



GROWING THE AUTOMOTIVE SUPPLY CHAIN LOCAL VEHICLE CONTENT ANALYSIS

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Local Vehicle Content Analysis

0. Key findings

- The amount of locally sourced parts is a **key measure of success** for the UK automotive industry as the majority of the sector's economic value-added is created in the supply chain.
- The amount of value sourced by UK car manufacturers from UK tier-1 suppliers has increased **from 36% in 2011, to 41% in 2015**.
- In addition to the *relative* growth in local sourcing content, *absolute* passenger car production in the UK also grew by 16% during that period. These increases in both the number of cars produced and the proportion of parts sourced locally leads to an **estimated compound growth of 32%** in volume sourced from UK suppliers between 2011 and 2015.
- The overall growth in UK parts production (accounting for both domestic and export volumes) is also reflected in the official ONS statistics. During this time period the value of automotive parts produced for domestic use grew faster than the value of parts exported, highlighting the fact that the demonstrated growth is not export-driven.
- There are no valid data points to benchmark the UK's position against its peers, however, anecdotal evidence suggests that countries like Germany and France achieve a local sourcing content of an estimated 60%. This level is regarded as the upper bound of the maximum local content that is realistically achievable.

1. Purpose

The local content of UK assembled passenger cars was assessed during the first Sourcing Survey in 2011ⁱ. The report established a baseline for the degree to which the UK car manufacturers are sourced their parts from UK-based suppliers. By value, this level was estimated at 36% in 2011.

Being able to raise the local sourcing content from UK suppliers is a key performance metric for the UK auto industry, as the majority of economic value-added is generated in the parts supply chain. Thus, the two key industry-level performance metrics for the UK automotive industry are, (1), the number of vehicles produced in the UK, and (2), the amount of parts sourced from UK suppliers to meet the respective parts demand for these vehicles. The latter is referred to as the "local sourcing content" or "local vehicle content", which effectively is the proportion of value spent by the car maker on parts bought from UK suppliers, as a fraction of the total value spent on all parts procured for the vehicles it produces in the UK.

The low degree of local sourcing by UK vehicle manufacturers (also referred to as "supply chain hollowing out") was identified as a particular concern in both the initial NAIGT report of 2008, and again by the Automotive Council in the 2011ⁱⁱ. It was therefore decided that a new survey was needed to assess the development of the local content sourced by UK car manufacturers.

In collaboration with the UKTI Automotive Investment Organisation (AIO) the local content was reassessed during the first half of 2015. To this effect a survey of all vehicle manufacturing operations was conducted. The focus was on passenger cars only. We gratefully acknowledge the support of the purchasing departments of the vehicle manufacturers that have responded to our request. We also would like to thank the SMMT for providing detailed UK production data.

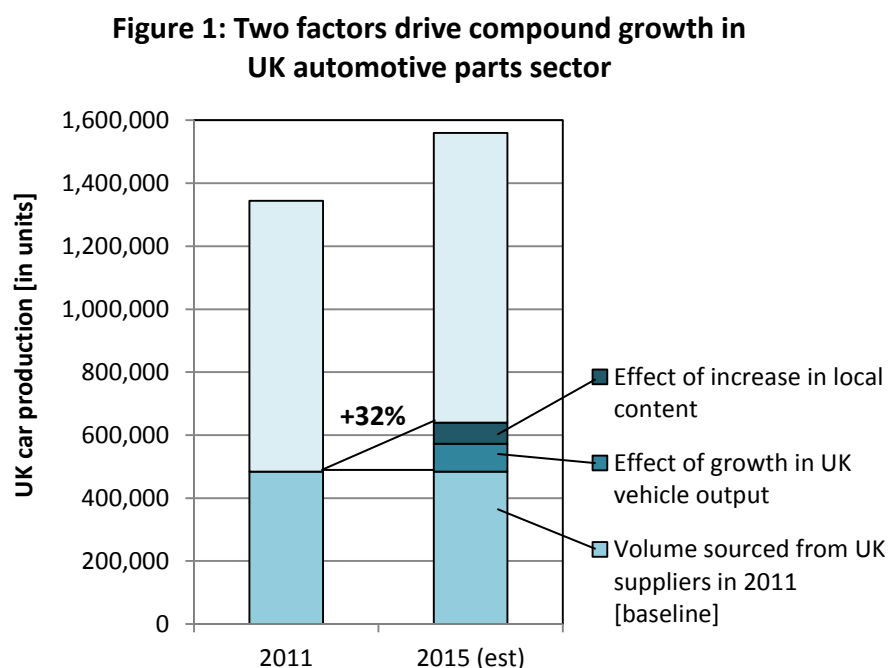
For the purpose of this analysis "local vehicle content" is measured in terms of the proportion of the annual value of materials and parts required for the respective vehicle assembly operations (across all passenger car models assembled in the UK) that were sourced from external UK-based suppliers. Non-production related expenditure such as production equipment, maintenance and other services was excluded from this analysis.

