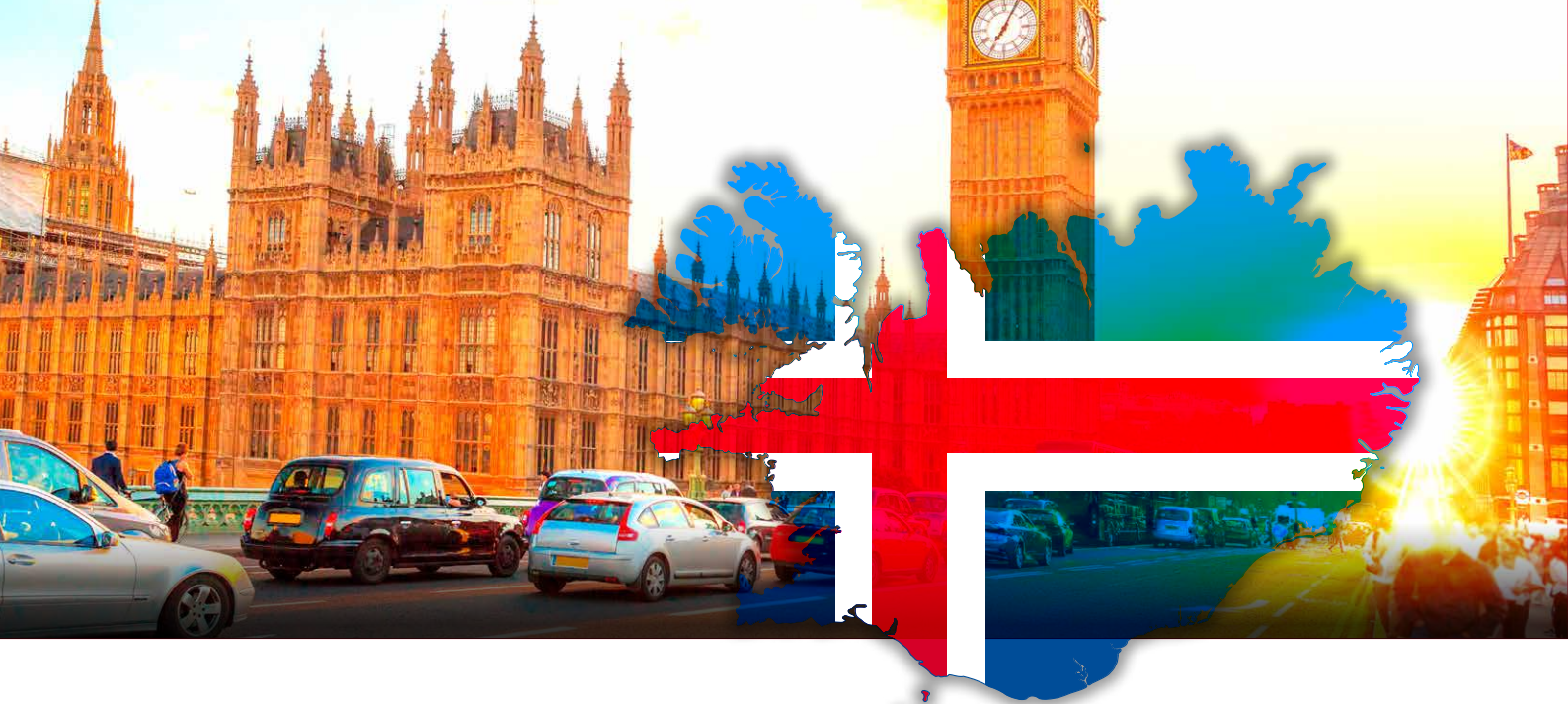


Post-Brexit UK Automotive Production & Sales (Part 1)



The Automotive Industry is Closely Linked to UK Economy

According to the Office for National Statistics (ONS) report for 2023, the top three goods export markets for the UK were the U.S., Germany, and China. The primary export sectors include automotive, machinery, medical and pharmaceutical products, and crude oil. Conversely, the top three goods import sources were Germany, China, and the U.S., with major imports coming from the automotive, machinery, medical and pharmaceutical products, and petroleum fuel industries. The trade between the UK and Taiwan has grown in recent years, with imports from Taiwan valued at £3.74 billion, a 5% increase from 2022; exports from the UK to Taiwan totaled £1.46 billion, an 8.9% increase compared to 2022. Major imports from Taiwan included electronic equipment, machinery, and automotive components, while key exports to Taiwan consist of beverages, medical and pharmaceutical products, and automobiles.

