FTA is one of the UK’s largest trade associations and represents over 15,000 members relying on or providing transport integration both domestically and internationally, to or from the UK. Our members include hauliers, freight forwarders, rail, sea and air freight operators, through to customers – producers, manufacturers, wholesalers and retailers. They cover all modes of transport – road, rail, air and sea. FTA members operate over 200,000 commercial goods vehicles on the roads in the UK – more than half the UK fleet. FTA members also consign around 90 per cent of goods moved by rail and around 70 per cent of goods moved by air and sea.

You can find more information at www.fta.co.uk, follow us on twitter.com/newsfromfta and join us on facebook.com/ftafb
It is my pleasure to welcome industry readers to the Logistics Report 2016, FTA’s analysis of the key events, trends and news of the past year.

This year’s report highlights the contradiction inherent in the UK economy; on the one hand we are doing well, with increased consumer confidence driving up the demand for goods and services but, on the other hand, we would be foolish to ignore the significant economic headwinds that are building, especially with regards to the emerging economies. The findings of our Logistics Industry Survey 2015/16, of which much more can be read in this report, reflect the reduced level of expectation for the UK economy compared to the previous year.

I believe that many of the drivers of increased competitiveness and resilience that are needed to respond to this economic climate are in the hands of businesses themselves; greater use of benchmarking and technical innovation can help make UK logistics among the best in the world and I have no doubt as to the dynamism, determination and diligence of those businesses that will enable this to happen.

But without the necessary connectivity, quality and performance on the part of all our transport networks, whether motorways, intermodal terminals, ports or urban roads, logistics cannot perform its role in delivering national prosperity. Government also needs to act to promote productivity through investment in infrastructure, implement targeted actions to tackle the logistics skills shortage and establish a framework to ensure that local transport policies work with the grain of business.

I am immensely proud of the achievements of UK logistics and the 1.62 million people that work directly within it, and the 2.35 million in broader occupations which make up 7.6 per cent of the UK workforce. This report evidences the achievements of the myriad businesses and individuals that are the enablers of our national wealth and well-being.

David Wells
Chief Executive
Freight Transport Association
Contents

Foreword 3
Executive summary 6
Logistics dashboard 12
Prosperity 16
Productivity 38
Resilience 58
Sources 78
summary

basis

core

essence

outline

précis

review

synopsis
Prosperity

As 2015 progressed it became clear that while the UK economy was growing, if unspectacularly, significant headwinds were developing, especially in the emerging economies and China. The onus on government to create and preserve prosperity was as great as ever.

Infrastructure investment leads the policy priorities for government

Responses to the FTA Logistics Industry Survey indicated respondents’ policy action priorities for government. They rated investment in road improvements, recognising the vital role of logistics in the economy and cutting fuel duty as the top three actions that they would like government to take.

Policy actions for Government

<table>
<thead>
<tr>
<th>Importance rating</th>
<th>Invest in road improvements</th>
<th>Recognise the essential role of logistics in the economy</th>
<th>Cut fuel duty</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

A stronger economy is leading to increased demand for logistics

The UK economy grew steadily in 2015 and increased consumer spending meant greater demand for goods. All areas, with the exception of conventional rail freight (hit by a substantial reduction in coal movements), experienced growth. This increased demand for goods is likely to have exacerbated the effects of the cross-Channel disruption experienced in summer 2015.

Hgv registrations (which may have been affected by stockpiling of vehicles prior to the introduction of Euro VI) increased by 26 per cent in 2015, compared to the previous year and vans by 16 per cent. Expectations for 2016 indicate healthy growth for hgv’s but more cautious investment for vans and trailers. Other forms of large scale investment plans for 2016 are downscaled from 2015, indicating increasing uncertainty around the mid to long-term.

The price of oil falls but logistics remains a low margin activity

The price of oil was the major economic story of the year, with Brent Crude falling 39 per cent to a monthly average of $38.90 a barrel by the end of 2015, filtering through to annual vehicle operating costs for the second year in a row. For the first time in 14 years, the forecourt price of diesel was cheaper than petrol in August and September. Road transport operator profit margins increased slightly to 4 per cent (from 3 per cent) in 2015.

Economic expectations for 2016 – cautiously optimistic

Economic activity indicators for logistics improved in 2015. Air freight import and export volumes grew as consumer demand improved but sea freight volumes were mixed. The number of operator licences continued to fall but the hgv market recovered in 2015 and economic expectations for 2016 are cautiously optimistic.

There is an expectation that there will be an increase in domestic activity in 2016 across the top five sectors. Retail and the related distribution and haulage sectors were the most optimistic for the year to come, following record breaking online sales for 2015. But the construction sector was much more downbeat than a year ago.
### Productivity

Logistics has a vital role to play in bringing people and products together. It underpins our national wealth and well-being. But without the necessary connectivity, standards and performance from our transport network and the availability and quality of the human resource needed, logistics cannot function competitively.

The UK road network carries 73 per cent of all freight journeys but has suffered from a lack of investment by successive governments. The UK ranks 29th in the world for the quality of its road infrastructure. 2015 saw the consolidation of a number of measures to address the state of the national infrastructure (including the Road Investment Strategy – RIS 1 – worth £15bn).

#### Effect of devolution on transport investment and networks needs to be monitored

The Logistics Report 2016 finds that business in general views the government’s infrastructure investment plans positively but that problems remain with the maintenance and condition of local roads. The devolution agenda is also viewed as a possible cause for concern if it results in shortfalls in road maintenance in parts of the country.

#### Sustained delivery of infrastructure improvements to improve reliability is essential for competitiveness

Levels of congestion on the road network have significant implications for logistics’ productivity. The perceived rate of deterioration in reliability on the road network is in line with pre-recession levels.

#### Failure to invest in hub airport runway capacity risks future access to markets

The Davies Commission advocated expansion at Heathrow, the UK’s only hub airport, crucial for high value, urgent and otherwise time sensitive cargoes and the exit point for more than a quarter of all UK exports by value. However, at the end of 2015 government delayed making the decision it had promised on airport capacity, resulting in criticism from business leaders frustrated at the postponement.

#### Factors in UK port congestion in 2015

![Factors in UK port congestion in 2015](image)
Maritime mega-vessels and alliances set to affect port activity and planning of inland haulage

While the global port and inland haulage problems experienced in 2014 eased during 2015, issues remained with port access road congestion and congestion within ports themselves. Global freight patterns are being changed by increased quantities of freight being carried on fewer routes; this impacts on port activity and planning of inland haulage.

Skills shortages a major issue for logistics with government support called for to assist with industry-led solutions

Many sectors of the economy are experiencing skills shortages and logistics has been particularly affected. Key issues that have been identified include: a lack of funding for vocational training; driver medical assessment delays; and, the relative unattractiveness of roles in logistics. Over the last 15 years there has been a steady increase in the average age of a lorry driver; rising from 45.3 years in 2001 to 48 years at the present time. According to FTA figures, some 75 per cent of respondents to its Quarterly Transport Activity Survey had problems recruiting large goods vehicle1 drivers in the final quarter of 2015.

The threat to UK trade from cross-Channel disruption is highlighted

Even though only 15 per cent of the hgvs that come across the Strait of Dover are UK registered, the effects of the chaotic situation in Calais during 2015 were felt throughout the country. With the imposition of Operation Stack for at least 28 days over the course of the summer and millions of pounds worth of delayed and spoiled goods, the consequences for UK trade became increasingly apparent. According to FTA, the delays in Kent cost UK logistics around £750,000 per day. The events of 2015 drew attention to a key weakness in the UK’s supply chain.

Fundamental changes in the way we shop and the way we move goods

In 2015, the average weekly spend online was £815.72m – an increase of 12.4 per cent compared to 2014 and double the amount spent in 2010. Online shopping is expected to continue rising, although possibly less dramatically, over coming years.

This has implications for the way in which delivery fleets are structured and consequences for the number of drivers required and the skills that they need to possess. Increasing demand for vans is evident in vehicle registration statistics as more and more consumers choose home delivery.

Online spending in the UK

<table>
<thead>
<tr>
<th>Forecast growth in online retail spending over the next 5 years</th>
<th>Estimated online spending by 2020 up from 13.8% in 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>44.9%</td>
<td>£62.7bn</td>
</tr>
<tr>
<td>17.1%</td>
<td>1.1%</td>
</tr>
</tbody>
</table>

Resilience

The safe, efficient and well-regulated delivery of goods depends on the effective implementation of policies and procedures by local and central government as well as businesses.

1 ‘Large goods vehicle’ (or lgv) is term used in EU driver licensing legislation to describe goods vehicles with a maximum authorised mass (mam) in excess of 3.5 tonnes. Elsewhere, the term heavy goods vehicle (or hgv) is used to describe goods vehicles in excess of 3.5 tonnes mam

3.5 million vans licensed in Britain in 2015
60 per cent more than in 1994
371,828 new vans registered in the UK in 2015
47.7 billion miles covered by van drivers in 2015

2 www.verdictretail.com/uk-online-retail-sales-to-reach-62-7bn-in-2020/
3 Department for Transport Road Traffic Statistics, TRA0101, February 2016 (provisional)
The number of miles driven by vans has increased by 72.2 per cent over the past 20 years, outstripping the growth in cars (up 13.9 per cent) and hgv (up 2.5 per cent) since 1995. Van traffic is expected to rise by 78 per cent between 2010 and 2040 and hgv traffic by 22 per cent.

**Enforcement of existing regulations to be targeted before restrictions are increased**

Quality information is essential for managers to ensure that their drivers meet the required health standards to drive hgv; many of the weaknesses in the current driver medical assessment process were highlighted in the course of the year as the proceedings of the Glasgow fatal accident inquiry became known.

Hgv are already heavily regulated with a number of laws concerning the construction and condition of vehicles and the training health and safety of drivers, as well as the suitability of operating centres. Those engaged in logistics have long advocated greater enforcement of existing hgv and driver regulations and better targeting of seriously non-compliant operators who undermine the efforts of the vast majority.

**Number of fatal accidents per billion lorry miles falls by 3.5 per cent**

The number of fatal accidents per billion lorry miles fell by 3.5 per cent in 2014 compared to 2013, a figure which is 43 per cent lower than a decade ago. However, in spite of the fall in the accident rate, there was an increase in accidents of all severities involving hgv, up 5 per cent in 2014 compared to 2013. This is in line with the general increase in accidents – up by 5.5 per cent for all vehicles. Department for Transport data show that there were the same number of fatal accidents involving hgv in 2014 as in 2013 (240), this is nearly half the number of such accidents in 2005. The accident rate for hgv compares favourably with that for cars at almost half; a road user is still nearly twice as likely to be involved in an accident with a car than an hgv.

**The timing of Clean Air Zone plans needs to be carefully considered**

As understanding of the health impacts of some atmospheric pollutants has grown, the issue of reducing local air quality emissions while preserving the ability to supply towns and cities in a flexible and cost-effective manner has risen in importance.

The Department for Environment, Food and Rural Affairs published its plans for Clean Air Zones in a number of English cities, requiring hgv to meet the most recent Euro VI emissions standards; Scotland is preparing similar plans. The early dates talked about for these zones (2018/19) would disrupt the work of many small and medium sized businesses as the second-hand market in Euro VI/6 hgv and vans will not have fully developed.

Since the 1990s, ever tougher EU emissions standards have delivered massive improvements in the level of harmful emissions from hgv. Early evidence also suggests that Euro VI lorries and buses are emitting significantly less NOx than their predecessors.

**Logistics carbon is reducing while research into decarbonising technologies increases**

According to the Department for Energy and Climate Change, hgv carbon emissions reduced by over 8 per cent between 1990 and 2014; in the same period tonne kilometres increased by 3.6 per cent. Trucks represent 22 per cent of surface transport emissions, while vans represent 14 per cent and cars 57 per cent. With fuel costs making up a high proportion of all hgv operating costs, there is a substantial incentive to save fuel and eco-driving skills are now quite widely in use across UK logistics.

A number of technical innovations to further reduce logistics carbon are also underway, such as trials of alternative fuels, including electric hybrid hgv and wider use of gas and biomethane powered vehicles. Trials of technologies such as platooning, dynamic wireless power transfer and drones all moved closer to reality in 2015.

In order to capitalise on the possibilities offered by new technologies and trends, logistics will need to have access to the right skills and people, together with the wider infrastructure to support it.
logistics dashboard
The logistics dashboard brings together a range of over 50 indicators that provide different perspectives on logistics and the performance of the wider economy. They cover the road transport industry, safety, efficiency, traffic flows and economic indicators. The 2016 edition of the logistics dashboard reflects the ongoing improvement in the UK economy.

The price of oil was a major economic story in the year. Brent Crude fell 39 per cent to a monthly average of $38.90 a barrel in December 2015, filtering through to annual vehicle operating costs for the second year in a row. For the first time in 14 years the forecourt price of diesel was cheaper than petrol in August and September. New hgv registrations were up by a quarter in 2015, reflecting the continued positive economic picture, and road transport operator profit margins increased slightly to 4 per cent in 2015.

All 54 logistics dashboard indicators are represented in the table below.

### Road transport industry

<table>
<thead>
<tr>
<th>KPI</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>Most recent year-on-year change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Reported profit margin of top 100 road hauliers</td>
<td>4%</td>
<td>1%</td>
<td>3%</td>
<td>3%</td>
<td>4%</td>
<td>↑</td>
</tr>
<tr>
<td>2 Number of goods vehicle operator licences</td>
<td>84,072</td>
<td>80,894</td>
<td>77,732</td>
<td>75,595</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Population of hgv licensed</td>
<td>383,941</td>
<td>378,775</td>
<td>385,795</td>
<td>389,784</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 Population of vans licensed</td>
<td>3,293,451</td>
<td>3,320,431</td>
<td>3,388,077</td>
<td>3,499,832</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 Population of hgv trailers</td>
<td>224,714</td>
<td>220,283</td>
<td>222,737</td>
<td>228,286</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 Hgv registrations</td>
<td>42,944</td>
<td>45,702</td>
<td>56,218</td>
<td>41,469</td>
<td>52,064</td>
<td></td>
</tr>
<tr>
<td>7 Van registrations</td>
<td>260,153</td>
<td>239,641</td>
<td>271,073</td>
<td>321,468</td>
<td>371,828</td>
<td></td>
</tr>
<tr>
<td>8 Number of hgv drivers in employment (thousands)</td>
<td>299</td>
<td>290</td>
<td>259</td>
<td>285</td>
<td>299</td>
<td></td>
</tr>
<tr>
<td>9 Claimant count (hgv drivers for December)</td>
<td>5,870</td>
<td>5,050</td>
<td>2,875</td>
<td>1,300</td>
<td>720</td>
<td></td>
</tr>
<tr>
<td>10 Hgv laid up (SORN)</td>
<td>61,979</td>
<td>60,735</td>
<td>71,877</td>
<td>75,072</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Safety

<table>
<thead>
<tr>
<th>KPI</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>Most recent year-on-year change</th>
</tr>
</thead>
<tbody>
<tr>
<td>11 Hgv motor vehicle test pass rate initial (&gt;3.5 tonnes gvw)</td>
<td>75.3%</td>
<td>77.6%</td>
<td>78.4%</td>
<td>80.1%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12 Van test pass rate initial (Class 7)</td>
<td>50.2%</td>
<td>50.3%</td>
<td>49.7%</td>
<td>51.0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13 Hgv roadside encounter prohibition rate percentage – mechanical checks (UK drivers only)</td>
<td>28.4%</td>
<td>29.5%</td>
<td>31.3%</td>
<td>31.0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14 Hgv roadside encounter failure rate percentage – drivers’ hours checks (UK drivers only)</td>
<td>19.7%</td>
<td>19.4%</td>
<td>13.0%</td>
<td>12.4%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15 Hgv roadside encounter failure rate percentage – weight checks (UK drivers only)</td>
<td>60.6%</td>
<td>59.7%</td>
<td>58.2%</td>
<td>59.5%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16 RIDDOR reportable workplace accidents for transport</td>
<td>16,313</td>
<td>11,660</td>
<td>10,931</td>
<td>10,707</td>
<td></td>
<td></td>
</tr>
<tr>
<td>17 Road casualties linked to hgv (number killed or seriously injured)</td>
<td>1,334</td>
<td>1,348</td>
<td>1,354</td>
<td>1,319</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Efficiency

<table>
<thead>
<tr>
<th>KPI</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>Most recent year-on-year change</th>
</tr>
</thead>
<tbody>
<tr>
<td>18 Percentage of hgv empty running</td>
<td>30.2%</td>
<td>28.5%</td>
<td>28.6%</td>
<td>28.8%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>19 Percentage of inland freight moved by rail (billion tonne kilometres)</td>
<td>10.0%</td>
<td>10.0%</td>
<td>12.0%</td>
<td>12.0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20 Lading factor percentage for hgv (&gt;3.5 tonnes gvw)</td>
<td>62.0%</td>
<td>63.0%</td>
<td>63.0%</td>
<td>62.0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>21 Hgv fuel consumption (mpg) (articulated vehicles)</td>
<td>7.9</td>
<td>7.8</td>
<td>7.8</td>
<td>7.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>22 Use of alternative fuels in hgv</td>
<td>1.1 mt of oil equivalent</td>
<td>1.0 mt of oil equivalent</td>
<td>1.1 mt of oil equivalent</td>
<td>1.2 mt of oil equivalent</td>
<td></td>
<td></td>
</tr>
<tr>
<td>23 Average hgv payload capacity (tonnes)</td>
<td>7.5</td>
<td>8.1</td>
<td>8.1</td>
<td>8.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**Traffic flows**

<table>
<thead>
<tr>
<th>KPI</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>Most recent year-on-year change</th>
</tr>
</thead>
<tbody>
<tr>
<td>24</td>
<td>Containers handled by major UK ports (thousand TEUs)</td>
<td>8,141</td>
<td>7,980</td>
<td>8,244</td>
<td>9,511</td>
<td>↑</td>
</tr>
<tr>
<td>25</td>
<td>Freight handled by air (tonnes)</td>
<td>2,297,601</td>
<td>2,302,329</td>
<td>2,262,386</td>
<td>2,304,487</td>
<td>↑</td>
</tr>
<tr>
<td>26</td>
<td>Goods moved by hgv (&gt;3.5 tonnes gvw) (billion tonne kilometres)</td>
<td>145</td>
<td>150</td>
<td>139</td>
<td>136</td>
<td>↓</td>
</tr>
<tr>
<td>27</td>
<td>Van kilometres (billion vehicle kilometres)</td>
<td>66.6</td>
<td>66.4</td>
<td>68.5</td>
<td>72.3</td>
<td>↑</td>
</tr>
<tr>
<td>28</td>
<td>Cabotage within the UK (million tonne kilometres)</td>
<td>1,028</td>
<td>1,048</td>
<td>1,053</td>
<td>1,422</td>
<td>↑</td>
</tr>
<tr>
<td>29</td>
<td>Goods moved by rail (billion tonne kilometres)</td>
<td>20.97</td>
<td>21.47</td>
<td>22.40</td>
<td>22.14</td>
<td>19.34</td>
</tr>
<tr>
<td>30</td>
<td>Goods moved by domestic intermodal rail (billion tonne kilometres)</td>
<td>6.17</td>
<td>6.36</td>
<td>6.20</td>
<td>6.41</td>
<td>6.46</td>
</tr>
<tr>
<td>31</td>
<td>Channel Tunnel rail freight volumes (tonnes)</td>
<td>1,324,673</td>
<td>1,227,139</td>
<td>1,363,834</td>
<td>1,648,047</td>
<td>1,420,826</td>
</tr>
<tr>
<td>32</td>
<td>Number of rail freight train movements</td>
<td>273,897</td>
<td>275,827</td>
<td>288,371</td>
<td>282,304</td>
<td>↓</td>
</tr>
<tr>
<td>33</td>
<td>Rail freight delivery metric (percentage of freight trains arriving at their destination within 15 minutes of scheduled time)</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>94.0%</td>
<td>94.3%</td>
</tr>
<tr>
<td>34</td>
<td>Percentage penetration of cross-Channel market by UK hgv</td>
<td>19.9%</td>
<td>18.7%</td>
<td>16.0%</td>
<td>15.8%</td>
<td>12.5%</td>
</tr>
<tr>
<td>35</td>
<td>Hgv movements to mainland Europe (unaccompanied trailers only)</td>
<td>660,397</td>
<td>619,699</td>
<td>652,060</td>
<td>678,836</td>
<td>731,879</td>
</tr>
<tr>
<td>36</td>
<td>Hgv movements to mainland Europe (all powered vehicles)</td>
<td>1,811,521</td>
<td>1,810,652</td>
<td>2,037,229</td>
<td>2,216,319</td>
<td>2,257,894</td>
</tr>
</tbody>
</table>

