Briefing for Andy Street: The Automotive Industry & Implications of JLR job losses

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Automotive Industry Background

- The UK is the 4th-largest nation in Europe for automotive production (2017), accounting for more than £82 billion turnover and £20.2 billion value added.
- In 2017, the UK hosted 20% of all automotive production plants within the EU, which employed 186,000 people directly in manufacturing and in excess of 850,000 people across the wider British automotive industry.
- The automotive industry accounts for approximately 12% of total UK exports and invests £4 billion each year in automotive R&D.
- **Before the Brexit referendum, a large number of manufacturing firms within the automotive sector were re-shoring to the UK** (Bailey and De Propris, 2014; Qamar, 2016), with an estimated 1/6 bringing manufacturing back home between 2011-14.
- Approximately 80% (1.35 million) of the vehicles produced in the UK are exported.
- Approximately 56% of exported UK vehicles go to the EU.
- The US imports the largest (14.5%) share of automotive vehicles from the UK.

The Brexit process is now highly likely to increase tariff and non-tariff barriers to and from the UK. This will disproportionately impact manufacturing regions with high levels of trade-dependency with Europe, including the West Midlands (see the work of Ortega-Argilles, City-REDI).[1] The significance of the industry to this, and other manufacturing regions, extends beyond employment. A downturn in automotive investment will impact the prospects for regional innovation hubs in transport and energy technologies and the long-run competitiveness of this region.

Jaguar Land Rover

- Headquartered in the UK (West Midlands), JLR have a workforce of approximately 43,000 employees, of which the majority are employed in the UK.
- 5 of the top 10 export models were JLR vehicles, including the Range Rover Sport (5th), Range Rover Evoque (6th) and Land Rover Discovery Sport (7th). Furthermore, the Jaguar F-Pace and Jaguar XE ranked 9th and 10th respectively.
- In 2017, JLR maintained the title as the UK's largest automotive manufacturer, producing 532,107 vehicles and accounting for over 30% of UK's total automotive production.
- Home to a range of business functions within the local region. For instance, JLR employ approximately 22,000 employees within the production side of the business, however, JLR also employs people working within R&D, operations, administrative, and service led capacities.
- Although research has shown that efficient management practices are implemented in the West Midlands ASC (Qamar and Hall, 2018; Qamar *et al*., 2018) there is certainly room for

[1] A range of research reports are available here: Https://www.birmingham.ac.uk/schools/business/research/research-projects/economic-impacts-of-brexit-on-the-uk.aspx

improvement. JLR are significantly less productive when compared with Nissan. For instance, in terms of per capita production we estimate that the average units produced per manufacturing employee in the UK are 27.2 and 63.4 for JLR and Nissan respectively.

Regional impacts: job losses and multiplier effects

A reduction of 4,500-5,000 jobs within the production side of JLR's business will have a significant impact on the region. Given this, it is important to understand the notion of multipliers. Regions can be seen as a highly interconnected economic system, where the creation of a single job can attract additional jobs within the same industrial setting. This is referred to as a multiplier effect, and has been defined as "An increase (or decrease) in income or employment in a local or regional economy triggered by the emergence of a new type of economic activity" (Domanski and Gwosdz, 2010 p.27).

Crucially, multiplier effects can also result in the formation of additional jobs within the economic system, which may not necessarily belong to the original respective industry i.e. increasing local services activity (Moretti and Thulin, 2013). In this sense, governments who are exploring avenues for economic growth, reducing unemployment or even understanding the consequence of job losses must acknowledge the importance of positive/negative multiplier effects within varying industries.

Table 1: JLR – Profile

Jaguar Land Rover	
1. Global employees	43,000
2. Total UK employees	Approximately 37,000
3. UK Production employees	21,758
4. UK Direct SC jobs supported	60,000
5. UK total jobs supported	235,000
6. Employees in the UK (% of total)	Approximately 90%
7. Multiplier - Total UK employees: Direct SC jobs supported	(37:60) 1.0:1.6
8. Multiplier - Total UK employees: UK total jobs supported	(37:235) 1.0:6.4
9. Multiplier - UK Production employees: Direct SC jobs supported	(22:60) 1.0: 2.7
10. Total production in the UK (% of total)	90%
11. UK components sourced locally (%)	25%-30% (50% in UK)
12. Avg. units per employee (Global)	15.1
13. Avg. units per employee (UK)	15.6
14. Avg. units per production employee (UK)	27.2

- We estimate that **for every 1 JLR production job JLR, 2.7 jobs are created in JLR's supply chain**. The reverse effect means 3.7 direct job losses for each JLR job loss; the loss of 4-500-5,000 skilled jobs means the challenge of **redeploying 12,150-13,500** jobs.
- As JLR are headquartered in the West Midlands, they employ people within a range of business functions (dealerships/retailers, service providers, R&D etc.), it is important to understand the overall multiplier effect JLR has across all business functions.
- A rule of thumb is that the higher the skill level, the higher the added-value and the higher the multiplier via both regional (downstream) consumption effects, combined with wider (upstream) contracting and complementary services businesses beyond the physical supply chain referred to above.
- The overall employment impact is therefore likely to be higher over the longer-term if other economic activities are not attracted into the region to pick up the slack.
- Given that Carillion collapsed last year and the number of direct/indirect jobs impacted were far greater than initial expectations, there is a need to better understand the relationship/ dependencies key flagship firms have within the West Midlands.