WHEN BREXIT MEANS BREXIT

Implications For The UK Automotive Industry

AD PUNCTUM

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To The Point: A Summary Of This Report

Why might it interest investors? This report shows the key impacts of Brexit on the operational and financial performance of automotive Original Equipment Manufacturers (OEMs). It highlights the areas to question around the preparedness of the companies you are investing in.

Why might it interest automotive companies? This report provides an overview of many of the elements of the competitive landscape and the exposure of various companies. This provides an alternate perspective to your existing Brexit planning as well as giving an idea of the likely reaction of competitors.

Although much uncertainty remains about how the United Kingdom (UK) will exit the European Union (EU) and the nature of their ongoing bi-lateral relationship, it is already possible to assess some of the impacts on the UK automotive industry. Overall, it doesn't look positive.

Sterling devaluation has already depressed profit margins. Impacts by OEM vary (in the range of 7% to 15% per vehicle cost increases) but those with large market shares are facing severe annual profit reductions. The long-term impact to each OEM varies with the extent of their UK sourcing.

Tariff barriers expose most OEMs to considerable cost risks. Although the impact varies with the level of local production, no volume manufacturer has complete sourcing of vehicle parts in the UK and only OEMs who currently import from countries without an EU free trade agreement would be unaffected. OEMs will face cost increases of between 2% and 10% depending on their local sourcing and production if the UK and EU began trading with each other on a third country basis using the EU's current World Trade Organization (WTO) applied tariffs. In the case of the Volkswagen Group, the annual bill could be over £800 million.

Recovering profitability seamlessly through pricing may be impossible. The cost increases due to exchange and tariffs vary widely by OEMs. Those OEMs worst affected would require price increases of more than 20% to recover their profitability, yet recent history is of manufacturers failing to increase prices (despite industry growth). Pricing could lead to depressed sales volumes, changes to channel and segment mix and market share losses for those OEMs worst affected.

Some OEM captive finance arms will need restructuring if passporting rights are lost. Although many OEMs will be untroubled by this change, those affected (Ford, Toyota and VAG) may see market share losses (including in the EU) if they fail to restructure their finance companies and cannot provide competitive consumer and wholesale (dealer) finance.

Day to day operations will be impacted by a range of potential changes. Each of these is minor in financial terms when compared to the impact of Sterling weakness and threat of tariff barriers but it will require management time and energy to overcome risks such as insufficient data protection standards or fleet emission target lapses.

In dealing with the above, the UK automotive industry faces substantive lobbying challenges. The range of issues which the automotive industry wishes to influence could be traded by the UK government for concessions in areas that the automotive industry has marginal or no interest in. In addition, as a net importer the industry must tread carefully in advancing its arguments for gaining tariff-free access without angering trade-deficit hawks.

Overall, there are no clear winners among the automotive OEMs when it comes to Brexit. Even the best placed are likely to see the diminished profit outlook as something to avoid rather than being gladdened by the thought that at least they will be better off than their competitors. There are however, benefits for some to be found on the margins. Those manufacturers who currently import from countries such as Japan (for example Mazda and Mitsubishi) won't be harmed by tariffs -- they are already paying them. OEMs with local manufacturing facilities will be hit less hard by currency weakening and tariffs than importers, suffering around a 10% rather than 25% increase in costs. JLR aside however, no volume manufacturer produces a full line-up in the UK, so overall portfolio profitability may still be challenged.

The likely outcome? A mix of reductions in OEM profitability, increased prices (though far less than the OEMs would like), depressed sales volumes and ever-greater use of new mobility services by urban and cost conscious consumers. Unless of course Brexit creates unparalleled economic growth and ground-breaking industrial policy in a liberated UK.

Background

On 23rd June 2016, the UK held a referendum on the UK's membership of the European Union. The question posed to the electorate was:

"Should the United Kingdom remain a member of the European Union or leave the European Union?"

By 51.9% to 48.1%, the electorate voted for the UK to "Leave the European Union". The result was accepted by all major political parties as decisive and fair.

It has yet to be established what form leaving the European Union will take. The primary open items are:

- What the future relationship between the UK and EU will be
- Whether or not the process for leaving and the future relationship will be negotiated in parallel
- Whether there will be any managed transition phase (e.g. gradual relaxation of membership rules over time)
- How long it will be before the separation is complete

The UK government has already said that it does not wish to pursue the existing frameworks the EU has in place for non-EU countries to gain access to the EU single market. It instead seeks to negotiate a bespoke free trade agreement (FTA) covering both goods and services access on tariff-free terms. The EU's position on this is so far unclear aside from saying that exiting the EU should not be better than being a member state. Agreement is likely to be complicated by existing arrangements the EU has with the European Economic Area (EEA), of which Norway is the largest member, and with Switzerland. Simply put, the UK Government wants EEA-like market access (better than Switzerland) at lower than EEA per capita contributions to the EU budget.

In addition to the UK's relationship with the EU, the UK government will also have to resolve and organise the future relationships it wishes to have with countries that were previously governed by EU umbrella arrangements. An example of this would be whether the UK had a post-Brexit relationship with Canada comparable to CETA.

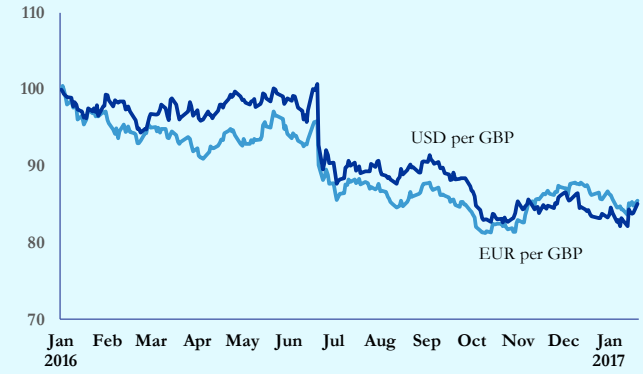
What is known is that the separation talks commence after the UK government invokes Article 50 of the Lisbon Treaty. This defines a period of up to two years (extended via unanimous agreement of all remaining EU member states) for the negotiation. The UK government has said that it intends to trigger Article 50 before the end of March 2017.

NOTE: CETA = Comprehensive Economic and Trade Agreement, a free trade agreement between the EU and Canada

Pound Sterling Devaluation Has Already Depressed Profit Margins

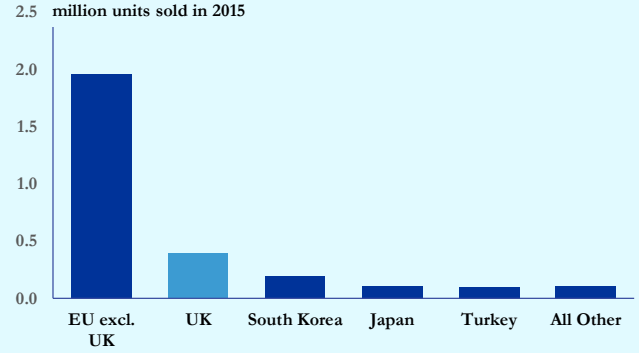
All volume-produced vehicles sold in the UK have substantial non-UK content. In most cases the vehicles sold in the UK are not built locally. Even where there is local production, the supply base is predominantly offshore. Industry figures show that the average UK-built vehicle is about 40% locally sourced by value[1]. The highest reported local sourcing for a mainstream product is 55% by value[2]. This means that the entire industry and almost every OEM has a net Sterling revenue exposure. Cost exposure for product sold in the UK is primarily in Euro with much of the remainder in U.S. Dollar. **Figure 1** shows that since the beginning of January 2016, Sterling has lost 15% of its value versus both currencies.

