

THE WRIGHT REVIEW OF MANUFACTURING THE COST BASE OF THE UK SUPPLY CHAIN: PERSPECTIVES FROM THE AUTOMOTIVE INDUSTRY

A RESEARCH PAPER BY AUTOANALYSIS
PREPARED FOR SMMT
APRIL 2014



THE SOCIETY OF
MOTOR MANUFACTURERS
AND TRADERS LIMITED

SMMT, the 'S' symbol and the 'Driving the motor industry' brandline are trademarks of SMMT Ltd

CONTENTS

Terms of reference	2
Executive summary	3
Automotive industry overview	5
The cost base in context	7
Key cost items	11
Labour	12
Energy	16
Transport	19
Property	22
Tax	24
Policy options	26
Conclusions	28
Appendices	29
Bibliography	33

TERMS OF REFERENCE

The Society of Motor Manufacturers and Traders (SMMT) and AutoAnalysis have prepared this research paper, '*The cost base of the UK supply chain: perspectives from the automotive industry*', between February and April 2014 as a contribution to the Wright Review of the Advanced Manufacturing Supply Chain, commissioned by Ed Balls MP, Shadow Chancellor, and Chuka Umunna MP, Shadow Business Secretary, of the Labour Party in September 2013, and led by Mike Wright, Jaguar Land Rover.

This research paper covers the cost base as one of the four themes of the Wright Review, alongside skills, innovation and access to finance and approaches the subject of supply chain cost base from the perspective of the automotive industry as a strategic advanced manufacturing sector.

This paper should be viewed alongside SMMT's recent report, published with KPMG, *The UK Automotive Industry and the EU*. This assesses the economic impact of the EU on the UK automotive industry. In addition, the Automotive Council and especially the work of its Supply Chain Group on developing and growing the UK supply base are vitally important and provide the key sector background for this paper.

Further details on the work of the Automotive Council can be found at www.automotivecouncil.co.uk.

We hope this short paper will help inform the debate about how the UK remains internationally competitive in securing, attracting and growing investment and jobs in automotive and other advanced manufacturing supply chains.

Our thanks go to Mike Wright, Richard Brooks and the Wright Report expert group for their feedback on our earlier presentation of the subject in March 2014. We would particularly like to thank Eimear Bishop of PwC for her help in collating and analysing internationally comparative cost data for this report.

SMMT and AutoAnalysis

April 2014

This paper reviews five key manufacturing supply chain cost factors - labour, energy, transport, property tax and corporation tax – where UK government policy could be better focussed to improve the business environment and encourage inward investment. It is not a comprehensive analysis of all cost factors impacting competitiveness (for example, investment and finance costs, raw material costs or government assistance schemes are not covered); nor does it address the cost aspects of other issues – especially the skills issue and the cost penalties that the supply chain can suffer as a result that are covered elsewhere by the Wright Review.

The paper is based on the analysis of internationally comparative cost data in publicly available sources and six telephone interviews with senior automotive executives. It provides evidence on international cost comparisons and discusses some of the qualitative aspects of these five cost areas. The paper is written from the perspective of the automotive industry.

Automotive industry background

The UK's automotive industry is in the middle of a major growth phase as rising vehicle and engine production, strong exports, a buoyant domestic market, substantial investment in manufacturing and an increasing willingness by UK vehicle companies to source more components in the UK provide substantial and growing opportunities for UK-based suppliers.

This positive market environment is underpinned by the collaborative relationship between the industry and government, embodied in the Automotive Council and more recently the Automotive Investment Organisation, which is charged specifically with increasing Foreign Direct Investment (FDI) in the UK. Attracting suppliers to locate here will help reduce the UK's trade deficit in automotive components which was £6.5bn in 2013.

The importance of managing supply chain costs has moved to the top of the automotive industry's agenda in recent times, with focus switched from piece part prices to total delivered cost. This trend intensified in the aftermath of supply chain disruption following natural disasters in 2011, the Japanese earthquake and tsunami and the Thai floods.

Five key cost factors

Despite the positive car production outlook, the UK is still not widely regarded as a cost-competitive manufacturing location. This view prevails despite evidence to the contrary, particularly on labour costs and flexibility where the UK is indeed cost-competitive and industry-leading.

This paper draws on a detailed cost model developed by KPMG which compares various industries' international competitiveness.

This and other sources show that while the UK performs well on labour costs, in other areas, especially property costs, non-income taxes (which includes business rates), transport and utilities (including energy costs), the UK performs less well than competitor countries.

In transport, the issues of concern focus on the cost of diesel fuel which is the highest in Europe, both at pre-tax and retail price levels, the need for increased long-term investment in infrastructure and the competitiveness of the logistics and transport sector. Regarding energy costs, the UK's challenges centre on rising basic costs and the way in which environmental charges are applied on top of these. There is a serious risk, especially in energy intensive industries (which includes some automotive applications and many outside the sector), that recent and expected future rises in UK energy prices could render the UK an uncompetitive location for manufacturing.

The scale of business rates, and their complexity and unpredictability when new investments are made, is a serious concern. A parliamentary select committee has this year concluded that the rates system is no longer fit for purpose in the retail sector, with a similar situation prevailing in manufacturing. This is particularly the case when all-new investments are concerned as these can result in rates increases which call into question the viability of the investment concerned. The same can apply when existing facilities receive new investment. We were told, for example, of companies that wanted to cut their energy bills by installing energy-efficient technologies or generate their own electricity through the use of solar panels. These companies found such investments were unviable because of the consequent increase in business rates which followed. This may not be universal, but the uncertainty surrounding how the rates system works for new investments has been a direct block on some potential cases of FDI.

Regarding company tax rates, the UK has a globally competitive corporation tax headline rate. The same does not apply to capital allowances and similar reliefs. The regular changes in this aspect of the company tax regime do not provide a stable environment to support investment.

Policy options

The role of government policy in connection with the cost factors covered in this report should be to foster a business environment in which the country's cost base remains globally competitive and which in turn allows a competitive manufacturing supply chain to continue to develop and become embedded in the UK's industrial landscape. In terms of each of the cost factors covered here, the principal policy options discussed are:

-
- **Labour:** The UK needs to maintain its competitive advantage in labour flexibility and its competitive labour cost position. Strategic partnership between industry and unions, as demonstrated in the Automotive Council, should be pursued across the advanced manufacturing sector to support UK competitiveness.
 - **Energy:** Reduce the cost and complexity of UK's system of energy levies, especially in view of the anticipated penalties which energy intensive and other manufacturing industries will pay compared to rates paid in competitor locations.
 - **Transport:** The tax portion of the retail price of diesel is disproportionate to rates paid elsewhere in Europe, placing the freight transport sector and the supply chain reliant upon transport at a cost-disadvantage. Increased investment in the UK's transport infrastructure needs to be delivered, and greater efficiencies and competitiveness in logistics and the transport sector should be actively supported.
 - **Business rates:** The current system of business rates needs radical reform. Priority should be given to alternative approaches or key changes to the existing system that supports competitiveness and investment in advanced manufacturing sites in the UK.
 - **Tax:** The competitiveness of the UK's corporation tax regime for manufacturing needs to be enhanced through an improved capital allowance system that further encourages investment. The capital allowance regime should be enhanced to internationally competitive levels and made more permanent to allow businesses to plan their investments within a stable tax environment.

The UK automotive industry is experiencing a period of sustained growth. According to ONS survey data, the sector generated a total turnover of £60.5bn in 2013, a rise of 10% over 2012. The value of goods exported from the sector also increased by 13% in 2013 on 2012 to £29bn. Vehicle production has also recovered from the 2009 recession to 1.5m units in 2013, with expectations of 2m units by 2018 or possibly sooner. This follows on from recent investment commitments by many vehicle manufacturers (OEMs) and suppliers alike.

The UK is also a major engine producer, with OEMs such as BMW, Ford, Honda, Nissan and Toyota manufacturing over 2.5m engines in 2013. Production of engines will rise further from early 2015 when the all-new Jaguar Land Rover engine factory comes on stream.

The UK's automotive industry has now become arguably the most productive in Europe. Data from Eurostat, quoted in the recent SMMT/KPMG report *The UK Automotive Industry and the EU*, showed that the UK's gross value-added (GVA) per employee had risen from £40,000 in the 1990s to £75,000 in 2013. This trend is supported by Nissan's Sunderland plant, which has long been regarded as the most competitive in Europe.

UK production volumes have been sustained not just by the strength of domestic demand, but also by strong exports. Of the 1.5m cars produced in the UK in 2013, around 80% were exported – almost half of that to EU markets with the rest going to over 100 countries including China, Russia and the US. UK car sales (including imports) have remained strong, and through much of 2013 the UK was the only growing car market in the EU.

Current investment commitments from vehicle manufacturers to UK operations total around £8bn over the past few years, with around £2.6bn alone during 2013. 2014 has seen further investment announcements at Rolls-Royce and Bentley, whose parent, Volkswagen, has decided to centralise production of W12 engines in the UK which would also be used in overseas brand's vehicles for the first time.

The UK supply chain has benefitted significantly from the increase in production volumes especially at Jaguar Land Rover and Nissan. UK supply contracts announced by Jaguar Land Rover for the Range Rover Evoque and Jaguar F-TYPE total £3.5bn, although the actual total is likely to be more given the success of the Evoque. With more new models expected to be launched shortly, the UK supply chain can expect further growth over the coming years.

A study by the Automotive Council and BIS found £3bn worth of commodities that UK based vehicle makers would prefer to source locally rather than overseas. The opportunities undoubtedly exist. The challenge is to secure these contracts for suppliers in the UK.

The current positive picture for UK suppliers is in contrast to the situation in the 1990s and early 2000s, when there was a significant hollowing out of the UK supply base. The sector was severely hit by the collapse of Rover, with suppliers in the West Midlands worst affected. In parallel, most of the other UK vehicle manufacturers embarked on a programme of low-cost country sourcing, and some even denominated suppliers' contracts in Euros. These strategies contributed to a further reduction in the capacity of the UK supply base, with UK content on some vehicles dropping to less than 30%. Moreover, it was not just vehicle manufacturers who moved sourcing offshore. Major systems suppliers adopted similar strategies, moving their own sourcing away from UK suppliers, damaging the UK's SMEs in the process.

During the 2009 recession, government and industry came together to develop ways of helping the automotive industry. This led in December 2009 to the creation of the Automotive Council, the strategic collaboration between automotive industry and government in the UK that aims to transform the UK's attractiveness for automotive investment through developing a stronger and more competitive supply chain and maximising UK opportunities from the global shift to low carbon technologies and fuels. In July 2013 the publication of the Automotive Sector Strategy *'Driving Success: A Strategy for Growth and Sustainability in the UK Automotive Sector'* followed. As part of this strategy, the government established the Automotive Investment Organisation (AIO) to attract further growth and investment into the sector and launched a £1bn Advance Propulsion Centre (APC), jointly funded by government and industry over 10 years, to help co-ordinate R&D on new powertrain technologies.

The picture presented above, allied to the increased willingness of vehicle manufacturers to purchase competitively priced components in the UK, shows the demonstrable progress made by industry and government in working collaboratively to improve the UK's attractiveness as an automotive manufacturing location. That said, the UK's manufacturing business environment is far from perfect, and in this report we examine five key cost areas where government policy could be better focussed to further improve the business environment. Despite many positive developments having taken place in recent years, there is no room for complacency. These successes need to be built upon if the UK is to exploit the industry's willingness to invest here and source more components from the UK's supply chain.

The market for the allocation of investment funds from vehicle companies and suppliers alike is highly competitive. The UK's recovery in terms of vehicle production, while strong and positive, cannot be assumed to be permanent. The risk of plant closures or cutbacks in output remains real and most UK vehicle plants have to compete against others in Europe – and across the globe – for vehicle production contracts. Similarly, a supplier considering making an investment in a new production facility in the UK may find competing demand for limited investment funds from an entirely different business opportunity in China or India. This means that competitiveness needs to be kept under constant review and cannot be assumed to be permanent.

In this regard, government help to improve industry's competitiveness through incentive schemes plays an important role, as our interviewees underlined. The principal schemes are the Regional Growth Fund (RGF) and Advanced Manufacturing Supply Chain Initiative (AMSCI).

The automotive industry has benefited from these schemes, but their timing and structure could be better tuned to industry's timing and needs. This is especially the case in terms of linking these schemes to vehicle manufacturers' sourcing decisions and new vehicle programme timings as these are the principal drivers behind new investment by suppliers. Both schemes are time-limited, often running outside vehicle companies' business planning timescales, and they involve what is regarded as overly bureaucratic and burdensome systems; they are also seen as unduly 'paper-heavy' while similar schemes in the US are

regarded as much more streamlined, being web-based, and consequently quicker and easier to navigate.

