

Current Issues Note 51

London and Europe: Facts and figures

Emma Christie and Gordon Douglass

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For more information about this publication, please contact:

GLA Economics

Tel 020 7983 4922

Email glaeconomics@london.gov.uk

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Introduction

Since the referendum on the UK's membership of the European Union (EU) there has been considerable demand for information on a wide variety of aspects of London's economy and London's relationship with Europe. An extensive selection of data and surveys exist covering these topics and this Current Issues Note sets out to summarise some of this. It should be noted that this publication does not take a position on the referendum result, or set out to analyse this data in any depth, or take a view on the short and long-run effects, either positive or negative if any, of this vote on London's economy. Rather its aim is to provide some, but by no means all, relevant data that may help to enlighten debate and decision making. Therefore this Note first looks at London in a UK context, before moving on to examine some of London's relationships with Europe.

Background and context

On 23 June 2016 the UK voted to leave the EU. Since then there has been a high demand for data on various aspects of London's relationship with both the rest of the UK and Europe in light of the upcoming Article 50 negotiations. At the time of writing this Note these are expected to commence sometime by the end of March 2017. Once the Article 50 process is started the UK then has up to two years to negotiate its exit from the EU. It should be noted that analysis on the relationship of selected sectors of London's economy to the EU has been undertaken previously by GLA Economics in 2014 and can be found in [Appendix A of the 2014 Europe Report](#) from the GLA, while the Appendix to this report updates this analysis.

London's economy in a UK context

Before examining London's relationship with Europe it is important to place London's economy into a UK context, as a number of issues relating to the UK and the EU also relate to London and the EU. The following data will also highlight the importance of London to the UK economy and thus also the national importance of London's trading relationships. This section of the report thus provides background on London's labour market, economic output, exports and fiscal position in relation to the UK as a whole. More information on London's economy is available in the GLA Economics publication - [Economic Evidence Base for London 2016](#) and other GLA Economics publications such as those referenced in this text.

London's labour market

- In September 2016 data from the Office for National Statistics (ONS) showed that there were 5.730 million workforce jobs in London¹ (ie, the number of jobs located in London, whether or not they are taken by residents of London), this compares to 34.588 million workforce jobs for the UK as a whole². London thus accounts for 16.6 per cent of all UK workforce jobs.
- In terms of the composition of these jobs the biggest employing broad industrial sector in London by workforce jobs in September 2016 was the Professional scientific & technical activities sector accounting for 0.791 million workforce jobs. This was followed by the Wholesale & retail trade; repair of motor vehicles and motor cycles with 0.677 million workforce jobs; the Administrative & support service activities sector with 0.579 million workforce jobs; and the Human health & social work activities sector with 0.576 million workforce jobs.
- As a percentage of the UK's total workforce jobs London accounted for 34.6 per cent of all UK workforce jobs in the Financial & insurance activities sector (with 0.379 million workforce jobs in this sector in London) in September 2016. Of the main sectors of the economy this was followed by the Information & communication sector with London accounting for 31.9 per cent of all UK workforce jobs in this sector (with 0.452 million workforce jobs in this sector in London); the Professional scientific & technical activities sector with London accounting for 26.1 per cent of all the UK's workforce jobs in this sector; the Real estate activities sector with London accounting for 23.5 per cent of all UK workforce jobs in this sector (with 0.135 million workforce jobs in this sector in London); and the Arts, entertainment & recreation sector with London accounting for 21.4 per cent of all UK workforce jobs in this sector (with 0.215 million workforce jobs in this sector in London).
- Table 1 gives details on the evolution of employment by sector in London over time and highlights the growing importance of the London labour market for workforce jobs in the UK as a whole.

¹ ONS, 16 September 2016, '[HI07 Regional labour market: Headline indicators for London](#)'.

² ONS, 14 September 2016, '[JOBS02: Workforce jobs by industry](#)'.

Table 1: London's workforce jobs in selected years by sector

Sector	1996		2006		2015	
	London's workforce jobs (thousands)	London's workforce jobs as percentage of UK total	London's workforce jobs (thousands)	London's workforce jobs as percentage of UK total	London's workforce jobs (thousands)	London's workforce jobs as percentage of UK total
Agriculture, forestry & fishing	4	0.8%	3	0.8%	2	0.4%
Mining & quarrying	6	7.4%	5	7.9%	4	5.3%
Manufacturing	266	6.2%	167	5.5%	122	4.6%
Electricity, gas, steam & air conditioning supply	8	7.5%	5	6.8%	9	6.8%
Water supply, sewerage, waste & remediation activities	14	9.2%	16	10.0%	16	8.0%
Construction	209	11.5%	261	11.4%	288	13.4%
Wholesale & retail trade; repair of motor vehicles and motorcycles	570	12.1%	635	12.6%	672	13.4%
Transport & storage	248	19.4%	264	17.5%	281	17.5%
Accommodation & food service activities	206	12.2%	318	15.8%	377	16.8%
Information & communication	247	29.6%	351	28.5%	433	31.4%
Financial & insurance activities	336	31.0%	340	29.2%	374	33.7%
Real estate activities	70	25.0%	85	20.5%	138	24.5%
Professional scientific & technical activities	399	24.4%	551	24.8%	767	26.2%
Administrative & support service activities	368	20.4%	482	19.5%	575	19.8%
Public admin & defence; compulsory social security	231	14.1%	250	14.1%	224	15.0%
Education	228	11.1%	304	11.8%	421	14.2%
Human health & social work activities	354	12.1%	409	11.3%	547	12.9%
Arts, entertainment & recreation	133	19.9%	162	18.5%	202	20.7%
Other service activities	99	14.1%	136	16.1%	147	16.1%
Private households	15	15.8%	26	18.1%	13	19.9%
Total services	3503	16.4%	4314	16.7%	5170	18.2%
All jobs	4010	14.2%	4772	15.0%	5610	16.5%

Source: ONS

- Further, as indicated by Table 1 London's economy is characterised by significant levels of employment across a broad range of sectors; however from a wider GB perspective some sectors are particularly concentrated in London. Another way of looking at this is through the use of the 'index of specialisation' indicator³. This found that "London's most significant specialisations are in Financial and insurance activities; Information and communication; and Professional, scientific and technical activities", while "sectors such as Manufacturing and Primary and utilities which tend to be more land intensive have a low index of specialisation score"⁴.

London's output⁵

- ONS data⁶ shows that in 2015, London's total nominal GVA (as measured by GVA (I)⁷) was over £378 billion (up 3.2 per cent on 2014⁸), helped by strong growth in Human health and social work activities (13.2 per cent) and Information and communication (7.0 per cent). Inner London accounts for 67 per cent of London's GVA, with Inner London – West alone accounting for around 42 per cent of the total (see Figure 1).

³ Beyond [Chapter 1 of the Economic Evidence Base for London](#) further details on the index of specialisation can also be found in Appendix A2 to this note.

⁴ GLA Economics, November 2016, '[Economic Evidence Base for London 2016](#)'.

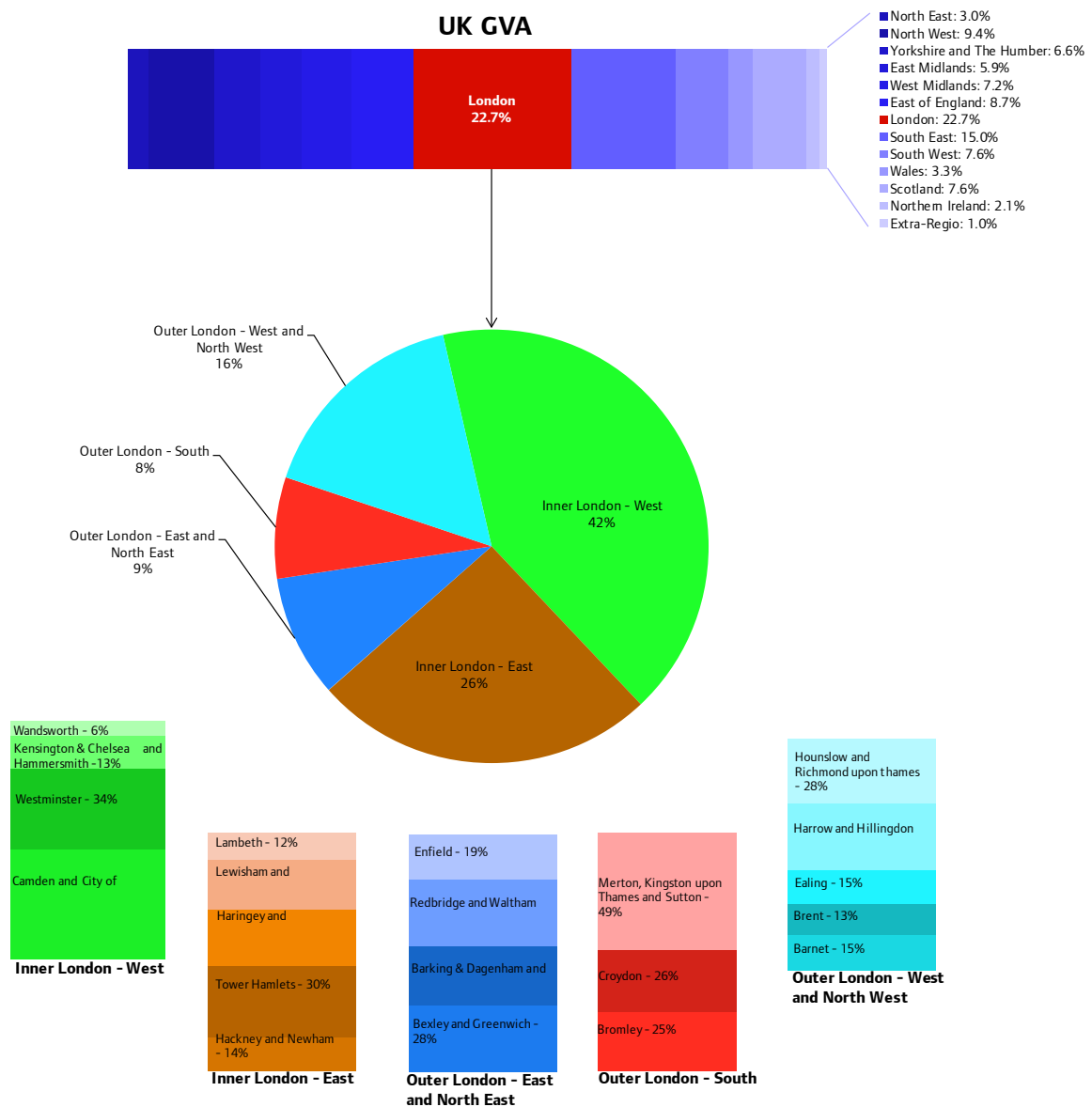
⁵ Selected parts of the analysis in this section are replicated in an upcoming Current Issues Note from GLA Economics which examines this GVA time series in more detail.

⁶ ONS, December 2016, '[Regional gross value added \(income approach\): UK, 1997 to 2015](#)'.

⁷ This is GVA as measured by the income approach.

⁸ Note that the data in this section is presented in nominal ie, inflation unadjusted terms.

Figure 1: Geographic breakdown of Headline⁹ UK GVA (I) in 2015



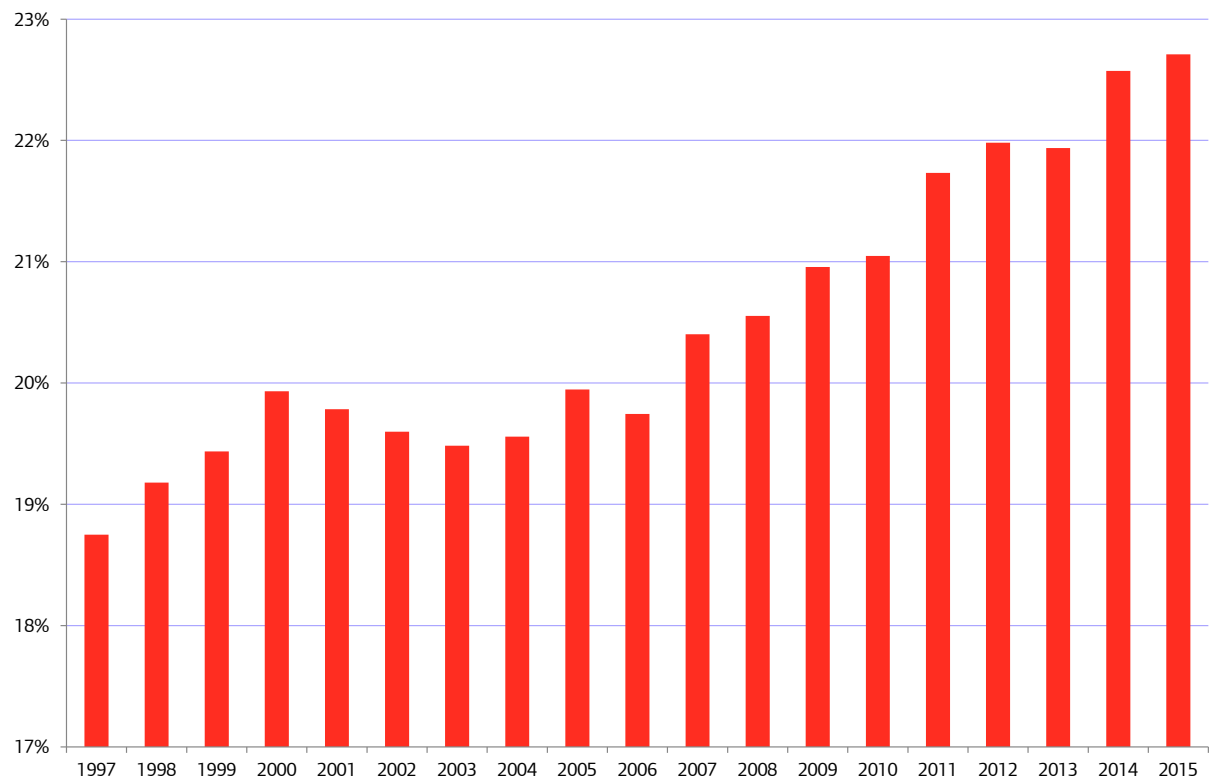
Source: Regional Accounts, ONS

- London accounted for 22.7 per cent¹⁰ of the UK's total GVA in 2015, up from 22.6 per cent in 2014 (see Figure 2). London has the highest GVA per head at £43,629, 70 per cent higher than UK GVA per head of £25,601.

⁹ UK includes Extra-Region (which comprises compensation of employees and gross operating surplus which cannot be assigned to regions)

¹⁰ The share reported here is calculated as London's GVA divided by UK GVA.

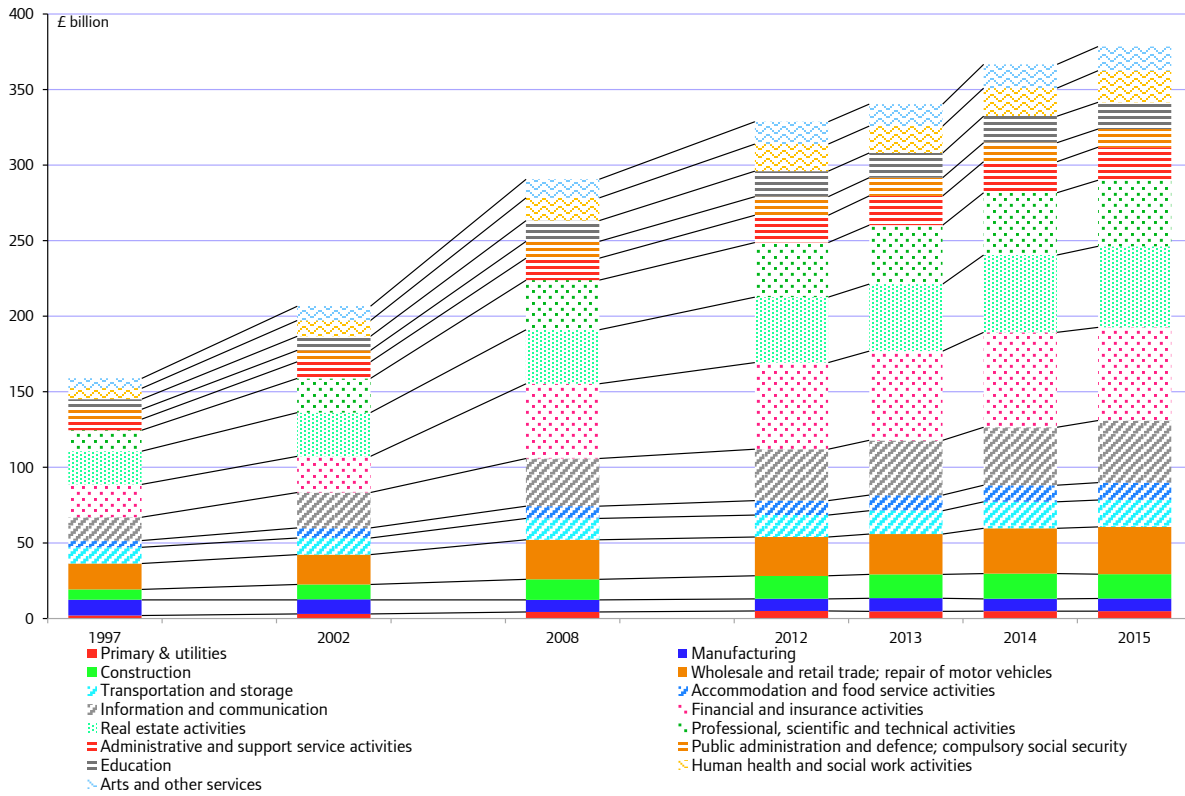
Figure 2: London's share of UK GVA (I), 1997 – 2015



Source: *Regional Accounts, ONS*

- In 2015 the sector which contributed the largest percentage of London's GVA was the Financial and insurance industry, with output totalling £61.7 billion (see Figure 3 and Table 2). The value of this industry has grown from 13.7 per cent of London's total GVA in 1997 to 16.3 per cent in 2015. Professional, scientific and technical activities also significantly increased its share of the London economy, increasing from 8.7 per cent of total GVA in 1997 to 11.6 per cent in 2015. In 2015, just over half of the UK's GVA in the Financial and insurance industry was generated in London (up from 42.5 per cent in 1997) (see Figure 4). Indeed, London's Financial and insurance industry made up 3.7 per cent of the UK's total GVA in 2015.
- Real estate activities; and Information and communication industries also play an important role in London's economy. In 2015, these two industries combined accounted for 25.0 per cent of London's GVA (up slightly from 23.6 per cent in 1997).

Figure 3: Headline GVA (I)¹¹ in London by industry, 1997-2015, current prices and selected years



Source: Regional Accounts, ONS

¹¹ Estimates are for workplace based GVA allocating incomes to the region in which the economic activity takes place.

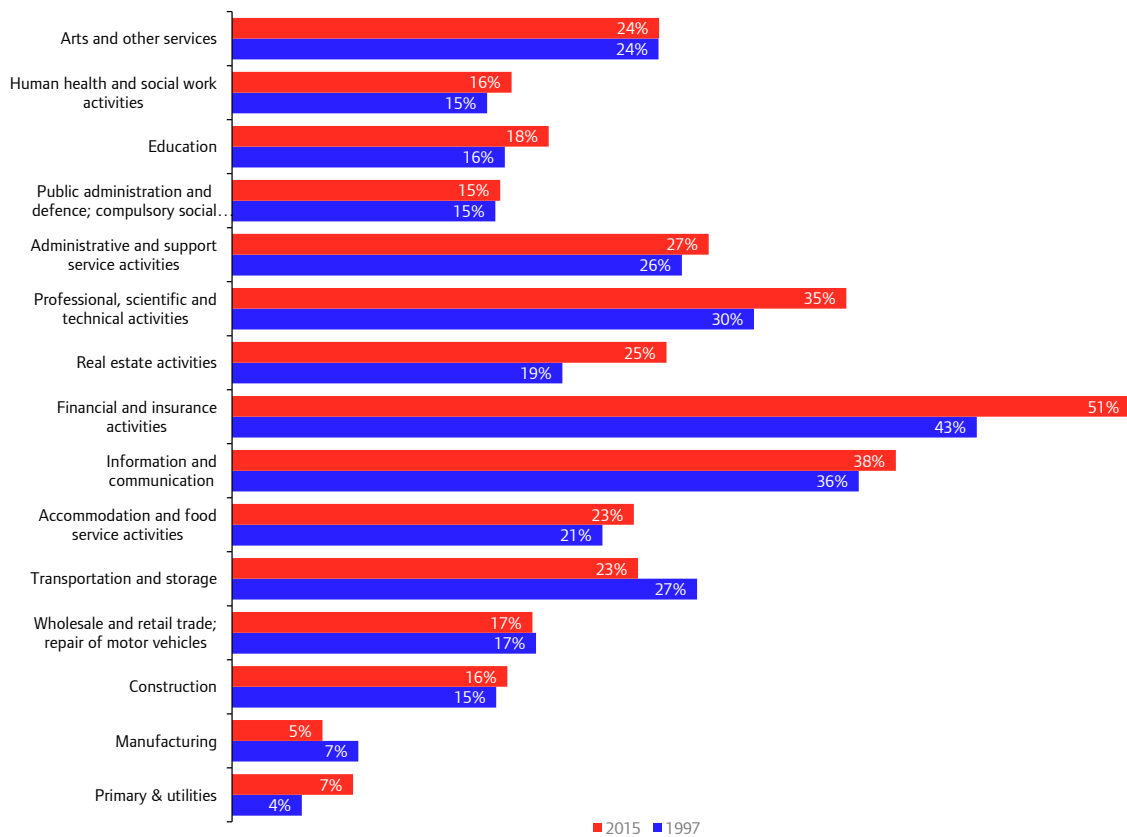
Table 2: Headline GVA (I)¹² in London by industry (£ billion and as per cent of total London GVA (I)), 1997, 2008 and 2015, current prices

	1997		2008		2015	
	Industry GVA (£b)	% of London's economy	Industry GVA (£b)	% of London's economy	Industry GVA (£b)	% of London's economy
Primary & utilities	1.9	1.2%	4.2	1.5%	4.8	1.3%
Manufacturing	10.4	6.6%	8.1	2.8%	8.4	2.2%
Construction	6.8	4.3%	13.6	4.7%	16.0	4.2%
Wholesale and retail trade; repair of motor vehicles	17.2	10.8%	26.2	9.0%	31.3	8.3%
Transportation and storage	10.8	6.8%	14.1	4.9%	17.9	4.7%
Accommodation and food service activities	4.4	2.8%	8.0	2.8%	11.4	3.0%
Information and communication	15.5	9.7%	31.6	10.9%	41.1	10.9%
Financial and insurance activities	21.7	13.7%	49.5	17.0%	61.7	16.3%
Real estate activities	22.0	13.8%	35.7	12.3%	53.6	14.2%
Professional, scientific and technical activities	13.8	8.7%	32.9	11.3%	43.7	11.6%
Administrative and support service activities	7.4	4.6%	14.6	5.0%	21.9	5.8%
Public administration and defence; compulsory social security	6.5	4.1%	11.1	3.8%	12.0	3.2%
Education	6.8	4.3%	13.8	4.8%	17.7	4.7%
Human health and social work activities	7.2	4.5%	15.0	5.2%	20.9	5.5%
Arts and other services	6.5	4.1%	12.3	4.2%	16.0	4.2%
Total	158.9	100.0%	290.6	100.0%	378.4	100.0%

Source: *Regional Accounts, ONS*

¹² Estimates are for workplace based GVA allocating incomes to the region in which the economic activity takes place.

