

UK ECONOMIC PERFORMANCE

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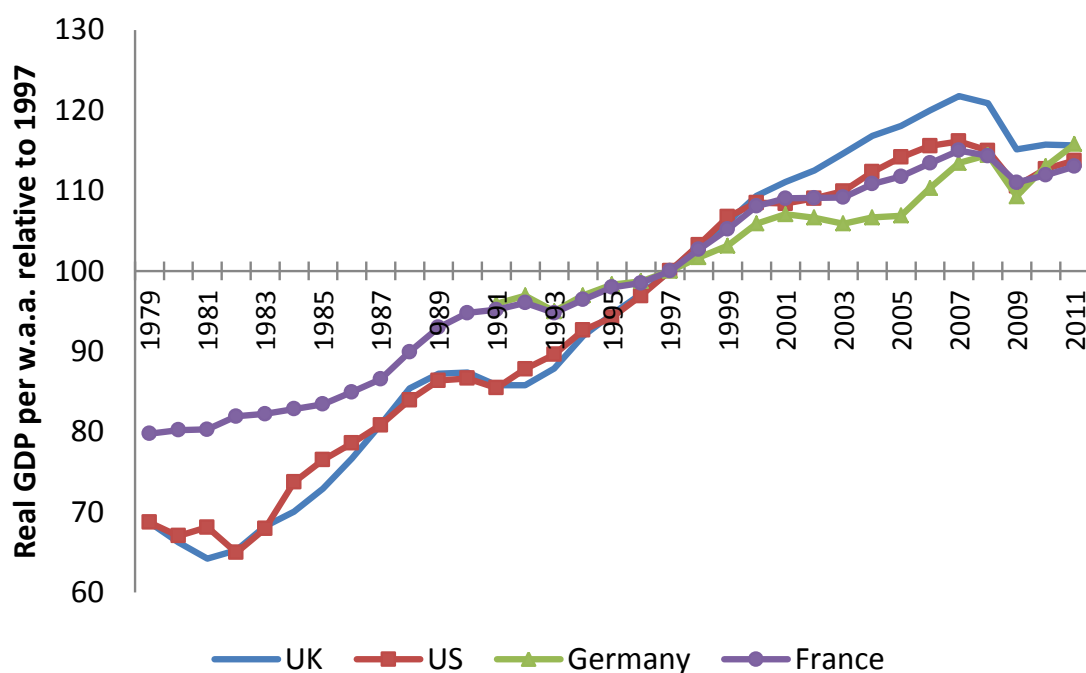
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EXECUTIVE SUMMARY OF PESSOA AND VAN REENEN

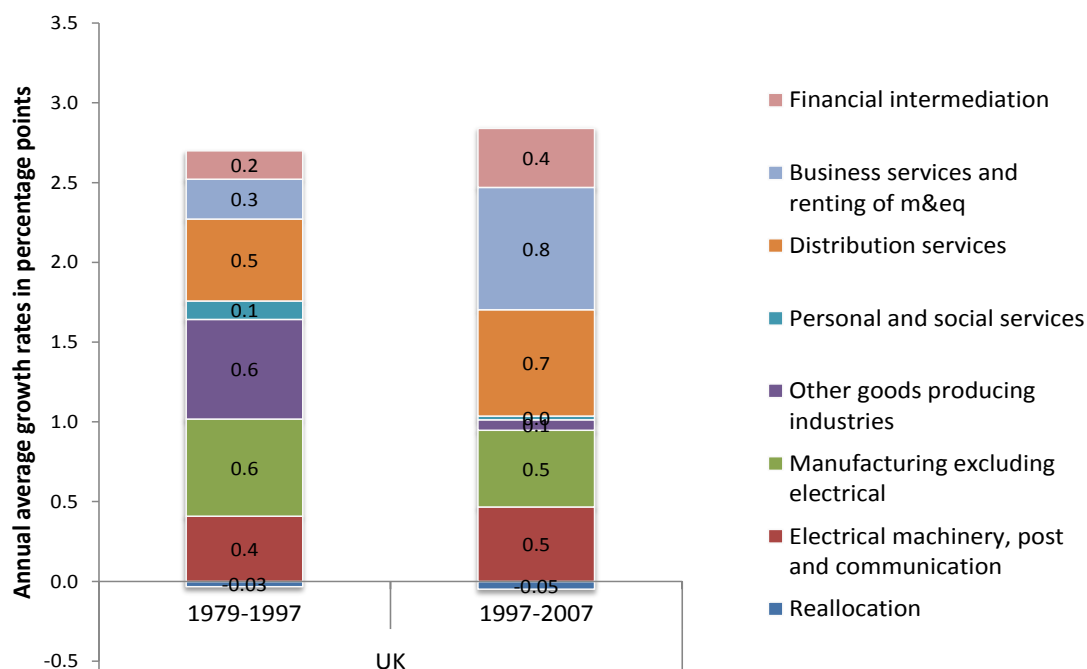
- Although the British people have seen improvements in their material wellbeing for many centuries, British per capita GDP was in relative decline compared to the US, Germany and France since at least 1870. Since around 1979, this pattern reversed and the UK has been catching up with these countries.
- British economic performance 1997-2007 was strong with GDP per capita growing faster than any other G6 country. This broadly continued the post 1979 trend: market sector output per hour grew at 2.7% per annum 1979-1997 and 2.8% 1997-2007.
- Exhibit 1 shows trends in UK per capita GDP since 1997. UK performance was better than all other countries 1979-2007 and 1997-2007.
- The post-2008 crisis took a severe toll on all OECD countries with the UK somewhat worse than average. Even if we look over the period 1997-2011, however, UK productivity growth was second only to the US and GDP per worker was as good as all other countries.
- UK productivity *levels* (GDP per hour) still lag behind the US, Germany and France. The level of the employment rate is higher than Continental EU and similar to the US
- Exhibit 2 shows that productivity growth 1997-2007 was not mainly due to sectors like finance, property, public spending or oil. Finance only accounted for 0.4% to the 2.8% annual productivity growth in the market economy between 1997 and 2007 (up from 0.2% 1979-1997). Distribution and business services were much more important contributors to productivity growth.
- Rates of TFP growth were about 1% 1979-2007. They were similar pre and post 1979, but ICT and skills made a larger contribution post 1997 (more like US than EU)
- Improved economic performance post 1979 is related to reforms to competition, human capital expansion, Employment Service reforms and labour markets changes.

Exhibit 1 Trends in real GDP per capita (adult), 1979-2011



Notes: GDP per adult trends (1997=100) so a value of 116 in 2011 means GDP per adult 16% higher in 2011 than 1997. Data from Conference Board (2012)

Exhibit 2: Finance directly contributes about 14% to overall UK productivity growth



Notes: See Figure 7. This is for market economy (i.e. not including education, health, public administration and property)

1. UK RELATIVE ECONOMIC PERFORMANCE SINCE 1997: GROWTH, PRODUCTIVITY AND JOBS

1.1. INTRODUCTION

We begin by laying out some of the facts of economic performance since 1997, but put this in an international and historical context. First we look at the aggregate trends in GDP, productivity and jobs (sub-section 1.2). After showing the surprisingly strong UK performance we look in more detail at where productivity has come from in terms of the contribution of different sectors, such as finance, and different factor inputs such as capital and skills (sub-section 1.3).