FIGURE 1 | Sterling Performance



Source: Bank of England, Ad Punctum Research

FIGURE 2 | Piling On The Pounds



Source: Ad Punctum Research, UK Government Vehicle Registration Data

As **Figure 2** shows, the UK is a net importer of vehicles. In 2015 it produced almost 1.6 million cars against over 2.6 million local sales (in a total industry of around 2.9 million including commercial vehicles). At current levels, if all UK production was directed to the local market, around 40% of vehicle sales would still be sourced from outside the UK. In practice, almost 80% of UK-built vehicles are exported and locally production supplies just under 15% of UK domestic sales. **Figure 3** shows the extent of each OEM's UK imports, as well as their sources of Sterling cost exposure.

FIGURE 3 | Build Where You Sell Much?

Company	UK Sales Rank (2015)	Local Vehicle Production As % Of 2015 UK Sales	Exports From UK Operations	Natural Hedging Assessment
VAG	1	<1%	Bentley Cars	Low
Ford	2	Nil	Engines & Transmissions, R&D	Moderate
GM	3	20%	Astra, Vivaro Van	Moderate
PSA	4	Nil	None	None
BMW	5	20%	Mini & Rolls-Royce Cars, Engines	Good
Daimler	6	Nil	F1 Operation	Low
Nissan	7	75%	Various including Juke, Leaf, Qashqai	Good
Hyundai-Kia	8	Nil	None	Low
Renault	9	Nil	F1 Operation	Low
Toyota	10	20%	Auris, Avensis, Engines	Good
FCA	11	Nil	UK Headquarters	Low
JLR	12	100%	All Models	Good

Source: Company Reports, Ad Punctum Research, UK Government Vehicle Registration Data

NOTE: [1] 41% average UK content per UK Automotive Trade Body, Society of Motor Manufacturers and Traders (SMMT) in May 2016
[2] Jaguar XE has 55% UK sourcing by value as reported by JLR in March 2016

As a result, almost all of the 15% drop that Sterling has suffered versus the Euro and Dollar has resulted in profit deterioration for the automotive industry (the Euro matters much more, unless you are in the profit analysis department of Ford or General Motors). Many manufacturers have hedging in place to smooth the impact of currency movement but even the most heavily hedged will only have coverage for a few years -- frequent practice is to have coverage that tapers from 100% down to zero over 3 to 5 years. GM and Ford have reported annual profit reductions, once hedging has run its course, of over $500 million each. PSA have given guidance indicating that Sterling weakening since will cost around $400 million annually versus their profit expectations at the beginning of 2016. German OEMs have been less clear about the expected impact to their profitability, in part due to their extensive hedging. The analysis in Figure 3 shows that VAG and Daimler are highly exposed to long term weakening of Sterling versus Euro. BMW are less exposed due to their UK production footprint.

Tariff Barriers Expose OEMs To Cost Risks Of Billions Of Pounds

Tariff barriers have already been flagged as a serious risk to the industry with the UK Automotive Trade Body, the Society of Motor Manufacturers and Traders (SMMT), calculating an annual figure of £4.5 billion. Analysis of tariffs across the industry and by OEM is complicated by there being no set definition of what "tariffs" mean.

The most common interpretation is that the UK adopts the EU applied tariffs on imports of vehicles and components for vehicle assembly from "third countries" (for the UK this would become all countries, including EU member states and countries that currently have tariff free arrangements [3] or free trade agreements [4] with the EU) and that UK exports would face the applied tariff levels of both the EU and countries with which the EU has free trade agreements.

The tariffs on products imported from or exported to countries that currently have no free trade arrangements with the EU, such as China, Japan and the USA would be unchanged.

This set of conditions are being commonly referred to as "World Trade Organisation (WTO) conditions". The logic for choosing this as a starting point for tariff assessment is that it seems a reasonable assumption that other WTO members would have few objections to the UK adopting the tariff conditions it already applies as a member of the EU.

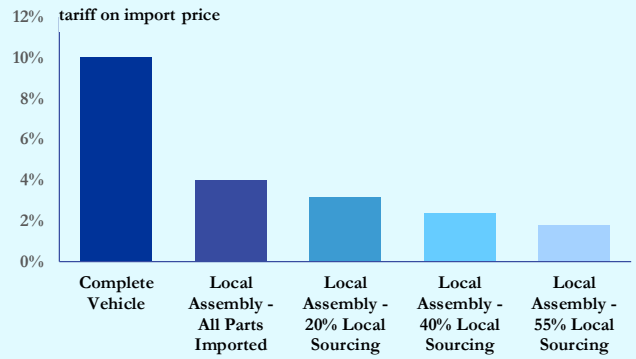
Given all of the above, the application of these "WTO condition" tariffs is the most straightforward starting point for any assessment of tariff impact. As a rule of thumb, for the UK to apply higher tariffs than the EU currently sets will be harder than adopting the EU tariff level, whilst adopting a lower tariff level would be easier. It is important to note that these tariffs would apply to all countries exporting to the UK. To apply lower tariff levels for favoured countries, the UK must agree a bi-lateral or multilateral free trade agreement and have it ratified by the WTO. **Figure 4** shows EU import tariff levels for the main types of vehicle and a selection of components used in vehicle assembly.

FIGURE 4 | Duty Calls

Entire Vehicles	Tariff Level
Passenger Cars	10%
Goods Vehicle <5T GVW	10%
Goods Vehicle 5T - 20T GVW	22%
Selected Vehicle Parts	**Tariff Level**
Gasoline / Diesel Engines	2.7%
Seats	3.7%
Tyres	4.5%
Bumpers	3.0%
Car Bodies	4.5%

Source: Ad Punctum Research, European Commission TARIC database

FIGURE 5 | Everybody Hurts



Source: Ad Punctum Research

Figure 5 shows how this affects manufacturers using the example of a passenger car or light goods vehicle (which covers substantially all UK sales by volume and value). An OEM importing a complete vehicle will see a tariff of 10% applied to the import cost (the transfer price at which the vehicle is sold to the national sales company). We can also see that even for OEMs with local manufacturing operations there will still be quite significant duties payable (for analytical purposes we have assumed an average basket of vehicle parts given that tariffs vary by component type). An OEM with UK sourcing of around 40% by value (the average local manufacturer) will have tariffs of over 2%. Even the OEM with the highest claimed local sourcing (JLR) would have a tariff bill of around 2%. Local manufacturers would be able to take advantage of Sterling weakness and may find that the lower cost of UK labour compensates for the incremental tariffs.

