

FEATURE

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Regional economic indicators

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with a focus on the differences in regional economic performance

SUMMARY

This article continues the quarterly Regional Economic Indicators series previously published in *Economic Trends*, primarily based on the same information sources. The new Focus section brings a more detailed perspective to a specific issue. In this edition, it extends onto a time series, some past analysis that helps understand the factors that contribute to the differences in regions' performance, based on an Organisation for Economic Co-operation and Development methodology. The headline indicators provide the underlying picture of regional economic performance, productivity and welfare. The indicators that drive productivity are also discussed and labour market figures included as before. This article covers the nine English Government Office Regions, Northern Ireland, Scotland and Wales; the European Nomenclature of Units for Territorial Statistics level 1 regions of the United Kingdom. The term 'region' is used for convenience.

Focus: Analysing differences in regional economic performance extending an OECD methodology to a time-series, 2001–04

The 'Analysing Differences in Regional Economic Performance' article¹ utilised an Organisation for Economic Co-operation and Development (OECD) methodology² to explain and understand the differences that exist in economic performances of different regions. Regional economic performance is traditionally measured as Gross Value Added (GVA) per head and is broken down by the OECD methodology into four components:

- average labour productivity
- employment rate
- activity rate
- commuting rate

In this article, average labour productivity (in this case GVA per job) is further separated into two elements:

- GVA per hour worked
- hours worked per job

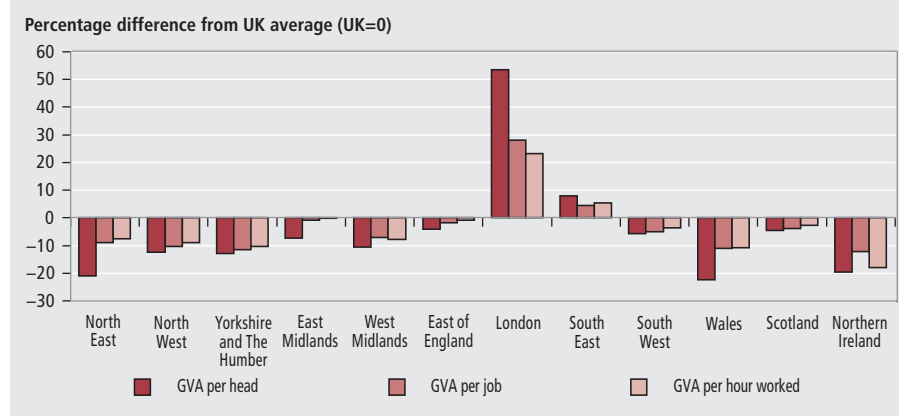
Each of these five components are influenced by regional factors that affect their contribution to the regional divergences from the UK average. These regional characteristics may be natural endowments (such as geographical location

or natural resources that cannot be changed except in the long run) or untapped resources (such as skills or transport infrastructure). Using these definitions to explain the reasons for the differences in regional economic performance is helpful in identifying the specific issues that need to be addressed by policies in each region.

Each component is calculated independently based on the most appropriate source data available. Only published data available in the public domain is used. This analysis does not utilise the data sources currently used in the GVA per head calculation but shows what factors in the economy can explain the differences in GVA per head from the UK average when using other data sources. For example, the commuting rate is based on the numbers of people commuting between regions, obtained from employment data. An alternative could be to use a measure of income.

This article extends the Nomenclature of Units for Territorial Statistics (NUTS)1 analysis previously done for the calendar year 2001 to a time-series from 2001 to 2004. The GVA data used is consistent with the December 2006 publication. As a result, the GVA per hour worked results may differ slightly to those published in 2006 which were based on the 2005 GVA publication. GVA used in this analysis is workplace-based. The current method for estimating workplace-based GVA at the NUTS1 level

Figure 1
Comparison of indicators measuring economic performance: 2004, NUTS1 Regions



assumes that residence-based GVA is equal to workplace-based GVA in all regions except London, the South East and the East of England. Workplace employment data was taken from the published civilian workforce jobs series (Labour Market Statistics, Office for National Statistics (ONS)). For consistency across the model, residence-based employment was calculated by applying the regional breakdown of residence-based employment data (from the published Labour Force Survey results) to the civilian workforce jobs UK total. Other data sources remain as before.¹

Figure 1 is based on 2004 data and shows how the choice of indicator can paint a different picture of regional economic performance. The regional differences (in terms of the region's percentage difference from the UK average for each indicator) are more evident when looking at GVA per head and become smaller when average

labour productivity indicators are used instead. This demonstrates the rationale behind the OECD methodology; that average labour productivity is just one component in understanding why there are regional differences in GVA per head.

Table 1 summarises the regional percentage differences of GVA per head from the UK average. The 2004 result is also presented in Figure 1. Wales had the largest negative divergence from the UK average in 2004 at -22 per cent. The North East and Northern Ireland followed close behind at -21 and -19 per cent respectively. London is the region with the largest positive divergence, at 53 per cent. Table 1 shows relatively little change over the time series; the relative differences between regions are consistent over time.

Figures 2 and 3 break down the overall regional differences identified in Table 1 for the years 2001 and 2004, respectively, into the

components previously mentioned. The 0 per cent vertical line on each chart represents the UK average of GVA per head for the relevant year. The factors that contribute negatively to the economic performance of each region are shown on the left side, whereas the factors that increase performance are shown on the right. The methodology is outlined in the technical note at the back of the article. This analysis attempts to highlight the primary trends in these components over the period 2001 to 2004.

In London, GVA per head was considerably greater than the UK average and this divergence explained primarily by GVA per hour worked and the commuting rate. These commuting effects in London also help explain the inflated GVA per head indicator in Figure 1, which occurs when a workplace-based numerator is used against a residence-based denominator in the presence of large commuting effects.

The opposite effect of commuting on GVA per head is notable in other regions, particularly the South East, the South West, the East of England and East Midlands, where economic performance was negatively impacted by the commuting rate. The conceptual logic follows that these regions lose potentially productive resources when members of their labour force commute to work to another region (such as London) that in turn benefits. In 2004 in London the commuting rate contributed less to the difference with the UK average than it did in 2001. The negative impact of the commuting rate in the South West and South East did become smaller by two percentage points in each region. However, in the East Midlands the commuting rate negatively contributed towards the region's divergence of GVA per capita from the UK average by two more percentage points in 2004 than in 2001.

In London, the decreasing impact of the commuting rate was offset by an upward trend in GVA per hour worked. By 2004 the contribution of GVA per hour worked to London's divergence in GVA per head from the UK average had increased to nearly one half. This was because the number of workforce hours in London actually decreased between 2001 and 2004 but GVA continued to grow.