In this paper, we show how the UK is cost-competitive on some, but not all, measures compared to its immediate neighbours amongst the mature markets of Western Europe. We also highlight how this reality is rarely recognised by decision-makers outside the UK. We also emphasise that the UK's advantage is far from significant nor is it guaranteed in the long run. A small change in exchange rates, further increases in energy prices or a failure to address the problems associated with business rates, for example, could quickly erode any competitive advantage which the country has in other areas.

This report focuses on five key cost factors - labour, energy, transport, property taxes and corporate taxes - which are either determined or directly impacted by government policy. Attending to these issues within each cost area is important because, despite rising vehicle production and the willingness of vehicle companies to source in the UK, there is still a trade imbalance in the automotive industry, to the tune of £9bn a year according to the ONS data-set *UK Trade in Goods, 2013*. £6.9bn of the £9bn trade deficit is accounted for by components, highlighting the scale of the task that the UK supply chain needs to address if the trade deficit is to be rectified.

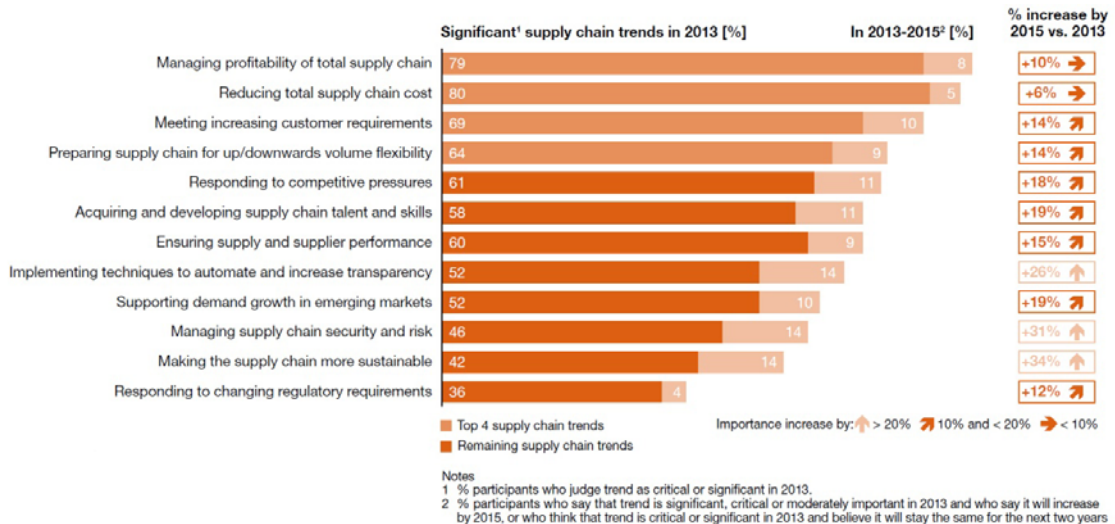
THE COST BASE IN CONTEXT

Recent years have witnessed a sea-change in how manufacturing industries look at supply chain costs. In the 1990s and 2000s, the primary focus was on component piece prices. However, since then manufacturing's focus has switched to total delivered cost, including transport costs, working capital tied up with goods in transit and the risks of long distance supply chain disruption. The Japanese earthquake and tsunami in March 2011 caused major supply disruption in many industries, not just automotive. Consequently, vehicle companies and suppliers with complex and long supply chains examined these chains to identify risk points and better understand the real costs involved. The Thai floods later in 2011 reinforced this trend and accelerated the move to reduce

supply chain length. In turn, component suppliers in Europe, and in the UK in many cases, came to be regarded more favourably than ostensibly lower cost suppliers located on the other side of the world. This changed approach coincided with the willingness of UK purchasing executives to return to sourcing in the UK which was confirmed in *Growing The Supply Chain: The Road Forward* by Matthias Holweg in 2011.

In light of the above trends, it is not surprising that total supply chain costs are now recognised as central to individual company performance and industry-wide competitiveness across manufacturing as a whole. The importance of supply chain costs to executives in the supply chain is shown in the following chart:

Chart 1: Key factors in supply chain management



Source: PWC *Global Supply Chain Survey*, 2013

The chart above shows how supply chain executives regard total delivered cost and profitability of their supply chain as the most important factors in determining the effectiveness of their activity. The top two factors in the chart above are explicitly cost-related.

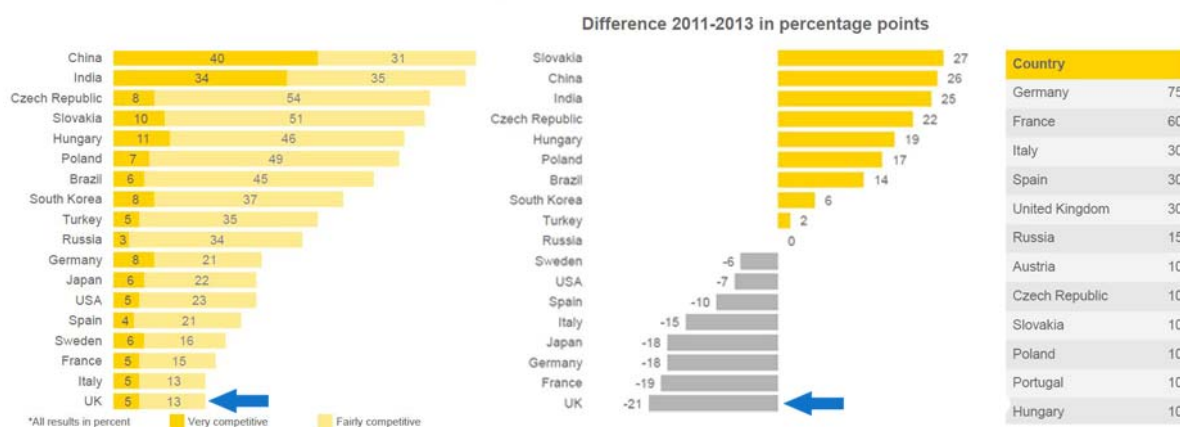
With total supply chain costs at the top of the agenda, government policy that improves supply chain effectiveness will clearly be welcomed. Evidence from inside and outside the automotive industry, however, suggests that the UK is not

always perceived as a cost competitive location by key decision makers. This is especially true among executives based outside the UK who are involved in deciding future investment locations in Europe or indeed the expansion of existing UK operations. Changing these perceptions of the UK's cost competitiveness is critical to increasing inward investment into the UK.

The following chart shows how the automotive industry regards the UK in terms of cost competitiveness, compared to other international locations:

Chart 2: UK's cost competitiveness versus other European locations

How competitive are the following automotive hubs with respect to manufacturing costs at present?



Source: Ernst & Young, *European Automotive Survey 2013*

This chart shows that the UK is *perceived as uncompetitive* on manufacturing costs within the automotive industry. **Not only is the UK perceived as the least competitive location within Europe, but the situation has actually worsened in the last three years.**

However, despite these perception problems, the UK has some real and perceived advantages as a manufacturing location. There have been several all-new investments and expansions of existing investments in the UK automotive industry (described in the appendix). Decisions by major suppliers and vehicle companies to expand here strongly suggest that the UK has much to offer.

Government policy needs to build on both real and perceived advantages, to maintain and expand them and specifically not undermine them.

The perception of the UK automotive industry's competitiveness versus a composite index for the four other major developed European vehicle producing countries, France, Germany, Italy and Spain (FGIS), is shown in the following table which comes from one of the most influential and important pieces of work on the UK's automotive industry of recent years. This shows that in the automotive industry, at least, the UK has a modest perceived advantage over the other countries in three areas, notably labour flexibility, barriers to exit and taxes and tariffs.

Chart 3: UK's perceived competitiveness versus France, Germany, Italy and Spain

	FGIS	UK	Difference	
Labour flexibility	2.13	3.94	-1.81	Relative advantage for the UK
Barriers to exit	1.92	3.29	-1.37	
Taxes and tariffs	3.23	3.27	-0.04	
Labour productivity	3.19	3.06	0.13	Relative disadvantage for the UK
Interaction with government	3.44	3.18	0.26	
Labour cost	2.38	1.94	0.44	
Logistics and infrastructure	3.47	2.88	0.59	
Governmental subsidies	3.92	3.31	0.61	
Environmental regulation	3.14	2.44	0.7	
Quality of R&D resources	4.43	3.71	0.72	
Quality of local suppliers	4.00	3.00	1.00	
Availability of skilled labour	3.50	2.41	1.09	
Skill level of workforce	3.88	2.76	1.12	
Availability of local suppliers	4.00	2.53	1.47	

Source: Matthias Holweg, *Competitive Status of the UK Automotive Industry*, 2009, p54

The negative perception of the UK's cost base, indicated above, does not however entirely reflect reality. On some measures the UK's automotive sector is indeed cost-competitive, especially against other developed European markets. GM's decision to retain Ellesmere Port (detailed later in the report) alongside the current expansion at BMW-MINI, Jaguar Land Rover and Nissan means, *de facto*, that the industry sees the UK as a competitive business location. This is despite the competitiveness margins being small and potentially at risk from, for example, business rates, exchange rate movements or rising energy costs.

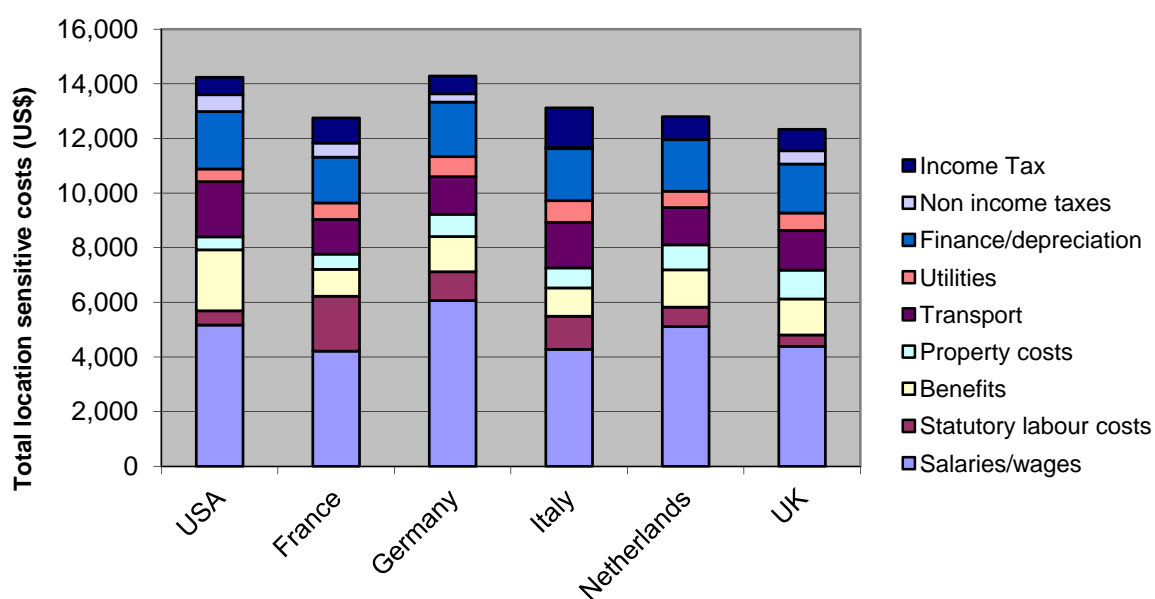
To illustrate this, we use data from KPMG's cost model in its 2012 publication *Competitive Alternatives*. This compares the competitiveness of developed and developing countries across a range

of industries, using standardised revenues and location-insensitive costs. The model looks at how a standardised business would perform in different countries when location-sensitive cost factors are considered. Here we provide a summary of the key findings from this report, covering the automotive sector and, in the appendix, two other manufacturing industries, namely aircraft component production and electronics assembly.

The full model compares more than a dozen developed and developing countries. However, for practical purposes here, we compare the UK to the US and four other European markets which we see as the countries against which the UK typically competes most directly for manufacturing industry investment.

Chart 4: The KPMG model and the automotive industry

Comparison of location sensitive costs in automotive component manufacture.



Country ranking according to index of competitiveness (USA = 100)

	US	France	Germany	Italy	Netherlands	UK
Ranking	5	2	6	4	3	1
Index	100.0	95.6	100.1	97.0	96.2	95.0

Source: AutoAnalysis, based on cost model in KPMG's *Competitive Alternatives*, 2012 report.

The preceding chart and accompanying table above shows the UK's position in terms of location-sensitive costs versus the USA, France, Germany, Italy and the Netherlands. On this basis, the UK is the most cost-competitive location for the production of automotive components. On an indexed basis (where the US is 100), the UK's score is 95.1, making it the most cost-competitive overall of this group of countries.

