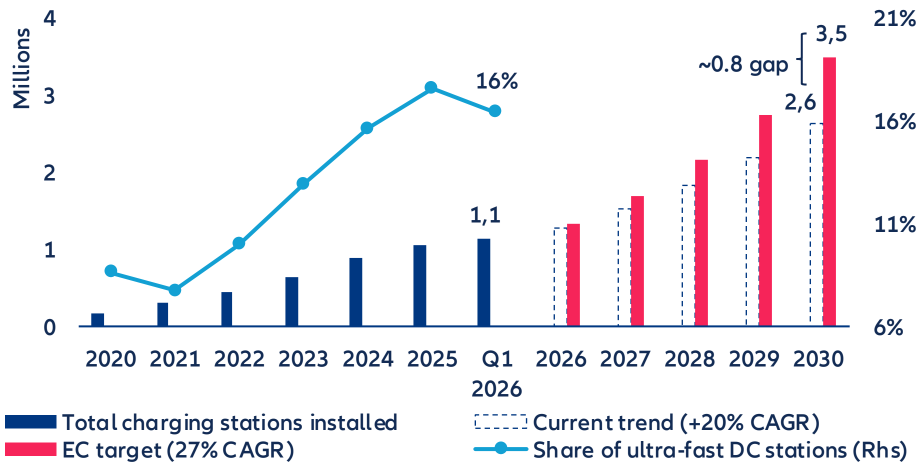
Figure 7 & 8: Annual car energy consumption cost comparison between ICE and BEV models in Europe* (based on most advanced energy-efficient model and average consumption of current fleet in 2025)



** based on a benchmark of 10 European countries (Belgium, Denmark, France, Germany, Hungary, Italy, Netherlands, Poland, Spain & Sweden). Calculations based on average power price in April in each country (as of 29 April 2026) and assumption of an average car distance of 12000 km per inhabitant (ACEA). Sources: ACEA, EPEX, Alternative fuels observatory (European Commission), Allianz Research*

Infrastructure deficit and grid pressure: The invisible brake on Europe's EV momentum. Beyond technology and price dynamics, the charging infrastructure gap remains one of the most tangible and underestimated structural constraints on EV mass adoption across Europe. Figure 12 illustrates the scale of the challenge starkly: despite a consistent ~20% CAGR in charging stations installed since 2020, reaching 1.1mn points in Q1 2026, the current trajectory falls materially short of the European Commission's 27% CAGR target – projecting a gap of approximately 0.8mn stations by 2030 relative to the EC's 3.5mn objective (Figure 9). Critically, only 16% of installed stations qualify as ultra-fast DC chargers, the very infrastructure that would most directly address consumer range anxiety and charging convenience – arguments that, as discussed, weigh heavier than price premium in many consumer resistance surveys. Dismissing the infrastructure deficit as a consequence of still-insufficient EV penetration misreads the causality: it is the perceived inconvenience of charging that actively deters consumers from making the technology shift in the first place. The distribution problem is equally structural: four countries – the Netherlands, France, Germany, and Belgium – account for roughly 65% of all EU charging stations, with France and Germany alone concentrating 40% of ultra-fast DC points. Rural areas across the broader EU remain critically underserved, amplifying adoption barriers precisely where private vehicle dependency is highest. Compounding these infrastructure pressures is an emerging and formidable competitor for Europe's electrical grid: the rapid expansion of data center capacity driven by AI investment. The IEA estimates EU data center electricity consumption at 70 TWh in 2024, with projections pointing toward 115 TWh by 2030 – a near 65% surge that will compete directly with transport electrification for grid capacity and investment priority. EU electricity demand growth remains comparatively modest, at around 1.1% in 2025 before a modest acceleration to 1.5% in 2026, leaving limited headroom to absorb simultaneously the electrification of mobility and the capex-heavy buildout of AI infrastructure. In this context, grid modernization and targeted infrastructure investment are not secondary enablers of Europe's EV transition – they are its most urgent prerequisite.

Figure 9: Total number of charging stations installed across the EU and projections based on current trend and European Commission target for 2030



Data as of Q1 2026. Sources: Alternative fuels observatory (European Commission), Allianz Research

From crisis to structural shift: Four pillars for a durable EV transition in Europe

There is robust evidence that fossil fuel prices influence the adoption of electric vehicles. In a study of California between 2014 and 2017, Bushnell et al. (2022)[1] show that when consumers decide whether to go electric, the price of gasoline matters four to six times more than the price of electricity, suggesting that what pushes people toward EVs is less the promise of cheap charging than the pain of expensive fuel. The pattern holds in China: Fei et al. (2025)[2] track monthly sales across 36 cities and find that a 1 CNY/L rise in gasoline prices lifts overall EV sales by 4.67%, with pure battery electric vehicles surging by 9.04%. Most recently, Zhang et al. (2026)[3] confirm the relationship in a European context, showing that a 1% increase in gasoline prices raises EV registrations by 0.85% across Denmark, Finland, Norway and Sweden, with budget-friendly models benefiting the most.