Figure 4: London's share of UK headline GVA (I)¹³ by industry, 1997 & 2015, current prices



Source: *Regional Accounts, ONS*

London's trade in goods and services with the rest of the UK

- No official data exists on London's trade with the rest of the UK. However in 2014¹⁴ GLA Economics produced estimates for the year 2011 of inter-regional trade flows using imperfect assumptions to scale down the UK national input-output (I/O) table, creating an estimated I/O table for London. It should be noted that these are based on a number of heroic assumptions and are thus imperfect estimates, however arguably it is sufficient to provide an illustrative view of London's trade flows with the rest of the UK. Table 3 sets out the results of these estimates.

¹³ Estimates are for workplace based GVA allocating incomes to the region in which the economic activity takes place.

¹⁴ GLA Economics, September 2014, '[Growing Together II: London and the UK economy](#)'.

Table 3: Estimate of the trade of goods and services between London and the rest of the UK, 2011

Industry Sector	Regional Exports (£ billion)	Regional Imports (£ billion)	Trade Balance (£ billion)
Agriculture	0.2	2.8	-2.7
Production	45.4	91.9	-46.5
Construction	17.7	17.6	0.1
Distribution, transport, hotels and restaurants	29.2	18.7	10.6
Information and communication	35.6	29.9	5.6
Financial and insurance	53.8	28.9	24.9
Real estate	40.2	24.1	16.1
Professional and support activities	19.8	8.3	11.5
Government, health & education	59.8	50.8	9.0
Other services	14.6	14.1	0.5
Total	316.2	287.0	29.2

Source: GLA Economics based on data from ONS

London's tax and spend in a UK context

- In 2014¹⁵ the City of London Corporation published their latest estimates of London's and the other UK regions' and nations' tax take and government spend¹⁶. In this they found that:
 - "since 2004/05 London has consistently contributed a fiscal surplus to the UK. London's surplus has been relatively volatile over time, reflecting London and the UK's economic cycle over the period, ranging from £11 billion during the economic recession in 2009/10, to an estimated £34 billion in 2013/14, surpassing its previous peak of £29 billion in 2007/08".
 - "In line with the positive economic outlook for London and the UK in terms of output and employment growth, London's surplus is projected to increase over the period, reaching £100 billion by 2026/27, and £159 billion by 2034/35, while the overall balance of regional public finances will also be in a surplus position of £66 billion and £149 billion for the respective years".
 - "Looking ahead, London's tax contribution is expected to increase by 81% by 2034/35, reflecting the continued forecasted economic recovery through increased employment, consumer spending and business growth. Over the same period, London's public spending as a share of economic output is projected to fall from 29% in 2013/14 to just 23% by 2034 – indicating a very healthy private sector"¹⁷.
- In the tax year 2013/14 (the last year of their analysis where their data is an estimate and not a forecast) they thus estimated that London generated tax revenues of £127.197 billion against government spending of £92.970 billion leading to the aforementioned fiscal surplus or 'tax export' from London of £34.216 billion one of only 3 areas of the UK with a tax export along with the East of England (£0.181 billion) and the South East (£21.901 billion).

¹⁵ Note that obviously more recent UK national data has been published since then but this is the most recent published detailed analysis of London's fiscal position.

¹⁶ Oxford Economics, November 2014, 'London's Finances and Revenues'. City of London Corporation.

¹⁷ Ibid.

London's economy in a European context

This section provides selected data on London and Europe. It should be noted that most data in relation to Europe in this section refers to the EU; however some data due to data limitations refers to other relevant geographies such as the European Economic Area (EEA). Where this is the case it is highlighted within the text.

- Earlier it was shown that London accounted for nearly 23 per cent of all the UK's output. Putting this into a European context, Table 4 shows that in 2014 if London had been an independent nation then in euro terms it would have been the 7th biggest economy in the EU, behind the Netherlands but ahead of Sweden.

Table 4: Gross domestic product (GDP) at current market prices in London and selected countries in 2014 (euro million)

Rank	Country	Output
1	Germany	2,915,650
2	United Kingdom ¹⁸	2,254,297
3	France	2,132,449
4	Italy	1,613,859
5	Spain	1,041,160
6	Netherlands	662,770
7	London	509,402
8	Sweden	430,642
9	Poland	410,845
10	Belgium	400,643

Source: Eurostat

- In Purchasing Power Standard¹⁹ (PPS) terms London ranks slightly less highly at 8th as shown in Table 5, behind the Netherlands but ahead of Belgium.

¹⁸ Includes London.

¹⁹ Eurostat notes that: "[The purchasing power standard, abbreviated as PPS, is an artificial currency unit. Theoretically, one PPS can buy the same amount of goods and services in each country. However, price differences across borders mean that different amounts of national currency units are needed for the same goods and services depending on the country. PPS are derived by dividing any economic aggregate of a country in national currency by its respective purchasing power parities](#)".

Table 5: Gross domestic product (GDP) at current market prices in London and selected countries in 2014 (PPS million)

Rank	Country	Output
1	Germany	2,795,700
2	France	1,937,806
3	United Kingdom ²⁰	1,933,613
4	Italy	1,604,114
5	Spain	1,163,000
6	Poland	714,521
7	Netherlands	605,554
8	London	436,937
9	Belgium	362,995
10	Sweden	326,823

Source: Eurostat

- Table 6 shows that compared to most of its major international competitors the strictness of employment protection legislation in the UK is relatively light. Thus although the environment is somewhat more tight than that seen in the US, compared to other EU nations employment regulation in the UK is the least stringent.

²⁰ Includes London.

Table 6: Strictness of employment protection legislation for selected countries, regular employment, 1990 – 2013, range 0 to 6 (a higher score represents stricter regulation)²¹

	1990	1995	2000	2005	2007	2008	2009	2010	2011	2012	2013	2014
Australia	1.17	1.17	1.42	1.42	1.17	1.17	1.17	1.67	1.67	1.67	1.67	
Austria	2.75	2.75	2.75	2.37	2.37	2.37	2.37	2.37	2.37	2.37	2.37	..
Belgium	1.85	1.85	1.85	1.89	1.89	1.89	1.89	2.08	2.08	1.89	1.89	..
Canada	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	..
Czech Republic	..	3.31	3.31	3.31	3.05	3.05	3.05	3.05	3.05	2.92	2.92	..
Denmark	2.18	2.13	2.13	2.13	2.13	2.13	2.13	2.13	2.20	2.20	2.20	..
Finland	2.79	2.45	2.31	2.17	2.17	2.17	2.17	2.17	2.17	2.17	2.17	..
France	2.34	2.34	2.34	2.47	2.47	2.47	2.38	2.38	2.38	2.38	2.38	..
Germany	2.58	2.68	2.68	2.68	2.68	2.68	2.68	2.68	2.68	2.68	2.68	..
Greece	2.80	2.80	2.80	2.80	2.80	2.80	2.80	2.80	2.17	2.17	2.12	..
Hungary	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	1.59	..
Ireland	1.44	1.44	1.44	1.44	1.27	1.27	1.27	1.27	1.27	1.40	1.40	..
Italy	2.76	2.76	2.76	2.76	2.76	2.76	2.76	2.76	2.76	2.76	2.68	..
Japan	1.70	1.70	1.70	1.70	1.37	1.37	1.37	1.37	1.37	1.37	1.37	..
Korea	3.04	3.04	2.37	2.37	2.37	2.37	2.37	2.37	2.37	2.37	2.37	..
Mexico	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.03	..
Netherlands	3.04	2.84	2.88	2.88	2.88	2.88	2.82	2.82	2.82	2.82	2.82	..
New Zealand	1.24	1.24	1.24	1.56	1.56	1.56	1.56	1.56	1.56	1.39	1.39	..
Norway	2.33	2.33	2.33	2.33	2.33	2.33	2.33	2.33	2.33	2.33	2.33	..
Poland	2.23	2.23	2.23	2.23	2.23	2.23	2.23	2.23	2.23	2.23	2.23	..
Portugal	4.83	4.58	4.58	4.42	4.42	4.42	4.42	4.13	4.13	3.56	3.18	..
Slovak Republic	..	2.47	2.47	2.22	2.22	2.22	2.22	2.22	2.22	1.71	1.84	..
Spain	3.55	2.36	2.36	2.36	2.36	2.36	2.36	2.36	2.21	2.21	2.05	..
Sweden	2.80	2.80	2.65	2.61	2.61	2.61	2.61	2.61	2.61	2.61	2.61	..
Switzerland	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60	..
Turkey	2.39	2.39	2.39	2.31	2.31	2.31	2.31	2.31	2.31	2.31	2.31	..
United Kingdom	1.10	1.10	1.26	1.26	1.26	1.26	1.26	1.26	1.26	1.26	1.10	1.10
United States	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	..
China	..	..	..	..	..	3.26	3.26	3.26	3.26	3.26	..	..
India	..	..	..	..	..	3.29	3.29	3.29	3.29	3.29	..	..
OECD countries	..	..	..	..	..	2.17	2.16	2.15	2.12	2.08	2.04	..

Source: OECD

London's trade with the world and with Europe

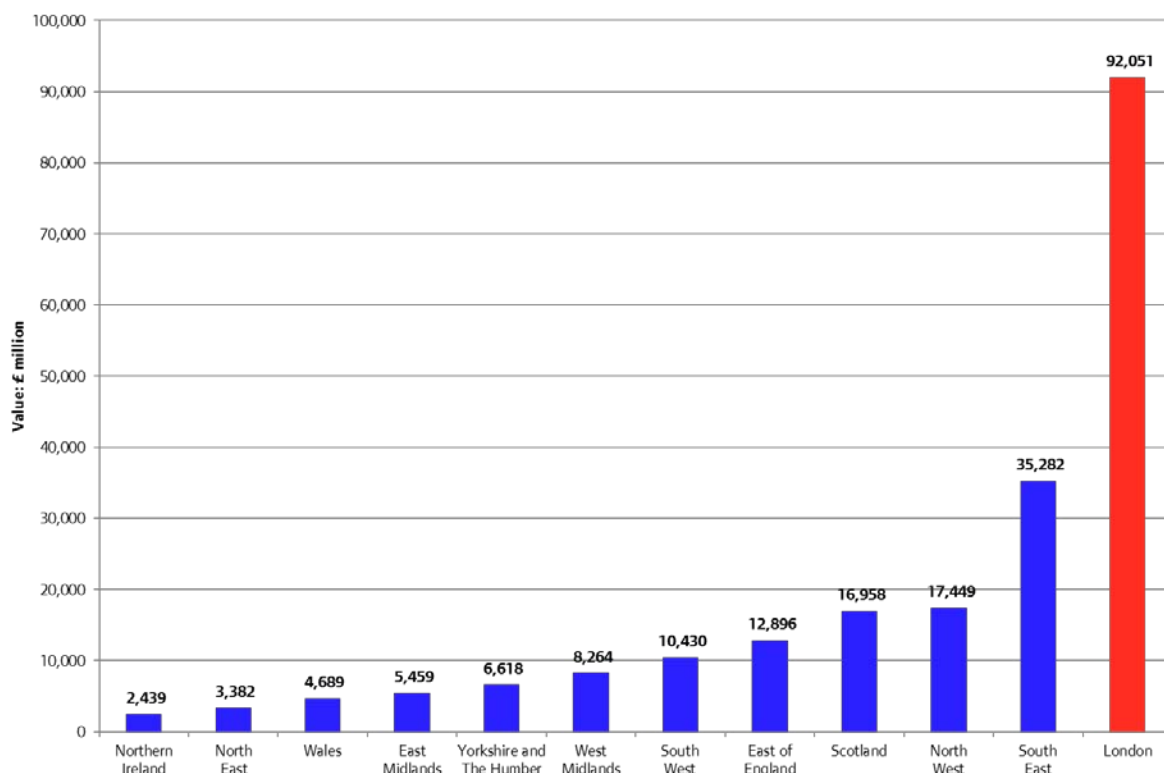
This sub section looks at London's and to an extent the rest of the UK's trade with various markets.

²¹ The OECD notes that: "[the dataset contains the indicator of strictness of regulation of individual dismissal of employees on regular/indefinite contracts. The OECD indicators of employment protection are synthetic indicators of the strictness of regulation on dismissals and the use of temporary contracts. For each year, indicators refer to regulation in force on the 1st of January. Data range from 0 to 6 with higher scores representing stricter regulation](#)".

Exports in general

- For the UK as a whole, the absolute levels of trade have been increasing (even when accounting for changes in prices). However, the UK has run a trade deficit for most of the past 20 years. In 2015, the total value of both imports and exports were in excess of £500 billion, with a trade deficit of £38.6 billion.
- Data for London is slightly less current. Nevertheless, in contrast to the position at the national level, previous analysis undertaken by the GLA estimated that London ran a trade surplus. The London Business Survey estimated that businesses exported £28 billion more than they imported in the year to mid-2014^{22,23,24}.
- In 2014, London’s service exports totalled £92.1 billion (see Figure 5), with London accounting for over two-fifths of the UK’s total export of services. London’s largest exporting sectors were in financial services, travel services; and in the real estate and professional, scientific and technical activities; and, information and communications sectors which accounted for almost 60 per cent of total service exports in 2014.

Figure 5: Regional service exports, 2014



Source: ONS

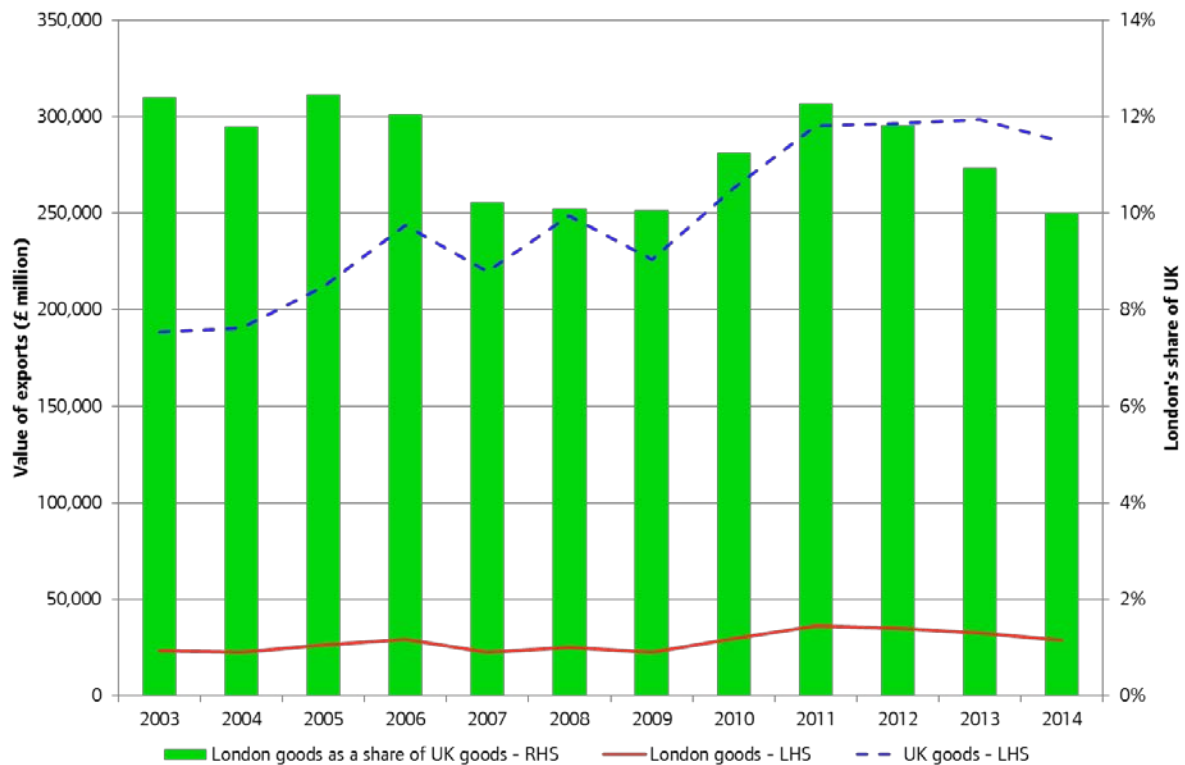
²² This result and those from the ONS Pink Book are not consistent with one another, so some caution is required with this finding.

²³ GLA Economics, November 2014, '[London Business Survey 2014: Exports](#)'.

²⁴ For reference, in 2014 the UK as a whole had a surplus in its trade in services with the EU of £15.4 billion: ONS, 26 June 2015, '[How important is the European Union to UK trade and investment?](#)'.

- London exported around £28.7 billion worth of goods in 2014 (see Figure 6), a 23 per cent increase on 2003. Therefore London's total exports (goods and services) are estimated to be worth £120.8 billion in 2014.

Figure 6: London's goods exports as a share of UK (2003 – 2014)



Source: *Regional Trade Statistics, HMRC*

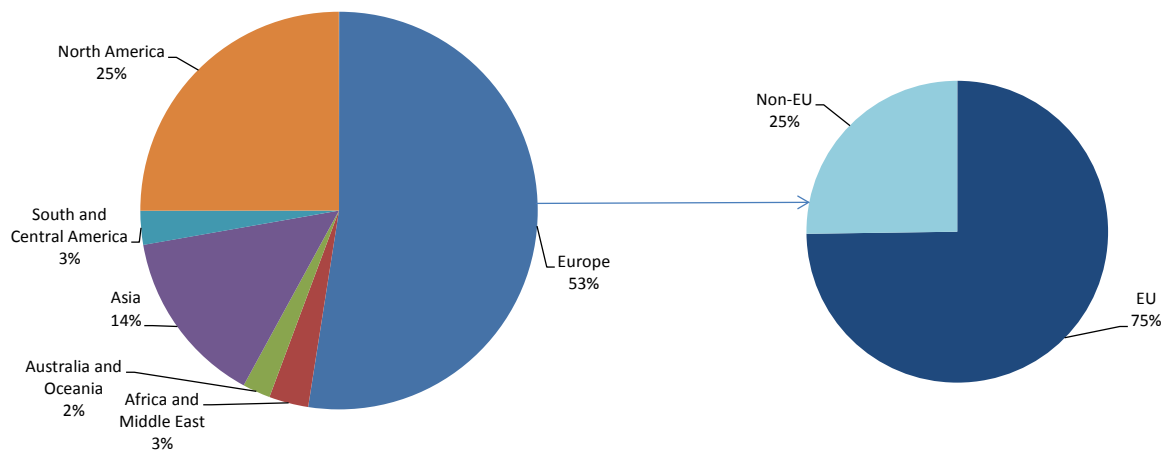
- It should also be noted that the EU, and thus currently the UK and London, has existing free trade agreements in place with many non-EU countries, including Switzerland, South Korea, Chile, Mexico, South Africa and Turkey. In total the EU is a signatory to over 30 bilateral and regional agreements with over 50 partners. The EU is also currently negotiating trade deals with Canada, the US, and Japan, which would further improve access to global markets²⁵.