**Economic indicators**

**UK ECONOMIC ACTIVITY**

<table>
<thead>
<tr>
<th>KPI</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>Most recent year-on-year change</th>
</tr>
</thead>
<tbody>
<tr>
<td>37</td>
<td>GDP (Q4 annual percentage change)</td>
<td>2.1%</td>
<td>1.0%</td>
<td>2.8%</td>
<td>2.8%</td>
<td>1.9%</td>
</tr>
<tr>
<td>38</td>
<td>Average weekly online retail sales (£ million)</td>
<td>£480.89</td>
<td>£554.47</td>
<td>£639.61</td>
<td>£725.49</td>
<td>£815.72</td>
</tr>
<tr>
<td>39</td>
<td>Volume of goods exported to the EU (annual percentage change)</td>
<td>+6.8%</td>
<td>-7.7%</td>
<td>-1.1%</td>
<td>-0.8%</td>
<td>+7.6%</td>
</tr>
<tr>
<td>40</td>
<td>Volume of goods exported to the rest of the world (annual percentage change)</td>
<td>+11.2%</td>
<td>+5.3%</td>
<td>-0.3%</td>
<td>+1.7%</td>
<td>+4.5%</td>
</tr>
<tr>
<td>41</td>
<td>Volume of goods imported from the EU (annual percentage change)</td>
<td>+3.0%</td>
<td>+2.9%</td>
<td>+5.6%</td>
<td>+6.5%</td>
<td>+4.1%</td>
</tr>
<tr>
<td>42</td>
<td>Volume of goods imported from the rest of the world (annual percentage change)</td>
<td>-1.0%</td>
<td>0.0%</td>
<td>+1.8%</td>
<td>0.0%</td>
<td>+4.9%</td>
</tr>
</tbody>
</table>

**UK INFLATION AND CURRENCY**

<table>
<thead>
<tr>
<th>KPI</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>Most recent year-on-year change</th>
</tr>
</thead>
<tbody>
<tr>
<td>43</td>
<td>Retail Prices Index (annual inflation in December)</td>
<td>4.8%</td>
<td>3.1%</td>
<td>2.7%</td>
<td>1.6%</td>
<td>1.2%</td>
</tr>
<tr>
<td>44</td>
<td>Consumer Prices Index (annual inflation in December)</td>
<td>4.2%</td>
<td>2.7%</td>
<td>2.0%</td>
<td>0.5%</td>
<td>0.2%</td>
</tr>
<tr>
<td>45</td>
<td>£/$ exchange rate (average for December)</td>
<td>$1.5614</td>
<td>$1.6148</td>
<td>$1.6384</td>
<td>$1.5642</td>
<td>$1.4982</td>
</tr>
<tr>
<td>46</td>
<td>£/€ exchange rate (average for December)</td>
<td>€1.1849</td>
<td>€1.2304</td>
<td>€1.1956</td>
<td>€1.2685</td>
<td>€1.3777</td>
</tr>
</tbody>
</table>

**COSTS**

<table>
<thead>
<tr>
<th>KPI</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>Most recent year-on-year change</th>
</tr>
</thead>
<tbody>
<tr>
<td>47</td>
<td>Wage settlements (annual change in basic pay)</td>
<td>+2.6%</td>
<td>+3.0%</td>
<td>+2.2%</td>
<td>2.4%</td>
<td>2.6%</td>
</tr>
<tr>
<td>48</td>
<td>Total hgv operating costs (annual change for 44t gvw artic)</td>
<td>+4.0%</td>
<td>+0.7%</td>
<td>+0.9%</td>
<td>-5.1%</td>
<td>-3.0%</td>
</tr>
</tbody>
</table>

**FUEL**

<table>
<thead>
<tr>
<th>KPI</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>Most recent year-on-year change</th>
</tr>
</thead>
<tbody>
<tr>
<td>49</td>
<td>Bulk diesel (average pence per litre in December ex VAT)</td>
<td>112.05</td>
<td>110.61</td>
<td>109.62</td>
<td>94.18</td>
<td>81.61</td>
</tr>
<tr>
<td>50</td>
<td>Gas oil (average pence per litre in December ex VAT)</td>
<td>64.92</td>
<td>63.47</td>
<td>63.36</td>
<td>47.95</td>
<td>35.66</td>
</tr>
<tr>
<td>51</td>
<td>North West European diesel (average per tonne in December)</td>
<td>$948.10</td>
<td>$955.63</td>
<td>$962.92</td>
<td>$597.88</td>
<td>$354.58</td>
</tr>
<tr>
<td>52</td>
<td>Brent crude (Futures) (average per barrel in December)</td>
<td>$107.72</td>
<td>$109.20</td>
<td>$110.70</td>
<td>$63.46</td>
<td>$38.90</td>
</tr>
<tr>
<td>53</td>
<td>Jet fuel (average per tonne in December)</td>
<td>$987.35</td>
<td>$973.52</td>
<td>$977.58</td>
<td>$603.81</td>
<td>$395.53</td>
</tr>
<tr>
<td>54</td>
<td>Rotterdam gas oil (average per tonne in December)</td>
<td>$926.87</td>
<td>$925.63</td>
<td>$938.50</td>
<td>$574.08</td>
<td>$353.02</td>
</tr>
</tbody>
</table>
prosperity

noun
1. the condition of being prosperous, successful, or thriving.
2. good fortune, success, well-being, wealth.
Logistics and General Election 2015

New government, new challenges

As the year of the General Election began, there was no doubt that the headlines, and the hustings, would be dominated by issues such as the economy and the NHS. Logistics would not, at least directly, feature in many interviews nor would it be the focus of the swaths of campaign literature generated by the various political parties. While the prescience and accuracy of the pollsters was the subject of much soul-searching once the result of the Election became clear over the night of 7 May, few would argue with the relative perception of logistics’ unimportance to most people according to the polls. It is an assessment that feels ‘right’.

Yet in spite of this, logistics is the enabler and a foundation block for our economy and modern lifestyles and expectations. Without logistics, everything would stand still.

Image of logistics

The FTA Logistics Industry Survey asked respondents about their perception of understanding of the role of logistics. It found no real change in the perceptions of government or the public compared to 2014, albeit with levels of public understanding estimated to be lower than government’s (fig 1.1). Once again, such figures underline the wider image problem of transport and, specifically, logistics and the potential for its exposure to adverse and short-term politically-motivated changes in government policy as a consequence.

Key logistics issues

It would be inaccurate to suggest that there was consensus on logistics issues among the political parties in 2015, even though it was not a key differentiator for voters. However, for issues that affect the movement of freight the main political parties pursued similar lines. For example, the promotion of infrastructure investment as set out in the Road Investment Strategy, as well as High Speed 2, the absence of any commitment to cut or at least contain fuel duty levels and the continued devolution of authority on transport issues. Only the Green Party campaigned on the basis of substantive action affecting logistics – to ban lorries without additional safety equipment from cities.

The election of a majority Conservative government meant there were fewer immediate changes in policies than there might otherwise have been. However, the majority government made the likelihood of a referendum on UK membership of the European Union a certainty. Such a move has the potential to foster substantial uncertainty.

---

1. Ipsos MORI Issues Index April 2015

2. The government’s ‘Road Investment Strategy’ (RIS) for the 2015 to 2020 period, as required under the Infrastructure Act 2015. It:
   • outlines the government’s strategic vision for the strategic road network to 2040
   • commits to the delivery of 112 major schemes to start by 2020, as well as the development of a further 15 schemes and six strategic studies
   • specifies the network and company performance that Highways England – the new strategic highways company – is expected to deliver
   • states the funding available to deliver these goals between 2015 and 2021

The three sections that make up the RIS were originally issued as three separate documents in December 2014, alongside the Road investment strategy overview.
disruption both in terms of the implications for business and the effect on politics in the build-up to the referendum and its aftermath – regardless of the outcome.

The UK government set out its negotiating position with the EU in November 2015, with four key points on which to reach agreement. These included: a commitment to protect Single Market access for non-Euro area countries, exempting the UK from the ‘Ever Closer Union’ Treaty clause; promotion of competitiveness; and, welfare reform on in-work benefits for EU migrants. With the forthcoming referendum, business organisations have underlined the need for an informed and balanced debate on such an important subject.

However, for logistics perhaps the most significant implication of the election result was the consolidation of the austerity agenda. Deficit reduction has implications for those that have contracts with the public sector but there are wider implications if spending cuts or tax rises affect the economy in general and therefore the demand for movement of goods.

The deficit agenda also brought the issue of taxation back to the surface since, as well as making cuts, government will also have to raise money. In their manifesto the Conservatives ruled out increases in some taxes, but not fuel duty.

With the heavy global headwinds facing the UK economy and the continuing need to tackle the deficit, the government’s much-vaunted road investment plans appeared to be under threat as Spending Review 2015 took shape. Their emergence from the process unscathed was welcome. However, fundamental reviews into the way the railways are organised may still affect infrastructure for rail freight.

The Airports Commission completed work with the publication of its final report in July 2015, recommending a third runway at Heathrow. However, the government was to face intense criticism from business groups. In December, it announced that despite accepting the case for increased airport capacity in the south east of England the final decision on where the capacity would be located, originally expected before Christmas 2015, was to be delayed pending a final review of the environmental impacts (air and noise pollution).

“The Chancellor must deliver a freight-friendly Budget which recognises the logistics industry is the rock on which the British economy is built.”

Rob Flello MP
(Chair of the All Party Freight Group), 2 July 2015

---

Rain Newton-Smith
Director of Economics, CBI, 3 April 2016

“The Chancellor must deliver a freight-friendly Budget which recognises the logistics industry is the rock on which the British economy is built.”

Rob Flello MP
(Chair of the All Party Freight Group), 2 July 2015

---

The Spending Review is a Treasury-led process to allocate resources across all government departments in accordance with government’s priorities. It is part of the normal Budget process although it does not take place on an annual basis.
The Cities and Local Government Devolution Bill made its way through Parliament. In England, the debate has been about giving city regions more powers, providing they have elected mayors. Trade bodies have emphasised the importance of the inclusion of business views in this process.

Policy actions for government

Logistics delivers a consistent message

Respondents to the FTA Logistics Industry Survey rated policy action priorities for government. The ranking echoed last year’s report, with investment in road improvements, recognising the vital role of logistics in the economy and cutting fuel duty the top three actions FTA members would like government to take (fig 1.2).
Global economy

Growth predictions worsening for advanced economies

At the beginning of 2016, OECD global economic forecasts were revised down, in light of disappointing data. But while growth is slowing in many emerging economies there is a very modest recovery in advanced economies, with low prices depressing commodity exports. However, trade and investment remain weak and sluggish demand is leading to low inflation and inadequate wage and employment growth. Since November 2015, growth predictions have worsened for every member of the G7 group of leading industrial nations – the US, UK, Germany, Japan, Italy, France and Canada.

US output remains on a positive, albeit subdued, growth trajectory with GDP expected to be 2 per cent next year and 2.2 per cent in 2017. In December 2015, the Federal Reserve raised interest rates for the first time since 2006. This signalled improved confidence in the US economy, but there are concerns that further rate increases may adversely affect Dollar-denominated debt repayments for emerging economies and potentially hit funding flows into these countries. It will mean that the cost of exports from Europe and Asia to the US will be reduced, giving exporters in these regions a much-needed boost.

Recovery in the Euro area is set to strengthen by 2017, helped by monetary policy, lower oil prices and an easing of the pace of budget tightening. In Japan, economic recovery was impaired in 2015 by a sharp slowdown in demand from other Asian economies (especially China) and sluggish domestic consumption (growth of 0.8 per cent is expected next year slowing to 0.6 per cent in 2017 due to a planned consumption tax hike).

Economic growth in China slowed to 6.9 per cent in 2015, the lowest growth rate in 25 years and is expected to continue to decline gradually, reaching 6.2 per cent by 2017 as activity rebalances away from investment and towards domestic consumption. Achieving this rebalancing whilst avoiding a sharp reduction in GDP growth and maintaining financial stability presents a significant challenge for the Chinese government.

1.3 Global economic outlook (GDP) for 2016 compared to 2015 (per cent)
Weaker commodity prices, tighter credit conditions and lower output are affecting emerging economies; Brazil and Russia are not expected to return to positive growth within the next two years. By contrast prospects in India remain relatively robust, assisted in the main by lower energy prices. Here, GDP growth is expected to remain over 7 per cent in the coming years, provided further progress is made in implementing structural reforms.

According to the OECD Interim Economic Outlook for February 2016, global growth is expected to be 3.0 per cent in 2016; this would be the same as in 2015 and would represent the slowest pace for five years. The OECD also forecasts that growth will strengthen to 3.3 per cent in 2017.

The OECD report said there should be less austerity and greater public investment. In particular it called on rich-country members to replace austerity with investment in infrastructure projects. The OECD warn that low interest rates and money creation by central banks (or quantitative easing) were no longer enough to guarantee a lasting recovery.

**UK economy**

**Domestic demand tempered by global slowdown**

2015 was a solid, if historically unspectacular, year for the UK economy. Growth for the year was lower than predicted at 2.2 per cent, reflecting the global slowdown and deteriorating export prospects. Growth for 2016 is projected to slow to 2.1 per cent and reduce marginally to 2.0 per cent in 2017.

It is anticipated that UK growth will be propped up by domestic demand, evidenced by household spending data for the latter part of 2015. This increase in household spending is projected to continue, supported by a combination of moderate pay increases and benign inflation.

The number of people employed has steadily increased which has helped to support wage growth, albeit with

---

4 OECD Interim Economic Outlook, February 2016
some softening towards the end of 2015. Wage growth is expected to continue above the rate of inflation, which should support consumer spending in the early months of 2016.

Poor productivity continues to be a significant risk to the UK economy. Forecasts of further improvements in wages are generally predicated on a recovery in productivity and if this fails to materialise, there would be a knock-on risk to GDP growth prospects. Recent recruitment trends have been historically atypical, with robust employment numbers accompanied by a backdrop of muted economic growth. This has done little to improve productivity data. The National Living Wage, introduced on 1 April 2016, will force further salary increases in the UK.

Improving credit conditions are expected to boost the economy through growth in fixed investment and capital spending. However, downside risks persist in the shape of the fortunes of China and possibly, in the longer-term, the potential impact of UK rate rises on the value of Sterling. Indeed, UK manufacturing exports performed poorly throughout 2015 and a continued slowdown in China may lead to further challenges for UK exporters and manufacturers, something that would be exacerbated by any increase in the value of the Pound.

In summary, while the UK economy is expected to continue to grow in 2016, the fortunes of the global economy, the trajectory of inflation and the timing of interest rate rises cannot be ignored and are likely to influence GDP growth and consequently domestic demand and the need for logistics services.

“The Chancellor’s decision, in successive Budgets, not to increase fuel duty has provided much-needed economic relief, not only to the logistics sector, which faces continuing difficult trading conditions but also to the wider motoring public. This provides the kind of stability needed to give businesses the confidence to invest in their future, to the benefit of the wider economy, customers and employees.”

David Wells
Chief Executive, FTA

UK logistics market

Tentative optimism in the face of mixed economic data

Economic activity indicators for logistics improved in 2015. According to FTA’s Logistics Industry Survey, activity in the sector generally increased although the degree of activity was below expectation. Air freight import and export volumes grew as consumer demand improved but sea freight volumes were mixed.

Road freight

The number of goods vehicle operator licences fell 2.75 per cent from 77,732 in 2013/14 to 75,595 in 2014/15, continuing the decreasing trajectory over the past 15 years, and despite the upturn in the UK economy in 2015.
The number of heavy goods vehicles licensed in Great Britain rose only marginally (by 1 per cent) in 2014 compared to 2013 and is still 10 per cent below pre-recession levels. It is likely that companies stockpiled vehicles prior to the introduction of Euro VI at the start of 2014 but also wider economic performance was less positive than expected.

In 2014 the population of trailers increased by 2.5 per cent (based on the number tested) while the number of heavy goods vehicles (SORN) increased by 4.5 per cent compared to 2013. In 2014 the number of licensed vans increased by 3.3 per cent compared to the year before.

Business volumes

Despite improved economic conditions, the UK’s goods trade gap with the rest of the world widened by £1.9 billion to a record high of £125 billion in 2015. Excluding oil and other volatile goods, the deficit was the highest since records began in 1998.

These trading conditions are reflected in the reported business sentiment of the UK freight industry. FTA conducted its annual Logistics Industry Survey in the final quarter of 2015; the majority of member respondents reported that activity within the domestic road freight sector had not met expectations for 2015. The positive turnaround in business volumes in the UK freight transport sector, that began in 2013 and continued into 2014, did not live up to expectations in 2015, resulting in activity levels below those seen in 2014. However, there is an expectation that there will be an increase in domestic activity in 2016.

Across the top five sectors there was an increase in business expectation for 2016 compared to 2015 (fig 1.7). Retail and the related distribution and haulage sectors were the most optimistic for 2016, following record breaking online sales for 2015 (up 12.4 per cent on the previous year according to ONS). However, the construction sector was much more downbeat than a year ago, when the balance of respondents was 85 per cent. House building declined in 2015 and although the construction sector’s contribution to GDP rose by 3.4 per cent in 2015 compared to 2014, it declined by 0.4 per cent in the last quarter.

Last year respondents over-estimated activity expectations for the international road freight market with actual activity sentiment at only 14 per cent (it was expected to be nearly 40 per cent). Recovery in the EU economy in 2015 was sluggish but showed improvement and is expected to strengthen in 2016; this is reflected in the activity sentiment for international road freight (fig 1.8).

In 2015 respondents to the FTA Logistics Industry Survey largely increased their use of third party services, in particular employment of hauliers (fig 1.9). The expectation for 2016 is for a further reduction in their use of contract hire but increased employment of other...
third party services. However, the rate of employment of hauliers was expected to be less than half of that seen in 2015. This indicates a diminished confidence in the UK economy and may also be related to a general shortage of drivers in the industry.

Overall, respondents expressed reduced optimism for economic growth in 2016, compared with the previous year. Just 54 per cent expected the coming year to be better than 2015, compared to a response of over 60 per cent last year (fig 1.10). This represents a reduction in the level of expectation from a year ago.