Yet the historical record shows that without structural reinforcement, oil-shock-driven shifts in vehicle preferences tend to reverse. During the 2007–08 oil spike, US demand for SUVs and pickup trucks fell sharply, before recovering in subsequent years as fuel prices declined and macroeconomic conditions improved[4]. The pattern repeated after 2014: When crude prices collapsed from USD115 per barrel to below USD30 by early 2016, lower fuel prices coincided with renewed consumer demand for SUVs and pickups, encouraging manufacturers to prioritize those segments[5]. Analysis by Resources for the Future confirms that gasoline prices accounted for a substantial share of the shift toward smaller vehicles between 2003 and 2007, yet that trend reversed once prices fell post-2014[6].

Crucially, where EV adoption remained resilient through past oil price downturns, strong policy frameworks appear to have played a decisive role. The International Council on Clean Transportation (ICCT) observed that during the 2014 crash, EV sales continued to grow in Norway, the UK and China, markets that combined robust purchase incentives, charging infrastructure deployment and regulatory support, while markets without comparable policy frameworks showed stagnation[7]. The IEA's Global EV Outlook 2025 reinforces this point looking forward: lower oil prices reduce the fuel-cost savings of EVs, and this effect is particularly pronounced in countries with low fuel taxation[8]. The distinction between cyclical and structural displacement is critical: the demand lost during the pandemic was temporary and rebounded once economies reopened, whereas displacement driven by EVs becomes durable only when underpinned by lasting changes in technology, policy and consumer behavior.

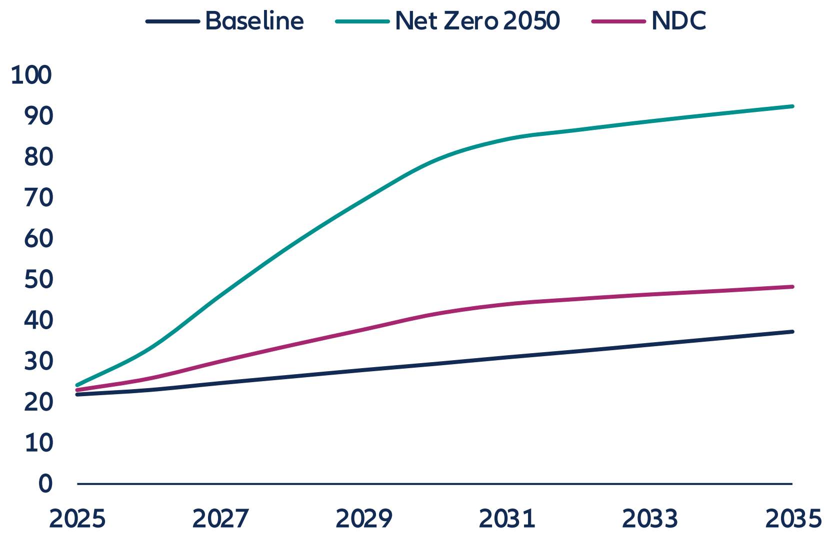
This is precisely where carbon pricing enters the picture as a mechanism to make the fossil-fuel cost signal permanent and predictable. While geopolitical shocks produce sharp but temporary price spikes, a well-designed carbon tax raises the floor price of fossil fuels structurally, removing the cyclicality that has historically allowed consumer preferences to revert. Under such a regime, every barrel of oil carries its environmental cost regardless of what OPEC decides or whether a Middle Eastern conflict escalates or de-escalates.

To explore how different carbon pricing trajectories might shape the pace of BEV adoption in Europe, we consider three oil-price scenarios over the 2025–2035 horizon, each reflecting a distinct policy ambition, following the NGFS framework. Under a Baseline scenario – current policies, no additional carbon pricing – oil prices stabilize around USD77–86/barrel through 2035, despite short-term possible price fluctuations related to exogenous factors such as geopolitical instabilities. EU pump prices remain flat at approximately EUR1.73–1.95/L, and BEV adoption grows primarily through the autonomous trend at roughly 1.75pps per year, driven by technology improvement rather than price signals[9].