Overall, we find that British performance was impressive between 1997-2011 compared to other major countries both in terms of productivity and the labour market. The productivity performance was not primarily driven by the “bubble” sectors of finance, property or government services (at least in an accounting sense). Rather, human capital, ICT and efficiency improvements were the dominant forces especially in the business services and distribution sectors.

1.2. ANALYSIS OF AGGREGATE TRENDS IN NATIONAL INCOME AND PRODUCTIVITY

We begin by comparing the macro-level economic performance of the UK with its major peers. There is an argument for focusing our analysis of the Labour period up to 2008 – i.e. before the Great Recession which was essentially a global shock. We also look through the most recently available data through 2011. In Panel A of Table 1 the first three columns examine the 1997-2011 period and the last three columns the 1997-2007 period.

We use data from the Conference Board which contains internationally comparable data on output, employment, hours and the other elements to estimate economic performance. This is basically the same as OECD data that we used previously in Corry et al (2011). Table 1 shows that during the 1997-2011 period UK GDP growth was second only to the US (1.84% p.a. vs. 2.18% p.a.). Of course, absolute economic growth is not as important for welfare as national income per person as this will ultimately determine wages and consumption. In terms of GDP per capita (in terms of total population), a key measure of economic welfare, only Germany outperformed the UK (1.33% vs. 1.41%).

Could some of these patterns be driven simply by worse demographic trends? To partially control for this, the third column of Table 1 presents GDP per adult, (and this is the main measure of overall economic performance that we use in this paper). Here again, the UK was outperformed only by Germany. Although data from the most recent years is likely to be revised, even if the UK's 2008-2011 growth was much worse than recorded, it's relative position over the entire post 1997 period is unlikely to dramatically change (other countries will also have their data revised).

We also analyse the net domestic product (NDP), which is defined by the OECD as GDP minus consumption of fixed capital¹. As proposed by Stiglitz, Sen and Fitoussi (2009), net measures should be preferred over gross measures since they better reflect welfare changes. More precisely, if the depreciation rate in a given country is large it means that a significant amount of GDP is set aside to replace capital, which diminishes significantly what the society can potentially consume.

Due to data restrictions, NDP growth could be calculated only up to 2010. Looking at panel B of Table 1, we can see that NDP grew relatively faster in the UK and slower in the other countries, but UK still maintains the second position, losing to the US (1.95% vs. 2.09%). The NDP per capita and NDP per adult also grew faster in the UK (1.42% and 1.22%) and slower in the other countries, with the UK having the best performance over the 1997-2010 period.

¹Consumption of fixed capital represents the reduction in the value of the fixed assets used in production during the accounting period resulting from physical deterioration, normal obsolescence or normal accidental damage.

Table 1: Growth of GDP and NDP per person and GDP per adult, 1997-2011**Panel A: GDP**

	1997-2011 (whole period of Labour)			1997-2007 (up until the Great Recession)		
	GDP	GDP per capita (person)	GDP per capita (adult)	GDP	GDP per capita (person)	GDP per capita (adult)
UK	1.84	1.33	1.12	2.89	2.42	2.20
US	2.18	1.23	0.99	2.98	1.95	1.63
Germany	1.36	1.41	1.13	1.67	1.64	1.35
France	1.66	1.10	0.93	2.31	1.75	1.51
Japan	0.49	0.41	0.20	0.98	0.84	0.63
Italy	0.68	0.25	0.14	1.45	1.08	0.94

Notes: Cumulative annual growth rates (in %). Analysis based on CB data (extracted on 8th of June 2012). GDP is US\$, constant prices, constant PPPs, CB base year (2011). Adult refers to “working age adults”, obtained from US Bureau of Labour Force Statistics, and includes the civilian population aged over 16. Data for Unified Germany from 1991.

Panel B: NDP vs GDP

	1997-2010						1997-2007		
	GDP	NDP	GDP per capita (person)	NDP per capita (person)	GDP per capita (adult)	NDP per capita (adult)	NDP	NDP per capita (person)	NDP per capita (adult)
UK	1.93	1.95	1.42	1.45	1.22	1.24	2.95	2.48	2.26
US	2.22	2.09	1.22	1.13	0.99	0.86	2.84	1.81	1.49
Germany	1.24	1.16	1.26	1.20	1.01	0.93	1.66	1.63	1.34
France	1.66	1.49	1.04	0.93	0.92	0.75	2.19	1.63	1.39
Japan	0.59	0.22	0.52	0.12	0.31	0.05	0.75	0.60	0.39
Italy	0.69	0.44	0.22	0.02	0.19	0.10	1.30	0.93	0.78

Notes: Cumulative annual growth rates (in %). Analysis based on CB data (extracted on 8th of June 2012) and NDP obtained using OECD capital use data (<http://stats.oecd.org/>, National Accounts at a Glance). GDP is US\$, constant prices, constant PPPs, CB base year (2011). Adult refers to “working age adults”, obtained from US Bureau of Labour Force Statistics, and includes the civilian population aged over 16. Data for Unified Germany from 1991.

Following the approach of Card and Freeman (2004) we focus on GDP per adult as our preferred measure of GDP per capita (in columns (3) and (6) of Table 1) for further analysis. The denominator is defined as adults in the civilian, non-institutional population over the age of 16 (for most countries)². Output per capita can be decomposed into its constituent elements: output per labour input (or “productivity”) and labour input per capita (a measure of labour market performance). Two alternative measures of labour input are considered: number of

² Data on “working age adults” is obtained from USBLS <http://www.bls.gov/fls/flscomparelf/population.htm>. Card and Freeman (2004) used USBLS for civilian, non-institutional working age adults for 15-64 year olds, but the current USBLS data that we use is defined as the civilian non-institutional population over the age at which compulsory schooling ends (16 for most countries), and has no upper limit. It is noted that the German data includes the institutional population. OECD data on 15-64 year olds is currently unavailable for 2010 for all four countries considered here, but we obtain qualitatively similar results to those reported here when using this data over the shorter time period.