Overview of Automotive Production and Sales



In 2023, the UK produced 1.025 million vehicles, marking a 17.0% increase from 2022. This included 905,000 passenger cars (up 16.9%) and 120,000 commercial vehicles (up 18.5%). Vehicle sales in the UK reached 1.903 million units in 2023. According to the Society of Motor Manufacturers and Traders (SMMT), the top ten best-selling car models in the UK were as follows: Ford Fiesta (95,892 units), Volkswagen Golf (64,829 units), Vauxhall Corsa (52,915 units), Nissan Qashqai (50,546 units), Ford Focus (50,492

units), Volkswagen Polo (45,149 units), MINI (44,904 units), Mercedes-Benz A Class (43,527 units), Ford Kuga (40,398 units), and Kia Sportage (35,567 units), most of which were imported from EU countries. EV sales (including battery EVs, plug-in hybrids, and hybrids) reached 346,000 units, an increase of 48% from 2022. EVs accounted for about one-sixth of total car sales in the UK. This growth was largely driven by tax incentives for fleet purchases. Since June 2022, when purchase incentives for EVs were discontinued for individual buyers in Europe, the UK has been unique in lacking such incentives for personal purchases. **Figure 1** is a forecast for UK automotive production and sales.

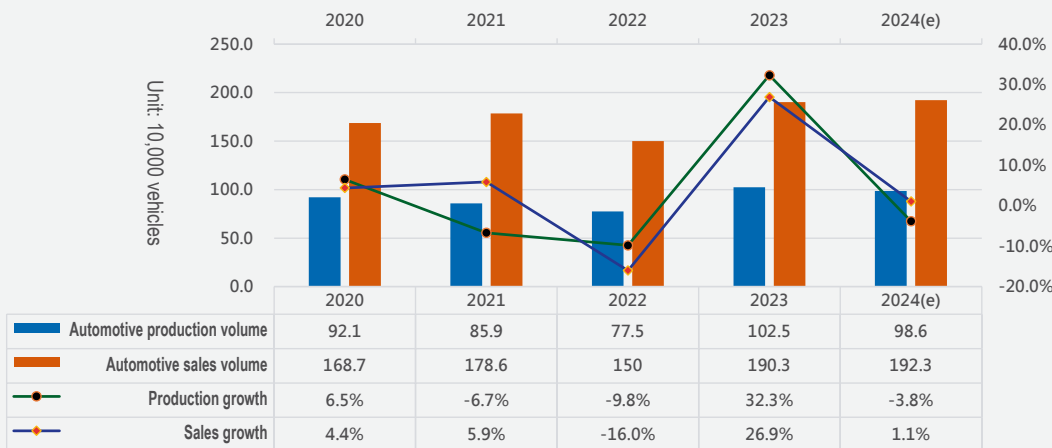
According to UK customs data, total exports of vehicles under HS Code 87 (including their components) in 2023 amounted to £39.7 billion—a decline of 3% from the previous year. The top five export destinations were: the U.S. (accounting for 22.1%, valued at £8.79 billion), Germany (8.9%, £3.52 billion), China (7.6%, £3.04 billion), Belgium (6.5%, £2.6 billion), and Italy (4.8%, £1.92 billion). Exports to Germany and China grew by 6% and 2%, respectively; however, other exports fell significantly—with China experiencing a steep decline of 22%.

In 2019, total imports of vehicles under HS Code 87 (including components) amounted to £57.57 billion. The top five sources were: Germany (34.7%, £20 billion), Belgium (12.2%, £7.03 billion), Spain (8.3%, £4.76 billion), France (6.9%, £3.99 billion), and the Netherlands (5.4%, £3.13 billion).

SMMT's data indicates that **the increase in tariffs after Brexit has weakened the UK's automotive manufacturing sector. The UK's vehicle production was estimated to decrease**



Figure 1. Forecast for UK Automotive Production and Sales



Data source: SMMT ; Industry, Science and Technology International Strategy Center (2024/12)

Despite these short-term setbacks in data trends, SMMT remains optimistic about future growth. With new models set to launch soon, SMMT expects production levels for cars and light commercial vehicles to exceed 1 million by 2027 and potentially surpass 1.3 million by 2030. The production declines in the short term are part of an anticipated transition phase with significant growth potential expected ahead. However, to achieve growth, the

in 2024 due to tariffs imposed by the WTO on imported components and exported vehicles—resulting in an annual increase of over £3.2 billion in manufacturing costs for the UK automotive industry. This amount is roughly equivalent to 90% of annual investment in automotive research and development; consequently, the industry may struggle to break even which will impact investments aimed at developing more environmentally friendly and intelligent vehicles.