[1] Energy Prices and Electric Vehicle Adoption | NBER
[2] Does high gasoline price spur electric vehicle adoption? Evidence from Chinese cities - ScienceDirect
[3] Electric vehicle adoption and energy prices: Empirical evidence from four Nordic countries - ScienceDirect
[4] Causes and Consequences of the Oil Shock of 2007-08 | NBER
[5] Automobile manufacturers, electric vehicles and the price of oil - ScienceDirect
[6] How Do Gasoline Prices Affect New Vehicle Sales?
[7] 2014 fuel price turbulence didn't pull the plug on EVs - International Council on Clean Transportation
[8] Global EV Outlook 2025 – Analysis - IEA

Under a Nationally Determined Contributions (NDC) scenario, carbon border adjustments and emissions trading begin to bite, pushing oil toward USD100–114/barrel by the early 2030s and EU pump prices to approximately EUR2.10–2.55/L, enough to make fuel expenditure a meaningful push factor, with BEV share reaching approximately 50% in Germany by 2030. Under a Net Zero 2050 scenario, aggressive carbon pricing drives oil above USD190/barrel by 2028–2031 and pump prices to EUR3.50–5.60/L, at which point ICE ownership becomes economically untenable for most households and the mass switch to BEVs accelerates sharply. Figure 10 shows the different pathways of BEV share related to a permanent shift in oil prices.

Figure 10: BEV adoption in EU-26 under different carbon pricing pathways (%)



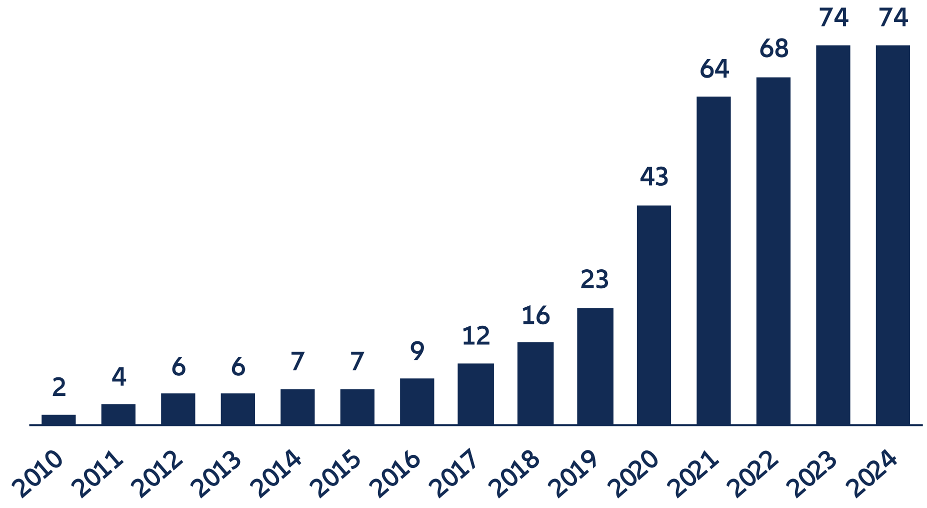
Sources: NGFS, Allianz Research

Carbon pricing raises the long-run cost of fossil-fuel driving. But making the old technology expensive is not the same as making the new one affordable, particularly for low- and middle-income households, who are the mass market. These are distinct economic problems, because carbon pricing internalizes the emissions externality, while purchase subsidies address the separate barriers – such as upfront cost, learning-by-doing, network effects around charging infrastructure – that hold back adoption of a technology most consumers still perceive as novel and risky[10]. The two instruments are often best deployed as complements rather than alternatives. European policymakers appear to have absorbed this logic, as the number of active national EV incentive policies across EU-27 countries has grown from just two in 2010 to 74 by 2024, with a sharp acceleration after 2019 as governments layered purchase grants, tax exemptions, charging infrastructure support and fleet incentives on top of one another (Figure 11).

[9] This estimate is derived from a linear probability model of BEV sales share across EU-26 countries over 2010–2024: ev_sales_share = α(u) + β_1·pump_price + β_2·ln_income + β_3·(ln_income × price_range) + β_4·year_trend. The autonomous trend coefficient ($\beta_4 = 0.0175$, $p < 0.001$) captures the annual increase in BEV market share attributable to technology diffusion and shifting consumer preferences, independent of price and income dynamics. The pump price coefficient ($\beta_1 = 0.161$, $p < 0.001$) implies that a EUR0.10/L increase in fuel prices lifts BEV share by approximately 1.6 percentage points, while a EUR0.50/L spike — comparable to the 2022 energy crisis — adds roughly 8.1 percentage points. Income enters negatively at the baseline ($\beta_2 = -0.292$, $p = 0.027$) but is moderated by an interaction with within-year price volatility ($\beta_3 = 0.0075$, $p < 0.001$), indicating that higher-income consumers respond more strongly to fuel price uncertainty when choosing EVs.