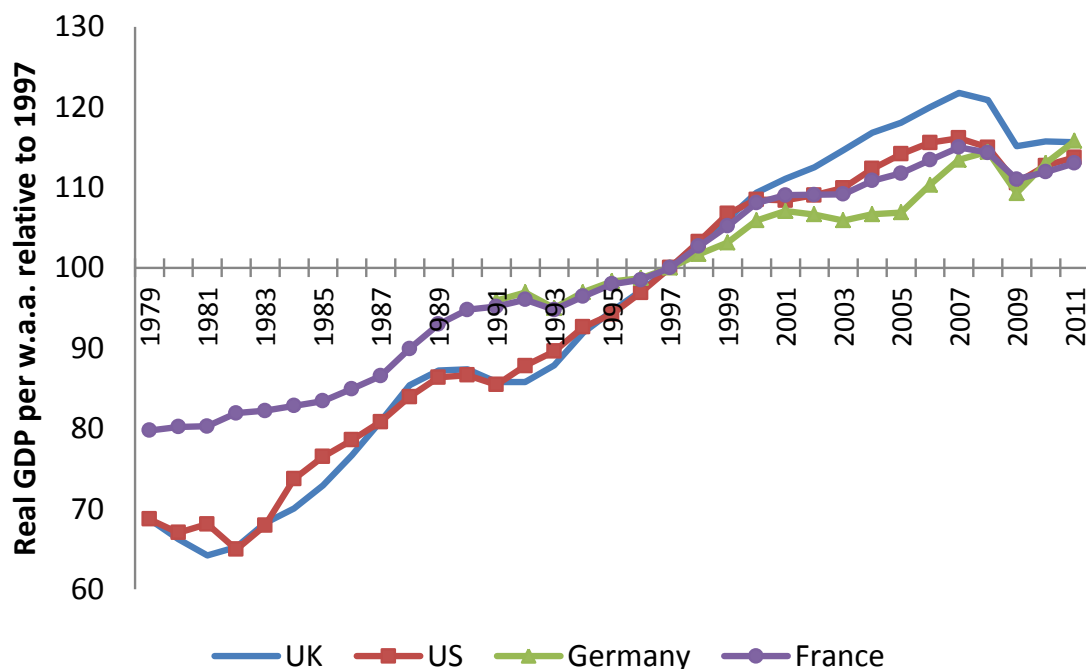
workers and total hours worked³. This type of decomposition allows us to determine how much of a country's growth performance is due to working "smarter" (i.e. productivity gains) versus working "harder" (higher employment rates or hours per average adult).

The results are contained in Figure 1 (GDP per capita), Figure 2 (GDP per worker) and Figure 3 (GDP per hour). We base each series in 1997 to show the cumulative performance of the UK and other countries before and after the 1997 election, so the slope of the line can be interpreted as growth rates.

We plot GDP per capita in Figure 1. The fact that the UK line ends up above all other countries shows in graphical form what was already revealed in the numbers in Table 1. The fall in GDP per capita in the Great Recession is evident in all countries, but appears particularly large in the UK. Figure 1 also shows that the UK grew faster than its peers in the 1979-1997 period. Under the Conservative period UK per capita GDP growth was similar to the US and significantly stronger than French growth (we do not have a consistent series for Germany because of re-unification after 1989).

³ As defined at <http://www.conference-board.org/data/economydatabase/>, "Total hours worked represent the aggregate number of hours actually worked as an employee or a self-employed person during the accounting period and when their output is within the production boundary".

Figure 1: Trends in real GDP per capita (adult) relative to 1997

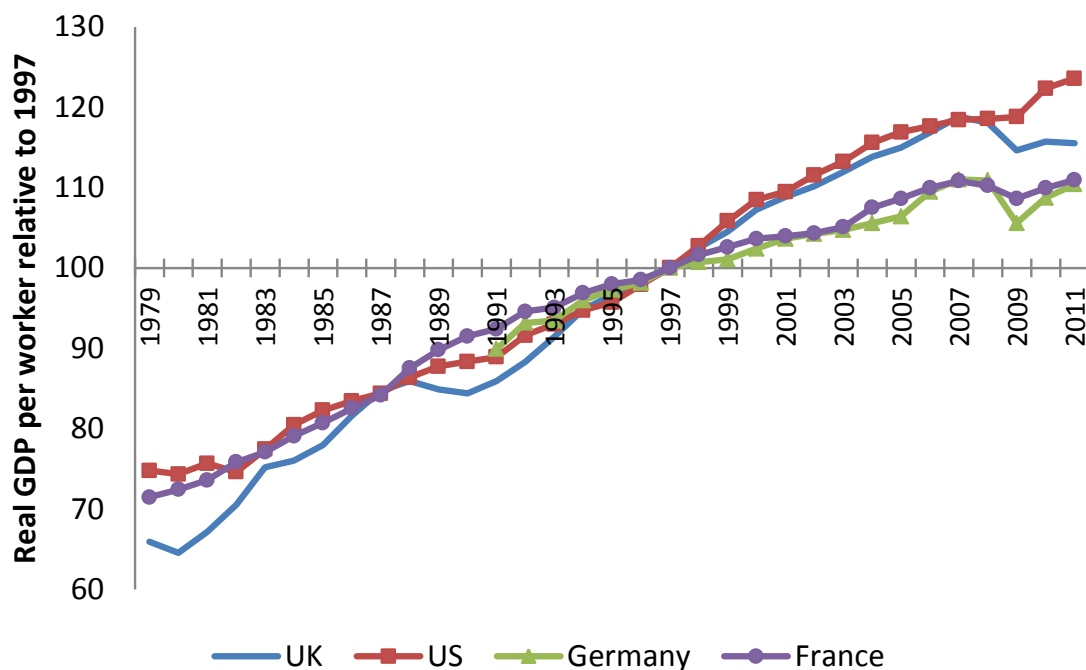


Notes: Analysis based on CB data (extracted on 8th of June 2012). GDP is US\$, constant prices, constant PPPs, CB base year (2011). Adult refers to “working age adults”, obtained from US Bureau of Labour Force Statistics, and includes the civilian population aged over 16. Data for Unified Germany from 1991. For each country the logged series is set to one hundred in 1997, so the level of the line in any year indicates the cumulative growth rate (e.g. a value of 110 in 2001 indicates that the series has grown by 10% between 1997 and 2001). The steeper the slope of the line, the faster growth has been over that period.

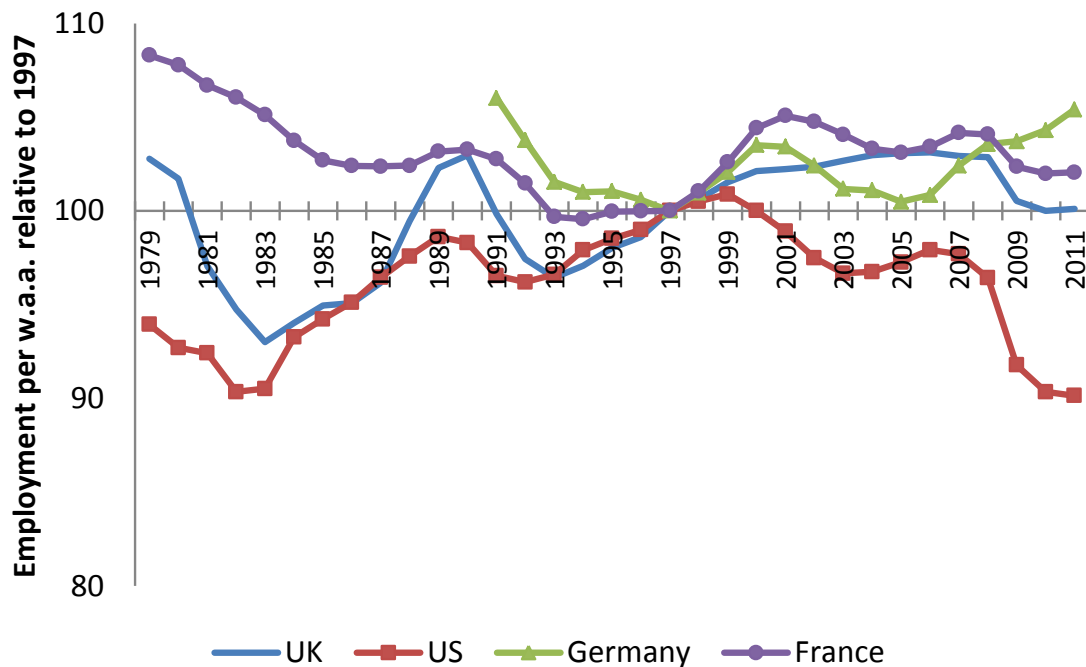
As discussed earlier, GDP per capita can be decomposed into productivity growth and labour market performance. As an accounting identity, $\text{GDP per capita} = \text{GDP per employee (productivity)} \times \text{employees per capita (the employment rate)}$. An alternative decomposition is $\text{GDP per capita} = \text{GDP per hour} \times \text{hours per capita}$. GDP per hour is a better measure of productivity than per worker because it accounts for part-time work, the fact that some workers may hold multiple jobs and differences in hours worked due to holidays/sickness/maternity etc. (although hours are harder to measure accurately). Higher employment rates are easier to interpret as a desirable social outcome than higher hours per capita, however, as - all else equal - workers would prefer more vacations and a shorter working day. Given the ambiguity of which decomposition is “better”, we present both.

