



Recharging China-Europe trade

How electrification is
reshaping vehicle flows

Table of Contents

<u>1. Overview: New Patterns in China-Europe Vehicle Trade</u>	5
<u>1.1 China-Europe Vehicle Trade Developments</u>	
<u>1.2 The Rise of EV and PHEV Exports</u>	
<i>Table 1.1 Light Vehicle Trade China and Europe by Value H1 2019 vs H1 2020</i>	
<i>Figure 1.1 China Light Vehicle Exports to Europe by Value by Country H1 2019 vs H1 2020</i>	
<u>1.3 Vehicle Trade Will Become More Complex</u>	
<u>2. China-Europe Vehicle Trade Forecast</u>	10
<u>2.1 Chinese Light Vehicle Exports to Europe Evolution</u>	
<i>Figure 2.1 China Light Vehicle Exports to Europe Forecast 2020-2030</i>	
<u>2.2 European Light Vehicle Exports to China</u>	
<i>Figure 2.2 Europe Light Vehicle Exports to China Forecast 2020-2030</i>	
<u>3. Chinese Vehicle Export To Europe Analysis</u>	14
<u>3.1 Chinese Vehicle Export To Europe up to 2019</u>	
<i>Figure 3.1: Chinese Global Light Vehicle Export by Value 2008-2019</i>	
<i>Figure 3.2: China Light Vehicle Exports to Europe by Value 2015-2019</i>	
<i>Figure 3.3: China Light Vehicle Exports by Value by European Market 2015-2019</i>	
<i>Figure 3.4 China Light Vehicle Exports to Russia by Value by Powertrain Type 2017-2019</i>	
<u>3.2 Chinese Vehicle Exports to Europe In 2020</u>	
<i>Figure 3.5 China Light Vehicle Exports to Europe by Value 2018 Q3 to 2020 Q2</i>	
<i>Figure 3.6 China Light Vehicle Exports by Value to Europe by Powertrain Type 2018-2020</i>	
<i>Figure 3.7 China Light Vehicle Exports to Europe by Value Change in Share H1 2019 vs H1 2020</i>	
<u>3.3 Chinese Vehicle Exports to Sweden and the UK</u>	
<i>Figure 3.8 China Light Vehicle Exports to the UK by Value</i>	
<i>Table 3.1 UK Passenger Vehicle Registrations by Powertrain January-October 2020</i>	
<u>3.4 Chinese Vehicle Exports to Russia</u>	
<i>Figure 3.9 China Light Vehicle Exports to Russia by Value 2019 Q3 to 2020 Q2</i>	
<i>Figure 3.10 Chinese Vehicle Brand Sales in Russia Jan-Oct 2019 vs Jan-Oct 2020</i>	
<u>4. China As A Hub for Vehicle Production</u>	23
<u>4.1 OEMs Expand Global Vehicle Exports from China</u>	
<u>4.2 Chinese OEMs Target Europe</u>	
<i>Table 4.1 Snapshot of Chinese Companies Planning EV Exports</i>	
<u>4.3 Global OEMs Will Leverage Global Supply Chain for EVs</u>	
<u>5. European Vehicle Export to China Analysis</u>	27
<u>5.1 European Vehicle Export to China Evolution</u>	
<i>Table 5.1 China Light Vehicle Imports by Value by Country 2018 Q3 to 2020 Q2</i>	

5.2 European Vehicle Exports to China In 2020

Figure 5.1 Europe Light Vehicle Exports to China by Value 2019 Q1 to 2020 Q2

Figure 5.2 Europe Light Vehicle Exports to China by Value by Country Q3 2018 to Q2 2020

5.3 European Production's Role in Chinese EV Sales

Figure 5.3 Europe Light Vehicle Exports to China by Value by Powertrain 2016 Q1 to 2020 Q2

6. Conclusion: A Complex and Dynamic Trade Lane.....31

6.1 China and European Regulatory Alignment and Risks

6.2 A Challenge But Still Poised for Growth

7. Appendix.....34

Table 7.1 HS Custom Code 6 Digit Definitions

Table 7.2 HS Custom Code 8 Digit Definitions

7.2 China Trade Tariff Developments

Table 7.3 Import Tariffs for New Vehicles

7.3 Policies for Importing and Exporting Vehicles to and from China

Table 7.4 Vehicle Import Procedures (Used Cars)

Table 7.5 Vehicle Export Regulations (Used Cars)

7.4 Import and Export Ports In China

8. Credits.....40

ECG Business Intelligence
powered by
Automotive from Ultima Media

December 22nd 2020

1. Overview: New Patterns in China-Europe Vehicle Trade

1.1 China-Europe Vehicle Trade Developments

China's rise as an automotive market over the past two decades has made OEMs in Europe significant net exporters of vehicles with the world's largest market for vehicle sales and production. Meanwhile, Chinese vehicle imports to Europe have been relatively limited.

Crisis-hit 2020, however, has hinted at potential new patterns, including a noticeable rise in exports of Chinese-built electric vehicles and plug-in hybrid electric vehicles (PHEVs) to Europe. While these exports are smaller in volume and lower in value relative to Europe's premium vehicle shipments to China, the transition to low-emission vehicles is bringing new dimensions to Europe-China trade flows from a product and regulatory point of view, as well as for logistics.

Europe and China have converged more in recent years on areas like automotive emissions and electric vehicles; there has also been more focus on trade opportunities following US-China trade tensions. Logistics and shipping links have continued to evolve, including deep-sea trade and rail links between China, Central Asia and Europe, encouraged in part by China's 'Belt and Road' infrastructure investment financing. Indeed, supply chain costs and the utilisation of automotive production capacity are likely to be major factors in determining export flows in both directions.

Chinese vehicle exports to Europe have long been expected to arrive as a third wave after the earlier success of Japanese and South Korean OEMs. However, such exports have made little more than a splash, with few Chinese brands succeeding in the EU, UK and EFTA, albeit with halting success in Russia and Central Asian markets.

Recent years did see some increases, however; light vehicle shipments including commercial vans from China to Europe (including the UK and EFTA) doubled from 190,000 units in 2014 to 390,000 in 2018, according to data from Eurostat and ACEA, the European automotive manufacturers' association. However, the relatively low value of the trade – Chinese vehicle exports to the EU and EFTA were worth €590m in 2018, or just €1,500 per vehicle – suggests that many of these vehicles did not remain in the EU but were transhipped to other regions, such as the Middle East, Africa, Russia and Central Asia.

In 2019, Chinese vehicle exports to Europe had dropped to nearly 257,000 units (likely as transshipment to the Middle East including Iran decreased), but their value increased to €1.03 billion, which suggests that more vehicles remained in the EU and likely grew in value per unit. The actual number of Chinese-built vehicles destined to the EU and EFTA was likely under 100,000 units.

Chinese shipments to Russia were also on the rise, making the country the largest individual European destination for Chinese vehicle exports by value in 2018 and 2019. This volume has been supported by recent trade liberalisation between China and the Eurasian Customs Union, of which Russia is a member. We estimate that China exported around 25,000 vehicles to Russia in 2019.

Exports from the EU to China grew significantly in the early 2010s in line with demand for premium vehicles, surpassing 600,000 light vehicles in 2014, according to data from Eurostat and ACEA. In recent years, European shipments to China have declined as OEMs localised more production in the country, and as overall vehicle demand in China stagnated, but Europe's exports have remained at high volume and value levels. In 2019, EU vehicle exports to China were around 470,000 units, averaging around €45,000 per vehicle and worth a total of €22 billion – or more than 20 times greater in value than China's vehicle exports to Europe.

1.2 The Rise of EV and PHEV Exports

However, things have looked somewhat different in 2020, as new vehicle trade flows of Chinese-built EVs and PHEVs have risen. Global OEMs – including Volvo and Geely, BMW and Tesla – are now using Chinese production capacity to meet rising demand for electric or hybrid vehicles in Europe.

According to customs data based on the harmonised system of customs codes (HS), the value of passenger vehicle exports to Europe from China rose nearly 95% year-on-year in the first half of 2020 to \$1.09 billion (€890m). Based on data from China customs, the increase to Europe was more than 20% in volume to 57,000 passenger vehicles in the first six months – which suggests a rise in the value per unit imported (HS code data capture imports for inventory and thus do not reflect immediate sales and registrations in a country). The import increase compared to a European market for new vehicles that had declined by around 40% year-on-year in the first half of the year.

Other trade data show that electrified vehicle imports account for much of this rise, while Chinese shipments of lower cost ICE vehicles have declined in the first half of 2020 to markets like Russia. In fact, this shift in powertrain to EV and PHEVs put relatively tiny Sweden ahead of Russia as China's top vehicle destination by value in Europe during the first half of 2020.

Table 1.1 Light Vehicle Trade China and Europe by Value H1 2019 vs H1 2020 (US dollar '000)

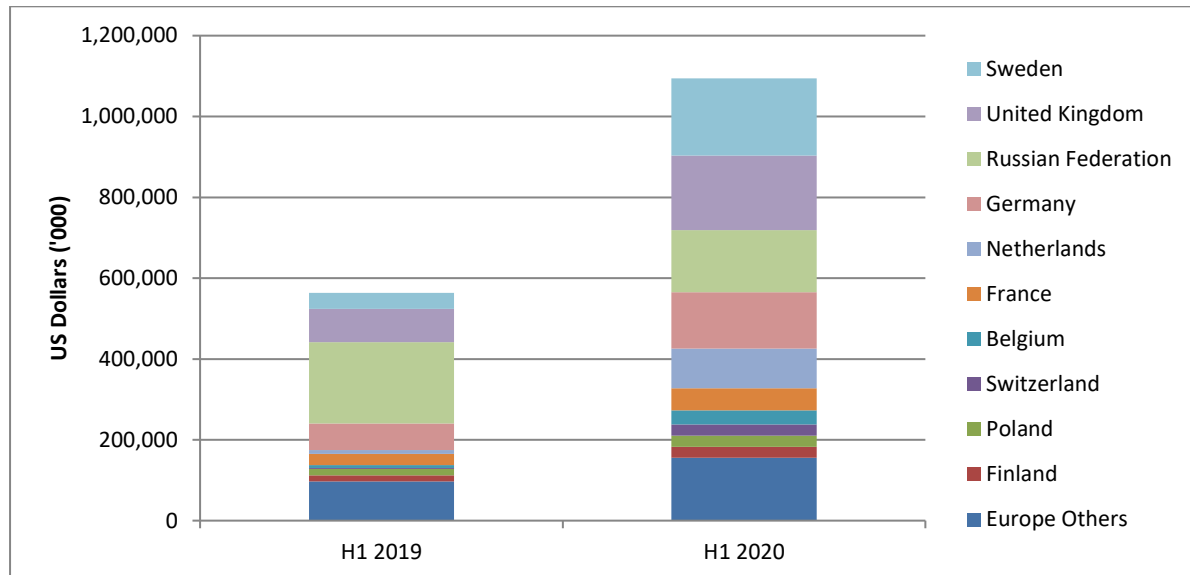
Exporter	Importer	H1 2019	H1 2020	% Change
Europe	China	\$13,400,891	\$7,789,228	-41.8%
China	Europe	\$563,540	\$1,094,579	+94.2%

Note: Value based on HS Code 8703, see appendix. Light vehicles include passenger and light commercial vehicles. Europe includes the EU, UK, EFTA and Russia.

Source: International Trade Center (ITC), UN Comtrade Data, Chinese customs data, ECG Business Intelligence

Meanwhile, exports from Europe to China have fallen faster than the Chinese market and recovered slower. Exports were down more than 40% year-on-year in the first half of the year in a Chinese market that had declined around 16% in that period, in part as a result of European production shutdowns and supply chain disruptions.

Figure 1.1 China Light Vehicle Exports to Europe by Value by Country H1 2019 vs H1 2020



Note: Value based on HS Code 8703, see appendix. Light vehicles include passenger and light commercial vehicles. Europe includes the EU, UK, EFTA and Russia.

Source: UN Trade Data, ITC, ECG Business Intelligence

1.3 Vehicle Trade Will Become More Complex

Is this pattern the start of a significant reversal in trade patterns, with a big rise in Chinese vehicle exports to Europe as European exports drop off?

The increase should be put into context. Firstly, the tumultuous events of the coronavirus crisis make the contrasts in 2020 much starker, and some shifts that occurred this past year may prove temporary. Data available in the second half of 2020 have suggested more recovery in European vehicle exports to China. By the end of August, passenger vehicle exports from the EU to China were down just 13.4% year-on-year in value to €11 billion, and 13.3% lower in volume to 238,230 units¹. That compares to an overall Chinese market that was down around 10% year-on-year through August.

The increase in China's exports to Europe is also from a low base. In 2019, Chinese vehicle imports accounted for 1.6% of the value of EU motor vehicle imports; rises this year do not by any stretch equate to Chinese vehicles flooding the market. More Chinese brands are active in Russia, but their collective market share also remains relatively small.

¹ www.acea.be/uploads/statistic_documents/Economic_and_Market_Report-First_three_quarters_2020.pdf

But there are signs of trade shifts. Demand for EVs and PHEVs in the EU, UK and EFTA has soared in 2020, propelled by stricter EU regulations on CO₂ fleet emissions and a number of incentives across the region to purchase low-emission vehicles. In some cases, OEMs have turned to the established production network in China for these vehicles, which they had already been expanding in recent years to meet government-set quotas

Volvo Cars, for example, uses plants in China for products like the XC60 crossover, while premium EV brand Polestar, owned by Volvo and Geely, exports from China. In some cases, OEM inventory and production of EVs and PHEVs have lagged behind demand and led to long lead times for customer orders. Such shortages have led Tesla to use its Chinese production plant to import the Model 3 to Europe from China. In autumn 2020, BMW began using its joint venture plant in China to build and import the ix3, a new all-electric SUV, to European markets.