We can also see from this analysis that OEMs who solely import today should not dismiss lightly the prospect of a UK manufacturing operation in response to tariffs. Assembling the vehicle locally using a painted body would reduce the tariff bill to less than half that of a complete vehicle import. Offsets to the tariff reduction would be: the capital costs of the facility, lower utilisation plants previously supplying the vehicle through import and potentially higher logistics complexity.

NOTE: [3] For instance, countries in the European Economic Area (EEA) or EU Customs Union, such as Turkey
[4] For instance, countries such as South Africa who benefit from tariff-free access subject to local content requirements
GVW = Gross Vehicle Weight

The distorting effect of tariffs is complex because the overall effect is a result of the following factors:

- Tariffs on imports to the UK market from EU countries -- tariff barriers will increase the cost to the OEM of these vehicles and parts, something that the OEM may seek to recover via increased pricing (see next section)
- Tariffs on imports to the UK from Customs Union countries, especially Turkey -- even if the UK and EU conclude a FTA, this will only guarantee that British exports to the Customs Union are tariff free. The Customs Union countries need separate agreements to ensure they have tariff free access to the UK (this situation is one of the reasons that the UK government does not seek full membership of the Customs Union).
- Tariffs on imports to the UK from countries that currently have a FTA with the EU -- the UK must make separate agreements with those countries with which today it trades tariff-free through its EU membership. As well as negotiating the agreements themselves, the UK, EU and each FTA country would need to agree diagonal cumulation rules if the FTA is to have identical conditions before and after Brexit. Diagonal cumulation means that the various FTAs that the UK and EU have would recognise each other as an originating location qualifying for preferential treatment (even with an FTA, originating source must still be proven to qualify for tariff free treatment to stop companies from simply exporting from a non-FTA location and re-packing). Without diagonal cumulation, some products might fail to meet the originating content level to become tariff free and therefore be subject to tariffs even though an overall FTA is in place. It should be noted that although the EU has over 50 FTAs in place, not all are of vital importance to UK trade and an even smaller number are critical for the automotive industry. Therefore, the UK could achieve like for like trading conditions without having to replicate all FTAs the EU has in place.
- Tariffs on exports from UK plants to EU and Customs Union countries -- although the focus of this report is the UK market, the EU is almost certain to impose tariffs on imports from the UK if there is no FTA with the UK (see discussion below), even if the UK decided to unilaterally set its tariff at zero for all third country imports. Companies exporting from the UK would find their products subject to tariffs. This would put them at a substantial competitive disadvantage to products produced in the EU or countries with EU-FTAs which would see no tariff impact. This would be alleviated by continued Sterling weakness and would be further helped if the EU decided that EU originating content should be tariff free (since UK built vehicles use substantial quantities of parts from the EU).
- Tariffs on exports from UK plants to countries that currently have a FTA with the EU -- following on from the points above, if tariff free trade ends it will affect the competitive position of those OEMs exporting from the UK.
- Loss of diagonal preference for UK sourced products in EU exports to countries with which it has a FTA -- this is primarily a factor for companies such as Ford, BMW and Toyota who export components (normally engines) for onward assembly in EU plants. Unless diagonal cumulation is agreed, the level of EU originating content will drop and could fall below the thresholds required for tariff free trade between that country and the EU. For reference, losing cumulation for an engine could reduce the recognised originating content by between 10% and 20%. As mentioned previously, the exact amount would depend on whether the EU and the other FTA country gave relief for EU originating component parts used in the UK assembled products (so only excluding the UK value-add).
- Vehicles imported to the UK from countries without an EU-FTA in place -- these products alone gain an advantage from tariff barriers. Since they are already tariff bearing at third country levels, their import cost would remain the same as today whilst rival products see increase in line with Figure 5.

From the above, it is clear why the automotive industry would dearly like the trading conditions to be the same before and after Brexit. The problem is that this requires a FTA to be negotiated in enough substance to be approved by the WTO. Without such an agreement, the EU would be forced to erect tariff barriers on UK trade because otherwise other WTO members without EU FTAs would be able to argue that the same tariffs should apply to them. In the case of the automotive industry, the same OEMs who lobby for tariff free UK-EU access will probably prefer tariff barriers on UK trade if the alternative was tariff free competition from Japan, China and the USA in the much larger EU market.

The impact of tariffs is universally an increase in costs, however the extent of the impact varies by OEM for each of the individual factors listed above. **Figure 6** shows that some OEMs are most affected by the changes in the UK market whilst others who would seem to be comparatively less damaged in the UK market will be mindful of the risk of EU tariffs being imposed. Note that this is a qualitative assessment for each OEM of how much their business will be impacted by tariffs. It should not be read as each plus (+) or minus (-) is of equal financial value across OEMs.

FIGURE 6 | Brace For Impact

Company	Exposure To Each Tariff Risk Type (- - - as worst, + + + as best)						
	UK imports from EU	UK imports from Customs Union	UK imports from EU FTA countries	UK exports to EU and Customs Union	UK exports to EU FTA countries	Loss of Diagonal Preference	UK imports from non-EU FTA countries
VAG	- - -	N/A	-	-	-	N/A	N/A
Ford	- - -	- -	-	-	-	?	+
GM	- -	-	- -	- -	-	N/A	+
PSA	- - -	-	N/A	N/A	N/A	N/A	N/A
BMW	- - -	N/A	N/A	- - -	-	?	+
Daimler	- - -	N/A	N/A	N/A	N/A	N/A	+
Nissan	-	N/A	N/A	- - -	-	N/A	+ +
Hyundai-Kia	-	N/A	- - -	N/A	N/A	N/A	N/A
Renault	- - -	N/A	N/A	N/A	N/A	N/A	N/A
Toyota	- -	-	-	- -	-	?	+ +
FCA	- - -	-	N/A	N/A	N/A	N/A	+
JLR	N/A	N/A	N/A	- - -	-	N/A	N/A
Honda	-	N/A	-	- - -	-	N/A	+
Mazda	N/A	N/A	N/A	N/A	N/A	N/A	+ + +
Mitsubishi	-	N/A	N/A	N/A	N/A	N/A	+ + +