Figure 2: Trends in real GDP per worker and employment per capita relative to 1997

Panel A: GDP per employee



Panel B: Employment per capita (adult)



Notes: Analysis based on CB data (extracted on 8th of June 2012). GDP is US\$, constant prices, constant PPPs, CB base year (2011). Adult refers to “working age adults”, obtained from US Bureau of Labour Force Statistics, and includes the civilian population aged over 16. Data for Unified Germany from 1991. For each country the logged series is set to one hundred in 1997, so the level of the line in any year indicates the cumulative growth rate (e.g. a value of 110 in 2001 indicates that the series has grown by 10% between 1997 and 2001). The steeper the slope of the line, the faster growth has been over that period.

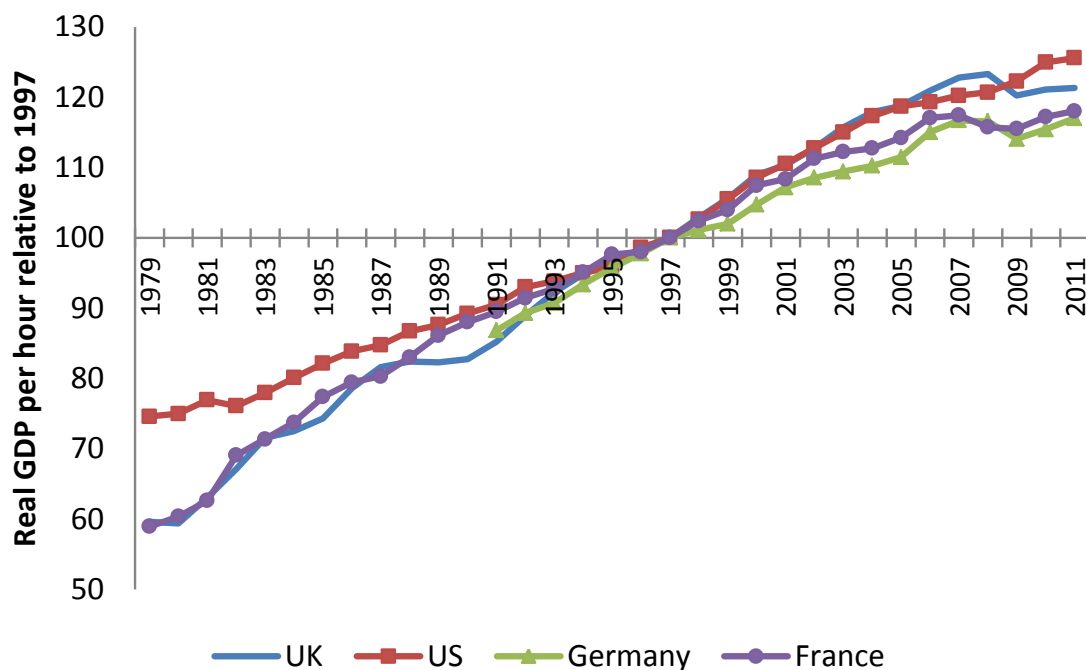
Figure 2 presents the first decomposition using GDP per worker as a measure of productivity. Panel A shows that the UK's GDP per worker growth was as fast as that in the US between 1997 and 2008 which is impressive as these are the years of the US "productivity miracle" (Jorgenson, 2001). So the UK managed to hold the tail of the US tiger. US productivity has outstripped that in the UK in the Great Recession which reflects the much more aggressive job shedding in the US in response to the downturn. UK productivity growth was better than Continental Europe, however. Again, the UK productivity performance was also strong in the pre-1997 period – in fact, during the 1979-1997 - under the Conservatives - UK GDP per worker grew faster than both the US and France.

Panel B of Figure 2 shows employment rates. Over the period 1997-2007 the growth of the employment rate in the UK was similar to that in France and Germany. The US, by contrast had a very poor jobs performance with the employment rate falling by nearly 5% by 2008 before plummeting in the Great Recession. This is reflected in the fact that US unemployment rates rose from 5% to almost 10% whereas in the UK the increase in unemployment was more modest (currently about 8%) despite a larger fall in GDP. In Germany, unemployment has hardly risen at all. The UK's employment rate was similar at the beginning and at end of the Conservative period, not rising like in the US, but not falling like in France. What is more striking is how volatile the jobs market was, with a huge boom in the late 1980s and busts in the early 1980s and early 1990s.

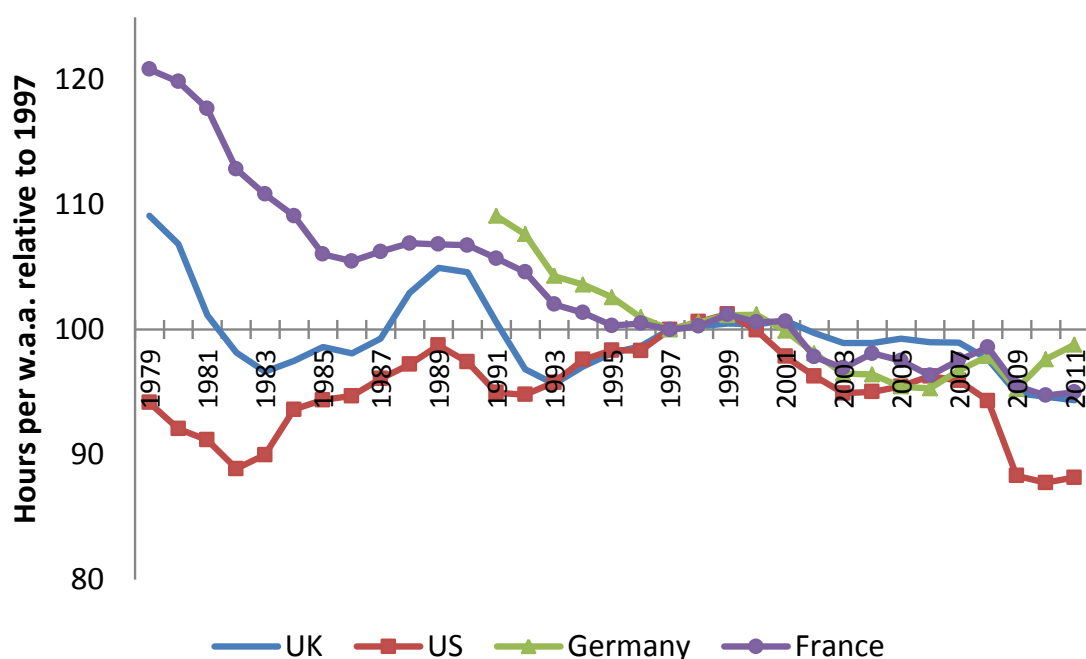
Figure 3 repeats the analysis for productivity measured in hours instead of workers and shows broadly similar trends to Figure 2. In general, the UK productivity position looks weaker compared to the EU on a per hour basis as UK hours per worker are higher. For example, although Figure 2 showed that UK GDP per worker both pre and post Labour was faster than France, Figure 3 shows that France had faster growth of GDP per hour than the UK in the Conservative period.

