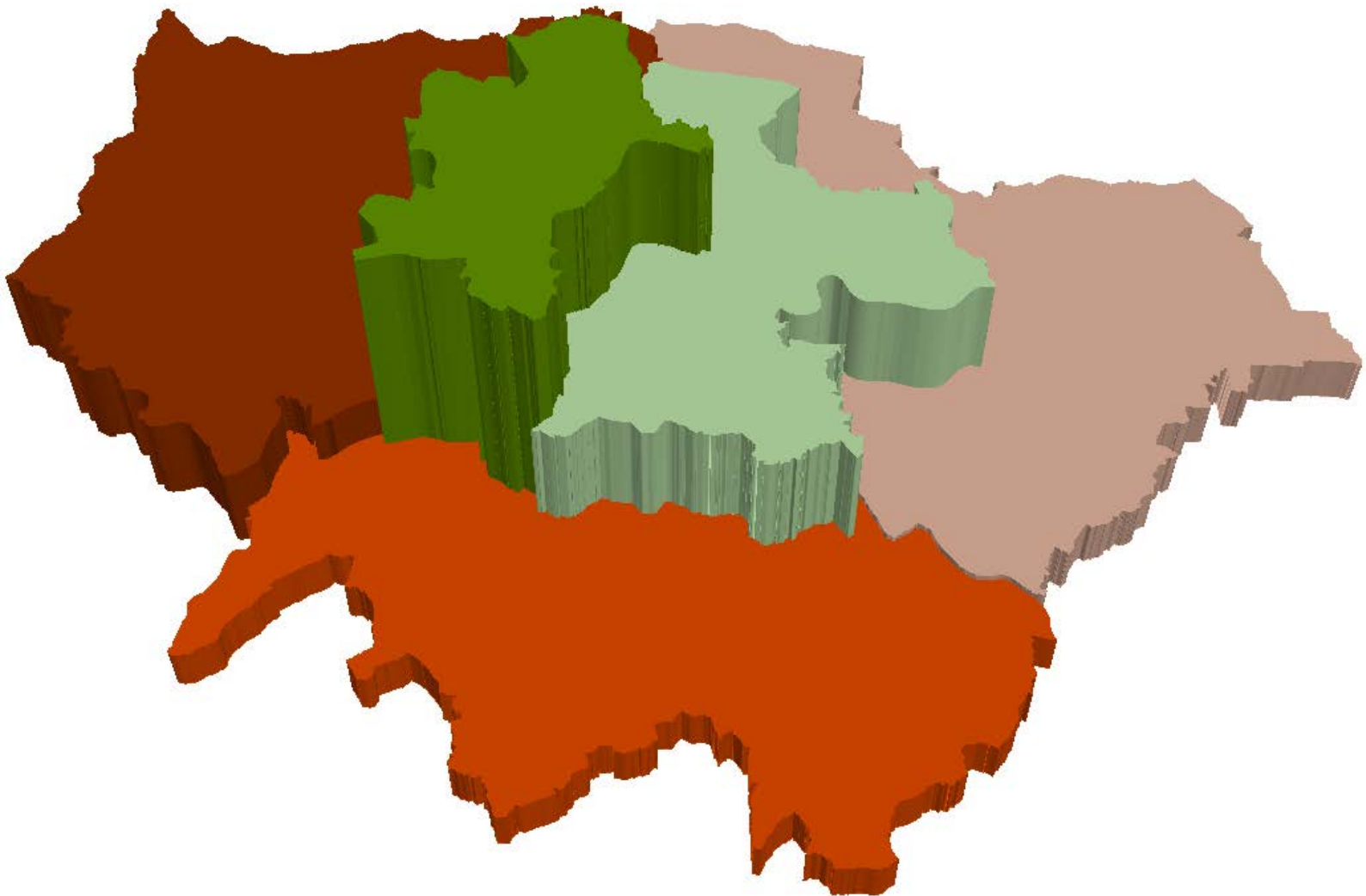


Current Issues Note 41

# Regional, sub-regional and local gross value added estimates for London, 1997-2012

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## Key points

- In 2012, London's total nominal output (as measured by GVA(I)<sup>1</sup>) was over £309 billion (up 2.0 per cent on 2011). Inner London accounts for 70 per cent of this output, with Inner London-West alone accounting for 45 per cent of the total output.
- London now accounts for 22.4 per cent of the UK's total output<sup>2</sup>.
- In 2011, a fifth of London's output was generated by the financial and insurance industry, accounting for just over a half of the UK's total output in the industry and 4.5 per cent of the UK's total output.
- In 2011, Inner London produced 95 per cent of London's output in the financial and insurance industry, and over three-quarters of its output in professional/scientific/technical, information/communication, and real estate industries. Outer London hosted over half of London's output in three industries (transport/storage, construction, and manufacturing).

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<sup>1</sup> This is GVA as measured by the income approach.

<sup>2</sup> Unless otherwise stated, UK output/GVA in this document refers to United Kingdom including Extra-Regio and statistical discrepancy. Extra-Regio, comprises compensation of employees and gross operating surplus which cannot be assigned to regions.

## Introduction

In December 2013 the Office for National Statistics (ONS) released provisional estimates of regional, sub-regional and local gross value added (GVA) for 2012 (although industry breakdowns of the data are for 2011)<sup>3</sup> measured by the income approach. Also published in December 2013 were experimental results for regional real GVA as measured by the production approach for the years 1998 to 2011. This note presents the findings for London and then outlines the results from the experimental real GVA data.

## Background notes

- “Gross Value Added (GVA) is a measure of the increase in the value of the economy due to the production of goods and services”<sup>4</sup>. The GVA estimates in this note are workplace-based, where GVA is allocated to the area in which the economic activity takes place.
- The GVA estimates measured by the income approach are in current prices, meaning no adjustment has been made to remove the effects of inflation. Over time, even if the true (economic) value of output is unchanged, GVA in current prices would increase in line with price rises (inflation).
- The GVA estimates measured by the production approach (currently experimental statistics) are in real (or constant) prices, meaning adjustment has been made to remove the effects of inflation and therefore the two measures of GVA in this publication are not directly comparable.
- The GVA data covers London, its sub-regional and local areas. At the sub-regional (NUTS<sup>5</sup> 2) level, London has two areas: Inner London and Outer London. At the local (NUTS 3) level London has five areas<sup>6</sup>: Inner London – West, Inner London – East, Outer London – East and North East, Outer London – South, and Outer London – West and North West.
- Following the 2012 ONS Methodology Directorate review of smoothing and commuting adjustments in the UK Regional Accounts it was decided to cease smoothing estimates of regional GVA. This is the first publication of regional GVA estimates in which this change has been implemented.

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<sup>3</sup> <http://www.ons.gov.uk/ons/rel/regional-accounts/regional-gross-value-added--income-approach-/december-2013/stb-regional-gva-2012.html>

<sup>4</sup> <http://www.ons.gov.uk/ons/rel/regional-accounts/regional-gross-value-added--income-approach-/december-2013/stb-regional-gva-2012.html>

<sup>5</sup> NUTS stands for Nomenclature of Units for Territorial Statistics. It is a European classification for areas based on their size to ensure data across countries at different geographical levels are comparable.