This muted expectation is reflected elsewhere, for example in the latest CBI survey for 2016 which highlights external events such as the slowdown in China and exposure to volatility in the Euro area as potential threats to the UK economy.
Levels of UK competitiveness were also measured in the FTA Logistics Industry Survey. Respondents reported that competitiveness had remained the same relative to the EU and globally when compared to 2014 (fig 1.11). This possibly reflects the continuing weakened export picture, coupled with the relative strength of Sterling against the Euro during the period. In the fourth quarter of 2015, value of exports (including oil) to other EU countries fell by 0.5 per cent and value of imports (excluding oil) from the EU rose by 2.7 per cent.

1.11 • Average rating of level of competitiveness with EU and globally

---

**Air and sea freight**

According to FTA survey respondents, imports and exports in air freight showed a strong improvement in 2015, in particular exports to the Far East including Japan and North America. Trade with Western Europe showed no increase but this was offset by improved sea freight on the same route (fig 1.12). The improvement in air freight represents a turnaround from the previous year when sea freight strongly outperformed it. This is in agreement with the IATA data for global air freight markets, which showed air cargo volumes (measured in freight tonne kilometres) were up 2.2 per cent in 2015 compared to 2014.

Respondents to the FTA Logistics Industry Survey involved in international shipping reported the strongest trade lane growth in the Middle East and North America, whilst there was a decrease in exports to the Indian sub-continent and Scandinavia (fig 1.13). Import volumes were highest from the Far East. Sluggish world trade, in particular the slowdown in China and subsequent reduction in container demand, affected growth in 2015. The Baltic Dry Index, an assessment of the price of moving major raw materials by sea, reached a low of 519 in December 2015, down by 42 per cent from 891 in December 2014.

At the end of December 2015, the top country for UK exports was the US and the top trading partner for imports was Germany; this is the same as in 2013 and 2014 (figs 1.14 and 1.15).
Air freight market shows growth on all routes in 2015

Key
- Purple: Imports
- Green: Exports
- Increase: ↑
- Decrease: ↓
- No growth: ↔

Note: The size of the arrow boxes indicates degree of growth.
Deep and short sea shipping indicates growth in most shipping lanes for 2015.
### Rail freight

Growth of freight flows to international markets outside the EU is evidenced by continuing improvement in domestic intermodal services; these are strongly linked to deep sea container shipping outside the EU. These services showed a 0.7 per cent increase in 2015 compared to 2014, reflecting the steady growth of the UK economy. Bulk rail services fell by almost 22 per cent in 2015 compared to 2014. This is due to a significant decrease in the amount of coal moved and reflecting the downturn in the power generation sector during 2015 (fig 1.16).

### Fuel prices

Bulk fuel prices at the end of 2015 were all significantly down from a year earlier due to the continued reduction in the price of crude oil. The price of a barrel of crude oil at the end of December 2015 was $37. At an average of 81.6 pence per litre (ppl) for the month, bulk diesel prices in December 2015 were 13.3 per cent lower than

---

### UK top 10 trading partners – exports

<table>
<thead>
<tr>
<th>Rank</th>
<th>2005</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>USA £31,003 million</td>
<td>USA £45,276 million</td>
</tr>
<tr>
<td>2</td>
<td>Germany £22,468 million</td>
<td>Germany £30,352 million</td>
</tr>
<tr>
<td>3</td>
<td>France £19,695 million</td>
<td>Switzerland £22,244 million</td>
</tr>
<tr>
<td>4</td>
<td>Irish Republic £15,114 million</td>
<td>China £18,071 million</td>
</tr>
<tr>
<td>5</td>
<td>Netherlands £12,358 million</td>
<td>France £17,830 million</td>
</tr>
<tr>
<td>6</td>
<td>Belgium £10,952 million</td>
<td>Netherlands £17,338 million</td>
</tr>
<tr>
<td>7</td>
<td>Spain £10,493 million</td>
<td>Irish Republic £16,665 million</td>
</tr>
<tr>
<td>8</td>
<td>Italy £8,561 million</td>
<td>Belgium £11,576 million</td>
</tr>
<tr>
<td>9</td>
<td>Switzerland £8,376 million</td>
<td>Spain £8,855 million</td>
</tr>
<tr>
<td>10</td>
<td>Dubai £4,989 million</td>
<td>Italy £8,403 million</td>
</tr>
</tbody>
</table>
1.17 • Change in principal transport fuel costs in 2015

<table>
<thead>
<tr>
<th>Product</th>
<th>Application</th>
<th>December 2014 price</th>
<th>December 2015 price</th>
<th>% change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diesel</td>
<td>Hgv, vans</td>
<td>94.18 ppl</td>
<td>81.61 ppl</td>
<td>–13.35%</td>
</tr>
<tr>
<td>Gas oil</td>
<td>Rail freight</td>
<td>47.95ppl</td>
<td>35.66ppl</td>
<td>–25.63%</td>
</tr>
<tr>
<td>Marine bunker fuel*</td>
<td>Deep sea shipping</td>
<td>923 (index)</td>
<td>483 (index)</td>
<td>–47.65%</td>
</tr>
<tr>
<td>Jet kerosene</td>
<td>Air freight</td>
<td>$603.81/tonne</td>
<td>$395.53/tonne</td>
<td>–34.49%</td>
</tr>
</tbody>
</table>

*Bunkerworld Index

The outlook for 2016 is for continued low fuel prices, with reports that crude oil may remain cheap for several years to come. The main reasons cited for this are continuing weakness in demand and short to medium-term oversupply, mainly due to the rise in shale oil production in the US. In January 2016, Standard Chartered analysts stated they expected that the price of crude oil may go as low as $10 per barrel. At the same time, Barclays downgraded its estimate of the average price for the year to $37 per barrel from around $60.

For bulk domestic diesel, the expectation is that the price will remain broadly unchanged throughout 2016 (fig 1.18). This reflects the emerging consensus that crude prices will stay low and there will be no sharp upturn in demand in the UK.

Operating costs

According to FTA’s Manager’s Guide to Distribution Costs, total operating costs for a 44 tonne articulated truck fell by 3 per cent in 2015 (fig. 1.19). This compares favourably against a 1.2 per cent increase in the RPI inflation rate in the year to December 2015 and is a...
1.18 • Bulk diesel prices and expectations for 2016

1.19 • Trends in operating costs and haulage rates 2006–2015
result of rises in some input costs being offset by a reduction in fuel costs. Hgv operating cost movement decreased in 2015, although in the long-term it remains higher than the haulage rate trend (which increased by 0.2 per cent in 2015) but the gap has been narrowing over the last two years.

The FTA Logistics Industry Survey found that input costs in 2015 compared to 2014 saw moderate increases, with the exception of fuel, which decreased. The fuel duty freeze helped to reduce the impact of fuel price volatility, in tandem with significant falls in the price of a barrel of oil in 2015. Other costs, such as repair and maintenance and insurance, also saw moderate increases, perhaps due to continued weak inflation throughout the economy.

Freight costs
The FTA Logistics Industry Survey asked respondents whether freight costs for road, air, rail and sea modes had increased or decreased (fig 1.21). Across all modes, the balance of opinion was that costs had increased, albeit at a marginal rate. Responses indicated that costs had increased the most for domestic road freight, followed by international road freight rates. The fall in oil prices in the past year appears to have resulted in reduced inflation in freight costs.

Investment intentions
In line with 2014, 2015 continued to show a slow growing economy, decreasing unemployment and the continued fall in the price of a barrel of oil. Credit terms remained broadly unchanged in 2015 compared to 2014, with 81 per cent indicating that there was ‘no change’ in credit from suppliers and a similar percentage (76 per cent) stating that there was ‘no change’ in credit from their own business to their suppliers. Around 11 per cent stated that credit from suppliers had ‘increased slightly’ with only 1 per cent stating that it had ‘increased a lot’.

Operating margins remained narrow in 2015 at 4 per cent, up from 3 per cent in 2014.
The continuing positive UK economic picture in 2015 is reflected in the levels of hgv\(^5\) and van registrations, which showed significant increases on the previous year. Hgv registrations increased by 26 per cent compared to 2014 and vans by 16 per cent (fig. 1.22).

Fleet investment intentions also saw continued improvement according to the FTA Logistics Industry Survey (fig 1.23). The balance of respondents for hgv, van and trailer fleets all showed that for 2015, investment increased. All fleet investment increases were below the previous year’s expectations, unlike the last year’s survey where they all came in above expectation. Expectations for 2016 indicate healthy growth for hgv but more cautious investment in vans and trailers. The projected investment in hgv is in agreement with an anticipated increase in business volumes for the coming year.

Respondents to the FTA Logistics Industry Survey indicated that other forms of large scale investment plans for 2016 are downscaled from 2015, these in turn were downscaled in the previous two years (fig 1.24). This indicates that while the business outlook is still positive, there is increasing uncertainty around the mid to long-term.

---

5 Hgv – term denoting a heavy goods vehicle (in excess of 3.5 tonnes gross vehicle weight)
The return of the mega deals!

A review of mergers and acquisitions (M&A) activity in the logistics sector

Global transactions

The total value of global M&A transactions in the logistics sector saw a significant increase from £18.9 billion in 2014 to £32.8 billion in 2015, an increase of 74 per cent. However, the volume of transactions increased by only 9 per cent between the two years (2014: 89; 2015: 97) indicating a significant rise in the average size of transaction (Data source: Market IQ).

The rise in average transaction size is explained by the return of the ‘mega deal’. It has been a long time since we saw a mega deal in the logistics sector and then, like buses, five come along at once (see table opposite).

The XPO/Dentressangle transaction came as bit of a surprise to deal watchers in the sector. Prior to the Dentressangle transaction, XPO had been known for acquiring asset light 3PL and last mile delivery businesses, principally in the USA. However, the transaction makes a lot of sense; it gives XPO a huge footprint in Europe (something it did not possess previously). It also doubles its freight forward revenues and significantly increases contract logistics revenue and catapults them into a top 10 global logistics group. Equally as important, it gives XPO access to the fast growing e-fulfilment sector in the UK and Europe.

The FedEx/TNT merger (finally approved by the European Commission in January 2016) follows the disappointment of the failed acquisition of TNT by UPS. The merged group will be the third largest player in the European international express delivery behind DHL and UPS.

What is driving these mega deals? No doubt access to new geographies is key, as well as scale giving rise to cost and revenue synergies. But it is also driven by customers requiring not only an end-to-end service capability, but a geographical one, as well as total supply chain management.

Mid-market deals

Outside of these mega deals, we have continued to see a healthy level of ‘mid-market’ transactions. Noteworthy transactions in 2015 and in the UK included:

- Asian private equity investor, Emergevest, acquired Palletforce, the Staffordshire based consolidation business at a price of £30 million. This is Emergevest’s third acquisition in the UK logistics sector (behind NFT Distribution and Allport Cargo Services) and makes them the largest private equity investor in the sector.
Cathay Investments, a privately held UK distribution group, acquired Amethyst Group from Itochu Corporation of Japan. Amethyst is a leading player in e-fulfilment warehousing and value added services.

Menzies Distribution continued to expand its logistics activities with the acquisition of AJG Parcels.

Uniserve, the Felixstowe based freight forwarder, expanded its contract logistics activities through the acquisition of Seafast Holdings.

BCA Marketplace acquired the automotive logistics business of Eddie Stobart.

**Consolidation to continue**

We believe that consolidation in the global and UK sector will continue for a number of reasons.

- To enable further scale and synergies to be achieved and to be able to invest in service diversification
- Scale enables the investment in new technology to occur. The use of technology is increasingly important to join up data in the supply chain
- Consolidation is supported by the strong levels of liquidity and funding available from the financial community – banks, specialist asset back lenders and private equity investors
- An improving environment for valuation of companies in the sector
- The UK continues to enjoy modest levels of economic growth when compared to Europe. Although, the outcome of the referendum of the UK’s continued membership of the European Union is awaited with interest!

If you would like further information on this subject, please contact Philip Bird at Moore Stephens.

### Largest M&A transactions 2015

<table>
<thead>
<tr>
<th>Date</th>
<th>Target</th>
<th>Acquiror</th>
<th>Value £ billion</th>
</tr>
</thead>
<tbody>
<tr>
<td>February 2015</td>
<td>Toll Holdings Ltd</td>
<td>Japan Post</td>
<td>3.5</td>
</tr>
<tr>
<td>April 2015</td>
<td>TNT Express NV</td>
<td>FEDEX Corp</td>
<td>3.3</td>
</tr>
<tr>
<td>April 2015</td>
<td>Norbert Dentressangle SA</td>
<td>XPO Logistics Inc</td>
<td>1.9</td>
</tr>
<tr>
<td>July 2015</td>
<td>Coyote Logistics LLC</td>
<td>UPS Inc</td>
<td>1.2</td>
</tr>
<tr>
<td>September 2015</td>
<td>Con-Way Inc</td>
<td>XPO Logistics Inc</td>
<td>2.1</td>
</tr>
</tbody>
</table>

**Philip Bird**

Director – Corporate Finance
Moore Stephens LLP
020 7651 1506
philip.bird@moorestephens.com
FTA members responding to the Logistics Industry Survey 2015/16 have been clear about the actions they expect government, business and FTA to prioritise.

Top 3 suggestions for government, industry and FTA

<table>
<thead>
<tr>
<th>Government</th>
<th>Industry</th>
<th>FTA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improve road infrastructure</td>
<td>Improve recruitment</td>
<td>Lobby for training to solve driver shortages</td>
</tr>
<tr>
<td>Reduce fuel duty</td>
<td>Improve the image of the industry</td>
<td>Campaign for lower fuel duty</td>
</tr>
<tr>
<td>Invest in training and apprenticeships</td>
<td>Collaborate more</td>
<td>Promote the industry</td>
</tr>
</tbody>
</table>

The political parties’ credibility on the economy was an important feature of the General Election campaign and the pre-eminence of protecting it has been reiterated by the Chancellor in consecutive Budget statements.

UK logistics continues to face a challenging environment with businesses having to contend with high operating costs and uncertain levels of activity. The Chancellor’s decision not to go ahead with increases in fuel duty in the last Parliament and statement that there would be no further increase in 2015 were welcomed by FTA and the wider motoring public.

The fuel duty freeze has instilled the stability and ‘breathing space’ needed to give businesses the confidence to invest for the future. Ultimately, this allows greater participation and benefits from increased prosperity for the wider economy, customers and employees, whether the investment released takes the form of innovation in the delivery of services, greater focus on training or the investigation and adoption of best practices.

Logistics is a low margin activity (around 4 per cent6) and with upward pressure on wages and other costs, such as tyres and maintenance, it will be highly sensitive to increases in other costs; with limited capacity to absorb price increases. The extremely tight operating margins, coupled with broadly unchanged haulage rates over the past year, are illustrative of an industry that is in desperate need of growth stimulus.

It is vital that operators remain competitive to survive and, as a result, any cost savings through falling oil prices have a strong chance of being passed on to customers. Savings from reduced operating costs due to lower fuel prices are unlikely to be passed on automatically in basic pay rises when there is the risk in the future that when fuel prices recover; their margins will be squeezed even further. Businesses also face driver shortage issues which place an upward pressure on overheads through increased wages and limit the amount of savings which can be passed on to customers. The National Living Wage from April 2016, will drive further salary increases in the UK, presenting challenges for logistics organisations in the year to come.

Increases in input costs affect the prices faced by consumers. To maintain the ability to invest and innovate, these costs need to be tightly controlled. By far the largest, most influential and potentially most volatile of these is fuel. Government, and specifically the Chancellor, plays a major role in supporting this through decisions on fuel duty.

To secure future economic benefits FTA, together with its partners in the FairFuelUK campaign, has proposed a reduction in fuel duty of 3 pence per litre. This case is supported by two studies: the first by CEBR (Centre for Economics and Business Research) and the second (at Treasury’s recommendation) by NIESR (National Institute for Social and Economic Research). Both pieces of work demonstrate that a cut in fuel duties could deliver significant benefits, including creating jobs, boosting GDP and, in some cases, delivering a net increase in tax revenues.

---

6  http://motortransport.co.uk/top100/top-100/motor-transport-top-100-2015/

7  Manager’s Guide to Distribution Costs Update, FTA, January 2016
The price of oil

The price of oil per barrel in 2015 saw two distinct phases. Following dramatic falls in the price of Brent Crude during the second half of 2014, oil prices were subdued at the start of 2015.

A slight recovery took place during the first six months of 2015, partly based on concerns about political unrest across the Middle East and North Africa and the potential impact on global oil supplies. The second half of 2015 saw further falls in the price of oil as demand from Europe and China continued to weaken. The US also moved towards local fracking and natural gas and away from oil imports as its main source of energy. According to analysts, OPEC has not cut oil production at its recent summits in response to the falling price of oil in order to maintain market share and to attempt to force weaker producers, like the shale oil producers in the US, out of the market.

The falling price of oil is being passed on, to an extent, to industry. There is a relationship between the price of oil and the bulk price of diesel but while there have been year-on-year reductions of 13 per cent for bulk diesel prices, at the same time the price of Brent Crude fell 39 per cent to a monthly average of $38.90 a barrel in December 2015. The reason that the full reduction in oil prices has not being directly manifested in bulk diesel prices is two-fold.

1 Oil is priced in US Dollars, so as the Pound gets weaker; the cost of importing fuel rises and this reduces the effect (to some degree) of the drop in the oil prices for UK diesel consumers (£1 bought $1.50 in December 2015, down 4 per cent compared to a year ago). Conversely, as the Pound begins to strengthen, the effect of lower oil prices on UK diesel prices becomes more pronounced.

2 Fuel duty at 57.95 pence per litre (ppl) also dampens the impact of falls in the oil price on bulk diesel prices, reflecting the fact that fuel duty is specified in absolute terms (ie in pence per litre) rather than ad valorem (according to value). Without fuel duty, the reduction in the commodity price more than doubles to a 35 per cent decrease.

Both petrol and diesel forecourt prices remain low as a result of the price of oil falling to an 11-year low of $37 a barrel at the end of December 2015. Due to an increase in diesel refining capacity, the forecourt price of diesel was cheaper than petrol in August and September; the first time this has happened in 14 years. Saudi Arabia, the world’s top crude oil exporter, has turned itself into a major refined-fuels power; offering customers millions of barrels of diesel and potentially triggering a price war with Asian competitors as its exports feed into an already oversupplied market.
productivity

noun

1. the state or quality of being productive.
2. the effectiveness of productive effort, especially in industry, as measured in terms of the rate of output (of goods, products, etc) per unit of input (of labour, materials, equipment, etc).
Productivity

Logistics has a vital role to play in bringing people and products together; it underpins our national wealth and well-being. But without the necessary connectivity, standards and performance from our transport network, and the availability and quality of the human resource needed, logistics cannot function competitively.

Productivity and competitiveness

Improving logistics’ productivity

Productivity matters, the World Economic Forum (WEF) says that “competitiveness – understood as higher productivity – is a key driver of growth and resilience.” Its assessment is that during the global economic crisis, “the more competitive economies systematically outperformed the least competitive in terms of economic growth; they either withstood the crisis better or recovered more quickly.” While investment in infrastructure in its widest sense plays a key role in promoting productivity, WEF also notes that “talent-driven economies are best equipped to adapt to the changes brought about by [the] tech revolution and to reap their benefits.” Countries such as Singapore and New Zealand have created Productivity Commissions to lead change on the part of government and the private sector and, in the UK, the country’s productivity puzzle has been widely discussed and debated ever since the economy began to recover.

“Britain still spends too much, borrows too much, and our weak productivity shows we don’t train enough or build enough or invest enough.

This we are determined to change.”

Rt Hon George Osborne MP
Chancellor of the Exchequer, Budget speech, 5 July 2015


Addressing these issues is central to promoting more efficient, and productive, logistics; enabling goods and services to be delivered more efficiently and when and where they are needed.