EU related trade

- Data from the Pink Book provides detail as to the UK's major trading partners. Figure 7 shows that Europe (EU and non-EU) and North America are the UK's largest trading partners, accounting for over three-quarters of total service exports; Europe itself accounted for 53 per cent of total service exports in 2015 (with the European Union accounting for three-quarters of the European continent total).

²⁵ More details can be found at: http://ec.europa.eu/trade/policy/countries-and-regions/agreements/index_en.htm#_other-countries.

Figure 7: UK export of services by destination, 2015



Source: *The Pink Book 2016*, ONS

- In terms of total trade in both goods and services the EU accounted for 42 per cent of the UK's exports in 2015, and accounted for 51 per cent of all imports²⁶.
- For London, of businesses surveyed in the London Business Survey (2014)²⁷, the majority of surveyed business units (64 per cent) expected the "impact on [their] business of leaving the EU (but not the single market)" to neither negatively nor positively impact their business. However, of those that did expect an impact, around three quarters thought it would have a negative or very negative impact.
 - The sectors of London's economy with the most negative views on leaving the EU (but not the single market) were Information, communications, arts, entertainment and recreation (37 per cent of surveyed business expected that leaving the EU would have a negative or very negative impact on their businesses), Real estate, architecture, engineering and building services (34 per cent), and Accommodation, food, travel and tourism (30 per cent).
- Analysis from the London Business Survey²⁸, also estimates around 115,000 business units in London exported to the rest of Europe in the 12 months to mid-2014, which is equivalent to 26 per cent of all London's business units. Around 85,000 (or 19 per cent) of London's business units imported from the rest of Europe.
- GLA Economics has not published data on London's trade with the European Union specifically. But as noted above, globally, London business units exported around £120.8 billion worth of goods and services in 2014, and London is estimated to be a net exporter in the year to mid-2014.
 - Official estimates of regional service exports by destination currently do not exist, however GLA Economics have published estimates for London's service exports for the year 2013. Whilst, in absolute terms, those figures are not consistent with more recent regional trade estimates, attempts were made to

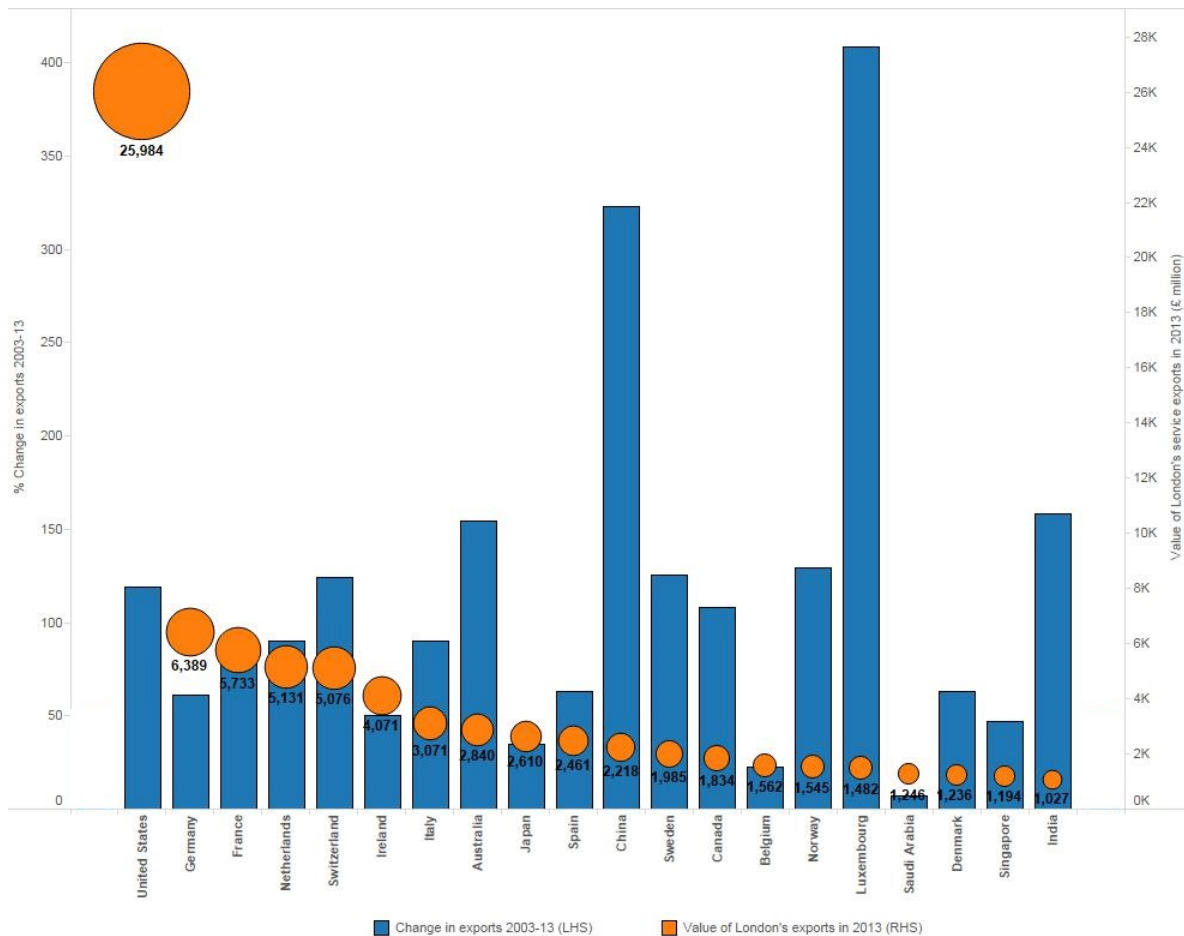
²⁶ GLA Economics calculations based on data from: ONS, July 2016, '[Pink Book 2016: 9. Geographical breakdown of the current account](#)'.

²⁷ GLA Economics, November 2014, '[London Business Survey 2014: London as a place to do business](#)'.

²⁸ GLA Economics, November 2014, '[London Business Survey 2014](#)'.

analyse the destination of exports. To that end, the United States was estimated to be by far the largest single export market for the capital, ahead of Germany, France, the Netherlands, and Switzerland. However, as can be seen from Figure 8 a number of European countries do make up a significant proportion of London’s service export destinations. Although Figure 8 also shows that China and Luxembourg, as well as Australia and India to a lesser extent, have become increasingly important trading partners for the capital (although these nations are significantly behind the United States in terms of the absolute level of service exports).

Figure 8: London’s estimated service exports by destination, 2013²⁹

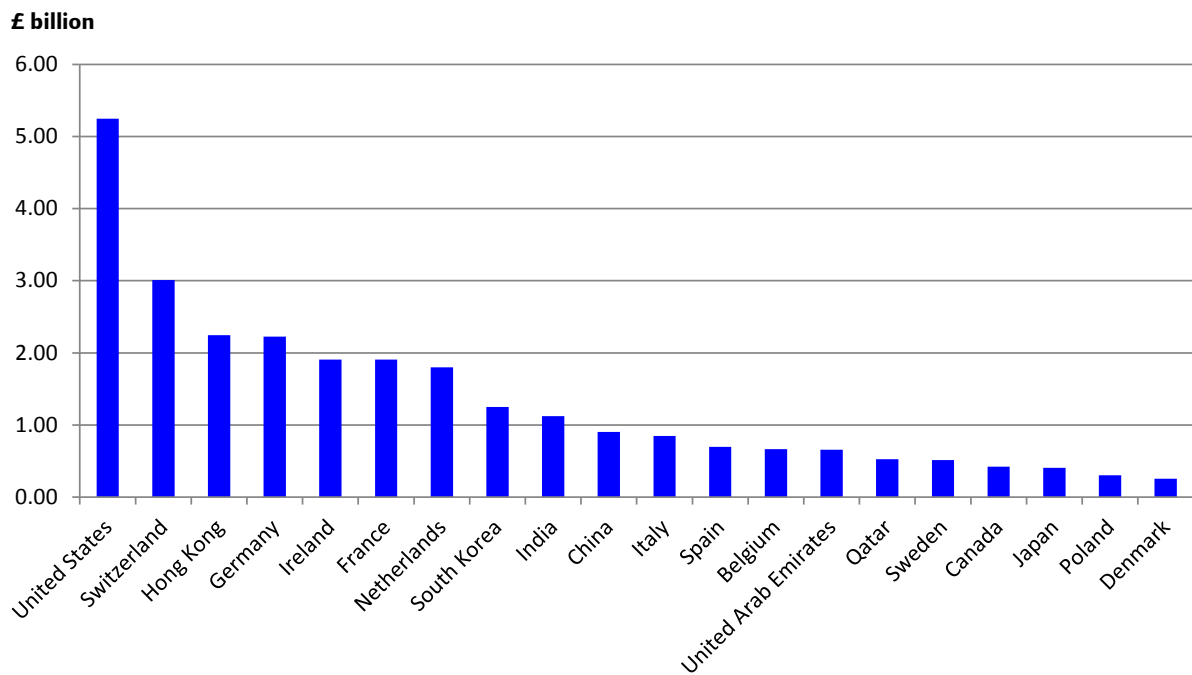


Source: *International Trade in Services (ITIS) 2013*, ONS, GLA Economics

- In terms of goods exports more timely and detailed data is available for London from the ONS:
 - Thus as shown in Figure 9 in 2015 the US is the largest single country of destination for London’s goods exports with a value of around £5.25 billion worth of goods shipped. Goods exports to Switzerland totalled £3.01 billion in value in 2015 making it the second largest goods export destination followed by Hong Kong (£2.25 billion) and Germany (£2.23 billion).

²⁹ It should be noted that since GLA Economics made these calculations, the ONS has published their own regional estimates of service exports, with an update expected in the first half of 2017; GLA Economics intends to use this analysis to produce updated estimates for London’s service exports numbers by destination over the coming year.

Figure 9: London’s key goods export destinations, 2015, £ billion



Source: Regional Trade Statistics, HMRC

FDI in London

- As shown in the GLA Economics’ publication - [Economic Evidence Base for London 2016](#) “London is a prominent destination for inward investment, particularly in areas in which London has industrial specialisation, such as information and communication, financial services and professional services”³⁰.
- Table 7 shows that London ranks highly as an international destination for FDI.

³⁰ GLA Economics, November 2016, [‘Economic Evidence Base for London 2016’](#).

Table 7: Number of inbound FDI projects by city, 2005 - 2015

Rank	Destination City	2005	2010	2011	2012	2013	2014	2015	Total: 2005 - 2015
1	London	228	333	393	386	421	423	494	3,855
2	Singapore	161	363	393	403	438	444	386	3,721
3	Shanghai	344	307	305	265	304	271	193	3,241
4	Dubai	185	217	265	250	264	242	261	2,814
5	Hong Kong	132	231	259	252	244	202	199	2,402
6	Paris	129	156	142	139	218	208	184	1,852
7	Beijing	169	166	154	152	131	117	88	1,752
8	NYC (NY)	44	151	151	161	217	207	217	1,494
9	Bangalore	125	97	115	89	85	100	120	1,146
10	Sydney	39	113	124	147	138	137	138	1,112

Source: *fDi Markets*

- When looking at sectors of investment, professional services dominate. The following two tables (Tables 8 & 9) outline the predominant industrial sectors for inward investment to London and the UK. Figure 10 looks at London's share of UK FDI by different industrial sectors. Although to note that the categorisations of sectors here are not identical to SIC definitions for industries.

Table 8: Main industry sectors of inward investment to London³¹; 2005 – 2015

Sector	Number of inward FDI projects	Proportion of total inward FDI
Software & IT services	1,183	30.7%
Business Services	608	15.8%
Financial Services	549	14.2%
Textiles	475	12.3%
Communications	230	6.0%
Consumer Products	189	4.9%
Real Estate	111	2.9%
Hotels & Tourism	99	2.6%
Transportation	54	1.4%
Food & Tobacco	41	1.1%

Source: *fDi Markets*

³¹ All industries with a share of greater than 1 per cent.

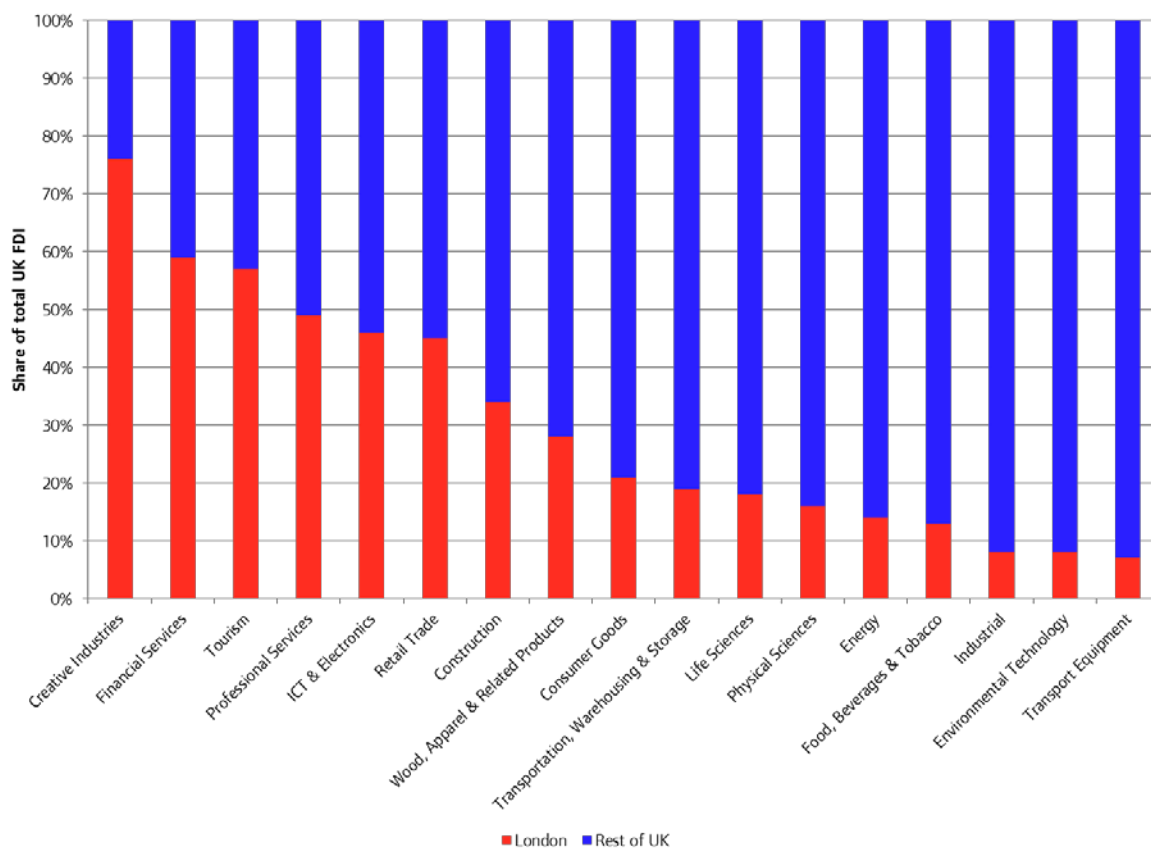
Table 9: Main industry sectors of inward investment to the UK; 2005 – 2015³²

Sector	Number of inward FDI projects	Proportion of total inward FDI
Software & IT services	2,162	20.2%
Business Services	1,174	11.0%
Financial Services	944	8.8%
Textiles	944	8.8%
Consumer Products	532	5.0%
Communications	518	4.8%
Industrial Machinery, Equipment & Tools	458	4.3%
Food & Tobacco	431	4.0%
Transportation	328	3.1%
Hotels & Tourism	290	2.7%
Real Estate	251	2.3%
Alternative/Renewable energy	249	2.3%
Electronic Components	219	2.0%
Coal, Oil and Natural Gas	202	1.9%
Automotive Components	176	1.6%
Pharmaceuticals	167	1.6%
Automotive OEM	139	1.3%
Chemicals	139	1.3%
Business Machines & Equipment	133	1.2%
Medical Devices	122	1.1%
Plastics	117	1.1%
Aerospace	116	1.1%
Metals	113	1.1%

Source: *fDi Markets*

³² As above.

Figure 10: London’s share of inward FDI to the UK by industrial cluster, 2011 – 2015



Source: fDi Markets; sourced from London & Partners analysis

- London is also an important place as a base of operations for European and global operations as confirmed by looking at analysis from Deloitte, which found that of Fortune 250 companies, London was the global or regional headquarters for 40 per cent of these, significantly ahead of any other European city (see Table 10).

Table 10: HQ locations of Top 250 companies with global or regional HQ in Europe

City	Percentage
London	40
Paris	8
Madrid	3
Amsterdam	2.5
Brussels	2.5
Munich	2
Luxembourg	2
Moscow	2
Geneva	2
Other European cities	37

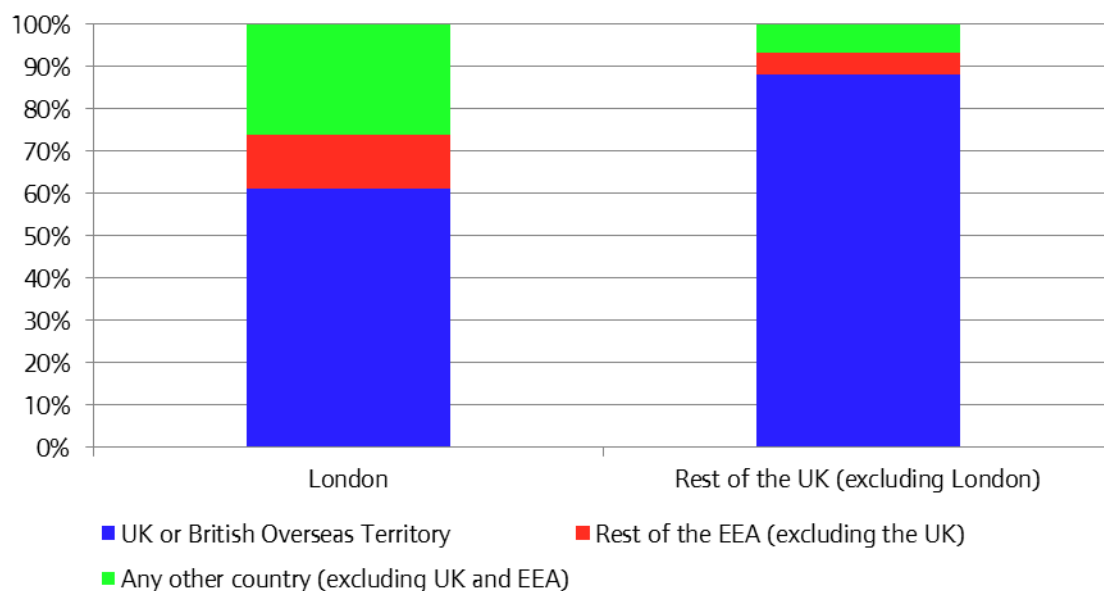
Source: Deloitte London Futures Report, 2014

- Between 2010/11 and 2014/15, over 35 per cent of all inward investments to London originated from Europe, and over a quarter of FDI projects which originated from London went to the European Union.
- In the five financial years to 2014/15, London was the destination for more than double the number of inward investment projects compared to any other European city.

London's labour market and EEA born workers

- Using data from the Annual Population Survey (APS)³³, GLA Economics estimates that in 2015³⁴ 12.5 per cent of London's jobs were held by those born elsewhere³⁵ in the EEA. For workers born outside the EEA in London the figure stands at 26.2 per cent. Figure 11 which examines jobs by country of birth for both London and the rest of the UK and highlights the relative importance of foreign born workers in the capital.

Figure 11: Jobs in London and the UK by country of birth (%)



Source: Annual Population Survey, 2015

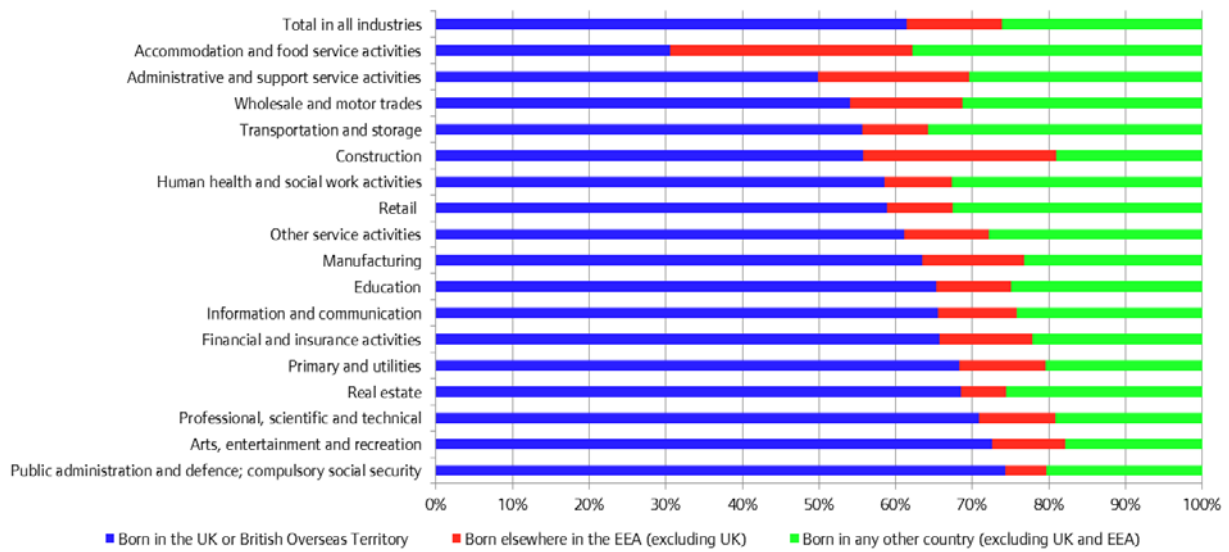
- In London non-UK EEA born workers were particularly important in Accommodation and food service activities (representing 32 per cent of London's jobs in this sector), Construction (25 per cent), Administration and support service activities (20 per cent), Wholesales and motor trades (15 per cent), and Financial and insurance activities (12 per cent). Figure 12 shows a breakdown of jobs by industry and country of birth.