<sup>6</sup> The current NUTS 3 classifications are valid until the end of 2014 and are subject to revision in 2015.

## London GVA(I)

In 2012 London's total output was over £309 billion. This was up 2.0 per cent on 2011 and accounted for 22.4 per cent of the UK's total GVA up from 19.4 per cent in 1997. The growth in London's nominal GVA accounted for over 25 per cent of the UK's total GVA increase between 2011 and 2012. The historic data for London's GVA has seen significant revisions, with, for example, nominal GVA in 2011 in London now standing at £303 billion, compared to a previously estimated figure of £286 billion<sup>7</sup>. These revisions have also impacted on the historic nominal growth rate of GVA, for example the GVA growth rate between 2010 and 2011 now stands at 4.8 per cent compared to a previously estimated 2.1 per cent (see Figure 1).

Over two-thirds of London's GVA was produced in Inner London in 2012 (Figure 2). In fact, almost half (45 per cent) of London's total output was produced in Inner London-West alone (Figure 3). Indeed, Inner London-West has a higher output than all UK regions except for the South East (and, of course, London). However, Inner London-East has seen the greatest change in its relative importance to London's economy. Having accounted for 19 per cent of London's output in 1997, by 2012 this was up to 25 per cent (Figure 3).

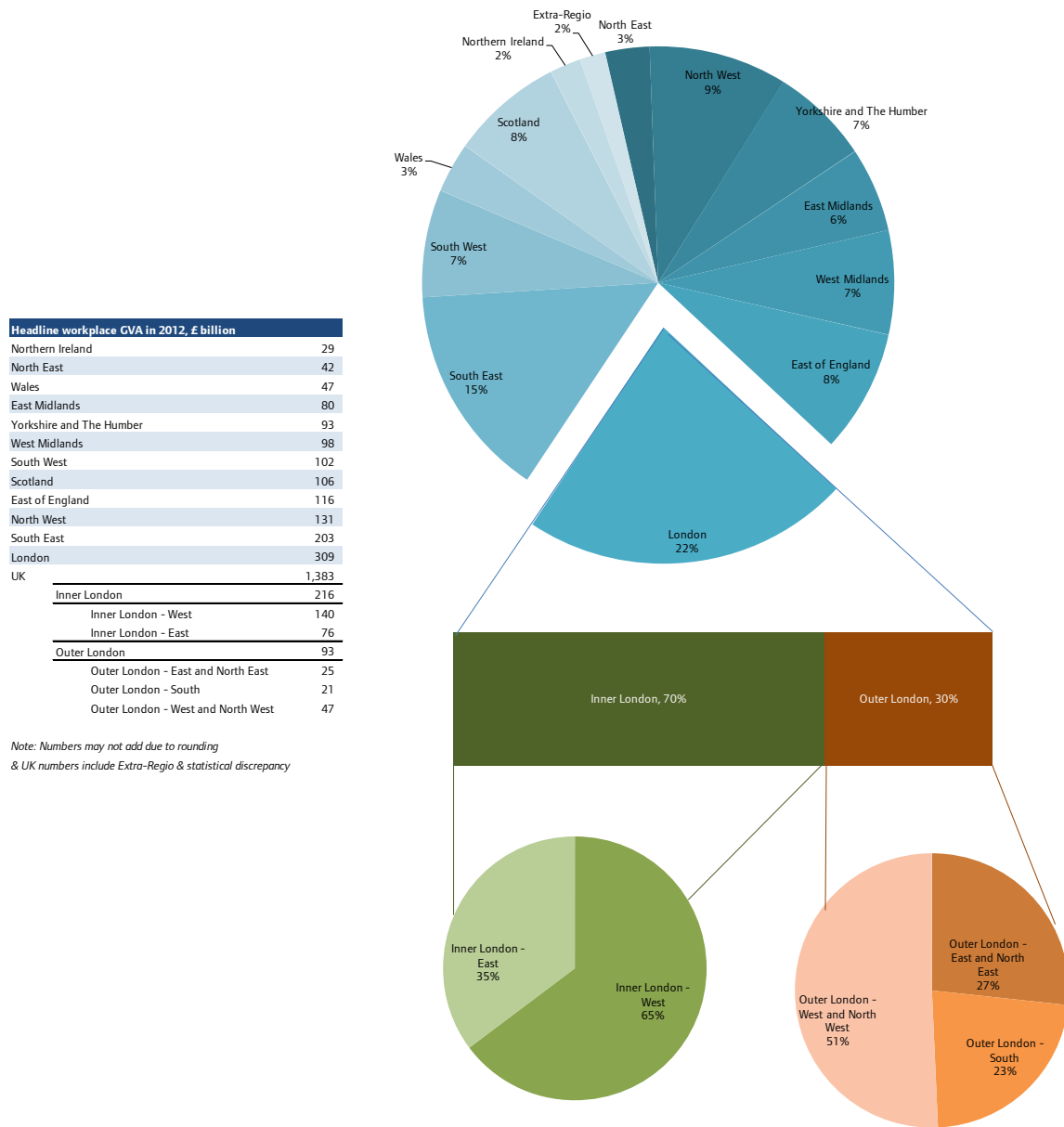
**Figure 1: Comparison of the nominal growth rates in GVA in London and the UK 1998 to 2011 from the 2012 and 2013 regional accounts releases**



Source: Regional Accounts, ONS

<sup>7</sup> Note that the unsmoothed data published in 2012 is used in this comparison and therefore the headline level of GVA for London differs from that published in GLA Economics Working Paper 39.

Figure 2: Geographic breakdown of Headline UK<sup>8</sup> GVA in 2012<sup>9</sup>