‘Productivity’ is a measure of the rate of conversion of work into the output of goods and services. While the UK’s GDP has grown at a greater rate than that of our European neighbours, our productivity has persistently lagged behind, which has in turn hindered wage growth and consumption. This productivity difference has been quite dramatic; the UK produces on average 30 per cent less per hour than workers in Germany; the US and France and 10 per cent less than the average Italian.

Experts’ assessments of the causes and nature of the UK’s productivity shortfall vary significantly but there is a clear expectation that we can perform better. From a logistics perspective, enabling this to happen means building more
and better infrastructure and attracting and developing a skilled workforce. These are areas where government has a clear role. However, many of the levers of productivity growth are in the hands of businesses themselves and increased use of benchmarking and technical innovation can help bring UK logistics up to the standard of its global peers.

In 2015, UK productivity showed some positive signs of recovery, with the third quarter seeing productivity across the economy rising to its highest level on record. The Office of National Statistics also reported that unit labour costs (how much it costs to employ staff) rose, reflecting a pick-up in wages. However, the February 2016 Bank of England Inflation Report indicated that wage growth was weaker than anticipated and that labour costs are expected to rise a little less quickly than previously thought.

As discussed in the previous chapter (Prosperity), there are signs both inside and outside the UK that wider economic forces may be negatively influencing the economy in the short to medium-term. Of particular concern to the freight industry will be any fall-off in the recovery of the British manufacturing industry.

Investing in infrastructure

Reassurance sought over delivery of key projects

Alongside the summer Budget in July, the Chancellor and Business Secretary together launched a Productivity Plan to focus on the central issues. Government acknowledged that “for decades, the UK has not invested well enough in the transport infrastructure that is the lifeblood of business, particularly roads; there have been too many rail failures; and the costs to the economy of not addressing airport capacity constraints are estimated at £30-45 billion.”

Road infrastructure

Government urged to stick to its plans

The UK road network carries 73 per cent of all freight journeys yet it has suffered from a lack of investment by successive governments. The connectivity of the country’s Strategic Road Network compares poorly with our international competitors; for example, since 1990 France has built 2,700 miles of motorway, more than the entire length of the UK motorway network. WEF figures also bear this out, with the performance of the UK’s roads lagging far behind those of countries such as Germany, the Netherlands, Portugal and Spain.

Quality of UK roads – UK ranked 29th

The infrastructure Act received Royal Assent in February, the measures it introduces are intended to make the delivery of infrastructure faster and more efficient through improvements to funding, management and refinement of planning processes. One of the principal changes brought about by the Act was the creation of a new government-owned subsidiary company from 1 April 2015, to be known as Highways England. This took over responsibility for strategic roads from the Highways Agency. The change is intended to support the government’s road investment programme over the next five to six years, with the new body having access to long-term funding and owing greater accountability to Parliament. The Act specified the functions of Highways England and the powers of the Secretary of State and watchdog and monitoring bodies which will be carried out by Transport Focus and the Office of Rail and Road.

As part of the Budget, the Chancellor announced the creation of a Roads Fund, to take effect from 2020–21. Funded directly by the revenues from vehicle excise duty, the Productivity Plan said it would “ensure continued high and stable investment in the strategic road network for generations to come.” Work also started on a second Road Investment Strategy, to be completed before the

---

2 ‘Fixing the Foundations: creating a more prosperous nation’, July 2015, HM Treasury

end of the Parliament and covering the period 2020–25; this would be based on the new Roads Fund. A further Budget announcement was a commitment to invest £100 billion in all types of infrastructure over the course of the current Parliament, “giving long-term certainty and increased funding to the most productive areas of infrastructure spend.” Businesses have responded to these announcements positively, with the number of companies feeling that UK infrastructure development is moving in the right direction, 43 per cent, twice as great as those that feel the position is deteriorating, 23 per cent. However, the same survey of CBI members found that 62 per cent of firms were still unhappy with the rate of progress.

Journeys often start or end away from the Strategic Road Network, so local roads are also an area of concern. Failure to invest in removal of bottlenecks on the local road network could undermine the investment that is being made in strategic roads. The condition of the UK’s road network is also a cause for disquiet. There is an estimated backlog of maintenance works on the local road network of up to £8.6 billion, according to the government. The Asphalt Industry Alliance puts the figure higher than that, saying that although previous years saw an increase in the number of potholes filled in, there had been no change in the amount needed to bring the network up to scratch – it says that £11.8 billion is needed to get the local road network back in reasonable condition.

The situation on Highways England’s motorway and dual carriageway network may also be problematic. Research by Transport Focus reveals that the aspect of the Strategic Road Network in England that hgv drivers most wish to see improved is ‘quality of road surfaces’. Consistent with this, companies report less positive views on the way in which the road network is being maintained, with only 25 per cent believing that (overall) infrastructure maintenance is going the right way, compared to 38 per cent who perceive the UK’s ability to ensure the upkeep of its infrastructure is declining.

The wider debate about city and national devolution has significant and, many commentators argue, serious implications for our transport infrastructure. For example, the planned business rate reform may be empowering for local government. However, it is not yet clear whether central government will rebalance the amounts raised locally to ensure that areas with lower business activity do not suffer an income shortfall with potentially disastrous outcomes for local infrastructure.

---

4 Turning momentum into delivery, CBI/AECOM Infrastructure Survey 2015
5 Fixing the Foundations: creating a more prosperous nation, July 2015, HM Treasury
6 Annual Local Authority Road Maintenance (ALARM) survey, Asphalt Industry Alliance, 2016 (in 2015 it said £12.6 billion was needed)
7 ‘Road users’ priorities for improvements: heavy goods vehicle drivers’, Transport Focus, 2015
Maintenance issues on ageing infrastructure can have extreme consequences and the effects arising from unplanned closure of key routes as a result of the need for repairs, were underlined at the end of the year.

As the busy Christmas season approached, logistics in Scotland was significantly affected when on 4 December the Forth Road Bridge, a major link between Edinburgh and Fife and from the north of Scotland to the south, was closed to all traffic after a crack was discovered in a truss under the carriageway. It was later reopened to vehicles up to 7.5 tonnes gross vehicle weight but not to heavier goods vehicles, which make up 9 per cent of the 28 million vehicles using the bridge each year and account for 32 per cent of the weight it carries.

Substantial disruption was caused to all traffic by the closure, and the Scottish government has repeatedly clashed with opposition parties over the matter: With a number of claims and counter-claims being exchanged over what work had been been done on the bridge and what warnings had been received about potential problems, the Forth Road Bridge Inquiry, reporting in 2016, was established to understand the full picture. In the meantime, delays to repairs as a result of the weather conditions meant the bridge did not fully re-open to all vehicles until 20 February 2016. The problems this caused have promoted a debate about the way in which logistics can be more resilient in the face of significant disruption to key trade routes.

There were fears that transport projects would be the subject of cuts as a result of the forthcoming Spending Review. The Chancellor sought to provide reassurance, “This is about jobs, growth, living standards and ensuring Britain is fit for the future. We must be the builders. At the Spending Review, I will commit to investing £100 billion in infrastructure over the next five years and we are creating an independent commission to give us a long-term, unbiased analysis of the country’s major infrastructure needs.”

John McDonnell, Shadow Chancellor, warned that “the reality is … you can set up these commissions but, unless you commit to the financing of the projects themselves, they’ll simply produce reports that gain dust on ministers’ shelves.”

In October, the formation of the National Infrastructure Commission (NIC) was announced, with Lord Adonis, former Labour Transport Secretary, as interim Chair. The role of the NIC is to think “dispassionately and independently” about Britain’s infrastructure needs and it will oversee the use of £100 billion infrastructure spending that government has promised by 2020. Its initial priority will be to examine connections between northern cities and London’s transport systems (as well as the UK’s energy infrastructure).

Reliability of logistics by road

Levels of congestion on the network have a massive effect on the productivity of logistics. The Productivity Plan warns that “by 2040 the equivalent of more than 100 million working days could be lost to traffic congestion unless action is taken.” This underlines the case for pressing ahead with the road investment plans that have already been made and for future planning in the shape of the second Road Investment Strategy. It is already clear that with the economic upturn, the road network is under renewed strain.

The improved economic picture in 2014 is evident in the upturn in traffic volumes for hgv’s and vans. According to the latest complete data available, hgv traffic increased by 1.9 per cent in 2014, compared with 2013, while van traffic increased by 5.6 per cent (fig 2.1). Despite this increase, hgv traffic is still 12 per cent below its 2007 pre-recession peak.

Reliability of logistics by road

The perceived rate of deterioration in reliability on the road network due to congestion is in line with pre-recession levels (fig 2.2). This is, in part, an indication of the impact of the increase in domestic road freight activity levels in the past two years. A reduction in congestion on the UK road network is crucial for road freight operators both at national and local level; the first Road Investment Strategy and the second, currently in preparation, are central to delivering this improvement.

---

8 Rt Hon George Osborne MP, Chancellor, 30 October 2015
9 John McDonnell MP, Shadow Chancellor; BBC World at One, 30 October 2015
10 NIC will produce a report at the beginning of each Parliament with recommendations for spending on infrastructure projects; politicians will have the final say over schemes
2.2 • Reliability of the road network

Urban/city roads

-59%  -57%  -57%

Motorways/trunk roads

-57%  -57%  -56%

2007  2014  2015

Percentage balance of respondents

The average speed on local ‘A’ roads in England during the weekday morning peak in the year ending September 2015 was 23.6mph. September 2015 saw a 3.5 per cent decrease in speed compared to the same month in 2014. The fall in average speeds observed in recent years is likely to be partly attributed to increases in traffic levels on the ‘A’ road network due to the stronger economy, which can increase levels of congestion on roads. Intermittent rainfall may have played a minor part (fig 2.3).

Rail infrastructure

Is freight still playing the role of ‘Cinderella’?

Following the chaos experienced by rail users at King’s Cross and Paddington stations over Christmas and New Year 2014/15, as a result of over-running engineering works, the delivery of rail infrastructure improvements was never going to be far away from the headlines. In June, Rt Hon Patrick McLoughlin MP, the Transport Secretary, announced that he had ‘paused’ two of Network Rail’s major electrification projects that were suffering from budget problems and that Sir Peter Hendy, the Transport Commissioner for London, was to take...
on the role of Chairman of Network Rail. The projects, on the Trans-Pennine Route and Midlands Main Line, were allowed to restart in September but a series of rail reviews were already in progress to identify what had gone wrong and how to stop it happening again.

- Hendy review of Network Rail's delivery of enhancement projects
- Bowe review of Network Rail's planning and costing of enhancement projects
- Shaw review of longer-term future shape and financing of Network Rail

All three reviews could potentially have negative outcomes for logistics. In the case of the Shaw review, real concerns were voiced about changes to Network Rail's system operator role, given the way that freight crosses geographical route boundaries to a far greater extent than passenger services, and that logistics functions on a 24-hour basis. As a result, there was disquiet about the potential impact of disruptive engineering possessions, diversionary routeing and contingency planning across possible organisational borders in the future.

Finally, while there is a great deal of emphasis being placed on High Speed 2 and electrification schemes, the benefits for freight services are by no means guaranteed or even clear at this stage. In particular, there have been suggestions of the availability of more train paths for freight as a result of released capacity on the 'classic' rail network, but there is no guarantee this will happen. The importance of a rail network that meets logistics' needs is underlined by disappointing recent reliability figures for intermodal services, the sort of business that rail freight must attract if it is to play a serious role in meeting the UK's future logistics' needs. Measures that would promote freight by rail risk being overshadowed by the case for passenger services.

Reliability of logistics by rail

The importance of measures to allow more customers to access rail freight services is underlined by perceptions of road and rail reliability. In the FTA Logistics Industry Survey 2015/16 it was found that the rail network generally maintained its reliability advantage over the road network but, while bulk services showed improvement in 2015, intermodal services experienced a deterioration in reliability (fig 2.4). Even though the level of reliability of roads remained well below that of rail, respondents indicated that the situation was no worse in 2015 than it was in 2014.

Logistics by air

Frustration at further runway decision delays

Respondents to the FTA Logistics Industry Survey 2015/16 who use airports to transport freight said there was neither improvement nor deterioration in UK regional airport congestion, whilst there was a modest increase for international airports. This probably reflects the continued weakness in UK exports, particularly for high value items which are more likely to be moved by air.

Half of CBI members responding to its annual survey of infrastructure issues said they were unhappy with the UK's air links to emerging markets, and 41 per cent said that the failure to build new runway capacity was already affecting their business. Approximately 40 per cent of Britain's imports and exports are dependent on...
air freight. A range of businesses have said that the UK’s ability to access existing and new markets is in danger of being seriously impaired by a failure to invest in Britain’s core infrastructure capacity.

**Quality of air transport – UK ranked 19th**

<table>
<thead>
<tr>
<th>Country</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Netherlands</td>
<td>4th</td>
</tr>
<tr>
<td>Germany</td>
<td>11th</td>
</tr>
<tr>
<td>France</td>
<td>19th</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>19th</td>
</tr>
</tbody>
</table>

The UK only has one hub airport and it is crucial for high value, urgent and otherwise time-sensitive cargoes: Heathrow. The value of goods exported to China through the hub more than doubled in 2014/15. Figures show that more than £7 billion of exports were flown out of the airport to China in the 12 months to November 2015, a rise of 117 per cent from a year earlier.

Overall, £48 billion worth of goods were exported via Heathrow in the period, representing more than a quarter of all UK exports by value.

The figures come from an analysis by HM Revenue and Customs. The United States remained the biggest destination for goods, with exports valued at £14 billion, followed by China (£7.6 billion) and Hong Kong (£4.5 billion). Precious metals accounted for the biggest commodity transported through the airport, followed by aircraft parts, jewellery, medical goods and paintings.

In November, Heathrow announced plans to invest £180 million in its cargo facilities, enabling it to halve processing times and double the volume of air freight cargo it handles. However, FTA, among others, has said that a third runway is crucial to enable the airport to remain competitive. There have also been concerns about the damage the delay causes to the UK’s international reputation and the signal sent to overseas investors.

“The Productivity Plan also contained a commitment to “take a decision on airport capacity in the south east by the end of the year.” The Airports Commission, led by Sir Howard Davies, published its final report at the start of July; this included its recommendations for expanding aviation capacity and its assessment of the options it had already shortlisted at Heathrow and Gatwick. It recommended expansion at Heathrow, the option advocated by many engaged in logistics and, overwhelmingly, by the wider business community. However, in a move described as an “abject failure of leadership” by the Director General of the CBI, the government announced in December that, despite accepting the case for further airport capacity in the south east of England, its long-awaited decision on which airport should be expanded was to be delayed. Explaining

“A productivity plan means boosting education and skills, and giving incentives for training and apprenticeships. Plenty is being done on this, though governments can probably never do enough.

It should also mean investing in and updating the infrastructure in a timely way and here you realise that this productivity thing is not so easy. In presenting the findings of his Airports Commission, Sir Howard Davies fired the starting gun, not on diggers breaking ground for Heathrow’s third runway but on a prolonged period of argument and dithering.”

Economic Outlook: Osborne needs to push the button on productivity, The Times, 5 July 2015

---

12 ‘Heathrow exporters look towards China’, Graeme Paton, The Times, November 11 2015
13 Business Voice, CBI, 30 December 2015
the reasons, the Transport Secretary said it would allow further investigations to take place to: build confidence that expansion can take place within air quality legal limits; deal with concerns about noise; consider measures to mitigate carbon impacts and address sustainability concerns; and manage the impacts on local communities. The government says it expects to conclude this package of work by summer 2016, meaning the timetable for delivering additional capacity set out by Sir Howard Davies will not alter.

It had been thought that the government was likely to accept the findings of the independent Airports Commission study, which recommended a third runway at Heathrow as a preferable choice to additional runway capacity at Gatwick. However, politically this is a very difficult issue, with many senior Cabinet members opposed to Heathrow expansion, and David Cameron himself having made a firm “no ifs, no buts” promise against a third runway before becoming Prime Minister. It is also undeniable that any decision to expand runway capacity at Heathrow can be expected to have long-term implications for the way that air quality is managed in London and the south east of England.

**Sea freight and seaports**

**Landside issues still a factor**

Internationally, debate continued throughout 2015 on the trend for bigger vessels, the possible impact of this on freight rates, and the impetus for larger carriers to seek alliances. In January 2015, the world’s largest container ship arrived in the UK for the first time. The Hong Kong registered CSCL Globe, measuring more than 400m in length, docked at Felixstowe loaded with about 19,000 standard containers. The previous largest ship to have docked at the port was the Maersk Triple-E, which arrived in November carrying 18,000 containers. These ships carry everything from food and drink to clothing, electrical goods and furniture.

Global port disruption on the immense scale seen in 2014 appears to have abated. But it is still an issue, according to Containerisation International14 (fig 2.5). Fifty one per cent of respondents to their survey said}

“The move towards ever bigger vessels poses a risk to ports which lack the capacity to handle them. International trade is shifting towards big, centralised hubs. And smaller ports... are losing many of their direct connections.

To avoid this fate, port authorities in some countries are now investing heavily in upgrading their infrastructure to handle larger vessels. Recent developments in Liverpool and London have already brought traffic back to those British ports.”

Container shipping – the big-box game

The Economist, 31 October 2015
that they thought alliances were contributing to port disruption (with 32 per cent unsure and only 17 per cent saying ‘no’); there were also concerns at the impact of larger ships on freight rate instability (vessels which were ordered before the global recession took hold). Global freight lanes are being changed by increased quantities of freight on fewer routes as a result of the combined effect of these trends; this in turn may have an impact on port activity and demand and planning of inland haulage. Cheaper container rates may be good for customers but how long will they last?

The FTA Logistics Industry Survey 2015/16 asked users of the country’s seaports and airports to rate the improvement or deterioration in congestion. Respondents who use seaports indicated that congestion had become worse in 2015 (fig 2.6). Of particular concern were the capacity of access roads and capacity of the ports themselves, although availability of road inland haulage for containers was less of an issue compared to last year.

Significant investment has been taking place at British ports, including the new Liverpool 2 deep-sea container berths, construction of a third berth at London Gateway, a major acquisition of land that will allow expansion at the Port of Tilbury, ongoing improvements at Teesport, as well as the Dover Western Docks Revival scheme and the development of the Green Port Hull project.

In terms of government investment, transport represents over a third of the infrastructure pipeline, including delivery of Network Rail’s Control Period 5 investment and the first Road Investment Strategy. As a major infrastructure skills employer, transport projects also represent a more significant short-term demand on skills and resources, with peak demand stretching across 2015 to 2020; the availability of people to deliver the schemes for which funding was allocated became a real concern.

“At a time when we’ve committed £100 billion to spend on infrastructure, when we’re building Crossrail, Thameslink, Northern Hub, HS2, and when we’re delivering £15 billion to update our roads and motorways, we urgently need to develop a new generation of engineers, surveyors, designers and construction professionals, as well as all the highly skilled people needed to operate the networks once they’re built.”

Lord Ahmad of Wimbledon
Transport Minister, October 2015
Securing necessary skills

Steps towards solving a big problem

Logistics employs 1.62 million people directly and 2.35 million in broader occupations, accounting for 7.6 per cent of the UK workforce. Large goods vehicle (LGV)\(^{15}\) drivers now comprise 13 per cent of logistics employees and 1 per cent of employees over the entire UK economy (fig 2.7).

As the economy emerges from recession, many parts of industry are reporting concerns over shortages of key skills. Logistics faces its own skills challenges which have been widely publicised. Companies generally report delays in recruiting permanent and temporary LGV drivers, as well as fleet managers, technicians and engineers.