Figure 3: Trends in real GDP per hour and hours per capita (adult) relative to 1997

Panel A: GDP per hour



Panel B: Hours per capita (adult)



Notes: Analysis based on CB data (extracted on 8th of June 2012). GDP is US\$, constant prices, constant PPPs, CB base year (2011). Adult refers to “working age adults”, obtained from US Bureau of Labour Force Statistics, and includes the civilian population aged over 16. Data for Unified Germany from 1991. For each country the logged series is set to one hundred in 1997, so the level of the line in any year indicates the cumulative growth rate (e.g. a value of 110 in 2001 indicates that the series has grown by 10% between 1997 and 2001). The steeper the slope of the line, the faster growth has been over that period.

This analysis gives a fairly clear story of Britain's performance under Labour. GDP per capita outstripped the other major economies because the UK did well in terms of both productivity (only a little worse than the US and better than EU) and the labour market (better than the US and only a little worse than the EU). This was a solid performance, contrary to what general discussion about the period suggests. However, it is also true that the UK also did well in terms of productivity in the Conservative years of 1979-1997, so the UK performance is more likely a continuation of a post 1979 trend rather than a sharp break with the past. Taking an even longer run perspective we see in Table 2 that 1979 appeared to be a break in the UK's declining relative performance. For example, German GDP per head was 58% of the UK level in 1870 and American productivity 77%. Just over a century later (1979) Germany had 16% higher productivity than the UK and the US was 43% higher. By 2007, however, the UK had closed all the gap with Germany and was only 33% behind the US.

Table 2: Real GDP per capita (UK=100 in each year)

	USA	West Germany	France
1870	76.6	57.6	58.8
1913	107.8	74.1	70.8
1929	125.3	73.6	85.6
1937	103.4	75.4	72.2
1950	137.7	61.7	74.7
1979	142.7	115.9	111.1
2007	132.6	98.6	94.3

Notes: Reproduced from Crafts (2010). Analysis based on data sourced from Angus Maddison historical database and West Germany in 2007 calculated from Statistisches Bundesamt Deutschland 2010. Note that estimates refer to Germany from 1870 to 1937.

We also study how mean and median household income⁴ evolve over time. In [Figure 4](#) we can see the growth of these series in the UK, the US, Germany and France. Clearly, mean income in the UK increased significantly more than in other countries while the median grew

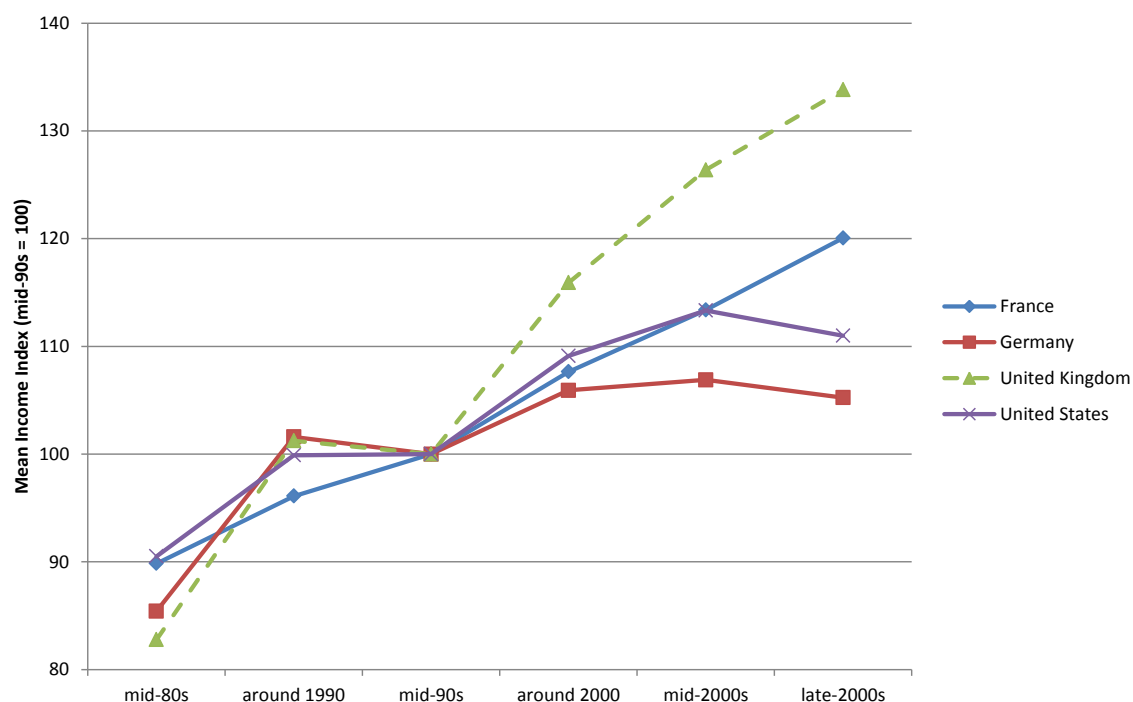
⁴ OECD household income (Social Welfare Statistics, Income Distribution – Inequality database) based on “the distribution of the equivalised disposable household income. Income refers to cash income – excluding imputed components such as home production and imputed rents – regularly received over the year. Data refer to market (i.e. before transfers & taxes) and disposable (i.e. after transfers & taxes) income and its components: earnings (broken down into those of the household head, of the spouse and of other household members); self-employment income; capital income (rents, dividends and interest); public transfers; and household taxes. The income attributed to each person is “adjusted” for household size based on a common but arbitrary equivalence elasticity (the square root of household size) that does not distinguish between adults and children and which implies that a household's economic needs increase less than proportionally with its size: those of a single (1.4 and 1.7 times those of a single in the case of a childless couple and of a couple with one child)”.

slower up to 2000 but recovered after this⁵. Unfortunately the data available do not show information for the period after the Great Recession. Median income increased less than mean income in all the countries, which points out that inequality is rising in all of them.