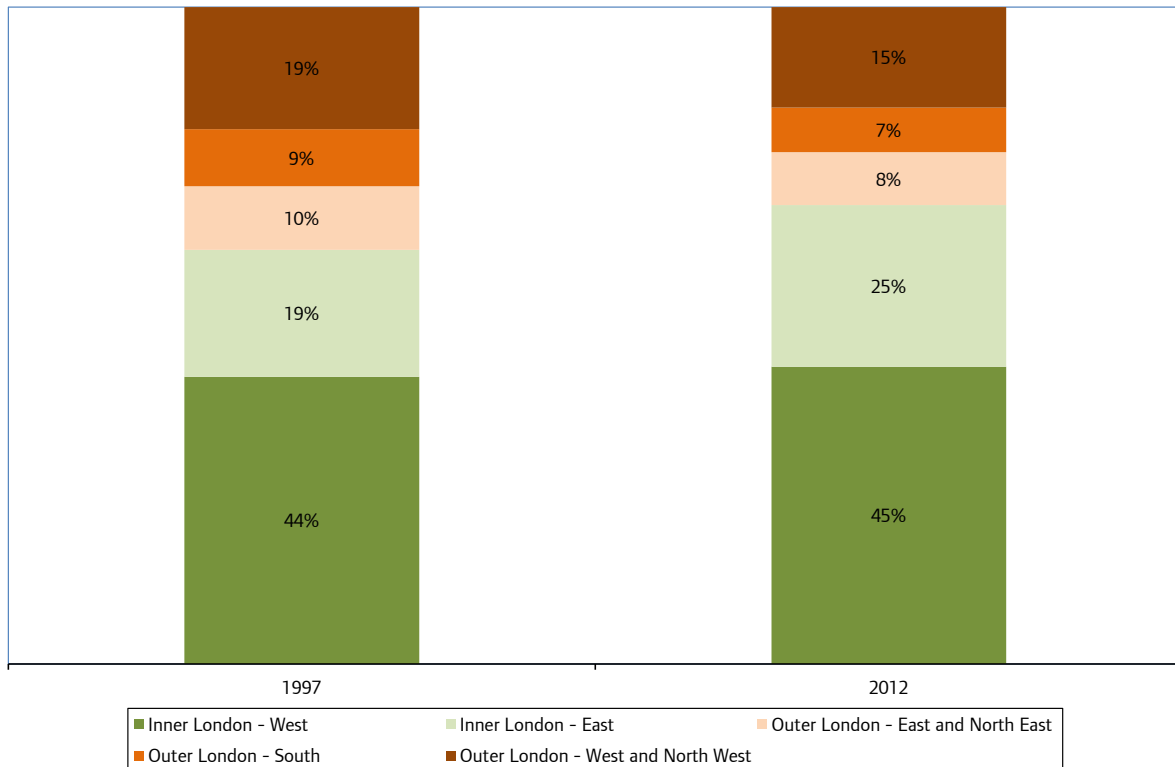


Source: Regional Accounts, ONS

<sup>8</sup> UK includes Extra-Region (which comprises compensation of employees and gross operating surplus which cannot be assigned to regions)

<sup>9</sup> 2012 data are provisional.

**Figure 3: Geographical breakdown of London’s headline GVA<sup>10</sup>, 1997 and 2012<sup>11</sup>, current prices**



Source: *Regional Accounts, ONS*

Since 2008 London’s output has increased by 8.3 per cent in nominal terms (i.e. without taking account of inflation), compared to 5.4 per cent for the UK. And, unlike any other region, London’s output has more than doubled (by 111 per cent) since 1997 (when it was around £147 billion), compared to an 83 per cent increase for the UK as a whole. It should also be noted, that output in all UK nations and English regions is now above the 2008 level in nominal terms.

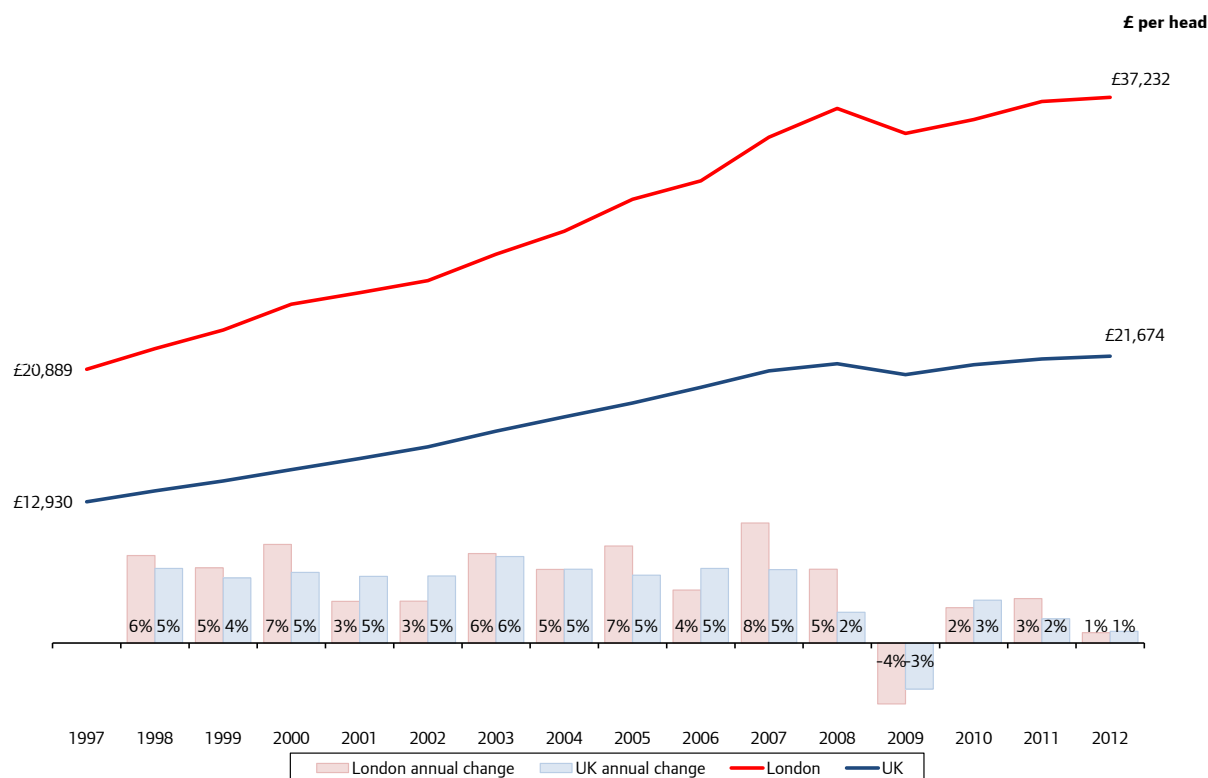
London’s output performance remains impressive even after adjusting for its relative size. Output per head of population in the capital was £37,232 in 2012 (see Figure 4 which shows the time series for London versus the UK as a whole), the highest of any English region or UK nation and over 70 per cent higher than that for the UK as a whole which stood at £21,674. Over 2012, output per head in London has increased by 0.7 per cent. Since 2008, it has risen by 1.8 per cent, compared to a rate of increase of 2.1 per cent for the UK as a whole.

<sup>10</sup> Estimates are for workplace based GVA allocating incomes to the region in which the economic activity takes place.

<sup>11</sup> 2012 data are provisional.



**Figure 4: Headline GVA<sup>12</sup> per head (£) and annual percentage change for London and UK 1997-2012<sup>13</sup>, current prices**