A number of Chinese brands, including SAIC, BYD, Xpeng, Aiyas and Nio, have either begun or plan to export electrified cars and vans to Europe.

Chinese EV and PHEV exports to Europe have growth potential. In certain categories, such as smaller, low-cost EVs or some petrol cars and vans, China may maintain a competitive advantage. Renault, for example, has confirmed that it will start importing the Dacia Spring electric mini-SUV from China in 2021. OEMs in China may also have a window of several years where they can help meet demand for these products as part of Europe's 'green recovery' and before stricter regulations come into force.

ECG Business Intelligence forecasts compound annual growth rises of Chinese exports to Europe – including Russia – of more than 5% through 2024.

However, European-based OEMs are investing significantly in localised EV battery and production capacity, making it more likely that international OEMs will use China for niche or low-volume products. Chinese brands, meanwhile, will continue to face tough competition and relatively high barriers to entry. Chinese OEMs are trying to enter at the more premium end of the market – Polestar, Xpeng and Nio, for example – rather than at high volumes. More mass-targeted brands, meanwhile, may eventually consider regional production bases, including in eastern Europe and Morocco.

China's window for growth in EV exports may be limited not only by European localisation, but also legislation. The EU has recently confirmed higher targets for emission reduction by 2030 and will continuously tighten vehicle emissions and standards during the 2020s. Furthermore, proposed European legislation on the lithium-ion battery supply chain could make it more difficult and expensive to import batteries and EVs from China as early as 2024.

Nevertheless, the relatively close regulatory alignment between the EU and China on vehicle emissions should help OEMs serve both regions with the same platforms and production, which could lead to some growth in premium EV exports from Europe in the coming years. However, European OEMs continue to localise production of high volume and new vehicles

in China, including previously imported mid-to-high range models, while continuing to use European and global plants for low volume, niche models.

Up to now, European exports to China have been almost exclusively ICE vehicles. In the short term, at least, with EV demand rising faster in China than ICE models, European vehicle exports to China are likely to rise slower than the overall market. We estimate that these exports will have declined by around 6% year-on-year in 2020 in an overall new vehicle market in China that will be almost even with 2019 levels, while European exports to China will recover to 2019 levels by 2021 even as the new vehicle market rises at a faster rate.

In the medium term, a mixture of trade policy, ongoing localisation and challenges in exporting EVs at scale are likely to lead to further levelling off or even declines in exports from Europe to China. We do not expect European vehicle exports to China to reach the peaks seen earlier in the 2010s even as the Chinese vehicle market grows to new heights.

The complexity and volatility of China-Europe trade lanes will put pressure on vehicle logistics to meet changing demand. Ultimately, however, these flows continue to introduce new customers and the need for more services around global electric vehicle services. It will also mean new options and competition in logistics, too.

The Chinese government's 'Belt and Road' infrastructure programme may so far have had limited success; however, its development is evident for automotive trade with Europe. Volvo Cars has become a major user of China-Europe rail links, for example, switching volumes between the regions to rail in 2017. Other OEMs continue to use and trial rail services between China and Europe, including BMW and Porsche.

New shipping lanes have begun as well, including a direct ro-ro service for cars from SAIC Anji Logistics, a Chinese logistics company owned by Chinese OEM SAIC. There is likely to be more to come as China-Europe trade evolves further.

2. China-Europe Vehicle Trade Forecast

2.1 Chinese Light Vehicle Exports to Europe Analysis

In the first six months of the year, China exported 36,900 electric and plug-in hybrid vehicles – ‘new energy vehicles’ (NEV), as they are commonly called in China – to global markets, according to data from Chinese Customs. That was an annual increase of 140.7%² year-on-year and compared to a drop of 21% across total Chinese vehicle exports. Demand for electric vehicles in Europe has fuelled much of that growth.

Chinese light vehicle exports to the wider European region, including the EU, UK, EFTA and Russia, are set to increase in 2020 despite drastic declines in new vehicle sales across the region compared to 2019. Overall, we estimate that Chinese exports to the wider European region will have grown by more than 4% year-on-year in 2020 compared to declines in new vehicle sales of around 25%, reaching more than 287,000 units, including light commercial vans and transshipment through Europe to other regions. Excluding transshipment, we estimate that the number of vehicles imported that remain in the EU, UK and EFTA will have grown closer to 20% compared to 2019.

The value increase in imports from China is also higher than the increase in units. Customs data according to HS codes indicate growth of as much as 100% year-on-year in the value of Chinese vehicle imports for some European markets in dollar terms, signalling higher average vehicle values, much of it from EV and PHEV sales.

Volvo and Geely have begun exports of EVs and PHEVs of both Volvo models and premium brand Polestar from China, for example. There has been a rise in demand for SAIC’s MG, which has seen sales grow in the UK for electric models and has expanded to other European markets; the carmaker’s Maxus LCV brand has also begun sales in several European markets, including shipments of electric versions that started in 2020.

By the end of 2020, shipments of BMW and Tesla electric vehicles from China will have arrived in Europe, along with small scale exports of several Chinese brands trying to break into the market.

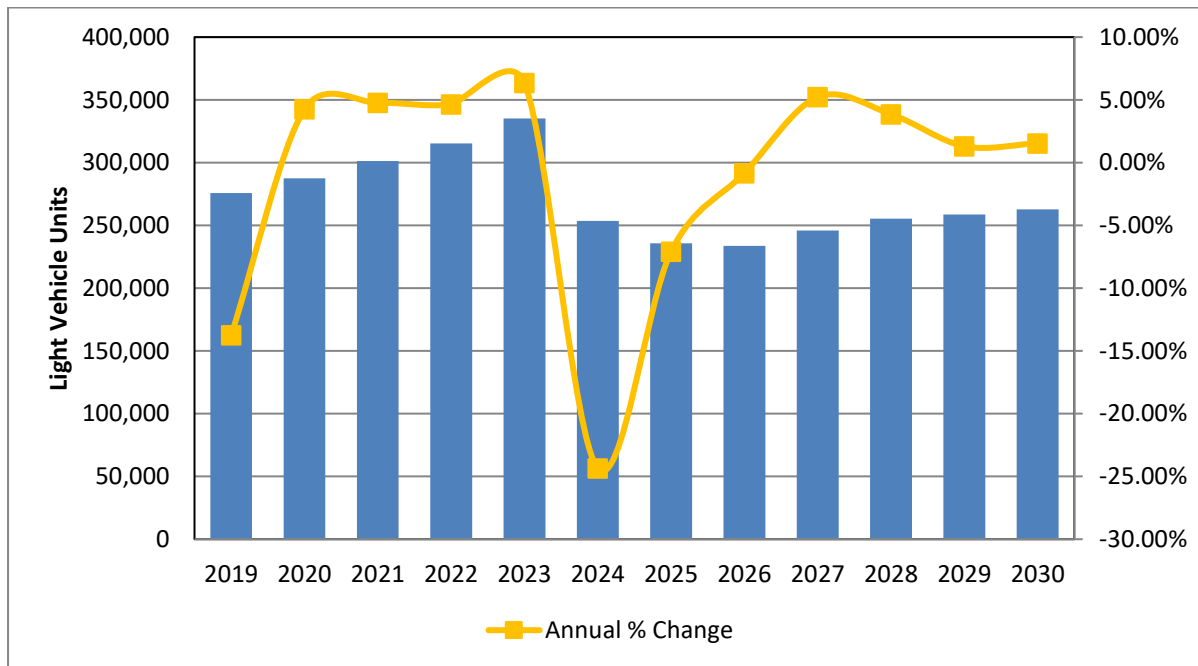
We expect further growth in Chinese vehicle exports to the EU and UK over the coming years as OEMs use Chinese capacity especially to meet EV and PHEV demand. That will include European brands using Chinese plants and joint ventures, as BMW already is. Other factors may help maintain Chinese vehicle exports to Europe, including the entry of new EV brands such as Nio and Xpeng.

² <http://news.cableabc.com/xny/20200824589778.html> .

Post-Brexit, the UK may also seek to simplify trade terms with China; already, MG sales in the country, including of EV models, have accelerated. The UK government's ban on ICE new vehicle sales by 2030 could also require further imports from China to meet demand.

Chinese vehicle exports to Russia, where market dynamics are different, declined significantly in the first half of the year. Without any notable rise in electric vehicle sales in the country, Chinese exports of low-cost ICE vehicles have fallen with the market. However, Chinese brands did see some recovery in sales in Russia starting from the third quarter and that rise is set to continue.

Figure 2.1 China Light Vehicle Exports to Europe Forecast 2020-2030



Note: Europe includes the EU, UK, EFTA and Russia. Light vehicles include passenger and light commercial vehicles
Source: Automotive from Ultima Media/ECG Business Intelligence, ACEA, Eurostat

While Chinese vehicle imports to Europe will rise over the coming years, we expect them to level off by the middle of the decade. By that time more EV and PHEV production will have been localised in Europe. OEMs such as VW, PSA, BMW and Daimler have scaled up production plans to produce more electrified vehicles in Europe to gain from the increasing local demand for such vehicles. So, too, are international players. Hyundai began production of its Kona Electric model at a plant in the Czech Republic in March 2020 with the strategic aim of reducing delivery time to customers. Tesla is currently building a giga factory in Brandenburg outside of Berlin where production will begin with the Model Y SUV in July 2021. Ford will build an electric vehicle based on Volkswagen's all-electric MEB architecture at its plant in Cologne, Germany from 2023.

Most imports from China are also of relatively low volume, niche or transitional products. Tesla, for example, has started importing the Model 3 from China because of supply shortages

from the US. The Dacia Spring will be built in China in low volumes and initially tested in Europe in the rental market.

Regulation is also likely to play a major role in further encouraging EV demand to be met locally. This past December, the European Commission released its proposal to modernise EU legislation on batteries under its 'Circular Economy Action Plan', which would regulate the battery supply chain.³ Under the policy, new rules would come into force from July 2024 that mandated batteries sold in the EU met social and ecological standards, including on carbon footprints.

If such regulation were to be implemented, it would likely make imports of Chinese-built lithium-ion batteries and vehicles more difficult, limiting the scope for further volume growth out of China.

Volumes to Russia and other eastern European countries are set to remain mostly ICE models and should grow as those markets recover from the coronavirus crisis. We expect Russia to rise to account for 30,000-40,000 of Chinese exports to Europe per year.

Overall, however, Chinese vehicle exports are likely to plateau, and to vary with OEM model and production cycles along with regulatory impacts. We do not expect the growth in EV and PHEV sales to lead to a Chinese wave of imports – but it will give Europe-China trade flows new impetus and dimensions.

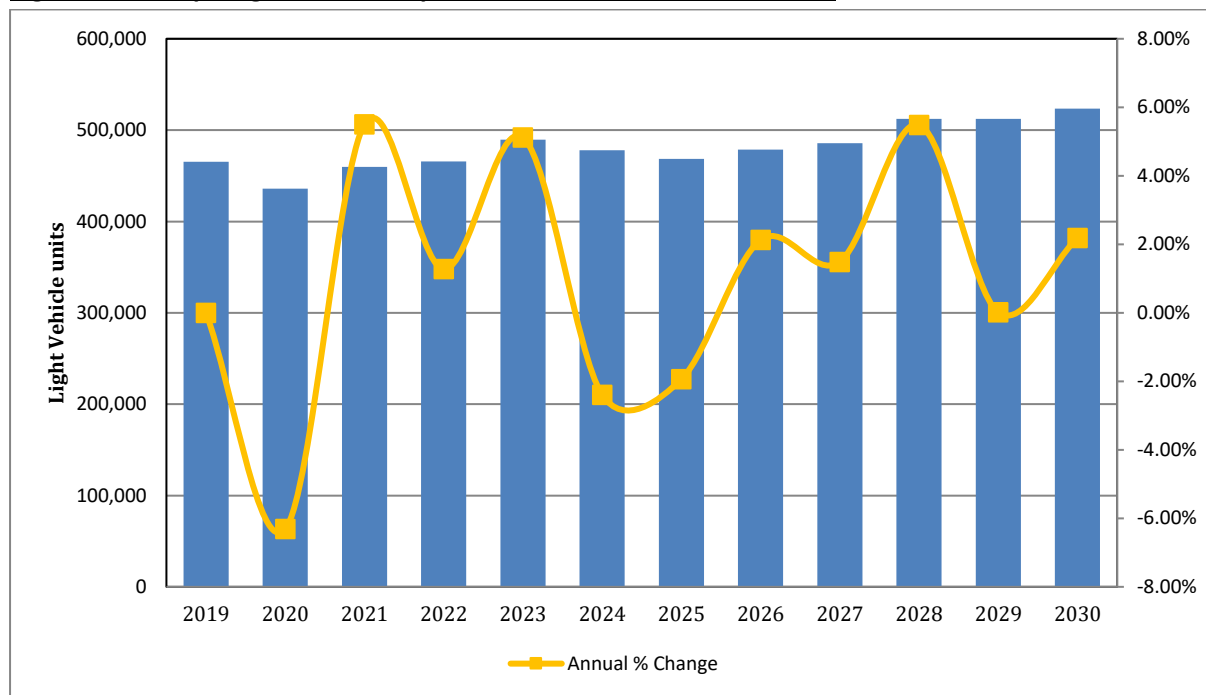
2.2 European Light Vehicle Exports To China

According to estimates by ECG Business Intelligence, European passenger vehicles exports – mainly from the EU and UK – to China are forecast to decline by 6% in 2020 to 435,000 vehicles. The decline was much more significant in the first half of the year following China's first quarter lockdowns, and European plant and supply chain shutdowns in the second quarter. However, the second half has seen recovery in European vehicle exports on the back of the remarkable performance of China's new vehicle market.