The SMMT survey shows that as Europe's automotive industry has become highly integrated, establishing relevant trade agreements between the UK and EU will be crucial. Key demands from the UK automotive sector include zero tariffs, creating regulatory frameworks and dialogue, as well as allowing manufacturers to transfer employees between the UK and EU. In addition to reaching agreements with the EU, the UK must ensure continued connections with major global markets, with the most important trading being those with the U.S., Japan, Turkey, South Korea, Mexico, and Canada.

The UK's automotive industry is undergoing one of its most significant transformations in a century as EV markets rise while conventional combustion engine vehicle production declines gradually. However, this transition is fraught with challenges; by September 2024, UK automotive production had declined for seven consecutive months—reflecting market challenges regarding demand for new vehicle types as well as the difficulty in transitioning.

In September alone, the UK produced 70,039 vehicles—a drop of 20.6% compared to September 2022—partly due to a strong performance in 2023 that set a high baseline since it was one of the best years since 2020 when production was notably high. This has made current figures appear weaker than they might otherwise seem. Factory transformations are also contributing to short-term production declines as many manufacturers adjust their production lines for entirely new zero-emission vehicles. Despite stringent requirements imposed by the UK government mandating that at least 22% of new car sales must be battery electric vehicles by 2024—a target that less than met the expectations—electric vehicle production fell by 37% in September 2023 with only 21,309 units produced. The transition appears to fall behind policy requirements.

support of UK government's policies will be crucial. SMMT has called on the government to provide more incentives for private buyers, in order to accelerate the popularization of EVs, thereby facilitating a smoother transition for the industry.

Overview of EV Industry in the UK



According to SMMT data as of January 2024, total registrations of EVs in the UK surpassed the 1 million mark. Despite an increase of 18%—reaching a total of approximately 315 thousand units—in registrations of battery electric vehicles compared to 2023, the sales grew on the whole, reaching 1.9 million units. Therefore, the share of EVs slightly declined from 16.6% in 2022 to about 16.5%. This marks the first time of a stagnation in market growth for EVs.

A market survey by Statista indicates that in 2024 the UK's EV market was valued at USD 20.6 billion; this figure is expected to grow to USD 28.8 billion by 2028 at a compound annual growth rate of approximately 8.6%. By 2028, the sales volume is projected to reach around 573 thousand units. While demand for EVs continues to rise globally, growth trends within the UK market may be affected by policy changes and consumer concerns—particularly regarding pricing and EV's charging infrastructure.

The UK government has been vigorously promoting its EV industry, having amended its Climate Change Act in June 2019 to become the first country globally to legislate achieving net-zero emissions by 2050. The country's major automakers have ramped up efforts toward developing EV models while related charging infrastructure has flourished as well. The government has invested £1 billion into promoting clean energy innovation programs, including subsidies for EV purchases and accelerating charging facility installations. Over the past years the demand for EVs has surged significantly in the UK. Registrations of plug-in hybrid EVs rose from 3,500 units in 2013 to nearly 242,982 by 2019—making the UK the largest market for plug-in hybrid EVs in Europe.

According to SMMT data, EV sales in the UK have grown significantly over the past few years, although only 13,000 units were sold in 2020. In that year, plug-in hybrid EVs accounted for an average of 5.7% of the new car market, while battery electric vehicles made up 3.2%. The latest data from 2023 shows that alternative fuel vehicles



(AFVs), which include EVs, plug-in hybrids, and hybrids, experienced a market share growth rate of 4.7% compared to the same period in 2022. Additionally, due to ongoing investments from both the government and private enterprises, the UK's EV charging network expanded from hundreds of charging points in 2011 to over 23,176 by the end of 2023. Since 2011, the UK government has provided subsidies for EV purchases, offering discounts of up to £4,500 to buyers. These incentives have helped position the UK as Europe's largest market for plug-in hybrid EVs. However, in October 2018, the government revised its policy and reduced subsidies for plug-in EVs based on carbon emissions standards, lowering the maximum subsidy from £4,500 to £3,500. Eligible EV buyers can still apply for funding under the Electric Vehicle Homecharge Scheme for home charger installations, which offers up to £500.