³³ Which is a residence based estimate of employment.

³⁴ Note that this data is from the ONS Annual Population Survey, other estimates of employment such as the Business Register and Employment Survey (BRES) give different numbers for the size of London's workforce but do not go into as much detail on the workforce's composition.

³⁵ Note this would include British citizens born in EEA countries.

Figure 12: Jobs by industry in London by country of birth



Source: Annual Population Survey, 2015

- Note that while making up a relatively small share of total jobs held by non-UK born EEA workers in London, non-UK EEA born workers held up to 10 per cent of jobs in the Professional, scientific and technical sector, 10 per cent of those working in education and 9 per cent in health.
- Table 11 provides data on nominal weekly pay (excluding overtime) of all London employees by sector in 2016 (and 2008 to provide some historic context). It gives an indication of the relatively high and low paid sectors in London in order to put the above sector data into some context.

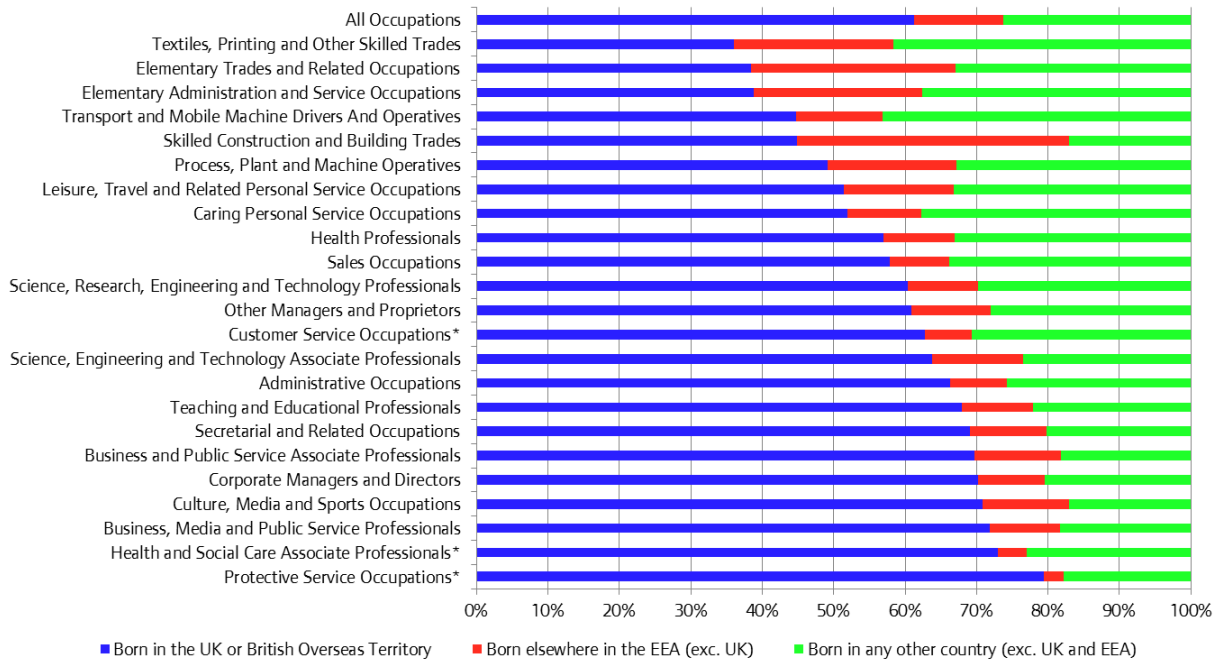
Table 11: Weekly nominal pay (excluding overtime) for all employee jobs in 2016 & 2008 in London (£)

	2008	2016
Agriculture, forestry & fishing	x	x
Mining & quarrying	x	x
Manufacturing	516.8	561.2
Electricity, gas, steam & air conditioning supply	x	818.7
Water supply, sewerage, waste & remediation activities	426.2	508.7
Construction	572.3	613.4
Wholesale & retail trade; repair of motor vehicles and motorcycles	327.4	380.0
Transport & storage	532.8	612.5
Accommodation & food service activities	248.1	321.0
Information & communication	691.3	791.5
Financial & insurance activities	906.7	1096.2
Real estate activities	570.4	574.9
Professional scientific & technical activities	674.6	747.4
Administrative & support service activities	381.0	431.3
Public admin & defence; compulsory social security	620.8	678.5
Education	469.6	545.0
Human health & social work activities	497.2	516.7
Arts, entertainment & recreation	345.0	446.7
Other service activities	449.7	461.6
Private households	x	292.3
Total services	517.6	572.6
All jobs	521.1	574.9

Source: ONS – Annual Survey of Hours and Earnings (ASHE)

- Figure 13 shows a breakdown of occupations in London by country of birth. Textiles, printing and elementary trades including administration and service occupations have high numbers of people born overseas. Again, the reliance on labour from the EEA can be seen in construction and building related trades.

Figure 13: Occupations in London by country of birth



Source: Annual Population Survey, 2015. Note: Occupations marked with an asterisk (*) symbol are based on very small sample sizes and should therefore be treated with caution as they are not robust.

- In total migrants from the EEA who are resident in London had a higher employment rate (80.3 per cent) in 2015 than the UK-born population (74.4 per cent) as shown in Table 12.

Table 12: Employment and unemployment rates by country of birth for London and UK residents in 2015, 16-64yrs

Country of birth	London		UK	
	Employment rate	Unemployment rate	Employment rate	Unemployment rate
UK or British Overseas Territory	74.4%	6.4%	74.0%	5.2%
Rest of the EEA (excluding the UK)	80.3%	4.3%	79.2%	4.9%
All other countries (excluding the UK and EEA)	67.4%	6.6%	66.3%	7.2%

Source: ONS Annual Population Survey

- Table 13 shows the qualifications level of EEA born workers in London. As can be seen the percentage of jobs with higher education or above was 58.2 per cent for those born in the UK, but this was slightly lower at 57 per cent for the EEA. However, migrants tend to have a much higher proportion of ‘other qualifications’ which potentially clouds the situation on skills. It should however also be noted that not all migrants will necessarily be doing jobs which require their level of qualification.

Table 13: Share of jobs in London by highest qualification and country of birth of job holder in 2015

Highest qualification	Born in the UK	Born elsewhere in the EEA (excluding the UK)	Born in any other country (excluding the UK/EEA)
Higher degree	16.9%	21.2%	20.4%
Ordinary degree or equivalent	34.6%	27.1%	29.9%
Higher education	6.7%	8.7%	10.0%
GCE, A level or equivalent	18.8%	12.3%	10.8%
GCSE grades A*-C or equivalent	15.7%	5.2%	7.0%
Other qualifications	4.2%	20.3%	16.1%
No qualifications	3.1%	5.2%	5.8%
Total	100.0%	100.0%	100.0%

Note: the Workforce Jobs series is the preferred measure of jobs, but the Annual Population Survey is used here for its individual-level information such as country of birth and educational qualification. Source: ONS Annual Population Survey

Europeans living in London³⁶

- The ONS estimates³⁷ that in 2015 of the 64.265 million people living in the UK, 8.569 million people were not born in the UK³⁸ of which 3.183 million people were born in the rest of the EU. In terms of nationality there were 5.567 million non-British nationals living in the UK in 2015 of which 3.159 million were EU nationals.
 - Thus the ONS data would indicate that around 5 per cent of the people living in the UK in 2015 were born in the rest of the EU. It also indicates that 4.9 per cent of the people living in the UK in 2015 were EU nationals.
- The ONS estimates that in 2015 of the 8.594 million people living in London, 3.144 million people were not born in the UK of which 0.932 million people were born in the rest of the EU. In terms of nationality there were 1.937 million non-British nationals living in London in 2015 of which 1.018 million were EU nationals.
 - Thus the ONS data indicates that 10.8 per cent of the people living in London in 2015 were born in the rest of the EU. It also indicates that 11.8 per cent of the people living in London in 2015 were EU nationals.
- In terms of London's foreign born population the proportion of Londoners born outside the UK has more than doubled since 1981 (from 18 per cent to 37 per cent)³⁹. Overall, almost three million people living in London at the time of the 2011 Census (37 per cent) were born outside the UK⁴⁰.
 - In 1981 451,013 people were born in the rest of Europe⁴¹ equal to 6.8 per cent of London's total population or 37.5 per cent of all foreign born residents. In 2011 this had increased to 998,694 or 12.2 per cent of London's population, however as a per cent of London's foreign born residents those born in the rest of Europe declined to 33.3 per cent in 2011. This is a result of there being

³⁶ It should be noted that further details on EU born residents living in London such as various mappings and analysis of those residents born in countries that were members of the EU prior to 2001 is available in [Chapter 8](#) of GLA Economics Economic Evidence Base for London 2016.

³⁷ ONS, August 2016, '[Population of the United Kingdom by Country of Birth and Nationality](#)'.

³⁸ Note this would include British citizens born in EU countries.

³⁹ This analysis is based on data from various Censuses.

⁴⁰ Data taken from Table 7.1 of: GLA, February 2016, '[London: The Global Powerhouse](#)'.

⁴¹ This includes EU and non-EU countries excluding the UK.

greater levels of international migration from outside the EU. This has been the case in every year since the data series began in 2005.

- In 2011, there were 840,940 people born in the rest of the EU excluding the UK that were living in London⁴² accounting for 10.3 per cent of London’s population at the time of the last Census.
- Table 14 examines the evolving nature of London’s foreign born population over time.

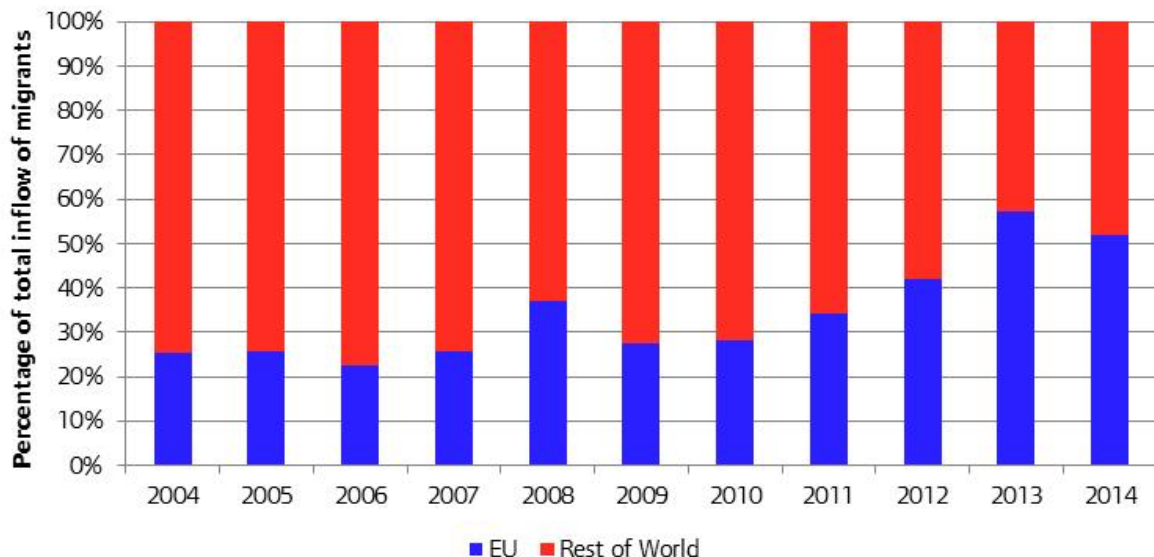
Table 14: Foreign born population in London, 1971-2011

Year	London population	Foreign-born	Share of foreign-born	Rest of Europe	Rest of World
1971	7,236,721	1,103,616	15%	198,847	904,769
1981	6,608,598	1,203,022	18%	451,013	752,009
1991	6,679,699	1,451,041	22%	495,651	955,390
2001	7,172,090	1,940,389	27%	555,822	1,384,567
2011	8,173,941	2,998,264	37%	998,694	1,999,570

Source: ONS Census data commissioned tables: 1971-2011. Notes: the London population is a count of persons present in 1971 with a recorded country of birth, residents for 1981, and all usual residents from 1991 onwards.

- Using estimates from the International Passenger Survey (IPS)⁴³, just over half (51.8 per cent) of all international migrants to London were from the EU in 2014. Although it was only in the previous two years that EU migrants represented more than half of all international migration to London, with this share as low as 22.7 per cent in 2006 (Figure 14).

Figure 14: World regional share of international migration to London, 2004 to 2014



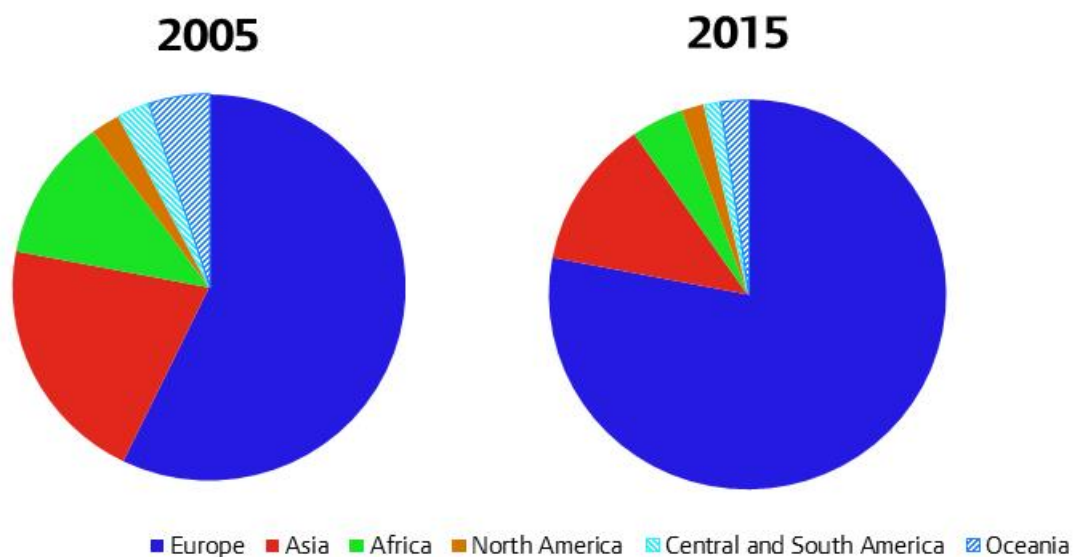
Source: ONS International Passenger Survey

⁴² Based on 2011 census data.

⁴³ It should be noted that as this is a sample rather than a survey of the entire population there are slight differences in methodology as well as time scale with the international migration estimates given above.

- A different measure of international migration is National Insurance Number registrations (NINo). This captures long-term migrants as with the above LTIM/IPS statistics, but also short-term migrants. Therefore, whilst NINo is not a good measure of long-term international migration, it is useful for highlighting changes in migration trends⁴⁴. Figure 15 shows a more detailed breakdown of international migration by country of origin in 2005 and 2015. This shows that the largest inflows of international migrants were from Europe, followed by Asia and Africa. Moreover, the share of migrants from Europe has increased from 57.2 per cent in 2005 to 78 per cent in 2015, whilst the percentage for all other world regions has declined.

Figure 15: World region share of international migration flows (NINo) in London, 2005 and 2015



Source: DWP National Insurance Number Registrations

- In 2014 out of 1,771,200 estimated couple families in London 102,400 contained one UK national and one EU national⁴⁵.
- Although data on migration into London is available, data on migration to and from London on a yearly basis is limited; however data exists at the UK level for the years 1980-2014. This shows that non-EU net migration levels to the UK as a whole have exceeded EU levels in every year (though the gap has closed considerably since 2012). At the UK level, around 55,000 more Britons left the UK than came back in 2014 (~140,000 Britons left in total = ~47 per cent of all those leaving the UK).
- In terms of destination for emigrants (and returning migrants) in 2014, 39 per cent (114,600 out of 297,200) went to another EU country – of which 18,800 were returning home to live and the majority 55,400 were going for work related reasons. The single most popular destination was Australia: 37,700 migrants from the UK⁴⁶.

⁴⁴ For a more comprehensive discussion on the differences between the LTIM and NINo see: ONS, May 2016, '[Note on the difference between National Insurance number registrations and the estimate of long-term international migration: 2016](#)'.

⁴⁵ ONS, 31 March 2016, '[Estimated number of couple families where 1 member of the couple has a UK nationality and 1 member of the couple does not have a UK nationality, London, 2014](#)'.

⁴⁶ Based on ONS data from '[International Passenger Survey 4.05, Main reason for migration by country of last or next residence](#)'.

Selected data on students and research funding from Europe in London

- Other EU countries accounted for 18,185 of London's 241,765 undergraduate university students in 2014/15⁴⁷ or 7.5 per cent of all London undergraduate students. There were 14,565 EU post graduate students in London out of a total of 118,215 in 2014/15 or 12.3 per cent of all London's post graduate students.
 - In 2014/15 there were 51,210 foreign undergraduate students in London meaning other EU countries accounted for 35.5 per cent of all foreign undergraduate students in London.
 - In 2014/15 there were 50,260 foreign post graduate students in London meaning other EU countries accounted for 29 per cent of all foreign postgraduate students in London.
 - London accounted for 23 per cent of all EU undergraduates in the UK in 2014/15 and 32 per cent of all EU post graduates.
- In terms of research funding⁴⁸ the UK has been the largest recipient of EU research funds granted to higher education institutions. From 2007-2013, the top three recipients in London (King's, Imperial and UCL) received a total of €853 million via the 7th framework programme (FP7). London-based companies and other research bodies also benefited from the FP7 (eg, Medical Research Council received €62 million from 2007-2013). In total, the UK received the 2nd highest level of funding after Germany (almost €6 billion) from 2007-2013 – with Inner London alone receiving over €1.5 billion.
- Following an increase in the overall research budget for the 2014-2020 period (€80 billion, up from €53 billion), London-based universities, research bodies, & innovative companies stand to benefit further. GLA group programmes are also in receipt of these EU research funds eg, €25 million for the 'Sharing Cities' programme.

European tourists in London

- 18.6 million visitors came to the capital in 2015, with two-thirds (12.3 million) of these coming from Europe; 10.8 million of these were from the rest of the European Union.
- Outside of the United States, France is the single largest market for international tourism in London (for holiday, and visiting friends or relatives) – in 2015, 2.07 million visitors from France came to the capital. European countries represent 4 of the top 5 markets for international tourism to London (Germany, Italy and Spain are 3rd, 4th and 5th respectively).
- European Union countries represent 8 of the top 9 markets for business tourism to London (with United States as the number one market). From the rest of the European Union, there were a total of 2.1 million business tourism visitors to the capital in 2015, representing 58 per cent of all business tourism visits.

⁴⁷ Based on HESA student record data.

⁴⁸ European Commission, March 2015, '[Seventh FP7 Monitoring Report: Monitoring Report 2013](#)'.

European funding and institutions in London

- In terms of European Structural and Investment Funds⁴⁹, the London Enterprise Panel has been allocated €748 million for the delivery of the European Structural and Investment Funds (ESIF) 2014-2020 (European Social Fund and European Regional Development Fund (ERDF)). In the 2007-2013 period, the ERDF allocated €182 million to London, and the European Social Fund allocated £410 million.
 - London has also used EU structural funds to invest in innovative financial instruments. The London Green Fund⁵⁰ is an example of this. The initial ESIF funding of €71 million was used to leverage €409 million (6 times) as much financing from other grant providers, pension funds and private individuals.
- The European Investment Bank (EIB), which is owned by the 28 EU member states, has invested €31.3 billion in the UK over the past five years. The EIB lent €6.9 billion to UK projects in 2016. The largest EIB UK investment was a €1.4 billion loan to TfL to finance the construction of Crossrail (the Elizabeth Line) and a network of cycle paths in the capital⁵¹.
 - The EIB has provided a €480 million loan to The Housing Finance Corporation to build highly energy efficient social housing and retrofit existing stock. Around half of these investments are reported to be located in the London area⁵².
- London is currently home to some EU agencies:
 - European Medicines Agency – ~600 FT employees: The Life Science branch of a new ‘unified patent court’ is due to be opened in London in 2016/17 and is explicitly available only to members of EU⁵³.
 - European Banking Authority ~120 FT employees.

Estimates of the fiscal impact of EEA migrants

- The fiscal impact of migration is the difference between the costs of the services and benefits they receive and the taxes and other public finance contributions they make. Whilst this general finding provides for the average effect, the impact may well vary depending on the group considered and the time of arrival for example. Table 15 shows the estimates of the net fiscal impact of migrants from a number of studies. As noted above, these are subject to some uncertainty as results can vary depending on the assumptions made. Positive numbers suggest a net fiscal contribution over the time period as a whole shown in the first column; negative numbers suggest that costs were greater than tax contributions. Overall, the studies suggest that the fiscal effect of recent migrants (whether positive or negative) was generally better than non-recent migrants, and similarly EEA migrants over non-EEA migrants.