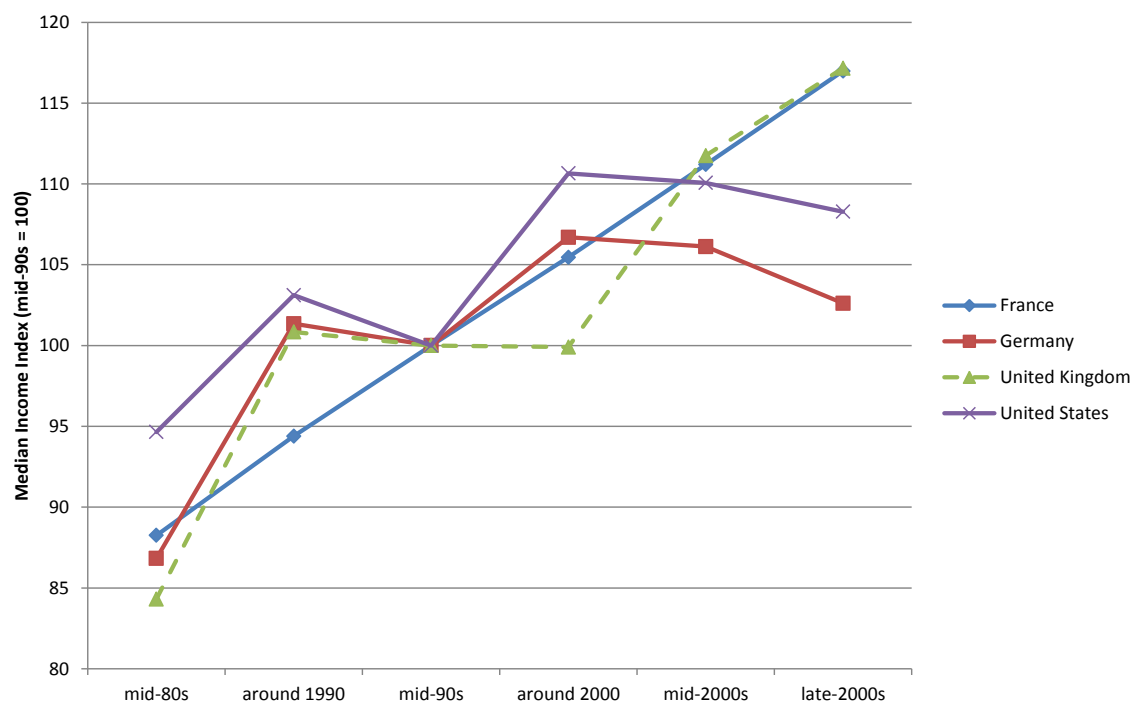
⁵ Due to a change in source in 2000 for the UK, data prior to around 2000 have been interpolated for OECD current income definition.

Figure 4: Trends in real mean and median household income relative to mid-90s

Panel A: Mean Household Income



Panel B: Median Household Income



Notes: Analysis based on OECD Social Welfare Statistics. Equivalised income (in national currency in constant prices of late 2000s) refers to cash income – excluding imputed components. Data refers to market (i.e. before transfers & taxes) and disposable (i.e. after transfers & taxes) income and its components. The income attributed to each person is “adjusted” for the square root of household size. Mid-80s corresponds to 1984 in France and the US and to 1985 in Germany and the UK. Mid-90s corresponds to 1996 in France, 1995 in the US and Germany and to 1994/1995 in the UK. Mid-2000s corresponds to 2005 in France and the US, to 2004 in

Germany and to 2004/2005 in the UK. Late 2000's corresponds to 2008 in France, Germany and the US and to 2004/2005 in the UK. For each country the series is set to one hundred in the mid-90s, so the level of the line in any year indicates the cumulative growth rate (e.g. a value of 110 in 2001 indicates that the series has grown by 10% between 1997 and 2001). The steeper the slope of the line, the faster growth has been over that period.

1.3. WHERE DID THE GROWTH IN UK PRODUCTIVITY COME FROM?

Introduction

We now turn to the exercise of accounting for what lies beneath these aggregate trends in UK productivity. Rigorous and comparable cross-national data at the industry level is not currently available after 2008, so we first focus on the period up until the Great Recession. For these purposes we use the KLEMS database⁶ (Timmer, 2007), which is the best available source of harmonised productivity data (at the time of writing, June 2012) for the major countries that we want to look at. It is consistent with national accounts, describes all assumptions made and contains comparable data on education by industry (which is important for labour quality measurement)⁷.

We consider two ways to decompose growth. First, we look at the contributions of the “factor inputs” to growth – i.e. the quantity and quality of capital and labour. Second, we examine the contributions of various industries to the aggregate productivity performance of the UK and its key comparators. Broadly we find that during Labour's period, overall labour productivity growth was similar to that in the previous Conservative period, but its composition changed – human capital and ICT (information and communication technologies) accounted for more of the growth. Low tech capital became less important and overall efficiency growth (called “Total Factor Productivity” or TFP) remained at about 1% throughout. Perhaps the most striking fact we will discuss is that looking at sectors, finance

⁶ This is available at <http://www.euklems.net/>. See O'MAHONY, M. & TIMMER, M. P. 2009. Output, Input and Productivity Measures at the Industry Level: The EU KLEMS Database. *Economic Journal*, 119, F374-F403.

⁷ The OECD also has a similar database, STAN, but this does not include education data and it is harder to track through some of the assumptions used (and how they have changed over time). We use the 1.0 version because the 2.0 version of KLEMS is still under construction.

was *not* responsible for much productivity growth (around 14%), implying that finance was unlikely to be the main cause of the strong productivity performance⁸.

Decomposing growth into factor inputs: The growing importance of skills and computer technologies