European vehicle exports to China are poised for further recovery, with a 5.5% increase in 2021 on continuing strong demand for premium vehicles before stabilising at a high level. Over the next 2-3 years, an increase in the production of electric vehicles in Europe, including high-end models and SUVs, should also support premium EV exports to China along with traditional ICE models.

³ https://ec.europa.eu/commission/presscorner/detail/en/ip_20_420

Figure 2.2 Europe Light Vehicle Exports to China Forecast 2020-2030



Note: Europe include the EU, UK, EFTA and Russia. Light vehicles include passenger and light commercial vehicles

Source: Automotive from Ultima Media/ECG Business Intelligence, ACEA, Eurostat, CAAM

However, we do not expect large scale exports of electric vehicles from Europe to China in the coming years; as a result, European vehicle exports to China are unlikely to grow as fast as the Chinese market. Whilst shipments of high-value vehicles are strong, the expansion of China's low-emission vehicle market is served largely by local production, including Chinese brands and the joint venture production plants of European OEMs such as the Volkswagen Group, BMW, Daimler and Volvo Cars. Although Europe is expanding production capacity for these models, it is more likely to serve high value or niche model segments.

The heavier weight of batteries and logistics complexity can make shipping EVs long distances more costly, however a bigger cost issue is likely on inbound supply chain and production. It makes less economic sense to build EVs at high volume with batteries produced on other continents, which is likely to contribute to more regionally based EV production bases.

New regulations are also likely to encourage this, including ongoing requirements for OEMs in China to increase EV production. China continues to increase quota requirements for 'new energy vehicles' production, for example – mainly EV and PHEV models. Meanwhile, the culmination of the 'Made in China 2025' strategy, first unveiled in 2015, could lead to further measures to discourage imports. We broadly expect the second half of the 2020s to see European exports to China to remain stable, but eventually surpass 500,000 as the market expands further. This will mean levels remain well below previous peaks seen earlier in the 2010.

3. Chinese Vehicle Export to Europe Analysis

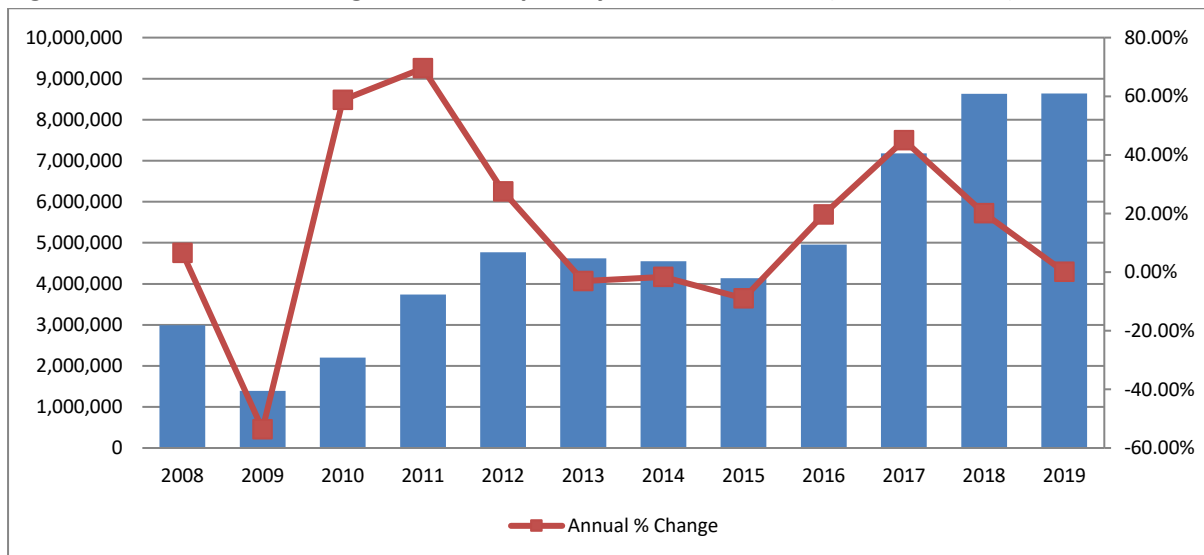
3.1 Chinese Vehicle Export Development to Europe

Passenger Vehicle exports from China have followed a volatile path over the past two decades, growing overall but generally failing to make a significant mark on global finished vehicle trade. In the early 2000s, China’s vehicle export strategy was to push cheap products to every feasible market; by 2007, China was shipping to more than 202 global destinations, but more than half of the markets had annual export values below \$1m. In the past decade, Chinese automakers began concentrating more on higher volume markets, with moderate success.

Chinese-built vehicles have gained and then lost ground in markets in Brazil, Russia, Iran and even the US. In many cases, geopolitics or regulatory shifts have swiftly changed the direction of trade. According to data on HS code 8703 covering all passenger vehicles, the value of global Chinese vehicle exports doubled between 2015 and 2018 to reach \$8.6 billion per year, a level it maintained in 2019. Finished light vehicle exports are estimated to have reached 700,000 units in 2018 and 2019.

Global OEMs, including General Motors, Volkswagen and Kia, have also begun to use China more as a production base to serve export markets. Most notable has been Volvo Cars, which together with Geely has expanded global exports from China since 2015, including long-wheel base variants and key models like the S90 sedan and XC60 crossover SUV. According to LMC Automotive, the share of Chinese vehicle exports made up from international brands rather than domestic brands has increased from 19% in 2016 to 38% in 2019.

Figure 3.1: Chinese Global Light Vehicle Export by Value 2008-2019 (US Dollar '000)

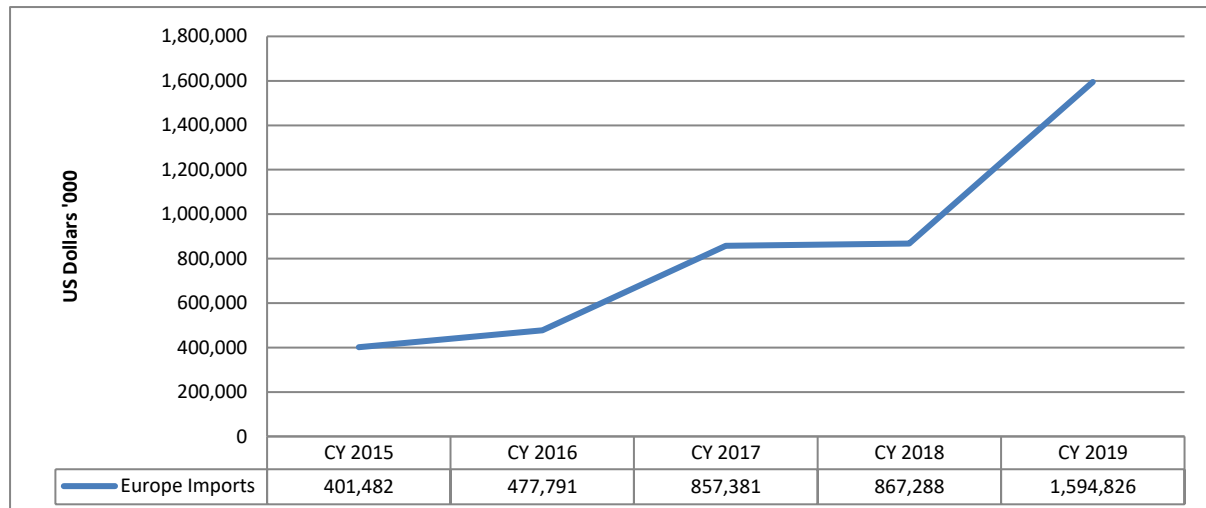


Note: Value based on HS Code 8703, see appendix. Light vehicles include passenger and light commercial vehicles.

Source: International Trade Center (ITC), ECG Business Intelligence

The reimposition of US trade sanctions on Iran in 2018 significantly hurt exports to the country, including from China. And the US-China trade war has led manufacturers including Volvo, Ford and GM to change previous export plans from China to the US and other markets. But exports to Europe have still increased. For example, Volvo shifted production of the XC60 crossover from China to Europe to serve US demand; however, it has continued to import the XC60, including PHEV variants, from China to serve European demand.

Figure 3.2: China Light Vehicle Exports to Europe by Value 2015-2019



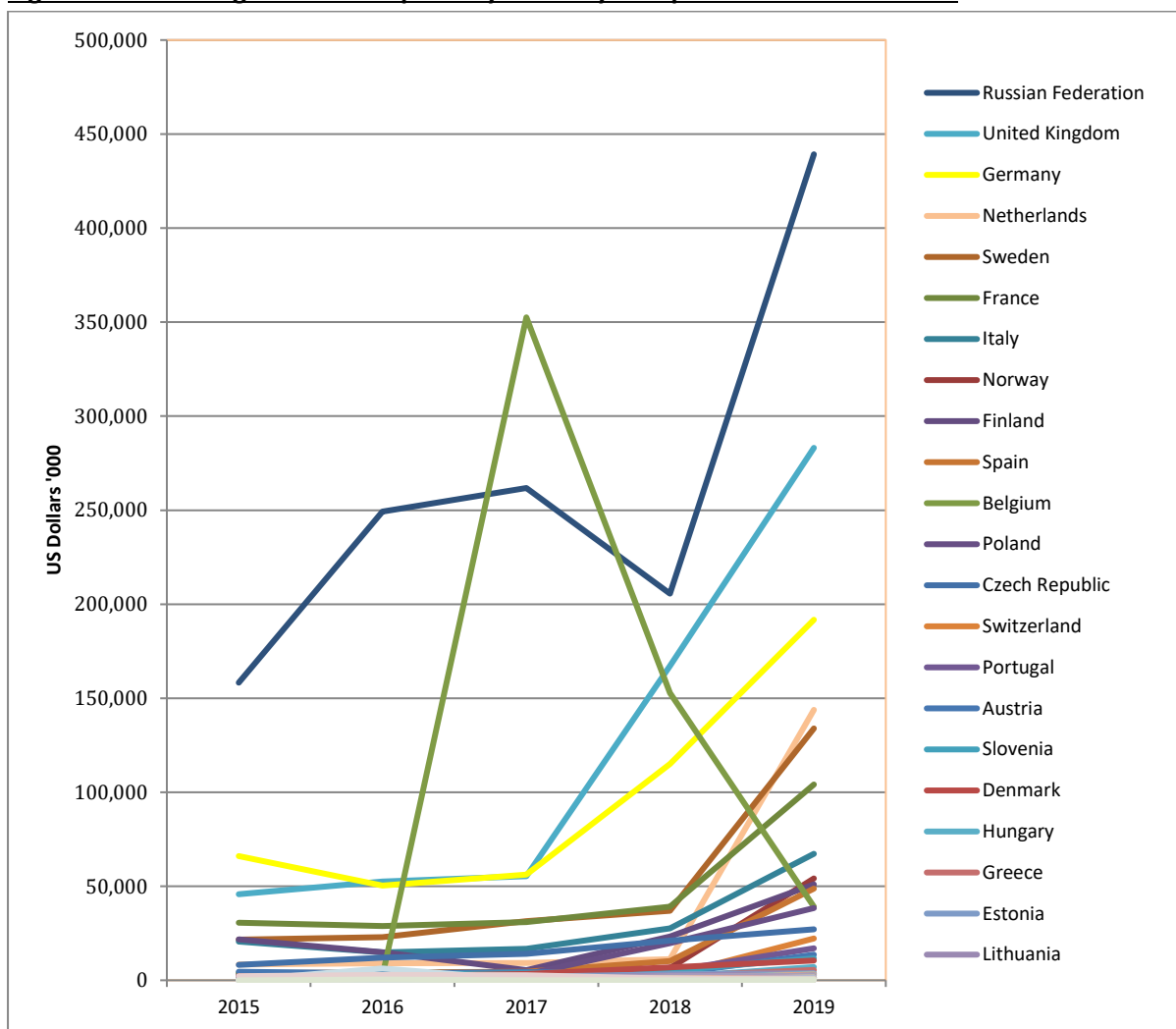
Note: Value based on HS Code 8703, see appendix. Light vehicles include passenger and light commercial vehicles. Europe includes the EU, UK, EFTA and Russia.

Source: ITC, ECG Business Intelligence

Passenger vehicles built in China and exported to European markets across the EU, UK, EFTA and Russia rose 400% between 2015 and 2019 to reach \$1.6 billion, with a large share of the growth thanks to Volvo Cars.

China's exports to the UK and to Germany also jumped significantly, including a rise in import value to the UK from \$56.2m in 2017 to more than \$283m in 2019. Along with Volvo, the UK has seen a rise in imports of MG models made in China by SAIC Motor. SAIC has also begun shipping its Maxus brand of vans to the UK, reviving the former British brand after previously acquiring LDV in 2009.