The government is seeking to address the UK’s skills weaknesses and the lack of respected employer-led professional and technical qualifications through various policies, including targeted improvements to schools and the introduction of an Apprenticeship Levy.

The Apprenticeship Levy was announced in the July Budget and will come into effect in April 2017, at a rate of 0.5 per cent of an employer’s pay bill. A £15,000 allowance for employers will mean that the levy will only be paid on employers’ pay bills over £3 million. According to the government, only 2 per cent of employers will pay the levy although all businesses will be able to access apprenticeship funding. There were concerns that logistics businesses, many of which are large employers, would be unable to secure funding through the levy due to the lack of an LGV driver apprenticeship. However, in December the Minister for Skills announced that the HGV Trailblazer Driver Standard had been approved. This was an important step forward, underlining that driving is a professional career, but so far government has failed

“...We are not attracting younger people into the industry because we cannot fund the licence. Even though it is primarily aimed at 17 to 19 year olds, people are not attracted to our apprenticeship because it does not deliver what a normal apprenticeship would do, where at the end of one year, two years or three years the employee has a fully qualified young person able to do the job. Unless we can get that vocational licence included we are not going to achieve what is needed through apprenticeships.”

Colin Snape
HR Manager, Nagel Langdons Ltd
Speaking to the Transport Select Committee

---

\(^{15}\) The terms large goods vehicle (LGV) and heavy goods vehicle (HGV) are used in legislation to describe freight vehicles over 3.5 tonnes gross vehicle weight. The terms are interchangeable. LGV is more commonly used in respect of driving licence regulation (including EU legislation).

### 2.7 Broad definition of employment in logistics

<table>
<thead>
<tr>
<th>Logistics occupations</th>
<th>Employment</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Logistics sector</td>
<td>All other sectors</td>
</tr>
<tr>
<td>Purchasing managers and directors</td>
<td>5,181</td>
<td>49,870</td>
</tr>
<tr>
<td>Managers and directors in transport and logistics</td>
<td>34,326</td>
<td>44,688</td>
</tr>
<tr>
<td>Managers and directors in storage and warehousing</td>
<td>26,554</td>
<td>57,641</td>
</tr>
<tr>
<td>Importers and exporters</td>
<td>5,181</td>
<td>5,829</td>
</tr>
<tr>
<td>Transport and distribution clerks and assistants</td>
<td>24,611</td>
<td>38,859</td>
</tr>
<tr>
<td>Large goods vehicle drivers</td>
<td>188,468</td>
<td>110,749</td>
</tr>
<tr>
<td>Van drivers</td>
<td>88,729</td>
<td>107,511</td>
</tr>
<tr>
<td>Fork-lift truck drivers</td>
<td>30,440</td>
<td>55,698</td>
</tr>
<tr>
<td>Postal workers, mail sorters, messengers and couriers</td>
<td>127,588</td>
<td>29,145</td>
</tr>
<tr>
<td>Elementary storage occupations</td>
<td>161,914</td>
<td>229,918</td>
</tr>
<tr>
<td>Other occupations</td>
<td>927,443</td>
<td>927,443</td>
</tr>
<tr>
<td>Total</td>
<td>1,620,435</td>
<td>729,908</td>
</tr>
</tbody>
</table>
to address the issue of a lack of more general vocational training funding.

FTA Logistics Industry Survey respondents were asked to state whether or not they were anticipating staffing issues in 2016. Of those who said ‘yes’, the majority said this was due to a shortage of drivers. The responses were weighted by fleet size and separated by sector. It was found that 72 per cent were anticipating problems, with the distribution and haulage sector indicating that it had by far the most significant problem (fig 2.8).

Over the past year, pay has increased reflecting current demand. In 2015, basic pay for transport staff rose by 2.6 per cent which is 1.4 per cent higher than the RPI inflation rate of 1.2 per cent for the same period. This is also above average earnings annual growth of 2 per cent for the three months to December 2015 (excluding bonuses). In the survey respondents indicated that they expected to increase salaries in 2016, as they had in 2015, although the balance of the increase was less than it was a year ago (fig 2.9). So, the trend of increased salaries is expected to continue in 2016, albeit at a notably more subdued pace. For example, the number of respondents anticipating pay freezes was 34 per cent for 2016, compared to the 28 per cent who reported pay freezes for 2015.

In spite of these increases, the public perception appears to be that driving is a poorly paid job, although lgv drivers can expect to earn around £30,000 per annum. Increasing pay does not necessarily resolve problems recruiting drivers but drivers’ remuneration does underline the competitiveness of the roles offered in logistics.
The expectation that businesses will require more permanent full time staff, especially drivers, in 2016 (fig 2.10).

**Logistics skills shortage**

**Measuring the extent of the driver crisis**

Some jobs are harder to fill than others and in recent years recruiting LGV drivers has proven to be an intractable issue for logistics. It has been compounded by the consequences of economic growth: resource requirements of the rise in e-commerce; increased consumer demand for goods; and ambitions to grow worldwide trade through other strands of the government’s productivity agenda. Yet there is still a lack of funding for vocational training. There are concerns that failure to address the shortage of LGV drivers could act as a significant brake on the economy.

Over 500 delegates gathered at the FTA Skills Summit in March to explore the key issues and better understand the solutions. The government also committed to address some of the key issues, which was welcomed although outputs from these undertakings are awaited.

“The government will review the speed with which heavy goods vehicles (LGV) driving tests and driver medical assessments currently take place and will consider options to accelerate both in order to help address the shortage of qualified LGV drivers. The government will also work with road haulage firms on an industry-led solution to the driver shortage, including looking at the right level of access to, and funding support for, training.”

---

[16] Budget 2015, HM Treasury, March 2015
**Driver shortage in numbers**

The shortage is currently estimated at 45,000 lgv drivers. In the second quarter of 2015, according to the ONS Labour Force Survey, there were 299,217 people employed as lgv drivers, compared with 323,530 professional drivers 10 years earlier (a reduction of 7.5 per cent). However, trends in general employment indicate that there were a total of over 30.95 million jobs in August 2015 compared to 28.93 million 10 years earlier, an increase of 7 per cent (fig 2.11).

While total employment numbers have increased over the last 15 years (in spite of the recession) there has been a significant fall in the number of lgv drivers (dropping by 15 per cent from 2001 to 2013). The number of drivers in employment increased over the period from Q2 2014 to Q2 2015 (up by 5 per cent) but this was in line with a reduction in general unemployment due to improved economic conditions and is still below pre-recession levels.

**Lgv drivers in employment compared to general employment**

2.11 • Lgv drivers in employment compared to general employment in the past 10 years

<table>
<thead>
<tr>
<th>Year</th>
<th>General population</th>
<th>Lgv drivers</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>29 million</td>
<td>323,530</td>
</tr>
<tr>
<td>2015</td>
<td>31 million</td>
<td>299,217</td>
</tr>
</tbody>
</table>

Analysis of the latest UK Labour Market statistics published by the ONS17 shows that the number of lgv drivers claiming Jobseeker’s Allowance was 720 in December 2015, down 45 per cent from 1,300 a year ago (fig 2.12). This is the second lowest figure recorded during the last 10 years and is 95 per cent lower than the peak of 15,255 in March 2009 during the economic downturn. This declining claimant count underlines the lack of trained drivers coming through to fill vacancies.

**WHAT IS A GOODS VEHICLE DRIVER?**

“Lgv drivers drive in a safe and fuel efficient manner, ensuring that the right products are delivered at the right time, location and temperature (if required), with the correct documentation and within the shortest lead times. They are responsible for maintaining the integrity of load and vehicle by applying correct procedures for restraint, road, health and safety. They may work within one or more sub-sectors, including shipping, removals, import/export, freight, hazardous goods and food. Lgv drivers will deliver to a range of settings, such as warehouses, shops and private homes, and their customer base will range from large global organisations to sole traders and private customers. They may be required to work in shifts and will usually work alone. They operate in many different localities such as inner city, towns and rural locations.

“Lgv drivers communicate with a wide range of people and customers, and strive to meet expectations by providing a quality service that encourages repeat business, showing drive and energy even when challenges arise. Individuals in this role are highly competent in using industry-recognised systems (such as systems for reporting defects) and associated services, eg customer specifics on packaging or labelling, and will be able to work under pressure to tight deadlines.”

Extract in quotes from the Supply Chain Specialist Large Goods Vehicle (LGV) Driver Level 2 Apprenticeship Standard (Trailblazer apprenticeship)

---

Over the last 15 years there has been a steady increase in average LGV driver age, rising from 45.3 years in 2001 to 48 years at the present time (fig 2.13). This underscores the need for logistics to widen its appeal to younger candidates.

Data on age from the Labour Force Survey (2015) reveal that over 64 per cent of LGV drivers are 45 years or older. This is vastly different from the demographics of the economy as a whole in which the population aged 45 years or older in employment is around 46 per cent. Only 1 per cent of employed drivers are under 25, whereas 10 per cent of the total employed population is under 25 (fig 2.14).

The latest figures from the Skills Funding Agency and the Department for Business, Innovation and Skills (October 2015) indicate that 4,930 people started apprenticeship programmes learning to drive goods vehicles in 2014/15. This is an increase of 23 per cent compared to 2013/14 bringing to an end a period of falling numbers. However, the number of participants starting such apprenticeships is 35 per cent lower than in 2011/12 (fig 2.16).

---

19 Initial qualification figures represent new entrants to the industry who did not hold a category C licence prior to 10 September 2009
The pass rate for LGV drivers may also affect the number of drivers in employment. It has gradually improved since 2008, but only around half of those taking the test pass it\(^2\) (fig 2.17).

### Practical large goods vehicle test: Great Britain

<table>
<thead>
<tr>
<th>Year</th>
<th>Tests</th>
<th>Passes</th>
<th>% pass rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>69,386</td>
<td>33,708</td>
<td>48.6%</td>
</tr>
<tr>
<td>2009</td>
<td>50,626</td>
<td>25,680</td>
<td>50.7%</td>
</tr>
<tr>
<td>2010</td>
<td>41,174</td>
<td>21,267</td>
<td>51.7%</td>
</tr>
<tr>
<td>2011</td>
<td>47,069</td>
<td>24,639</td>
<td>52.3%</td>
</tr>
<tr>
<td>2012</td>
<td>46,744</td>
<td>24,634</td>
<td>52.7%</td>
</tr>
<tr>
<td>2013</td>
<td>47,511</td>
<td>25,679</td>
<td>54.0%</td>
</tr>
<tr>
<td>2014</td>
<td>51,530</td>
<td>28,486</td>
<td>55.3%</td>
</tr>
<tr>
<td>2015 (to September)</td>
<td>49,864</td>
<td>27,513</td>
<td>55.2%</td>
</tr>
</tbody>
</table>

Comparing the first nine months of 2015 with the same period in 2014, in which there were a total of 37,401 tests, shows that for the year to September 2015 there was a 33 per cent increase on the previous year. Extrapolating this increase to the end of 2015 yields a projected number of tests of 68,535 for the whole year.

It appears that some indicators are starting to become more positive for logistics. According to FTA’s Quarterly Transport Activity Survey (QTAS) January 2016, FTA members reported less difficulty in recruiting drivers in the fourth quarter of 2015 compared to the third. However, this only represents a slight improvement in the skills challenges facing logistics. In Q2 2009, just over 20 per cent of respondents had problems recruiting LGV drivers, this has now increased to around 75 per cent (fig 2.18).

### Driver shortage barriers and solutions

In June 2015, FTA conducted its Transport Manager Survey and found that in recent months over 46 per cent of respondents reported in recent months they were either unable to fill LGV driver vacancies or had experienced long delays in doing so. Only 27 per cent of transport managers reported that they had experienced no issues at all.

‘Financial cost of acquiring a licence’ was ranked as the greatest barrier to driver recruitment, followed by ‘lack of apprenticeship schemes’ and poor ‘industry image’ (fig 2.19).

### Respondents’ indicated that increasing the availability and funding for apprenticeships was the most important measure to address the problem of recruitment and deployment (fig 2.20).

---

“Our freight and logistics sector keeps the shelves in our shops stocked, and, in a literal sense, drives economic growth. Our lorry drivers in particular deserve to be commended for that. There are not many other occupations in which someone’s place of work means they are unclear about where they are going to get their next meal, where they will next sleep, and even when they will next get to use the toilet.”

Richard Burden MP (Shadow Transport Minister) 22 March 2016

If logistics is to retain drivers within the profession, as well as promote lgv driving to potential recruits (especially women), then practical measures must be taken, such as the improvement of facilities. There is also a safety aspect to this; if a driver knows there are no available toilets then they are likely to refrain from keeping themselves hydrated, leading to tiredness. Facilities need to be more widely available and not just across the motorway network.

Taking the 45-minute break required under EU drivers’ hours rules is being made harder with laybys closing across the UK and parking restrictions being imposed around industrial estates and regional distribution centres (RDCs). Logistics desperately needs more high quality places to stop across the network.

With an ageing workforce and growing demand for movement of goods, increasing the attractiveness of logistics and lgv driving, in particular to school-leavers and a more diverse talent pool, dominates the search for solutions. There is a need to make the image of transport better and relevant to people’s lives to attract the best candidates from all sections of society.

Adding more constraints to the driver role risks making the job more stressful for employees and consequently less attractive. For example, introducing restrictions on daytime deliveries would create an artificial timeframe for deliveries that drivers have to work within; it would also require drivers to work more unsociable hours which would deter potential recruits. The issues surrounding daytime delivery bans are considered in more detail in the following chapter (Resilience).
In its latest analysis accompanying the 2016 Budget statement, the Office for Budget Responsibility revised down potential UK productivity growth, saying “The data available in November showed a pick-up in productivity growth in mid-2015, consistent with our assumption that the receding financial crisis would exert less of a drag … but more recent data suggest that this was another false dawn”. For the UK, with its historic productivity shortfall in comparison to its neighbouring competitors, this is a source of continued frustration and underlines the urgent need for action.

There appears to be consensus that improvements in infrastructure, including that for transport, and increasing workforce skills are important elements of the solution. While some of the responses needed may be industry-led, especially in respect of improving the image of careers in logistics and securing the necessary skills and talent, others require actions and investment from government.

**Infrastructure**

FTA supported the establishment of the first Road Investment Strategy and welcomed it as good news for freight and logistics. FTA believes that the government is right to put so much emphasis on infrastructure – these networks are crucial to delivering economic growth.

However, given the unprecedented levels of government and private sector funds being made available, it is essential to ensure efficient and effective delivery of projects. The National Infrastructure Delivery Plan has been a welcome development as it presents a co-ordinated and comprehensive view of what needs to be delivered over the next few years and establishes a process for identifying what comes next.

FTA has called on government to follow a number of core principles in infrastructure delivery.

**Road**

- Protect the Road Investment Strategy and ensure it continues to provide sufficient funding to deliver the full approved programme of road improvements
- Enhance revenue budgets to allow for improved maintenance of existing roads on both the strategic and local authority road networks (in particular road surface defects, ie potholes)
- Ensure that local authority funding is sufficient to allow them to support road enhancements to deliver improved connectivity to/from the Strategic Road Network and key freight generators (such as ports, airports and strategic interchanges)
- Make certain that both Highways England and local authorities have sufficient funding available to support the development of new, and improvement of existing, roadside facilities for drivers
- Ensure that as part of the process of devolution of transport responsibilities and creation of elected mayors, businesses’ needs – including those of logistics – are fully considered
- Learn the lessons from instances of failures of key sections of infrastructure, such as the Forth Road Bridge, and ensure that contingency planning is better understood to allow for the smooth, continued operation of logistics

**Rail**

- Secure increased capacity for rail freight on the ‘classic’ railway network during the construction of High Speed 2 and once it is in place
- Ensure that the outcome of the recent reviews into the railways does not undermine the delivery of the Strategic Freight Network and that freight track access charges remain at a marginal cost

**Air**

- Support Heathrow expansion, given the importance this airport has for the air freight sector, with its facilities, transport links and global air connections
- Follow a noise management strategy in a Heathrow expansion scenario that takes a balanced approach, and only introduces operational restrictions as a last resort

**Sea**

- Deliver on the pledge to “ensure that airports and ports are better integrated into the wider transport network” (road and rail) and the projects in the Road Investment Strategy which will improve port access
Use the study into how best to manage ‘last mile’ road access to international gateways, which is currently underway, to inform development and delivery of the second Road Investment Strategy.

Image and skills shortage

The current shortage of key driving and other skills is adversely affecting logistics. Part of the issue appears to be the relative unattractiveness of careers in the sector, especially for the key 16–24 age group. It is also a key economic function that is little understood by the general public and, significantly, by many policy makers – sometimes resulting in burdensome and inefficient regulation.

These factors are borne out by research conducted for FTA24 into public perceptions of the industry and highlight the need for concerted, industry-led action to address the image issues by focusing on:

- closing the gap between perception and reality
- working with government with respect to realistic and sustainable transport policies
- better engagement with the public to address the skills shortages within the industry
- better engagement with the logistics industry and other stakeholders to promote careers in logistics

FTA has championed a number of initiatives to promote roles in logistics to younger people in particular and to identify the issues and solutions to the skills shortage. ‘Think Logistics’25, run by Career Ready and sponsored by FTA, is working to promote logistics in colleges, supported by many individuals from FTA member businesses. This has included the Skills Show 2015, attended by 100,000 pupils. FTA held its first Skills Summit to address the issues in March 2015, followed up by a further event in March 2016. These events have each brought together around 500 people to collectively debate and discuss the skills shortage.

Government can help logistics to address the skills shortage by:

- speeding up driver medicals and improving availability of driving tests – a government working group has been set up to look into this
- responding to calls from FTA for the Driver and Vehicle Licensing Agency to provide more business-friendly, preferably online, licence checking facilities
- working with industry to create or adapt a loan scheme for those seeking to acquire vocational skills
- considering the role of tax reliefs for employers to encourage business investment in training for employees
- designing and collecting the Apprenticeship Levy in a way which boosts the availability and quality of apprenticeships which meet industry’s needs
- ensuring that licence acquisition training, which forms an integral part of a Trailblazer apprenticeship, can receive appropriate funding.

---

24 FTA Research into public perceptions of the image of the logistics industry’, DJS Research, 2016
25 www.think-logistics.co.uk
resilience

noun
1. the quality or fact of being able to recover quickly or easily from, or resist being affected by, a misfortune, shock, illness, etc.
2. robustness; adaptability.
Board priorities

Site and road safety top the list

Successive FTA Logistics Industry Surveys have demonstrated how important safety and environmental concerns are to logistics. The FTA 2015/16 Survey asked members to rank company board priorities for the coming year (fig 3.1). As in previous years, site and road safety topped the list with only marginal differences between the two rankings. This underlines how reducing accidents on the road remains a top priority for logistics company boards.

Cross-Channel disruption

Factors combine to cause supply chain chaos

Only about 12 per cent of the trucks that come across the Dover Strait are registered in Britain, yet the effects of the chaotic situation in Calais have been felt by supply chains and operators around the UK. From 23 June to 2 August, Operation Stack was in force on no less than 28 days.