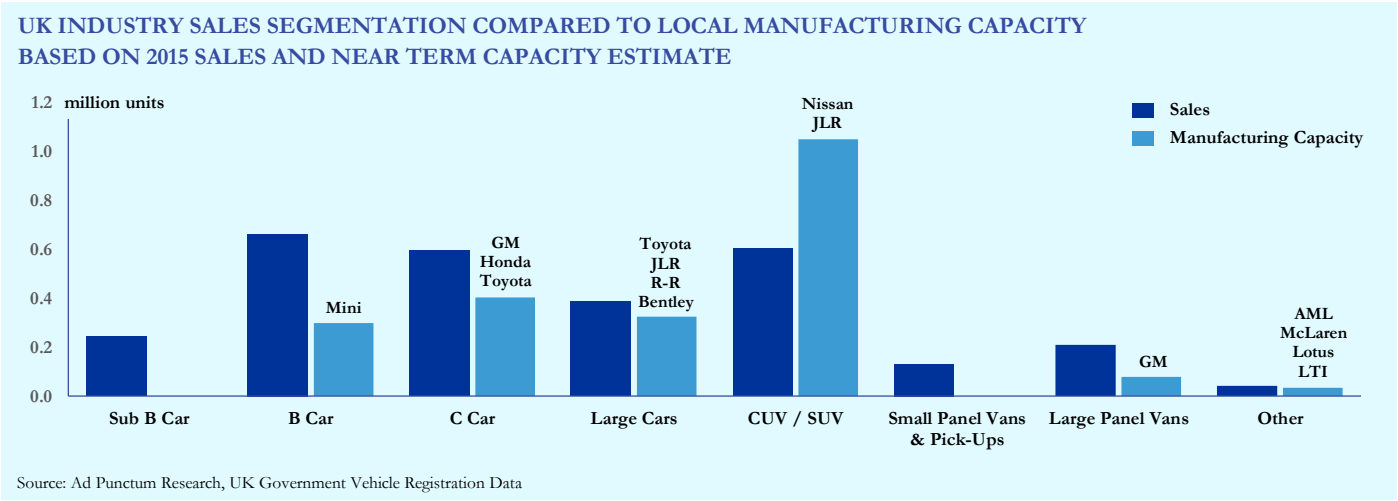
Source: Ad Punctum Research

If the data above seems too abstract, then consider the example of the Volkswagen Group. In 2015, total UK cost of sales for the group was £8.8 billion. Even after making subtractions for logistics and warranty costs, the annual tariff bill at a 10% rate is around £800 million.

Figure 6 demonstrates that tariffs are an almost universal concern for OEMs and earlier discussion showed that the UK has insufficient local production capacity to be self-sufficient. To understand which areas of the market tariffs may have the greatest distorting impact upon, it is worthwhile looking at structure of the UK industry by segment. This analysis can show us both where local manufacturers may be able to crowd out importers and where there exists little or no local production capacity. Identifying the gap does not however mean that it will be filled. There are practical and financial constraints to re-allocating production between factories, especially once a model has entered series production

Once a company has a factory and a workforce it is possible to build a variety of vehicles. There are countless real world examples which demonstrate that a workforce with experience in building small cars can make larger cars or vice versa. The primary issue with adding new vehicles is that many OEMs design bespoke manufacturing systems for each carline and therefore they are unable to add products to existing facilities without costly new equipment and revisions to the production process of existing models. The degree to which this is an issue varies by OEM. For example, both Nissan Sunderland and JLR Solihull are factories producing more than four different vehicles (even though not all vehicles run on the same line through body in white and assembly).

FIGURE 7 | Uneven Balance



Source: Ad Punctum Research, UK Government Vehicle Registration Data

The segment-by-segment view in **Figure 7** shows that UK manufacturing capacity and capability is unevenly matched to demand (the chart does not discriminate between premium and non-premium sales or production). In some segments there is no UK manufacturing capacity whatsoever, whilst in others the manufacturing capacity exceeds total sales. For instance, there is a clear mismatch between sales demand and local production for small cars. This is by design. Smaller vehicles are typically sourced from lower cost countries such as those in Eastern Europe (and South Korea) whilst local production is concentrated on higher value (larger and more luxurious) segments. Therefore, even OEMs with local manufacturing will be unable to minimise their tariff impact without changing the mix of vehicles they produce in the UK.

There are plenty of situations where although it exists, local capacity is ill-suited to market demand. The B car capacity is all BMW's Mini brand (due to the cessation of Nissan Note). The sole non-premium large car is the Toyota Avensis -- the rest being the likes of Jaguar, Rolls-Royce and Bentley. The only segment in which there is local production from several local factories is C car, where GM (Vauxhall), Honda and Toyota are all represented. Thankfully for Londoners, the one segment in which there is a surfeit of capacity is crossovers and sport utility vehicles. Choice could be an issue though, with only Nissan and JLR represented (unless Honda re-patriates CR-V from Canada).

It is important to note that comparing the capacity bars in Figure 7 to demand envisages a scenario where all UK production is for domestic consumption. This is especially unlikely in the case of premium manufacturers with substantial exports to the USA and China which would not be negatively affected by tariffs and benefit from the weakened currency.

In conclusion, without substantial changes in production line-up, even those OEMs with UK factories will be exposed to considerable tariffs because they do not produce their full range locally. The sales mix could change. Will today's B car customers still buy Fiesta, Corsa and Polo if prices increase substantially to cover the cost of tariffs but Mini, Astra, Civic and Auris pricing remains much more stable? OEMs wishing to avoid tariffs by building locally have a range of options:

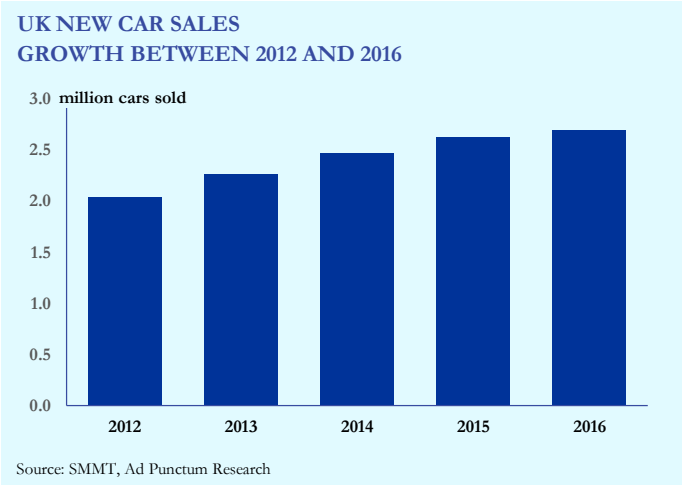
- Create new factories -- an undertaking that would take several years, even for assembly-only facilities
- Re-arrange their EU production line-ups -- Renault-Nissan are probably the best placed non-premium group to do this (would they contemplate swapping some of the Qashqai and Juke production for Megane, Kadjar and Captur?), even so it would likely take at least 18 months. BMW have experience of moving series production (e.g. Spartanburg and the Longbridge to Cowley transfer). 3 Series is already built in several plants worldwide, what's one more?
- Partner together -- OEMs have a mixed history of cooperation but it might be easier to partner than start from scratch; anyone fancy making Honda an offer for the currently mothballed Swindon Plant No. 2 (100,000 units capacity and not reflected in Figure 7)?

Although theoretically an option, revising transfer prices is unlikely to provide much scope for tariff reduction. Given that vehicle exports and imports are a long standing and well understood trade flow, changing transfer prices (down) to achieve lower tariffs would only be accomplished with the implicit support of the exporting tax authority (and government).