Figure 3.3: China Light Vehicle Exports by Value by European Market 2015-2019



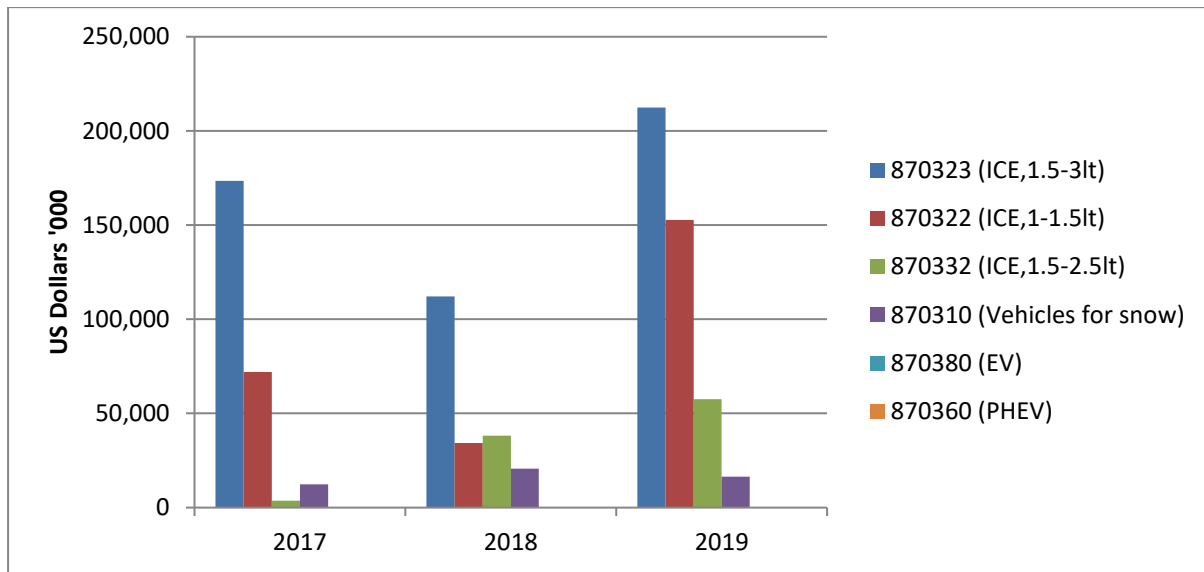
Note: Value is based on HS Code 8703, see appendix. Light vehicles include passenger and light commercial vehicles
Source: ITC, ECG Business Intelligence

Russia saw growth in vehicle exports from China in both 2018 and 2019, more than doubling to \$439m. Exports increased from Chinese brands including Great Wall’s Haval, Geely, Chery and others. China’s trade with Russia should also be supported by a Free Trade Agreement signed in 2018 between China and the Eurasian Economic Union, of which Russia is a member. The FTA aims to help facilitate trade between China and the EAEU region of Russia, Kazakhstan, Armenia, Belarus and Kyrgyzstan, including improving logistics flows such as international rail links.

Most of the vehicle sales in Russia were driven by ICE powertrains, including a rise in diesel-based vehicles from China. Chinese exports of EVs and PHEVs accounted for fewer than 1% of its vehicle export to Russia in 2019, although the new EAEU agreement has introduced a 0%

customs duty on e-vehicles aimed to further enhance growth in demand of these vehicles between China and the customs union⁴.

Figure 3.4 China Light Vehicle Exports to Russia by Value by Powertrain Type 2017-2019



Note: Value based on HS Code 8703, see appendix. Light vehicles include passenger and light commercial vehicles. Europe includes the EU, UK, EFTA and Russia.

Source: ITC, ECG Business Intelligence

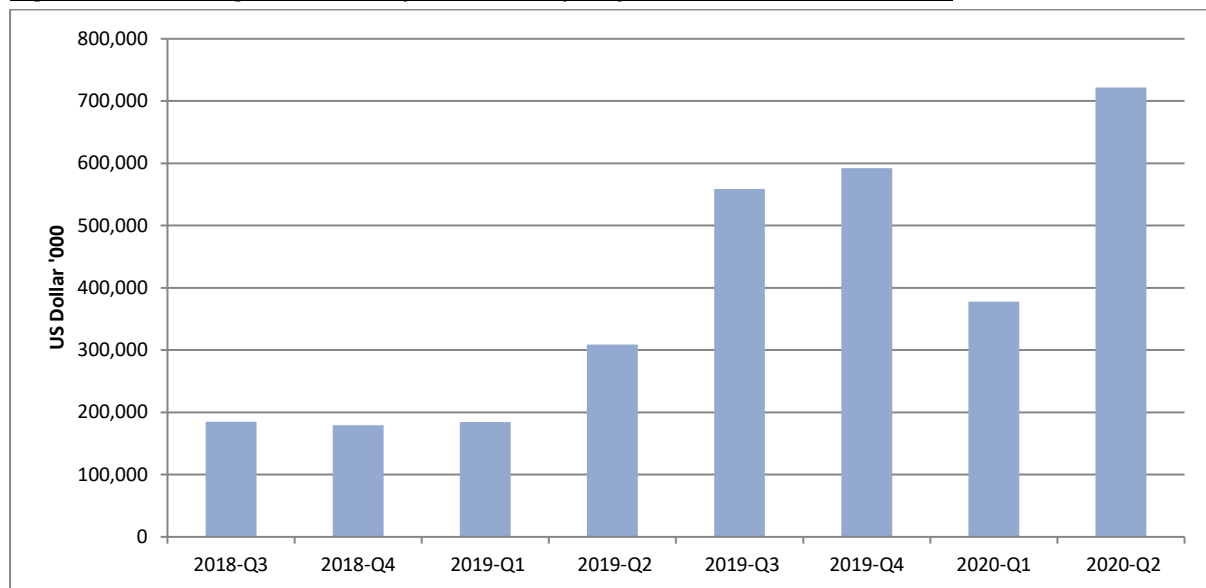
3.2 Chinese Vehicle Exports to Europe in 2020

Analysing export trade data through HS custom codes reveals a significant rise in the overall value of passenger vehicle exports from China to the wider European region in 2020, nearly doubling in the first half of the year to \$1.09 billion. The growth was sharpest in Sweden (up 377% year-on-year), the UK (up 125%) and Germany (up 113%), albeit from relatively low bases. The increases were driven mainly by several brands, including Volvo, Polestar and MG models.

Russia, meanwhile, has dropped from being the top destination for Chinese vehicle exports in Europe in 2019, to falling behind both Sweden and the UK this year, with a nearly 24% decline in value from China in data available for the first six months of the year.

As HS code data are in value, increases year-on-year do not necessarily equate to the same rise in units. With the rise in EVs and PHEVs from China especially, it is likely the overall rise in value is greater than the number of vehicles because these model types are generally more expensive than the ICE vehicles that China has until now more frequently exported.

⁴ <http://www.eurasiancommission.org/en/nae/news/Pages/18-02-2020-8.aspx>

Figure 3.5 China Light Vehicle Exports to Europe by Value 2018 Q3 to 2020 Q2

Note: Value based on HS Code 8703, see appendix. Light vehicles include passenger and light commercial vehicles.

Source: ITC, ECG Business Intelligence

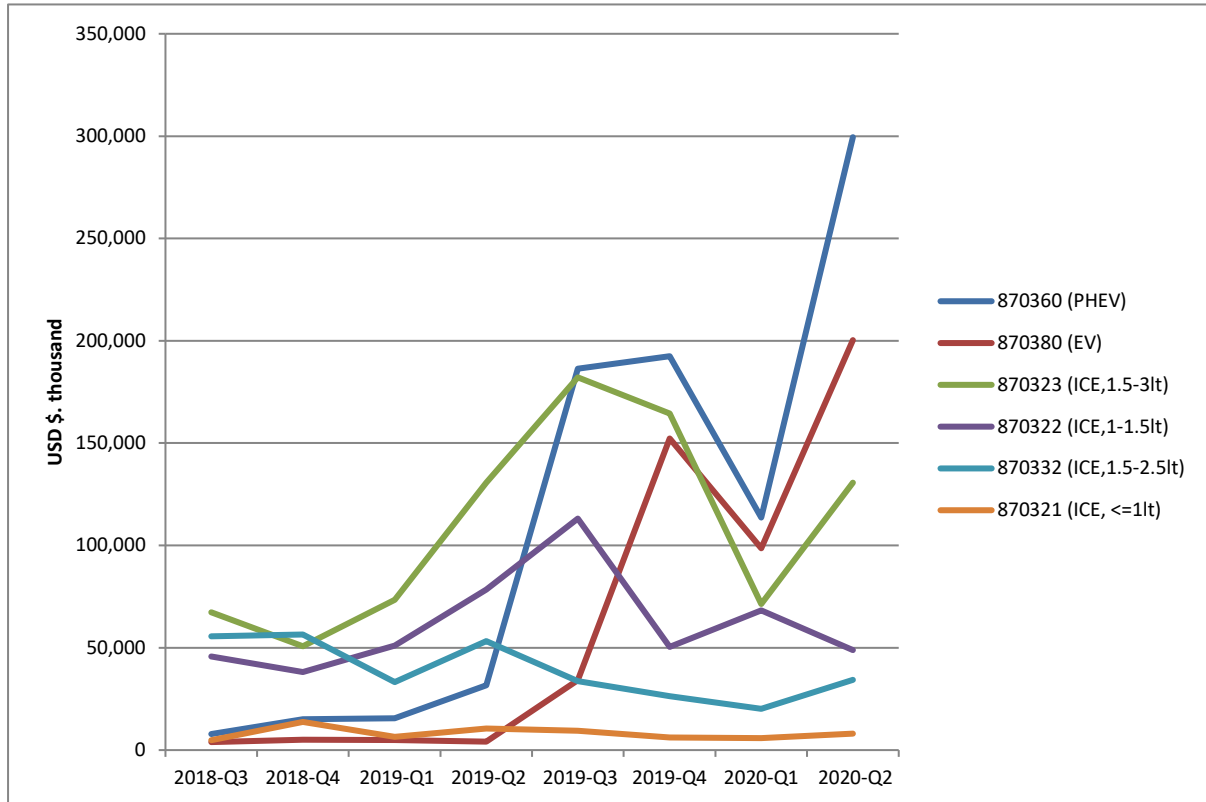
Data using HS codes tend to pre-empt actual sales in the country, and it includes imports clearing customs that may not be sold until months later. However, dealerships do not generally keep high inventory of rechargeable vehicles; the high sales of EVs and PHEVs in Europe have also led to limited stock and higher waiting times. It is therefore likely that most imported electric vehicles to Europe had confirmed customer orders behind them or were quickly moved to customers.

Import sales of PHEVs from China have risen in Europe from \$7.84m in the third quarter of 2018 to nearly \$300m in the second quarter of 2020. In the first half of 2020, Chinese-built PHEVs rose by 775% year-on-year to \$413m. Battery electric vehicles from China, meanwhile, have grown from a mere \$3.9m in the third quarter of 2018 to more than \$200m in the second quarter of 2020. In the first half of 2020, EV imports from China to Europe rose 319% to \$298.8m compared to the same period in 2019.

Sales of ICE-based imports from China, meanwhile, have decreased in the period, notably following the wider industry declines in the first half of 2020, although these have seen some recovery in the second half, especially in Russia.

The overall growth in Chinese passenger vehicle exports to Europe in 2020 has not resulted in a large market share – but the rise has been significant, not least given the disruptions from the coronavirus crisis. Europe's 'green recovery' has been further encouraged by higher purchase incentives and subsidies for low-emission vehicles in much of Europe – although renewed national lockdowns in the autumn and winter are likely to have dampened overall sales. In Russia, Chinese vehicles are well placed to compete in the market on price and quality. These are factors that will shape trade flows over the next decade.

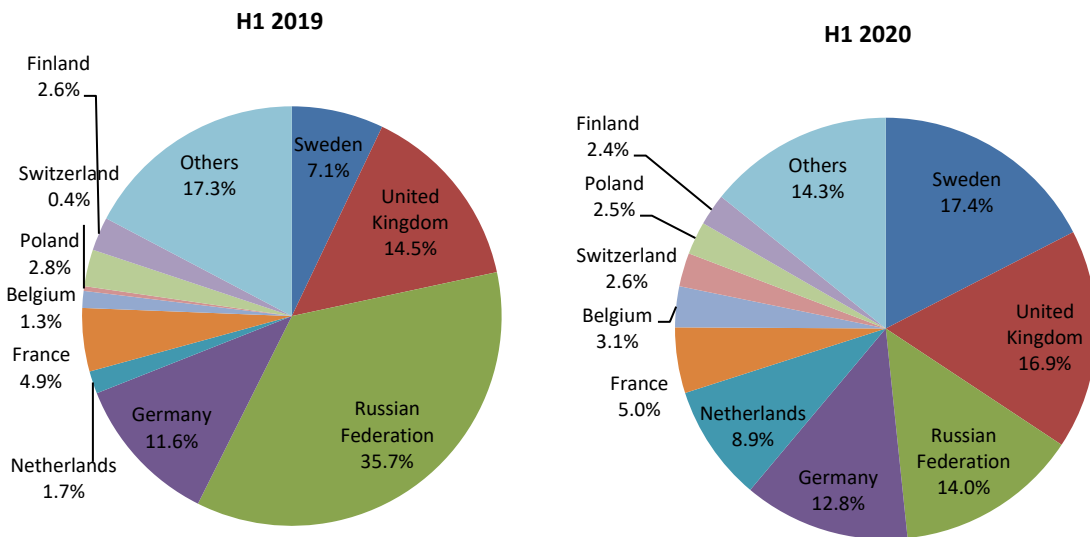
Figure 3.6 China Light Vehicle Exports in Value to Europe by Powertrain Type 2018-2020



Note: Value based on HS Code 8703, see appendix. Light vehicles include passenger and light commercial vehicles. Europe includes the EU, UK, EFTA and Russia.

Source: ITC, China Customs Data, ECG Business Intelligence

Figure 3.7 China Light Vehicle Exports to Europe by Value Change in Share H1 2019 vs H1 2020



Note: Value based on HS Code 8703, see appendix. Light vehicles include passenger and light commercial vehicles.