However, the margin of difference is small and this means that even a very modest change in the cost of one element could seriously affect the UK's position. The precariousness of the UK's cost advantage in the automotive sector becomes even clearer in the following table:

Chart 5: KPMG model and the automotive industry - ranking of each factor by country

Factor	US	France	Germany	Italy	Netherlands	UK
Salaries/wages	4	2	6	1	5	3
Statutory labour costs	2	6	4	5	3	1
Benefits	6	1	3	2	4	4
Property costs	1	2	4	3	5	6
Transport	6	2	1	5	3	4
Utilities	1	2	5	6	2	4
Finance/depreciation	5	1	2	3	5	3
Non income taxes	6	4	3	2	1	4
Income Tax	1	5	2	6	4	3
Average	3.6	2.8	3.3	3.7	3.6	3.6

Source: AutoAnalysis, based on cost model in KPMG's *Competitive Alternatives, 2012* report.

This table shows the ranking of each of the six countries against each of the cost elements used in KPMG's location-sensitive analysis. In this table we highlight, in yellow, which country has the highest ranking or most cost-competitive position for each factor in the index. This shows that the UK actually leads, or is cost-competitive, in only one factor, statutory labour costs. France, by contrast, has a top ranking in two factors, benefits and the composite element of finance and depreciation. More worryingly from a UK perspective, **the UK is rated worst in terms of property costs**, and fourth of six countries on four of the nine factors covered here. These four are benefits (health, pension etc), transport, utilities and non-income taxes (which includes property taxes, ie business rates).

Put another way, **on over half the location-sensitive factors considered by KPMG, the UK**

is rated in the bottom half of its competitor countries. KPMG's analysis may show how the UK is the most competitive location overall. But when this composite picture is broken down, the situation is rather more nuanced, as on several factors in this composite index, the UK is poorly rated. Government policy needs to take each cost factor into account and not simply accept that the UK's overall no 1 ranking is sufficient. It is not.

For comparison purposes, and for a wider perspective, we have used the KPMG cost model to prepare similar analysis for two other sectors: aircraft component production and electronics assembly. This analysis and brief attendant commentary is provided in the appendix and shows a broadly similar picture, ie that the UK is most competitive in the area of statutory labour costs, but in others, especially property and transport costs, the UK scores poorly.

KEY COST ITEMS

We now turn to the five key cost factors at the heart of this paper, labour, energy, transport, property taxes (business rates) and the corporate tax regime. We believe that government decisions here can have a direct impact on the country's cost competitiveness. We have discussed these factors

in interviews with some of the major vehicle companies and automotive component suppliers in the UK, and our respondents have agreed that these are the most significant and relevant pure cost factors which affect overall supply chain efficiency.

In summary, we note how:

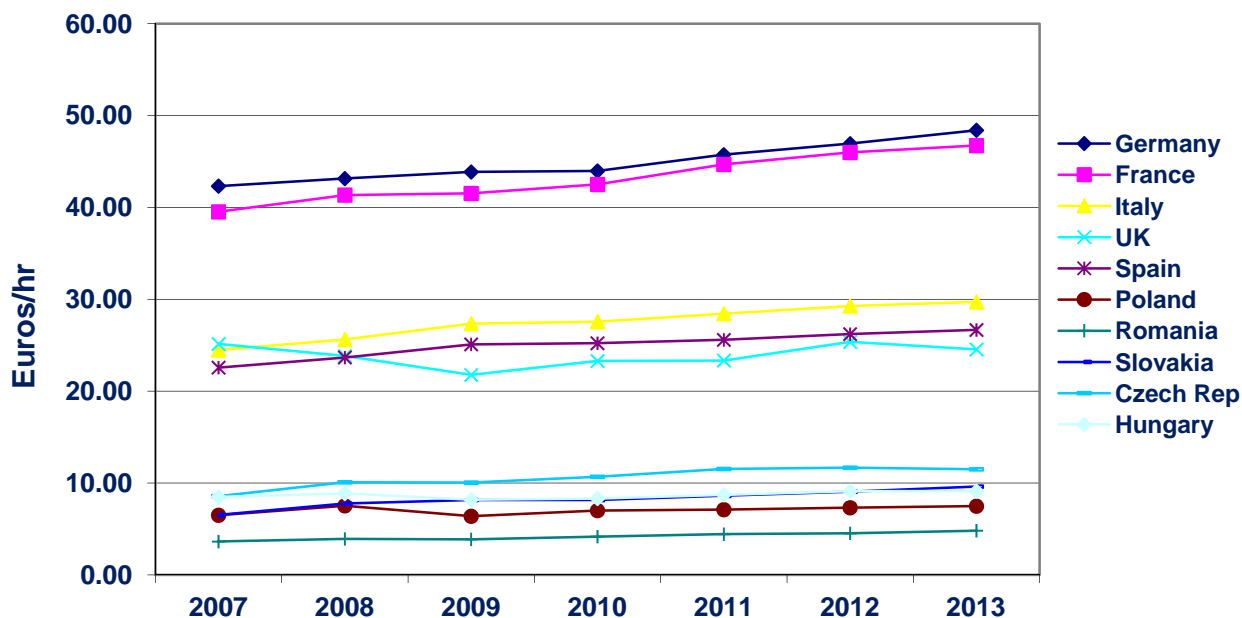
- Data from the VDA (the German equivalent of SMMT) and the US Department of Labor shows that the UK is competitive with other mature markets regarding labour costs, both in the automotive industry specifically and across manufacturing industry as a whole. Moreover, UK automotive labour costs are comparable to those in Italy, Spain and the US and significantly cheaper than those in France and Germany. This view accords well with the comments received from our respondents at the car companies and component suppliers. It is worth emphasising that UK labour costs are seen as most cost-competitive in those sectors where labour content is low. In areas such as wiring harness assembly or cutting and sewing of seat fabric, for example, where the labour content is high, the UK is not a competitive location, and such work does not take place here, nor does it generally take place in other high cost locations, such as France or Germany.
- By contrast, however, rising UK energy costs (partly because of the impact of government levies) and the complex issue of business rates (especially their unpredictability when applied to all-new investments) are serious problems for the country's competitiveness and can negatively impact on the country's ability to attract new investment. We will show data which suggests that the UK's energy prices are out of line with key competitor countries.
- Similarly, the debate on business rates suggests that the system needs significant adjustment so as not to disadvantage large manufacturing investment.
- The UK has the highest diesel fuel costs in Europe and this undoubtedly contributes to the negative picture regarding transport shown in the KPMG cost model analysis above. We also highlight concerns regarding the UK's general infrastructure based on data from the CBI, alongside the more positive picture regarding the UK's logistics performance using data from the World Bank.
- In terms of corporation tax rates, whilst the UK is seen as competitive on its headline corporation tax rate, it is out of line with competitive locations on capital allowances and R&D tax credits, and government policy needs attention here to improve this situation.

LABOUR

The following chart shows the labour costs in major European vehicle producing countries - this data is compiled each year by the VDA and is the longest running and most consistent data series for automotive labour costs.

Chart 6: Labour costs – country comparison

Labour costs in major vehicle producing countries in EU, 2007-2013



Source: VDA facts and figures 2013 report, using ILO and Eurostat data

This shows how basic UK labour rates are comparable with, and indeed better than, those in Italy and Spain and that they are significantly better than those in France and Germany. This data may appear out of line with data shown earlier using KPMG's cost model which showed the UK behind France in terms of basic labour cost-competitiveness (although ahead of France on statutory labour costs). However, there are two crucial differences between the data sets. Firstly, the figures here have been standardised into Euros rather than US dollars, and this will have some indefinable distorting impact. Secondly, the figures here refer to the automotive industry as a whole, including vehicle companies, whereas the KPMG data relates only to component companies. A major factor undermining the competitiveness of French vehicle plants are the much higher labour costs these bear, compared to the costs borne by suppliers in France and the costs at vehicle plants outside France.

Chart 6 above is in line with comments made by senior purchasing executives at some of the UK vehicle companies. Our interviews reveal that UK labour costs are seen as competitive and 'largely unproblematic', with some suggesting that the real labour cost differential between the UK and Eastern Europe was less than is widely thought,

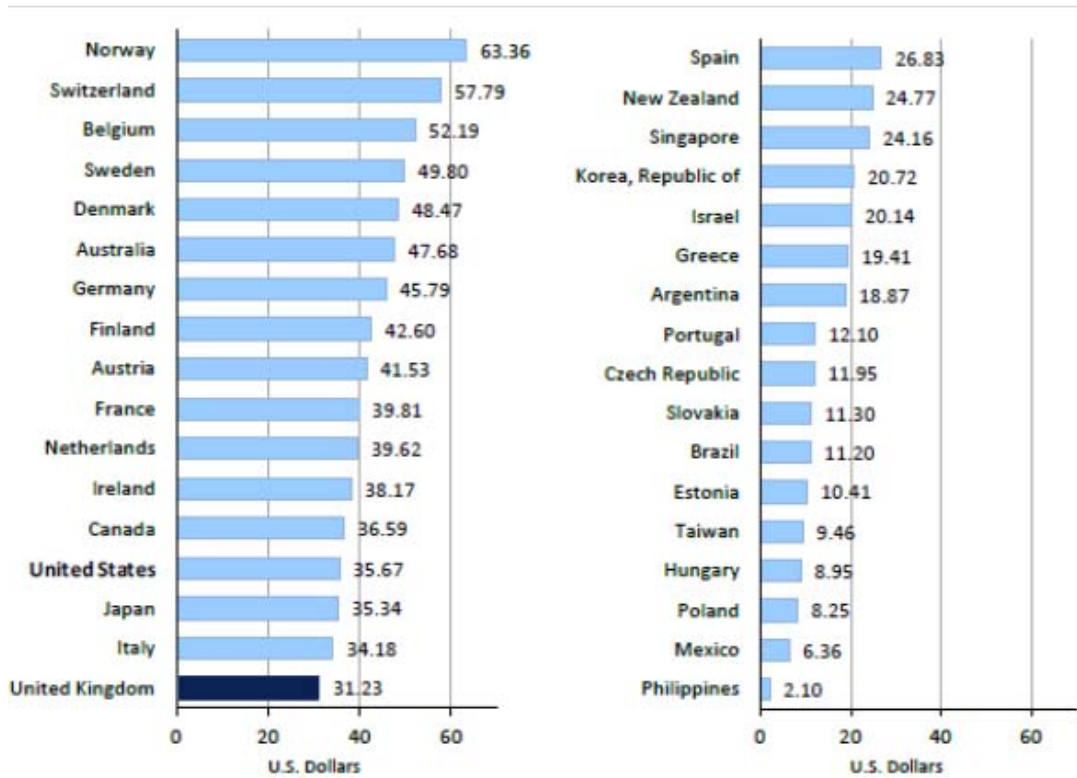
owing to significant wage inflation in Eastern Europe in recent years.

This is particularly the case when total delivered costs are factored in: our interviews revealed that for components with a low labour content, once transport costs are factored in, the UK becomes more competitive than Eastern Europe in many cases. In addition, where a vehicle manufacturer wants to use a local UK supplier for a specific part or process but finds the labour content too high, most will try to work with suppliers to find ways of reducing the labour content through automation or other efficiency means to reduce labour cost input.

Taking a broader, pan-manufacturing view, the US Department of Labor has compiled the data behind the following two charts. This compares hourly direct labour costs in a range of developed and developing countries. These costs, from 2012, were converted to dollar values at the time of data compilation.

This analysis shows how, across manufacturing in general, the UK is comparable with all major European manufacturing locations, although Spain is cheaper than the UK for manufacturing in general. The UK is more cost-competitive than Belgium, France, Germany, the Netherlands and Scandinavia according to this data series.