The negative effects in Northern Ireland are largely due to GVA per hour worked and activity rate which outweigh the positive effects from the above-average hours per job component. The activity rate of an area could be affected by the demographics of

Table 1
Regional percentage differences in GVA per head from the UK average (UK=0): NUTS1 Regions

	Per cent			
	2001	2002	2003	2004
North East	-21	-21	-21	-21
North West	-11	-12	-12	-12
Yorkshire and The Humber	-12	-12	-12	-13
East Midlands	-8	-8	-8	-7
West Midlands	-8	-9	-10	-10
East of England	-5	-5	-4	-4
London	51	52	53	53
South East	9	9	8	8
South West	-6	-6	-6	-6
Wales	-21	-22	-22	-22
Scotland	-5	-5	-4	-5
Northern Ireland	-19	-20	-20	-19

Figure 2
Factors contributing to differences in regional GVA per head from the UK average in 2001: NUTS1 Regions

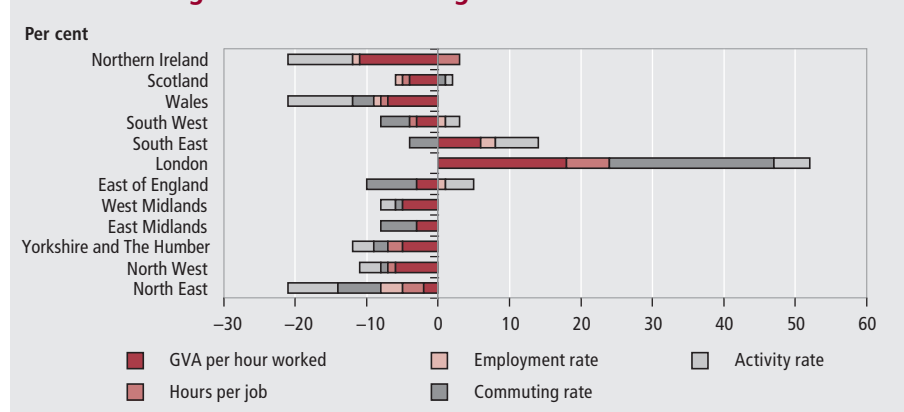


Figure 3
Factors contributing to differences in regional GVA per head from the UK average in 2004: NUTS1 Regions



its population, a natural endowment. The positive contribution of the hours per job component increased from 2001 to 2004 because the number of hours worked per job in Northern Ireland increased by 1 per cent over this period compared to a 2.4 per cent decline across the UK.

Even if the hours per job component increases it has the potential to make a positive contribution to a region's performance provided workers' output increases by at least a comparable amount. For example, when assuming that output remains constant and fewer hours are worked per given number of jobs this suggests workers are being more productive. Northern Ireland was one of only three regions in 2004 (with London and the West Midlands) where the hours per job component positively contributed to the regional difference in GVA per head from the UK average. However from 2001 onwards, productivity (in terms of GVA per hour worked) had an increasingly negative contribution to the region's difference

in GVA per head from the UK average. Between 2001 and 2004, GVA per hour worked in Northern Ireland grew less, at 10 per cent, than the UK growth of 19 per cent. Figure 1 additionally illustrates this lower than average productivity.

This shows that the trends in productivity in London and in Northern Ireland were in opposite directions between 2001 and 2004, whereas both regions showed similar positive contributions from the hours per job component. The difference between these regions may be the result of differences in industry mix. For example, agriculture is important in Northern Ireland (nearly 3 per cent of headline GVA was produced in the agriculture sector in 2004, compared to the UK-wide contribution of only 1 per cent³) whereas in London concentration is in the service industries.⁴

In Wales, by 2004, the proportion of the region's divergence of GVA per head below the UK average attributable to the activity rate had decreased to one-fifth. The number of unemployed people as a proportion of

the residence-based labour force in the region decreased over this period, yet there was an increase in the negative contribution of GVA per hour worked to the region's difference in GVA per head from the UK average; to nearly a half by 2004. This offset the improvement in the activity rate relative to the UK average, and is suggestive that although the rate of economic activity increased, the activity carried out by the labour force did not contribute to productivity by a comparable amount.

Figure 2 shows that in the North East in 2001 GVA per hour worked only contributed to one-tenth of the region's divergence in GVA per head below the UK average. By 2004, Figure 3 shows that this component accounted for a third of the region's performance below the UK average. The lower annual growth of GVA per hour worked (5 per cent) in this region compared to the UK (5.8 per cent) contributed to this in 2004. Separating GVA per hour worked into its numerator (GVA) and denominator (hours worked) helps to explain this. Annual GVA growth in the North East in 2004 is equal to that for the UK at 6 per cent. This is an improvement compared to previous years when GVA in the North East grew slower than the UK. However, since 2001 the region's annual growth in hours worked has been greater than that in the UK. For example, in 2004 the number of hours worked in the North East grew by 1.1 per cent compared to only 0.25 per cent across the UK. Therefore, GVA per hour worked in the North East declined against the UK average because this region's growth in hours worked was greater relative to the UK than the relative GVA growth.

This analysis has identified the main components that contribute to each region's GVA per head diverging from the UK average, and how these components have changed over time. It is recognised that further work may be needed to further explain these factors, and ensure that the best data sources are used, particularly when it is extended in due course to more detailed geographies at NUTS 2 and 3 levels.

Overview

- In 2005, London and the South East were the highest performing regions in terms of GVA per head, and the only two regions above the UK average. Wales and the North East had the lowest absolute level of GVA per head in 2005, but were among the regions with the highest annual growth rate.

- London, the North East and the East Midlands had the highest rate of annual nominal GVA growth in 2004 at 4.4 per cent, while the South East had the lowest at 3.3 per cent.
- The North East recorded the largest annual increase in the employment rate of 1.2 percentage points.

Headline indicators

This section presents a selection of regional economic indicators that provide an overview of the economic activity of the UK regions. Indicators presented include the latest data on headline workplace-based nominal GVA and GVA per head. New statistics for 2005 and revisions to previous

years were published by ONS in December 2006. Data on GVA per hour worked (based on the December 2005 GVA publication) present an indicator of labour productivity. Gross Disposable Household Income (GDHI) and average gross weekly earnings are welfare indicators of the people living in each region.

Regional performance

Tables 2 and 3 represent economic performance in terms of headline workplace based nominal Gross Value Added (GVA) and GVA per head respectively for the UK regions. It should be noted that nominal figures do not take account of inflation or regional differences in prices.

The regional breakdown of GVA changed little in 2005. Table 2 shows that London and the South East remained the regions with the largest share of UK GVA (19.1 per cent and 14.6 per cent respectively) while Northern Ireland (2.3 per cent) and the North East (3.4 per cent) had the smallest.

In Table 2 it is evident that all regions experienced growth in nominal GVA in 2005 but that this growth was considerably lower than in 2003 and 2004. In 2005 overall UK growth was only 4 per cent compared with 6 per cent in the preceding two years. London, the North East and the East Midlands had the highest annual percentage growth (at 4.4 per cent) in 2005. The North East region had one

Table 2

Headline Workplace – based Gross Value Added at current basic prices: NUTS1 Regions

	£ million														
	United Kingdom	UK less extra-regio and statistical discrepancy	North East	North West	Yorkshire and The Humber	East Midlands	West Midlands	East of England	London	South East	South West	Wales	Scotland	Northern Ireland	Extra-Regio ²
2000	840,979	819,114	27,996	83,684	60,637	53,076	67,402	70,877	153,456	120,289	63,736	31,744	67,113	19,104	21,865
2001	882,753	862,123	29,352	87,763	63,758	56,126	70,526	74,880	161,197	127,469	67,520	33,416	70,050	20,066	20,630
2002	930,297	910,374	30,707	91,859	67,221	59,418	73,678	79,157	172,442	134,430	71,572	35,024	73,917	20,948	19,923
2003	985,558	965,850	32,428	96,828	71,187	63,634	77,490	84,622	183,455	142,175	76,368	37,115	78,331	22,218	19,709
2004	1,044,165	1,024,088	34,419	102,366	75,260	67,884	81,741	90,161	195,087	150,007	81,322	39,316	82,952	23,573	20,077
2005 ¹	1,086,859	1,064,322	35,940	106,142	78,079	70,841	84,838	93,686	203,642	154,927	84,554	40,867	86,324	24,480	23,460
2003 growth ³	5.9	6.1	5.6	5.4	5.9	7.1	5.2	6.9	6.4	5.8	6.7	6.0	6.0	6.1	-1.1
2004 growth ³	5.9	6.0	6.1	5.7	5.7	6.7	5.5	6.5	6.3	5.5	6.5	5.9	5.9	6.1	1.9
2005 growth ³	4.1	3.9	4.4	3.7	3.7	4.4	3.8	3.9	4.4	3.3	4.0	3.9	4.1	3.8	16.9
2005 percentage regional breakdown ⁴	N/A	100	3.4	10.0	7.3	6.7	8.0	8.8	19.1	14.6	7.9	3.8	8.1	2.3	N/A

Notes

- Provisional.
- Extra-regio is the contribution to economic activity that cannot be allocated to any region.
- Year-on-year percentage growth.
- Regional breakdown is the proportion of each region as a percentage share of total UK GVA (excluding extra-regio).