Recovering Profitability Seamlessly Through Pricing May Be Impossible

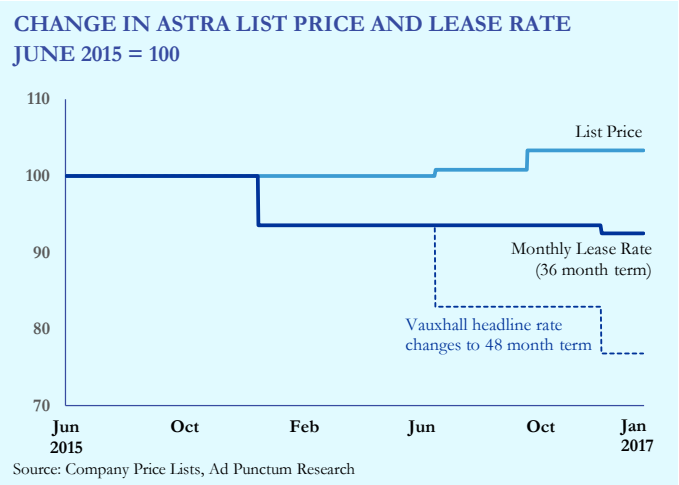
The UK market is highly competitive. OEMs, especially those in the non-premium sector of the market, find it difficult to generate higher revenue through pricing. This is despite the healthy sales volume growth illustrated in **Figure 8**. Between 2012 and 2016 the market has increased over 30% in size, seemingly fertile grounds for pricing. Unfortunately, although these sales increases lead to improved capacity utilisation for the OEMs, across Europe there is still a surplus of supply and this keeps a pressure on pricing. This is demonstrated through the example of the Vauxhall (GM) Astra. In 2015, the Astra was the third most popular car in its segment (C cars) and 6th best-selling car overall. The trend rate of pricing over time can be analysed using the highest volume "SRi" trim level as a market barometer. To fully reflect the impact on consumers in the UK market it is important to look at two different figures: the list price (the nominal upfront price, excluding discounts) and the manufacturer's own monthly lease rate (which involves a deposit and monthly payments but no ownership of the vehicle at the end of the lease without further payments). Leasing as a payment method is increasingly preferred by UK consumers (covered in later analysis). **Figure 9** shows the evolution of these two prices [5].

FIGURE 8 | Growth, Uninterrupted



Source: SMMT, Ad Punctum Research

FIGURE 9 | Who's Line Is It Anyway?



Source: Company Price Lists, Ad Punctum Research

Although the list price has risen by around 3% from June 2015 to present (this is the pricing figure that GM uses in its profit variance reporting), the monthly payments for the Astra have dropped by almost 10 percent. Also of note is that in mid-2016, GM began widely advertising longer leases and resulting lower monthly payments. This dynamic is not due to the financing conditions -- the effective annual percentage rate (APR) reported by GM in its advertising materials has risen from 2.9% to 3.7% over the period. Despite GM being only partially insulated from weaker Sterling on this vehicle by local manufacturing overhead and around 25% local sourcing, the pricing is substantially the same as it was when Sterling was over 15% stronger versus the Euro. Given this track record, what confidence can there be that the industry can price for both the full impact of Sterling weakness and any tariff barriers?

As discussed earlier in this report, local production is not evenly matched to demand by segment. Consequently, the impact of exchange and tariffs varies considerably between different vehicles. **Figure 10** shows the top selling nameplates in the UK during 2016 [6] with an assessment of how much the vehicle cost (to the OEM) is affected by these two key effects. These percentage figures are slightly larger than the expected change in vehicle price as they reflect only the OEM's cost, whereas price has uplifts for items such as dealer margin and OEM administrative costs, research and development and profits (where the OEM is profit-making).

Figure 10 shows that when combining the effects of tariffs and exchange, there is a considerable profit gap (over 10% of vehicle cost) between the local produced and imported vehicles. The implication of this difference in cost recovery imperative is that there would be one of the following pricing environments:

- Industry wide pricing to the level required by the importers -- local producer profit increases, importers are neutral
- Pricing by each OEM to recover their specific shortfall -- local producers gain sales from importers
- Mixed pricing that partially recovers impacts -- local producer profit increases, importer profit drops

NOTE: [5] To arrive at a monthly rate that is not distorted by differences in customer deposit, we amortise deposit on the same terms as the lease
[6] Taken together, these vehicles represent just over 20% of 2016 UK new car sales volume

In predicting the outcome, an observation of OEM behaviour is important. OEM marketing departments like to have demonstrable pricing steps between different vehicles (with pricing going up as vehicles become larger and / or more desirable). Although no OEM aside from JLR and the likes of Aston Martin, McLaren and Rolls-Royce has a full line-up that is UK sourced, OEMs will still be keen to maintain the pricing steps between vehicles. This leads to the potential that, for example, Nissan could price the Qashqai and Juke to reflect the same level of exchange and tariff pressure it experienced on Micra (imported from France). More likely, especially given the differences in volume between the models, is that Nissan would adopt an average pricing increase where Qashqai costs would be over-recovered and provide a subsidy to Micra. Overall, this would suggest the mixed pricing scenario is most likely, with import OEMs trying to impose the full cost-recovery price increases they need but relenting as they start to lose sales (Figure 9 has already demonstrated how consumer-friendly the pricing environment is). This pricing dynamic is likely to be the same whether the objective is to recover only exchange losses or both exchange and tariffs.

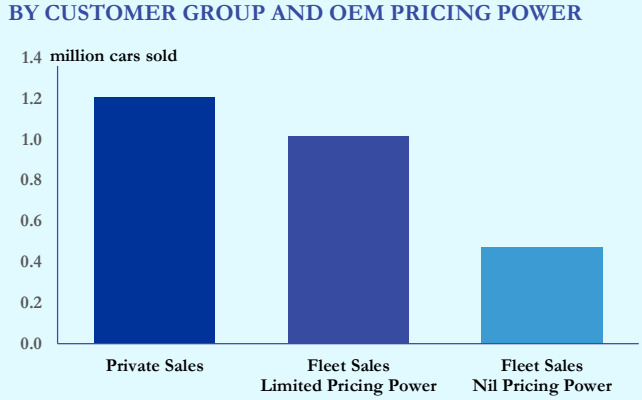
FIGURE 10 | Tough At The Top

2016 Sales Rank	Company	Model Name	Representative List Price [7]	Exchange Recovery	Potential Tariff Recovery	Total Potential Cost Increase
1	Ford	Fiesta	£ 15,395	~13%	10%	20% - 25%
2	Vauxhall (GM)	Corsa	£ 15,775	~15%	10%	20% - 25%
3	Ford	Focus	£ 21,395	~13%	10%	20% - 25%
4	Volkswagen	Golf	£ 22,350	~15%	10%	20% - 25%
5	Nissan	Qashqai	£ 25,785	~7%	2%	8% - 12%
6	Vauxhall (GM)	Astra	£ 20,715	~9%	3%	8% - 12%
7	Volkswagen	Polo	£ 15,990	~15%	10%	20% - 25%
8	Mini (BMW)	Mini	£ 15,775	~8%	2%	8% - 12%

Source: Company Price Lists, Ad Punctum Research

The likelihood of the industry successfully pricing for the full extent of exchange and tariff impacts is further decreased when the structure of the market is investigated. There are broadly three levels of price sensitivity in the UK industry: private customers (who purchase according to their means but also what they like), corporate fleets (who are more budget conscious and typically have multi-year price protection arrangements) and daily rental fleets and the Motability scheme (who are almost completely driven by budget). **Figure 11** shows the relative size of each of these groups and **Figure 12** shows the anticipated reaction to price increases.