Source: Regional Accounts, ONS

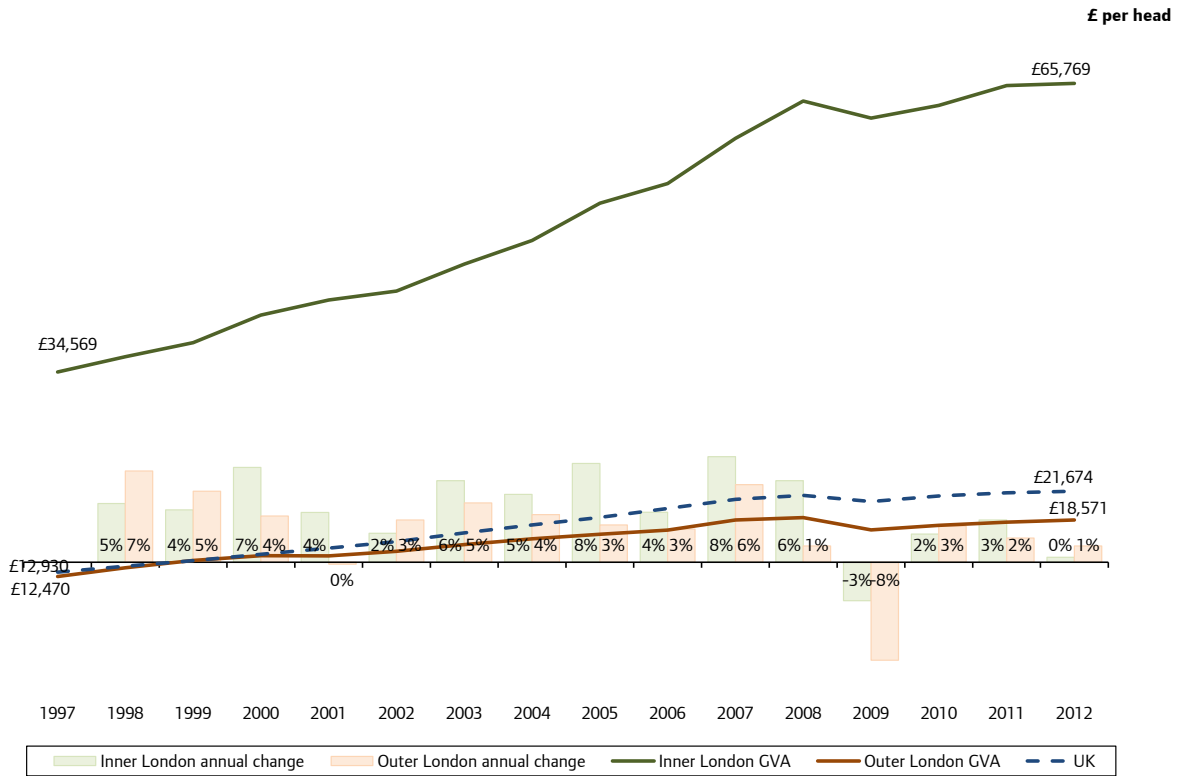
However, the London-wide GVA per head estimates hide some significant variation across its sub-regions and local areas. Figures 5 and 6 show GVA per head across London since 1997. Whilst London has a higher GVA per head than the UK this is driven by Inner London. GVA per head in Outer London is lower than in the UK as a whole, and it has grown more slowly than the UK since 1997. The difference between Inner and Outer London's GVA per head was £47,198 in 2012, more than double the £22,099 difference that existed in 1997.

Looking at smaller areas in London (Figure 6) the variance is even larger; in 2012 there was a GVA per head difference of £113,199 between the highest (Inner London – West) and the lowest (Outer London – East and North East). However, since 2008, two of London's NUTS 3 areas saw a fall in GVA per head: Outer London – South and Outer London – West and North West, which fell by 3.2 per cent and 2.8 per cent respectively (and led to a 1.3 per cent fall in GVA per head for Outer London as a whole). Over the period of the data series, Inner London – East has seen a 114 per cent increase in the value of its output per head, the fastest growth of any local area in the UK.

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

<sup>13</sup> 2012 data are provisional.

**Figure 5: Headline GVA<sup>14</sup> per head and annual percentage change at London NUTS 2 level and UK, 1997-2012<sup>15</sup>, current prices.**

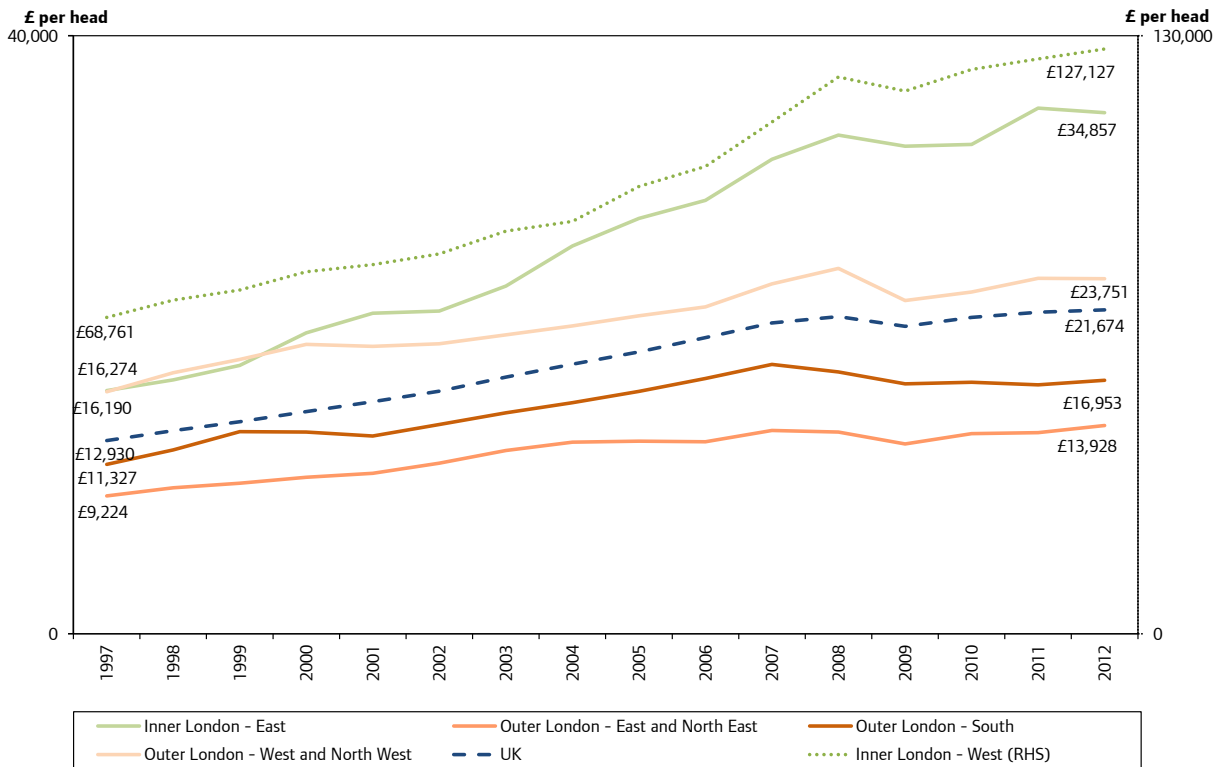


Source: Regional Accounts, ONS

<sup>14</sup> Estimates are for workplace based GVA allocating incomes to the region in which the economic activity takes place.

<sup>15</sup> 2012 data are provisional.

**Figure 6: Headline GVA<sup>16</sup> per head at London NUTS 3 level and UK, 1997-2012<sup>17</sup>, current prices.**



Source: Regional Accounts, ONS

Given the importance of commuters in producing London’s output, GVA per head in London might be considered a somewhat misleading statistic. In terms of productivity, a more representative measure is GVA per worker (see Figure 7.) As can be observed GVA per worker is significantly higher in London when compared to the UK as a whole, with it standing in 2012 in London at £60,804 compared to a figure of £43,461 for the UK as a whole. However, in 2012 GVA per worker declined by 1.9 per cent in London, compared to a growth rate of 0.7 per cent for the UK. Figure 8 further highlights the difference between GVA per worker and GVA per head in London.