The safety of employees is a key issue for boards, as the graph shows. Yet many drivers on international road journeys in the course of the year felt threatened and concerned for their safety as a result of the actions of would-be migrants gathered in proximity to the Channel crossings and their increasingly desperate attempts to cross the Dover Strait. The UK’s international trade routes were also affected.
The summer of 2015 marked a period of increased cross-Channel activity. As the economy expanded, and demand for freight movement on the trade route grew, the number of vehicles needing to use the Channel ports and Channel Tunnel steadily increased. At the same time, the holiday season meant that the ferries and Channel Tunnel reached peak demand for tourist traffic. However, significant additional factors came into play to constrain and interrupt services. The sale of Eurotunnel’s MyFerryLink operation to DFDS, following a legal decision in the UK, resulted in industrial action by company workers leading to delays and closures to Eurotunnel and to the ferry port. In the short-term, the cessation of MyFerryLink operations, the action which precipitated the strike, also resulted in removal of ferry capacity on the route, adding to the queues.

These service disruptions at the Port of Calais and Tunnel provided an opportunity for increasingly desperate people living in the ‘Jungle’ on the edge of Calais to take advantage of the queues of waiting vehicles to attempt to access the Channel Tunnel on a nightly basis, with such action becoming commonplace. Drivers, concerned to avoid penalties for migrants they might unknowingly be carrying in their vehicles, demanded increased checks on departure, resulting in even longer delays.

As a result, delays built up on the UK side as well and Operation Stack was implemented on the M20 in Kent. The system was only designed to queue hgv’s in extreme weather conditions or other emergency circumstances and was not fit for this purpose; 35 miles of the motorway were closed on over 20 separate occasions in just six weeks. With over 3,000 trucks parked on the major Dover and Folkestone route, the result was chaos on the roads of Kent and a devastating impact on affected UK and international road freight operators (costing the industry around £750,000 per day according to FTA calculations), as were residents, tourist traffic and local operators. Freight operators near junctions 8 and 9 of the M20 were crippled by closures of the motorway as their lorries were repeatedly gridlocked. The consequences for UK trade and competitiveness became increasingly clear to government.

The British Standards Institute warned of wider consequences, “essential shipments of goods and medical supplies are being delayed and destroyed as a result of the European migration crisis, costing a collective $1bn to the UK economy in the last year alone” adding that “in September, Europe saw the highest number of border closures since the signing of the Schengen Agreement in 1995. With the number of families and individuals displaced by war across Africa and the Middle East growing 50 per cent year on year … costs to international shippers will continue to rise.”

The government’s COBRA emergency committee met on a number of occasions to discuss the situation in Calais and review the implementation of contingency plans. On 31 July, Prime Minister David Cameron announced additional measures to strengthen security at Coquelles and alleviate pressure on the road network in Kent caused by Operation Stack. The UK deployed additional Border Force staff and sniffer dogs in northern France and extra gendarmes were deployed by the French government. The UK also agreed to provide additional funding towards increasing security at the Channel Tunnel railhead at Coquelles. Detection technology was also upgraded at ports in northern France and Belgium.

A new fence, paid for out of £7m made available by the UK government, has been built to try to stop migrants gaining illegal entry via the Channel Tunnel. The barbed-wire topped barrier, installed in Calais and the nearby terminal at Coquelles, is intended to secure 1.6km (one mile) of Eurotunnel’s shuttle platform area where
migrants attempt to board waiting and slow-moving trains destined for the UK.

At the height of the disruption, a relaxation of enforcement of EU drivers’ hours rules was granted, in recognition of the significant supply chain dislocation the disturbances and delays had caused.

Measures were also put in place to ensure the faster transit of so-called ‘quick to market’ goods, such as: livestock and other live loads (including live shellfish); fresh produce, including fish and meat; hazardous goods – explosive and radioactive materials; emergency medicines, equipment for critical care and any other material required to preserve life; and items critical for humanitarian need and welfare of the nation. Manston Airfield was temporarily identified as a location to queue vehicles in the event of a recurrence of the scenes that took place in the summer; this was a temporary solution and Highways England soon consulted on proposals for a permanent lorry park.

The issues in Calais, including concerns over the safety of hgv drivers, persist; there are also fears that the issue may spread to other Channel ports. While companies struggle to find alternative routes and security has undoubtedly been strengthened in many areas where vehicles queue or are slow moving, a number of people are gathered in northern France, wishing to cross. Some appear willing to take drastic measures to complete their intended journeys. This situation highlights a fundamental weakness in the UK’s supply chain that politicians have recognised needs to be addressed.

This was a key feature of the year in logistics but the demands and expectations of consumers are diverse and other, less potentially catastrophic, phenomena were driving change in the way we think about the movement of freight. The growth in e-commerce typifies this, as many supply chains that used to end at the shop now end at the home. Conventional retail outlets are changing their function and staffing and the market is looking to deploy more and more vans, and drivers for them, to deliver goods to our homes and workplaces.

**Online retail**

**Investment and planning at the heart of fulfilment**

In the approach to Christmas 2014, the media was full of stories of shoppers fighting for bargains on Black Friday and of missed and cancelled deliveries, as well-known retailers were shown to have failed to adequately plan for the volume of online orders they would receive in a very short period of time. Yet in 2015 the narrative was very different – possibly, in part, due to the cautiousness of consumers who perhaps felt richer but less confident about parting with their money and partly as a result of recognition by retailers that the UK and US holiday seasons are very different. Companies also planned to manage expectations and made substantial investments in their logistics capability.

What did not change was the fact that the approach to Christmas is a clearly established period of peak demand for internet shopping. With 20 per cent of non-food sales now made online, the yearly scramble to meet home delivery slots is part of a dramatic shift in the way we shop. By the end of 2015, retailers were expected to send more than 860 million parcels to UK homes, up from 600 million in 2012.

UK shoppers are spending more than ever using the internet. Online spending rose last Christmas and is expected to carry on rising in the coming years, forming an ever greater proportion of all shopping (fig 3.2).

**3.2 • Online spending in the UK**

![Graph showing online spending growth](image)

In 2015, the average weekly spend online was £815.72 million; an increase of 12.4 per cent compared with 2014. Since 2010 the amount spent has doubled. The largest growth area online in 2015 was for department stores and household goods stores, where spending rose by a

---

2 According to internet retail body IMRG quoted in 'Delivery drivers face prospect of record-breaking number of Christmas parcels', The Guardian, 17 October 2015

3 www.verdictretail.com/uk-online-retail-sales-to-reach-62-7bn-in-2020/
third. This may be a reflection of the shift from one-day events, such as ‘Black Friday’, to week-long events to include subsequent days, such as ‘Cyber Monday’, which resulted in more sales online and fewer shoppers in store compared to the year before.4

As a proportion of all retail spending, internet sales constituted 13.8 per cent in December 2015, compared to 12.8 per cent in 2014 (fig 3.3). Whilst online store retailing showed strong growth, online non-store retailing grew by just 3.6 per cent in December 2015, compared to December 2014, the lowest annual growth since November 2012.

As customers spend more the number of orders and parcels increases; as already discussed, these are not evenly distributed throughout the year but heavily weighted towards Christmas, with almost one in four of the year’s online orders being placed in November and December. In order to meet this increased demand the number of vans increased by 17 per cent in the year5 with some 371,828 registrations, in excess of the pre-recession high (2007).

3.5 million
vans licensed in Britain in 2015
60 per cent more than in 1994
371,828
new vans registered in the UK in 2015
47.7 billion miles
covered by van drivers in 20156

“The van and truck market remains strong, with remarkable growth across all commercial vehicle types so far this year. The rise in demand for vans demonstrates an ongoing trend as more consumers choose the convenience of home delivery.”

Mike Hawes
Chief Executive, Society of Motor Manufacturers and Traders,
October 2015

---

4 ‘Retail Sales’, December 2015 Statistical Bulletin, ONS
5 Data from the Society of Motor Manufacturers and Traders (SMMT), www.smmt.co.uk
6 Department for Transport Road Traffic Statistics, TRA0101, February 2016 (provisional)

![Graph showing proportion of retail sales made online for seasonally and non-seasonally adjusted data](image-url)
As a result, there are more vans than ever before making deliveries on UK roads. The number of miles driven by vans has soared by 72.2 per cent over the past 20 years, outstripping the growth in cars and hgv – up 13.9 per cent and 2.5 per cent since 1995, respectively.7

The Department for Transport’s National Transport Model (NTM) Road Transport Forecasts (2015) show that overall traffic (in England) is forecast to grow by 42 per cent between 2010 and 2040 (fig 3.4). Vans are forecast to grow at the fastest rate, with van traffic expected to rise by 78 per cent, while hgv traffic is projected to rise by 22 per cent.

3.4 • Road traffic forecasts

In terms of the environmental impact of the rise of e-retailing, research to date appears to indicate that overall and given the right conditions, while the quantity of freight, and freight-related emissions, may increase “online retailing has an environmental advantage over conventional retailing, particularly where the latter involves a car trip.”8 However, the beneficial effect of this is likely to be moderated by failed deliveries and returned products and the degree of vehicle substitution (consumers using time saved from shopping to make other trips by car).

There is evidence that substantial investment was made in the run-up to last Christmas to ensure that logistics would be able to meet consumer demand.9 Whether the increased turnover and investment translated into profits will take longer to establish. What is clear is that this new consumer reality is translating into a change in the mix of vehicles on our streets and, where vans replace hgv, to increased demand for ever scarcer road and kerbside space in towns and cities.

Logistics, road space and road safety

Targeted enforcement favoured over blanket restrictions

Logistics has long advocated increased enforcement of existing hgv and driver regulations and targeting of operators who are seriously non-compliant and undermine the efforts of the vast majority; the point is often missed by commentators and the media that the road freight industry is heavily regulated (fig 3.5). This

“But how does a retail industry, increasingly buoyed by what are often multiple small internet purchases by individual shoppers, cope with the vast number of parcels it has to get to homes and offices? Welcome to Delivery UK, a swiftly growing £4.5bn industry that needs a huge and rapid increase in warehouse space, delivery vans, drivers and packers.”

Delivery drivers face prospect of record-breaking number of Christmas parcels

The Guardian, 17 October 2015

7 Department for Transport, Road Freight Statistics, TRA0101, February 2016 (provisional)

8 ‘Green Logistics: improving the environmental sustainability of logistics’, McKinnon, Browne, Piecyk and Whiteing, 2015

3.5 • HGV regulation – the compliance journey

**Becoming a driver…**
- Acquire a vocational (hgv) driving licence (which can be revoked, suspended or curtailed by the Traffic Commissioner)
- Meet strict medical requirements to keep their driving licence
- Hold a Driver Certificate of Professional Competence (CPC) and receive 35 hours of approved training every 5 years

**Building an hgv…**
- The vehicle and trailer must be type approved as laid down in EU legislation
- To go into service, the hgv must meet up to 60 type approval requirements contained in EC directives and ECE regulations

**Every day the driver must…**
- Obey drivers’ hours and tachograph or other recording rules
- Follow EU working time rules for road transport
- Check their vehicle’s condition every time it goes on the road (and keep a record)
- Adhere to all road traffic laws, including those relating to excessive speed, drugs and driving and loading and unloading, many of which are more demanding for hgv drivers than car drivers

**Operator’s licence holders must…**
- Every commercial hgv operator must have an operator’s licence
- Ensure operating centres and hgv meet environmental conditions and are authorised
- Ensure safety, standards of professional competence, financial standing and good repute are met
- Meet undertakings signed by a company director:
  - laws relating to driving and operating vehicles are observed
  - drivers’ hours and records rules are met
  - vehicles and trailers are not overloaded
  - vehicles operate within speed limits
  - vehicles and trailers are kept fit and serviceable
  - drivers report any defects promptly
  - vehicle maintenance records are kept
- The Traffic Commissioner – the industry’s independent regulator – can revoke, curtail or suspend the operator’s license

**In use the vehicle…**
- Must be checked for defects every day and records kept
- Must be periodically checked for roadworthiness as agreed with the Traffic Commissioner
- Must be tested annually for vehicle (and trailer) safety and condition
- Must carry its load securely
- Must meet additional requirements for the carriage of specialist goods such as hazardous cargoes, livestock, waste and food
- Is subject to roadside enforcement by a dedicated, industry-funded enforcement agency (DVSA)
- Must meet over 100 requirements contained in construction and use regulations

**The driver and vehicle are now ready to go on the road!**

Every commercial heavy goods vehicle (over 3.5 tonnes gvw) and its driver must meet a set of stringent and challenging safety requirements specific to road transport
is also a key consideration in the push to recruit the additional drivers that are needed. Increased spending on infrastructure to make it safer for all those sharing the roads is also important, balancing the needs of vehicles, drivers and vulnerable road users.

Possession of accurate information to aid compliance is also vital. The year saw the removal of the counterpart to the driving licence, something that had previously served as an essential tool for logistics in order to establish the entitlement and previous driving history of vocational (e.g. articulated or rigid HGV) licence holders. Its replacement with online systems was the subject of much criticism; not because the solutions were internet-based, a convenience that had long been argued for; but because of the perceived unsuitability of the system for larger fleets with multiple drivers. There was criticism from fleet customers that the Driver and Vehicle Licensing Agency’s (DVLA) first act since the Reilly Review had failed to “do more for commercial, medical and bulk transaction customers” in this instance.10

Glasgow fatal accident inquiry

Access to the information necessary to ensure compliance and safety was an issue in the spotlight in the year, as a result of the tragic event involving a dustbin lorry in Glasgow in December 2014. The investigation highlighted the way in which the current system leaves employers out of the medical notification process for vocational drivers.

On 7 December 2015, the Sheriff Court of Glasgow and Strathkelvin provided its determination of the fatal accident inquiry into the deaths of six people who died when a bin lorry mounted a pavement in Glasgow city centre. The court found that the driver “deliberately misled” doctors as to the location and nature of what had previously happened to him, made “untrue declarations” on online health declarations and deliberately concealed relevant information from the Driver and Vehicle Licensing Agency (DVLA). The Sheriff said “Mr Clarke deceived all three doctors in the hope that he would be able to return to work sooner rather than later so that he would not lose his job with First… None of the doctors who saw Mr Clarke advised him to notify DVLA of this event and he did not do so.” The Sheriff identified eight ‘reasonable precautions’, 19 recommendations, and three matters for consideration.11

Given the recommendations, it is clear that the medical renewal and application process should be looked at in detail by DVLA, doctors and the Department for Transport.

The General Medical Council consulted on strengthening its advice to GPs on reporting medical conditions to DVLA by the end of 2015.12

From a vehicle engineering perspective, the recommendations suggest that when sourcing and purchasing refuse collection vehicles which are large goods vehicles, local authorities and other organisations collecting refuse should seek to have an Advanced Emergency Braking System fitted wherever it is reasonably practicable to do so, and consider retrofitting if possible.

Urban road space management

The use of targeted, informed enforcement to identify seriously non-compliant operators and drivers is welcome. In London a new partnership was launched between Transport for London (TfL), the Driver and Vehicle Standards Agency (DVSA), the Metropolitan Police and the City of London Police. The London Freight Enforcement Partnership (LFEP) includes more than 90 DVSA and police officers as well as a team of analysts, sharing intelligence and carrying out joint enforcement operations. The LFEP – which focuses enforcement activity on the small minority of operators and drivers who do not comply with existing regulations – should act as an important means of improving road safety in the Capital.

In the course of the year more details emerged about the Mayor of London’s desire to increase regulation of HGVs in the Capital for the purposes of vulnerable road user safety. In addition to the introduction of the Safer Lorry Scheme in September, which required fitment of additional mirrors and sideguards to most HGVs, the Mayor also initiated plans for transparent side panels in doors to improve direct vision from cabs. At the same time, his intention to expand the network of cycle superhighways seemed set to further reduce the allocation of road space to vehicles, including optimum infrastructure for kerbside access for deliveries.

---

10 ‘A review of DVLA’, Department for Transport, 2014. The report sets out a review of DVLA, considering its current operation, service offering and change portfolio. It also made recommendations for future business strategy
11 www.scotland-judiciary.org.uk/10/Fatal-Accident-Inquiries
There were also increasing calls for hgv bans in London, either geographically or on a timed basis. However, with considerable pressure understood to be coming from within the London political community (London Assembly, council leaders, mayoral candidates) for outright rush hour hgv bans, businesses’ calls for caution appeared little heeded. Indeed, it seemed that the risk of significant disruption to logistics and London businesses that these measures might bring about carried considerably less weight.

These latest moves are in addition to existing constraints that apply to deliveries by road in London. Work to increase quieter out-of-hours deliveries in the Capital is ongoing but faces many practical challenges and complex legal, environmental and safety concerns. The London Lorry Control Scheme, which regulates night-time and weekend access to the road network in Greater London, already means that vehicles are routed on an ‘exempt route network’. This generally results in longer journeys and the use of additional resource to bring goods into the Capital. The situation is little better when vehicles arrive to deliver on the street; data from FTA’s PCN Administration Service suggests that some 72 per cent of the penalty charge notices (PCNs) incurred by service users while delivering at the kerbside are overturned when challenged.\(^{13}\)

**Safety data**

The number of fatal accidents per billion lorry miles fell by 3.5 per cent in 2014 compared to 2013 and this figure is 43 per cent lower than a decade ago\(^{14}\) (fig 3.6). In spite of this, accidents of all severities involving hgv were up 5 per cent in 2014 compared to 2013, this is in line with the general increase in accidents, which were up by 5.5 per cent for all vehicles.

\[\text{3.6 • Hgv fatal accident rate per billion vehicle miles}\]

Annual reported road casualties data show there were 240 fatal accidents involving hgv in 2014, unchanged from 2013 and nearly half the number of such accidents in 2005\(^{15}\) (fig 3.7).

\[\text{3.7 • Number of fatal accidents involving hgv}\]

The accident rate of hgv compares favourably with cars; in 2014 there were 430 accidents, of all severities, per billion vehicle miles for hgv which is almost half that for cars, at 800 accidents per billion vehicle miles (fig 3.8). This means that a road user is nearly twice as likely to be involved in an accident with a car as with an hgv. There are more cars on the road but a direct comparison can be made with hgv as the accident rate is normalised by the number of miles travelled.

\[\text{3.8 • Car and hgv accident rate (all severities) per billion vehicle miles}\]

---

13 ‘72% of parking appeals won’, press release, FTA, June 2015
14 DfT, Reported Road Casualties, GB, Table RAS20001
15 DfT, Reported Road Casualties, GB, Table RAS40005
2014 was a challenging year for road safety but these figures illustrate that logistics’ approach is resulting in progress. The logistics industry is committed to improving its performance on road safety through new innovations in vehicle design and safety features, better driver education, training and management.

Logistics and air quality

Significant advances in reducing harmful emissions from hgv

As understanding of the health impacts of some atmospheric pollutants has grown, the issue of reducing local air quality emissions whilst preserving the ability to supply towns and cities in a flexible and cost efficient manner has risen in importance.

In 2013, the UK along with 16 other member states, reported exceedances of the annual mean limit value for nitrogen dioxide (NO$_2$) within 38 out of an overall 43 zones. It was also one of four member states reporting exceedances of the hourly mean limit value (in London).

In April, the UK Supreme Court ruled in favour of lawyer-activist group Client Earth that the UK government was in breach of its legal requirements to improve air quality in cities around the country. As a result, the Department for Environment, Food and Rural Affairs (Defra) was charged with coming up with a new plan to enable the UK to meet its obligations as quickly as possible (with the Scottish government preparing its own proposals). The whole of the UK was affected by the judgement.

Defra had already been planning to produce such a strategy by the end of the year; but the verdict added extra impetus to the process and potentially raised the bar for what would count as an acceptable package of measures given that any ‘weak’ plan would be liable to legal challenge once again.

Accordingly, Defra has developed the concept of Clean Air Zones (CAZs) to enable local authorities to introduce low emission zones (at Euro VI/6) across the country. All ultra-low emission vehicles will be given free access to CAZs which will provide much-needed incentives for operators to invest in alternatively-fuelled vehicles and low carbon technologies. The proposed CAZs are as follows.