FIGURE 11 | The Thin End Of The Wedge



Source: SMMT, BVRLA, Motability, Ad Punctum Research

FIGURE 12 | The Customer Is Always Right

Customer Group	Reaction To Price Rises
Private Customers	Extend lease period (e.g. 48 months instead of 36 months), buy 2nd hand
Large Fleets	Use price protection from OEM, may extend lease period
Small Fleets	Run asset for longer
Motability	Downgrade or withhold purchase
Daily Rental	Reduce fleet size

Source: Ad Punctum Research

NOTE: [7] On The Road price of the most popular model, excludes options, January 2017
BVRLA = British Vehicle Rental and Leasing Association, the trade body for companies engaged in the leasing and rental of cars and commercial vehicles

The private retail buyer is the least price-conscious of all the groups and yet, as was demonstrated in Figure 9, even this group are proving resistant to price increases. The reason for this is that they are the most likely group to be prepared to purchase a second-hand car as an alternative (intuitively Motability customers who are often on low incomes might seem to have a similar perspective but their lease is funded through a scheme that only uses new cars). This leads to several unpleasant conclusions with regards to pricing:

- The OEMs do not have pricing power over much of the market
- If the OEMs insisted on making real pricing gains they would have to direct disproportionate price increases towards a customer group that is less than half the market (retail customers) to realise the intended average industry price increases
- OEMs are already failing to make smaller price increases stick with private retail customers
- Without a change that gives more pricing power to the OEMs, in practice a reduced number of OEMs in the marketplace (whether by consolidation or withdrawal), the OEMs will be unable to price for the long-term cost impacts that could arise from Brexit
- Even though this time it could be different, historic behaviour of the OEMs implies that many will keep on selling even in difficult and loss-making conditions (witness Russia)

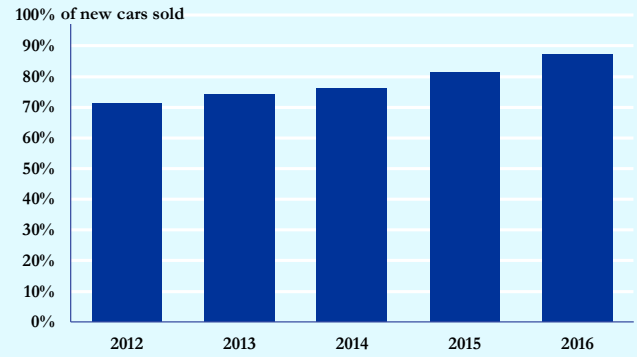
In conclusion, if pricing is achieved at all in the UK market then it is extremely unlikely to go above the level of around 10% that OEMs who manufacture locally need to recover their exchange and tariff losses as after this point any inherent industry consensus would fray. This would be some 15% below the level needed by importing OEMs to compensate for tariffs. Pricing will be uneven between sales channels and, in all cases, will be extremely sensitive to interest rates due to the high penetration of leasing in both the private retail and fleet sales channels.

OEM Captive Finance Arms May Need Restructuring If Passporting Rights Are Lost

Financing is making up an ever-greater percentage of retail sales in the EU. GM says that 50% of retail sales across Europe now use financing. In the UK, the figure is even higher -- almost 90% of retail sales, with huge growth in recent years shown in **Figure 13**. Without access to financing, UK sales would be depressed and without competitive finance offerings, OEMs lose share. For this reason, many of them have established captive finance arms. Captive companies also help with providing wholesale financing to dealers. Those that do not have captive finance arms form partnerships with retail banks (such as that between JLR and Black Horse) to create a captive-like offering. The reason that OEMs operate this way as opposed to simply leaving the market to produce a financing offer (this alternative does exist) is straightforward: it allows the OEM to feed discounts into the financing model, and to change the nature of those discounts. This discounting structure allows the offering to appeal to the secondary considerations of customers beyond the monthly payment itself. **Figure 14** shows the key discounting methods within a financing offer.

FIGURE 13 | Quick To Borrow, Slow To Pay

CONSUMER FINANCE IN UK NEW CAR SALES GROWTH BETWEEN 2012 AND 2016



Source: FLA, Ad Punctum Research

FIGURE 14 | Hey Big Spender

DISCOUNT STRUCTURE USED IN CAPTIVE FINANCE

Line Item	Why It Is Used
Lower List Price	Applies equally to cash and finance sales
Deposit Contribution	"Cash on the hood" just for financing offers
Inflated Residual Value [8]	Sends a pricing signal to 2nd hand market
Subsidised Interest Rate	0% or low APR offers for comparison shoppers
Lower Mileage Limit	Loyalty -- OEM can forgive the excess charge liabilities of repeat customers

Source: Ad Punctum Research

These captive finance arms are banks and are regulated as such. This means that they are potentially affected by the loss of passporting rights after Brexit. Whether they are affected depends on if the bank is a branch or a subsidiary. Subsidiaries are independent entities that are supervised locally (e.g. by the FCA in the UK) and comply with that market's rules -- non-EU banks can have EU based subsidiaries. Branches are banks using their supervision by another EU/EEA country, to avoid duplicative regulatory burden, via passporting. Assessing the structure by OEM, there are three groups:

OEMs with a subsidiary structure in the UK (or who use a 3rd party) and no EU impact from loss of passporting

- GM, PSA, FCA, BMW, Daimler, Nissan, Hyundai-Kia, JLR, Honda

OEMs with a UK branch of an EU entity -- impacted in the UK by loss of passporting

- VAG -- Volkswagen Financial Services (UK) Ltd is a subsidiary (therefore unaffected) but Volkswagen Bank UK is a branch of Volkswagen Bank GmbH (Germany). It is unclear whether VAG could simply direct new business to Volkswagen Financial Services (UK) Ltd or would require restructuring to avoid an impact on vehicle sales.
- Renault -- RCI Financial Services Limited (which also provides financing for Nissan) is a subsidiary (therefore unaffected) but RCI Bank UK is a branch of RCI Banque SA (France). Since the role of RCI Bank UK is deposit taking rather than vehicle financing it is unclear whether Renault would restructure or simply close the business.

OEMs with EU branches of a UK entity -- impacted in the EU by loss of passporting (but not in the UK)

- Toyota -- Toyota's Italian financing arm is a branch of Toyota Financial Services (UK) PLC. Toyota widely uses branches of its German bank in continental Europe so an internal restructuring may be straightforward.
- Ford -- Ford's FCE Bank PLC, based in the UK, has a network of 10 branches across the EU (including France, Germany, Italy and Spain). It would need to find an alternative structure to continue financing in these countries without passporting.