[10] Carbon pricing in climate policy: seven reasons, complementary instruments, and political economy considerations - Baranzini - 2017 - WIREs Climate Change - Wiley Online Library

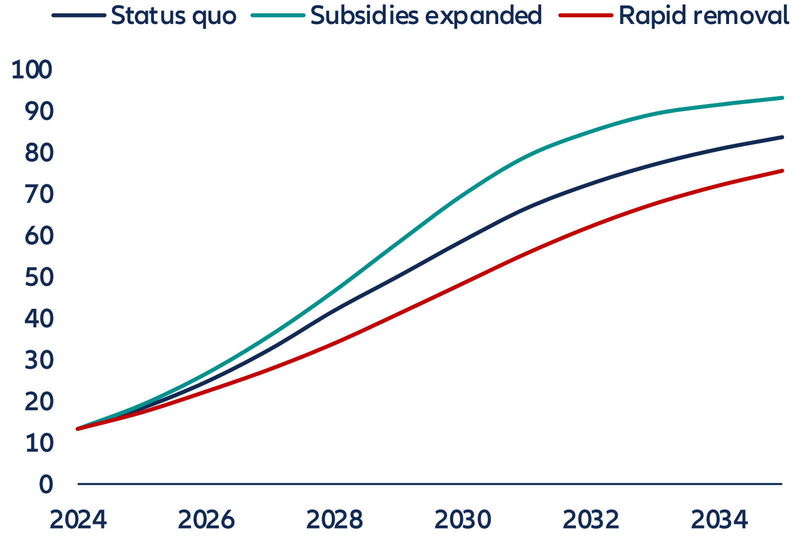
Figure 11: Number of EV subsidies schemes in the EU



Sources: IEA, Allianz Research

How far can subsidies alone take Europe? To answer this, we model BEV adoption across EU-27? countries under three policy scenarios, calibrating the subsidy effect from Martins et al. (2024)[11]. Their estimates show that a modest tax exemption worth around EUR1,000 adds 3.2% annual growth to BEV market share, a moderate grant below EUR5,000 adds 11.6% and a generous grant above EUR5,000 adds 26.4%. To analyze the BEV pathways as a response to subsidies, we built different scenarios (Figure 12). In the most optimistic scenario, every EU country raises grants to at least EUR5,000 through 2031, then gradually phasing them out by 2035 as BEV-ICE cost parity approaches, i.e., market share reaches 70% by 2030 and 93% by 2035. If instead governments simply maintain current programs through 2028 and then let them wind down, BEV share reaches only 59% by 2030. If political backlash or fiscal pressure leads to abrupt subsidy removal by 2029, adoption stalls at just 48% by 2030, slowly recovering to 76% by 2035 as the market falls back on cost economics and regulation alone. Therefore, even the most generous pathway falls 10pps short of the 80% BEV share by 2030 that would be consistent with meeting European decarbonization targets.

Figure 12: BEV adoption in EU-26 under different subsidies pathways (%)