Source: ITC, ECG Business Intelligence

3.3 Chinese Vehicle Exports to Sweden and the UK

The markets with the most significant increases in imports from China, Sweden and the UK, are illustrative of the trend across the EU and EFTA. Much of the growth can be attributed to a few OEMs supplying PHEV and EVs from China. The China-built Volvo XC60, for example, has helped Swedish PHEV sales grow sharply, while Volvo also imports other models from China such as the S90. Imports of the Polestar 2 EVs are also contributing to rises.

In the UK, overall passenger vehicle imports from China rose by 125% in the first half of 2020 compared to 2019, reaching \$185.4m, supported by strong EV and PHEV growth. Sales from Volvo and Polestar models also correlate with continued growth in year-to-date sales data from the SMMT.

Another key driver has been MG, a brand that was originally British but now owned by SAIC. The MG5 EV was launched in the UK in 2020, making it the second pure EV in MG's line-up along with the MG ZS EV; it also sells the MG HS PHEV. Through November, sales of the Chinese brand increased 50% in the UK to more than 16,000 vehicles in a passenger car market down more than 30%, with more than 40% of its sales EVs or PHEVs. According to SAIC, MG is also selling cars in Norway, the Netherlands, France and Italy, and plans to launch in Germany, Belgium and Austria.

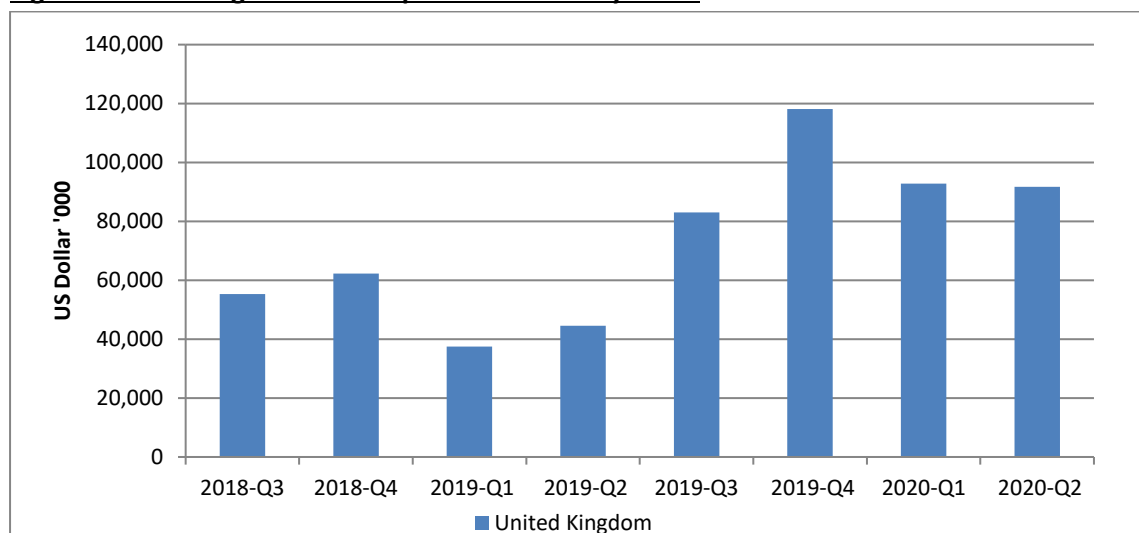
This rise in the UK and parts of Europe has already led to new shipping flows. SAIC Anji Logistics Company, a subsidiary of SAIC, launched a direct ro-ro service from Shanghai to Bristol in the UK this past October, with onward shipment to Zeebrugge, Belgium. The Anji Phoenix ship carried 1,800 EV and hybrid vehicles from Shanghai to Europe on its maiden voyage, according to the company⁵.

In the first ten months of the year SAIC has sold 89,000 vehicles outside of China, of which its MG and Maxus brand vehicles sold 61,000 units, an increase of 35.9% despite the global downturn.⁶

⁵ <https://www.chinadaily.com.cn/a/202010/24/WS5f93a453a31024ad0ba80b09.html>

⁶ https://www.saicmotor.com/english/latest_news/saic_motor/54275.shtml

Figure 3.8 China Light Vehicle Exports to the UK by Value



Note: Value based on HS Code 8703, see appendix. Light vehicles include passenger and light commercial vehicles.
Source: ITC, ECG Business Intelligence

Table 3.1 UK Passenger Vehicle Registrations by Powertrain January-October 2020 (Units)

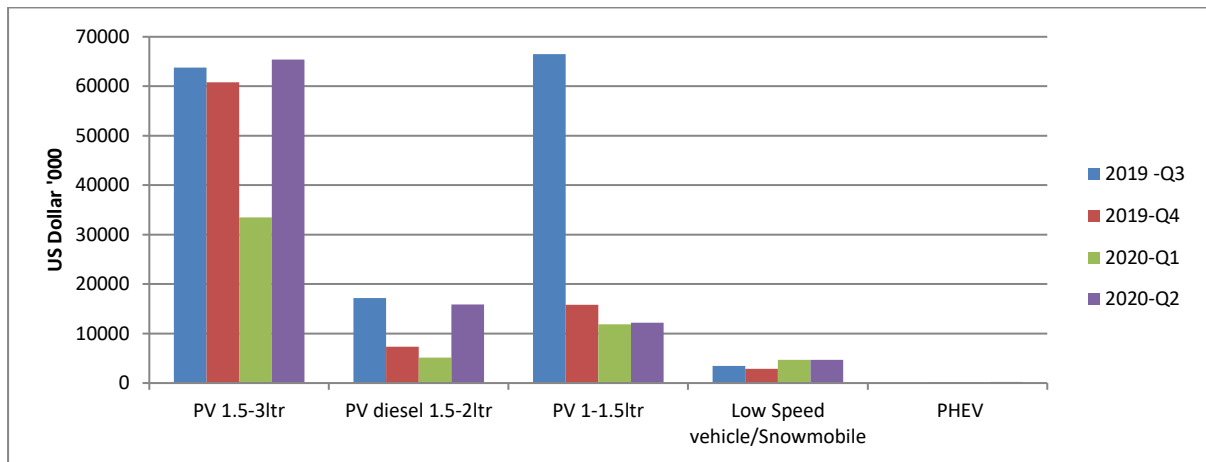
PV	Jan-Oct 2020	Jan-Oct 2019	% Change	Mkt Share '20	Mkt share '19
Diesel	230,034	512,151	-55.10%	16.60%	25.50%
Petrol	789,612	1,293,341	-38.90%	57.00%	64.50%
EV	75,946	28,259	168.70%	5.50%	1.40%
PHEV	50,052	26,141	91.50%	3.60%	1.30%
HEV	95,031	85,622	11.00%	6.90%	4.30%
MHEV diesel	50,480	25,644	96.80%	3.60%	1.30%
MHEV petrol	93,446	34,364	171.91%	6.70%	1.70%
Total	1,384,601	2,005,522	-31.00%		

Note: EV (battery electric vehicle), PHEV (plug in hybrid electric vehicle), HEV (full hybrid), MHEV (mild hybrid)
Source: SMMT

3.4 Chinese Vehicle Exports to Russia

Demand in Russia for vehicles from China is different to western Europe in that Chinese imports are still mainly regular ICE vehicles, shipments of which declined along with the rest of the Russian market in the first half of the year. ICE vehicle exports to Russia from China reached \$153.3m in the period, while PHEVs were just \$300,000.

Figure 3.9 China Light Vehicle Exports to Russia by Value 2019 Q3 to 2020 Q2

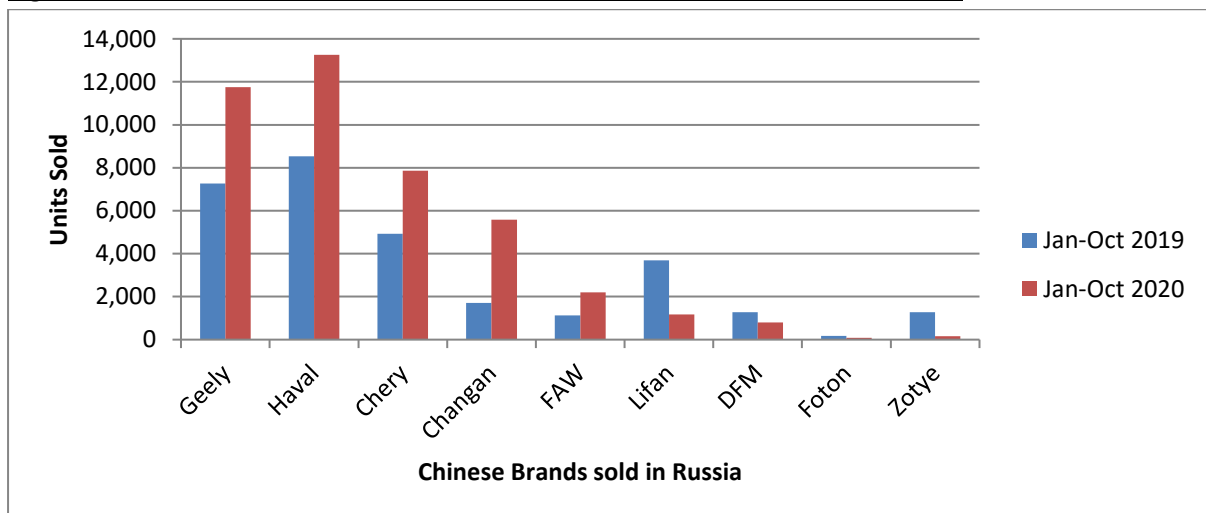


Note: Value based on HS Code 8703, see appendix. Light vehicles include passenger and light commercial vehicles.
Source: ITC, UN Comtrade Data, ECG Business Intelligence

Chinese-brand vehicle sales in Russia have seen further recovery in the second half of the year through a mix of imports and local assembly, with brands including Great Wall’s Haval, Geely, Chery and Changan registering growth in the first 11 months of 2020 compared to 2019 despite an overall decline of at least 12% year-on-year in the Russian market. This growth suggests that China’s low manufacturing cost should encourage further exports to Russia, albeit of lower value vehicles than those sent to Europe.

As Chinese brands grow in Russia, some may also setup low-scale assembly in Russia. Haval has recently doubled investment in a plant in Tula, south of Moscow, which opened in 2019 and builds the F7 and H9 SUV.

Figure 3.10 Chinese Vehicle Brand Sales in Russia Jan-Oct 2019 vs Jan-Oct 2020



Source: AEB, ECG Business Intelligence

4. China As A Hub for Vehicle Production

4.1 OEMs Expand Electric Vehicle Exports from China

China has already been a global production base for a number of OEMs both domestic and international. Volvo Cars has consolidated a number of products at Chinese plants. General Motors, meanwhile, has used its Chinese joint ventures with SAIC and Wuling to export vehicles to markets in Asia, Central Asia and the Middle East, as well as to the US (at least until US-China trade tensions led to higher tariffs). Other OEMs including Kia have used Chinese capacity to serve global markets.

According to LMC Automotive, the share of Chinese vehicle exports from international brands has risen steadily from 11% in 2011, to 19% in 2016, 30% in 2018 and 38% in 2019.

That figure will have likely increased in 2020 and grow further in the years ahead. BMW, for example, began production in October of the all-electric BMW ix3 SUV at the BMW Brilliance Automotive joint venture in Shenyang, China for global export. The first batch were shipped from the port of Dalian in November, mainly bound for Europe. According to local Chinese media, BMW will export 1,600 ix3 vehicles this year from China, increasing to 12,000 units in 2021⁷.

BMW has also established a joint venture with Great Wall, called Spotlight Automotive, to develop and build electric models for Mini and vehicles for Great Wall. The joint venture has begun to build a new plant in the north-east city of Zhangjiagang, with capacity for 160,000 vehicles by 2022. While BMW has confirmed production of electric Minis both at its plants in Oxford, UK and Leipzig, Germany, it has said that Spotlight Automotive will provide additional global capacity, and thus could serve as a supplemental supply source for European models.

Tesla, meanwhile, began exports of the Model 3 from its production plant in Shanghai to Europe this past October, shipping to more than 10 countries in the region including Germany, France, Italy and Switzerland. The first exported Tesla Model 3 cars were loaded at the Shanghai Haitong International Automotive Terminal⁸, with Tesla set to ship 7,000 Model 3 cars to Europe aboard several WW Ocean vessels⁹.

Along with Volvo's own imports from China, this year has also seen a ramp up in exports from premium EV brand Polestar, which is owned by Volvo and Geely. Production of the electric fastback Polestar 2 began in March 2020 in China. Polestar has also already confirmed further plans for an electric SUV, the Polestar 3, and a production version of its Precept concept in China, likely by 2023.

Lynk & Co, another joint venture between Geely and Volvo, has also launched sales of the 01 hybrid and PHEV in Europe, and now expects its first deliveries to arrive in Europe in the spring of 2021.

Volkswagen Group has been strengthening its production of EVs and PHEVs in China, with growing expectation that it will use plants there to serve the global market. In May 2020 the German OEM announced it would take a 75% stake in its joint venture with Anhui Jianghuai

⁷ <http://autonews.gasgoo.com/m/70017726.html>

⁸ <https://www.globaltimes.cn/content/1204698.shtml>

⁹ <https://wap.peopleapp.com/article/6015295/5930528>

Automobile Company (JAC), and in December it changed the company's name to Volkswagen Anhui Automobile Company. The carmaker also bought a 26% stake in Anhui-based Chinese battery maker Gotion High Tech. Volkswagen has an R&D centre and plant in Anhui, which it is upgrading to build battery EVs with a production capacity up to 350,000 vehicles per year by the end of 2022 based on Volkswagen's MEB architecture. Chinese media sources have claimed the plan is for VW to produce models in the ID family in China for sale in the global market, including Europe.