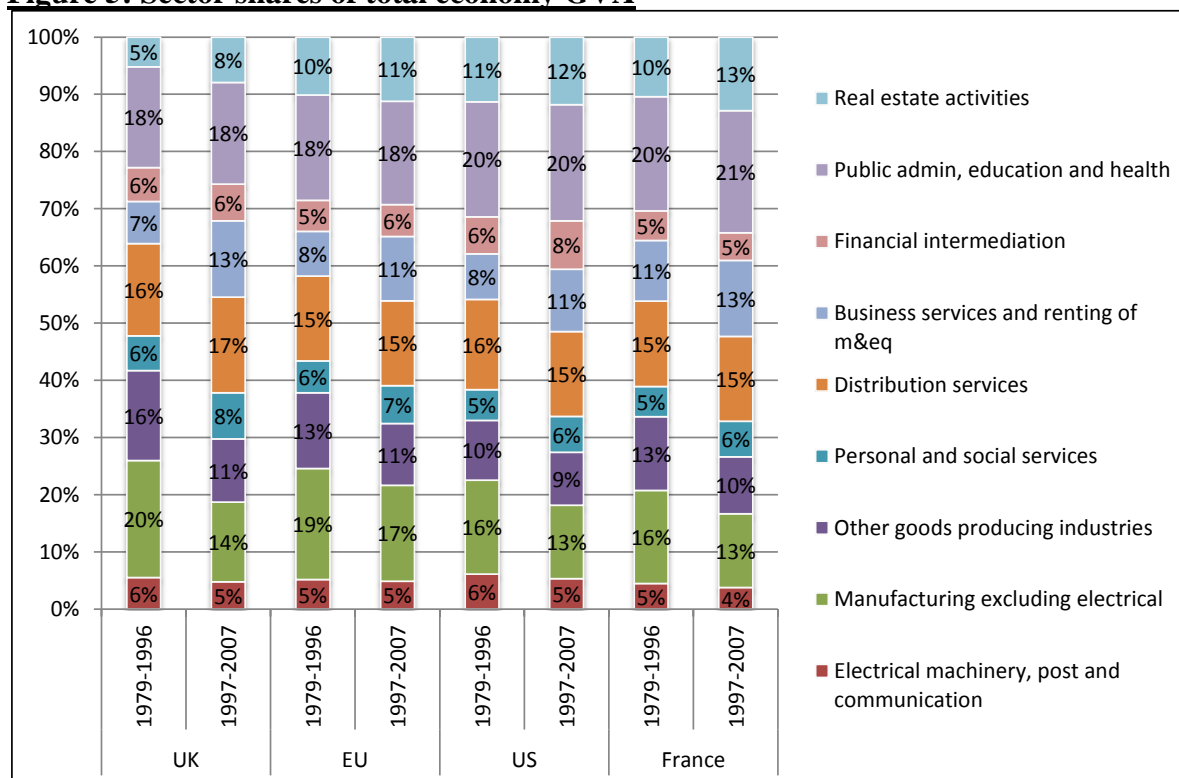
We describe an accounting exercise in this sub-section primarily focusing on the “market economy” as defined by KLEMS, which strips out the public sector and real estate. For the public sector, value added is particularly hard to measure (we discuss these non-market economy sectors below), and international comparisons are therefore problematic. Real estate is excluded because output in this industry mostly reflects imputed housing rents rather than the sales of firms, consequently residential buildings are also excluded from the market economy capital stock (Timmer et al., 2010). In the UK, the market economy makes up around three quarters of the total economy, slightly less in the comparator countries (see Figure 5). Carrying out this analysis for Gross Value Added⁹ (GVA) as our measure of output, we find that a similar picture of strong UK performance emerges as with the GDP numbers in Table 1.

Figure 5 shows how aggregate value added splits between different sectors since 1979. In all countries, there has been a strong trend away from manufacturing and other goods producing sectors and towards services. But this trend is particularly strong in the UK with a shift towards business services (its share of aggregate value added rises from 7% to 13%).

⁸ Furthermore, it is worth noting that the aggregate GDP growth numbers are not affected by mis-measurement of the output of the investment banks “toxic assets” (such as Mortgage Backed Securities, CDO², etc.). This is because national accounts look at annual growth using an expenditure-based GDP rather than the output-based measure of GDP. The “toxic rubbish” part of the banking sector are all classified as intermediate inputs sold to non-financial businesses, so do not really show up as GDP. The exception is net exports where “toxic rubbish” could show up. But this is in total only 1.5% of GDP, so even this would make only a minor contribution to growth even if all of the net exports could be placed in this category. The contribution of finance to GDP is from plain vanilla banking services sold to households.

⁹ $GVA + \text{taxes on products} - \text{subsidies on products} = GDP$

Figure 5: Sector shares of total economy GVA



Notes: Data: EU KLEMS. EU represents all EU-15 countries for which growth accounting could be performed, i.e. AUT, BEL, DNK, ESP, FIN, FRA, GER, ITA, NLD & UK. Data for France and the EU are available from 1981 onwards. Market economy only.

Significantly, Figure 5 shows that the growth in the public sector, finance and real estate sectors between the Conservative and the Labour periods has been less than often imagined. Financial intermediation is about 6% of aggregate value added in both periods and the public sector (public administration, health and education) also remains constant at 18% of value added. Real estate activities have grown, but only from 5% to 8%. According to Figure 5 the size of the market economy was only three percentage points smaller under Labour than in the previous period. This fall was less than in France (4 percentage point fall) but more than in the US and EU as a whole (1 percentage point fall).

We now focus on the market economy. Table 3 shows a decomposition of average annual growth in value added showing that the UK enjoyed overall growth of 3.2% over 1997-2007 only slightly behind the US (3.4%), and much faster than the EU average (2.5%) and France (2.6%). In addition, this was faster than the pre-1997 period, when the average annual growth rate was 2.3%. However, this performance was largely due to the contribution of total hours worked (driven by rising employment). If we strip out the contribution of hours to UK growth of 0.4%, we are left with labour productivity growth of 2.8%, very similar to the pre-1997 period of 2.7%.

Despite this constancy on the surface, the composition of UK productivity growth changed between the two periods. The contribution of each factor input is the product of growth in that input and its share in value added, while the contribution of TFP (Total Factor Productivity – a measure of technical change) is calculated as a residual. The labour composition index takes into account differences in the composition of the workforce in terms of skills, gender and age¹⁰.

The numbers are detailed in Table 3 and shown graphically in Figure 5. Although TFP growth was similar at about 1% p.a in both periods, the contribution of labour composition and ICT capital increased in importance post 1997 and the contribution of non-ICT capital has fallen. Overall, contribution from the “knowledge economy” (labour composition, ICT capital and TFP) has increased in the UK from 2 to 2.3%, compared to a fall in the EU and a larger increase in US driven mainly by higher TFP growth¹¹.

Table 3: Decomposition of growth in value added, market economy

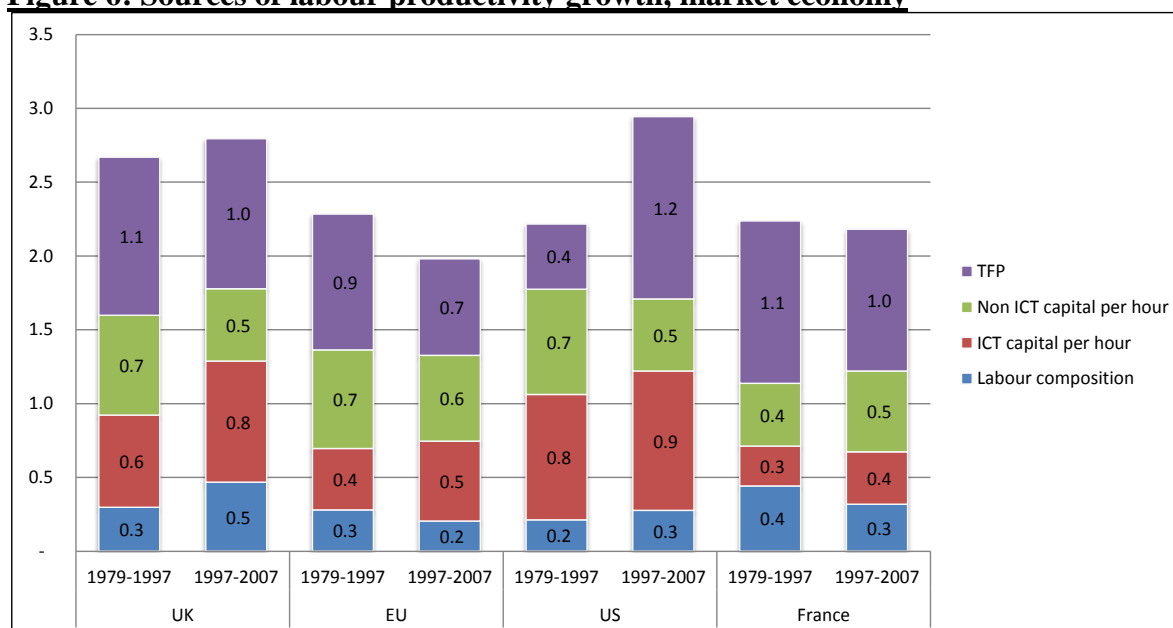
		UK		EU		US		France	
		1979-1997	1997-2007	1979-1997	1997-2007	1979-1997	1997-2007	1979-1997	1997-2007
1	Market economy output (2+3)	2.3	3.2	2.1	2.5	3.2	3.4	1.8	2.6
2	Hours worked	-0.4	0.4	-0.2	0.5	0.9	0.5	-0.4	0.4
3	Labour productivity (4+5+6+7)	2.7	2.8	2.3	2.0	2.2	2.9	2.2	2.2
<i>Contributions from</i>									
4	Labour composition	0.3	0.5	0.3	0.2	0.2	0.3	0.4	0.3
5	ICT capital per hour	0.6	0.8	0.4	0.5	0.8	0.9	0.3	0.4
6	Non ICT capital per hour	0.7	0.5	0.7	0.6	0.7	0.5	0.4	0.5
7	TFP	1.1	1.0	0.9	0.7	0.4	1.2	1.1	1.0
<i>Contribution from knowledge</i>									
8	economy (4+5+7)	2.0	2.3	1.6	1.4	1.5	2.5	1.8	1.6