<sup>16</sup> Estimates are for workplace based GVA allocating incomes to the region in which the economic activity takes place.

<sup>17</sup> 2012 data are provisional.

**Figure 7: Headline GVA<sup>18</sup> per job<sup>19</sup> (£) and annual percentage change for London and UK 1997-2012<sup>20</sup>, current prices**



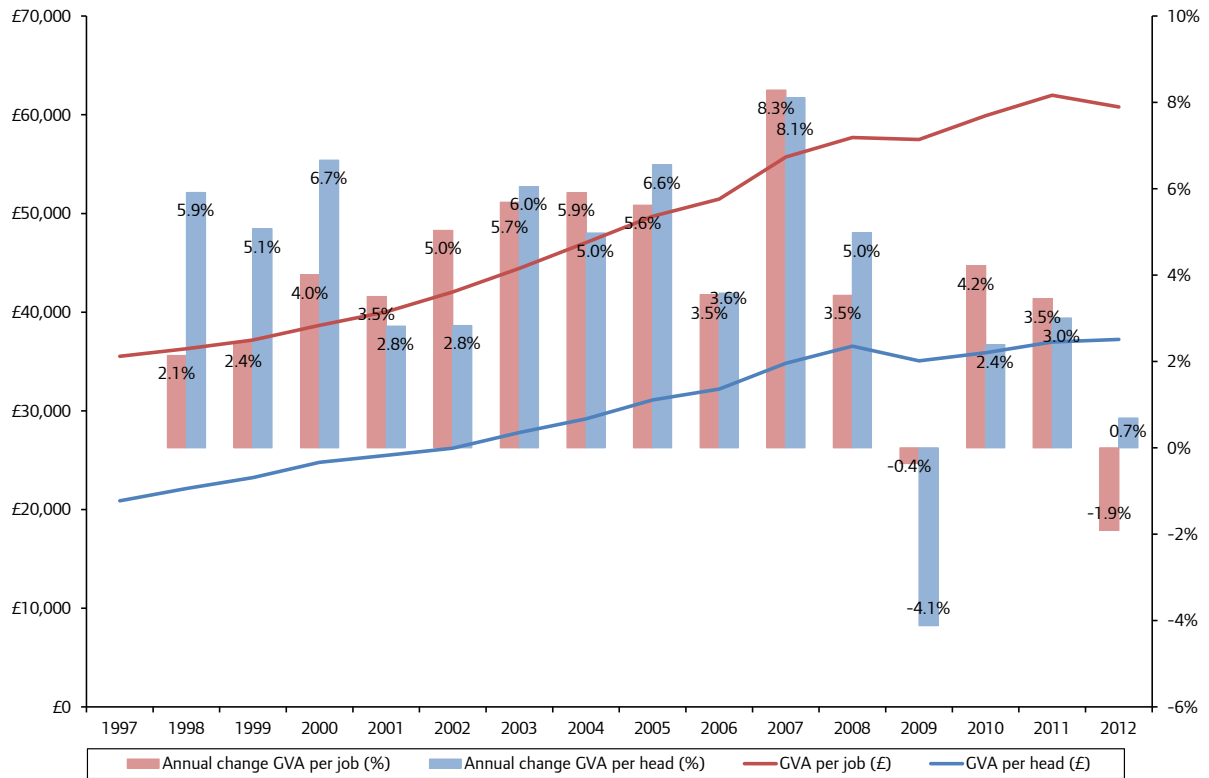
Source: Regional Accounts, ONS, nomis and GLA Economics calculations

<sup>18</sup> Estimates are for workplace based GVA allocating incomes to the region in which the economic activity takes place.

<sup>19</sup> Calculated by dividing headline GVA by the average work force jobs level per annum.

<sup>20</sup> 2012 data are provisional.

**Figure 8: Comparison of headline GVA<sup>21</sup> per job<sup>22</sup> and GVA per head (£) and annual percentage change for London, 1997-2012<sup>23</sup>, current prices**



Source: Regional Accounts, ONS, nomis and GLA Economics calculations

<sup>21</sup> Estimates are for workplace based GVA allocating incomes to the region in which the economic activity takes place.

<sup>22</sup> Calculated by dividing headline GVA by the average work force jobs level per annum.

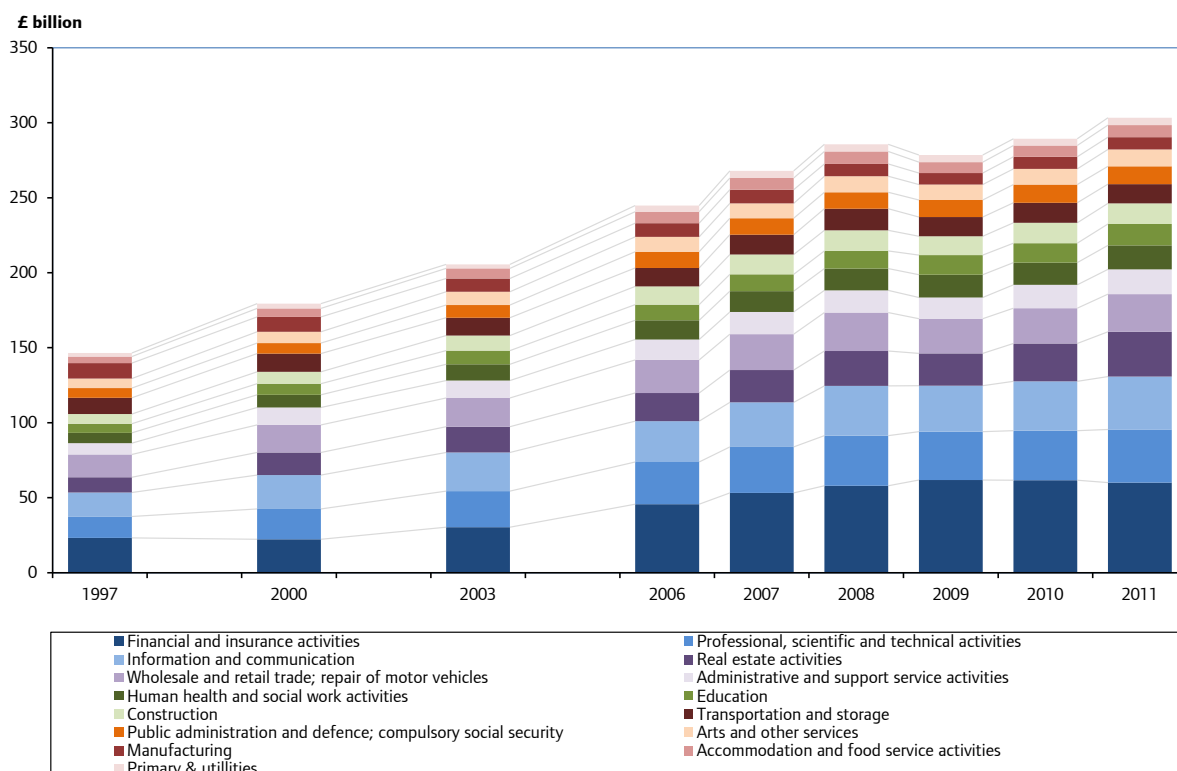
<sup>23</sup> 2012 data are provisional.