Renault has also confirmed that the first electric Dacia model, the Spring mini-SUV, will be built by a joint venture factory with Dongfeng in China and exported to Europe starting in 2021. Daimler's joint venture with Geely will eventually see its Smart minicars developed as a purely electric brand, with the next generation built and shipped globally from China starting in 2022. Daimler has recently sold its Smart factory in Hambach, France to INEOS Automotive, which will continue to produce the current Smart generation for the rest of its lifecycle.

4.2 Chinese OEMs Target Europe

Along with European and global OEMs exporting from China, a number of Chinese OEMs have begun or are targeting exports to Europe. Chinese carmakers have of course tried for the past two decades to break into the western European market, with very limited success. More Chinese brands are already active in Russia and other markets in eastern Europe and Central Asia, including Great Wall's Haval brand and Chery. However, with European legislation now requiring more EV sales, and OEMs still ramping up availability, there is a window for some new brands to play a competitive role in these segments across a number of European markets in the EU, UK and EFTA.

SAIC's MG is one of the few Chinese domestic brands to see volumes higher than trial shipments; it is set to grow its dealer network in the UK to 120 in 2020. Other Chinese brands are exporting to countries such as Norway in small numbers. However, success in such markets could point the way to wider rollouts.

One such Chinese OEM is Xpeng Motors, which is backed by Chinese tech giants Alibaba and Xiaomi, and whose \$36 billion stock valuation is now worth around the same as Ford Motor Company. The company has launched sales of its G3 electric SUV in Norway this December as a testbed before rolling it out in other European markets. The carmaker also plans to export its electric sedan, the P7.

Other brands are also dipping their toes in European waters. BYD, which sells electric buses in Europe, is launching a market trial in Norway of its low-cost Tang electric SUV, with sales expected to start in January 2021 before potentially shipping to other European markets. Aiyaws, another Chinese EV startup, imported its first batch of electric SUVs to Europe in

August, with an initial 500 U5 SUVs shipped to Corsica. The U5 will initially be available only as a lease hire car via Hertz Corsica.¹⁰

Chinese electric vehicle manufacturer Nio, which has a market valuation of over \$70 billion, has also said that it is planning to export to Europe, including its electric ES8 and ES6 models, although it delayed an earlier plan to start exports by 2021.

Most brands are likely to fail. A number of OEMs that had been planning exports to Europe, such as Byton and Zoyte, are already facing potential bankruptcy. However, while we do not expect significant volume, some Chinese brands could gain ground in niche segments such as low-cost SUVs, or premium niches.

Table 4.1 Snapshot of Chinese Companies Planning EV Exports

Automaker	Models
Aiways	U5, U6 ION
BYD	Tang EV
Byton	M-Byte, K-Byte
Iconiq Motors	Iconiq Seven
Greenwheel EV	
Li Auto	Ideal One
Lynk & Co	01
Nio	EC6, ES8, ES6
NEVS	
Polestar	Polestar 1, Polestar 2, Polestar 3, Precept
SAIC	MG ZS EV, MG3, MG5 EV, MG ZS, MG HS, MG HS PLUG-IN, Maxus
WM	EX5-Z, EX6 Plus
Xpeng	G3, P7
Zotye	T-Series, Z-Series, E-Series

Source: ECG Business Intelligence

4.3 Global OEMs Will Leverage Global Supply Chain for EVs

Overall, European investment in battery and EV production suggests that China will mainly be used for additional capacity for lower volume vehicles, or before other vehicles are localised in Europe. The export decisions are based on using China's scale and capacity for some specific

¹⁰ <https://www.youtube.com/watch?v=ZU80Q6gGfLo&feature=youtu.be>, https://www.greencarreports.com/news/1128400_aiways-u5-first-electric-car-from-a-chinese-ev-startup-to-deliver-in-europe

EV models, rather than a significant shift in production. Examples include the low-scale imports of the Dacia Spring, or of relatively niche brands like Smart.

At BMW, for example, the carmaker is investing heavily in bringing more electric vehicle production to its plants in Germany, the UK and a new plant in Hungary, where it will build vehicles based on a new EV platform under development. From 2021, BMW will build the electric i4 and iX in Munich, EV variants of the 5- and 7-Series in Dingolfing, as well as variants of the BMW X1 in Regensburg from 2022. The carmaker will build the successor to the Mini Countryman in Leipzig as both ICE and electric variants. These investments suggest that BMW will leverage European capacity while using China where needed to meet demand or bring in other products.

A good example of how EV production and vehicle flows will relate to available production and supply chain capacity can also be seen within the wider production network of Volvo and Geely. Originally, the group decided to localise production of a Lynk & Co. model at Volvo's plant in Ghent, Belgium for sale in Europe and North America, with plans to import electric vehicles from China. It later decided to use the capacity in Belgium to build its first fully electric vehicle, the XC40 Recharge, which began assembly this past autumn. This higher volume model will be built locally, while the lower volume Polestar 2 and Lynk & Co models – which share the same CMA platform – are built at a Geely plant operated by Volvo in Luqiao, China. Based on current tariff regimes, the Belgian-built EV can also more effectively serve the US than can Chinese production, which still face higher tariffs.

Other OEMs are transforming their European production networks to build more EVs. Most ambitious among these is the Volkswagen Group, which is converting several factories in Germany to produce electric vehicles. While the group will use global capacity to meet supply, its EV production strategy is set to remain highly regionalised, producing vehicles on its electric MEB platform across plants in Europe, North America and China.

5. European Vehicle Export to China Analysis

5.1 European Vehicle Export Development to China

China saw a steady rise in vehicle imports through the early 2010s, reaching a peak of more than 1.4m vehicles in 2014 – a year in which European vehicle exports to the country reached 615,000 units.

However, localisation of production has continued to see more demand satisfied in China, encouraged by Chinese legislation; the overall growth in the Chinese market had also cooled by 2018. Total vehicle imports to China fell back to 1.08m units in 2019, while European exports to the country were around 470,000 units, maintaining a relatively constant share of around 45% of Chinese imports. More than half of European vehicle exports to China are from Germany.

Even before the coronavirus, however, there were signs of an accelerating decline of European vehicle exports to China. According to HS code customs data, German vehicle exports fell in value by 23% in the second half of 2019 compared to the same period in 2018, while shipments from the UK and Slovakia also lost ground.

Carmakers including Volkswagen Group, BMW and Mercedes-Benz have all expanded joint venture manufacturing capacity in China – including, most recently, for electric and plug-in hybrids.

European OEMs have also felt collateral damage from the US-China trade dispute, mainly from impacts to business confidence as well as in the supply chain. Volvo has rerouted several production decisions in China and Europe as a result. And German OEMs have faced higher tariffs in exports of US-made SUVs by the likes of BMW and Mercedes-Benz.

Table 5.1 China Light Vehicle Imports by Value by Country 2018 Q3 to 2020 Q2 (US Dollar '000)

Exporters	2018-Q3	2018-Q4	2019-Q1	2019-Q2	2019-Q3	2019-Q4	2020-Q1	2020-Q2
World	\$16,070,693	\$10,931,301	\$10,247,956	\$13,229,079	\$11,620,314	\$11,960,647	\$9,400,216	\$6,972,501
Japan	\$3,207,200	\$2,665,028	\$2,243,533	\$3,210,354	\$2,521,964	\$3,014,114	\$2,394,163	\$2,831,565
Germany	\$4,735,685	\$3,347,311	\$3,042,795	\$4,612,901	\$3,547,782	\$2,654,329	\$2,461,491	\$1,709,321
USA	\$2,927,932	\$1,619,054	\$2,316,615	\$1,819,347	\$1,842,532	\$2,770,199	\$1,834,989	\$1,109,863
Slovakia	\$1,794,198	\$1,215,058	\$741,059	\$1,747,770	\$1,435,186	\$931,911	\$1,031,163	\$462,576
UK	\$1,961,850	\$1,134,106	\$899,665	\$678,416	\$1,106,472	\$1,154,279	\$880,972	\$327,384
Sweden	\$275,918	\$181,907	\$342,350	\$168,530	\$268,323	\$214,026	\$229,435	\$184,909
Thailand	\$121,524	\$35,711	\$7,237	\$32,773	\$190,636	\$475,903	\$178,581	\$158,906

Note: Value based on HS Code 8703, see appendix. Light vehicles include passenger and light commercial vehicles.

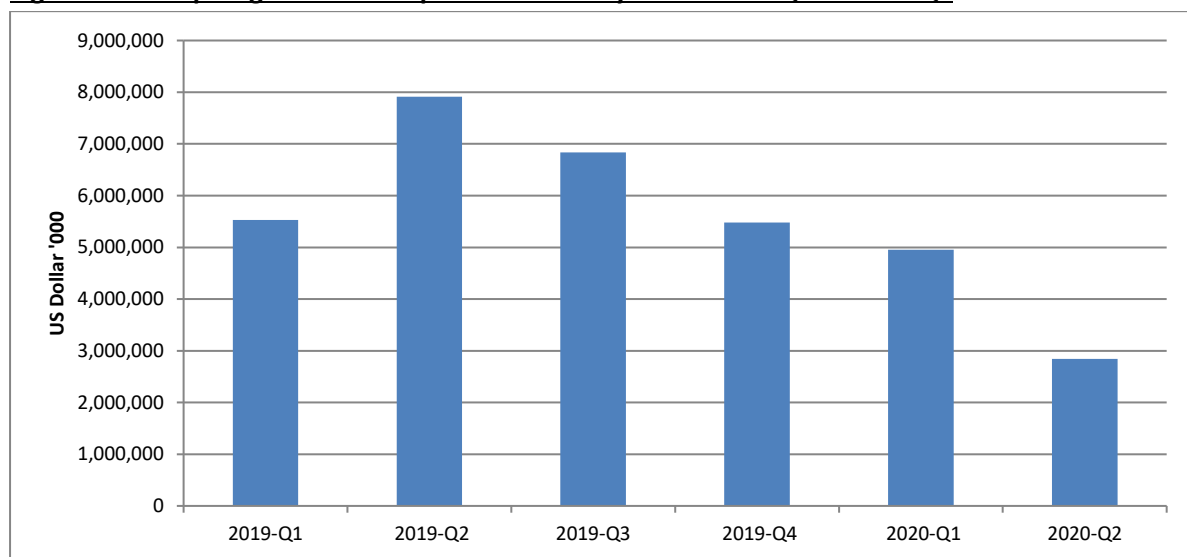
Source: UN Comtrade Data, International Trade Center (ITC)

5.2 European Vehicle Exports to China in 2020

The coronavirus crisis has of course had a significant impact on trade flows. In the first seven months of 2020, overall passenger vehicle imports to China had declined by more than 30% to 430,000 units, a drop about twice as significant as the overall new vehicle market decline in the same period.

European exports had been hard hit as Covid-19 brought China to a standstill in the first quarter of the year, while in the second quarter national lockdowns halted much of Europe's production. The first half of 2020 saw European exports decline more than 40% from the same period in 2019 to \$7.79 billion based on customs data, including a 64% quarterly drop in the second quarter compared to 2019. Given the lag in customs data with sales, these impacts are likely to be felt throughout 2020 and into 2021.

Figure 5.1 Europe Light Vehicle Exports to China by Value 2019 Q1 to 2020 Q2



Note: Value based on HS Code 8703, see appendix. Light vehicles include passenger and light commercial vehicles. Europe includes the EU, UK, EFTA and Russia.

Source: UN Comtrade data, ITC, ECG Business Intelligence

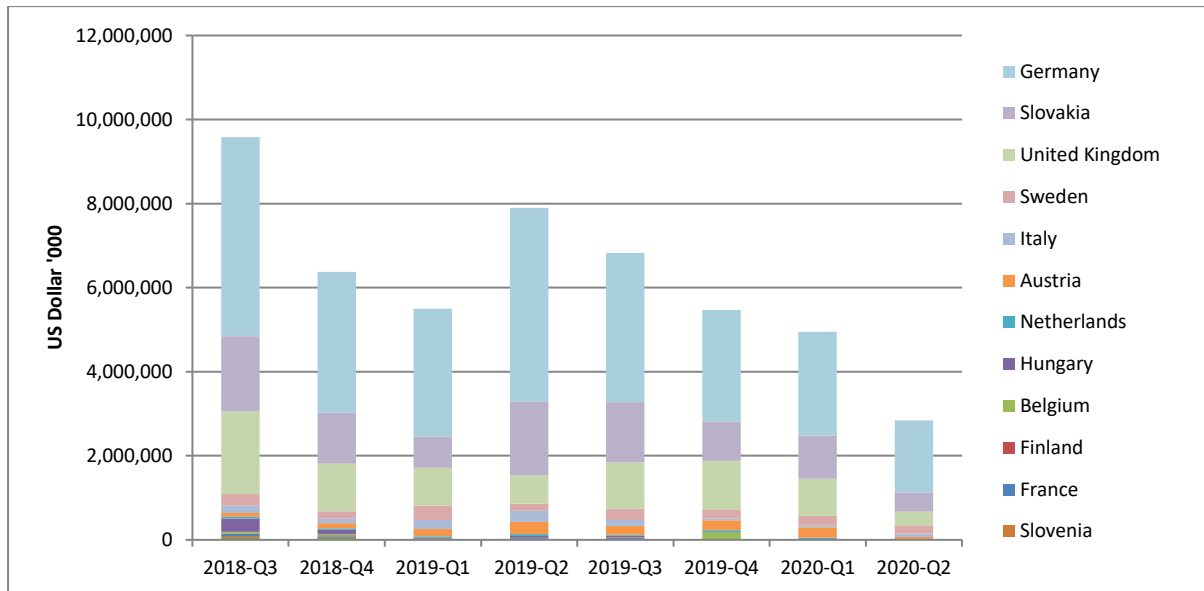
However, China's remarkable recovery from the Covid-19 crisis has supported European vehicle exports, which started to grow again in the third quarter. After limiting the spread of the virus, and pumping in considerable government stimulus, the Chinese economy and automotive industry have been making up for volume lost earlier in the year. Overall annual vehicle sales in China this year are now expected to come close to 2019 levels.