Source: *Regional Accounts, Office for National Statistics*

Table 3

Headline Workplace – based Gross Value Added at current basic prices per head of population: NUTS1 Regions

	£ million													
	United Kingdom ¹	North East	North West	Yorkshire and The Humber	East Midlands	West Midlands	East of England	London	South East	South West	Wales	Scotland	Northern Ireland	
2000	13,910	11,007	12,353	12,229	12,734	12,791	13,187	21,205	15,054	12,962	10,920	13,256	11,352	
2001	14,584	11,556	12,958	12,811	13,396	13,355	13,865	22,014	15,887	13,659	11,482	13,832	11,878	
2002	15,346	12,099	13,542	13,463	14,070	13,891	14,598	23,394	16,712	14,408	11,980	14,623	12,347	
2003	16,218	12,770	14,230	14,211	14,965	14,566	15,490	24,832	17,595	15,276	12,633	15,488	13,049	
2004	17,115	13,524	14,994	14,936	15,862	15,325	16,419	26,262	18,496	16,141	13,316	16,334	13,782	
2005 ²	17,677	14,048	15,504	15,419	16,451	15,812	16,906	27,088	18,976	16,685	13,813	16,944	14,196	
Relative to UK average; 2005	1.00	0.79	0.88	0.87	0.93	0.89	0.96	1.53	1.07	0.94	0.78	0.96	0.80	
2005 growth ³	3.3	3.9	3.4	3.2	3.7	3.2	3.0	3.1	2.6	3.4	3.7	3.7	3.0	

Notes

- UK less extra-regio and statistical discrepancy.
- Provisional.
- Year-on-year percentage growth.

Source: *Regional Accounts, Office for National Statistics*

of the smallest absolute values of GVA and accounted for the second smallest proportion of total GVA, yet in 2005 the year-on-year growth in this region was comparable with the region with by far the largest share of GVA (London). This may not be evidence that the regional extremes are converging but is suggestive that even the lower performing regions in terms of the absolute measure of GVA are capable of performing well in relative terms.

Among UK regions there is a wide variation in geographical size, which makes it difficult to compare the regions' economic performance using absolute values. Comparisons are therefore generally expressed in terms of GVA per head of population, as shown in **Table 3**. UK average GVA per head in 2005 was £17,677. London was again the region with the highest GVA per head in 2005 at £27,088, well above (at 53 per cent) the UK average. However, the GVA per head measure for London is artificially inflated because the numerator (GVA) includes the activity of the residents (who work and live there) and also the in-commuters, whereas the latter are excluded from the population denominator. GVA per head for the South East was also above the UK average (by 7 per cent), at £18,976 per head. Wales and the North East had the lowest GVA per head at £13,813 and £14,048

respectively. Despite these figures being less than 80 per cent of the UK average, growth on the 2004 figure in these regions was high at 3.9 and 3.7 per cent respectively; supporting findings from **Table 2**.

Labour productivity

Labour productivity indicators provide the most effective comparisons of regional economic performance. The commuting problem identified above is overcome by using workplace-based measures for both the numerator and denominator. This apportions output against a measure of all those who contribute to production. GVA per hour worked is the preferred indicator as it takes into account any variations in labour market structures across the regions, such as the proportions of full-time and part-time workers or job share availability.

At the time of this article, the productivity release incorporating the newly published GVA data for 2005 had not been published. The most recent publication⁵ is consistent with the GVA data published in December 2005 and shows the GVA per hour worked indices by region up to 2004. The most productive regions in terms of GVA per hour worked in 2004 were London and the South East. They were also the only regions, with the East of England, to have higher productivity

than the UK average. Northern Ireland and Wales had the lowest values of regional productivity, at only 82 and 91 per cent of the UK level respectively.

Welfare

Table 4 contains the most recent data available for Gross Disposable Household Income (GDHI) per head. Published in May 2006 it covered data up to 2004. GDHI per head is a residence-based measure that can be used as an indicator of the welfare of people living in a region. **Table 3** shows London was the region with the highest GDHI per head in 2004 (£15,298), followed by the South East (£14,656) and the East of England (£13,889). These were also the only regions above the UK average of £12,816. The regions with the lowest GDHI per head were the North East (£10,906) and Northern Ireland (£10,988).

Median gross weekly earnings data for 2006 and revised data for 2004 and 2005 were published in the Annual Survey of Hours and Earnings First Release (October 2006) and are shown in **Table 5**. All regions experienced increases in median gross weekly earnings in 2006, with the largest percentage increases in Scotland (5.7 per cent) and Northern Ireland (5.2 per cent). In absolute terms, the North East had the lowest average earnings at £399, followed

Table 4
Gross Disposable Household Income (GDHI) £ per head: NUTS1 Regions

	£ million													
	United Kingdom ¹	North East	North West	Yorkshire and The Humber	East Midlands	West Midlands	East of England	London	South East	South West	England	Wales	Scotland	Northern Ireland
1998	9,917	8,534	9,140	9,164	9,161	9,078	10,554	12,045	11,303	9,888	10,103	8,628	9,325	8,526
1999	10,369	8,861	9,545	9,520	9,515	9,486	11,053	12,702	11,845	10,321	10,573	8,980	9,683	8,881
2000	10,950	9,293	10,044	10,016	10,032	10,011	11,729	13,437	12,532	10,860	11,166	9,479	10,215	9,376
2001	11,621	9,822	10,620	10,554	10,670	10,600	12,549	14,183	13,348	11,546	11,848	10,096	10,840	9,935
2002	11,948	10,127	10,908	10,851	11,009	10,891	12,964	14,431	13,723	11,870	12,169	10,437	11,225	10,233
2003	12,476	10,583	11,377	11,352	11,554	11,383	13,525	15,004	14,310	12,407	12,701	10,924	11,763	10,667
2004 ²	12,816	10,906	11,723	11,705	11,918	11,729	13,889	15,298	14,656	12,721	13,040	11,278	12,116	10,988

Notes:

- 1 UK less extra-regio.
- 2 Provisional.