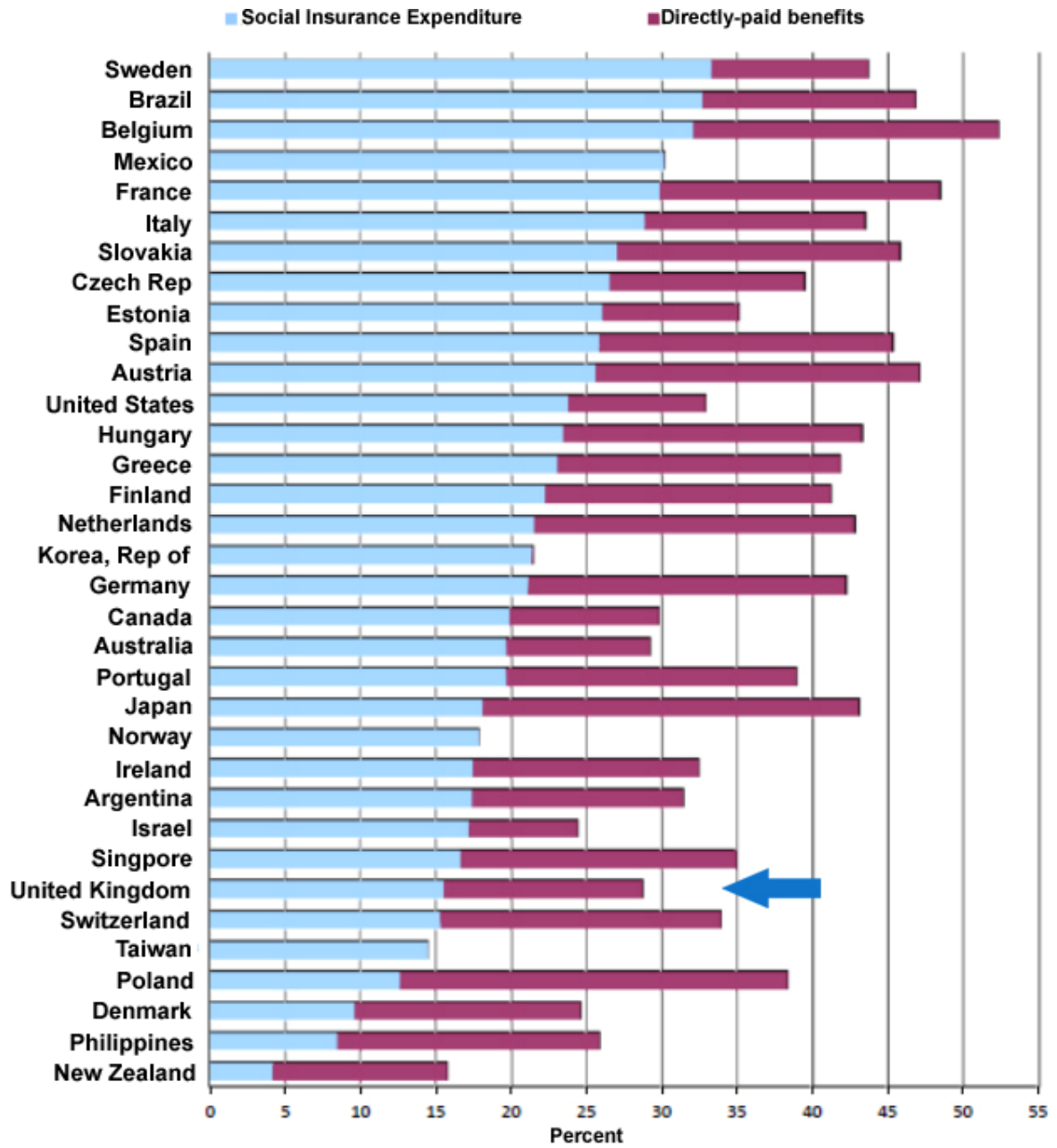
Chart 7: Comparison of hourly international labour rates in manufacturing, 2012



Source: US Bureau of Labor Statistics, August 2013

This clearly shows the UK's competitive cost position relative to its major developed world competitors. This picture is further enhanced in the following chart which shows the amount of social security and benefit costs within the labour rate for the same group of countries.

Chart 8: Comparison of social security and benefit costs within manufacturing hourly labour rates, 2012



Source: US Bureau of Labor Statistics, August 2013

Labour flexibility

As noted earlier, a key aspect of the UK's attractiveness for automotive manufacturing is an aspect of labour cost which goes beyond the basic hourly rates paid to manufacturing workers, labour flexibility. One of the best examples of the UK's success in labour flexibility comes from the decision by GM to retain car production at Ellesmere Port on Merseyside (the 2012 KPMG report *Capturing Opportunity* highlighted this labour agreement).

Although GM had already decided to close its Antwerp factory in Belgium in 2010, the downturn in 2009 placed renewed pressure on its European operations. To win the contract to build the next Astra from 2015, UK management and unions agreed a ground-breaking labour agreement which made retaining Ellesmere Port viable. This includes a four-year pay deal and allows for 24-hour working for 51 weeks of the year should demand justify this. Not only was the UK factory retained, but it was also designated the lead plant, ahead of Gliwice in Poland, for the new Astra from 2015. £125m is being invested in the UK for the new model, and GM has also committed to raising UK content on the new Vauxhall Astra.

This agreement secured the UK plant's future ahead of that of the Bochum plant in Germany. Following this decision, the German unions refused to agree to GM's proposals for a steady rundown of the Bochum factory through to 2016, and as a result its closure has been brought forward to the

end of 2014. The retention of Ellesmere Port encapsulates the success which can flow from labour flexibility. Inflexible labour agreements, as in Germany, are now more likely to lead directly to plant closures. Following the success of the Ellesmere Port labour agreement, vehicle manufacturers across Europe are now adopting or looking to adopt similar agreements. However while the Ellesmere Port labour agreement was a key competitive advantage at the time when winning the new Astra contract, this uniqueness will not remain for the future.

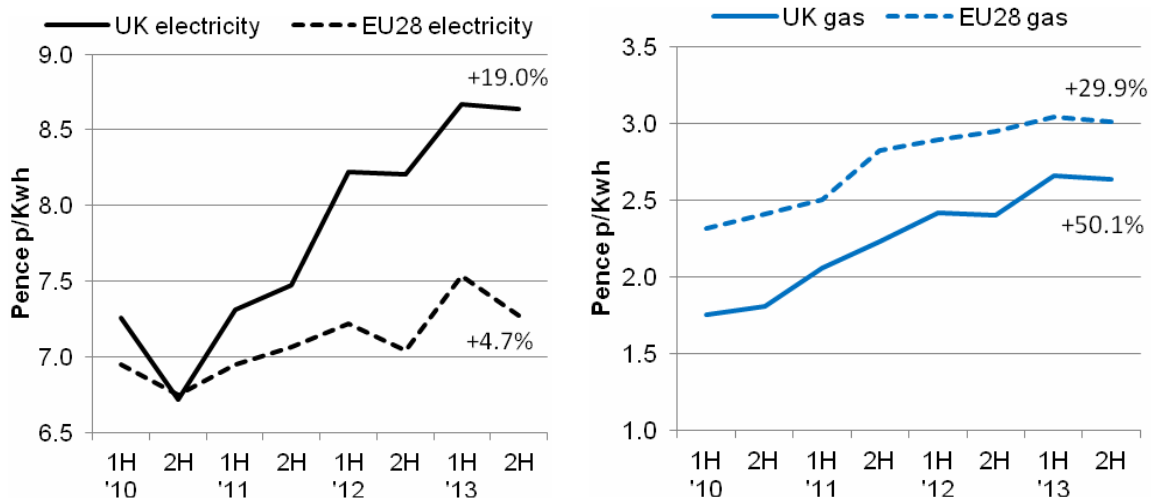
In addition, although the issue of skills is covered by other contributions to the Wright Review, we need to emphasise how our interviews revealed that the industry regards the lack of skilled labour as a major issue. It is not just a question of skilled shop floor workers where problems exist. There are also issues surrounding a lack of supervisors and junior management – the future middle and senior management of today – across the UK supply chain. One example from the survey concerns a company which told us that when opening its newest UK facility, the over-riding image of the UK on the part of the group's European senior management was the problem of labour recruitment. It is not just the labour cost-competitiveness that matters. It is the all-round quality of that labour and its perceived development potential which matters just as much, if not more so.

Across the manufacturing industry in general, there is growing concern regarding rising UK energy costs. Whilst several factors impact on retail energy prices, industry leaders are increasingly concerned with the UK's energy and climate change policies. These are seen as increasing the costs and administrative burden involved in doing business in the UK, especially compared with international competitors.

The Department of Energy and Climate Change (DECC) has used data from Eurostat and the International Energy Agency to show how UK energy prices for large users have risen rapidly in recent years; electricity prices rose 19% between the first half of 2010 and the second half of 2013, while gas prices rose by 50% in the same period as shown below. In both energy streams, UK prices have increased faster than in the EU28.

Chart 9: UK electricity and gas prices versus EU28

Energy prices, large users, including taxes. Half yearly, 2010 to date



Source: DECC

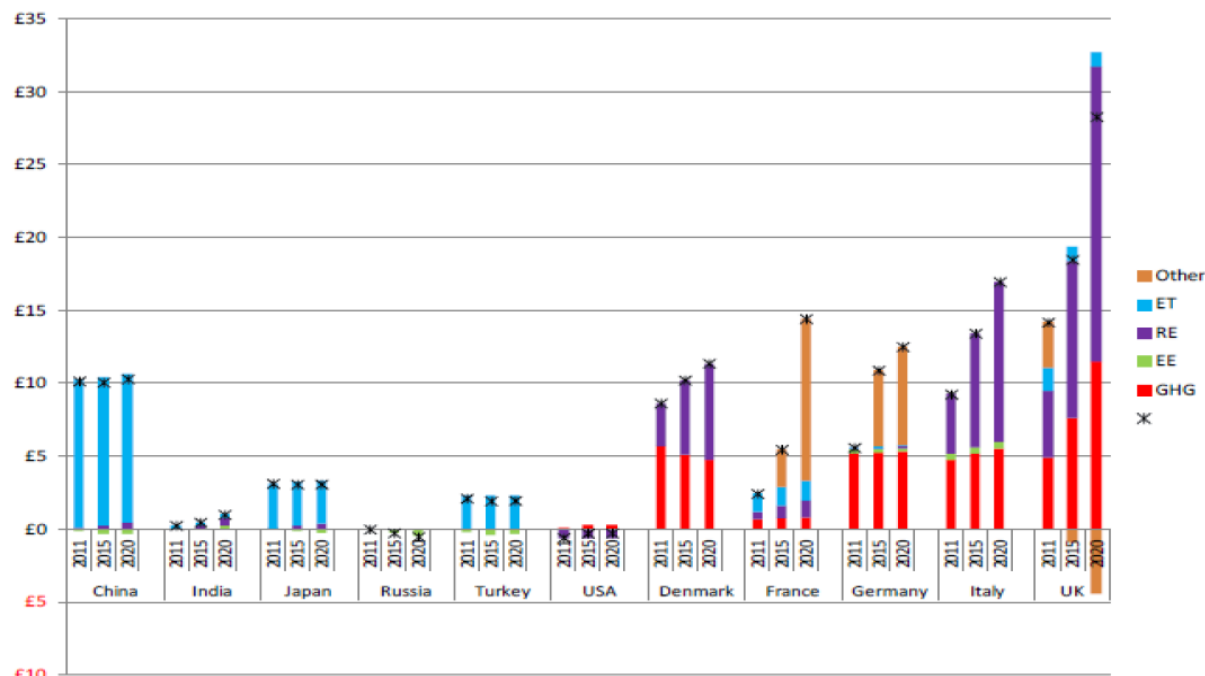
While the recent Budget went some way towards addressing industry's concerns, UK energy prices are still expected to rise. The carbon price support mechanism (the difference between the Carbon Price Floor and the EU Emissions Trading Scheme allowance price) is set to rise by over 80% in 2015-16 to £18t/CO₂, equivalent to around 10% of a large user's electricity bill. EEF calculates that this means UK-based companies pay twice the carbon price in relation to electricity generation than the remainder of the EU.

The following chart shows how energy and climate change policies are expected to affect the UK's energy-intensive industries (EIIs) more significantly than in other countries. For non-EIIs, such as much

of the automotive industry, the impact could be even greater as they will not receive compensation packages now available to EIIs. It is worth noting that some processes used in parts of the automotive industry, for example pressing, forging and casting operations, have energy use patterns common with EIIs. We understand from our interviews that persuading castings and forgings companies to consider establishing production facilities in the UK is particularly problematic in view of the UK's energy price environment. The last Budget saw measures announced which might help with the exemption of metallurgical processes from the Climate Change Levy (CCL). Such exemptions need to be clearly communicated to enable companies to understand the rules around the myriad of energy efficiency and climate change regimes which are currently in operation.

Chart 10: Indicative incremental impacts of energy and climate change policies for energy intensive industries.

Sensitivity using market forecasts of EUA prices (£/MWh, 2010 prices)



ET - energy taxation/Climate Change Levy
RE - renewable energy obligation

EE - Energy efficiency and GHG -Greenhouse Gas/Carbon Offsets

Source: *An International Comparison of Energy and Climate Change Policies Impacting Energy-Intensive Industry*, BIS 2012

The chart above shows how energy policies, specifically renewable energy and carbon/greenhouse taxes will impact on energy prices in various countries by 2015 and 2020. The UK will see significant price rises in energy owing to levies associated with greenhouse gases (highlighted in red above) and renewable energy obligations (highlighted in purple). This rise is significantly higher than the expected picture in most other countries, whether measured in absolute or relative terms. In the US, any change in the price of energy is likely to be negative, due to the new energy supplies available from fracking and the lower energy prices this source permits. There is also expected to be limited, if any, change in the energy prices experienced in China, Japan and Turkey, while Russia, too, is expected to see a fall in energy prices.