- Greater London to have a conurbation-wide CAZ by 2025 covering the Class C group (including hgv and vans) or possibly just Class B (hgv not vans) dependent on implementation of other measures
- Birmingham and Leeds city centres to have CAZs by 2020 or earlier covering the Class C group
- Southampton, Nottingham and Derby city centres to have CAZs by 2020 or earlier covering the Class B group

In order to meet the limit values for NO$_2$ across all of Greater London by 2025, as well as implementing the Ultra-Low Emission Zone (ULEZ) in 2020, the London Low Emission Zone will need to meet the standards of a Class C CAZ by 2025 (ie include light vans). Alternatively, if the Mayor’s proposed measures for tightening the current LEZ are applied in London alongside the ULEZ, these would deliver the same outcome within the same timescale when combined with the tightening of the current LEZ to a minimum equivalent to Class B CAZ.

The Scottish government has also produced its low emission strategy for Scotland. As with the Defra plan, the main potential impact is from the encouragement of Euro VI/6 Low Emission Zones.

Euro VI has been a requirement for hgv since January 2014, whilst for vans the Euro 6 requirement does not come into force until September 2016. The compliance date that is discussed in the consultation is 2020. By that time the hgv market will have had less than the eight years experts, including FTA, believe is required to allow a second-hand market to fully develop – the necessary condition for ensuring minimal impact for local small

16 The Euro standards are a range of successively tightening emissions limits for petrol, gas and diesel engines. There is a convention that Euro 6 refers to cars and vans (whole vehicle emission testing), whilst Euro VI refers to heavy duty vehicles (hdv) and buses (engine only emissions testing)
operators. For vans even less time will have passed. Typically van fleet replacement runs at 5–10 per cent per year and the average age of a van is calculated at almost eight years17 (ie half of all vans are older than this). It can be anticipated that a large number of operators will have substantial pre-Euro 6 van fleets in 2020 – especially those smaller operators who utilise second-hand vehicles. There are obvious concerns over the potential exclusion of small and medium sized businesses from local market places that may result from the new requirements if their geographical extent is widely drawn and the requirements are introduced as quickly as is currently planned.

According to Defra, one of the main reasons for not meeting the limits is the failure of diesel light duty vehicle (car and van) Euro standards to adequately reduce emissions in real world use. These are considered to be the largest source of nitrogen oxides (NOx) (including NO2) emissions due to significant growth in vehicle numbers. Surprisingly, no private cars are included in any of the proposed CAZ schemes even though, according to Defra’s technical report, for UK road traffic NOx emissions projections to 2030, the largest contributions are expected to be from diesel cars and diesel light goods vehicles.

Ever-tougher hgv EU emissions standards have already delivered massive improvements, even when compared to relatively recent historic levels (see fig 3.9). Fig 3.10 shows the marked reduction in levels of particulate matter and NOx emitted by trucks between Euro V and Euro VI.

For some time experts have been concerned at the apparent discrepancy between the significant reduction in permissible limits of NOx emissions at type approval and in-service emissions – measured at the roadside or in laboratory testing – which show much higher levels. This phenomenon is widely attributed to what are known as ‘off-cycle emissions’. Transport for London says “this effect may be viewed as a failure of the legislation, since the type approval tests are tightly prescribed and engine manufacturers are obliged to develop specific control strategies to ensure a satisfactory test. However, once type approved, a heavy duty engine (or a complete car or van in the case of light duty vehicles) may well be operated to different duty cycles to those of the initial approval.”18

In September; a massive emissions scandal broke in the United States when the Environmental Protection Agency announced that, “a sophisticated software algorithm on certain Volkswagen vehicles detects when the car is undergoing official emissions testing, and turns full emissions controls on only during the test… This results in cars that meet emissions standards in the laboratory or testing station, but during normal operation, emit nitrogen oxides, or NOx, at up to 40 times the standard. The software produced by Volkswagen is a ‘defeat device.’”


---

17 ‘Van travel trends in Great Britain’, RAC, 2014
as defined by the Clean Air Act.” It quickly became apparent that some vehicles sold in Europe, including the UK, were affected as well. The Transport Secretary announced a substantial re-testing programme that would be carried out by the Vehicle Certification Agency.

The scandal focused on cars and the potential for issues with vans rather than hgv's as a result of changes that had already been made in respect of standards for heavy duty vehicles (hdv – essentially buses and lorries). Under Euro VI legislation, where the approval takes the form of an engine-dynamometer ‘bench’ test, the engine must conform to the required limits over a broader window of speed and load settings. This is followed up by a requirement to verify the emissions performance over a period of on-highway driving with portable emissions analysis equipment fitted to the complete vehicle. Transport for London has confirmed that while not guaranteeing compliance “these new measures seem, at this early stage, to be effective in controlling ‘off-cycle emissions’ much more successfully than before.”

Early evidence indicates that Euro VI lorries and buses are emitting significantly less NOx. Defra will need to monitor the performance of Euro 6 cars and what it describes as light goods vehicles, ie vans, as they come to market.

Forecast models for UK air quality levels have improved, largely due to the success of the Euro VI standard for hdvs. The questions that have arisen over the very different Euro 6 standard for light duty vehicles (ie cars and vans) should not obscure this very real achievement.

---

19 ‘EPA, California Notify Volkswagen of Clean Air Act Violations / Carmaker allegedly used software that circumvents emissions testing for certain air pollutants’, press release, Environmental Protection Agency, 18 September 2015

---

**Carbon emissions from logistics**

**Progress but room for improvement**

Throughout the year, stakeholders lobbied and national government representatives worked towards the meeting of the United Nations Framework Convention on Climate Change (UNFCCC) that took place in Paris in December. At COP21 (Conference of the Parties), over 190 nations participated in talks, with 150 world leaders attending the opening day; the aim, to reach final agreement on a global deal for reducing carbon emissions to replace the Kyoto Protocol. The new, legally binding agreement from 2020 intends to prevent global temperatures rising by more than 2°C by the end of the century, with a further ambition to limit this increase to 1.5°C. Each country submitted an individual national contribution pledge prior to the Paris talks to publicly demonstrate its plans for cutting emissions, plans that must be reviewed every five years. The approach, criticised by environmentalists for not being sufficiently ambitious, ensured an easier path to a global deal as countries did not have to adopt a specific UN target as previously required by Kyoto.

Policymakers also considered whether to set global sector emission reduction targets for international shipping and aviation. It had looked likely at one point that shipping and aviation could be singled out as

“Freight operators clearly have strong incentives to save fuel, with fuel costs making up about 20-40 per cent of all operating costs. Some operators are already saving fuel through measures such as driver training, improved routeing and improved vehicle fill, but there is scope to do more. By 2030 there is scope for vehicle manufacturers to improve conventional efficiency of hgv’s and for the roll out of hybrid and electric powertrains for some small urban delivery trucks. Operators also have opportunities to go further, using measures such as retrofitting fuel-saving technologies and reducing empty running by increasing collaboration and use of urban consolidation centres.”

Adrian Gault
Chief Economist, Committee on Climate Change

---

Professor Alan McKinnon
Kuehne Logistics University, Hamburg

“The decarbonisation of grid electricity coupled with the electrification of local deliveries and rail freight services offer a large decarbonisation potential but their main impact is likely to be felt post-2020. By then more effective congestion management and a relaxation of maximum truck size and weight beyond the current longer semi-trailer (LST) limits could significantly reduce the carbon intensity of UK logistics.”

Adrian Gault
Chief Economist, Committee on Climate Change
contributors for the Green Climate Fund, an adaptation fund for climate change. This is in spite of the fact that, in the main, countries are targeted for funding rather than individual industries. But at COP21 it was decided that responsibility for shipping and aviation emissions should continue to lie with the International Maritime Organization (IMO) and the International Civil Aviation Organization (ICAO) respectively. There is no doubt that COP21 has added pressure on both organisations to make more progress on carbon reduction.

The IMO has already established energy efficiency standards for new and existing ships. Currently, work is underway to develop a data collection system to measure carbon emissions. Plans for a Market Based Measure (MBM) are on the back burner but there is a threat of a bunker levy which could put cost pressures on shippers. Separately, the EU is also devising a Monitoring, Reporting and Verification (MRV) system for ships leaving and arriving at EU ports from 2018. Meanwhile, ICAO is due to agree an MBM focused on carbon emissions at its next Assembly in September 2016. Carbon dioxide certification standards for new aircraft to improve fuel efficiency were agreed in early 2016.

**Hgv carbon emissions**

Trucks represent 22 per cent of surface transport emissions (and 4 per cent of overall emissions). Vans make up 14 per cent and cars represent 57 per cent. The Department for Energy and Climate Change (DECC) revised its methodology for transport statistics in early 2015. Hgv carbon emissions are reported to have reduced by over 8 per cent between 1990 and 2014. Tonne kms have increased by 3.6 per cent in the same period. Government is concerned that freight is extremely difficult to decarbonise because of limited scope for electrification. Due to the economic recovery, officials are concerned that freight emissions will only grow. The Department for Transport therefore launched a Freight Carbon Review in early 2016 to assess the options and barriers for decarbonisation measures.

With fuel costs making up a high proportion of all hgv operating costs, there is a substantial incentive to save fuel and eco-driving skills are now quite widely in use across UK logistics. Telematics take-up is also increasing, although its use to embed fuel-efficient driving behaviour is at an earlier stage. Trials are already underway in Europe to develop electric hybrid hgv s and operators of national hgv fleets are considering wider use of natural gas and biogas powered vehicles to help achieve operational efficiencies and reduce carbon emissions. The Department for Transport’s Low Carbon Truck Trial has helped to put over 300 gas hgv s on the road with supporting infrastructure. The updated map (fig 3.11) shows how progress is being made towards the development of a national refuelling infrastructure on the motorway network.

---

22 Logistics Carbon Reduction Supplement, Freight magazine, September 2015
3.11 • Public access gas refuelling stations

Key
- LNG filling station
- CNG filling station

Numbers 4, 7, 10, 12 and 15 provide bio-content.

Source: www.gasvehiclehub.org
The EU continues to develop its vehicle energy consumption calculation tool (VECTO) to measure fuel consumption and carbon emissions and give a reliable real-world picture of emissions. The Commission intends to bring forward proposals for legislation by mid-2016 requiring carbon emissions from new hdvs to be certified, reported and monitored. There has been buy-in from OEMs\textsuperscript{23} and component manufacturers who have agreed to this simulation-based approach rather than on-road testing which would be cumbersome and costly for industry. In Japan, the US and Canada, legislation has already been introduced to limit hdv carbon emissions but Europe will be the first to estimate the whole vehicle’s (including the engine, transmission, auxiliary elements, air drag, rolling resistance and also the trailer) CO\textsubscript{2} emissions. However, there is concern over the accuracy of VECTO in real life terms.

The year also saw the introduction of the Energy Savings Opportunity Scheme, as required by an EU directive, whereby large companies are required to undertake energy audits including transport, buildings and industrial operations every four years.

Research on freight carbon reduction for the Committee on Climate Change (CCC) by the Centre for Sustainable Road Freight (SRF) estimates that hgv emissions could reduce by 34 per cent compared to current levels by 2035 with the use of a range of operational and logistics improvements.\textsuperscript{24}

The CCC is a statutory body, set up in 2008 as part of the Climate Change Act, which commits the UK to reduce its greenhouse gas emissions in 2050 by at least 80 per cent on 1990 levels. It provides independent advice to the government on the level of carbon budgets – five-year emissions limits, set 12 years in advance, on a path to the 2050 target. It also tracks progress across different sectors of the economy towards meeting those budgets. Publishing its fifth carbon budget, it highlighted how vehicle manufacturers are expected to play an increasing role in helping to reduce freight CO\textsubscript{2} emissions. The CCC says that new hgvs could become 30 per cent more efficient by 2030 relative to 2010. In addition, it has identified scope to significantly reduce vehicle-km through further supply chain rationalisation, better vehicle utilisation and some modal shift to rail.

The CCC continues to support FTA’s Logistics Carbon Reduction Scheme (LCRS) as a means of helping freight operators decarbonise. Once again, data show that LCRS members are making significantly better progress in reducing CO\textsubscript{2}e (carbon dioxide equivalent) emissions when compared to industry as a whole. Companies participating in the voluntary scheme are likely to be more engaged in improving fuel efficiency and reducing carbon in their fleet operations (fig 3.12).

\begin{figure}
\centering
\includegraphics[width=\textwidth]{kg_co2e_per_vehicle_km_for_freight_industry_vs_lcrs_participants_2005-2014.png}
\caption{Kg of CO\textsubscript{2}e per vehicle km for freight industry vs LCRS members 2005–2014}
\end{figure}

The Department for Transport (DfT) started a trial of longer semi-trailers (LSTs) for articulated goods vehicles in January 2012. The trial involves longer semi-trailers of 14.6m and 15.65m in length; it is proposed to last for 10 years and permits up to 1,800 trailers to operate under Vehicle Special Orders (VSOs) granted by the Vehicle Certification Agency (VCA). In July 2015, DfT published the third-year report of the trial.\textsuperscript{25} The results from the latest report were very positive and showed that the use of LSTs was helping to achieve the objectives of carbon emissions reduction and improving efficiency by requiring fewer journeys to transport the same volume of goods. There were also other benefits, such as reducing congestion and the risk of collisions as a result of reduced lorry mileage.

The report showed that between 4.2 and 5.2 million vehicle kilometres have been saved as a result of the operation of LSTs since 2012, leading to lower CO\textsubscript{2} emissions. Over 10 years the trial is expected to save some 3,000 tonnes of CO\textsubscript{2}, with operators saving one journey in 22 on average.

\begin{figure}
\centering
\includegraphics[width=\textwidth]{goods_lifted_goods_moved_and_vehicle_utilisation.png}
\caption{Goods lifted, goods moved and vehicle utilisation}
\end{figure}

Hgvs lifted more goods in 2014 than in 2013 but they travelled shorter distances with the average length of haul 91 kilometres (a decrease of 3.2 per cent)\textsuperscript{26} (fig

\textsuperscript{23} Original Equipment Manufacturer (OEM), a company that makes a part of sub system that is used in another company’s product

\textsuperscript{24} ‘An assessment of the potential for demand-side fuel savings in the HGV sector’, SRF, 2015


\textsuperscript{26} Department for Transport, Road Freight Statistics, Table RFS0105
This may be a reflection of better vehicle utilisation also seen in improved load factor statistics. Load factor has increased over a 10-year period from 57 per cent in 2005 to 62 per cent in 2014 across all categories of hgv. However, empty running among hgv is relatively unchanged and remains around 29 per cent of total vehicle distance since 2008, having reached a low of around 26 per cent in 2001.

The shorter journeys, better load factor but paradoxically unchanged empty running may be due to an increase in the number of multi-drop deliveries through home delivery networks and regional imbalances in traffic. There are also limitations to ensuring that a return trip is full, for instance when empty cases need to be returned and there is no viable space for more goods. At the height of the recession empty running increased due to a fall in output and demand. However, many companies now report that fleet utilisation has continued to improve, along with increases in volume of work. Indeed, backhauling is on the rise; recent figures from the Transport Exchange Group show that in October 2015 there was an overall annual growth rate of 21 per cent among its members. It is also noted that in 2014 compared to 2013 the amount of goods moved decreased by 2 per cent to 136 billion tonne kilometres. This figure does not account for volumetric load capacities and in reality trucks may be carrying far more goods which are lighter but capacious and therefore ‘cubing out’ before ‘weighing out’.

New technology and innovation

Following studies conducted within the EU which investigated technological capabilities and the potential for platooning on European roads, Highways England announced in 2015 that it is looking to carry out a study to assess the potential for a road trial of hgv platooning technology on UK motorways and gain a better understanding of the risks and opportunities. Trials are expected to take place on the M6 in Cumbria in 2016.

The technology works by grouping vehicles so that they travel closely together in ‘platoons’; it can improve aerodynamic performance and provide more steady state traffic flow. This in turn has the potential to lower fuel consumption (and reduce carbon emissions), improve network capacity and reduce the risk of traffic collisions.

Platooning is achieved by electronically linking vehicles using GPS, wireless and radar-sensing systems. Braking and acceleration by the vehicles is precisely matched and each hgv in the platoon reacts automatically to the lead vehicle driver’s actions. Highways England says it believes that a UK road trial is feasible within limitations; these include using vehicles fitted with pre-production systems (no commercial system is yet available), with selected and trained drivers and only on the motorway network. Platooning trials took place in the EU during 2015, including a trial by Scania at Zwolle in the Netherlands.

3.13 • Goods moved by hgv (billion tonne km) still below pre-recession levels though trucks may be ‘cubing out’ before ‘weighing out’

<table>
<thead>
<tr>
<th>Year</th>
<th>Goods Moved</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>157</td>
</tr>
<tr>
<td>2009</td>
<td>125</td>
</tr>
<tr>
<td>2014</td>
<td>136</td>
</tr>
</tbody>
</table>

27 The ratio of the actual goods moved to the maximum tonne-kms achievable if the vehicles, whenever loaded, were loaded to their maximum carrying capacity

28 Department for Transport, Road Freight Statistics, Table RFS0117

Platooning trial in Zwolle, Netherlands

“The race between Google and Amazon to start using drones for deliveries has intensified after Google announced that it plans to begin using the devices by 2017.

The American tech giants are engaged in a ‘drone war’ as they battle to be the first to use unmanned aircraft to dispatch packages to customers to cut delivery times.”

Google takes on Amazon in delivery drone race

Daily Mail, 3 November 2015

29 ‘Convoys of driverless lorries head for the motorway’, The Times, 5 March
Following a feasibility study commissioned by Highways England into ‘dynamic wireless power transfer’ (DWPT) technologies, off-road trials are to take place of the technology needed to power electric and hybrid vehicles on England's major roads. The concept is to fit vehicles with wireless technology and to install multiple inductive loops along a stretch of roadway to charge vehicles as they move. DWPT would enable drivers of ultra-low emissions vehicles to travel long distances without needing to stop and charge the vehicle's battery. This will be most viable for hgv hybrid technology.

One area of development that is holding the attention of headline writers is the potential for ‘autonomous’ logistics. In 2016, a government-funded trial will test driverless vans on the streets; an electric van will follow a pre-determined route through Greenwich in south east London to simulate a delivery run between either a warehouse and a shop or between a shop and a home. The van will drive itself, although the rules governing the trial require that someone sits behind the steering wheel ready to take control should anything go wrong.

More headline-worthy still were announcements about intended investment in drones for deliveries. Amazon set out in great detail plans for its ‘Prime Air’ drone; an octocopter with eight battery powered rotors, capable of carrying a payload of 2.3kg up to 16kms from its base. Drones for deliveries are intended to be self-navigating by means of GPS and react to other objects in the air; to avoid incidents they will be capable of being programmed to deliver a parcel to a specific address. In terms of domestic applications for this technology, the complexities of landing such equipment may require investment by householders and building owners and, even more importantly, permission from aviation authorities to be active in domestic airspace. Furthermore, with a radius of around 16kms it seems their use would be most likely in densely populated, congested, high-rise urban areas. By their land-hungry nature, distribution centres tend to be located off major transport networks and on the edges of centres of population.

Professor Alan McKinnon says “mass use of drones, as would be required to achieve even marginal reductions in traffic congestions, could seriously impair the quality of the urban environment, especially around the logistical nodes which they cluster like robotic wasps… if drones are ‘not a mass market phenomenon’, they will be confined to niche applications and have little environmental impact.”