Source: *Regional Accounts, Office for National Statistics*

Table 5
Median Gross Weekly Pay of full-time employees: NUTS1 Regions

	£ million													
	United Kingdom	North East	North West	Yorkshire and The Humber	East Midlands	West Midlands	East of England	London	South East	South West	Wales	Scotland	Northern Ireland	
2004	419.2	370.2	394.1	389.4	383.6	392.0	419.1	537.4	447.2	392.6	381.3	390.4	372.6	
2005	431.2	383.7	406.4	398.8	405.2	402.4	427.7	555.9	450.4	400.0	389.7	408.6	385.2	
2006	447.1	399.0	420.8	412.4	421.6	415.5	443.9	572.4	470.1	417.0	402.5	432.0	405.2	

Source: *Annual Survey of Hours and Earnings, Office for National Statistics*

Table 6
Expenditure on Research and Development performed in UK businesses: NUTS1 Regions

	£ million													
	United Kingdom	North East	North West	Yorkshire and The Humber	East Midlands	West Midlands	East of England	London	South East	South West	Wales	Scotland	Northern Ireland	
2001	11,978	119	1,554	298	895	735	2,768	649	3,141	988	150	532	150	
2002	12,469	124	1,602	336	972	773	2,650	847	3,124	1,157	186	550	149	
2003	12,677	152	1,545	345	868	809	2,936	709	3,252	1,229	207	508	116	
2004	12,816	153	1,742	348	960	772	2,703	792	3,214	1,297	226	494	116	
2005	13,410	158	1,887	350	1,019	735	3,316	630	3,163	1,201	231	584	136	
Percentage share of UK total	100	1.2	14.1	2.6	7.6	5.5	24.7	4.7	23.6	9.0	1.7	4.4	1.0	
2005 percentage growth ¹	4.6	3.3	8.3	0.6	6.1	-4.8	22.7	-20.5	-1.6	-7.4	2.2	18.2	17.2	

Notes:

1 Year-on-year percentage growth.

Source: Office for National Statistics

by Wales at £403 and Northern Ireland at £405. London maintains a noticeable lead as the region with the highest gross weekly earnings, the median of which increased to £572 in 2006. However, earnings in London increased the least in 2006 by only 3.0 per cent compared to the UK growth of 3.7 per cent. This is in contrast to 2005 when London earnings grew more than the UK average (3.4 per cent compared to 2.9 per cent). The other regions that showed similarly lower growth in earnings in 2006 compared to the UK average were the North West, Yorkshire and The Humber, the West Midlands and Wales.

Drivers of productivity

The following indicators represent the drivers of productivity as identified by HM Treasury (HMT) and the Department for Trade and Industry (DTI).⁶ Research and Development (R&D) statistics provide an indicator for innovation, VAT statistics on net registration change and business survival rates are indicators for enterprise and UK regional trade in goods is regarded as a suitable indicator for competition. This article also introduces indicators on investment, represented by net capital expenditure, and skills, represented by the qualifications of the population.

Innovation

Innovation is a necessary, although not sufficient, condition for economic success and therefore is recognised as an important driver of productivity. Innovation can mean either the invention of new and more valuable products or services, or the development of new processes that increase efficiency. Research and Development (R&D) is an input to the innovation process and defined by the OECD⁷ as ‘creative work undertaken on a systematic basis in order to

increase the stock of knowledge, including knowledge of man, culture and society and the use of the stock of knowledge to devise new applications.’

Statistics on Business Expenditure on Research and Development (BERD) consistent with these internationally agreed standards were published in November 2006 (ONS). New data for 2005 and revisions since 2001 were published at the NUTS1 level. Updates on R&D expenditure in the Government and Higher Education sectors are not yet available.

Table 6 presents expenditure on R&D performed in UK businesses by region from 2001 to 2005. The East of England and the South East had the highest business expenditure on R&D in 2005 and were the only regions to have expenditure higher than £3 billion. Northern Ireland, the North East and Wales remained the regions with the lowest R&D expenditure. The East of England had the highest percentage growth in 2005 at 23 per cent. Scotland and Northern Ireland were the regions with the next highest growth in 2005 at

18 and 17 per cent respectively, despite being ranked low when comparing their absolute expenditure on R&D with other regions.

The East of England accounted for 24.7 per cent of total UK expenditure on R&D in 2005, replacing the South East which had contributed the largest per cent in 2004 (25.1 per cent). The high growth in the East of England identified above, coupled with the reduction in the South East (of 1.6 per cent) explains this change of rankings in 2005. London had the greatest decline, at 20 per cent, that reduces R&D expenditure in the region to a lower level than that seen in 2001.

Analysing R&D as a percentage of GVA is a measure commonly used in international comparisons and can further explain the above trends. **Figure 4** shows the East of England was the region with the highest share of R&D expenditure in terms of GVA (3.5 per cent in 2005) and that this has been the case since 2001. The large percentage growth in this region identified in **Table 6** could be attributed to a recovery from the

Figure 4
R&D expenditure as a percentage of headline workplace based GVA: NUTS1 Regions

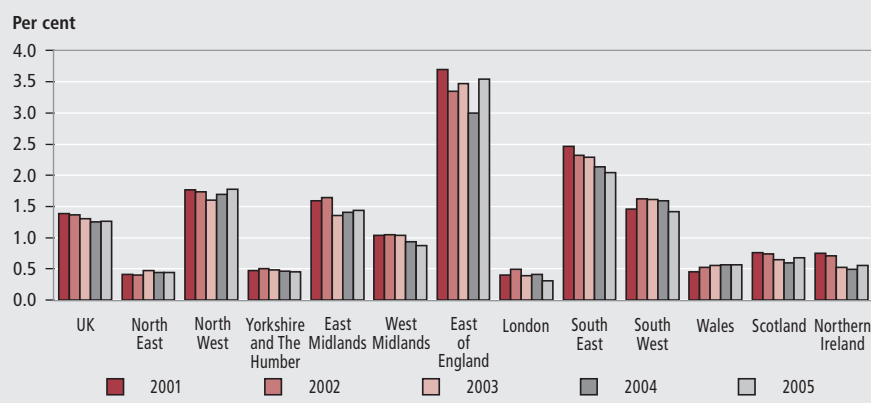


Table 7

VAT registrations and de-registrations: net change¹: NUTS1 Regions

	Thousands												
	United Kingdom	North East	North West	Yorkshire and The Humber	East Midlands	West Midlands	East of England	London	South East	South West	Wales	Scotland	Northern Ireland
1999	26.6	0.4	1.5	1.1	1.5	2.0	2.8	7.8	6.1	2.2	0.0	0.5	0.6
2000	23.2	0.6	1.3	1.1	1.6	2.2	2.8	5.8	4.6	1.6	0.5	0.6	0.5
2001	14.1	0.1	1.0	0.5	1.3	1.4	1.4	2.6	3.3	1.4	0.6	0.0	0.6
2002	14.5	0.4	1.2	0.9	1.8	1.5	2.3	0.3	3.3	1.7	0.0	0.3	0.8
2003	25.7	0.9	3.1	2.7	2.1	1.6	2.6	4.0	4.2	2.4	0.5	1.1	0.7
2004	20.4	0.6	2.4	1.8	1.8	1.3	1.8	3.2	2.9	1.8	1.0	1.1	0.6
2005	25.0	0.9	3.2	1.9	2.3	2.0	3.1	3.7	3.1	2.2	0.9	1.4	0.3

Note:

1 Net change is the net gain or loss in the stock of registered enterprises each year – equal to registrations /less de-registrations.

Source: *Small Business Service, DTI*

relatively low level of R&D expenditure in 2004 evident in Figure 4. Additionally, Figure 4 shows that relative R&D expenditure in terms of GVA in the East of England was highest in 2001, despite Table 6 presenting highest absolute expenditure in this region in 2005.

The large decline in expenditure in London in 2005 (identified in Table 6) is interesting in the context where it has the lowest R&D expenditure in terms of GVA at just 0.31 per cent. This may not be suggestive of low levels of innovation in London but could reflect how regional industry composition affects R&D as an indicator of innovation. London has a large concentration of service industries; accounting for 87 per cent of total headline GVA⁴ but service industries may not be R&D intensive, if for example, they rely heavily on human capital. If innovation occurs in other forms it will not be captured by the R&D measure.

The decline in the South East identified in Table 6 is reinforced by Figure 4 in which a steady decline of R&D expenditure in terms of GVA since 2001 is evident. The South East was one of the five regions in 2005 with a level of R&D expenditure in terms of GVA above the UK average of 1.3 per cent. The other four regions were the North West, the East of England, the East Midlands and the South West. This highlights the North West as the exception in a concentration towards southern regions.