⁴⁹ It should be noted that in a post Brexit world the UK Government might still decide to fund some of these projects within London.

⁵⁰ European Commission, 2015, ‘[London Green Fund: Case Study](#)’.

⁵¹ HM Treasury, 14 January 2016, ‘[New figures show record European Investment Bank investment in UK in 2015](#)’.

⁵² EIB, ‘[The EIB in the United Kingdom](#)’.

⁵³ It aims to give EU-wide patents, except for Spain and Poland, which have not signed up due to issues with them only being available in English, French and German.

Table 15: Estimates of the fiscal effects of immigration for the UK over various time periods, constant 2011 prices⁵⁴

Time period	All migrants		Recent migrants	
	EEA	Non-EEA	EEA	Non-EEA
Dustmann & Frattini (2013)				
The fiscal effects of immigration to the UK, Centre for Research and Analysis of Migration, discussion paper series no 22/13.				
1995-2011	+ £8.8bn	- £104.1bn		
2001-2011	+ £9.0bn	- £86.8bn	+ £22.1bn	+ £2.9bn
Dustmann & Frattini (2014)				
The fiscal effects of immigration to the UK, <i>The Economic Journal</i> , 124, pg.583-643.				
1995-2011	+ £4.4bn	- £118.0bn		
2001-2011				+ £5.2bn
MigrationWatch UK (2014)				
An assessment of the fiscal effects of immigration to the UK.				
1995-2011	- £13.6bn	- £134.9bn		
2001-2011	- £13.4bn	- £116.8bn	- £0.25bn	- £27.17bn
Rawthorn (2014)				
Large scale immigration: its economic and demographic consequences for the UK, Civitas.				
2001-2011			- £0.3bn	- £29.7bn

Note: the figures shown in this table are the cumulative fiscal effect over the specified time period. Source: See table. Taken from: Vargas-Silva (2015)

⁵⁴ Further details can be found in the [Appendix to Chapter 8](#) of: GLA Economics, November 2016, '[Economic Evidence Base for London 2016](#)'.

Conclusion

While not intending to be a comprehensive survey this publication has set out to provide information and data on some of the relationships between London and the UK and London and Europe. GLA Economics will undertake further analysis on how the outcome from the referendum vote translates into any impact on London's economy via our monthly [London's Economy Today](#) (LET) publication and our biannual economic commentary and forecast for London in [London's Economic Outlook](#) (LEO) amongst other publications.

Appendix: The London Economy and Europe - An update on London's economic sectors and their relationship with the EU

This appendix seeks to provide an update to work previously produced by GLA Economics⁵⁵, to provide an understanding of London's sectors' relationships with the EU, through providing not only a description of the current state of affairs, but also by offering analysis of the potential impact of the UK's withdrawal.

A1: Sector analysis

With little clarity as to what type of trade deals the UK may be able to negotiate post leaving the EU, not only with the EU, but with the rest of the world, this section does not attempt to quantify the precise costs and benefits of EU membership (or indeed non-membership) to each sector, but merely offer an assessment of what the current situation implies about the potential advantages and disadvantages that could emerge after the withdrawal.

This section provides a sector by sector analysis of the potential effects associated with withdrawing from the EU. It should be noted that this section does not purport to be exhaustive in its analysis, and is intended more as an overview for London's sectors. In particular, this analysis does not cover the possibilities associated with changes to relationships external to the EU (such as improved trading relationships with other partners), nor does it cover relationships between London's sectors or feedback linkages with the wider UK. Much of London's success comes as a result of a high degree of clustering and the benefits associated with such agglomeration; by discussing each sector in isolation, this paper fails to recognise costs or benefits that may occur in one sector as the result of changes to an interdependent sector.

⁵⁵ GLA Economics, August 2014, [The Europe report: a win-win situation: Appendix A](#).

A1.1: Finance and insurance, and Real estate activities (SIC K, L)

Table 16: Overview on the Finance and insurance, and Real estate activities sectors

Sector stats	Legal instruments	Current impact	Implications of leaving the EU
Finance and insurance: 16.3 per cent of London's GVA, 2015 6.6 per cent of London's workforce jobs, Q3 2016	Capital Requirements Directive IV (CRD IV) Capital Requirements Regulation (CRR) Markets in Financial Instruments Directive (MiFID)	Single Market principles enable business across the EU, while passporting enables UK financial institutions to undertake significant trades within the EU	Passporting rights may need to be renegotiated, which could culminate in an unfavourable outcome for the UK, reducing the attractiveness of the UK as location for financial services
Real estate activities: 14.7 per cent of London's GVA, 2014 2.4 per cent of London's workforce jobs, Q3 2016	Undertakings for Collective Investment in Transferable Securities (UCITS) Alternative Investment Fund Managers Directive (AIFMD)		

Background

London is the financial centre of Europe and one of the largest financial hubs in the world. London consistently ranks top or second in the Global Financial Centres Index, competing with New York, and ahead of Hong Kong, and Singapore, and is home to over 250 foreign banks – the highest concentration of any financial centre – 40 per cent of which are also headquartered here⁵⁶. The extent to which it will be able to retain this reputation outside of the EU has been debated since the referendum, with other EU cities looking to attract talent and FDI away from the capital. Goldman Sachs, Citigroup, and JPMorgan Chase have all said that they will be reviewing their positions as the UK leaves the EU, while some commentators expect that the City of London will be stripped of the ability to clear euro denominated swaps, of which London currently accounts for 39 per cent of the global market, or \$570 billion of euro derivatives⁵⁷. On the plus side, by leaving the EU, UK based banks could be freed from burdensome regulation such as the Financial Transactions Tax.

Financial services are an area of specialisation⁵⁸ for the UK economy relative to other developed economies, measuring twice the EU average, and three times the OECD average in terms of

⁵⁶ Long Finance, September 2016, '[Global Financial Centres Index 20](#)'.

⁵⁷ Bloomberg, September 2016, '[Banks Said to Plan for Loss of Euro Clearing After Brexit](#)'.

⁵⁸ Financial services has an index of specialisation score of 2.53. A score above 1 implies specialisation. A full breakdown on London's indices of specialisation is provided in the appendix.

assets held⁵⁹. The decision to leave the EU caused banking stocks to drop sharply, while shares in Barclays and Lloyds Banking Group fell more 30 per cent the day after the vote. Although markets and banking stocks have since recovered, sterling remains more than 11 per cent below its pre-referendum level⁶⁰.

The CityUK stated in an August 2016 report, that the vote to leave the EU has amplified many of the other challenges facing the sector, as well as creating some new ones, listing these as: a threat to jobs from automation and off-shoring; a tougher operating environment post-crisis (regulation, restructuring, fines, and litigation); the growing strength of alternative financial service hubs; the strong comparative position of the US; and the new capabilities required to fuel future growth, such as in technology⁶¹.

Existing legislation

In 1999 the Financial Services Action Plan set out a range of legislative proposals to make it easier to market Financial services across the EU. In 2005, this legislation was agreed, further recognising professional qualifications in the industry, and in 2006, the Services Directive went on to consolidate jurisprudence and make it easier for unjustified barriers to all services to be abolished⁶².

Today, the UK Financial and insurance services industry relies heavily on the 'single passport'. This system permits Financial service operators legally established in one member state to provide services to another member state with no further authorisation requirements. Data from the Financial Conduct Authority (FCA) show that nearly 5,500 UK registered companies currently use passports to access the EU market⁶³. The former EU Commissioner, Lord Hill, estimates that passporting has allowed British banks to make over €1,000 billion of loans, and a similar amount in euro deposits⁶⁴.

There are many areas of regulatory overlap for the Financial services sector and the EU, including the Capital Requirements Directive IV (CRD IV), the Capital Requirements Regulation (CRR), the Markets in Financial Instruments Directive (MiFID), which provides harmonised regulation for investment services.

For the insurance sector, the Solvency II Directive, provides codification for insurance regulation, while key regulations for asset managers include UCITS (Undertakings for Collective Investment in Transferable Securities) and AIFMD (the Alternative Investment Fund Managers Directive). Many of these regulations were introduced as a response to the 2008 banking crisis and seek to try and avoid a similar chain of events occurring in the future.

Completion of the internal market

While much of the Financial and insurance sector single market is complete, wholesale banking is much more complete than for the retail banking sector. The Single Supervisory Mechanism was introduced in 2014, giving the European Central Bank (ECB) the responsibility for

⁵⁹ Bank of England, 2014, '[Why is the banking system so big and is that a problem?](#)'

⁶⁰ Based on the change of the daily sterling Effective exchange rate between 23 June 2016 and 25 January 2016 (GLA Economics calculation using Bank of England data).

⁶¹ TheCityUK, August 2016, '[UK Financial and Related Professional Services: Meeting the challenges and delivering opportunities](#)'.

⁶² IFS, August 2016, '[The EU Single Market: The Value of Membership versus Access to the UK](#)'.

⁶³ Telegraph, September 2016, '[Almost 5,500 finance firms use passports to access single market](#)'.

⁶⁴ European Commission, June 2016, '[Commissioner Hill's speech at Chatham House, the Royal Institute of International Affairs](#)'.

supervising the largest Eurozone-based banks, which has gone some way towards making this market more complete.

However, asset managers in particular continue to face technical barriers to trade in the form of supervisory and legal fees, as well as suffering from the different national definitions of 'marketing'. Many larger funds therefore choose to operate outside the passport system, using European subsidiaries instead. Equally, there is no real single market for insurance in the EU, with a large majority of firms also operating through subsidiaries rather than the passport system (up to 87 per cent of insurers)⁶⁵. For those firms who are more domestically focused, this will be less of an issue, and a lack of EU regulation could in fact be beneficial.

Cost of losing access

Regulatory changes

The loss of passporting rights could create significant upheaval for UK firms and non-EU firms with subsidiaries in the UK. Such rights, or similar, will need to be re-established as Britain exits the union in order for UK based firms (with no subsidiaries in the EU) to continue day-to-day trade with the EU. The UK is also likely to need to demonstrate 'equivalence' in financial regulations in order to negotiate any kind of passport; as such, regulatory gains from leaving the EU are likely to be limited in areas where a passport is required.

While many firms in the insurance industry get round passporting requirements through the use of subsidiaries, Lloyd's of London is an exception, with regulations allowing the pool of underwriters to service clients across the EU. However, this only accounts for 11 per cent of the market's gross written premium, and it is expected that the UK should be able to achieve equivalence in this area, as well as some other specific areas within the Financial sector⁶⁶.

As EU regulation tightens further, the UK may find itself constantly having to update legislation to match. If the UK no longer has influence over these decisions, financial regulations, which affect London more than any other European city, may no longer suit the UK.

London's labour force

In London, 12 per cent of Financial and insurance activities sector employees were born in the EEA. Within the Real estate activities sector, only 6 per cent of jobs (5,000) are currently held by EEA-born workers.

Trade

In 2015, the UK exported £22,424 million of financial services to the EU, as well as £3,637 million of insurance and pension services⁶⁷. Some of this trade could be put at risk if new trade agreements fail to allow the sector full access to the EU market.

Gains from leaving

While most regulatory rules are international, and thus will still be required post-'Brexit', there are some EU-specific rules which the UK will become exempt from, such as EU limits on bankers bonuses, and the Financial Transactions Tax (EU FTT). Due to the size on the UK's financial

⁶⁵ Open Europe, October 2016, '[How the UK's financial services sector can continue thriving after Brexit](#)'.

⁶⁶ Ibid.

⁶⁷ ONS, July 2016, '[UK Balance of Payments, The Pink Book: 2016](#)'.

sector, exemptions from this tax would be more beneficial to the UK than any other member state. Moreover, outside the EU, there is the potential for London to increase its competitiveness as a financial centre, especially if the EU continues to tighten regulation.

The insurance sector is likely to be affected far less than the Financial services sector, as the industry is generally less reliant on the EU (28 per cent of exports, compared to 44 per cent in financial services).

Value of London to the UK economy

In 2015, London generated 51.3 per cent of all Finance and insurance activities GVA nationally (£61,703 million) and in Q3 2016, London represented 34.6 per cent of all UK workforce jobs in the sector (379,000).

In 2015, London generated 24.8 per cent of all Real estate activities sector GVA nationally (£53,604 million) and in Q3 2016, London represented 23.5 per cent of all UK workforce jobs in the sector (135,000).

A1.3: Professional, scientific, and technical activities, and Administrative and support service activities (SIC M, N)

Table 17: Overview on the Professional, scientific, and technical activities, and Administrative and support service activities sectors

Sector	Legal instruments	Current impact	Implications of leaving the EU
Professional, scientific and technical: 11.6 per cent of London's GVA, 2015 13.8 per cent of London's workforce jobs, Q3 2016	Services Directive Professional Qualifications Directive Other profession-specific directives	System of automatic recognition of professional qualifications and service liberalisation across the EU	Reduction in influence over EU law and increased difficulty in providing professional services to the EU, as well as using professional services of others – this could be particularly problematic for the NHS
Administrative and support service activities: 5.8 per cent of London's GVA, 2015 10.1 per cent of London's workforce jobs, Q3 2016			

Background

Professional services includes a range of different occupations which provide support to businesses across all sectors and as such is critical to the UK economy. London has grown to be the hub of services within the EU and is the second largest services exporter in the world.

London First has stated that the UK's success in this sector has been underpinned by a distinctive combination of attributes: stable, business friendly regulation; global openness to trade; investment and migration; a vibrant and liberal culture that attracts people from all around the world; and membership of the European Union⁶⁸.

Existing legislation

Liberalisation of services trade has long been a central pillar of the European market as one of the key objectives of the EU at its creation.

The Services Directive was established in 2006 to enable business service providers to establish themselves in another Member State, making it easier for services to be provided on a cross-border basis. It covers a large number of business services, with a few exceptions such as private security services, services of temporary work agencies, and notaries.

The Professional Qualifications Directive enables the recognition of professional qualifications for EU professionals wishing to work in another country. Accountants, lawyers, consultants, and engineers are regulated in the majority of member states.

Beyond the Professional Qualifications Directive, there are also many profession-specific directives; for example, UK-based lawyers currently access the EU legal services market through the Treaty for the Functioning of the EU (TFEU), and through specific directives such as the Lawyers' Services Directive and the Lawyers' Establishment Directive.

Completion of the internal market

The Commission has found that despite what directives are in place, the level of intra-EU trade in services is significantly lower than the trade in goods⁶⁹. While a full implementation of the Services Directive has been slow and patchy across member states, it has been a particular emphasis for the UK, which has a comparative advantage in services. Membership of a fully functioning internal market for services would be hugely advantageous to the UK.

Cost of losing access

Regulatory changes

As part of the negotiations to leave the EU, the UK will need to renegotiate provisions for UK-based professionals such that they can continue to trade in the EU, and each profession could be impacted differently by this.

Scientific and technical services will be specifically affected by a loss of access to research groups and funding, discussed in greater detail in the Education sector section of this report.

EU influence

⁶⁸ London First, June 2016, '[Leaving the EU: an assessment of its impact on services and trade](#)'.

⁶⁹ House of Commons Library, September 2013, '[The economic impact of EU membership on the UK](#)'.

Leaving the EU will lead to a loss of influence over EU law. As the largest common law jurisdiction, the UK has had substantial influence over the development of EU legal and judicial systems. Leaving the EU may result in a loss of influence and may reduce opportunities to engage in other areas. For example, the UK is the foremost centre for international dispute resolution, which is underpinned to a substantial degree by the common rules of enforcement and jurisdiction of the EU.

London's labour force

In London, 10 per cent of Professional, scientific and technical sector employees were born in the EEA. Within the Administrative and support service activities sector, 20 per cent of jobs are currently held by EEA-born workers.

Trade

In 2015, the UK exported £22,424 million of business services to the EU. Some of this trade could be put at risk if new trade agreements fail to allow the sector full access to the EU market⁷⁰.

Gains from leaving

As the UK has a competitive advantage in this area, and most EU regulation relates to trying to make trade easier, arguably there are limited gains available to the UK from leaving in this sector.

Value of London to the UK economy

In 2015, London generated 35.1 per cent of all Professional, scientific and technical sector GVA nationally (£43,742 million) and in Q3 2016, London represented 26.1 per cent of all UK workforce jobs in the sector (791,000).

In 2015, London generated 27.2 per cent of all Administrative and support service activities GVA nationally (£21,879 million) and in Q3 2016, London represented 19.8 per cent of all workforce jobs in the sector (579,000).

⁷⁰ ONS, July 2016, '[UK Balance of Payments, The Pink Book: 2016](#)'.

A1.4: Information and communication (SIC J)

Table 18: Overview on the Information and communication sector

Sector	Legal instruments	Current impact	Implications of leaving the EU
Information and communication: 10.9 per cent of London's GVA, 2015 7.9 per cent of London's workforce jobs, Q3 2016	Data protection Consumer Rights Directive (CRD)	Little current regulatory impact but the Digital Single Market could offer huge potential to members, while the sector more generally attracts significant FDI	Loss of access to the Digital Single Market and loss of FDI, as well as problems accessing international data flows and impact on data protection

Background

The Information and communication sector has evolved rapidly since the UK first entered the EU, today covering: software development; the mobile device market; cloud computing; data centres; cyber security; and research networks; and is now considered a leading hub in Europe's digital economy. The UK has one of the world's largest information and communication technology (ICT) markets, with over 100,000 software companies in operation, including Microsoft, IBM, and HP, as well as a strong financial services technology (fintech) cluster in the City of London.

The UK's mobile device market is the largest in Europe, with a value of £14 billion annually, and over 80 million mobile subscribers, while the UK's cloud computing market was valued at over £6 billion in 2014. Cloud computing is used by over 30 per cent of UK SMEs, including almost every software company, and is an area which the UK Government's own ICT strategy has shown a particularly strong focus on. In 2015, half of all new ICT spending by the UK Government was on public cloud services⁷¹.

The UK is also home to two of Europe's largest telecoms operators - Vodafone and BT – many prominent venture capital companies, as well as hosting significant research and development around machine vision and AI from companies such as Google⁷².

Existing legislation

In 2015, the European Commission proposed plans for a Digital Single Market for Europe. The Digital Single Market aims to improve access to digital goods and services across the EU, while creating an environment where digital networks and services can prosper and where digital can be a driver for growth⁷³. The Commission has come under some criticism over the length of time it has taken to develop specific proposals but there is a broad consensus that this strategy is more promising than any to have come out of the EU before⁷⁴, Baroness Neville-Rolfe, the then

⁷¹ Department for International Trade, February 2014, '[Information Communications Technology \(ICT\) in the UK: investment opportunities](#)'.

⁷² Science|Business, June 2016, '[Brexit fallout will damage ICT sector across Europe](#)'.

⁷³ European Commission, '[Digital Single Market](#)'.

⁷⁴ EurActive.com, May 2016, '[Commission's digital single market turns one and has a big seven months ahead](#)'.

Parliamentary Under-Secretary for Intellectual Property, describing it as ‘one of the most important achievements of the EU single market’⁷⁵. The strategy promises €50 billion to speed up the development of 5G communications networks and cybersecurity, as well as investing in pan-European networks of digital innovation hubs to support business technology needs. Other proposals include the creation of a ‘European Open Science Cloud’ to provide an online space for tech professionals to store data, as well as ‘future-proof’ legislation to support the free flow of data and clarify data ownership, which is linked to EU plans to improve copyright legislation more generally⁷⁶.

The Consumer Rights Directive (CRD) was introduced in 2014, and has strengthened consumer’s rights when shopping online, and there are plans to introduce an EU mechanism for complaints regarding cross-border e-commerce transactions.

Completion of the internal market

The single market in information and communications is still in the early stages of development; however, it is predicted that the Digital Single Market could lead to a 4 per cent increase in EU GDP over the next ten years⁷⁷. At present, only 6 per cent of enterprises are engaged in e-commerce, or made e-sales cross-border; increasing this could bring significant welfare gains through lower online prices and increased online choice⁷⁸.

Cost of losing access

Regulatory changes

New European data protection laws are predicted to enter into force before the UK completes EU withdrawal. techUK – the trade body for the UK tech industry – has called for urgent consideration to be given to the relative merits of maintaining, adapting, or completely re-legislating the UK’s data protection laws. They predict that the UK will need to form an agreement similar to the EU-US Privacy Shield in order to ensure continued cross-border data flows, while making amendments to UK investigatory powers⁷⁹.

EU influence

The UK is seen by many in the Information and communications sector, as the launch pad for North American and Asian companies looking to break into Europe. If Britain’s exit from the EU results in trade barriers, there is a risk that some FDI could relocate to places like Ireland, that have more competitive corporation tax rates than the UK⁸⁰.

London’s labour force

In London, 10 per cent of Information and communication sector employees were born in the EEA. Research from DueDil – a due diligence solutions company that also provides information

⁷⁵ BIS, February 2016, ‘[Consumers and the digital single market](#)’.

⁷⁶ Billboard, April 2016, ‘[European Commission Unveils Details on Digital Single Market](#)’.

⁷⁷ European Policy Centre, March 2010, ‘[The Economic Impact of a European Digital Single Market](#)’.

⁷⁸ Ibid.