NOTE: [8] Residual value sometimes referred to by terms such as "Optional Final Payment" or "Guaranteed Future Value"
FLA = The Finance and Leasing Association, the trade body for the motor finance sector in the UK

Day To Day Operations Will Be Impacted By A Range Of Potential Changes

There are several policy areas potentially affected by Brexit which are either core for the automotive industry or could cause OEMs to revise the way that they do business. Thus far, this report has concentrated on the two most substantial areas: trade in goods and services. There are further considerations in the following areas:

Physical customs barriers -- this is relatively easy to overcome (at a cost) for well-prepared automotive companies. Most OEMs already have experience in dealing with imports to the UK from countries outside the EU and therefore will be familiar with the differences in documentation and customs clearance time. It will simply be a matter of assessing how EU imports look when using third country processes and timing. The same will happen with imports into the EU from the UK. Concerns will emerge about whether the UK government is ready for the increase in volumes flowing through its existing systems (a replacement is already in the works). The overall situation is likely to be a small increase in staffing and inventory costs but expect OEMs to worry about whether they have understood this properly and a spike in the price of consultancy services from customs experts.

Free movement of highly skilled people -- step into any automotive research facility in the UK and you will see a wide range of different nationalities working together. When you further analyse these groups, you discover that they are a mix of permanent employees of the OEM, (temporary) contractors, employees of purchased service (e.g. specialist consulting) companies and supplier employees. Having to manage through additional movement regulations is a headache the automotive industry would prefer to do without. Many companies will struggle to carry out a complete assessment of critical personnel: personnel databases may not include sufficient information to assess residency permission without talking to the employees themselves and some of the critical staff are employees of suppliers. Given that the UK Home Office has already clarified that many EU citizens already qualify for indefinite leave to remain by default (regardless of documentation in their passport) and the UK government seeks to make continuation of existing residency rights an early part of their negotiation, the likely risk is towards being able to recruit in the longer term. Nevertheless, plenty of HR and legal paperwork awaits the industry in the interim…

Compliance with existing environmental regulations after the UK leaves the EU -- the primary concern for OEMs will be whether their forecasted EU fleet average CO_2 for 2020 and beyond is substantially affected by the loss of the UK. Options include resetting the fleet start points to exclude the UK or including the UK in the calculation although it is no longer part of the EU. OEMs have still not decided upon a consistent approach here and the issue may mutate into two separate compliance problems; a new UK target and the existing EU one. OEMs will be hoping to avoid expensive forced mix-shift actions (e.g. where certain vehicles are sold at lower profitability to persuade the market to buy them rather than the vehicle that is ideally wanted).

Consistency of approach on environmental regulation after Brexit -- the OEMs are already uncomfortable with the pace of change in fuel economy and emission targets for vehicles but at least they currently enjoy the benefits of consistency and a long-term planning horizon that gives them time to make product decisions. OEMs will be wary of an independent UK that could introduce unique regulations which bring additional costs, even if they are objectively less stringent (and they could be harsher). The SMMT has already stated that it will lobby for continued consistency, expect requests for enhanced "research grants" for new technologies if the UK government starts to take a different path.

Data protection -- the industry is still coming to terms with the existing data protection rules, both for data internally stored within the EU and for transfers to data storage in the USA. With the rise of connected vehicles and mobility services, OEMs are collecting ever more data and recent studies have shown that, especially where transport data is concerned, even anonymised data sets can be used to identify individuals through pattern recognition. The prospect that the UK could sit outside the EU-US data sharing framework is already a cause for concern among data protection and privacy professionals, especially since much of the EU to US data transfer is through UK based cables. Expect OEMs to spend on expensive expert services, and still be at risk of making a mistake somewhere. Substantial fines await those who get this wrong.

Cross-border tax rules -- within the EU there is a framework for dealing with cross border taxation. Although this doesn't deal with corporation tax and the like, it is very relevant when it comes to appropriate treatment of cross-border mergers and acquisitions. Complex multinationals often carrying out internal restructuring and may be concerned around

how rule changes, especially those around withholding taxes will affect their flexibility. The other hidden problem may be with VAT payments. With the erection of physical customs barriers, local manufacturers who build product for re-export may find themselves liable to pay VAT that they then reclaim later (they already do this with non-EU imports). If the local tax authority takes a prolonged period to repay this money then companies will suffer a significant cashflow problem. Expect lobbying for a retroactive system or improvements in government payment time (particularly UK HMRC).

Free movement of low skilled people -- at present there is no distinction between freedom of movement for high and low skilled labour. Expect one to arise. It is common practice in EU factories, with the UK being no exception, to run with reasonably high levels of temporary staff to deal with production fluctuations without having to change permanent staffing. As an example, Nissan Sunderland was recently said to be running with 30% temporary labour. A restriction on low skilled labour will make recruitment harder and increase costs. It isn't clear whether this issue will rise high enough up the list of OEM concerns for it to become a lobbying priority. More likely, OEMs will simply experience some wage price inflation (or maybe not if Brexit leads to economic contraction).

Exit from the digital single market -- multi-national companies are already used to dealing with multiple jurisdictions for copyright and other issues so they will see the loss of the digital single market as an increased cost of doing business but it is unlikely to be one that affects the bottom line.

Loss of UK voice in EU rule setting -- this impact will be perceived differently company by company. The likes of VAG, Daimler, BMW, PSA, Renault and FCA will probably see this as a completely peripheral concern due to their status as national champions (mourning the loss of the UK's liberal voice but not much more). The view for JLR and Honda is likely to be somewhat different as their manufacturing operations and political capital are centred in the UK. For Ford, GM, Toyota and Nissan the outcome will be more mixed. Although they have operations in the UK, they also have facilities elsewhere in the EU.

Other rule changes -- the UK's exit from the EU may herald changes for public procurement policy and employment law. Until further information emerges on these subjects, the OEMs are likely to concentrate on other issues. Revised UK public procurement rules could be an opportunity for OEMs with local operations in the longer term.

EU contagion -- this will occupy the back of the minds of those in the executive suite for some time to come. At present, with the UK economy continuing to grow (albeit without Brexit underway), current forecasts for problems in the EU may seem unduly pessimistic. As the process begins, and with impending elections in France and Germany during 2017, concerns may grow. If growth continues, then by the early 2020's, most large European countries would have had longer than historically normal periods of growth. The impact of a Europe-wide recession, whether Brexit-induced or not, would present a considerable industry challenge.

UK Automotive Industry Faces Substantial Challenges To Lobbying

The exit negotiations between the UK government and EU will be broad and complex. In August 2016 the UK House of Commons Library issued a briefing (Paper 07213, running to 198 pages) summarising the impact across policy areas.