## London GVA(I) by industry

In 2011 a fifth of London's output was generated by the financial and insurance industry (£60.0 billion) (see Figure 9 and Table 1). The value of this industry has grown by 159 per cent since 1997, the second fastest rate for any industry in London only surpassed by real estate activities which has grown by 194 per cent since 1997 and accounted for 10 per cent of London's GVA in 2011. In 2011, over half (52 per cent) of the UK's output in the financial and insurance industry was generated in London (up from 43 per cent in 1997) (see Figure 10). Indeed, London's financial and insurance industry made up 4.5 per cent of the UK's total output in 2011.

Professional/scientific/technical and information/communication industries also play an important role in London's output generation. In 2011, these two industries combined accounted for around 24 per cent of London's output (up slightly from 21 per cent in 1997). Further, London's professional/scientific/technical, information/communication, and administrative and support service activities account for over a quarter of the UK's output in each respective industry.

**Figure 9: Headline GVA<sup>24</sup> in London by industry, 1997-2011, current prices**



Source: *Regional Accounts, ONS*

<sup>24</sup> Estimates are for workplace based GVA allocating incomes to the region in which the economic activity takes place.

**Table 1: Headline GVA<sup>25</sup> in London by industry (£ million and as per cent of total London output), 1997, 2008 and 2011, current prices**

Industry	1997		2008		2011	
	Industry Output	% total	Industry Output	% total	Industry Output	% total
Primary & utilities	2,461	2%	4,720	2%	4,965	2%
Manufacturing	10,293	7%	8,189	3%	8,137	3%
Construction	6,485	4%	13,721	5%	13,778	5%
Wholesale and retail trade; repair of motor vehicles	15,172	10%	25,704	9%	25,176	8%
Transportation and storage	10,872	7%	14,385	5%	12,905	4%
Accommodation and food service activities	4,329	3%	8,315	3%	8,015	3%
Information and communication	16,073	11%	33,181	12%	35,310	12%
Financial and insurance activities	23,217	16%	57,994	20%	60,027	20%
Real estate activities	10,158	7%	23,176	8%	29,849	10%
Professional, scientific and technical activities	14,196	10%	33,437	12%	35,418	12%
Administrative and support service activities	7,506	5%	14,821	5%	16,427	5%
Public administration and defence; compulsory social security	6,486	4%	11,030	4%	11,883	4%
Education	6,081	4%	11,803	4%	14,268	5%
Human health and social work activities	6,902	5%	14,449	5%	15,982	5%
Arts and other services	6,300	4%	10,714	4%	11,230	4%
Total GVA	146,531	100%	285,638	100%	303,369	100%

Source: Regional Accounts, ONS

From 2008 to 2011, four industries in London have seen a fall in GVA:

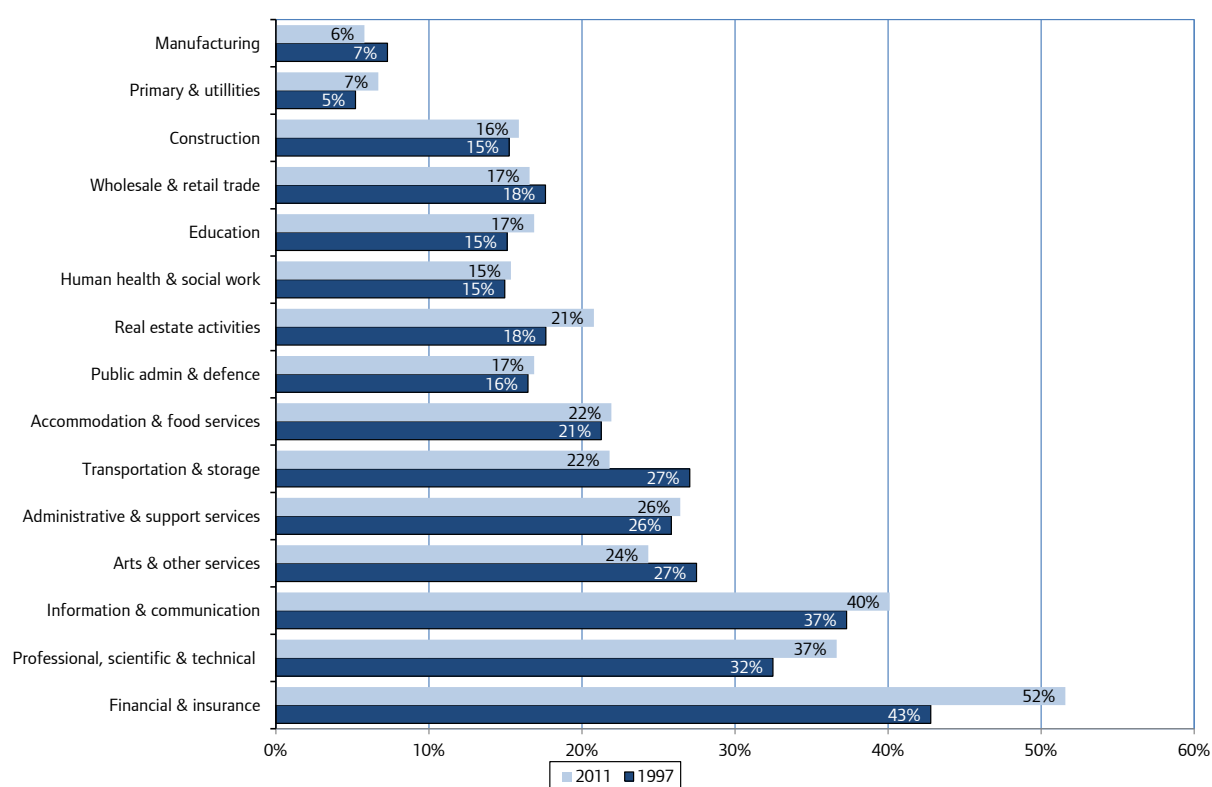
- Manufacturing, which has fallen by 1 per cent to £8.14 billion,
- Wholesale and retail trade; repair of motor vehicles, which has fallen by 2 per cent to £25.18 billion
- Transportation and storage, which has fallen by 10 per cent to £12.91 billion
- Accommodation and food service activities, which has fallen by 4 per cent to £8.06 billion.

<sup>25</sup> Estimates are for workplace based GVA allocating incomes to the region in which the economic activity takes place.

However, over the longer time period, only the GVA of manufacturing in London has seen a fall in its nominal value, having declined by 21 per cent between 1997 and 2011.

Figure 11 shows how London’s output by industry is spread between Inner and Outer London in 1997 and 2011. For three industries Outer London hosted over half of London’s output in those industries in 2011: manufacturing (69 per cent), transport/storage (62 per cent) and construction (57 per cent). However in 2011, Outer London produced only a 5 per cent share of London’s total financial/insurance industry output (down from 13 per cent in 1997). Meanwhile, Inner London produced over three-quarters of London’s output in financial and insurance activities, professional/scientific/technical, information/communication, and real estate industries.