Sources: Allianz Research

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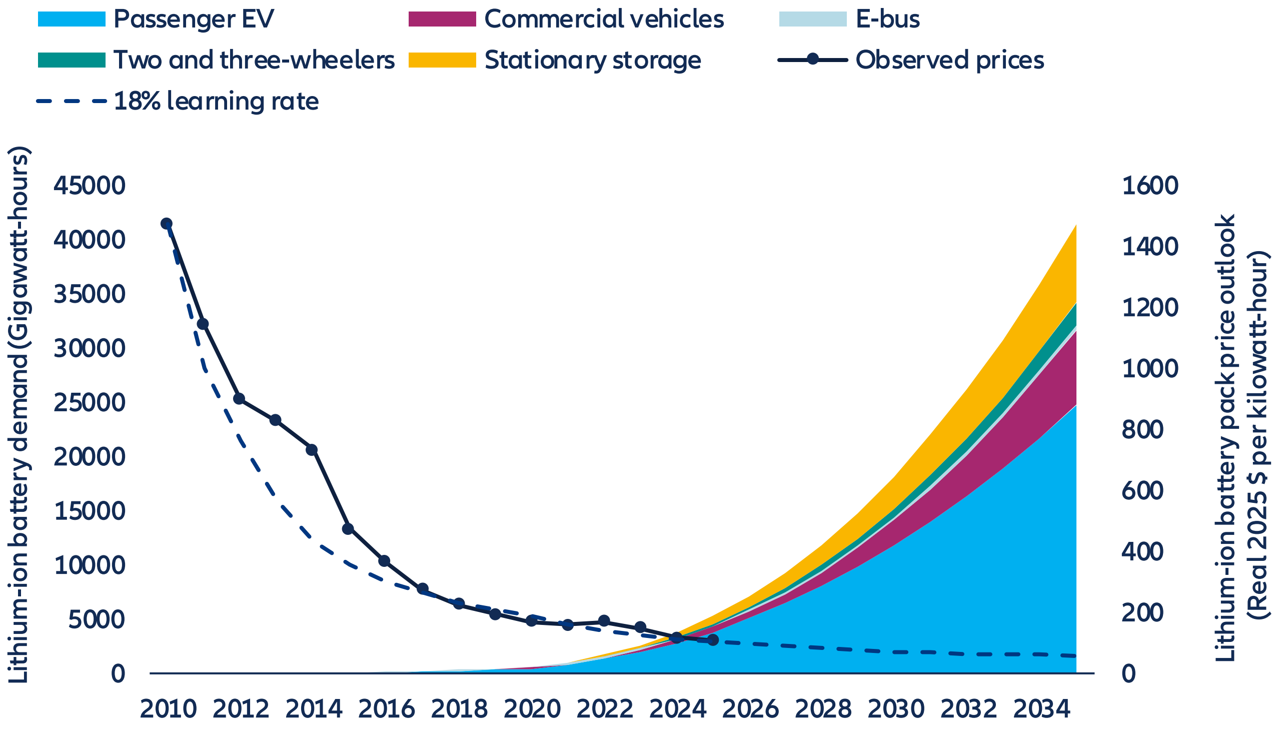
[11] [Assessing the effectiveness of financial incentives on electric vehicle adoption in Europe: Multi-period difference-in-difference approach - ScienceDirect]

The evidence shows that subsidies accelerate adoption, but fiscal constraints might make it unrealistic for several economies to sustain large-scale purchase incentives through the full duration of the transition. Muehlegger and Rapson (2022)[12] show that low- and middle-income households are highly price-sensitive when it comes to EVs: a 10% price reduction can increase sales in this segment by roughly 21%. But no government can subsidize its way to 80% market share indefinitely. The fiscal cost escalates as adoption scales, and as Archsmith et al. (2022)[13] argue, what ultimately sustains mass adoption is not the subsidy itself but what they call "intrinsic demand", the point at which vehicle quality, model availability, charging convenience and total cost of ownership make the EV the obvious choice without a grant, which would dependent on speeding up the technological transition.

The technological case for EVs rests, above all, on one number: the price of a lithium-ion battery pack. Figure 13 shows that price has fallen from USD1,474 per kilowatt-hour in 2010 to USD108 in 2024, a 93% decline in 14 years. This trajectory follows a remarkably stable learning rate of approximately 18%: every doubling of cumulative manufactured capacity reduces costs by roughly a fifth. What makes this learning rate so consequential is that global battery demand is now entering an exponential phase. Passenger EVs already dominate, but demand from electric buses, commercial vehicles, two- and three-wheelers and stationary storage is compounding rapidly. It is projected that total demand will rise from roughly 1,000 GWh today to over 5,000 GWh by the early 2030s. Each of these segments feeds the same manufacturing base, driving cumulative production volumes higher and pulling costs down further regardless of what happens in any single market. If the 18% learning rate holds, pack prices are on track to reach approximately USD60–70/kWh by 2030 and could fall below USD55 by the mid-2030s. At those levels, the upfront purchase price of a BEV falls below that of an equivalent ICE vehicle in most segments without any subsidy at all. This is the point at which "intrinsic demand" takes over: the EV becomes the default choice not because governments pay people to buy it, but because it is simply the cheaper, better car.