As per transport department's data until December 2023 Mitsubishi's Outlander PHEV emerged as Britain's most popular plug-in hybrid with sales nearing 43.6 thousand, making the best-selling plug-in hybrid for 4 consecutive years, way ahead of Nissan Leaf which remains as UK's best-selling battery-EV, followed by BMW 330e in third place.

Due to Brexit and expectations of rising tariffs, major car manufacturers have begun to slow down their investments in EV development in the UK. Nissan's plans to produce X-Trail SUV in Sunderland shifted in 2019, while Honda closed its factory in Swindon in 2021 and redirected investments toward high-tech models in other regions. BMW located in Oxford has also delayed the development of the next-generation fully electric Mini cars. However, the UK government is still actively promoting the EV industry. In the annual budget announced in March 2020, the government declared it would invest £500 million in new EV charging infrastructure, with an aim that drivers can find charging stations within a 30-mile radius. Additionally, there are plans to reduce vehicle taxes, freeze fuel duties, and establish research centers.

Development Trends and Policies Within EV Industry

In November 2023, the UK Chancellor of the Exchequer announced a funding package of £4.5 billion for advanced manufacturing over the next five years, with £2 billion specifically allocated to the automotive sector to accelerate its transition. According to reports from SMMT, private and public investments in the UK automotive sector reached £23.7 billion in 2023, surpassing the total of the previous seven years combined.

The latest EY Electric Vehicle Readiness Index indicates that **despite increasing supply and regulatory challenges, the UK ranks as the fifth most prepared market globally for EV transformation. The UK is increasing governmental support and supervision. The government plans to invest £1.6 billion in developing EV charging infrastructure**, including a £950 million allocation for the Rapid Charging Fund aimed at installing DC chargers.

However, the UK lags behind countries like China, Germany, and the U.S. in EV and battery manufacturing investments. To close this gap, the government is investing £800 million in research for EV battery production and allocating £211 million for projects focused on cost reduction and enhancing energy efficiency and recyclability of batteries.

New UK regulations require that starting in 2024, 22% of car sales must be EVs, with this percentage increasing annually until reaching 100% by 2035. Nevertheless, Fitch Solutions predicts that UK's EV sales will grow at an annual rate of approximately 18.4% over the next eight years, slower than previously expected. The main reason is that current demand for EVs relies heavily on fleet purchases, while corporate and private sales are experiencing a downward trend. This indicates that most consumers remain hesitant about switching to EVs.

Development of UK's Major EV Manufacturers

According to a survey by Bolt.Earth (an EV charging infrastructure supplier), five foreign brands dominate the UK's EV market: Audi, BMW, Renault, Tesla, and Volkswagen. In 2022, Kia's e-Niro and Nissan Leaf ranked as the third and fifth best-selling EVs in the UK. In the first seven months of 2023, China's SAIC MG4 became the second best-selling EV in the UK, following Tesla's Model Y.

Tesla's Model Y and Model 3 were the top-selling electric models in 2022 in UK. Model Y is a family SUV with a range of 513 kilometers and a price between £52,000 and £68,000. Model 3 is priced between £48,000 and £61,000 and can charge from 10% to 80% in just 23 minutes using a 200kW charger, making it an economical option.

BMW and Audi attract UK's EV buyers with their i4 and Q4 e-tron models. Audi recently announced plans to fully transition to EV production by 2029, restructuring all existing production lines and expanding its model range. Volkswagen is pursuing a similar transformation with a focus on mid-range markets.

Kia and Volkswagen offer similar pricing and a range of 418 kilometers. However, Kia's longer warranty period and faster charging capabilities are gaining traction on the market. Meanwhile, Chinese brands have doubled their share in the European EV market within two years due to lower prices (approximately £27,000 to £32,000) as well as more advanced battery technology. SAIC Group also employs localization strategies by investing in design studios in London to produce vehicles like the Cyberster series tailored for the UK market.

In 2023, BMW announced a £600 million investment in its Mini factories in Oxford and Swindon to produce two new all-electric Mini models starting in 2026, including the 3-door Mini Cooper and Mini Aceman. Since 2000, BMW has invested over £3 billion in this region. Nissan also announced plans to invest £2 billion to produce electric versions of its Qashqai and Juke models while building a third battery factory and related facilities in the UK. Tata Group from India revealed plans to invest £4 billion in Somerset for a gigafactory expected to produce 40GWh of batteries annually for its Jaguar Land Rover starting in 2026. (To be continued in Part 2) ■

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