European exports started to claw back losses over the summer, including strong recovery in shipments for premium carmakers. Imports of the new GLE-Class helped push Mercedes import sales up to 15,034 units marking a 46.7% gain in July alone compared to the same month in 2019, according to the company. Audi also saw a 26.9% year-on-year increase in exports to China in July. In the first nine months of 2020, Porsche sales in China – which are all imported from Europe – hit 62,823 units, a decline of just 2%, according the company.

Rolls-Royce Cars, which produces in the UK, now expects China to become its largest global market in 2020.

As of the end of the third quarter, European vehicle exports in volume and value to China were around 13% lower than 2019 during the same period, according to ACEA. China’s share of European vehicle exports has also risen to around 8%, as European global vehicle exports have declined by around 25% in the first three quarters compared to 2019.

Figure 5.2 Europe Light Vehicle Exports to China by Value by Country Q3 2018 to Q2 2020



Note: Value based on HS Code 8703, see appendix. Light vehicles include passenger and light commercial vehicles. Europe includes the EU, UK, EFTA and Russia.

Source: ITC, ECG Business Intelligence

There is evidence that the recovery is leading to overall vehicle exports to China skewing even more towards premium models. In 2019, the average price of a passenger vehicle import in China was around \$43,500 (€35,644), while customs data suggest the average price rose in the first seven months of 2020 to nearly \$48,000. European vehicle exports were already higher, averaging close to \$55,000 and have remained at the same or higher level.

We forecast that 2020 European exports will finish the year around 6% lower than 2019, compared to a stable overall new vehicle market. And while we expect exports will grow in 2021 by around 5% – approaching 2019 levels – they are likely to lag overall Chinese growth in new vehicle sales in the coming decade and will not reach the previous peaks seen earlier in the 2010s.

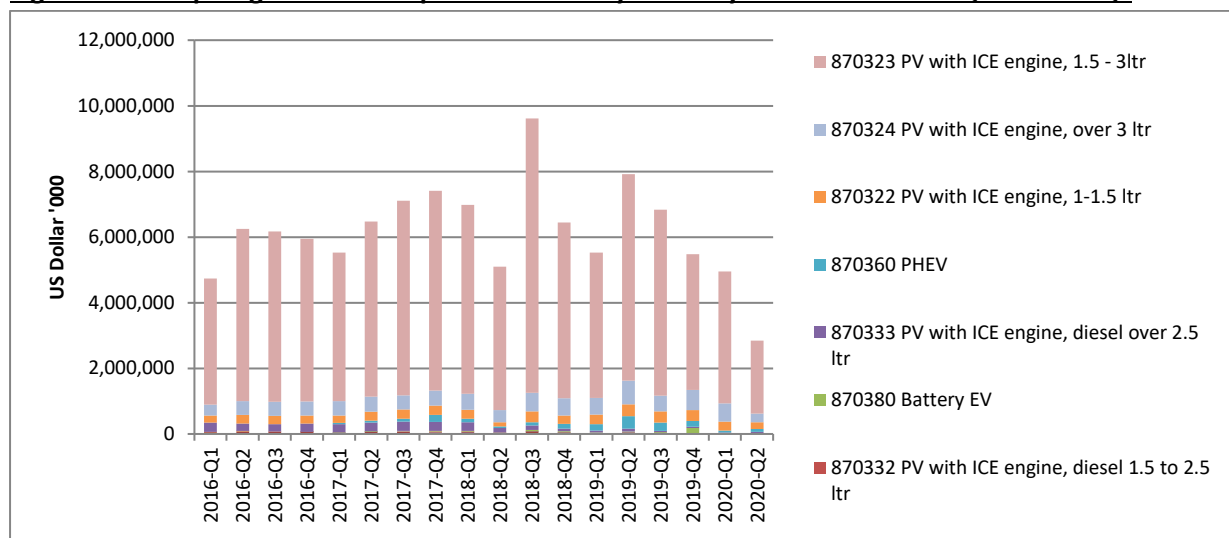
5.3 European Production’s Role in Chinese EV Sales

One of the reasons that we do not expect European vehicle exports to grow as fast as Chinese overall new vehicle sales is because they are so far playing only a limited role in meeting Chinese demand for EVs and PHEVs. Import customs data in the first half showed significant declines in virtually all body and powertrain types from Europe. While Europe has begun to

demand more electrified vehicles from China, Europe is still exporting mainly large ICE-engine vehicles to China. The types of vehicles that are imported into China from Europe are highly concentrated within the class of ICE vehicles with 1.5-3 litre engines (grouped as HS 870323, see appendix).

Looking at customs data over the past four years, there had been very little development in alternative powertrain exports from Europe to China. That is despite a change in Chinese trade policy that reduced import tariffs and allowed OEMs to gain NEV credits through imported vehicles. Until recently, Tesla was one of the few OEMs who had exported electric vehicles to China at any scale. With Tesla's new factory in Shanghai, such imports to China are likely to reduce as well.

Figure 5.3 Europe Light Vehicle Exports to China by Value by Powertrain 2016 Q1 to 2020 Q2



Note: Value based on HS Code 8703, see appendix. Light vehicles include passenger and light commercial vehicles. Europe includes the EU, UK, EFTA and Russia.

Source: ITC, UN Comtrade Data, ECG Business Intelligence

As Chinese regulations encourage OEMs to increase production capacity for electric vehicles in China, it is even more likely that European plants will not see substantial increases in supplying EV and PHEV to the market in the short term, and instead remain more concentrated on premium ICE vehicles.

Later in the decade, however, as European production of batteries and EVs leads to a wider electrification across model types, a higher share of European vehicle exports to China could include electric vehicles. This is also likely to be concentrated at the premium and niche end of the market, with almost all volume production satisfied within China.

While European exports might lag overall Chinese market demand, export volumes are set to remain at relatively high levels. We expect vehicle exports to approach 500,000 units by 2023-2024, as Chinese vehicle demand grows and its appetite for premium vehicles remains high.

6. Conclusion: A Complex and Dynamic Trade Lane

6.1 China and European Regulatory Alignment and Risks

Main markets across the EU, UK and EFTA share with China a regulatory shift towards electrification and low-emission vehicles, an alignment that should support vehicle trade between the regions. However, there are risks that differences in regulation for vehicle and the supply chain could disrupt China-Europe vehicle trade in both directions, with electric batteries and vehicles already key focus points for governments in Europe and China.

By the middle of the decade, for example, assessment of the Chinese government's 'Made in China 2025' (MIC2025) strategy, as well as climate and trade policy, could put more emphasis on competition between Chinese and global production.

The original MIC2025 strategy set targets for Chinese OEMs to produce electric vehicles, gain market share and increase exports. China's NEV credit system – which mandates a share of alternative fuel vehicle production – has also been expanded further, with even more production capacity required. From 10% NEV production capacity quotas in 2019 and 12% in 2020, an OEM must gain NEV credits for 14% of its total car production in 2021, rising to 16% in 2022 and 18% in 2023¹¹.

To strengthen export potential, China has also announced an updated NEV strategy aimed at pushing Chinese-built electric vehicles to the centre of the global stage. Under this plan, the government has encouraged automakers to strengthen collaboration with international partners in the development and production of components for electrified powertrains. Such collaboration is increasingly evident, such as Volkswagen's investment in JAC and battery manufacturer Gotion in Anhui. This past November, Daimler and Geely announced a partnership to build the next generation combustion engine for use in hybrid vehicles. Geely already owns a nearly 10% stake in Daimler, and the OEMs share a joint venture for the production of Smart vehicles in China.

The EU is also developing policies to encourage battery and EV supply chain localisation. Stricter emission rules are encouraging OEMs to sell more low-emission vehicles, with requirements set to tighten over the next decade. Both the EU and national governments have increased incentives for EV purchases and investment in the supply chain. The greener lifecycle policy, meanwhile, would affect batteries manufactured in the EU and those imported from 2024. According to the European Commission vice-president, Maros Sefcovic, Europe could be self-sufficient in EV battery production by 2025, with enough cell capacity to power 6m EVs per year.¹²

Given the complexities in the battery and EV supply chain, it will be extremely challenging for Europe to localise battery and EV production to this level by 2025 and it is more likely that

¹¹ <https://technode.com/2020/06/24/china-renews-nev-quotas-with-eye-on-2025-target/>

¹² <https://uk.reuters.com/article/uk-eu-battery/eu-says-it-could-be-self-sufficient-in-electric-vehicle-batteries-by-2025-idUKKBN2841YP>

the European supply chain will still depend on components from China and Asia to build and source lithium-ion batteries; it will also likely need global production capacity to meet demand for finished electric vehicles. The scale of China's EV production base is likely to give it a cost and delivery advantage. Shared vehicle platforms and products across European and Chinese plants will leave room for more exchange and trade to help meet this demand.

Despite hints of protectionism in some areas, the Chinese government has generally made efforts to liberalise aspects of automotive trade, including lowering imports of electric vehicles and allowing majority foreign ownership of manufacturing operations. In the wake of the US-China trade dispute, China and Europe have strengthened trade partnerships. For the UK, Brexit may also lead to simpler trade terms with China (although this is far from being a given).

6.2 China-Europe Vehicle Trade A Challenge But Still Poised for Growth

The coronavirus crisis has disrupted Europe-China vehicle trade, however volume in both directions has been a relative bright spot in a difficult year. Chinese passenger vehicle exports to the EU and UK have risen, driven by an influx of battery electric and PHEV models from both Chinese and global OEM brands. The value of these exports is also rising. And while the crisis has hit eastern European and Russian markets, low-cost Chinese vehicle exports have shown resilience, with many brands increasing sales.

European vehicle exports to China were severely affected earlier this year, but they have benefitted from China's recovery, with premium vehicles showing strong growth in the second half of the year.

The wider prospects for trade in both directions in the coming years should also see growth. OEMs are using Chinese production and scale to help meet demand for EVs and PHEVs, sales of which should rise further in Europe to meet strict emissions regulations. A number of well-funded Chinese startups are also starting to send vehicles to the EU, UK and EFTA. Volumes are likely to increase over the next three or four years.

However, imports from China may serve as transitional supply as OEMs use spare production capacity to fill gaps in lower volume or niche models. As EV and PHEV production expands in Europe, we expect Chinese volume of these model types to remain relatively subdued. And by the middle of the decade, new European legislation on both even stricter emissions rules and lithium-ion battery lifecycles could make it much more difficult to import electric vehicles from China to the EU.

European exports to China are set for further recovery and will benefit both from growth in the market and China's demand for *recherché* vehicles of high value. We expect volumes to stabilise at a high level, although ultimately European production bases are unlikely to be major volume sources for electrified vehicles to China. Instead, Europe is likely to still produce high-end models and supply additional capacity for certain models built on the same platform. European and global OEM investment in China for R&D and production of electric vehicles

will keep most volume localised. Regulations and trade policy could be a determining factor for vehicle exports moving to China, too.

Outside the EU and single market, Chinese vehicle exports may take a different path. We ultimately expect the UK to remain closely aligned to the EU and emissions, though it is not yet clear whether it will take similar approaches to battery supply chain legislation as the EU. There could be simplified trading terms with China, while the UK has proven somewhat more open to Chinese imports with the growth of MG. On balance, we still expect a similar trajectory as the EU.

For Russia and other members of the Eurasian Customs Union, the dynamics are different, and the market relatively small in terms of volume for Chinese exports. However, demand for low-cost vehicles in this region makes Chinese-made ICE vehicles competitive, while an FTA has also supported vehicle imports from China. Eventually, as the Russian market slowly transitions to electric vehicles, Chinese-made and Chinese-brand alternative fuel vehicles will be significantly cheaper than the products made within the EU.

For vehicle logistics, trade looks likely to become more complex, volatile and subject to regulatory changes. At its core, however, there is likely to be growth in shipping lanes and services between China and Europe. The increase in shipments of electric vehicles also requires further battery, charging and handling processes and services, which is already evident in Europe's ports and vehicle processing terminals.

As well as new PCTC shipping lanes, the growth in trade should also increase niche volumes on Europe-China and Russia-China rail links. However, here the increased complexity becomes yet more evident. While OEMs and logistics providers have turned more to international rail, there are regulatory barriers. China does not follow the same dangerous goods declaration rules that many countries do, and as such there are currently still restrictions on shipping vehicles with lithium-ion batteries in containers by rail. Although Chinese authorities had indicated at the end of 2019 that these restrictions would be eased, and there have been some test shipments, up to now the official rules have not changed and it is not possible to send EVs by rail within China or over its borders. Instead, it is necessary to use sea or road links before switching to rail outside of China.

Managing these and other regulatory hurdles are good examples of how China and European vehicle trade is moving into a difficult but dynamic period, rich with challenges and opportunities between the two largest regions for vehicle production and sales.