Enterprise

Table 7 shows the net changes in VAT registered businesses for UK regions in the years 1999 to 2005. Data for 2005 and revisions to previous years were published in October 2006 by the Small Business Service (SBS) at the DTI. VAT registrations and de-registrations are the best official guide to the pattern of business start-ups and closures. They are an indicator of the

level of entrepreneurship and of the health of the business population. Many factors influence the pattern of business start-ups. Among these, the most important is economic growth which encourages new ventures and creates demand for business.

Table 7 shows an overall positive net change in VAT registrations and de-registrations during 2005 at the UK level which means more enterprises became registered than de-registered in that period. This is reflected in all UK regions, with the smallest net increase of 300 seen in Northern Ireland and the highest in London at 3,700. Wales and Northern Ireland were the only regions that saw a smaller net increase in 2005 compared with 2004. For Wales however, despite this relative decline, the figures for 2005 were still the second highest seen since 1999 because of the high level of net registrations recorded in 2004. In Northern Ireland however, the figure for 2005 was the lowest seen over the same period. A possible explanation may be that in all nine English regions, and in Scotland and Wales, fewer businesses de-registered in 2005 compared to 2004.⁸ The only region where the number of de-registrations actually increased (by 410) in 2005 was Northern Ireland. This increase caused net registrations to be lower in 2005 than in other years because even though it was the only region in which the number of registrations also increased in 2005, this did not offset the increased number of de-registrations.

The regional variations are linked geographically in that three of the four regions with a net change over 3,000 are situated next to each other (London, East and South East), with the exception (the North West) interestingly being situated next to the North East – the region with the lowest net change in England.

Business survival rates data on the proportion of businesses that remain

registered for VAT three years after their initial registration has not been updated. The most recently available data⁹ will not be updated until later in February 2007. The data shows that although there has been a general increase in business survival rates since 1994, these rates vary greatly between regions. Northern Ireland had the highest survival rate (75 per cent) for businesses that registered in 2001 and London had the lowest (64 per cent).

Competition

Data from HM Revenue and Customs provides regional trade statistics, which are an indicator of competition within a region. Table 8 shows regional export trade in goods by statistical value, for both exports to other European Union (EU) member states and exports to countries outside the EU. Due to the change in number of member states this data is only available back to 2004. Trade in goods, by definition, excludes intangibles and services. The statistical value of this trade is computed by the value of the goods plus the cost of movement to the country's border.

New data for the third quarter of 2006 were published by HM Revenue and Customs (HMRC) in December 2006 with revisions to previously published 2006 data.¹⁰ The latest data are provisional and subject to the normal revisions when late declarations are received. These usually result in EU trade rising for the most recent quarter in subsequent releases.

Estimates for UK exports to both the EU25 and non-EU25 countries declined in Quarter 3 of 2006. All regions experienced a decline in exports to the EU25, with the largest drop in London of 61 per cent. The value of exports to non-EU countries also declined in all but four regions, the North East, Yorkshire and The Humber, the South West and Wales. This downward trend can be partly attributed to the recent fall in the

Table 8
UK Regional Trade in goods by statistical value of exports; Quarters 1–3
NUTS1 Regions

	£ million					
	EU25			Non-EU25		
	2004	2005	2006 ¹	2004	2005	2006 ¹
North East	3,928	4,017	4,071	2,087	2,167	2,111
North West	7,070	7,758	11,129	6,094	6,202	7,436
Yorkshire and The Humber	4,506	5,163	5,915	2,875	3,579	3,644
East Midlands	5,809	6,761	8,548	4,301	4,872	5,360
West Midlands	5,729	6,088	8,951	4,371	4,885	5,134
East of England	7,846	8,082	9,285	5,245	5,732	5,887
London	7,092	7,194	11,888	9,855	12,119	11,131
South East	11,977	12,798	14,519	9,168	10,275	11,104
South West	4,526	4,601	5,052	2,667	2,867	3,084
Wales	3,996	4,079	4,252	2,011	2,401	2,798
Scotland	4,619	4,685	5,068	4,074	4,683	5,003
Northern Ireland	1,994	2,133	2,407	1,198	1,258	1,374

Note:

1 Provisional.

Source: HM Revenue and Customs

value of Missing Trader Intra-Community VAT Fraud (MTIC Fraud). Comparing the quarter 3 data for 2006 to quarter 2 alone may be misleading. As the 2006 data for quarters 1 and 2 are not subject to any further revisions, these figures are likely to be more comparable. Table 8 compares the 2006 year-to-date figures with the totals for quarters 1 to 3 in previous years.

Table 8 shows export trade to the EU25 countries increased in all regions in the first three quarters in 2006 compared to the same quarters in 2005. All regions except London and the North West experienced an increase in export trade to non-EU25 countries for the corresponding periods. The large percentage growth in exports to EU25 countries from London and the North West (at 65 and 43 per cent respectively) offset the decline in exports to non-EU25 countries. Total exports from these regions increased.

Table 9 shows the value of export goods as a percentage of headline workplace based regional Gross Value Added (GVA). In 2005 the North East remained the region where exports accounted for the highest percentage of GVA (nearly a quarter). Despite this high share of GVA as accounted for by exports it is the only region where this percentage share declined from 2004. Also, Table 8 shows that in this region in 2005, exports to both EU25 and non-EU25 countries had the second lowest value in the UK in front of only Northern Ireland. Table 9 shows that in 2005 exports from London accounted for a larger share of its GVA at 12.9 per cent than they did in 2004. This increase is not mirrored elsewhere. The South West

Table 9
Value of total export goods as a percentage of headline GVA:
NUTS1 Regions

	Per cent	
	2004	2005
UK ¹	18.2	19.5
North East	23.6	23.4
North West	17.4	18.2
Yorkshire and The Humber	13.5	15.2
East Midlands	20.5	22.6
West Midlands	16.8	18.0
East of England	20.0	20.4
London	11.5	12.9
South East	19.6	20.8
South West	12.0	12.3
Wales	21.2	21.2
Scotland	14.4	14.7
Northern Ireland	18.6	18.9

Note:

1 UK figures include trade and GVA that cannot be allocated to regions.

Source: HM Revenue and Customs and Office for National Statistics

was the region where exports account for the lowest share of its GVA.

Investment

Physical capital stock directly influences how much one unit of labour can produce and therefore investment in this is closely correlated to productivity improvements. Net capital expenditure can provide a measure of investment. A regional breakdown of this is available from the Annual Business Inquiry (ABI). The latest data were published in September 2006 (ONS).

Table 10 shows the different levels of net capital expenditure in the regions;

suggestive of different levels of investment occurring. London and the South East had considerably higher investment levels in 2004, at £13.1 billion and £12.4 billion respectively. The only three regions where expenditure was below £3 billion were Northern Ireland, Wales and the North East, and this reflects the relative sizes of the economies of these regions. The industry sector mix of each region may also impact on these results if, for example, capital intensive industries are concentrated in a certain region.

The picture changes when net capital expenditure is compared as a percent of headline GVA. This is represented in Figure 5 where the regional differences in investment in terms of headline GVA appear to be less significant. The higher absolute expenditure in London and the South East identified in Table 10 is evident but must be correlated to a higher headline GVA because in percentage terms the investment levels in these regions were little different. Scotland is the only exception, where historically a much higher percent of GVA has been allocated to net capital. Since 1998 the percentage of GVA spent on investment has been steadily declining in all regions.