2. Survey findings

The current local content for UK-based vehicle assembly operations is estimated at 41%. This figure is based on a response rate equivalent to 90% of the UK passenger car production volume at the time of the survey in 2015. The same methodology as for the 2011 survey has been used, allowing for a direct comparison: compared to 36% local content in 2011, the 2015 finding marks a significant increase of 14% on this figure. This figure is considered reliable in as far as both 2011 and 2015 were able to capture a representative sample of UK-based vehicle manufacturers.

The increase in local content is only one of two drivers that have led to an increase in sourcing parts from UK suppliers. In addition to the relative percentage of value sourced from UK supplier for each UK-produced vehicle, the absolute number of vehicles produced has also increased by 16% between 2011 and 2015ⁱⁱⁱ.

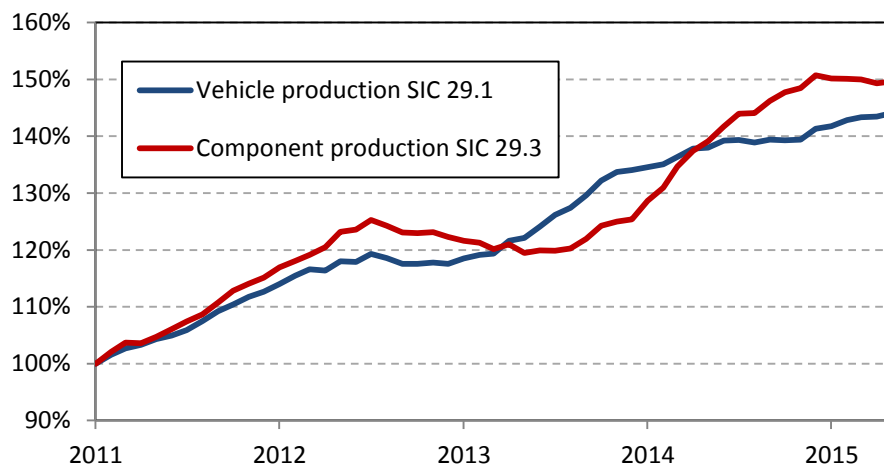
The UK supply chain is thus benefitting from two distinct developments: a relative increase in value sourced locally, and an absolute increase in vehicles produced in the UK (see Figure 1). Taken together, the compound growth in automotive parts sourced locally by UK car manufacturers is estimated at 32% during the period of 2011 to 2015^{iv}.



3. The findings in the UK context

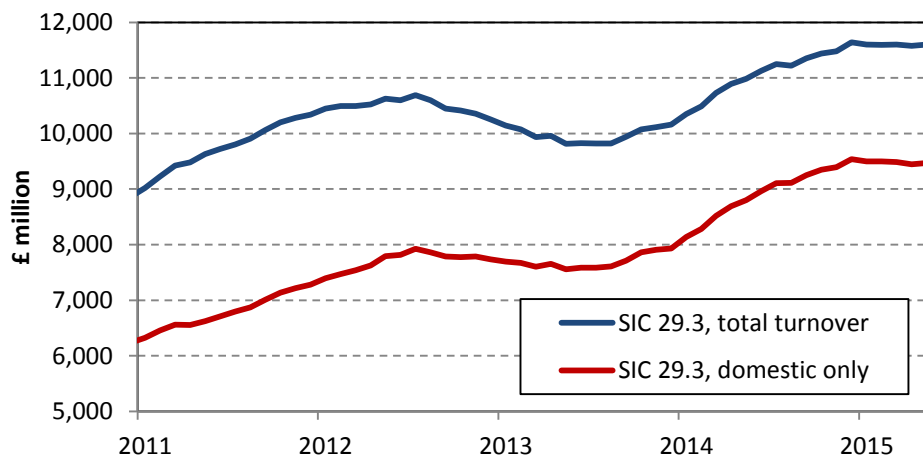
To verify the survey findings, we compared our findings to the sector output data provided by the Office of National Statistics^v. Considering the output of the UK automotive parts sector (SIC 29.3^{vi}), one can clearly see the growth in UK parts production. In terms of the relative development of automotive parts compared to vehicle output, one can also see that both follow a similar growth trend since 2011. Figure 2 plots the turnover of automotive parts (SIC 29.3) and vehicle production (SIC 29.1) sectors as a relative index with the base of the 2011 level (=100%).

Figure 2: Index of automotive sector turnover
(normalised to 2011 = 100%)



In absolute terms the annual turnover of the UK automotive parts sector has increased to an estimated £11.6 billion, as shown in Figure 3. Overall growth in SIC 29.3 over the period 2011-2015^{vii} was 49%, compared to 44% for the vehicle manufacturing sector. The net result is an increase in annualised sales of UK parts to UK car manufacturers from £6.3 billion in 2011, to a figure currently approaching £9.5 billion annually^{viii}. It is also worth noting that the growth in domestic parts was higher than that of exported parts, highlighting the fact that the growth in parts production was not export-driven, corroborating the survey's main finding of a significant increase in local content.