Figure 13: Lithium-ion battery pack prices and demand



Sources: New Energy Outlook BNEF 2025, Allianz Research

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[12] Subsidizing low- and middle-income adoption of electric vehicles: Quasi-experimental evidence from California - ScienceDirect
[13] Future Paths of Electric Vehicle Adoption in the United States: Predictable Determinants, Obstacles and Opportunities | NBER

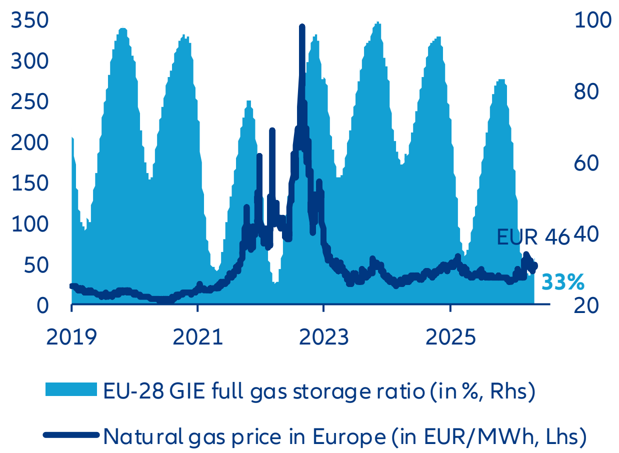
There is, however, a final condition that determines whether all of this – the carbon pricing, the subsidies, the falling battery costs – actually delivers on its environmental promise. An EV is only as clean as the electricity it runs on. Across the EU, grid carbon intensity has fallen from 0.45 tCO_2/MWh in 2005 to 0.22 in 2025, driven by a low carbon energy share that has grown from 47% to 70% of total generation (renewables grew from 16% to 50%). Under the EU NDC scenario, that trajectory continues: carbon intensity drops to 0.18 by 2030, 0.13 by 2035 and 0.07 by mid-century as low-carbon sources rise from 70% to 86% of generation. Each reduction compounds the emissions benefit of every EV already on the road. Moving from today's low-carbon electricity share of 70% to roughly 80% by 2035 would, on its own, reduce the per-vehicle carbon footprint of an EV by over 40%.

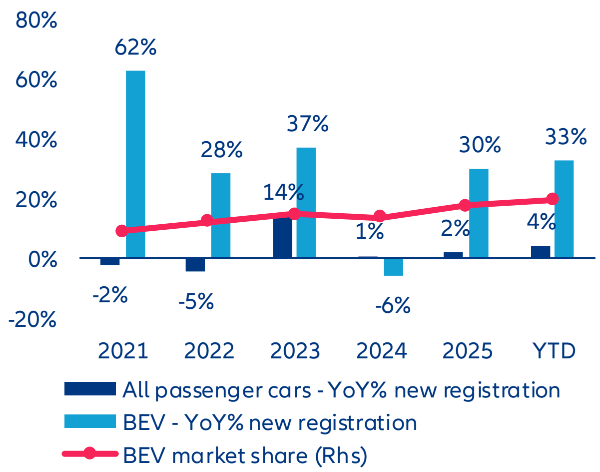
Germany illustrates the benefits of the grid transition. With a low-carbon share of 57% in 2025, an EV driven 14,000 km per year emits approximately 0.98 tCO_2, already 46.6% less than a new ICE car. But the gains from grid greening are steep: as Germany's low-carbon share rises to 64% by 2030 and 76% by 2035 under NDC commitments, the annual CO_2 saving per vehicle climbs from 0.85 tCO_2 today to 1.05 by 2030 and 1.39 by 2035, a 75.6% reduction relative to ICE. Therefore, grid decarbonization alone, without any change in driving behavior or vehicle efficiency, cuts the German EV's carbon footprint by 54% over a single decade. This creates a powerful feedback loop: the more EVs on the road, the stronger the case for grid investment; the greener the grid becomes, the larger the climate return on every vehicle already switched. Conversely, stalling grid decarbonization erodes the credibility of the entire transition. An 80% BEV fleet running on a 'brown' grid delivers far less than a 50% BEV fleet running on a clean one. Grid decarbonization is a critical complement of green transport in Europe.

Downside scenario: what if Middle East effects extend beyond Q2?

#1 - What if power price spikes? European EV demand proved unexpectedly resilient during the European energy crisis of 2022, with registrations rising ~28% while the total car market declined. This resilience reflected two temporary buffers: aggressive public intervention to cap electricity prices and still-generous purchase subsidies. Today, both buffers are weaker, notably subsidy schemes that broadly phased out over 2022-2023 in large markets like France and Germany. Fiscal space is more constrained and subsidy schemes are being scaled back or better targeted. Meanwhile, gas storage levels and geopolitical uncertainty—particularly around the Strait of Hormuz—reintroduce upside risks to power prices. In such a scenario, EV total cost of ownership (TCO) advantages could narrow, especially for households relying on spot-priced electricity. That said, structural mitigants are stronger than in 2022. Europe's power mix has shifted toward renewables, nuclear availability has improved (notably in France), and occasional negative wholesale prices in 2025 highlight underlying capacity surplus. In addition, diversified gas supply from Norway, the U.S. and LNG markets reduces extreme tail risks. Net-net, EV demand is no longer insulated but remains less exposed than often assumed—suggesting downside risk is real but likely contained rather than systemic.