Skills

The skills of workers are imperative to productivity as they define the capabilities the labour force can input to the production process. It is useful to be able to analyse the skills from two perspectives; the qualifications of young people as a representation of the future capabilities of the labour force and the qualifications of the currently economically active adults. The economically active are the employed and unemployed (according to the International Labour Organisation's definition) and therefore represent the skills currently available in the labour market. Analysis of Labour Force Survey data on qualifications has been carried out by the Department for Education and Skills (DfES) and published by the DTI (Table 9).¹²

The data show that there were improvements in the qualifications of the economically active in all regions since 1998. The proportion of adults who have no qualifications declined in all regions. Comparing the autumn quarters for 1998 and 2005, the largest declines were in the North East and the West Midlands, at 6.0 and 5.2 percentage points respectively. In comparison, the decline across the UK was only 3.4 percentage points. These regions also had the largest improvements (at 8.6 and 7.6 percentage points respectively) in the proportion of

Table 10
Net Capital Expenditure: NUTS1 Regions

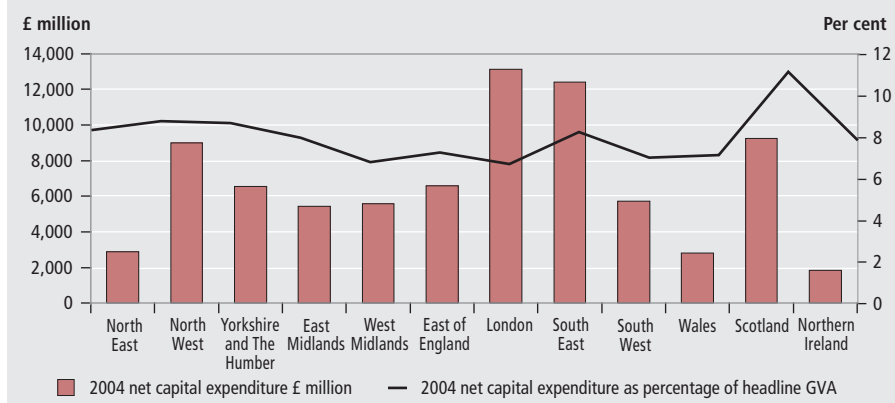
	£ million												
	United Kingdom	North East	North West	Yorkshire and The Humber	East Midlands	West Midlands	East of England	London	South East	South West	Wales	Scotland	Northern Ireland
1998	86,557	3,624	9,106	5,781	4,978	6,912	6,585	16,895	11,894	5,289	3,362	10,251	1,881
1999	85,168	3,728	8,822	5,385	5,237	5,806	6,845	16,006	13,269	6,313	3,164	8,662	1,931
2000	86,768	3,353	7,995	5,791	4,453	6,538	7,836	16,933	14,034	6,952	2,499	8,447	1,938
2001	85,276	3,560	9,032	5,632	4,440	6,986	6,641	15,747	12,830	6,603	2,836	8,886	2,083
2002	80,839	3,098	8,468	6,303	3,948	6,090	6,276	13,133	13,607	6,541	2,802	8,874	1,699
2003	80,295	2,482	8,321	6,460	4,305	5,615	6,706	14,921	12,285	5,640	2,704	8,950	1,906
2004	81,176	2,874	8,991	6,537	5,433	5,586	6,577	13,133	12,407	5,723	2,817	9,247	1,852

Note:

1 The accuracy of regional variables taken from the ABI are dependent on their relationship with local employment. Capital expenditure has a weak relationship, so the reliability of this data as an indicator of regional investment is uncertain.

Source: Annual Business Inquiry¹ Office for National Statistics

Figure 5
Net Capital Expenditure in 2004: Absolute expenditure (£ million) and expenditure as a percentage of headline GVA: NUTS1 Regions



economically active adults qualified to at least NVQ level 3, compared to the UK average improvement of 6.3 percentage points. All regions saw positive educational improvements among the economically active over this period, whereas such improvements among the young were not so evident.

The proportion of 19-21 year olds educated to NVQ level 2 (for example, five GCSE passes at grade A* – C) actually declined at the UK level between 1999 and 2005, by 0.2 percentage points, with the North West and the East of England seeing the worse decline at 4.6 and 4.4 percentage points respectively. Among the 16-19 year olds in these regions however, this indicator did improve. In the North East, the East Midlands and Northern Ireland there were declines in the proportion of 16-19 year olds educated to level 2. The

Table 11
Employment¹ rates for persons of working age: NUTS 1 regions

		Per cent, seasonally adjusted													
		United Kingdom	North East	North West	Yorkshire and The Humber	East Midlands	West Midlands	East of England	London	South East	South West	England	Wales	Scotland	Northern Ireland
2003	Jul-Sep	74.6	68.5	73.5	74.3	75.6	73.3	78.4	70.4	79.1	78.7	74.9	72.9	74.2	68.1
	Oct-Dec	74.6	69.5	73.4	74.1	76.1	73.4	79.7	69.8	78.9	79.1	75.1	72.1	73.9	66.8
2004	Jan-Mar	74.8	69.8	73.9	74.2	76.4	73.9	79.6	70.2	78.6	79.3	75.2	72.6	74.4	67.1
	Apr-Jun	74.7	69.8	73.8	74.1	76.3	73.9	79.0	70.1	78.7	78.1	75.0	72.6	74.7	66.8
	Jul-Sep	74.7	70.1	73.5	74.3	75.6	75.1	78.9	69.4	79.0	78.7	75.1	71.3	75.0	67.0
	Oct-Dec	74.9	69.8	74.1	74.5	76.1	74.9	78.8	69.3	79.1	78.7	75.2	72.3	75.1	69.2
2005	Jan-Mar	74.9	70.3	73.3	74.5	76.4	74.7	78.8	69.8	78.9	78.8	75.1	71.7	75.3	68.8
	Apr-Jun	74.7	70.2	73.3	74.3	76.5	74.4	78.7	69.3	79.0	78.8	75.0	71.4	75.0	68.5
	Jul-Sep	74.8	69.7	73.5	74.7	77.2	74.0	78.5	69.5	78.9	78.3	75.0	72.3	75.2	69.9
	Oct-Dec	74.5	70.1	72.9	74.4	77.2	73.4	77.5	69.3	78.8	77.8	74.6	71.8	75.4	68.7
2006	Jan-Mar	74.6	70.9	73.4	74.2	77.0	73.8	77.4	69.9	78.8	78.1	74.9	71.5	75.3	69.4
	Apr-Jun	74.6	71.7	73.3	74.1	76.9	73.8	76.9	69.5	79.0	78.4	74.8	71.5	74.8	70.1
	Jul-Sep	74.5	70.9	73.5	73.5	77.1	73.9	77.0	69.5	78.9	77.8	74.7	72.1	75.2	68.9

Note:

1 Includes employees, self-employed, participants on government-supported training schemes and unpaid family workers.

Source: Labour Force Survey, Office for National Statistics

Table 12
Unemployment rates for persons aged 16 and over: NUTS1 regions

Per cent, seasonally adjusted

		Yorkshire and The Humber												Northern Ireland	
		United Kingdom	North East	North West	East Midlands	West Midlands	East of England	London	South East	South West	England	Wales	Scotland	Ireland	
2003	Jul-Sep	5.1	6.6	5.0	4.9	4.6	5.9	4.0	7.2	3.9	3.3	5.0	4.7	5.9	5.6
	Oct-Dec	4.9	6.3	4.7	4.9	4.5	5.7	3.4	7.0	3.8	3.0	4.8	4.8	5.8	6.2
2004	Jan-Mar	4.8	5.6	4.5	4.8	4.7	5.5	3.4	7.0	3.8	3.0	4.7	4.6	5.8	5.3
	Apr-Jun	4.8	5.5	4.4	4.6	4.2	5.5	3.8	7.0	3.7	3.7	4.7	4.2	6.0	5.1
	Jul-Sep	4.7	5.9	4.5	4.6	4.1	5.0	3.6	7.2	3.6	3.3	4.6	4.9	5.3	5.0
	Oct-Dec	4.7	6.4	4.6	4.6	4.2	4.7	3.8	7.2	3.5	3.3	4.6	4.2	5.7	4.6
2005	Jan-Mar	4.7	5.8	4.7	4.4	4.3	4.7	3.8	6.7	3.7	3.6	4.6	4.6	5.5	4.8
	Apr-Jun	4.8	6.8	4.4	4.8	4.2	4.7	3.9	7.2	3.8	3.2	4.7	4.6	5.4	4.9
	Jul-Sep	4.8	6.7	4.5	4.5	4.4	4.7	4.1	6.7	4.0	3.7	4.8	4.6	5.5	4.3
	Oct-Dec	5.1	6.5	4.9	5.4	4.6	5.3	4.5	7.4	4.2	3.9	5.2	4.9	5.2	4.5
2006	Jan-Mar	5.2	6.6	4.9	5.4	5.0	5.2	4.8	7.7	4.5	3.6	5.3	4.8	5.3	4.4
	Apr-Jun	5.5	6.1	5.3	5.7	5.4	5.7	5.0	7.9	4.7	3.7	5.5	5.7	5.4	4.2
	Jul-Sep	5.6	6.9	5.6	6.0	5.3	6.1	5.0	8.0	4.5	3.9	5.7	5.4	5.0	4.7

Source: Labour Force Survey, Office for National Statistics

largest improvements were in Wales and the West Midlands at 5.3 and 4.6 percentage points respectively, compared to the UK improvement of 1.6 points.

The Labour market

Table 11 shows seasonally adjusted employment rate, the number of people of working age in employment, expressed as a proportion of the population, from the Labour Force Survey (LFS).

In quarter 3 (July–September) of 2006, the UK employment rate was 74.5 per cent, 0.3 percentage points lower than a year ago and 0.1 percentage point lower than quarter 2 (April–June). Regional rates varied from 78.9 per cent (South East) to 68.9 per cent in Northern Ireland.

The only region with an increase over the year was the North East where the employment rate rose by 1.2 percentage points although compared with quarter 2 there was a fall of 0.8 percentage points. The rates were unchanged on a year earlier, for two regions, London and the South East. All other regions showed an annual fall with the largest decreases in the East of England (1.5 percentage points), Yorkshire and The Humber (1.2 percentage points) and Northern Ireland (0.9 percentage points).

Table 12 shows the unemployment rate (according to the internationally consistent ILO definition) for persons aged 16 and over from the LFS. The UK rate in 2006 quarter three was 5.6 per cent, up 0.1 percentage point from the previous quarter and up

0.8 percentage points on a year earlier. Regionally, the rates ranged from 8.0 per cent in London to 3.9 per cent in the South West.

Over the year, unemployment has increased in all but one of the 12 regions. Four regions had an increase of more than 1 percentage point – Yorkshire and The Humber (1.5 percentage points), West Midlands (1.4 percentage points), London (1.3 percentage points) and North West (1.1 percentage points). Scotland was the only region with an annual decrease of 0.4 percentage points.

Table 13 shows economic inactivity rates for persons of working age from the LFS. The UK rate in 2006 quarter three was 21.0 per cent, unchanged from the previous quarter and down 0.3 percentage points

Table 13
Economic inactivity rates for persons of working age: NUTS1 regions

Per cent, seasonally adjusted

		Yorkshire and The Humber												Northern Ireland	
		United Kingdom	North East	North West	East Midlands	West Midlands	East of England	London	South East	South West	England	Wales	Scotland	Ireland	
2003	Jul-Sep	21.3	26.6	22.6	21.8	20.6	22.0	18.3	24.0	17.6	18.5	21.1	23.4	21.0	27.7
	Oct-Dec	21.5	25.7	22.9	22.0	20.3	22.1	17.4	24.8	17.8	18.3	21.1	24.2	21.5	28.6
2004	Jan-Mar	21.3	25.9	22.5	22.0	19.8	21.7	17.5	24.5	18.2	18.3	21.0	23.7	20.9	29.1
	Apr-Jun	21.5	26.0	22.7	22.3	20.3	21.6	17.8	24.5	18.2	18.9	21.2	24.1	20.5	29.4
	Jul-Sep	21.5	25.4	23.0	22.1	21.1	20.9	18.1	25.1	17.9	18.6	21.2	24.9	20.7	29.4
	Oct-Dec	21.3	25.3	22.3	21.8	20.5	21.3	18.0	25.3	17.9	18.6	21.1	24.5	20.2	27.4
2005	Jan-Mar	21.4	25.3	23.0	22.0	20.2	21.6	18.0	25.0	18.0	18.2	21.2	24.7	20.1	27.6
	Apr-Jun	21.5	24.6	23.2	21.9	20.1	21.8	18.1	25.2	17.8	18.5	21.2	25.1	20.6	27.8
	Jul-Sep	21.3	25.3	22.9	21.6	19.2	22.2	18.0	25.3	17.8	18.6	21.2	24.1	20.3	26.9
	Oct-Dec	21.4	25.0	23.3	21.2	18.9	22.4	18.7	25.1	17.7	18.9	21.2	24.4	20.4	28.0
2006	Jan-Mar	21.1	23.9	22.7	21.5	18.8	22.0	18.6	24.2	17.4	18.9	20.8	24.8	20.4	27.3
	Apr-Jun	21.0	23.5	22.5	21.3	18.6	21.6	18.9	24.4	17.1	18.4	20.7	24.0	20.8	26.7
	Jul-Sep	21.0	23.8	22.1	21.7	18.5	21.2	18.9	24.2	17.3	18.9	20.7	23.7	20.8	27.5

Source: Labour Force Survey, Office for National Statistics

Table 14
Employee jobs¹: NUTS1 regions

Thousands, not seasonally adjusted

	United Kingdom	North East	North West	Yorkshire and The Humber	East Midlands	West Midlands	East of England	London	South East	South West	England	Wales	Scotland	Northern Ireland
Sep 02	26,136	1,006	2,948	2,125	1,752	2,309	2,262	3,948	3,649	2,092	22,091	1,103	2,277	664
Sep 03	26,186	1,004	2,957	2,175	1,759	2,309	2,281	3,929	3,596	2,102	22,112	1,118	2,285	671
Sep 04	26,398	1,023	2,988	2,239	1,783	2,298	2,282	3,907	3,607	2,137	22,265	1,161	2,291	681
Sep 05	26,640	1,021	3,040	2,254	1,808	2,307	2,271	3,955	3,621	2,166	22,443	1,174	2,334	688
Dec 05	26,814	1,025	3,046	2,266	1,815	2,325	2,293	3,995	3,652	2,182	22,598	1,176	2,342	698
Mar 06	26,615	1,014	3,018	2,249	1,802	2,296	2,265	3,971	3,623	2,176	22,415	1,173	2,330	697
Jun 06	26,782	1,022	3,031	2,259	1,813	2,305	2,285	3,995	3,646	2,197	22,552	1,189	2,344	697
Sep 06	26,815	1,018	3,022	2,267	1,822	2,304	2,298	3,992	3,648	2,193	22,564	1,205	2,344	701

Notes:

1 Employee jobs figures come from quarterly surveys of employers carried out by ONS and administrative sources. Employee jobs figures are of a measure of jobs rather than people. For example, if a person holds two jobs, each job will be counted in the employee jobs total.

Source: *Employer Surveys*

on a year earlier. Across the regions, rates varied from 17.3 per cent (South East) to 27.5 per cent (Northern Ireland).