Although it is anticipated that other European markets will also see rising energy prices, both the final price and the relative increase in the period will be much lower than in the UK. These projections suggest that the UK could end up with energy prices in 2020 more than double than those in 2011. By 2020 the UK's costs will be more than double the cost in Italy and close to three times the cost in Denmark and Germany. Such price rises would likely make the UK uncompetitive as a location for many manufacturing companies.

The Climate Change Agreements (CCA), Carbon Reduction Commitment (CRC) and other schemes all take time and resource to understand, manage and comply with, as well as incurring fiscal costs for the companies involved. While industry welcomes the support from measures such as CCAs and packages to support EII sectors and while progress has been made in simplifying these schemes, more can still be done. In addition, some of the measures implemented work directly against the automotive sector. Removal of CCA exemption from the CRC could see emissions from a plant not directly included in a CCA now having to include those into the CRC.

Energy prices are recognised as a serious issue for consumers and industry alike. In March 2014, Ofgem announced it would investigate energy utilities to assess whether a competitive market for energy exists in the UK. On one level this is to be welcomed as we understand from our interviews that vehicle companies and suppliers alike do not regard the energy market as sufficiently competitive, as switching suppliers and finding a real choice in terms of price plan and length of contract can be far from easy.

However, there is also a fear that a lengthy Ofgem enquiry could actually delay necessary sectoral reforms.

There is also a fear that the UK could find itself short of energy generating capacity unless decisions are made quickly to invest in new power stations. There will be costs to achieve security of supply, but these need to be proportionate and reasonable, so as not to undermine the competitiveness of UK industry. This should include investment in low-carbon energy, which will be important to improve the environmental profile of UK energy supply. Although beyond the scope of this paper, the security of the UK's energy supplies cannot be ignored. The UK's dependence on Russia for gas supply is well-known, and the security of the gas supplied through the pipelines which cross Ukraine could well be questioned in the current political environment. When this is set alongside the expected rise in prices owing to climate change levies, the UK's vulnerability on energy issues is clear.

Automotive components suppliers will be affected differentially by energy prices depending on the processes they undertake. Facilities which are essentially assembly operations of bought-in components, ie just-in-time facilities, will have relatively low energy content in their overall cost mix. However, some manufacturing operations involving press machines, injection moulding and paint shop processes, are regarded as high energy use processes. Work undertaken by the Automotive Council has highlighted that UK vehicle companies would like to source more components involving such processes in the UK. Suppliers are

likely to find UK energy prices acting as a disincentive to invest in the current climate.

The automotive sector would also like more support for the uptake of more efficient factories and process efficiency technologies. Considerable resource has been put into house-building and domestic energy efficiency, but the manufacturing sector could also use support in this area. While preparing this report, we discussed the energy issue with both major car companies and suppliers and were told on more than one occasion that plans to install energy efficiency technology within their manufacturing operations, and/or solar panels on a factory roof to generate their own power, had to be abandoned. Despite the energy cost savings such investments would have produced, they would actually increase the business rates payable by the plant concerned to a degree which would make the potential investment unviable. This may not be industry's universal experience – and we know of cases where solar panels have successfully and economically been installed – but there have been cases where the rates system has rendered such energy efficiency schemes unviable. This situation needs to be addressed.

TRANSPORT

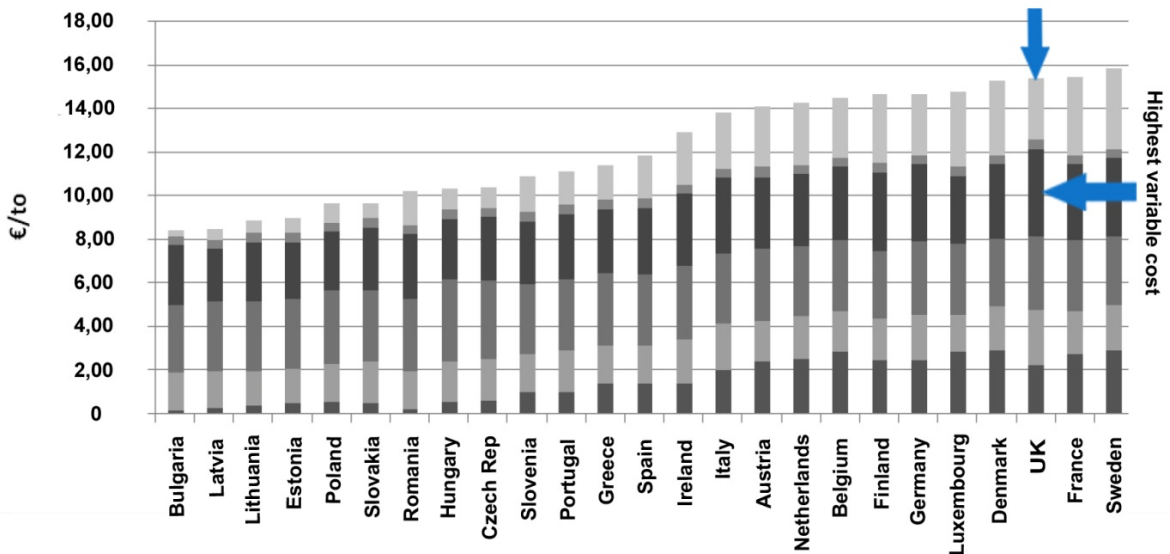
The discussion on transport covers three aspects; the cost of transport (especially fuel prices which form a major cost component in a highly competitive transport industry with traditionally low profit margins), the nature and quality of the transport infrastructure (and the potential cost penalties which follow), and efficiencies in logistics and freight transport management. The KPMG cost model cited earlier shows how the UK had a relatively low competitive score on transport cost in automotive component manufacture.

The next two charts show the UK's position in terms of rail and road costs. These charts were prepared for the EU through detailed analysis of the

accounts of major European transport companies. The first chart shows the UK's position on rail costs. Here the UK is rated as the third most expensive country, behind France and Sweden.

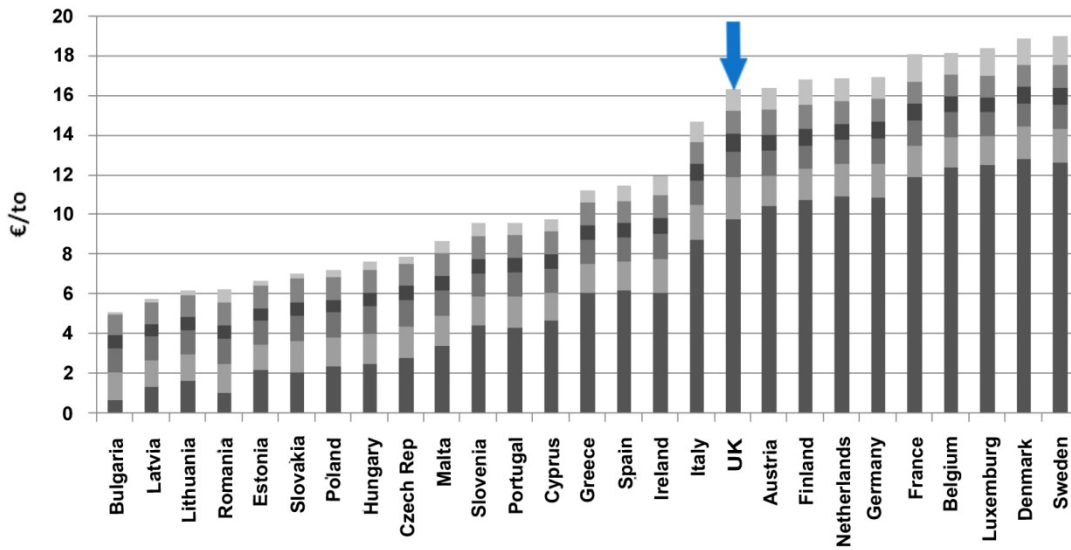
Examination of the individual elements of the overall costs shows how the UK has the highest fuel costs in Europe and also the highest variable costs. The second chart shows the same comparison for road transport costs, where the UK is more competitive, being the 10th most expensive country, and cheaper than Benelux, France, Germany and Scandinavia. However, here too, the UK has the highest fuel costs in Europe.

Chart 11: Rail costs by country in the EU



Source: EU 2008 SEALS report on Logistics, p74

Chart 12: Road costs by country in the EU

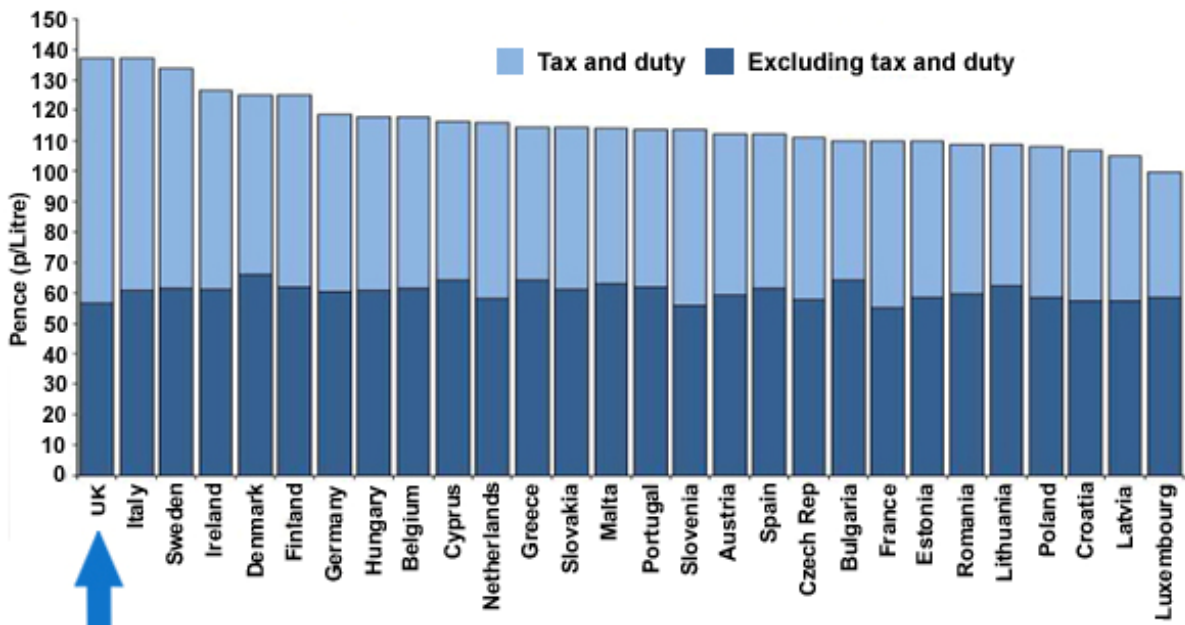


Source: EU 2008 SEALS report on Logistics, p77

The UK's poor position regarding fuel costs is confirmed by the following chart which shows diesel prices in the EU, according to pump prices in November 2013. Although the UK's diesel prices net of tax are comparable with other European markets, the country's position is rendered uncompetitive because of the tax element of the price of fuel. The decision by government to cancel the next automatic rise in excise duty in autumn 2014 was welcomed by the freight transport sector. However, the UK still pays the highest fuel tax, in relative and absolute terms, of all EU markets, and this undoubtedly impacts on the overall cost position of manufacturing industry.

Chart 13: UK diesel pump prices versus other European markets

Pump price of diesel as at November 2013



Source: Department of Energy & Climate Change, December 2013

Logistics and infrastructure

Under the transport heading, we also need to comment on the country's logistics and general infrastructure. In terms of logistics, evidence from the World Bank suggests that the UK is performing well, while evidence from the CBI suggests that there is still much to do to improve the general economic infrastructure of the country including transport.

While the UK has notably high fuel costs, the logistics industry itself, and manufacturing companies which rely on logistics companies, have made progress in recent times to improve efficiencies in this area of business. Our interviews showed that particular attention is now given to efficient route planning and loading efficiencies to reduce distances travelled with full loads. Work by the SMMT's Logistics Group moreover has shown that suppliers can achieve a competitive edge in contract bidding through demonstrating an efficient and reliable logistics system of their own. This positive picture is reflected in the UK's improving position with regard to its international rating in logistics efficiency,

Improving logistics performance in the UK

According to the World Bank's Logistics Performance Index (LPI) which ranks 160 countries, the UK has risen from 10th in 2012 to fourth in 2014. Belgium, Germany, Netherlands and were the top three ranked countries. The LPI analysis compares countries against six key criteria:

- Efficiency of customers and border clearance.
- Quality of trade and transport infrastructure.
- Ease of arranging competitively priced international shipments.
- Competence and quality of logistics services.
- Ability to track and trace consignments.
- Frequency of shipments reaching consignees on time.