⁷⁹ techUK, June 2016, ‘[Use the UK’s tech excellence to power Britain back to growth](#)’.

⁸⁰ Science|Business, June 2016, ‘[Brexit fallout will damage ICT sector across Europe](#)’.

on business, accounting and directors - further found that one in five of the directors of the 27,395 new tech companies founded in the UK in 2014 were foreign nationals⁸¹.

Anecdotal evidence suggests that there is already a skills shortage in this sector, as start-ups and major corporations alike seek out skilled developers, solutions engineers, and product managers. Vodafone has already announced that if negotiations result in the loss of free movement of labour and capital, Vodafone will have to reconsider its position, while Berlin's Business and Technology Tsar claims that over 100 tech companies have been in contact to discuss relocating to the German capital⁸².

Trade

In 2015, the UK exported £6,857 million of telecommunications, computer, and information services to the EU, along with £4,021 million of intellectual property (IP) services. Some of this trade could be put at risk if the new trade agreements fail to allow the sector full access to the EU market⁸³.

Gains from leaving

As this sector is not, as yet, heavily regulated under EU legislation, the regulatory gains associated from leaving are arguably relatively low.

Value of London to the UK economy

In 2015, London generated 37.9 per cent of all Information and communication sector GVA nationally (£41,110 million) and in Q3 2016, London represented 31.9 per cent of all UK workforce jobs in the sector (452,000).

A1.5: Wholesale and retail trade (SIC G)

Table 19: Overview on the Wholesale and retail trade sector

Sector	Legal instruments	Current impact	Implications of leaving the EU
Wholesale and retail trade: 8.3 per cent of London's GVA, 2015 11.8 per cent of London's workforce jobs, Q3 2016	EU tariffs Workers' and consumers' rights Product specifications	The UK wholesale and retail trades get preferential trade agreements within the EU, but are limited in the trade agreements they can make with countries outside the EU, as well as being affected by product standards and regulations	Costs of EU imports may rise, but the UK would have the power to renegotiate trade agreements outside of the EU

⁸¹ Ibid.

⁸² Business Insider UK, August 2016, '[Germany is writing to UK startups to try and persuade them to mope to Berlin after Brexit](#)'.

⁸³ ONS, July 2016, '[UK Balance of Payments, The Pink Book: 2016](#)'.

Background

The UK's retail sector is the largest private sector employer and has seen dramatic change in recent years with more and more business moving online, and shop vacancy rates remaining high⁸⁴. Centre for Retail Research analysis, found that London was the number one shopping capital in the world, ahead of Tokyo, Paris, and New York, and as such, many well-known brands have their European Headquarters centred in London including: Alexander McQueen; Burberry; and Hobbs⁸⁵.

London is not only the shopping capital of Europe, but also attracts the largest level of retail investment. In the second quarter of 2016, the UK attracted 27 per cent of all European retail investment, 21 per cent of which went to London⁸⁶.

During the referendum campaign, much debate focused on potential impacts on workers' rights, consumer rights, and product standards. The Centre for Retail Research has argued that the sector, post-Brexit, will have to become more agile, more digital, capital intensive, and more responsive to change than it has been since the 2008 recession⁸⁷.

Existing legislation

In January 2013, the European Commission introduced the European Retail Action Plan, which aimed to improve competition in the retail sector by reducing unfair trading practices in business-to-business supply chains, particularly in the food industry⁸⁸.

Regulations which directly affect the Wholesale and retail sector, are, however, still those regulations that apply across sectors, such as on working conditions, and product standards.

Completion of the internal market

The European Commission has described the internal market for retail and wholesale trade as incomplete, characterised by unequal levels of economic maturity and saturation of many markets. Their findings have shown retail to be hindered by burdensome legislation which may represent protectionism by some members (though not the UK) which limits the cross-border supply of goods, reducing choice and increasing price for the EU's consumers⁸⁹.

Cost of losing access

Regulatory changes

Having left the EU, UK retailers and wholesalers that operate in EU countries will still need to ensure they comply with each country's legal codes and EU product regulations; domestically focused business will not.

Trade

British wholesalers and retailers rely on being able to import many goods from the EU to sell on to consumers. If sterling becomes weaker, or tariffs are applied to EU imports, business' costs will rise, and so, in all likelihood, will consumer prices. Equally, if the EU applies tariffs to UK

⁸⁴ LDC, October 2016, '[Improvement in vacancy rates on pause in third quarter](#)'.

⁸⁵ Centre for Retail Research, 2011, '[World Shopping Capitals Survey](#)'.

⁸⁶ CoStar, September 2016, '[UK retains top spot for European retail investment](#)'.

⁸⁷ Centre for Retail Research, 'July 2016, '[UK Retail after Brexit](#)'.

⁸⁸ European Commission, '[Implementation of the European Retail Action Plan](#)'.

⁸⁹ European Commission, November 2012, '[COM\(2012\) 752 Final](#)'.

exports to Europe, British goods and services will become less competitive, resulting in lower sales for retailers. This could be offset to some extent, if the UK Government is able to negotiate new trade deals outside of the EU.

The British Retail Consortium (BRC) believes that a failure to strike a 'good Brexit deal' by 2019 would have a disproportionately severe impact on retailers and their consumers, citing the reason for this being that if the UK fell back on to WTO rules, the new tariffs that the UK might apply to imports from the EU would be highest for consumer staples such as food and clothing. For example, the average duty on meat imports could be as high as 27 per cent, while clothing and footwear could attract tariffs of 11-16 per cent, compared to the zero-rate for all EU imports⁹⁰. THE BRC further finds that falling back onto WTO rules would increase costs from outside the EU; imports of women's clothing from Bangladesh would be 12 per cent higher, and Chilean wine would be 14 per cent higher.

The BRC further reports that some member states have barriers and discriminatory regulations, which prevents UK retailers opening stores.

London's labour force

In London, 10 per cent of Wholesale and retail sector employees were born in the EEA. A reduction in EU workers - if it were to lead to an increase in labour costs (in all sectors) - may be passed on to consumers in the form of higher prices on retail goods.

Gains from leaving

The BRC believes there are significant potential gains to the UK retail market from leaving the EU, arguing that UK retailers currently have to comply with restrictive legislation still in place in other EU member countries, such as the limitations on sales promotions and discounts in Belgium and Germany.

In addition, UK employers have in the past expressed concerns regarding EU labour market regulation, such as holiday pay, non-guaranteed overtime, and sales commission, all of which particularly affect the retail sectors whose employees are more likely to work weekends and holidays⁹¹.

There could also be benefits in the area of trade. If the UK fell back to WTO rules on imports, the duties payable on raw materials and semi-finished products would fall to zero or be rated at duties below 10 per cent. There will be opportunities to solidify these gains as international trade agreements are made over time. In addition, the UK has an opportunity to adopt its own schemes of trade preferences for developing countries and could rapidly expand the number of countries it benefits. This would be good for consumers, and could boost economic development in developing countries⁹².

Although a consequence of the vote rather than a policy action, the devaluation of the pound could also cause a rise in tourist numbers (who spend money in shops as the UK becomes a more competitive travel destination). Equally, if UK residents take more 'staycations' as a result

⁹⁰ BRC, October 2016, '[BRC says UK Brexit strategy must focus on a fair deal for consumers](#)'.

⁹¹ BIS, December 2014, '[The Impact of the Working Time Regulations on the UK labour market: A review of evidence](#)'.

⁹² BRC, October 2016, '[BRC says UK Brexit strategy must focus on a fair deal for consumers](#)'.

of the increased cost of travel, they may also choose to spend their money in British shops, rather than shops abroad.

The Centre for Retail Research predicts that the UK's exit from the EU will offer significant e-commerce gains to UK retailers who will be able to sell abroad in sterling, as their prices will appear comparatively cheaper in a global marketplace. However, we may also see UK-based online retailers move to EU countries to take advantage of the benefits that brings, such as lower tax rates or proximately to their market⁹³.

Value of London to the UK economy

In 2015, London generated 17.2 per cent of all Wholesale and retail trade GVA nationally (£31,310 million) and in Q3 2016, London represented 13.3 per cent of all UK workforce jobs in the sector (677,000).

A1.6: Public administration and defence, and Education (SIC O, P)

Table 20: Overview on the Public administration and defence, and Education sectors

Sector	Legal instruments	Current impact	Implications of leaving the EU
Public administration and defence: 3.2 per cent of London's GVA, 2015 4.0 per cent of London's workforce jobs, Q3 2016	European Regional Development Fund European Social Fund Regulations on international students Regulations on state aid	EU provides significant research funding and freedoms for students but limits options for state aid and public procurement	Loss of access to EU funding streams, but no cap on international student fees
Education: 4.7 per cent of London's GVA, 2015 7.4 per cent of London's workforce jobs, Q3 2016	Regulations on public procurement		

Background

London not only attracts people to work, but also to study in its 45 universities, many of which feature prominently in international rankings. There are over 100,000 international students in the capital (28 per cent of London's students), comprising almost a quarter of all international students in the UK. London & Partners estimate that international students contributed £3 billion to the UK economy in 2013/14, directly supporting jobs in London's Education sector⁹⁴.

⁹³ Centre for Retail Research, July 2016, '[UK Retail after Brexit](#)'.

⁹⁴ GLA, February 2016, '[Draft Economic Evidence Base 2016](#)'.

London's public administration employment is, perhaps unsurprisingly, largely clustered in Westminster, with further clusters in Croydon, where the Home Office immigration office is based, as well as around City Airport. London's public sector has been declining in recent years, largely as a result of central government departments increasingly relocating outside of the capital, and budget cuts at the local authority level.

Existing legislation

Both Public administration and defence and Education are largely regulated at the national level. In the Public administration sector, EU legislation predominantly relates to state aid and public procurement, while in the Education sector, EU legislation is limited to ensuring non-discrimination against students such that EU students can attend UK universities at the same rate as UK students, and increasing the harmonisation of curricula and degree structures to enable student exchange programmes.

EU legislation stipulates that state aid must be 'compatible with the internal market', prohibiting any aid that could cause distortions. Exemptions are made where state aid can help to achieve an EU objective, or correct a market failure. Public procurement directives regulate tender procedures for public sector contracts which meet the minimum threshold and are intended to ensure transparency and non-discrimination, while also representing value for money⁹⁵.

In the areas of immigration (from outside the EU) and asylum, criminal justice, and police cooperation, the UK is either not bound by EU law, or can opt-in and select which aspects of EU legislation to transpose into UK law.

Completion of the internal market

The internal market for education is limited to providing EU nationals with the right to higher education throughout the EU at the same costs as resident nationals, while Public administration and defence are limited to rules for state aid and public procurement to ensure fair competition.

Cost of losing access

Funding streams

With legislation in these sectors largely being the preserve of member states, the main concerns of the UK's withdrawal are unlikely to relate to legislation. The EU currently has an impact on UK research and technological development through the Framework Programme (FP), which funds 3 per cent of all UK research and development, with 71 per cent of this going to universities⁹⁶. During the FP7 funding phase, from 2007-2013, the UK received 15.2 per cent of all EU funding (only Germany received more), and participated in more research projects than any other EU member state. By leaving the EU, the UK's educational institutions could lose access to these funding streams.

Regulatory changes

The legislation which does exist for these sectors tends to be in the interest of improving competition or ensuring good health and safety practices. EU rules aim to ensure good value in

⁹⁵ House of Commons Library, July 2015, '[Public Procurement](#)'.

⁹⁶ The Royal Society, December 2015, '[UK research and the European Union: The role of the EU in funding UK research](#)'.

public investments and that state aid is targeted at areas of market failure. Outside the EU some of this legislation could be revised if it were felt to be to the detriment of the UK.

EU influence

At present, UK students can make exchanges with EU universities under the ERASMUS programme. Leaving the EU could jeopardise opportunities for UK students to undertake similar placements.

UK companies may be discriminated against in procurement bids. Between 2007 and 2009, UK companies won 17 per cent of cross-border contracts in the EU, compared to 3.5 per cent of UK contracts won by cross-border bidders. Only Germany secured more cross-border contracts (26 per cent)⁹⁷.

London's labour force

In London, only 5 per cent of Public administration and defence sector employees (17,000 jobs) were born in the EEA – the lowest EEA representation amongst any sector. EEA born workers are more represented in the Education sector, making up 10 per cent of the sector's workforce, and accounting for 46,000 jobs in the capital.

Trade

In 2015, the UK exported £658 million of government services to the EU. Some of this trade could be put at risk if new trade agreements fail to allow the sector full access to the EU market⁹⁸.

Research streams

Universities UK and the UK Higher Education International Unit, have expressed joint concerns regarding the future of the European Research Area which seeks to achieve the free movement of researchers, scientific knowledge, and technologies. The Royal Society's report on UK research and the EU says that:

“Excellent research and innovation help us to live healthier, fuller and better lives. Europe is home to world-class research, and researchers come from all over the world to collaborate with researchers that are based here and to use European scientific infrastructure. Within this community, the UK has created a world-leading research base that interacts with the best and most ambitious in the rest of the world, keeping UK research at the cutting edge”⁹⁹.

Gains from leaving

EU students are currently eligible for the same financial support from the Government, as UK resident students. Withdrawal from the EU will enable UK universities to levy the same rates against EU students as they currently do for other international students.

Leaving the EU will also allow the UK to regain control of public procurement policy and allow state aid to be invested in any programme the Government chooses. EU legislation has led to

⁹⁷ European Commission, March 2011, '[Final Report Cross-Border Procurement Above EU Thresholds](#)'.

⁹⁸ ONS, July 2016, '[UK Balance of Payments, The Pink Book: 2016](#)'.

⁹⁹ The Royal Society, December 2015, '[UK research and the European Union: The role of the EU in funding UK research](#)'.

some politically unpopular decisions, such as in 2011, where Siemens (Germany) was awarded a train building contract ahead of Bombardier (UK). However, the extent to which this will lead to real changes is questionable.

Value of London to the UK economy

In 2015, London generated 15.3 per cent of all Public administration and defence activities GVA nationally (£12,021 million) and in Q3 2016, London represented 15.6 per cent of all UK workforce jobs in the sector (230,000).

In 2015, London generated 18.1 per cent of all Education sector GVA nationally (£17,715 million) and in Q3 2016, London represented 14.0 per cent of all UK workforce jobs in the sector (422,000).

A1.7: Human health and social work activities (SIC Q)

Table 21: Overview on the Human health and social work activities sector

Sector	Legal instruments	Current impact	Implications of leaving the EU
Human health and social work activities: 5.6 per cent of London's GVA, 2015 10.1 per cent of London's workforce jobs, Q3 2016	European Working Times Directive (EWTD) European Health Insurance Card (EHIC) Framework programmes European Reference Networks (ERNs) Health and safety regulation	The UK engages in promoting best practice across the EU and UK residents can carry an EHIC card when travelling in Europe	If EEA-born employees are lost, vacant key-worker positions could prove difficult to fill, and lose access to collaborative research groups

Background

Health policy, including finance and management, is a national responsibility for EU members. However, the EU undertakes some health-related activities, in particular, by supporting cooperation between member states in order to protect and promote public health and to enable the free movement of people¹⁰⁰.

A large portion of the debate on whether or not Britain remained in the EU centred on the impact on the health care sector, specifically the future of the NHS, its ability to recruit sufficiently qualified staff, and the additional funding that is required for its continued running.

¹⁰⁰ NHS European Office, July 2016, '[The EU and health policy](#)'.

A report from the Institute for Public Policy Research (IPPR) claims that the NHS would struggle without its 57,000 EU workers and called for special citizenship offers to help retain them¹⁰¹.

Existing legislation

The NHS describes the scope for EU legislation in the area of health policy as ‘specifically limited’, but lays out how incentive measures to promote and improve health can be adopted, which provides the basis for the EU Health Programme¹⁰².

The emphasis for EU health policy has always been on coordination and cooperation, particularly in order to prevent major health threats such as human illness and disease. Examples of this include EU-wide programmes to address cancer and HIV/AIDS, as well as major campaigns against drug abuse.

In submitting evidence to the Review of the Balance of Competences, the BMA highlighted a number of specific areas where EU policy affects the Human health sector, such as cross-EU licencing for medicines, and public health initiatives such as anti-smoking. The BMA further highlighted the importance of the European Working Times Directive (EWTD) as providing essential health and safety legislation that is necessary for both doctors and patients.

A valid European Health Insurance Card (EHIC) gives holders the right to access state-provided healthcare during a temporary stay in another EEA country or Switzerland. The EHIC covers treatment that is medically necessary and is provided on the same basis as if the card holder was a resident of that country. At present, this is provided by the NHS Business Services Authority.

Aside from this, the EU is responsible for setting policy on plant and animal health, as well as food safety, which all have important implications for human health.

Completion of the internal market

As a national issue, member states have control over their own health care systems and much of the legislation that affects them. As such, there is no real single market in this area but rather ad-hoc cross-EU policies such as controlling tobacco and harmonising training requirements.

Cost of losing access

EU influence

There is currently an opportunity for UK health professionals to feed into the development of ‘best practice’ at the EU level. The EU gathers a range of data from across its member states which it uses to inform decision making at all levels. The European Council recently adopted a recommendation on patient safety and has been instrumental in developing a new ‘Code Against Cancer’ to provide protocols for cancer screening, as well as best practice for prevention and treatment of cancers¹⁰³.

Research access

The EU offers research funding, organised through ‘Framework Programmes’, which can be of significant benefit to the UK healthcare industry. These programmes create opportunities for collaborative, cross-border research, for example, on rare diseases. ‘European Reference

¹⁰¹ The Guardian, August 2016, ‘[NHS needs EU employees to avoid collapse, says thinktank](#)’.

¹⁰² NHS European Office, July 2016, ‘[The EU and health policy](#)’.

¹⁰³ Eurohealth Vol 16 No 4, ‘[The impacts of European Union law on the health care sector: Institutional overview](#)’.

Networks' (ERNs) – groups of experts in a particular field – are supported to work together and share knowledge and best practice at a supranational level.

London also plays host to the European Medicines Agency (EMA) – responsible for testing medicines - which helps to make the city an attractive international destination for the pharmaceutical industry¹⁰⁴. The loss of this body could damage the UK's prominence in this sector.

London's labour force

In London, 9 per cent of Human health and social work activities sector employees were born in the EEA. While a comparatively low percentage of the workforce, this represents 49,000 workforce jobs, and in a skilled industry which can require significant training to enter.

Gains from leaving

A recent LSE study found that the 'logic and structures of EU law are not the logic and structures of health care'¹⁰⁵. Their research found that there was a patchwork of different laws and policies that applied to healthcare and that the institutional structures that support law and policy-making at EU level were unsupportive and even unaware of health care concerns, which could create challenging effects for national healthcare systems.

Value of London to the UK economy

In 2015, London generated 16.0 per cent of all Human health and social work activities GVA nationally (£20,859 million) and in Q3 2016, London represented 13.4 per cent of all UK workforce jobs in the sector (576,000).

¹⁰⁴ Reuters, January 2016, '[Brexit threat hangs over London-based EU medicines agency](#)'.

¹⁰⁵ Eurohealth Vol 16 No 4, '[The impacts of European Union law on the health care sector: Institutional overview](#)'.

A1.8: Transportation and storage (SIC H)

Table 22: Overview on the Transportation and storage sector

Sector	Legal instruments	Current impact	Implications of leaving the EU
Transportation and storage: 4.7 per cent of London's GVA, 2015 4.9 per cent of London's workforce jobs, Q3 2016	European Common Aviation Area (EECA) Cabotage Open Skies Single European Sky Unbundling The Fourth Railway Package Public Service Obligations Driver hours, licensing, and qualifications Environmental standards	UK airlines can operate flights freely within the EU, and lorries can pick up freight from any other EU member state	Airlines could chose to divert traffic to other hub airports rather than the UK if the UK cannot renegotiate airline service agreements, while haulage firms may need to use more lorries

Background

Market liberalisation reform has had a major impact on the UK Transport sector. For instance, estimates suggest that air traffic growth following any liberalisation, averages between 12 and 25 per cent, and brings significant competition benefits¹⁰⁶.

Existing legislation

The single aviation market, achieved through the European Common Aviation Area (ECAA), allows UK airlines the freedom to fly between or within (cabotage) EU countries, while the EU-US Open Skies agreement allows any EU or US airline to operate flights between any two points in the EU and US. While US airlines are also able to operate intra-EU flights, the same is not true for EU airlines in the US.

Cabotage is also applicable to the road transport sector, and means that a haulier transporting goods from the UK to Europe by road, need not return to the UK with an empty lorry, but can pick up goods for transport back to the UK.

¹⁰⁶ InterVISTAS, June 2006, [‘The Economic Impact of Air Service Liberalization’](#).

EU rules underpin much of the regulatory regime for the operation of the commercial road haulage sector, including rules relating to: market access; operator licensing; transport manager qualifications; driver licensing and qualifications; driver hours (which aims to promote safety by limiting time spent at the wheel) and tachograph standards; and vehicle standards and roadworthiness.

The EU has also exercised competence relating to environmental protection with regard to road transport, particularly concerning air quality, carbon, and noise, by: setting limits for exhaust and carbon dioxide emissions for road vehicles; setting minimum requirements to promote the uptake of renewable transport fuels; and establishing noise requirements for road vehicles. For example, Directive 2009/30/EC deals with the specification of petrol, diesel and gas-oil and introduced a mechanism to monitor and reduce GHG emissions, and Directive 96/53/EC governs the weight and dimensions of HGVs¹⁰⁷. There is similar environmental legislation relating to the rail industry for example limiting exhaust from diesel vehicles and noise management.