Compared to a year earlier, four regions had an increase in the inactivity rate, and thus a corresponding decrease in the working-age activity rate. The East of England had the largest rise of 0.9 percentage points, Northern Ireland, Scotland and the South East also had increases. Seven regions had a decrease including three regions with falls of more than 1 percentage point – North East (1.5 percentage points); London and West Midlands (both 1.1 percentage points).

The rate for Yorkshire and The Humber was unchanged.

Table 14 shows the number of employee jobs (from the Employers Surveys). The UK number of employee jobs was 26,815,000, an increase of 175,000 over the year to September 2006.

In percentage terms, this was a 0.7 per cent increase. There were rises in all regions except the North East, North West and the West Midlands. The largest percentage increases were in Wales (2.6 per cent), Northern Ireland (1.8 per cent), South West (1.3 per cent) and the East of England (1.2 per cent).

Table 15 shows the claimant count rate

(referring to people claiming Jobseeker's Allowance benefits as a proportion of the workforce). The UK rate was 3.0 per cent in December 2006, unchanged for the tenth month in a row but 0.1 percentage point up on a year earlier. This national rate masks large variations between regions and component countries of the UK. The North East continues to have the highest claimant count rate in the UK and in December 2006 stood at 4.4 per cent. This region has had the highest rate in every year since 1999. The North East is followed by the West Midlands (4.0 per cent), London and the North West, both at 3.4 per cent. The South

Table 15
Claimant count rates¹: NUTS1 regions

Per cent, seasonally adjusted

	United Kingdom	North East	North West	Yorkshire and The Humber	East Midlands	West Midlands	East of England	London	South East	South West	England	Wales	Scotland	Northern Ireland
2002	3.1	5.0	3.5	3.6	2.9	3.5	2.1	3.6	1.6	1.9	2.9	3.6	3.8	4.4
2003	3.0	4.5	3.2	3.3	2.8	3.5	2.1	3.6	1.7	1.9	2.9	3.3	3.7	4.1
2004	2.7	4.0	2.8	2.8	2.5	3.3	2.0	3.5	1.6	1.6	2.6	3.0	3.5	3.6
2005	2.7	3.9	2.9	2.9	2.5	3.4	2.1	3.4	1.6	1.6	2.6	3.0	3.2	3.3
2006	3.0	4.3	3.3	3.3	2.9	4.0	2.4	3.5	1.9	1.8	2.9	3.2	3.3	3.2
2005	Dec	2.9	4.0	3.1	3.2	2.7	3.7	2.2	3.5	1.8	1.7	2.8	3.2	3.3
2006	Jan	2.9	3.9	3.1	3.2	2.7	3.7	2.2	3.5	1.8	1.6	2.8	3.1	3.3
	Feb	2.9	4.1	3.2	3.2	2.8	3.8	2.3	3.5	1.8	1.7	2.9	3.2	3.3
	Mar	3.0	4.2	3.2	3.3	2.8	3.9	2.3	3.5	1.9	1.8	2.9	3.2	3.3
	Apr	3.0	4.2	3.3	3.3	2.9	4.0	2.4	3.5	1.9	1.8	2.9	3.3	3.3
	May	3.0	4.3	3.3	3.3	2.9	4.0	2.4	3.5	1.9	1.8	3.0	3.2	3.3
	Jun	3.0	4.3	3.3	3.4	2.9	4.0	2.4	3.6	1.9	1.9	3.0	3.2	3.3
	Jul	3.0	4.3	3.3	3.4	2.9	4.0	2.4	3.5	1.9	1.9	3.0	3.2	3.3
	Aug	3.0	4.3	3.3	3.4	3.0	4.0	2.4	3.5	1.9	1.9	3.0	3.2	3.3
	Sep	3.0	4.3	3.4	3.4	3.0	4.0	2.4	3.5	1.9	1.9	3.0	3.2	3.3
	Oct	3.0	4.4	3.4	3.4	2.9	4.0	2.5	3.5	1.9	1.9	3.0	3.2	3.3
	Nov	3.0	4.4	3.3	3.3	2.9	4.0	2.5	3.5	1.8	1.9	3.0	3.1	3.2
	Dec	3.0	4.4	3.4	3.3	2.9	4.0	2.4	3.4	1.8	1.9	2.9	3.1	3.2

Note:

1 Count of claimants of Jobseeker's Allowance expressed as a percentage of the total workforce – that is, workforce jobs plus claimants.

Source: *Jobcentre Plus administrative system*

East and the South West had the lowest claimant count rates at 1.8 per cent and 1.9 per cent respectively. Among the devolved administrations, the claimant count rate in Scotland has been 3.2 per cent. Both Wales and Northern Ireland have a rate of 3.1 per cent for December 2006.

On a year earlier, seven regions had a higher claimant count rate. The North East had the largest increase of 0.4 percentage points. Three regions experienced a fall in the claimant count rate – London (0.1 percentage point), Wales (0.1 percentage point) and Northern Ireland (0.2 percentage points). Rates for two regions, the South East and Scotland, were unchanged from the previous year.

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TECHNICAL NOTE

Methodology for decomposing GVA per head

The OECD methodology decomposes GVA per capita into four components of average labour productivity, employment rates, activity rates and commuting rates. In the expression below (1), the labour productivity component (GVA per job) is further broken down into GVA per hour worked and hours per job.

$$\frac{GVA_i}{P_i} = \frac{GVA_i}{HW_i} \times \frac{HW_i}{EW_i} \times \frac{EW_i}{LFW_i} \times \frac{LFW_i}{LFR_i} \times \frac{LFR_i}{P_i} \quad 1$$

This multiplicative model can then be transformed into an additive model by taking logarithms of each term, which allows the above GVA per capita formula to be decomposed into the expression below (2). Using an additive model enables the contributing effect of each component to be calculated, which means it is possible to identify what is determining a region's level of GVA per capita.

$$\log \left(\frac{GVA_i}{P_i} \right) = \log \left(\frac{GVA_i}{HW_i} \right) + \log \left(\frac{HW_i}{EW_i} \right) + \log \left(\frac{EW_i}{LFW_i} \right) + \log \left(\frac{LFW_i}{LFR_i} \right) + \log \left(\frac{LFR_i}{P_i} \right) \quad 2$$

This model is used to explain the estimate of GVA per capita for a particular region. However it can also be extended to decompose the difference in GVA per capita of each region (subscripted by i) compared to the UK average. By definition, the logarithm of the difference between a region's GVA per capita and the UK average will equal the sum of the logarithms of the difference of each component from the UK average. This is shown in 3.

$$\begin{aligned} &= \log \left(\frac{GVA_i}{P_i} \right) - \log \left(\frac{GVA_{UK}}{P_{UK}} \right) && \text{i denotes the region} \\ &= \left[\log \left(\frac{GVA_i}{HW_i} \right) - \log \left(\frac{GVA_{UK}}{HW_{UK}} \right) \right] && 3 \\ &+ \left[\log \left(\frac{HW_i}{EW_i} \right) - \log \left(\frac{HW_{UK}}{EW_{UK}} \right) \right] \\ &+ \left[\log \left(\frac{EW_i}{LFW_i} \right) - \log \left(\frac{EW_{UK}}{LFW_{UK}} \right) \right] \\ &= \left[\log \left(\frac{LFW_i}{LFR_i} \right) - \log \left(\frac{LFW_{UK}}{LFR_{UK}} \right) \right] \\ &+ \left[\log \left(\frac{LFR_i}{P_i} \right) - \log \left(\frac{LFR_{UK}}{P_{UK}} \right) \right] \end{aligned}$$

Using these terms, it is then possible to decompose the differences in GVA per capita for each region relative to the UK by looking at the differences in each of the five components. This will then show the relative effect of each component in terms of what is driving the differences between a region's estimate of GVA per capita and the UK average.