Figure 14 & 15: Natural gas price and storage rate in Europe / Annual passenger car registration trend & BEV market share in EU-27 since 2021

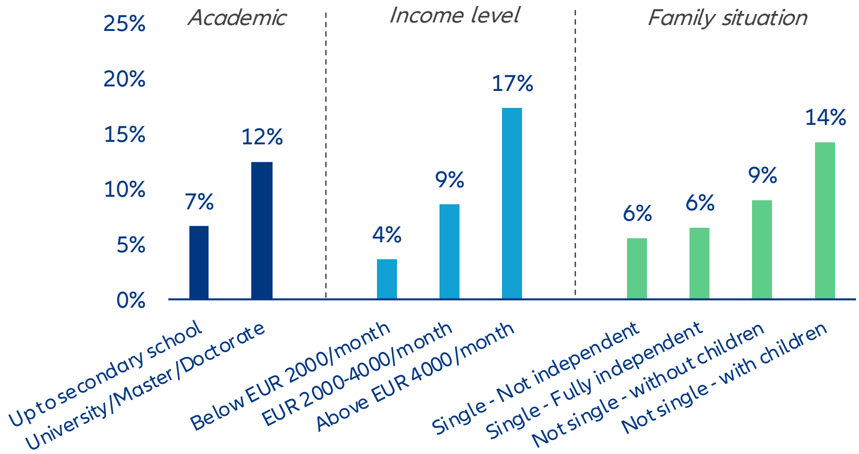




Market data as of 1rst May 2026. Sources: LSEG Datastream, ACEA, Allianz Research

#2 - What if consumer sentiment deteriorates? EV demand has historically shown relative resilience during macro slowdowns, largely because early adopters skew toward higher-income households with lower marginal sensitivity to energy and financing costs. This partially explains why EV penetration continued to rise even as broader European car demand remained roughly 30% below pre-COVID levels in recent years. However, this resilience has limits. EVs remain a discretionary, high-ticket purchase and global uncertainty—geopolitical tensions, energy volatility or tighter monetary policy—typically triggers postponement behavior. Rising interest rates directly affect monthly leasing costs, a key driver of EV affordability in Europe, while weaker confidence can delay fleet renewals by corporates. Policy can smooth the cycle but is becoming less supportive. With subsidy schemes being reduced or retargeted, the burden increasingly shifts to private demand elasticity. Even if new instruments (e.g. social leasing in France) provide targeted support, they are unlikely to fully offset a broad-based confidence shock. The key risk is not a collapse in penetration, but a slower-than-expected ramp-up, as consumers defer adoption despite improving technology fundamentals. In this context, EV demand should remain relatively more resilient than ICE demand in a downturn—but not immune, so a potential extension of the conflict in Iran could downsize EV sales growth to 10-15% this year (vs. almost -35% in Q1 2026) while total registration would contract again.

Figure 16: Profile ID of EV purchasers in Europe (2025)



Sources: EU drivers' view on electric cars : European Alternative Fuels Observatory Consumer Monitor 2025, ACEA, Allianz

#3 - What if automakers are lacking chips? EVs are structurally more exposed to semiconductor supply disruptions than ICE vehicles. Semiconductor content is roughly 2x higher in EVs—and up to 3x for advanced models integrating L2+/L3 functions—driven by power electronics, battery management systems and centralized computing architectures. This amplifies sensitivity to any disruption across the semiconductor value chain. A key vulnerability lies in upstream inputs such as helium, essential for advanced lithography. A supply shock linked to Middle East tensions could disrupt production at major foundries like TSMC or Samsung Electronics, with immediate spillovers to automotive chip supply. This risk compounds an already tight environment, as AI-driven demand continues to absorb leading-edge capacity. The consequences would be twofold: higher input costs and renewed production bottlenecks. Unlike 2021–2022, OEMs have improved inventory management and sourcing diversification, but buffers remain limited for advanced nodes and power semiconductors. In a severe scenario—particularly if disruptions coincide with tensions around the Strait of Hormuz—EV supply could tighten more than ICE, widening price differentials at the retail level. Based on a price sensibility matrix, we estimate that on average BEV retail prices would be twice as high as ICE models if chip price double or triple whatever state incentives allocate to boost sales (assuming a maximal subsidy rate at EUR 10,000). Bottom line: semiconductor risk is asymmetric. Any supply shock would disproportionately weigh on EV output and margins, reinforcing short-term downside risks to adoption.