In the rail industry, ‘unbundling’ is an area in which the EU has focussed particular legislative attention. Unbundling refers to the separation of network ownership and operation from use of the network and particularly affects the rail network. Core legislation on EU rail has been implemented in three ‘packages’. The forthcoming Fourth Railway Package proposes a number of measures, including rules on interoperability. Perhaps of more importance in this context are the proposed changes to the award of Public Service Obligations and to governance of the Infrastructure Manager, which specify rules for competitive tendering for rail service contracts, and independence of infrastructure managers¹⁰⁸.

Outside the EU, the UK will still remain subject to its obligations under international treaties such as the Chicago Convention and the International Convention for the Prevention of Pollution from ships (MARPOL).

Completion of the internal market

The extent of completion of the internal market differs between different modes of transport, air and sea being almost complete, leaving rail less complete. UKTiE – the trade association for the UK transport industry in Brussels – recently reported that member state compliance with EU law has been improved, but that more work is necessary to unleash the full potential of the single market¹⁰⁹. The European Commission further reports that the constructive compliance dialogue between themselves and member states has increasingly led to compliance issues being resolved without a need to resort to formal proceedings.

According to the Road Haulage Association’s October 2016 submission to the House of Lords EU international market sub-committee, the international market for road haulage is fully liberalised within the EU, for all EU operators with an International Operators Licence, with no permits required, or quota limitations. However, the domestic road haulage markets in each EU

¹⁰⁷ HM Government, February 2014, ‘[Review of the Balance of Competences between the United Kingdom and the European Union: Transport](#)’.

¹⁰⁸ oxera, June 2016, ‘[Brexit: implications for the transport sector](#)’.

¹⁰⁹ UKTiE, July 2016, ‘[Member State compliance with EU law improving, but more work ahead o unleash full potential of Single Market](#)’.

member state cannot be considered fully liberalised for operators from other EU member states; rather, there is partial liberalisation through cabotage rules¹¹⁰.

Cost of losing access

Regulatory changes

Exiting the single aviation market would have an immediate impact on UK airlines using EU airspace, as access to the European air traffic management system (ATM) would need to be renegotiated. Under the Single European Sky, the design, management, and regulation of airspace will be coordinated through the EU¹¹¹. In addition, it will not be possible to fly between the UK and a member state, if the airline was based in a third country; this would significantly restrict competition and air traffic in the UK¹¹². Oxera – an economic consultancy service – estimates that if all flights operated by third party airlines were removed, airfares for UK passengers would rise by 15 – 30 per cent¹¹³.

EU influence

The UK is likely to retain much of its influence over many aspects of the Transport sector for example, through its membership of the Channel Tunnel Intergovernmental Commission (IGC), and the Intergovernmental Organisation for International Carriage by Rail (OTIF). As a member of such organisations, the UK may continue to have a seat at the various EU working parties. The European Railway Agency (ERA) in particular has established multiple working parties of experts to assist it in establishing an integrated European railway sector and supporting the European institutions on technical matters regarding legislation and rail interoperability¹¹⁴.

Trade

The maritime industry would be particularly affected by a change in relationship with the EU, given the importance of the sector in trade. Any change in trading patterns would impact UK ports, which are responsible for handling around 90 per cent of goods imports and exports. In the longer term, new tariffs and import duties could reduce business in the sector far into the future.

UK trade would also become subject to customs clearance, which, according to the World Bank, adds around 8 per cent of the financial cost of importing goods by sea¹¹⁵. For multi-stop journeys through Europe, separate customs checks would become necessary for each country a lorry travels through; this would increase the cost, and time, associating with transporting goods¹¹⁶.

A loss of cabotage on exiting the EU could have a huge impact on the road haulage sector; if lorries are required to return to the UK on making their deliveries, rather than being able to pick

¹¹⁰ Road Haulage Association, October 2016, '[House of Lords EU Internal Market Sub-Committee Request for Evidence from the Road Haulage Association on trade in non-financial services](#)'.

¹¹¹ Eurocontrol, October 2015, '[Centralised Services](#)'.

¹¹² oxera, June 2016, '[Brexit: implications for the transport sector](#)'.

¹¹³ Ibid.

¹¹⁴ Norton Rose Fulbright, June 2016, '[Impact of Brexit on the transport sector](#)'.

¹¹⁵ oxera, June 2016, '[Brexit: implications for the transport sector](#)'.

¹¹⁶ Ibid.

up new loads, an increased number of lorries would be required to maintain current trade levels, at significant expense to the industry.

In 2015, the UK exported £11,085 million of transportation services to the EU. This could be put at risk if the new trade agreements fail to allow the sector full access to the EU market¹¹⁷.

London's labour force

In London, 9 per cent of Transportation and storage sector employees were born in the EEA.

Gains from leaving

As the Transport sector would still have to comply with other international agreements in aviation, shipping etc., and will still be seeking to operate within Europe, there are limited regulatory gains to be made by the Transport sector. However, there are some exceptions. Until the mid-1990s, in the rail industry, operations and management of tracks, trains and rolling stock was integrated under British Rail. Under current EU rules, this type of structure is not possible. Brexit could offer the option for more varied models for the GB rail industry.

Value of London to the UK economy

In 2015, London generated 23.2 per cent of all Transportation and storage sector GVA nationally (£17,872 million) and in Q3 2016, London represented 16.5 per cent of all UK workforce jobs in the sector (278,000).

A1.9: Construction (SIC F)

Table 23: Overview on the Construction sector

Sector	Legal instruments	Current impact	Implications of leaving the EU
Construction: 4.2 per cent of London's GVA, 2015	Construction Products Regulation (CPR) VAT	Industry standards set across the EU, with some VAT exemptions for certain types of construction, and significant funding from the EIB and EIF	A potential loss of investment and increased difficulties trading but potential to give greater support to UK-based firms
4.8 per cent of London's workforce jobs, Q3 2016	Procurement legislation		
	European Investment Bank (EIB)		
	European Investment Fund (EIF)		

Background

In response to the referendum outcome, the Construction Products Association downgraded its growth forecast from 4.2 per cent to 3.6 per cent, with only 15 per cent of senior construction sector executives believing that leaving the EU will have a positive impact on their sector¹¹⁸.

¹¹⁷ ONS, July 2016, '[UK Balance of Payments, The Pink Book: 2016](#)'.

Arguably the biggest problem now facing construction is a lack of new work and projects to fill gaps as current ones end. Investment is predicted to remain subdued until there is more certainty over Britain's post-EU position¹¹⁹. European manufacturer Airbus has expressed reservations about investing in the UK in the short term, as has German firm Festo¹²⁰. Government funded infrastructure projects, such as the five new river crossings promised to London, could help support the sector if they are forthcoming.

Existing legislation

A significant amount of EU regulation and procurement legislation affecting construction is already embedded in UK law and therefore Brexit will not necessarily result in any immediate legislative change¹²¹, though, in the longer term, there is scope for reform.

One area where the EU does have particular influence is procurement legislation. The framework of directives and regulations that exist in this area inhibit bribery and corruption, and increase competition through provision of best value for money, with all EU firms eligible to bid for EU member states public procurement contracts free from discrimination.

EU statute also imposes VAT on the consumption of goods and services but allows for reduced rates (5 per cent) relating to the built environment including residential energy, insulation and renovations, and 0 per cent VAT payable on new builds¹²².

In the area of environmental legislation, the Energy Performance of Buildings Directive includes a requirement to provide energy performance certificates where property is constructed, sold, or rented to a new tenant, as well as inspection schemes for heating and air conditioning, and a minimum performance requirement for new builds.

Completion of the internal market

The UK government identified the Construction sector as one of the key areas where there are hundreds of discriminatory, unnecessary or disproportionate requirements, particularly in the areas of authorisation schemes and certifications of expertise¹²³.

Cost of losing access

Regulatory changes

If the UK wishes to continue exporting construction goods and services to the EU, it will need to continue to comply with the relevant EU regulations, such as the Construction Products Regulation 2011 (CPR), which governs the marketing of construction products in the EU. Nevertheless, the prevalence of obstacles to intra-EU trade in this sector suggests that the single market is substantially incomplete. Moreover, construction tends to be a significantly domestic sector. As a result, the potential to reform some EU legislation could prove beneficial to this sector.

There are, however, concerns regarding the impact on Construction workers. EU law provides rules and regulations on working hours and health and safety and while many of these will stay

¹¹⁸ CBI, April 2016, '[Construction and the EU](#)'.

¹¹⁹ agency central, November 2015, '[Is there a skills shortage in the Construction Industry?](#)'

¹²⁰ The Huffington Post, June 2016, '[What Could an EU Exit Mean for the UK Construction Industry?](#)'

¹²¹ Eversheds, May 2016, '[Brexit and the implications for UK construction](#)'.

¹²² RICS, April 2016, '[EU Referendum: what it could mean for construction](#)'.

¹²³ BIS, October 2009, '[Guidance for Business on the Provision of Services Regulations](#)'.

in place after the UK leaves the EU, any future change in standards could lead to potential exploitation, with ‘cowboy traders’ taking advantage of any uncertainty¹²⁴.

Trade and investment

Leaving the EU could have an impact on UK firms competing for projects in the EU as well as on the supply chain. The UK Construction sector is at least partially reliant on imports from the EU, most notably Germany, Italy, and Sweden; in 2014, 53 per cent of imports came from the EU. A loss of free movement of goods, coupled with the introduction of tariffs, could either see construction firms looking inwards to domestic firms for their materials, or increase costs of production by raising the price of imports.

In addition, international investment could drop if investors are put off making decisions on postponed projects, unless these delays are offset by an increase in business from the US and Asia, where a fall in the price of sterling could make commercial and residential investment more attractive.

As well as a loss of private investment, the UK could also lose access to the European Investment Bank (EIB) and European Investment Fund (EIF), which invested €7.8 billion in infrastructure projects (representing 11.2 per cent of its overall lending to EU countries¹²⁵), and lent €665.8 million to SMEs across the UK in 2015. The loss of these funding streams could have a significant impact on project delivery and start-ups across the UK. RICS has called for the government to ensure that these funds are replaced in some capacity to ensure long term infrastructure growth in the UK¹²⁶.

In 2015, the UK exported £753 million of construction services to the EU. Some of this trade could be put at risk if new trade agreements fail to allow the sector full access to the EU market¹²⁷.

London’s labour force

In London, 25 per cent of Construction sector employees were born in the EEA. Research by the CBI suggests 36 per cent of construction companies already report difficulties in recruiting sufficiently skilled workers¹²⁸. Achieving the right skills to plug these gaps takes training and time and as such, the short term impacts on EU withdrawal may be significant and prolonged as if EU workers are lost, the industry may be unable to replace them for several years. A recent survey showed that wages for bricklayers in London have already hit £25 an hour due to the existing skills shortage; if Brexit causes this to rise higher, this could put significant wage cost-pressures on construction firms¹²⁹. However, as Construction makes up only a small percentage of London’s economy, the direct effect on London’s economy as a whole may be relatively small.

¹²⁴ Builder & Engineer, ‘[How could Brexit affect the UK’s construction industry?](#)’

¹²⁵ Prime Minister’s Office, 10 Downing Street, May 2016, ‘[PM: UK will lose billions of pounds in infrastructure funding if it leaves EU](#)’.

¹²⁶ Ibid.

¹²⁷ ONS, July 2016, ‘[UK Balance of Payments, The Pink Book: 2016](#)’.

¹²⁸ CBI, April 2016, ‘[Construction and the EU](#)’.

¹²⁹ Building.co.uk, June 2016, ‘[What a Brexit means for construction](#)’.

Gains from leaving

Changes to procurement legislation could stipulate the use of UK firms or materials and be used as a tool to support UK-based enterprises. Equally, a UK-set migration system could allow the UK to pinpoint the exact skills of the workers it requires¹³⁰.

Value of London to the UK economy

In 2015, London generated 15.7 per cent of all Construction sector GVA nationally (£16,020 million) and in Q3 2016, London represented 12.6 per cent of all UK workforce jobs in the sector (277,000).

A1.10: Accommodation and food service activities (SIC I)

Table 24: Overview on the Accommodation and food service activities sector

Sector	Legal instruments	Current impact	Implications of leaving the EU
Accommodation and food service activities: 3.0 per cent of London's GVA, 2015 6.9 per cent of London's workforce jobs, Q3 2016	Tour Operators Margin Scheme (TOMS) Health and safety regulations Food standards (safety, traceability, labelling) Employment regulations Hotel classification	Legislation has failed to adapt quick enough to new technologies and the changing ways in which the sector operates, and much is not applied evenly across member states	Consumer protections may be at risk and if leaving the EU results in a drop in tourism, this industry will be particularly affected

Background

A recent poll of CBRE investor clients¹³¹ found that 73 per cent felt that the UK would be worse off by leaving the EU. Their report, 'Heading for the Exit?' said that Brexit would dent the international perception as a safe haven for investors and cause a decline in the appetite to acquire hotel stock, at least in the short term. However, they caveated this with the prediction that the UK hotel industry would also see increased cash-flows as interest rate rises are deferred and consumer spending is boosted. In addition, the UK is expected to remain competitive in terms of tourism, as sterling's falls against most currencies, reduces costs for international travellers and increases overseas demand for hotel rooms. Exchange rate changes could also increase the number of British people taking 'staycations' as the cost of holidaying abroad becomes comparatively more expensive. CBRE's biggest concern post EU-exit was the

¹³⁰ RICS, April 2016, '[EU Referendum: what it could mean for construction](#)'.

¹³¹ CBRE Global Investors is one of the world's largest real estate investment management firms, with \$87.9 billion in assets under management. Their clients include: pension funds; insurance companies; sovereign wealth funds; foundations; endowments; and private individuals.

implications for hotel staffing and subsequent costs if British workers demand higher wages (average payroll costs account for 32 per cent of hotel revenues)¹³².

PwC's hotel's forecast for 2017, offers a mixed outlook for London in wake of referendum uncertainty and other concerns, as well as cuts to business travel budgets. PwC forecast that the weak pound may bring short term benefits as numbers of international leisure travellers rises, but that most key performance indicators will be down, including a 0.5 per cent fall in revenue per room (RevPAR). However, PwC's forecast also noted that London retains some of the highest occupancy rates (80 per cent in 2017) and average prices (£142 average room price in 2017), by global standards¹³³.

Existing legislation

Much EU legislation affecting the Accommodation and food service activities industry is either applicable across business (such as employment law), or has been implemented as being in the best interest of the consumer (such as food hygiene or pest control standards).

The Tour Operators Margin Scheme (TOMS) specifically affects the tourism sector, and has been in place since 1977 as a simplification measure for VAT accounting on component parts of tours, such as travel and accommodation. While far more practical than requiring operators to register and pay VAT in every country in which they operate, this legislation has not been applied uniformly across member states, as many EU members do not view it as in their country's best interests to enforce TOMS¹³⁴.

Completion of the internal market

Accommodation and food services are seen as a national competency and as such there is no direct EU regulation in this area. However, some regulations, such as EU employment, or health and safety directives, will have a significant impact on the sector.

Cost of losing access

Tourism

The ONS International Passenger Survey shows that 67 per cent of the UK's visitors come from EU states¹³⁵. If the pound recovers and the UK becomes a less competitive destination financially, London may be adversely affected if EU citizens view London as a less attractive tourist destination, either as being less welcoming, or just inconvenient due to more strenuous or time consuming border checks.

EU influence

The UK has chosen not to take-up many of the EU sanctioned benefits that could help the UK's Accommodation and food services industry, with it enforcing tighter visa regulations than Schengen, and maintaining the higher level of VAT than most European countries (EU legislation allows 5 per cent VAT for labour intensive industries, such as hospitality). Retaining influence over liberalising this sector therefore appears to be a low priority for the UK Government, who prefer stricter regulation than the rest of the EU.

¹³² CBRE, April 2016, '[Brexit – The impact on the hotels sector](#)'.

¹³³ PwC UK, '[Facing the future: UK hotels forecast 2017](#)'.

¹³⁴ ECIAA, '[Annex – Shortcomings in the current TOMS scheme](#)'.

¹³⁵ ONS, '[International Passenger Survey \(IPS\)](#)'.

London's labour force

In London, 32 per cent of employees (79,000 jobs) in the Accommodation and food service activities sector were born in the EEA. Not only is this more than any other industrial sector, it is the only sector where EEA-born job holders outnumber UK-born job holders (by 3,000). There is a concern that should these workers no longer be eligible to work in the UK, filling this many places will put a large burden on business and London's economy more generally.

Gains from leaving

There are several EU regulations regarding food that the UK Accommodation and food service activities industry could benefit from exemption from, for example, EU rules of allergens, which have been criticised by many London chefs for being harmful to restaurants and other caterers¹³⁶, or legislation that the EU has been simply slow to update to reflect the digital age and new ways of doing business in this industry, and has been particularly prevalent in TOMS.

In addition, as discussed above, a weaker pound will make the UK more competitive as a tourist destination, meaning it can continue to see higher numbers of international visitors, as well as an increasing popularity of 'staycations' among the UK population.

Value of London to the UK economy

In 2015, London generated 23.0 per cent of all Accommodation and food service activities GVA nationally (£11,398 million) and in Q3 2016, London represented 16.9 per cent of all UK workforce jobs in the sector (394,000).

A1.11: Manufacturing (SIC C)

Table 25: Overview on the Manufacturing sector

Sector	Legal instruments	Current impact	Implications of leaving the EU
Manufacturing: 2.2 per cent of London's GVA, 2015 2.2 per cent of London's workforce jobs, Q3 2016	Employment regulations Environmental standards Product safety directives Health and safety regulations	Parity across industrial regulations gives UK companies improved access to the single goods market	Without a full transposition of regulations, UK companies may face difficulties trading with the EU and new tariffs may apply, but a loss of state aid regulation would allow UK government to subsidise manufacturing sectors as they saw fit

¹³⁶ The Telegraph, March 2015, '[Top chefs attack EU rules on allergens in food](#)'.

Background

The London Business Survey 2014 showed that 26 per cent of London's manufacturing firms are exporters, selling on average 8 per cent of their total goods and services to customers outside the UK¹³⁷.

Looking at the UK's future relationship with the EU, a recent report by the EEF called for 'an orderly and stable exit that avoids long term damage to manufacturers' interests, growth, and investment opportunities'. They view it as vital that the UK retains unrestricted access to the single market and remain within the Customs Union. Manufacturers are also concerned about retaining access to skilled labour and have asked that any change to rules on freedom of movement do not restrict the ability of business to operate smoothly. Finally, the EEF report calls for regulatory stability (such that the UK absorbs the existing regulatory framework as standard) and that UK business is allowed to continue to benefit from common EU programmes, such as the internal energy market and innovation funding¹³⁸.

Existing legislation

There is little regulation that affects the Manufacturing industry specifically, but many EU regulations have an impact on the sector none-the-less. Many individual and commercial arrangements are based on EU law which will continue to subsist long after the UK leaves the EU. EU employment and social security regulations, health and safety regulations, product safety and standard directives and environmental regulations will all continue to affect the Manufacturing sector, which must comply with many of these to continue trading with the rest of the EU¹³⁹.

In the area of environmental legislation, the Eco-design of Energy Using Products Directive requires manufactures to decrease the energy consumption of their products by establishing minimum standards for energy efficiency.

Completion of the internal market

Manufacturing would likely benefit from an improved internal market for goods, for example, the introduction of a unified patent litigation system. Accompanying measures to current industrial policy could include directives such as a simplified, predictable, and stable regulatory framework for new products, which do not exist under the current system, and could go a long way to helping to complete the internal market.

Cost of losing access

Regulatory changes

Without a full transposition of regulations, UK companies may face difficulties trading with the EU (particularly in product safety and standards), as well as tariffs when importing raw materials from the EU, or exporting finished goods to the EU. In addition, much of EU health and safety law and environmental practices are heavily embedded in company investment decisions, company policies, and management and working practices; any fundamental change to this is likely to be hugely disruptive for companies in the short to medium term. Finally, in areas such as air quality, the UK has made significant improvements in reducing industrial emissions; becoming less aligned with the EU could put these achievements at risk.

¹³⁷ GLA, November 2014 '[London Business Survey 2014: Main findings](#)'.

¹³⁸ EEF, September 2016, '[Britain and the EU: manufacturing an orderly exit](#)'.

¹³⁹ Slaughter and May, March 2015, '[Brexit Essentials: The legal and business implications of the UK leaving the EU](#)'.

Some manufacturers themselves show little interest in reducing the burden EU regulation places on them. The EEF found that 23 per cent of their members believed the UK should not adopt waste directives, even in chemical regulations, which are known for being the most burdensome. Manufacturers believe that discarding existing regulation could undermine investment in improving air quality so far, and could hinder the incentives for this kind of work to continue¹⁴⁰.

EU influence

Manufacturing is an area in which the UK has been fairly successful at focusing EU policy towards those sectors of importance to London, such as biotechnology and advanced manufacturing, which could be lost with the UK's withdrawal. A loss of EU access will mean that the UK can also no longer influence the development of future standards and regulations for manufactured goods which could have negative consequences for UK traders.