The report *Connecting to Compete, Trade Logistics in the Global Economy 2014*, provides substantial statistical data on the different performance of each country against these criteria. Looking at the UK's performance against each of the six factors which make up the index, the UK was ranked between five and seven in the world on all factors, apart from the third, the ease of arranging competitively price international shipments, ie outbound logistics. This suggests that the UK has problems with regard to effective export logistics, but in terms of inbound and internal logistics, the country is doing well and is competitive with all major European nations.

Infrastructure concerns

In 2013, the CBI and KPMG published their third survey of the UK's infrastructure, *The Third CBI/KPMG Infrastructure Survey*. This revealed a number of serious problems, illustrated below:

- Over the period 1999-2014 (taking into account planned investments known at the time of the survey), the UK consistently ranked lowest of major industrial countries in terms of investment in infrastructure; the UK consistently spent less than 2.5% of GDP on infrastructure, compared to between 3% and 5% in recent years spent by Canada, France, Germany, Japan and the US.
- This lack of investment has led to the UK being rated 28th in the World Economic Forum's international comparison of infrastructure. France by contrast was ranked sixth and Germany tenth.
- Worryingly, other than the digital sector, major industries do not expect significant improvements in the UK's infrastructure. According to the KPMG/CBI survey, more than 75% of companies in the digital sector expect significant infrastructural improvements in the UK for the next five years. By contrast the comparable figures are 23% in energy and 28% for transport.

This outlook suggests that there is plenty still to be done to improve the UK's infrastructure and thereby country's business environment.

Overall, it needs to be noted that the UK's transport networks and operators are well connected to the EU and globally. Significant public investment on roads and rail is planned for future governments to implement, and there is significant private investment and continuing investment intentions in the main international gateways – ports and airports. In time this will help to ease congestion and improve accessibility and so the overall business perception and experience of the UK's transport infrastructure.

Achieving greater operating efficiencies and timely delivery systems will continue to be key competitiveness concerns and drivers for the UK logistics and freight transport sector that manufacturing supply chains rely on. Improved management and use of digital information and scheduling platforms will continue to help with more competitive logistics. Outside of this, the sector faces big challenges in attracting investment for operators' infrastructures, the need to replace skilled drivers and in confidence by the sector to invest in costly and for now untried alternative ultra-low emission vehicles (ULEVs), despite the pressure from high fuel costs.

Government policy needs to ensure that increased investment in the UK's transport infrastructure is delivered and that efficiencies in the logistics and freight transport sector are actively supported to tackle competitiveness and perception challenges in transport.

Business rates constitute a problematic fixed tax-cost for UK business. The system needs radical overhaul as it is not straightforward, stable, equitable or economically efficient. A recent parliamentary select committee report (*House of Commons Business, Innovation and Skills Committee Report on The Retail Sector, HC 168-1*) concluded that the pace of economic change and restructuring in the sector meant that the current system was no longer fit for purpose, adding that this issue was not confined to the retail sector. Current arrangements are complicated to administer, to comply with and even understand or navigate without specialist advisers. For all businesses, the past decade has seen a disproportionate rise in business rates relative to rental values or, in the case of owner-occupiers, relative to the estimated rental value of buildings on their sites. The tax charge, however, does not vary with economic cycles. The last rental assessment was at the peak of the last cycle, and this was followed by a major recession. While most companies saw their corporation tax bills fall with declining profitability or losses, there was no corresponding reduction in business rates; indeed rates often rise when companies invest to help them grow out of recession.

When manufacturing companies undertake periodic asset renewal or facility expansion, the result can be a somewhat perverse increase in rateable values and charges paid ahead of new revenue and increased profits being generated. As a result, businesses tend to regard business rates as a fixed cost, albeit one which they have found difficult to predict when planning potential investments and which can create a disincentive to invest.

Manufacturing can be disadvantaged over other sectors under the current business rates regime due to the way plant and machinery are treated as fixed assets and included in the assessment of a site's rental value. As a result, investment in new equipment automatically increases the rentable value of the facility, again acting as a disincentive to invest.

GM/Vauxhall has been especially vocal on this issue, raising concerns to SMMT that the rates it pays at its UK sites are ten times higher than at its other sites across Europe. GM's operations in the UK pay 60% of GM Europe's business rates for 8% of GM's European footprint. Although such a disparity may not be universal, where a differential of this scale exists the UK has to become even more competitive on other factors to compensate for this disadvantage.

One supplier told us, in the same vein, how it had closed a UK warehouse used for storing components for its UK just-in-time assembly facility because the rates payable and running costs of this warehouse vastly exceeded the logistics costs of shipping components in from a warehouse located

in continental Europe. As the UK plant was already largely reliant on imported components, the UK warehouse became something of a luxury.

A further problem with the rates system is that investment cycles are shorter than the conventional times assumed for the useable life of buildings under the current rating system. When extensive investments and rebuilding add to ratings valuations and lead to a higher rateable value, UK companies find their fixed cost base has risen, distorting the commercial benefits of operating these sites. The impact of investment for business improvement needs to be appropriately reflected in any comparative property-based tax regime, if the total costs of manufacturing in the UK are to be competitive and comparable internationally to incentivise a rebalancing with stable and consistent investment in advanced manufacturing.

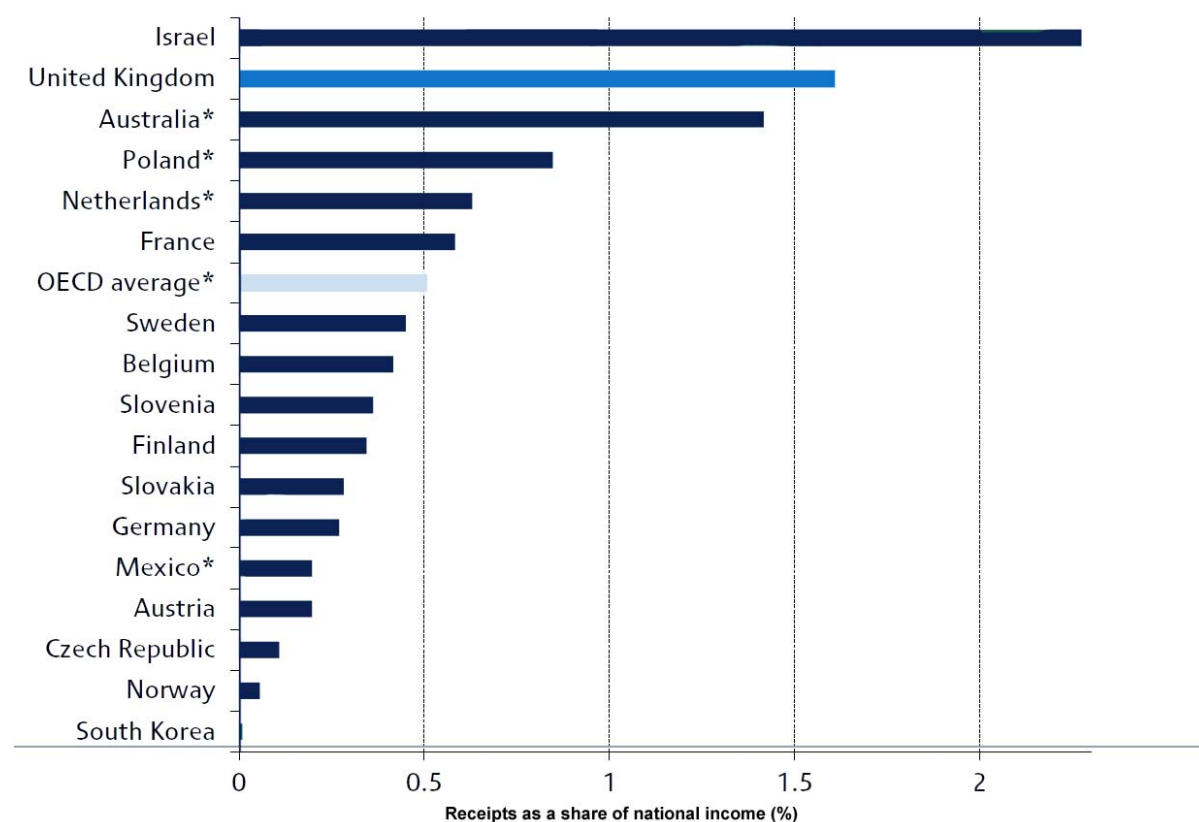
Experience shows that no former UK car or van site has been taken on by another manufacturer. There is only partial use of the former Rover Longbridge site by SAIC, while Vauxhall's Luton car plant was sold for retail development in 2004. This shows the difficulty in adapting large facilities for new uses. The recent closure of Ford's Southampton van plant is likely to see the demolition of the building, a clean-up of the site and its use for other purposes, whether retail, logistics/light industrial or even housing, with no realistic likelihood of the existing building being sold for continued manufacturing use. These examples demonstrate the disconnect between the practice of calculating rates on notional rental values, when the buildings concerned are most unlikely ever to be rented out if the automotive or other manufacturing user moves out.

Outside the UK, a new manufacturing facility will typically attract investment incentives and property tax holidays. Such policies do not universally apply in the UK, although temporary rates holidays are offered in Enterprise Zones, while Local Enterprise Partnerships and local authorities have some local discretion in varying aspects of the tax. The absence of rates holidays as a standard policy for new investments, allied to the uncertainty and complexity in assessing what discounts are available, damage the UK's image and competitiveness, acting as a disincentive in attracting new investment and even retaining existing manufacturing operations at UK sites. Change is needed.

The Institute for Fiscal Studies' *Green Budget Report 2014* uses OECD data to show how, with the exception of Israel, the UK has the highest share of tax receipts from recurrent taxes on non-domestic immovable property (*business rates*) as a share of national income. The UK's share at about 1.6% of national income was also above the 1.0% average of all OECD countries.

Chart 14: International comparison of the ratio of business rates as % of GDP.

Receipts from recurrent taxes on non-domestic immovable property as a share of national income, 2011



Source: Figure 11.3, The Institute for Fiscal Studies, Green Budget 2014

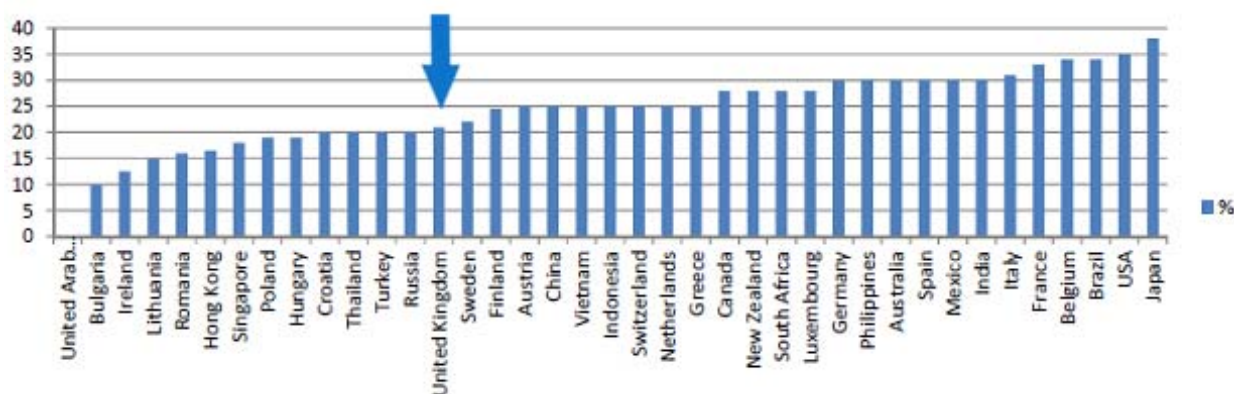
Business rates are understood to have provided £26.6bn for the Treasury in 2013/14 and this is due to rise to £32.3bn by 2018/19, a level stable at about 1.6% of GDP. This is a significant revenue stream, and we recognise that if business rates are reformed to improve the UK's competitiveness, replacement sources of tax income will be required.

The UK government aims to have one of the most competitive Corporate Tax (CT) regimes in the G20. Reforming the CT regime has been on the tax agenda since 2007 and subsequent Budgets, including the 2014 March Budget, have continued to improve the CT environment while providing other enhanced, but time-limited, measures to ease

pressure on operating costs or give incentives to invest. For manufacturing businesses, the direction of travel of the CT regime has been generally positive, with competitive rates relative to other G20 countries and enhanced reliefs for spending on R&D through enhanced R&D Tax Credit and Patent Box spending relief.

The current UK CT rate is shown below:

Chart 15: International comparison of corporate income tax rates (%)



Source: SMMT

The main UK Corporation Tax rate was 30% in 2008/9. By 2015/16 it will be 20%, with lower rates for small profits/firms.