7. Appendix

Table 7.1 HS Custom Code 6 Digit Destinations

HS Code	Definition	Simple Definition
870310	Vehicles for the transport of persons on snow; golf cars and similar vehicles	Low Speed Vehicle (not considered regular passenger vehicle)
870321	Motor cars and other motor vehicles principally designed for the transport of persons, incl. station wagons and racing cars, with spark-ignition internal combustion reciprocating piston engine of a cylinder capacity $\leq 1.000 \text{ cm}^3$ (excluding vehicles for the transport of persons on snow and other specially designed vehicles of subheading 8703.10)	Passenger vehicle with ICE engine less than or equal to 1 litre
870322	Motor cars and other motor vehicles principally designed for the transport of persons, incl. station wagons and racing cars, with spark-ignition internal combustion reciprocating piston engine of a cylinder capacity $> 1.000 \text{ cm}^3$ but $\leq 1.500 \text{ cm}^3$ (excluding vehicles for the transport of persons on snow and other specially designed vehicles of subheading 8703.10)	Passenger vehicle with ICE engine, 1-1.5 litres
870323	Motor cars and other motor vehicles principally designed for the transport of persons, incl. station wagons and racing cars, with spark-ignition internal combustion reciprocating piston engine of a cylinder capacity $> 1.500 \text{ cm}^3$ but $\leq 3.000 \text{ cm}^3$ (excluding vehicles for the transport of persons on snow and other specially designed vehicles of subheading 8703.10)	Passenger vehicle with ICE engine, 1.5 – 3 litres
870324	Motor cars and other motor vehicles principally designed for the transport of < 10 persons, incl. station wagons and racing cars, with only spark-ignition internal combustion reciprocating piston engine of a cylinder capacity $> 3.000 \text{ cm}^3$, new (excl. vehicles for travelling on snow and other specially designed vehicles of subheading 8703.10)	Passenger vehicle with ICE engine, over 3 litres
870331	Motor cars and other motor vehicles principally designed for the transport of persons, incl. station wagons and racing cars, with compression-ignition internal combustion piston engine 'diesel or semi-diesel engine' of a cylinder capacity $\leq 1.500 \text{ cm}^3$ (excluding vehicles for the transport of persons on snow and other specially designed vehicles of subheading 8703.10)	Passenger vehicle with ICE engine, diesel, up to 1.5 litres
870332	Motor cars and other motor vehicles principally designed for the transport of persons, incl. station wagons and racing cars, with compression-ignition internal combustion piston engine 'diesel or semi-diesel engine' of a cylinder capacity $> 1.500 \text{ cm}^3$ but $\leq 2.500 \text{ cm}^3$ (excluding vehicles for the transport of	Passenger vehicle with ICE engine, diesel 1.5 to 2.5 litres

	persons on snow and other specially designed vehicles of subheading 8703.10)	
870333	Motor cars and other motor vehicles principally designed for the transport of persons, incl. station wagons and racing cars, with compression-ignition internal combustion piston engine 'diesel or semi-diesel engine' of a cylinder capacity > 2.500 cm ³ (excluding vehicles for the transport of persons on snow and other specially designed vehicles of subheading 8703.10)	Passenger vehicle with ICE engine, diesel over 2.5 litres
870340	Motor cars and other motor vehicles principally designed for the transport of <10 persons, incl. station wagons and racing cars, with both spark-ignition internal combustion reciprocating piston engine and electric motor as motors for propulsion (excl. vehicles for travelling on snow, other specially designed vehicles of subheading 8703.10 and plug-in hybrids)	Passenger vehicle with ICE engine, and electric motor (not plug in)
870360	Motor cars and other motor vehicles principally designed for the transport of <10 persons, incl. station wagons and racing cars, with both spark-ignition internal combustion reciprocating piston engine and electric motor as motors for propulsion, capable of being charged by plugging to external source of electric power (excl. vehicles for travelling on snow and other specially designed vehicles of subheading 8703.10)	Petrol Plug-in hybrid electric vehicle (PHEV)
870370	Motor cars and other motor vehicles principally designed for the transport of <10 persons, incl. station wagons and racing cars, with both diesel engine and electric motor as motors for propulsion, capable of being charged by plugging to external source of electric power (excl. vehicles for travelling on snow and other specially designed vehicles of subheading 8703.10)	Diesel PHEV
870380	Motor cars and other motor vehicles principally designed for the transport of <10 persons, incl. station wagons and racing cars, with only electric motor for propulsion (excl. vehicles for travelling on snow and other specially designed vehicles of subheading 8703.10)	Battery electric vehicle

Source: International Trade Center (ITC), UN Comrade Data, ECG Business Intelligence

Table 7.2 HS Custom Code 8 Digit Destinations by Vehicle and Powertrain Type

HS Code	Vehicle & Powertrain Type	Definition
87036000	PHEV	Motor vehicles designed mainly for transport of persons, with both spark-ignition internal combustion piston engine and electric motors for propulsion, capable of being charged by plugging to external source of power
87038000	EV	Motor vehicles designed mainly for transport of persons, with only electric motors for propulsion
87032343	Station wagon ICE engine 1.5-2 litres	Station wagons with only spark-ignition internal combustion reciprocating piston engine, 1500cc cylinder, capacity 2000cc
87032349	SUV ICE Engine 1.5-2 litres	Other motor vehicles designed mainly for transport of persons, with only spark-ignition internal combustion reciprocating piston engine, 1500cc cylinder capacity 2000cc
87032341	Sedans ICE engine 1.5-2 litres	Sedans with only spark-ignition internal combustion reciprocating piston engine, 1500cc cylinder capacity 2000cc
87032342	SUV 4WD ICE engine 1.5-2 litres	Cross-country cars, 4WD with only spark-ignition internal combustion reciprocating piston engine, 1500cc cylinder capacity 2000cc
87032352	SUV 4WD ICE engine 2-2.5 litres	Cross-country cars, 4WD with only spark-ignition internal combustion reciprocating piston engine, 2000cc cylinder capacity 2500cc
87032363	Station wagons ICE engine 2.5-3 litres	Station wagons with only spark-ignition internal combustion reciprocating piston engine, 2500cc cylinder capacity 3000cc
87032353	Station wagon ICE engine 2.0-2.5 litres	Station wagons with only spark-ignition internal combustion reciprocating piston engine, 2000cc cylinder capacity 2500cc
87032361	Sedans ICE engine 2.5-3 litres	Saloon cars with only spark-ignition internal combustion reciprocating piston engine, 2500cc cylinder capacity 3000cc
87032362	SUV 4WD. ICE engine 2.5 -3 litres	Cross-country cars, 4WD with only spark-ignition internal combustion reciprocating piston engine, 2500cc cylinder capacity 3000cc
87032351	Sedan ICE engine 2-2.5 litres	Sedan cars with only spark-ignition internal combustion reciprocating piston engine, 2000cc cylinder capacity 2500cc

Source: ITC, UN Comtrade Data, ECG Business Intelligence

7.2 China Trade Tariff Developments

New vehicles, defined by less than one year old since manufacture, are allowed to be imported and exported from China. China is a member of the WTO and applies standard rules, but tariffs have changed more frequently in recent years.

In particular, the US and China have been playing a tit-for-tat import tariff game. For example, China has applied higher tariffs on large engine models from the US in retaliation for import hikes on products such as car tyres exported from China. Automakers from other regions such as Europe can sometimes get caught in the sudden changes to the import tariff policies in China. It is important to constantly monitor import regulations for China.

Table 7.3 Import Tariffs for New Vehicles

Policy Effective Date	Policy Details
<ul style="list-style-type: none"> 1 July 2018: 	China cut import tariffs on imported fully built vehicles from 25% to 15%. This new law was announced May 2018 with an effective date of 1 July 2018.
<ul style="list-style-type: none"> 6 July 2018: 	Effective in July, China raised the tariff on US-made vehicles adding an additional 25% thereby introducing a 40% new car import tax on these models.
<ul style="list-style-type: none"> 1 January 2019: 	China cuts US made import tariffs back to 15% ¹³ in line with vehicles produced elsewhere and imported to China.
<ul style="list-style-type: none"> 1 April 2019: 	VAT cut on certain imported goods to 9% or 13% down from 10% or 16-17% depending on the product ¹⁴ .
<ul style="list-style-type: none"> 1 January 2020: 	New updated list of products with specific import tariffs announced, with special most favoured nation rates for countries with FTAs with China, while special Temporary Rates for products favoured for import by China ¹⁵ .

Source: ECG Business Intelligence

7.3 Policies for Importing and Exporting Vehicles to and from China

Used Vehicles: China has a number of policies which control and oversee vehicle import and export to and from the country and until recently did not allow the export of used vehicles, while imports are not allowed except in specific situations.

¹³ <https://www.reuters.com/article/us-china-usa-auto-idUSKBN1OD165>, <https://www.scmp.com/economy/china-economy/article/2178081/china-roll-back-extra-tariff-us-car-imports-three-months>

¹⁴ <http://www.chinatax.gov.cn/n810341/n810755/c4160283/content.html>

¹⁵ <http://www.gov.cn/xinwen/2019-12/23/5463213/files/b5d3ed2ec4ee4ab5aa1eb5ea4cf0dd03.pdf>

Table 7.4 Vehicle Import Procedures (Used Cars)

Used vehicle imports are not allowed into China, unless for diplomatic purposes or under exceptions below
Legal residents of China, or foreigners with a Z Visa status, can import a personal vehicle if the Chinese Public Security Bureau (PSB) has granted them a foreign expert status
Returning Chinese nationals, who are legal residents of the country, are only permitted to import their personal vehicle if they are returning ambassadors or gain a vehicle import permit from the PSB.
No sales of a used imported vehicle are permitted legally in China.
Any car imported needs to be less than 1 year old to be imported into China, left hand drive, and must meet the environmental and safety standards in place by the Chinese Ministry of Transport and the Ministry of Environmental Protection.
Sample of documents required ¹⁶ :
<ul style="list-style-type: none"> • Original copy of Bill of Lading • Certificate of Origin • Customs Declaration Form (in Mandarin Chinese) • Inspection Certificate (in Mandarin Chinese) • Insurance Documentation • Purchase Invoice
Overview of Vehicle Import Taxes:
25% Customs Duty
17% VAT
Consumption Tax based on engine displacement size

Source: ECG Business Intelligence

¹⁶ Please note this is a guide to the documents needed, and not a definitive list.

Table 7.5 Vehicle Export Regulations (Used Cars)

Used Vehicle Exports: Till May 2019 used vehicles were not allowed to be exported from China. From May 2019 the restriction has been lifted.

Used Vehicles can now be exported from 10 regions in China from May 2019¹⁷:

- Beijing
- Tianjin
- Shanghai
- Guangdong Province
- Taizhou, Zhejiang Province
- Jining, Shandong Province
- Qingdao, Shandong Province
- Chengdu, Sichuan Province
- Xian, Shaanxi Province
- Xiamen, Fujian Province

Only government authorised 'select' exporter companies are qualified in these 10 regions to export used vehicles, with select ports authorised. Example: Dongjiang Port, Dongjiang Free Trade Port Zone located in the north east section of Tianjin Port. Similar port areas named as used vehicle export ports in the 10 regions, including both land and seaports

Source: ECG Business Intelligence

7.4 Import and Export Ports in China

Only certain ports in China are legally permitted to import or export vehicles. These restrictions apply to sea and land ports. Export ports are often strategically near vehicle production bases, and this often helps in the port gaining a licence for vehicle exports. But there are now a growing number of ports with vehicle export capabilities, which has helped the government to regulate some as used car export ports. The main ports for vehicle export include Shanghai Haitong International Auto Terminal, the Tianjin Port often referred to as Tianjin Xingang, the Dalian Auto Terminal as well as the Guangzhou Nansha Port.

Land export ports are similarly linked to the routes that rail services need to follow. For example, Manzhouli in the northeast province of Jilin which allows for Chinese made vehicles to be exported via the Manzhouli-Europe International Rail Freight line¹⁸. Meanwhile China allows its main airports such as Shanghai, Beijing and Guangzhou as vehicle import locations.

¹⁷ China permits Used Vehicle Exports, May 2019 <http://global.chinadaily.com.cn/a/201905/10/WS5cd4e9eba3104842260baf5d.html>

¹⁸ http://www.xinhuanet.com//english/2017-06/10/c_136354926_3.htm

8. Credits

Copyright © 2020 Ultima Media Ltd. on behalf of ECG

All rights reserved. No part of this publication may be reproduced, distributed, or transmitted in any form or by any means, including photocopying, recording, or other electronic or mechanical methods, without the prior written permission of the publisher, except in the case of brief quotations embodied in critical reviews and certain other non-commercial uses permitted by copyright law. For permission requests, write to the publisher, at the address below.

ECG – The Association of European Vehicle Logistics
 Bd. Auguste Reyers 80
 B-1030 Brussels
www.ecgassociation.eu
 +32 2 706 82 80

Ultima Media Ltd *part of* Süddeutscher Verlag
 401 King Street
 Hammersmith
 London, W6 9NJ
www.ultimamedia.com
 +44 (0)20 8987 0900

Disclaimer

All facts and figures are believed to be accurate at the time of publication; Ultima Media accepts no responsibility for inaccuracies due to future developments in the market or incorrect information provided by Ultima Media's sources. Ultima Media is unable to accept any legal liability for any consequential loss or damage, however caused, arising as a result of any actions taken on the basis of the information provided in this report.

Contact Details

Mike Sturgeon
 Executive Director, ECG
mike.sturgeon@ecgassociation.eu
 +32 2 706 82 82

Christopher Ludwig
 Editor-in-Chief, Ultima Media
christopher.ludwig@ultimamedia.com
 +44 (0)208 987 0968

Daniel Harrison
 Automotive Analyst, Ultima Media
daniel.harrison@ultimamedia.com
 +44 (0)208 987 0946