The implication for the automotive industry is that although it can state clearly and lobby proficiently for its case, this is in part because the case it makes is so simple. As explained by the SMMT (the UK trade body), industry priorities are:

- The government must provide economic stability and reduce uncertainty
- Unrestricted access to the single market of Europe, not just for the import and export of vehicles but also for the trade in components
- Ensure the UK government retains a voice in European regulatory policy to protect the interests of UK companies
- Retain the ability to employ people from across the EU to meet urgent skills gaps and address the shortage of qualified scientists, engineers and technologists
- Continue to play a full and active role in regulatory agenda setting at a United Nations (UN) level

Put another way, the industry's priorities are as follows:

- Provide stability by agreeing to something that is really a continuation of current conditions (otherwise people will be uncertain of the impact)
- Retain the same free movement in goods as today
- Retain the same free movement in services as today
- UK government to somehow remain a Brussels insider
- Freedom of movement for the highly skilled as today
- UK government to stay outward-focused

The problem is that this is fundamentally a continuation of the status quo. The automotive industry already has most of what it values. It likes the "four freedoms" (movement of goods, services, capital and people) that the EU says are core to the principle of membership (the industry also likes regulatory harmonisation but not that it is harmonised at a strict level). As Figure 2 showed, the UK industry is substantively driven by local production and imports from the EU. All other trading relationships combined are minor by comparison.

FIGURE 15 | We Dream The Same Dream

Policy Areas Affected By UK's Exit From The EU

Core For Automotive Sector	Implications For Automotive	Marginal / Nil Interest
Trade in goods with the EU	Freedom of movement for the low skilled	EU budget contributions
Trade in goods with the Customs Union	Employment law	Agriculture
Trade in goods with countries that have EU FTAs	Digital single market	Fisheries
Trade in goods with other countries	Public procurement rules	Police & justice cooperation
Trade in financial services with the EU	Loss of UK voice in EU rule setting	European Court of Justice
Trade in other services with the EU		Social security
Freedom of movement for the highly skilled		Freedom of movement for the unemployed
Environmental regulations		Health policy and medicine regulation
Data protection		Higher education
Cross border tax rules		Culture and broadcasting
		Sport
		Consumer policy
		Foreign policy
		International development
		Defence and the armed forces
		Impact on UK's devolved legislatures

Source: House of Commons Library Research, Ad Punctum Research

The industry will now be on the back foot as it seeks to preserve the elements of the status quo that it likes even though they may be incompatible with the objectives of those in the UK who are determined to have a dramatically different relationship with the EU and those in the EU who are determined that exiting the EU must be worse than being a member state. **Figure 15** lists the various areas of policy that will need to be resolved by the UK's exit from the EU. The outcome of the left and middle columns are needed to provide a full assessment of the impact on the automotive industry.

The immediate conclusion is that the automotive industry has a narrow focus compared with the broader range of issues. On the face of it, this seems positive: the industry can take a straightforward approach to what it wants (and has done). In practice, the automotive industry's interests will be part of a gigantic set of bargaining chips subject to not only the positions of the negotiating teams but also strong single-interest voices on topics that the automotive sector has no real opinion on such as contributions to the EU budget and fisheries policy.

At the time of writing, the UK government is still at the stage where it has only provided an outline of its negotiating aims for the UK's exit from the EU. Loosely, it would like to retain all the trading benefits with full freedom of sovereignty. The UK government has not articulated how it believes that harmonisation can be achieved without having a rule-making body that balances competing interests (some would argue: not always fairly). The only other insight into its negotiating position that the UK government has given is to say that it would prefer no deal to a "bad" deal. With substantive information so thin on the ground at the moment it is easy to articulate an industry position without contradicting the government. As negotiation starts in earnest, the line between stating the industry perspective and criticising the government position will blur.

Additionally, as a net importer, the industry must tread carefully in advancing its arguments for gaining tariff-free access. From the perspective of those trying to restore British industrial might, the industry is part of a problem to be solved. Exacerbating this is that although at present the industry provides a united front, there are several OEMs who have substantial sales in the UK but effectively no local footprint (for example VAG, PSA[9] and Renault). It remains to be seen whether this unity will be maintained (for example, Honda, Toyota and Nissan's view on tariff free access to the EU might moderate if a UK-Japan FTA was in the offing). Thus, both the industry and individual companies may be unable to avoid becoming a target for attacks by those Brexiteers who favour "splendid isolation".

NOTE: [9] PSA excluding Opel / Vauxhall has no manufacturing operations in the UK

In Closing: A Summary Of This Report

Despite the continuing uncertainty around Brexit, it is possible to assess implications for the UK automotive industry:

1. Sterling devaluation has already depressed profit margins because the UK is a net importer of vehicles and components. The impact by Original Equipment Manufacturer (OEM) varies between 7% to 15% per vehicle. PSA, Ford and GM have each reported annual impacts greater than $400m. For some OEMs, this impact is currently supressed by long term hedging strategies.
2. Tariff barriers expose most OEMs to considerable cost risks. No volume manufacturer has complete sourcing of vehicle parts in the UK and only OEMs who currently import from countries without a free trade agreement with the EU would be unaffected. All other OEMs will face cost increases of between 2% and 10% per vehicle, depending on their local sourcing and production, if the UK and EU began trading with each other on a third country basis. For an OEM such as Volkswagen Group the annual bill could be over £800 million.
3. Recovering profitability seamlessly through pricing may be impossible. If the industry attempts to pass on the impact of both exchange and tariffs to the consumer then those OEMs worst affected will have to increases prices by more than 20%. Under current conditions manufacturers are failing to increase prices. In the (unlikely) event that OEMs persist with pricing then the outcome could be depressed overall sales volume, changes to channel mix, segment mix and market share.
4. Some OEM captive finance arms will need restructuring if passporting rights are lost. Ford (in the EU), Toyota (in the EU) and VAG (in the UK) may see market share losses if they fail to restructure their finance companies to ensure continuity of funding for customer purchases.
5. Day to day operations will be impacted by a range of potential changes. Each of these is minor in financial terms when compared to the impact of Sterling weakness and threat of tariff barriers but they will require management time.
6. In dealing with all the above, the UK automotive industry faces substantive lobbying challenges. Automotive industry priorities could be traded by the UK government for concessions in other areas. As a net importer, the industry must tread carefully to advance its arguments for gaining tariff-free access without angering those with protectionist instincts.

As tempting as it is to pick definitive winners and losers, that depends on how Brexit is achieved -- what the UK-EU relationship becomes, the nature of the transition and the strength of the UK and EU economies. Rather than attempt to predict that outcome (a task fraught with danger), this report has sought to show what factors will have the greatest impact on the industry and how the OEMs compare to each other.

Overall, in many Brexit scenarios there appear to be no obvious winners amongst the OEMs. Even the best placed are likely to see diminished profitability as a risk to be avoided rather than enjoy the even greater misery of their competitors. There are however, benefits for some to be found on the margins. Those manufacturers who currently import from countries such as Japan (for example Mazda and Mitsubishi) won't be harmed by tariffs - they are already paying them. OEMs with local manufacturing facilities will be hit less hard by currency weakening and tariffs than importers, suffering around a 10% rather than 25% increase in costs.

What should OEMs do next? If they haven't already started, a full assessment of their businesses against the factors above using conditions that range from the UK government's negotiating aspirations to a "no deal" Brexit. Some will then face a choice between doing nothing and facing severe financial consequences, or planning significant changes in resource allocation. Given the scale of the investments required, most OEMs will likely adopt a wait and see attitude, keep their fingers crossed, and absorb near-term financial impacts rather than commit to costly changes in their structure that would prove unnecessary in the event of an agreement on free movement of goods.

About The Author

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