Figure 3: UK automotive parts sector turnover
(annualised volumes; SIC 29.3)



4. The findings in the international context

It would be very useful indeed to review the UK's local sourcing content in relation to its peer group. Unfortunately there are no reliable sources available to establish valid benchmarks. While national statistical data does provide data on sector turnover by SIC code, the actual sourcing patterns of local manufacturing firms can only be established through surveys. Despite the fact that many countries demand the disclosure of the degree of local content for tax and duty purposes, to our knowledge comprehensive comparative data of local sourcing content at country level does not exist^{ix}.

While comprehensive data may not be available, anecdotal evidence suggests that a 60% degree of local content marks an upper boundary; a higher degree of local content – on aggregate across all vehicles offered by a vehicle manufacturing firm – is seen as unlikely due to the global dispersion of the supplier base, which means that invariably a considerable amount of parts have to be imported.

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Endnotes

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- ⁱ Holweg, M., Y. Tran, P. Davies, and S. Schramm. (2011) "Growing the Automotive Supply Chain: The Road Forward.", Automotive Council UK. http://www.automotivecouncil.co.uk/wp-content/uploads/2011/06/Growing_the_Automotive_Supply_Chain_-_Final_report_March_2011_WEB.pdf
- Note: Further updates to this report were published in 2012, 2014, and 2015 respectively:
- 2012: <http://www.automotivecouncil.co.uk/wp-content/uploads/2012/08/GROWING-THE-UK-AUTOMOTIVE-SUPPLY-CHAIN-Aug-2012.pdf>
- 2014: <http://www.automotivecouncil.co.uk/wp-content/uploads/2014/11/Growing-the-Automotive-Supply-Chain-2014-0411141.pdf>
- 2015: <http://www.automotivecouncil.co.uk/wp-content/uploads/2015/03/Growing-the-UK-auto-supply-chain-March-2015.pdf>
- ⁱⁱ Holweg, M., Davies, P., & Podpolny, D. (2009). *The competitive status of the UK automotive industry*. Buckingham: PICSIE Books. http://www.innovation.jbs.cam.ac.uk/research/downloads/holweg_competitive_status.pdf
- and Holweg, M., Y. Tran, P. Davies, and S. Schramm. (2011) "Growing the Automotive Supply Chain: The Road Forward", Automotive Council UK. http://www.automotivecouncil.co.uk/wp-content/uploads/2011/06/Growing_the_Automotive_Supply_Chain_-_Final_report_March_2011_WEB.pdf
- ⁱⁱⁱ The passenger car output for the UK in 2015 was extrapolated from UK production data of January-May 2015.
- ^{iv} January 2011 to May 2015.
- ^v Source of data: ONS TOPSI MBS 26, <http://www.ons.gov.uk/ons/rel/iop/turnover-orders--prod/may-2015/tsd-topsi-may-2015.html>
- ^{vi} We use data for SIC 29.1 and 29.3., which include the following:
- SIC 29.1. "Manufacture of motor vehicles" includes the manufacture of: passenger cars, commercial vehicles: vans, lorries, on-road tractor units for semi-trailers etc., buses, trolley-buses and coaches, motor vehicle engines, chassis for motor vehicles, other motor vehicles: snowmobiles, golf carts, amphibious vehicles, fire engines, street sweepers, travelling libraries, armoured cars etc., concrete-mixer lorries, and ATVs, go-carts and similar including race cars
- SIC 29.3. " Manufacture of parts and accessories for motor vehicles" includes the manufacture of: motor vehicle electrical equipment, such as generators, alternators, spark plugs, ignition wiring harnesses, power window and door systems, assembly of purchased gauges into instrument panels, voltage regulators, and diverse parts and accessories for motor vehicles: brakes, gearboxes, axles, road wheels, suspension shock absorbers, radiators, silencers, exhaust pipes, catalytic converters, clutches, steering wheels, steering columns and steering boxes, parts and accessories of bodies for motor vehicles such as safety belts, airbags, doors, bumpers, and car seats.
- See <http://www.ons.gov.uk/ons/guide-method/classifications/current-standard-classifications/standard-industrial-classification/sic2007---explanatory-notes.pdf> for more details of the SIC codes used by ONS.
- ^{vii} January 2011 to May 2015.
- ^{viii} January 2011 to May 2015. Data based on annualised volumes.
- ^{ix} The US market marks an exception here, as data on local sourcing content per vehicle model has to be made available under Part 583 of the American Automobile Labeling Act (AALA): <http://www.nhtsa.gov/Laws+&+Regulations/Part+583+American+Automobile+Labeling+Act+%28AALA%29+Reports>