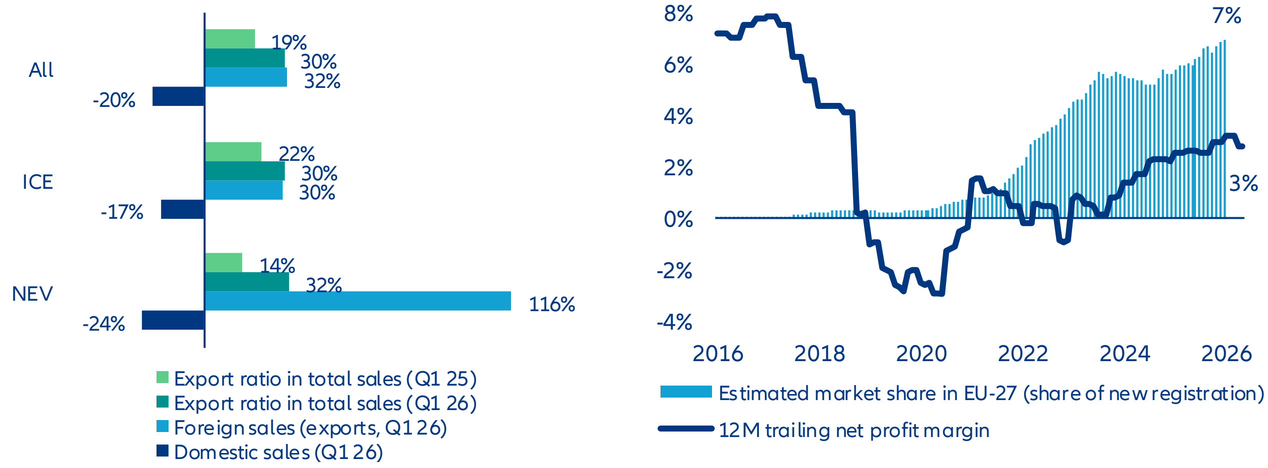
Table 1: BEV vs. ICE retail price spread matrix based on chip price volatility and state EV subsidy policy

BEV vs ICE - average retail price spread (End-2025 = ~30%)		Chip price - Multiplier ratio				
		2.0	2.5	3.0	4.0	5.0
EV subsidies on new vehicle purchase (in EUR)	1000	114%	118%	122%	129%	136%
	2000	109%	114%	118%	125%	132%
	3000	105%	109%	113%	121%	128%
	4000	100%	105%	109%	117%	124%
	5000	96%	101%	105%	113%	121%
	6000	92%	96%	101%	109%	117%
	7000	87%	92%	96%	105%	113%
	8000	83%	87%	92%	101%	109%
	9000	78%	83%	88%	97%	105%
	10000	74%	79%	83%	92%	101%

Sources: Allianz Research

#4 - What if China slows down? An extended Middle East conflict could push energy costs higher in Asia, weighing on China's already fragile domestic demand. Combined with intense price competition and margin compression among OEMs, this would likely accelerate the international expansion of Chinese manufacturers. Europe stands out as the primary target market, especially as access to the U.S. remains restricted. Chinese OEMs have already increased their European market share to ~7% in 2025, leveraging strong cost competitiveness and increasingly high product quality. In a context of domestic overcapacity, exports become a key adjustment variable. Trade policy remains the swing factor. While the European Commission has initiated anti-subsidy investigations, the current regulatory framework still allows significant market access. Notably, local content requirements remain partial, with battery sourcing rules tightening only progressively toward the end of the decade. If no additional tariff barriers emerge, a China-led supply push could compress EV price premiums versus ICE, accelerating mass-market adoption in Europe. Paradoxically, a negative external shock (China slowdown) could therefore support EV penetration in Europe through intensified competition and lower prices—at the cost of increased pressure on domestic OEM margins.

Figure 17 & 18 : Chinese automakers' passenger car sales breakdown (domestic & foreign market) / Net profit margin rate & estimated market share in EU-27 (all powertrains)



Sources : CAAM, Eurostat, Allianz Research

These assessments are, as always, subject to the disclaimer provided below.

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