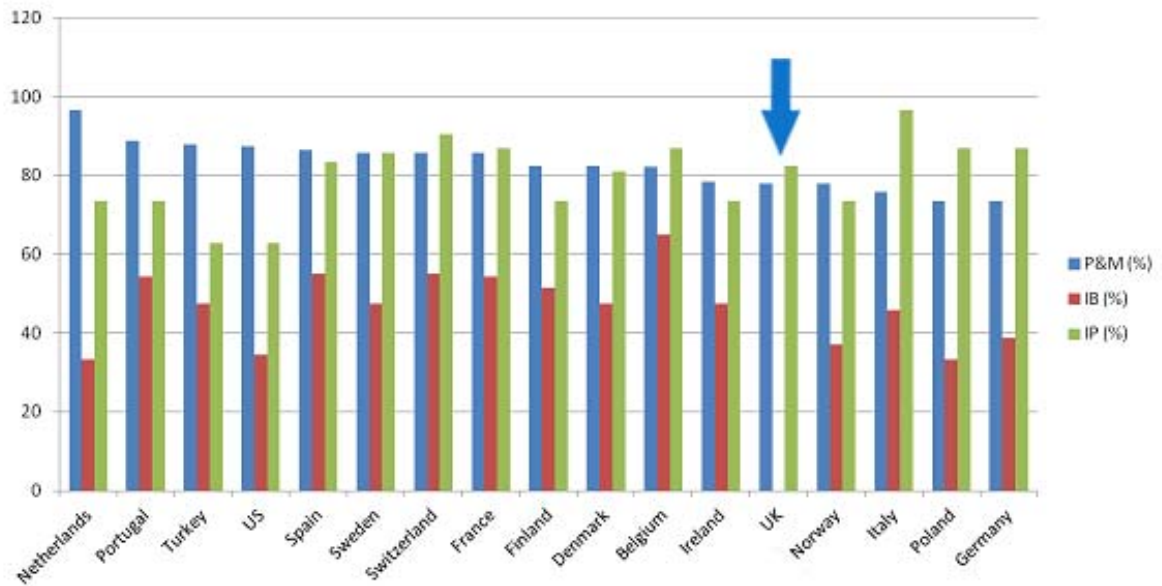
As part of this ongoing reform, Capital Allowances (CA) for depreciation were simplified and rates cut. Here manufacturing businesses arguably lost out, particularly where profitability and innovation was modest and the benefit from existing capital allowances was a valued off-set to their trading position. For business in general the lower basic rate, simplified allowances and enhanced R&D Tax Credits and Patent Box are clearly beneficial, but much remains to be done to address commercial issues for firms in a capital-intensive, cyclically prone sector like manufacturing. The scope and levels of CA rates were a valued relief and incentive to investment; they could be enhanced to recognise the capital intensity, global footprint and cyclical risks typical in the manufacturing sector.

CAs for plant and machinery (in the main pool) were rated at 25% in 2008/09 and are now at 18%, with a lower rate at 8%. Every business is now entitled to an Annual Investment Allowance, a

100% deduction on capital expenditure on plant and machinery from taxable profits up to a set value cap, currently at £0.5m, a level which will remain until December 2015. While the incentive is welcome, the instability and restrictions to certain classes of asset is not. An appropriate and permanent rate cap would be of more benefit to all businesses, particularly in manufacturing, which needs to renew, enhance and expand activities on a regular basis. As the Institute for Fiscal Studies emphasised in its post-Budget analysis (March 2014), temporary policies and frequent changes only add to uncertainty for business, especially those who have to plan for recurrent or long cycles in economic activity.

The following chart shows a comparison of capital allowance rates in mostly European countries. However, the source data shows a more detailed comparison including 41 countries worldwide, in which the UK is ranked 28th for plant and machinery (P&M), 41st ie last for Industrial Buildings (IB) and 14th for Intangible Property (IP).

Chart 16: International comparison of capital allowances



Source: The Oxford Centre for Business Taxation

The focus of recent government policy has been on reducing the headline rate of corporation tax. However, it needs to do more than this and in particular ensure that a competitive and stable capital allowances structure is put place.

POLICY OPTIONS

Political focus on maintaining an internationally competitive business environment is critical to securing and growing advanced manufacturing supply chains in the UK for the long term. Our analysis and interviews show that there needs to be a deep understanding of what drives and hinders investment and growth in key advanced manufacturing sectors, and of the role that the cost base, the UK context of these cost factors and investor perceptions play in these investment decisions.

In the automotive industry, recent growth seen in parts of the UK supply chain has mostly come from opportunities created by the significant investment

made by existing automotive car manufacturing operations in the UK, supporting new model development, expansion or modernisation, rather than just in response to all-new investments by the industry (see the appendix for further details). In order to win further supply chain investment into the future, the UK needs to create a stable, cost-competitive business environment that remains internationally competitive for both OEMs and suppliers and is recognised as such by investors in the UK and abroad.

The table below sets out the cost factors discussed in this paper with policy options:

COST	KEY ISSUE	POLICY OPTION
Labour	Labour flexibility	Maintaining labour flexibility and strategic partnership with unions
Energy	Cost and complexity of UK energy levies	Reduce cost and complexity of energy levies to competitive levels
Transport	Transport cost and quality of infrastructure	Secure infrastructure investment and support, greater efficiencies in logistics and transport sector
Property	Business rate costs and method	Reform business rate system to support manufacturing
Tax	Corporation tax reform focus	Provide a competitive and stable system of capital allowances

Labour

Whilst the UK's labour costs are competitive with other mature and growing economies in the EU, it is the UK's workforce flexibility that stands out as the key competitive advantage of the UK as a manufacturing location, both perceived and real. Maintaining workforce flexibility depends critically on turning a constructive relationship with the unions into a strategic partnership.

In the automotive sector, the main union, Unite, is an important member of the Automotive Council, a key partner working with the industry and government in delivering the UK's automotive industrial strategy. This partnership approach is a critical success factor for UK automotive and should be strategically pursued across the whole advanced manufacturing sector.

Energy

Manufacturing supply chains need a secure and low carbon supply of energy at a competitive cost. The picture emerging about the expected increase in energy costs in the UK to 2020 is one of rising UK levies and taxes. This risks the competitiveness of the UK as a manufacturing location for existing industries and new investors. UK levies and taxes could be reduced and brought into line with minimum levels allowed under EU rules.

For example, Climate Change Levy (CCL) discounts on gas could be raised from 65% to 75%, CCL and Carbon Reduction Commitment (CRC) rates could be frozen, and the Carbon Price Floor could be withdrawn.

Energy efficiency regimes and climate change policy frameworks should be simplified to reduce the administrative burden and costs of

manufacturing in the UK, eg by developing a single reporting requirement on companies for all regimes and policies. Measures to protect energy intensive industries from the impact of these policies should be maintained and extended to strategically important and trade intensive advanced manufacturing industries like automotive. Decarbonisation, through investment in generating capacity to ensure security of a low carbon supply of energy, must be realised. The review of competition within the energy supply market must ensure that costs and security of supply are at a level to enhance the competitiveness of UK-based manufacturers.

Transport

With its strong import/export focus, 'just-in-time' business model and dependency on competitive logistics, the cost of transport, the quality of the transport infrastructure in the UK – real and perceived – and the efficiency of the transport sector are all impacting the cost base of advanced manufacturing sectors like automotive. The evidence presented in this paper confirms that the UK has to tackle the perception of weak infrastructure, the competitiveness impact of higher duty rates for diesel, a huge replacement challenge in relation to transport and wider infrastructure. Securing higher levels of long-term investment in infrastructure, ensuring that fuel duty rates do not disadvantage the UK unduly and helping to create efficient and competitively priced logistics that support supply chains will be critical in improving perception and cost base in the following years.

Property taxes

The UK's business rate system is in need of reform or change that goes beyond a mere delay in revaluation. Manufacturing firms need a property-based tax base that is clearer, more globally neutral and efficient, in an economic sense, by supporting and not penalising the intensity of capital use and

focusing on outputs from, not inputs to, productive uses and competitiveness pressures. The system also needs to be stable.

A few examples of potential changes and adaptations are:

- A general 'de-rating' for manufacturing sites recognising their significance in rebalancing the economy, possibly a lower multiplier than the standard 47.1p in £ set for 2013/14 and a cap to basic inflation-cost annual indexation.
- Where new investment takes place at existing sites, the increment to revaluation should be set at a progressively lower level to incentivise investment.
- Simplifying the current system by removing the plant and machinery assessment from rental value, focusing the tax on land values rather than the use to which the land has been put. This would reduce complexity in the current system and the parallel disincentive to invest but also reduce the cost and complexity of the bureaucracy of the current system for the VOA.

Corporate taxes

The UK's reforms to achieve a globally competitive corporate tax regime have been significant and are ongoing. However, the declared focus now has to be on further optimising the UK tax regime for capital intensive and cyclical sectors like advanced manufacturing. Providing a competitive and stable system of capital allowances with the declared aim of making the UK the best place to invest in manufacturing would send a strong signal to investors. A globally competitive capital allowance regime, in addition to the recently enhanced R&D tax credits and Patent Box spending relief, could make the UK a truly attractive location for investment in capital, innovation and skills and would become a strong and highly visible pillar of a competitive UK business environment for advanced manufacturing supply chains.

CONCLUSIONS

There is no room for complacency. Despite the success that the UK car manufacturing sector has seen in terms of sustaining major investment spending and further plans to underpin growth in vehicle assembly, there is no unconditional guarantee that similar decisions will be made in the future, unless the UK's international cost competitiveness for manufacturing is sustained in the long term and maintained beyond normal political cycles.

As this paper outlined, addressing perceived and real competitiveness needs focused, targeted and consistent policies in each of the five key cost areas highlighted in the report, namely:

- Maintaining the UK's advantage in labour flexibility.
- Addressing the competitiveness impacts of rising energy levies.
- Increasing investment and addressing higher transport cost.
- Reforming the business rate environment to support manufacturing.

- Providing a competitive and stable system of capital allowances.

Strategic focus and a collaborative partnership within the UK's advanced manufacturing sectors, enabled and incentivised by stable assistance and government's long-term commitment, are at the heart of any successful approach to growing the supply chain in the UK. SMMT strongly supports the partnership and collaborative work of the Automotive Council and firmly believes in the benefits of sectoral strategies, not just for the automotive industry.

However, as demonstrated in the five cost areas highlighted in this paper, strong sectoral industrial strategies need to be supported by equally strong and durable horizontal policies. These policies must focus on supporting the resources and effective markets that all manufacturing businesses need to achieve sustainable growth, with particular focus on businesses throughout the supply chain. Policies need to identify and build on the strengths and weaknesses - perceived and real – of the UK's business environment for manufacturing. We hope that this paper provides some insights and contributions to this debate.

APPENDICES

1. Recent automotive investments in the UK

New automotive investments are regularly reported at www.smm.co.uk/investment. Recent highlights up to the date of finalising this report are described below.

The picture below summarises investments by automotive components suppliers in 2012 and H1/2013.



Since this chart was compiled, further investments by component companies include:

- April 2014, Brose: 300 jobs to support contract on new Nissan Qashqai.
- March 2014, Stadco: £30m investment in Telford and Shrewsbury.
- January 2014, Automotive Insulations: new plant with 200 new jobs in Warwickshire.
- November 2013, Sertec: new plant at Coleshill, 150 jobs.
- November 2013, Gestamp: expansion in Sunderland to supply MINI.
- October 2013, Faurecia: expansion in Tyne and Wear.
- October 2013, Cosworth: £30m investment at Northampton, 70 new jobs.