**Figure 10: London’s share of UK headline GVA<sup>26</sup> by industry, 1997-2011, current prices**

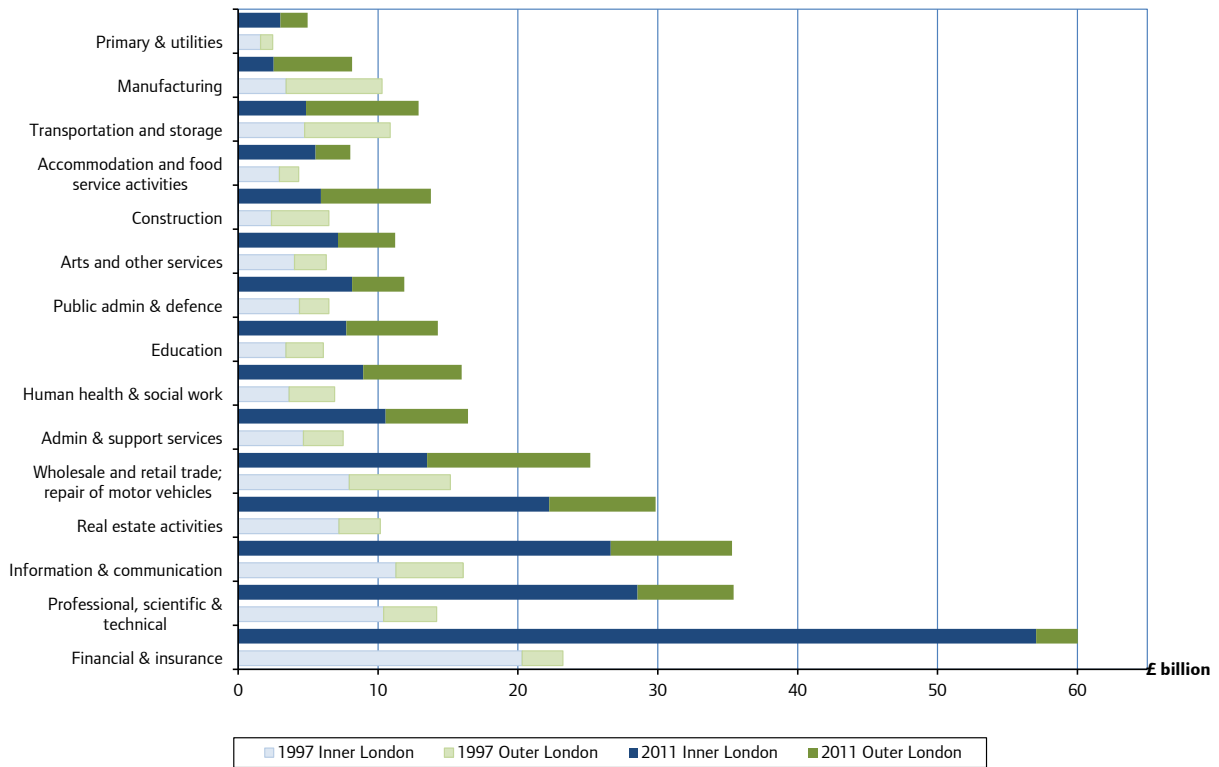


Source: *Regional Accounts, ONS*

<sup>26</sup> Estimates are for workplace based GVA allocating incomes to the region in which the economic activity takes place.



**Figure 11: Inner and Outer London GVA<sup>27</sup> by industry, 1997 and 2011**



Source: Regional Accounts, ONS

<sup>27</sup> Estimates are for workplace based GVA allocating incomes to the region in which the economic activity takes place.

## London GVA(P)<sup>28</sup>

In December 2013 the ONS published experimental data that measured GVA via the production approach in both nominal and real terms for the years 1998 to 2011. It should be noted that the ONS observes that the “experimental release constructs for the first time a comprehensive industrial picture of each region in real terms and the methodology used produces our best current estimates. However, the methodology does not constrain these estimates to be consistent with overall gross value added for the UK, as to do so would worsen this detailed industrial picture”<sup>29</sup>. Given the experimental nature of the data described below, it should not be viewed as a definitive measure of any regions’ real GVA in 2012 or its growth over the preceding years. Figure 12 shows the growth rate of real GVA(P) against nominal GVA(I) in London over the years 1999 to 2011. As would be expected the growth rate of real GVA was slower than the growth in nominal GVA over this period. Between 1998 to 2011 London’s real GVA index increased by around 32 per cent, the highest of any NUTS1 region, followed by Northern Ireland (20 per cent), and South West and Wales (both 17 per cent). Further between 1998 to 2007 (pre downturn) London experienced the largest increase in real GVA, with its index increasing by around 39 per cent, followed by Northern Ireland (35 per cent), and Yorkshire and The Humber (26 per cent). In terms of real GVA, no region has regained its 2007 level. In 2011 London was 5.5 per cent below its 2007 level compared to the South East which was 1.3 per cent below its 2007 level (the best performing region since 2007).

**Figure 12: Headline real GVA(P) for all industry totals (chained volume measure) and nominal GVA(I) annual percentage change for London 1998-2011**



Source: Regional Accounts, ONS, GLA Economics Calculations

<sup>28</sup> This is GVA as measured by the production approach.

<sup>29</sup> [http://www.ons.gov.uk/ons/dcp171778\\_346691.pdf](http://www.ons.gov.uk/ons/dcp171778_346691.pdf)