London's labour force

In London, 13 per cent of Manufacturing sector employees were born in the EEA. Manufacturers need access to skilled labour and are currently reliant on an ability to move people to and from the EU. Withdrawal from the EU could pose a risk if these jobs cannot be retained by current workers, or filled by UK nationals¹⁴¹. However, given manufacturing's declining share of London's economy, the costs to the capital are likely to be lower in this sector over time.

Gains from leaving

In the long term, there may be opportunities to cut red tape, which manufacturing companies would find particularly welcome in the area of environmental regulations. The EEF reports that while manufacturers want to see most EU environmental regulation transposed into UK law, they do recognise Britain's withdrawal from the EU as an opportunity to explore a simpler, more UK-specific approach to green policy, ideally that protects them from supply and price volatility, while driving innovation and reducing harmful emissions¹⁴².

Leaving the EU could also provide the government with an opportunity to support struggling industries, such as the steel industry, through state aid (see public administration section) if they so choose¹⁴³.

Value of London to the UK economy

In 2015, London generated 5.2 per cent of all Manufacturing sector GVA nationally (£8,398 million) and in Q3 2016, London represented 4.8 per cent of all UK workforce jobs in the sector (127,000).

¹⁴⁰ EEF, September 2016, '[Britain and the EU: manufacturing an orderly exit](#)'.

¹⁴¹ GLAE calculations based on data from: '[Annual Population Survey 2015](#)'.

¹⁴² edie.net, September 2016, '[Keep EU environmental legislation post-Brexit, urge manufacturers](#)'.

¹⁴³ John Redwood, June 2016, '[How joining the EU led to a big decline in UK industry](#)'.

A1.12: Primary and utilities (SIC A, B, D, E)

Table 26: Overview on the Primary and utilities sector

Sector	Legal instruments	Current impact	Implications of leaving the EU
Primary and utilities: 1.3 per cent of London's GVA, 2015 0.5 per cent of London's workforce jobs, Q3 2016	Internal Energy Market (IEM) EU Emissions Trading Scheme (EU ETS) Capacity Markets (CMs) Carbon Price Floor (CPF) Markets in Financial Instruments Directive (MiFID) EU Drinking Water Directive EU Water Framework Directive Common Agricultural Policy (CAP)	The UK must seek to comply with EU standards on renewable energy and climate change which do not necessarily best suit the UK, while also receiving farming subsidies from CAP and no tariffs on agricultural exports, but have made significant gains in water purity	The UK could lose access to the IEM which could increase costs and decrease security of energy supply, but could see lower food prices if CAP is replaced with a UK support scheme

Background

The UK's energy market is heavily interlinked with Europe. In the UK, four of the UK's 'big six' energy companies are owned by non-UK domiciled parents: Centrica and Southern/Scottish Energy are UK-owned; EDF is French-owned; E.ON and 'Npower' are German-owned; and Scottish power is Spanish-owned. While the majority of water and sewerage companies operating in the UK are British owned, Bristol Water is owned by Spanish company Grupo Agbar, with others water providers owned by companies based in the US, Canada, Australia, Malaysia, and Japan¹⁴⁴.

Power and water are inputs into most goods and services we produce, and as such can have a significant impact on price. Over the last decade, the Government has prioritised the move towards a single energy market under the logic that the larger the market, and fewer barriers to trade, the lower prices paid by consumers, and the more secure energy supply will be.

The UK energy sector is currently undergoing significant change, moving more and more towards renewables, biomass, nuclear, and thermal methods of generating power, and at an

¹⁴⁴ Wikipedia, accessed November 2016, '[United Kingdom water companies](#)'.

increasingly local level¹⁴⁵. The water sector has also undergone significant change, mostly as a result of changes to environmental legislation.

Energy UK – the trade body representing the UK energy sector – has called for government to maintain efficient trading of power and gas, retain access to supply chain products (tariff free), maintain liquidity, and ensure access to skills¹⁴⁶, while Water UK has emphasised the importance of stable and predictable legislation in allowing water companies to raise long term finance and deliver benefits to customers and the environment at an affordable price¹⁴⁷.

In 2014, London exported only £16 million worth of Primary and utilities services (25 times less than the next smallest industry by exports), while agriculture contributed only £51 million total GVA, representing less than 0.1 per cent share of London's total GVA output. Mining and quarrying contributed 0.1 per cent, while utilities combined contributed 1.5 per cent.

Existing legislation

Many domestic policy tools are already in place to regulate the utilities sector, including through the Capacity Market (CM), Carbon Price Floor (CPF), and Contract for Difference (CfD) auctions, which will provide much stability for the industry as the UK withdraws from the EU. The CPF – the minimum price payable for carbon emissions in the UK – was, in fact, established as a response to the EU Emissions Trading Scheme (EU ETS) price being insufficiently strong to deliver the investment signal required and is just one example of where UK government has chosen to go beyond the EU to tackle climate change.

One area where the UK would be legislatively less well covered is in climate change and renewable energy targets, which at present primarily come from the EU¹⁴⁸, but the industry anticipates that existing government targets would hold and potentially even strengthened. At present, the UK's above average performance on climate change masks a lack of action from other EU member states; by leaving the EU, the UK could leave the EU unable to deliver its Paris Agreement commitments¹⁴⁹.

Like the Financial sector, the utilities sector is heavily affected by MiFID II in terms of commodities trading. Energy UK anticipates that when the UK leaves the EU, the government will implement a strict market abuse regime to maintain confidence in the market and protect consumers¹⁵⁰.

The agricultural sector, on the other hand, is mostly affected by the Common Agricultural Policy (CAP), which dates back to 1962. CAP has undergone significant reform since the 1990s and the budget has shrunk significantly (71 per cent in 1984 to 39 per cent in 2013)¹⁵¹. CAP continues to pay out subsidies to UK farmers which help diversify rural economies, safeguard food standards, and protect the environment. However, as there is so little farmland in London, the impact will be minimal (other than through its impact on consumers).

¹⁴⁵ Department of Energy & Climate Change, November 2013, '[UK Renewable Energy Roadmap](#)'.

¹⁴⁶ Energy UK, Autumn 2016, '[Priorities for the energy sector following the UK's decision to leave the European Union](#)'.

¹⁴⁷ Water UK, August 2016, '[UK Water sector: priorities post-EU referendum](#)'.

¹⁴⁸ House of Commons, October 2016, '[The energy revolution and future challenges for UK energy and climate change policy](#)'.

¹⁴⁹ Energy UK, Autumn 2016, '[Priorities for the energy sector following the UK's decision to leave the European Union](#)'.

¹⁵⁰ Ibid.

¹⁵¹ European Commission, June 2013, '[The common agricultural policy \(CAP\) and agriculture in Europe](#)' Frequently asked questions'.

Completion of the internal market

Agricultural trade is free within the EEA, completing the internal market, but CAP distorts production and trade, along with high tariffs placed on produce from outside the EU.

Over the last 20 years, the EU has also worked to develop a single market for energy in the form of the Internal Energy Market (IEM). This aims to liberalise the market, and strengthen cross-border infrastructure. Many measures are still in the process of being agreed but huge efficiencies in power and gas trading, as well as reduced costs to consumers, have already been achieved¹⁵². In February 2015, the EU Commission approved proposals for a single European energy market, mostly aimed at reducing Europe's dependence on Russian gas¹⁵³.

Cost of losing access

Regulatory changes

The IEM delivers access to power and gas across borders, enhanced liquidity, easy access to supply chain materials, and the EU ETS, all of which are hugely popular among UK businesses as they increase efficiency and allow savings to be passed on to consumers¹⁵⁴. Equally, the UK benefits from membership of the European Network of Transmission System Operators for Electricity, and Gas (ENTSO-E and ENTSOG), as well as Ofgem's presence within the Agency for the Cooperation of Energy Regulators (ACER). Loss of these memberships could be damaging to the industry, and to consumers. Ensuring

EU regulation of the water industry is primarily aimed at safeguarding standards; the EU Drinking Water Directive ensures that the drinking water in member states remains world class, and the EU Water Framework Directive seeks to improve quality of rivers and beaches (which is particularly relevant to the UK, as an island nation)¹⁵⁵. These environmental improvements could be put at risk should UK law fail to adopt EU water regulations.

UK farmers, on the other hand, will no longer be eligible for CAP subsidies when the UK leaves the EU and may face high tariffs on food exports; UK dairy exports could face tariffs of anything from 30 to 200 per cent¹⁵⁶.

Energy Supply

The UK and European gas and electricity networks are linked through transmission interconnectors which give countries an opportunity to trade electricity and gas driven by price differentials. If the UK was outside the IEM, it is uncertain what rules would apply to cross-border flows of power, which could endanger security of supply. This said, while the UK is a net importer of electricity (5.8 per cent of supply in 2015) the UK is currently not heavily dependent on gas imports from Continental Europe and is doing much to explore new ways of producing energy nationally¹⁵⁷.

EU influence

¹⁵² Energy UK, Autumn 2016, '[Priorities for the energy sector following the UK's decision to leave the European Union](#)'.

¹⁵³ BBC, February 2015, '[EU Commission approves proposals for single energy market](#)'.

¹⁵⁴ Energy UK, Autumn 2016, '[Priorities for the energy sector following the UK's decision to leave the European Union](#)'.

¹⁵⁵ Water UK, '[EU policy](#)'.

¹⁵⁶ Horizon Market Intelligence/AHDB, October 2016, '[What might Brexit mean for UK trade in agricultural products](#)'.

¹⁵⁷ Energy UK, Autumn 2016, '[Priorities for the energy sector following the UK's decision to leave the European Union](#)'.

If the UK retains access to the IEM, it will have to accept changes set out by the EU without participating in any of its governance arrangements, which could lead to unnecessary cost or impact security of supply. For instance, negotiations are currently taking place regarding a move to an EU-wide 15-minute imbalance settlement period (ISP) which although potentially beneficial to other countries, would impose costs that outweigh any potential benefits for UK customers¹⁵⁸.

London's labour force

In London, 11 per cent of Primary and utilities sector employees were born in the EEA.

Gains from leaving

While UK energy suppliers are generally supportive of the efficiency savings that come from IEM membership, leaving the IEM may present opportunities to reconsider the policy and regulatory distortions faced by generators that come from power traded over the interconnectors being exempt from network charges, and additional policy costs such as the CPF.

For the water industry in particular, the cost of complying with environmental standards, while having led to cleaner water and beaches, pushes up costs for the utilities companies which may be passed on to consumers, resulting in higher water bills, and taxation to cover increased cost to the government.

Meanwhile, in agriculture, there is the possibility for a big redistributive effect from leaving the EU. UK households may benefit from cheaper food as a result of leaving the EU, as the UK could cut or even eliminate tariffs on imports of food. In addition, the UK will regain control of coastal fishing rights, which may boost the fisheries industry under new regulation by the UK Government if managed properly and to preserve stocks.

Value of London to the UK economy

In 2015, London generated 6.9 per cent of all Primary and utilities services GVA nationally (£4,791 million) and in Q3 2016, London represented 3.5 per cent of all UK workforce jobs in the sector (28,000).

¹⁵⁸ Ibid.

A1.13: Arts, entertainment and recreation (SIC R)

Table 27: Overview on the Arts, entertainment and recreation sector

Sector	Legal instruments	Current impact	Implications of leaving the EU
Arts, entertainment and recreation: 1.8 per cent of London's GVA, 2015 3.8 per cent of London's workforce jobs, Q3 2016	Intellectual property (IP) rights Audiovisual Media Services (AVMS) Directive (EU) Community Unregistered Design Right.	The EU currently funds a significant number of 'creative' projects and sporting endeavours in the UK, as well as facilitating a number of key collaborative work streams	Loss of access to the EU may reduce the amount of long term funding available to the UK's creative industries, could make it harder for touring groups like orchestras, theatre companies, and sports teams to perform internationally, and could put inward investment at risk

Background

London undoubtedly is a strong cultural capital and key tourist destination, with both national and international visitors coming to enjoy the many museums, galleries, sports venues and theatres.

As an industry, it is one of London's fastest growing, supporting 152 per cent more jobs in 2015, than in 1971. Only Professional services and Other services have seen a greater change in jobs as a percentage.

Today, London is home to four UNESCO heritage sites, 349 live music venues, and 857 art galleries¹⁵⁹. Data from the World Cultural Cities Report show that London performs strongly against other major European cities, especially looking at theatre admissions, where London has almost twice as many as Paris, Madrid, Rome, and Berlin combined, while on a global scale, these trends are even more pronounced¹⁶⁰. Data from the Association of Leading Visitor Attractions shows that all of the top 10 UK visitor destinations are in the capital, 9 of which are free to enter¹⁶¹.

As a sector, Arts, entertainment and recreation is more often described under alternative titles, including smaller elements from other SIC codes. As such, much of the general information discussed in this sector will more accurately relate to the non-defined 'culture' or 'creative' sector, rather than strictly to arts, entertainment and recreation.

¹⁵⁹ GLA, November 2016, '[Economic Evidence Base 2016](#)'

¹⁶⁰ Ibid

¹⁶¹ Ibid

Existing legislation

Intellectual property (IP) is particularly important for those working in the arts and entertainment industry. It is predicted that intangible assets such as IP can account for as much as 80 per cent of a business' value¹⁶². At present, much of the UK's IP rights regime is enshrined in EU Directives, including cover for trademark, copyright, design, and patent rights.

Completion of the internal market

There is no formal internal market for the Arts, entertainment, and recreation sector, but many of the regulations affecting it, such as IP, show more completeness.

Cost of losing access

Regulatory changes

London's creative sector is particularly concerned about the gap left if the UK does not remain signed up to the (EU) Community Unregistered Design Right as in order to secure Community Unregistered Design Rights, the design or fashion product in question must first be made available in the EU. This could de-incentivise designers to launch their products in the UK, which in turn could adversely impact on UK showcasing and trade shows, for example London Fashion Week which generates £269 million of income per season showcase¹⁶³.

The television sector could also be affected by a loss of EU regulation. Television and on-demand services licensed by Ofcom access the single market supported by the Audiovisual Media Services (AVMS) Directive, which requires any Member State to permit the reception of service under the jurisdiction of another Member State.

The Department of Culture, Media and Sport, estimates that London's design sector is the largest in Europe, and the second largest in the world¹⁶⁴. At present, this sector is covered by IP design rights which protect product and fashion design. Any decrease in IP rights following an exit from the EU will place all UK creative industries at a disadvantage.

EU access

There is significant risk from loss of EU access to the broadcasting sector. At present, over half of the 1100 channels licensed in the UK broadcast to overseas markets. The multi-channels sector generates £4 billion in GVA per annum, invests more than £700 million a year in UK television and media content and directly supports 12,000 jobs in the UK. London is the European hub for broadcasting with major TV and media channels like Discovery, Disney, Sky, Turner Time Warner and Viacom headquartered here¹⁶⁵. In addition, cheap and easy access to the EU has helped to develop audiences for young talent¹⁶⁶.

Funding and collaborative streams

London's creative and cultural sector benefits from EU programmes – both by applying for money from London's share of the European Regional Development Fund (ERDF), and as leaders or partners for transnational programmes such as Creative Europe that support the wide

¹⁶² Forbes, October 2014, '[Pay Attention to Innovation and Intangibles – They're More Than 80% Of Your Business](#)'.

¹⁶³ Fashion United, September 2016, '[This is how much money London Fashion Week generates](#)'.

¹⁶⁴ Department of Culture, Media and Sport, Creative Industries Economic Estimates, January 2015.

¹⁶⁵ Royal Television Society, October 2016, '[Hard Brexit: A turn-off for TV](#)'.

¹⁶⁶ Creative Industries Federation, October 2016, '[Brexit Report](#)'.

range of cultural activity from film to music to visual arts and dance. During its first two years Creative Europe has supported 230 UK cultural and creative organisations and audio-visual companies as well as the cinema distribution of 84 UK films in other European countries with grants totalling €40 million¹⁶⁷.

CIF research shows that the UK receives more money through Creative Europe and Horizon 2020 than any country apart from Germany, and that this has been transformational for many parts of the UK. 'Projects such as Sage Gateshead and High House Production Park in Thurrock, Essex, have become important hubs for their communities and boost their local economies'¹⁶⁸.

There is also significant value to UK creative business from collaborating with EU partners. Programmes like Creative Europe promote transnational relationships and broker new opportunities for artistic exchange, touring and exhibition. This risk has been lessened by the government's pledge to fully fund all projects with contracts signed before the November 2016 Autumn Statement¹⁶⁹.

London's labour force

In London, 9 per cent of Arts, entertainment and recreation sector employees were born in the EEA (18,000 jobs). The Creative Industries Federation (CIF) has stressed the importance of the UK's international staff as driving innovation, plugging skills gaps, and providing competitive advantage by offering expert insight into foreign markets for fashion, design, and beyond¹⁷⁰.

Free movement of labour has been particularly beneficial to film and TV production and festivals, as well as touring companies such as bands, orchestras, and dance and theatre companies¹⁷¹.

Trade

In 2015, the UK exported £613 million of personal, cultural, and recreational services to the EU. Some of this trade could be put at risk if new trade agreements fail to allow the sector full access to the EU market¹⁷².

Gains from leaving

Leaving the EU will free the UK from IP legislation and could represent an opportunity to implement legislation that strengthens and enforces IP rights so that creators are protected and incentivised to create.

The CIS reports that there are widespread skills shortages across the creative disciplines; particularly in animation, visual effects, and video games. They believe that a revamp of our immigration and visa rules could create an opportunity to better understand the specific needs

¹⁶⁷ Creative Europe, June 2016, '[Creative Europe Desk UK statement](#)'.

¹⁶⁸ Creative Industries Federation, October 2016, '[Brexid Report](#)'.

¹⁶⁹ HMT, August 2016, '[Chancellor Philip Hammond guarantees EU funding beyond date UK leaves the EU](#)'

¹⁷⁰ Creative Industries Federation, October 2016, '[Brexid Report](#)'.

¹⁷¹ Ibid.

¹⁷² ONS, July 2016, '[UK Balance of Payments, The Pink Book: 2016](#)'

of the creative industries, where skill is not necessarily compensate with salary, and to accommodate them better¹⁷³.

Value of London to the UK economy

In 2015, London generated 29.8 per cent of all Arts, entertainment and recreation activities GVA nationally (£6,846 million) and in Q3 2016, London represented 21.4 per cent of all UK workforce jobs in the sector (215,000).

A2: A Note on the index of specialisation

The index of specialisation is calculated as follows:

$$\frac{\left(\frac{\text{Sector employee jobs in London}}{\text{All employee jobs in London}} \right)}{\left(\frac{\text{Sector employee jobs in rest of GB}}{\text{All employee jobs in rest of GB}} \right)}$$

An index of specialisation of one means that the same proportion of jobs occur in London as occur in the rest of Great Britain. An index of specialisation of greater than one means that a higher proportion of jobs in that sector are located in London when compared with the rest of Great Britain.

The following table provides the index of specialisation scores for the 1 digit SIC2007 sections, and shows similar analysis to earlier charts, that London is particularly specialised in service sector industries, with most of these recording scores greater than one. London's most significant specialisations are in financial and insurance activities; information and communication; and professional, scientific and technical activities.

This analysis shows that sectors such as manufacturing and primary and utilities which tend to be more land intensive have a low index of specialisation score. The findings also resonate with the earlier trade findings with those areas of significant trade tending to have higher levels of specialisation.

¹⁷³ Creative Industries Federation, October 2016, '[Brexit Report](#)'

Table 28: London's indices of specialisation by 1 digit SIC section, 2014

Sector	London – employee jobs	Share of total London employee jobs	Rest of GB employee jobs	London's share of total GB employee jobs	Index of Specialisation
A,B,D,E: Primary and Utilities	28,700	0.6%	535,400	5.1%	0.26
C : Manufacturing	113,300	2.4%	2,241,200	4.8%	0.25
F : Construction	144,800	3.1%	1,102,100	11.6%	0.64
G : Wholesale and retail trade	594,700	12.6%	3,815,600	13.5%	0.76
H : Transportation and storage	227,300	4.8%	1,025,000	18.2%	1.09
I : Accommodation and food service activities	358,000	7.6%	1,614,600	18.1%	1.09
J : Information and communication	372,800	7.9%	769,700	32.6%	2.38
K : Financial and insurance activities	351,900	7.4%	681,400	34.1%	2.53
L : Real estate activities	107,600	2.3%	345,900	23.7%	1.53
M : Professional, scientific and technical activities	613,900	13.0%	1,638,900	27.3%	1.84
N : Administrative and support service activities	490,600	10.4%	1,942,300	20.2%	1.24
O : Public administration and defence	220,000	4.6%	1,064,600	17.1%	1.01
P : Education	385,700	8.1%	2,191,800	15.0%	0.86
Q : Human health and social work activities	483,700	10.2%	3,257,700	12.9%	0.73
R : Arts, entertainment and recreation	125,200	2.6%	558,100	18.3%	1.10
S : Other service activities	114,600	2.4%	433,700	20.9%	1.30

Source: GLA Economics calculations; drawn from Business Register and Employment Survey, ONS

GLAECONOMICS

Greater London Authority
City Hall
The Queens Walk
London SE1 2AA

Tel 020 7983 4922
Fax 020 7983 4674
Minicom 020 7983 4000
Email glaeconomics@london.gov.uk

<http://www.london.gov.uk/gla-economics-publications>

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