Key investments by the vehicle companies announced in recent times include:

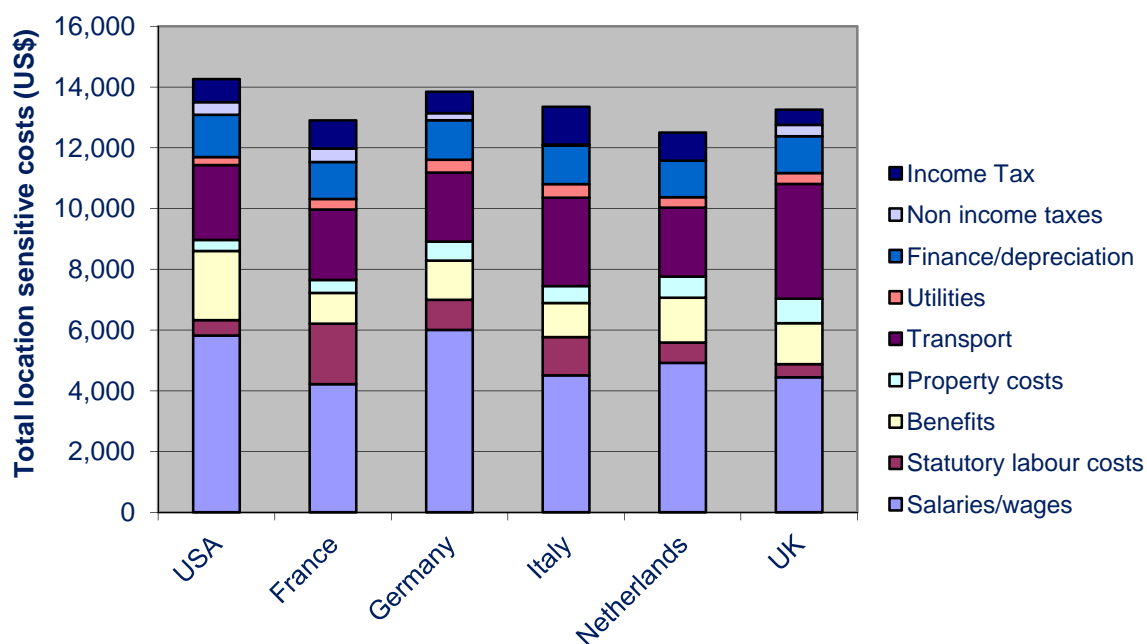
- March 2014, £45m in a new press line at Jaguar Land Rover Halewood.
- March 2014: Bentley, 100 jobs to support centralisation of Volkswagen's W12 engine production in the UK.
- January 2014: Rolls-Royce adds 100 jobs at Goodwood to support increased production volumes.
- September and March 2013: Jaguar Land Rover announces £2bn investment and the creation of more than 3,000 jobs.
- July 2013: BMW Group confirms £760 investment at its three UK sites, the MINI plant at Oxford, pressings plant in Swindon and engine plant at Hams Hall, Birmingham. This will help grow these operations in the period to 2015.
- July 2013: Bentley announces £800m investment to support the development and production launch of its new SUV, adding 1,000 more jobs at the Crewe factory.
- May 2013: GM Vauxhall confirms £125m investment at Ellesmere Port to support the launch of the new Astra from 2015.
- May 2013: Ford announces £189m investment at its UK engine plants.
- April 2013: Toyota announces 70 new jobs at its UK engine plant in north Wales.
- December 2012: Nissan announces £250m investment in Sunderland for its new Infiniti model
- September 2012: Honda announces £267m investment in Swindon for its new models and engine line.

2. The KPMG cost model analysis for aircraft components and electronic assembly

Here we provide similar information on the aircraft components and electronics assembly sector to that provided in the main body of this paper for the automotive components industry.

The KPMG model and the aircraft components sector

Comparison of location sensitive costs in aircraft components manufacture



Country ranking according to index of competitiveness (USA = 100)

	US	France	Germany	Italy	Netherlands	UK
Ranking	5	2	6	4	1	3
Index	100.0	97.2	100.4	98.8	95.8	98.4

Source: AutoAnalysis, using KPMG cost model in KPMG's *Competitive Alternatives*, 2012 report

This analysis suggests that in aircraft components manufacture, the UK is **not** the most competitive location. This title goes to the Netherlands, and in fact the UK ranks behind France. Because of the scale of the French aerospace industry, around Airbus, it is not surprising that France has come out as more competitive than the UK in this industry.

Looking at the individual factors in more detail reveals that the UK has a leadership position in terms of statutory labour costs (as in the automotive industry) and income tax, but the USA,

France and the Netherlands each have an automotive industry) and income tax, but the US, France and the Netherlands each have a leadership position in two of the factors assessed in this cost model.

The implication is that the margin of difference between countries here is really quite small and changes in one or other factor can have a direct impact on a given country's sectoral competitiveness.

Ranking of each factor by country

Factor	US	France	Germany	Italy	Netherlands	UK
Salaries/wages	5	1	6	3	4	2
Statutory labour costs	2	6	4	5	3	1
Benefits	6	1	3	2	5	4
Property costs	1	2	4	3	5	6
Transport	4	3	1	5	2	6
Utilities	1	3	5	6	2	4
Finance/depreciation	6	3	5	4	1	2
Non income taxes	5	6	3	2	1	4
Income Tax	4	5	2	6	3	1
Average	3.8	3.3	3.7	4.0	2.9	3.3

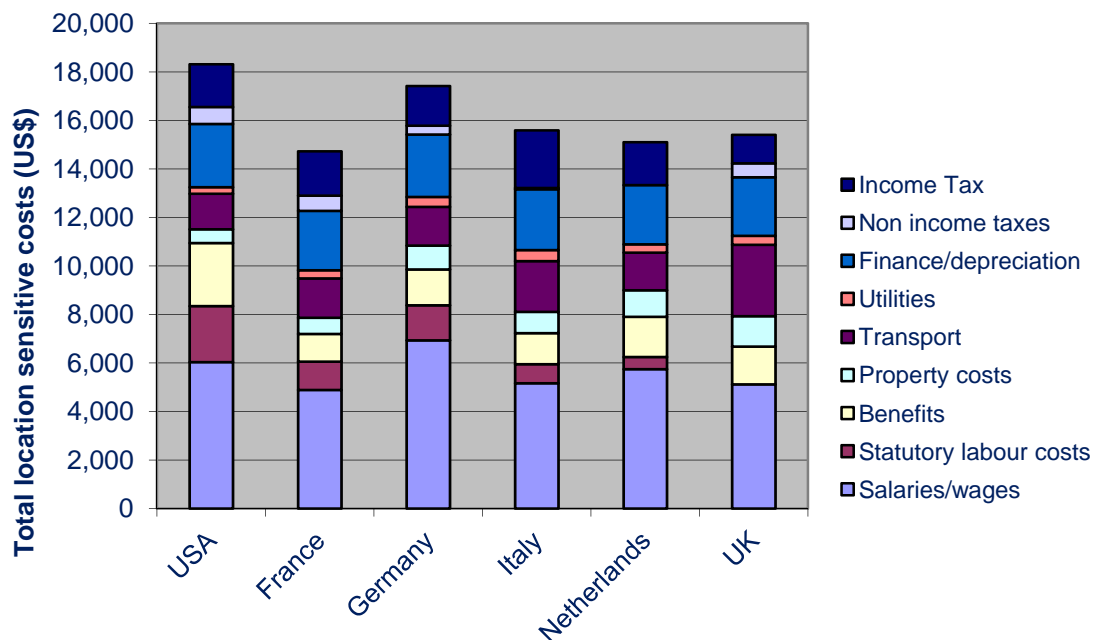
Source: AutoAnalysis, using KPMG cost model in KPMG's *Competitive Alternatives*, 2012 report.

Here we see that the UK is ranked bottom in property costs (as is the automotive industry) and in terms of transport costs. Indeed, approaching 30% of the UK's location-sensitive costs are attributable to transport, a far higher level than the proportion of costs which transport represents in other markets.

The KPMG model and electronics assembly

Comparison of location sensitive costs in electronics assembly

Turning to a third sector, electronics assembly and the situation is as follows:



Country ranking according to index of competitiveness (USA = 100)

	US	France	Germany	Italy	Netherlands	UK
Ranking	6	2	5	4	1	3
Index	100.0	97.7	100.9	98.7	96.2	97.8

Source: AutoAnalysis, using KPMG cost model in KPMG's *Competitive Alternatives*, 2012 report

For the electronics sector, the UK is also ranked third, again behind France and the Netherlands, although the difference with France is very small indeed. When we look at the composite ranking broken down by individual factors, the following picture emerges:

Ranking of each factor by country

Factor	US	France	Germany	Italy	Netherlands	UK
Salaries/wages	5	1	6	3	4	2
Statutory labour costs	2	6	4	5	3	1
Benefits	6	1	3	2	5	4
Property costs	1	2	4	3	5	6
Transport	1	4	3	5	2	6
Utilities	1	2	5	6	3	4
Finance/depreciation	6	3	5	4	2	1
Non income taxes	6	5	3	2	1	4
Income Tax	3	5	2	6	4	1
Average	2.9	3.1	3.2	3.7	2.8	3.0

Source: SMMT analysis of KPMG cost model in KPMG's *Competitive Alternatives*, 2012 report.

Here again the UK leads with the lowest statutory labour costs (as in automotive and aircraft components), but also in finance costs and income tax; its poor performance in terms of property costs and transport costs in particular reduces its competitiveness further.

3. Additional note on Corporation Tax

The Oxford Centre for Business Taxation (OCBT) reports periodically on the competitiveness of the UK corporate tax system relative to other G20 countries. Tax competitiveness is rated by two widely employed indicators: the effective average tax rate (EATR) and the effective marginal tax rate (EMTR). The EATR is a relevant factor behind decisions on the location of discrete investment projects. The EMTR is more relevant for the size of investment, given its location. OCBT suggests that both the EATR and the EMTR depend on the statutory tax rate and the definition of the tax base; EMTR depending more on the tax base

Below is an analysis of the parameters of the corporation tax regimes in each of the G20 countries. The OCBT's key findings at 2011 were that:

- The UK's Effective Average Tax Rate (EATR) was just over 26%, which ranks the UK ninth of out the 19 independent G20 countries (excluding the European Union)
- The UK's Effective Marginal Tax Rate (EMTR) at just under 23%, ranked 15th out of 19 countries
- The lower ranking of the EMTR reflected how, although the UK tax rate is relatively low by international standards (in seventh position), the UK is the least generous G20 country with respect to allowances for capital investment.

The OCBT expects that the tax reforms continued by the current UK government will improve the

competitiveness of the UK tax system, albeit if the other countries do not change their tax systems. They caution that trends of the last decade suggest that other countries will change their tax system. Since 2002 the UK lost tax competitiveness to other countries. The UK was fourth in the EATR ranking in 2002 and ninth by 2011; the cuts to capital allowances contributed to change as did enhancements to other countries' CT regimes. Overall, the UK corporate tax system lost competitiveness during the 2000s and government policy is helping to reverse this trend. However, government needs to be aware of developments in our trading and competitor partner countries to be durable and set focused policy incentives if it is to incentivise a growth renaissance in manufacturing activities across the sector.

OCBT's 2012 report update showed the UK's ranking unchanged: reductions in UK CT rates were matched by reduced rates in other countries and further cuts in the UK rate were yet to come. It was also set a wider comparison to OECD countries. The UK ranks 22nd out of 33 OECD countries for the EATR, and 31st out of 33 for the EMTR, a low ranking that was mainly due to the lower UK CAs. The pace of reforms to CT regimes in all countries has picked-up in recent years; certainly we can expect further tax-competitive responses amongst G7, Eurozone and other EU countries.

The World Bank's Ease of Doing Business Index gives perhaps a complementary context to the UK's position in terms of its CT regime. Here the UK ranks 10th out of 189 countries in the analysis (US ranks at number four). A high ranking (a low numerical value) means the overall regulatory environment is conducive to business operation.

The index averages scores on 10 topics covered in the World Bank's Doing Business criteria, one of which includes paying taxes.

BIBLIOGRAPHY

Bibliography

BIS: *An international comparison of energy and climate change policies impacting energy intensive industry, 2012*

CBI and KPMG: *The Third CBI/KPMG Infrastructure Survey, 2014*

Deloitte: *Global Manufacturing Competitiveness Index, 2013*

Ernst & Young: *European Automotive Survey 2013*

EU: *SEALS report on Logistics, 2008*

HM government/Automotive Council: *Driving success - a strategy for growth and sustainability in the UK automotive sector, July 2013*

Institute of Fiscal Studies: *Green Budget Report 2014*

KPMG: *Capturing Opportunity: An assessment of the supply chain opportunities in the UK automotive sector, September 2012*

KPMG: *Competitive Alternatives, 2012*

KPMG: *The UK Automotive Industry and the EU: An economic assessment of the interaction of the UK's Automotive Industry with the European Union, April 2014*

Matthias Holweg et al: *Growing the Automotive Supply Chain: The Road Forward, 2011*

Matthias Holweg et al: *The Competitive Status of the UK Automotive Industry, 2009*

ONS: *UK Trade in Goods data set, 2013*

PWC: *Global Supply Chain Survey, 2013*

US Bureau of Labor Statistics: *International comparisons of hourly compensation costs in manufacturing (2012), August 2013*

VDA: *Facts and Figures 2013, published 2014*

World Bank: *Connect to Compete: Trade Logistics in the Global Economy, 2014*

Author

Ian Henry

AutoAnalysis

020 7730 9884

ian@autoanalysis.co.uk

www.smmmt.co.uk

Disclaimer

This publication contains general information and, although SMMT and AutoAnalysis endeavour to ensure that the content is accurate and up-to-date at the date of publication, no representation or warranty, express or implied, is made as to its accuracy or completeness and therefore the information in this publication should not be relied upon. Readers should always seek appropriate advice from a suitably qualified expert before taking, or refraining from taking, any action. The contents of this publication should not be construed as advice or guidance and SMMT and AutoAnalysis disclaim liability for any loss, howsoever caused, arising directly or indirectly from reliance on the information in this publication.