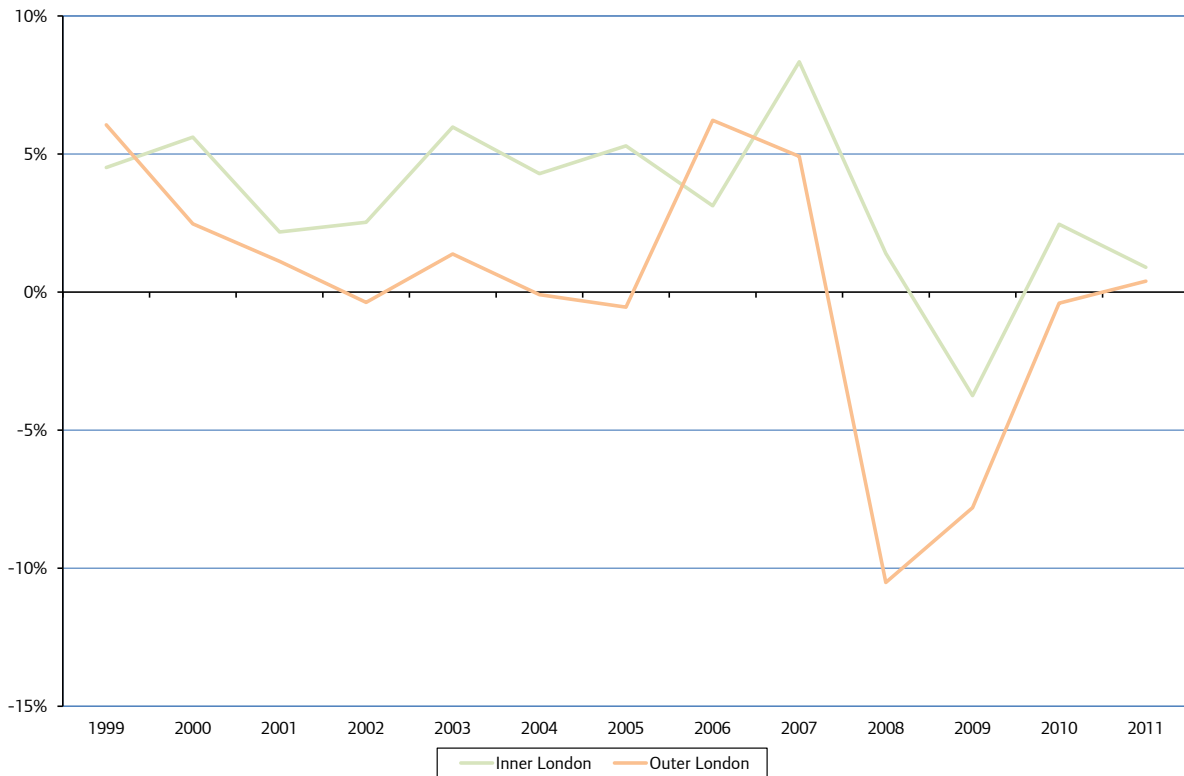
In terms of industry between 1998 to 2011 the index of real GVA output in the financial and insurance activities sector increased by 105 per cent, with real output increasing by over 50 per cent in both the professional, scientific and technical activities sector and the information and communication sector. However, over this period output declined in the manufacturing sector by over 40 per cent and by over a quarter in the transportation and storage sector. Most significant sectors of London's economy saw a decline in their real GVA index between 2007 and 2011 except for other service activities (increased by 22 per cent), real estate activities (18 per cent), construction (14 per cent), education (10 per cent) and accommodation and food service activities (0 per cent).

Figure 13 shows the annual growth rate of the real GVA index for Inner and Outer London between 1998 and 2011. As can be observed there was a large variance in the growth rate of the real GVA index between Inner and Outer London between 1998 to 2011. Inner London's real GVA index increased by 52 per cent between 1998 to 2011, whilst Outer London's real GVA index increased by just over 1 per cent. This large discrepancy in growth rates is in part due to the impact of the 2008/09 recession, as seen when the growth rates of the real GVA indexes between 1998 to 2007 are examined with Inner London growing by 50 per cent and Outer London by 23 per cent. However, the data would indicate that the recession hit Outer London particularly hard with the real GVA index being over 17 per cent lower in 2011 compared with 2007, whilst for Inner London the index was nearly 1 per cent higher in 2011 than in 2007. In terms of industries the ONS observes that "Inner London largely avoided the steep decline experienced elsewhere. However, several industries did show the effects of the economic downturn. Among these were sections A (agriculture, forestry and fishing), C (manufacturing) and O (public administration and defence; compulsory social security), but these declining industries were balanced by growth in other sections: F (construction), J (information and communication), L (real estate activities) and S (other service activities). Outer London had decreases in all those sections falling in Inner London and more, but with no balancing growths in other industries. In 2011 there were some signs of growth, e.g. in sections L, O and S"<sup>30</sup>.

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<sup>30</sup> Ibid.

**Figure 13: Headline real GVA(P) for all industry totals (chained volume measure) annual percentage change for Inner and Outer London 1998-2011**

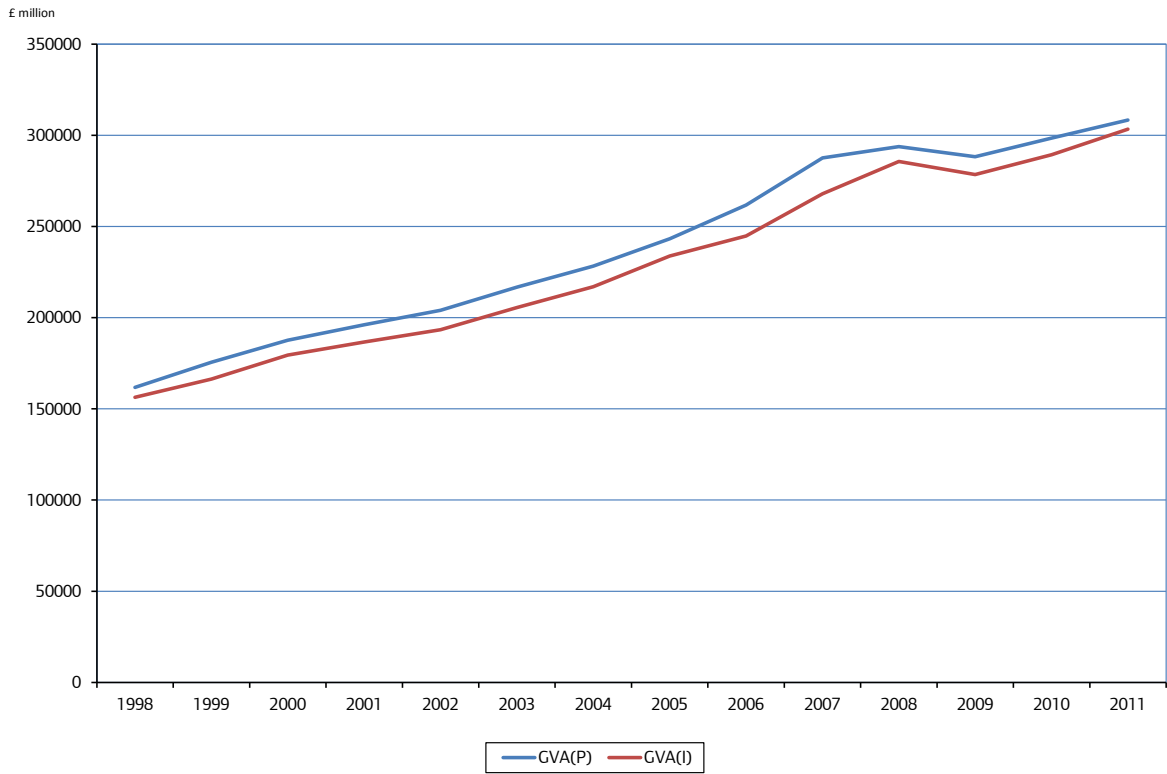


Source: *Regional Accounts, ONS, GLA Economics Calculations*

In terms of comparison between GVA(P) and GVA(I), data expressed in current basic prices needs to be used. Undertaking this analysis the ONS observes that “London was the only NUTS 1 region where the GVA(P) was consistently higher than the GVA(I) across the entire time series”<sup>31</sup> (see Figure 14). The ONS notes that this is due to GVA(P) being higher than GVA(I) in wholesale and retail trade; repair of motor vehicles from 1998 to 2010, and for all years in transportation and storage, real estate activities, administrative and support service activities, education and other service activities.

<sup>31</sup> Ibid.

**Figure 14: Comparison of current price GVA(I) and current price GVA(P) all industries totals for London, 1998 to 2011**



Source: *Regional Accounts, ONS*

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