“We may be on the eve of a new industrial revolution which could completely transform supply chains and drastically reduce the environmental costs of logistics. On the other hand, if the sceptics are right, 3D printing may not become a mass market phenomenon and remain confined to niche industrial applications. If the latter scenario proves the more accurate, the environmental impact of this technology will be much more limited. It is too early to tell how great this impact is likely to be.”

McKinnon and Whiteing
Green Logistics: improving the environmental sustainability of logistics, 2015

A range of products can now be produced by means of 3D printing (also known as additive manufacturing). There are a number of economic and technical constraints that need to be overcome to secure more widespread use of 3D printing but the possibilities for small batches of products and individual orders, or deliveries to remote locations are clear and in time could have an effect on the global environmental impact of logistics. This is especially the case if it could replace the express delivery of high value components, something that currently is often carried out by air. Nevertheless the materials required for the printing itself will still need to be delivered.

In order to capitalise on the possibilities offered by these new technologies, logistics will need to have access to the right skills and people, together with the wider infrastructure to support it.
While the UK’s economic performance has shown positive signs of improvement, the global indicators are a cause for concern. In such a trading and financial environment, it is essential to seek efficiency and performance gains, whether these mark step changes in the way logistics operates or are incremental in nature.

In this chapter the Logistics Report considers factors that weaken the resilience of supply chains and ways in which their robustness and adaptability can be improved, and the value of logistics to society enhanced.

Supply chain security

FTA has underlined the economic importance of the Dover-Calais route and the need for the immediate causes of the ongoing disruption faced by drivers and supply chains to be resolved.

The southern part of the ‘Jungle’ migrant camp is being partially demolished but FTA has said that repeated incursions onto port and Eurotunnel premises and attacks on truck drivers and their lorries require urgent action. We have set out five aspects that need addressing, including the removal of the migrant camp away from the motorway and Eurotunnel facility to deter migrants from attempting to board commercial vehicles and trains and securing the Port of Calais and Eurotunnel. We have also called on the French government to declare the port and tunnel as off-limits to any industrial protests, as well as supporting Highways England’s plans for a long-term alternative to Operation Stack to provide off-motorway parking for goods vehicles queuing to cross the Channel.

Logistics, road space and road safety

An extensive and demanding legislative framework is in place in national statutes which sets out the standards that drivers, vehicles and freight operations must meet in order to ensure deliveries are completed as safely as possible (figure 3.5, page 65). This system is considerably more stringent than the regime which applies to private motorists.

As discussed elsewhere in the report, there is a perception that the understanding of the public, and even regulators, about the logistics industry and by extension the compliance arrangements for hgv’s, is limited. There is a sense that calls for additional, local regulation of logistics – such as those by a number of London politicians – are made without sufficient reference to effective enforcement of the existing legal framework.

FTA believes that the focus of regulators should be on improving the compliance standards of the small number of rogue operators to deliver wider safety benefits. There are a number of ways in which this can be achieved both through better targeting of enforcement and more efficient processes that release resources to check and ensure compliance.

Vehicle and operator licensing

All operators fund DVSA enforcement activities through a levy paid with the annual test fee and expect the Agency to pursue the most effective ways of deploying what is a limited resource.

- ‘Earned Recognition’ is a tool which FTA strongly supports and which could allow DVSA to better target its roadside enforcement resources at seriously and serially non-compliant operators

- The Office of the Traffic Commissioner (OTC) is expected to launch its new online self-service system – the Operator Licensing and Compliance System (OLCS) – around June 2016. This is expected to result in time and resource savings

- The Motoring Services Strategy consultation (launched 13 November 2015) gave the strongest indication yet that government is investigating options for the privatisation of some aspects of motoring services delivery. There are opportunities for increased flexibility through individuals not employed by the government becoming accredited to undertake statutory processes – such as examining the hgv annual test. However, FTA believes these must be balanced against the risks of potential impropriety in critical road safety regimes

- With the continued rise in online deliveries an important factor; improvements to DVSA’s effectiveness in the way it influences road safety standards in the burgeoning van fleet have also been under scrutiny. FTA believes that DVSA should develop an Earned Recognition scheme for light goods vehicles so as to improve targeting of a limited enforcement resource
Driver licensing
To ensure on-road compliance, operators need access to efficient means of accessing information about drivers’ qualifications to drive. Effective working on the part of the agencies responsible for managing driver licensing and testing is also essential in the context of the logistics skills shortage.

- DVLA can help the road freight industry address some of the challenges it faces by processing drivers’ licence applications linked to employment more rapidly and by better managing driver medical processes.

- DVSA can assist, for example, by ensuring drivers have improved access to lgv licence acquisition tests, by providing businesses with better information on the quality of lgv driving instructors and by expanding and enhancing the role of the private sector in the delivery of testing.

- FTA believes that the ultimate objective must be to achieve a ‘one-stop-shop’ for commercial vehicle operators where all vehicle, driver and operator licensing transactions can be carried out, and all relevant data accessed, through a single account log-in with multiple users (with all operator, vehicle and driver data interlinked).

- DVLA failed to listen to industry’s needs for checking licence entitlement and details in bulk quantities with the removal of the driver licence counterpart in 2015. FTA has urged DVLA to develop digital services in such a manner that they can be used by the business sector and not just individual drivers or vehicle owners.

Urban access
FTA has outlined its formula for improving the movement of goods in the Capital; in ‘London Elections 2016 – Freight Manifesto’ we set out ways in which the economy, roads and environment can be improved in the interests of all (see adjacent graphic). These principles apply to other UK towns and cities.

Air quality
FTA contends that the use of relatively blunt regulatory tools such as Clean Air Zones (CAZ), as currently proposed by Defra, should be minimised. They should only apply to the minimum range of vehicles necessary in each location; and they should be introduced at a time that would not compromise the ability of small businesses to serve their local market.

FTA believes more effective approaches to improve air quality would include: managing excess or increasing car usage in key areas; improving traffic management to reduce congestion at key hot spots (especially prioritising hdvs – lorries and buses – where they are an issue); improving loading space availability (to prevent waiting or extra driving); fiscal incentives to upgrade fleets early, such as zero rate vehicle excise duty or a scrappage scheme for older vans/ hgv; access to bus lanes for Euro VI hgv; exemptions from local regulatory constraints (eg London Lorry Control Scheme); and temporary exemptions from charges (eg London Congestion Charge, M6 Toll, all estuarial crossings) for compliant vehicles. Further support could also be offered for hgv and vans powered by alternatives to diesel.

Carbon reduction
Revised government statistics published in February 2016 demonstrate that hgv emissions have reduced by 8 per cent since 1990. FTA member experience shows that there is no one size fits all approach to reducing freight carbon emissions – a whole package, of operational and technical measures, is required for the sector to make a contribution to climate change reduction targets. FTA believes that significant carbon savings can be made through alternative fuels and low carbon technologies.

However, government also has a role to play and a much greater percentage of Office for Low Emission Vehicle (OLEV) funding could be devoted to the freight sector to support the switch to greener fuels and technologies. To further reduce carbon emissions, changes to vehicle weights and dimensions should be considered as a fundamental measure, despite the political sensitivities of this issue. We have also urged government, as part of Department for Transport’s (DfT) latest Freight Carbon Review, to reendorse the Logistics Carbon Reduction Scheme as it is driving carbon efficiency improvements in the sector.
sources
The main source for the Logistics Report 2016 is the FTA Logistics Industry Survey 2015/16. The Logistics Industry Survey 2015/16 is FTA’s annual poll of members’ experiences of the freight market and trading environment. It provides insights into current and future levels of business sentiment. The survey was conducted in November and December 2015 and there were 340 respondents in the sample, spanning over 10 sectors in the UK. Questions in the industry survey centred on economic and political issues that affected the logistics sector in 2015 and expectations for 2016.

The Logistics Report 2016 draws further evidence from the following sources:
FTA Quarterly Transport Activity Survey (Q TAS), FTA Manager’s Guide to Distribution Costs, FTA Transport Manager Survey 2015, FTA Logistics Carbon Review 2016 incorporating the Sixth Annual Report of the Logistics Carbon Reduction Scheme 2016, RepGraph: Solving the Driver Crisis 2016 and official statistical publications which are referenced throughout the report.

<table>
<thead>
<tr>
<th>Figure number</th>
<th>Title</th>
<th>Page number</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>Industry perception of public understanding of the role of logistics in the economy</td>
<td>19</td>
<td>FTA Logistics Industry Surveys 2009/10–2015/16</td>
</tr>
<tr>
<td>1.2</td>
<td>Policy actions for government</td>
<td>20</td>
<td>FTA Logistics Industry Survey 2015/16</td>
</tr>
<tr>
<td>1.3</td>
<td>Global economic outlook (GDP) for 2016 compared to 2015</td>
<td>21</td>
<td>OECD Economic Outlook; November 2015 and OECD Interim Economic Outlook, February 2016</td>
</tr>
<tr>
<td>1.4</td>
<td>Number of goods vehicle operator licences in Great Britain continues to decline</td>
<td>24</td>
<td>Traffic Commissioners’ Report 2015</td>
</tr>
<tr>
<td>1.5</td>
<td>Number of heavy goods vehicles in use 2000–2014 (Great Britain)</td>
<td>24</td>
<td>Table VEH0103, Vehicle Licensing Statistics 2015</td>
</tr>
<tr>
<td>1.6</td>
<td>UK domestic road freight activity sentiment for 2014, 2015 and expectation for 2016</td>
<td>24</td>
<td>FTA Logistics Industry Surveys 2014/15 and 2015/16</td>
</tr>
<tr>
<td>1.7</td>
<td>Business expectation for top 5 sectors for 2016 compared to 2015</td>
<td>25</td>
<td>FTA Logistics Industry Survey 2015/16</td>
</tr>
<tr>
<td>1.8</td>
<td>UK international road freight activity sentiment for 2014, 2015 and expectation for 2016</td>
<td>25</td>
<td>FTA Logistics Industry Surveys 2014/15 and 2015/16</td>
</tr>
<tr>
<td>1.9</td>
<td>Demand for third party services</td>
<td>25</td>
<td>FTA Logistics Industry Surveys 2010/11–2014/2015 and FTA Quarterly Transport Activity Survey</td>
</tr>
<tr>
<td>1.10</td>
<td>Economic expectations for 2016</td>
<td>25</td>
<td>FTA Logistics Industry Survey 2015/16</td>
</tr>
<tr>
<td>1.11</td>
<td>Average rating of level of competitiveness with EU and globally</td>
<td>26</td>
<td>FTA Logistics Industry Survey 2015/16</td>
</tr>
<tr>
<td>1.12</td>
<td>Air freight market shows growth on all routes in 2015</td>
<td>27</td>
<td>FTA Logistics Industry Survey 2015/16</td>
</tr>
<tr>
<td>1.13</td>
<td>Deep and short sea shipping indicates growth in most shipping lanes for 2015</td>
<td>28</td>
<td>FTA Logistics Industry Survey 2015/16</td>
</tr>
<tr>
<td>1.14</td>
<td>UK top 10 trading partners – imports</td>
<td>29</td>
<td>HM Revenue and Customs, Overseas Trade Statistics (December 2015)</td>
</tr>
<tr>
<td>1.15</td>
<td>UK top 10 trading partners – exports</td>
<td>29</td>
<td>HM Revenue and Customs, Overseas Trade Statistics (December 2015)</td>
</tr>
<tr>
<td>1.16</td>
<td>Rail freight moved by market segment 2000-2015</td>
<td>30</td>
<td>Office of Rail and Road (ORR)</td>
</tr>
<tr>
<td>1.17</td>
<td>Change in principal transport fuel costs in 2015</td>
<td>30</td>
<td>Accenture, IATA and Bunkerworld</td>
</tr>
<tr>
<td>1.18</td>
<td>Bulk diesel prices and expectations for 2016</td>
<td>31</td>
<td>Accenture</td>
</tr>
<tr>
<td>1.20</td>
<td>Changes in input costs in 2015 compared to 2014</td>
<td>32</td>
<td>FTA Logistics Industry Survey 2015/16</td>
</tr>
<tr>
<td>1.21</td>
<td>Changes in freight rate costs in 2015 compared to 2014</td>
<td>32</td>
<td>FTA Logistics Industry Survey 2015/16</td>
</tr>
<tr>
<td>1.22</td>
<td>Commercial vehicle registrations 2000-2015</td>
<td>32</td>
<td>SMMT</td>
</tr>
<tr>
<td>1.23</td>
<td>Fleet investment intentions</td>
<td>33</td>
<td>FTA Logistics Industry Surveys 2014/15 and 2015/16</td>
</tr>
<tr>
<td>1.24</td>
<td>Large scale business investment plans in 2015 and 2016</td>
<td>33</td>
<td>FTA Logistics Industry Survey 2015/16</td>
</tr>
<tr>
<td>2.1</td>
<td>Road traffic (billion vehicle miles)</td>
<td>43</td>
<td>Transport Statistics Great Britain 2015 Table TRA0101</td>
</tr>
<tr>
<td>2.2</td>
<td>Reliability of the road network</td>
<td>44</td>
<td>FTA Logistics Industry Surveys 2010/11–2015/16 and FTA Quarterly Transport Activity Survey</td>
</tr>
<tr>
<td>2.3</td>
<td>Average vehicle speeds during the weekday morning peak on locally managed ‘A’ roads, in England</td>
<td>44</td>
<td>Department for Transport Road Congestion Statistics Table CGN 0209</td>
</tr>
<tr>
<td>Figure number</td>
<td>Title</td>
<td>Page number</td>
<td>Source</td>
</tr>
<tr>
<td>---------------</td>
<td>----------------------------------------------------------------------</td>
<td>-------------</td>
<td>------------------------------------------------------------------------</td>
</tr>
<tr>
<td>2.4</td>
<td>Road and rail network reliability</td>
<td>45</td>
<td>FTA Logistics Industry Surveys 2010/11–2015/16 and FTA Quarterly Transport Activity Survey</td>
</tr>
<tr>
<td>2.5</td>
<td>Are 20,000 TEU (tonne equivalent unit) class ships contributing to unstable global container trades?</td>
<td>48</td>
<td>Shipper sentiment survey 2015, Containerisation International</td>
</tr>
<tr>
<td>2.6</td>
<td>Factors in UK port congestion in 2015</td>
<td>48</td>
<td>FTA Logistics Industry Survey 2015/2016</td>
</tr>
<tr>
<td>2.7</td>
<td>Broad definition of employment in logistics</td>
<td>49</td>
<td>Repgraph analysis of ONS Labour Force Survey for Q2, 2015</td>
</tr>
<tr>
<td>2.8</td>
<td>Anticipated staff shortages weighted by number of lgv's</td>
<td>50</td>
<td>FTA Logistics Industry Survey 2015/2016</td>
</tr>
<tr>
<td>2.9</td>
<td>Percentage of respondents changing staff gross pay</td>
<td>50</td>
<td>FTA Logistics Industry Survey 2015/2016</td>
</tr>
<tr>
<td>2.11</td>
<td>Lgv drivers in employment compared to general employment in the past 10 years</td>
<td>52</td>
<td>ONS Labour Force Survey Employment status by occupation, tables EMP04 and EMP16 Q2 2001– Q2 2015</td>
</tr>
<tr>
<td>2.12</td>
<td>Claimant count for lgv drivers</td>
<td>52</td>
<td>Quarterly Labour Force Survey, 2001–2015 (Q2 for each year)</td>
</tr>
<tr>
<td>2.13</td>
<td>Average age of lgv driver population over the last 15 years</td>
<td>53</td>
<td>Quarterly Labour Force Survey, April–June 2015</td>
</tr>
<tr>
<td>2.14</td>
<td>Age demographics for professional drivers compared to the general population</td>
<td>53</td>
<td>FTA Quarterly Transport Activity Survey, January 2016</td>
</tr>
<tr>
<td>2.15</td>
<td>Driver CPC initial qualification</td>
<td>53</td>
<td>FTA Quarterly Transport Activity Survey, June 2015</td>
</tr>
<tr>
<td>2.16</td>
<td>Lgv driver apprenticeship numbers</td>
<td>54</td>
<td>FTA Quarterly Transport Activity Survey, June 2015</td>
</tr>
<tr>
<td>2.17</td>
<td>Practical large goods vehicle test: Great Britain</td>
<td>54</td>
<td>FTA Quarterly Transport Activity Survey, June 2015</td>
</tr>
<tr>
<td>2.18</td>
<td>Problems in recruiting professional drivers</td>
<td>54</td>
<td>FTA Quarterly Transport Activity Survey, January 2016</td>
</tr>
<tr>
<td>2.19</td>
<td>Barriers to driver recruitment</td>
<td>54</td>
<td>FTA Quarterly Transport Activity Survey, June 2015</td>
</tr>
<tr>
<td>2.20</td>
<td>Measures to address driver recruitment and deployment</td>
<td>55</td>
<td>FTA Quarterly Transport Activity Survey, June 2015</td>
</tr>
<tr>
<td>3.1</td>
<td>Board priorities linked to transport and logistics in 2015</td>
<td>60</td>
<td>FTA Logistics Industry Survey 2015/2016</td>
</tr>
<tr>
<td>3.2</td>
<td>Online spending in the UK</td>
<td>62</td>
<td>ONS Retail Sales, January 2016</td>
</tr>
<tr>
<td>3.3</td>
<td>Proportion of retail sales made online for seasonally and non-</td>
<td>63</td>
<td>FTA Quarterly Transport Activity Survey, January 2016</td>
</tr>
<tr>
<td></td>
<td>seasonally adjusted data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.4</td>
<td>Road traffic forecasts</td>
<td>64</td>
<td>DfT National Transport Model (NTM), Road Transport Forecasts (2015)</td>
</tr>
<tr>
<td>3.5</td>
<td>Hgv regulation – the compliance journey</td>
<td>65</td>
<td>FTA Quarterly Transport Activity Survey, January 2016</td>
</tr>
<tr>
<td>3.6</td>
<td>Hgv fatal accident rate per billion vehicle miles</td>
<td>67</td>
<td>DfT, Reported Road Casualties, GB, Table RAS20001</td>
</tr>
<tr>
<td>3.7</td>
<td>Number of fatal accidents involving lgv's</td>
<td>67</td>
<td>DfT, Reported Road Casualties, GB, Table RAS40005</td>
</tr>
<tr>
<td>3.8</td>
<td>Car and hgv accident rate (all severities) per billion vehicle miles</td>
<td>67</td>
<td>DfT, Reported Road Casualties, GB, Table RAS20001</td>
</tr>
<tr>
<td>3.9</td>
<td>Air quality – Euro I to Euro VI</td>
<td>69</td>
<td>FTA Quarterly Transport Activity Survey, January 2016</td>
</tr>
<tr>
<td>3.10</td>
<td>Air quality – Euro V to Euro VI</td>
<td>69</td>
<td>FTA Quarterly Transport Activity Survey, January 2016</td>
</tr>
<tr>
<td>3.11</td>
<td>Public access gas refuelling stations</td>
<td>72</td>
<td>FTA Quarterly Transport Activity Survey, January 2016</td>
</tr>
<tr>
<td>3.12</td>
<td>Kg of CO2e per vehicle km for freight industry vs LCRS members 2005–2014</td>
<td>73</td>
<td>Logistics Carbon Review 2016, Logistics Carbon Reduction Scheme</td>
</tr>
<tr>
<td>3.13</td>
<td>Goods moved by lgv's (billion tonne km) still below pre-</td>
<td>74</td>
<td>Department for Transport, Road Freight Statistics, Table RFS0105</td>
</tr>
<tr>
<td></td>
<td>precipitation levels though trucks may be ‘cubing out’ before</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>‘weighing out’</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>