Notes: Data: EU KLEMS. EU represents all EU-15 countries for which growth accounting could be performed, i.e. AUT, BEL, DNK, ESP, FIN, FRA, GER, ITA, NLD & UK. Data for France and EU are available from 1981 onwards.

¹⁰ See O'MAHONY, M. & TIMMER, M. P. 2009. Output, Input and Productivity Measures at the Industry Level: The EU KLEMS Database. *Economic Journal*, 119, F374-F403. This explains the construction of the labour composition component in EU KLEMS, which depends on skills (measured by educational attainment), age and sex of the workforce. Timmer et al (2010) explain that the impact of an ageing population (which implies higher wage workers) and the increasing employment of females (who tend to be paid less) tend to counterbalance each other. Hence trends in labour composition tend to be dominated by changes in skill composition.

¹¹ Timmer et al (2007) note that while the use of educational attainment as a measure of skill may lead to difficulties with cross-country comparisons (since educational systems, classifications and quality vary between countries), it is useful for tracking developments over time within the same country.

Figure 6: Sources of labour productivity growth, market economy



Notes: Data: EU KLEMS. EU represents all EU-15 countries for which growth accounting could be performed, i.e. AUT, BEL, DNK, ESP, FIN, FRA, GER, ITA, NLD & UK. Data for France and EU are available from 1981 onwards. ICT = Information and Communication Technology and TFP = Total Factor Productivity.

Which sectors are responsible for productivity growth? It wasn't all a financial bubble

The second growth decomposition we implement is to look at the contribution of different sectors to aggregate productivity. This shows that the highest productivity growth sectors over the 1997-2007 period were electrical machinery, post and communication, financial intermediation, business services and distribution (in descending order). These sectors saw high contributions from both ICT capital per hour and TFP.

However, a sector's contribution to overall market economy productivity growth depends on both its productivity growth and its size (share of total market economy GVA). Nationwide aggregate productivity growth can increase either because a sector increases productivity ("within effect") or a high productivity sector grows in size at the expense of a low productivity sector ("between effect"). Figure 7 shows the breakdown by broad sector, calculated by multiplying the average productivity growth of a sector by its average share in GVA over the corresponding period¹². Interestingly, financial intermediation was responsible

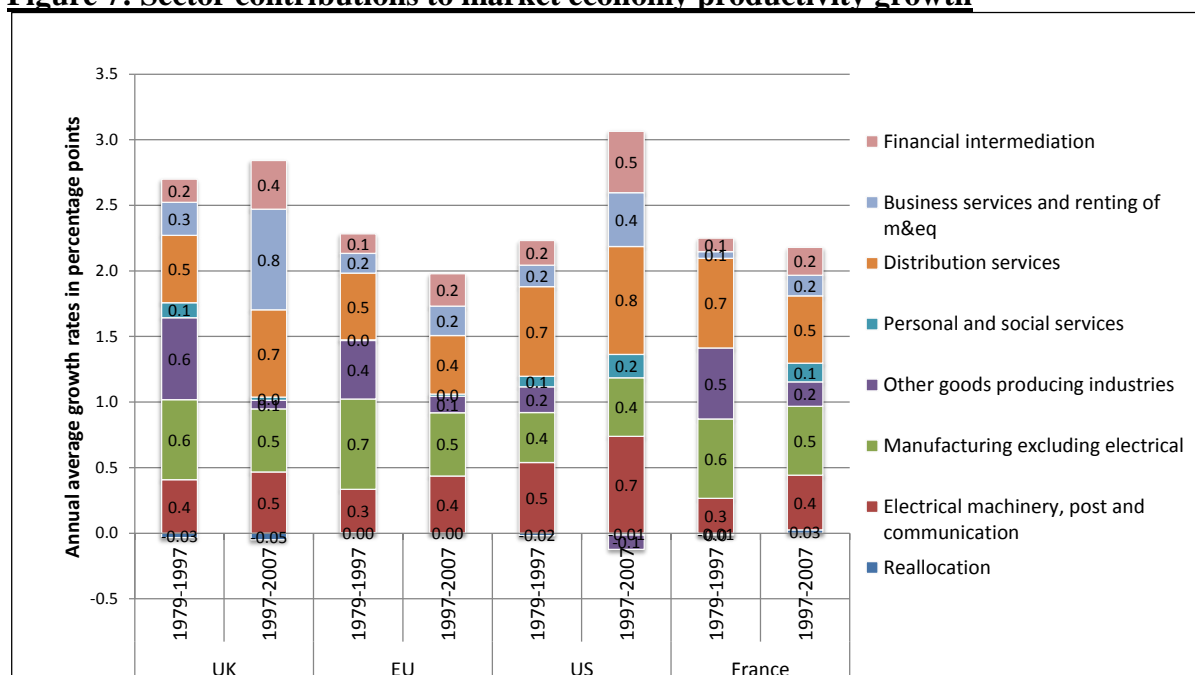
¹² We note that we are using a methodology that is consistent with the use of KLEMS data in Timmer et al (2010), Van Ark et al (2008) and Timmer et al (2007) who look at the periods 1980-1995 and 1995-2004 or 2005. Using a different approach, and apportioning GVA growth to sectors over 2000-2007, Dal Borgo et al (2011), find similar results in terms of the relative contributions of the different sectors to aggregate VA growth.

for only 0.4 percentage points of the 2.8 percentage points annual growth in productivity under Labour. Accounting for 14% ($= 100 \times 0.4 / 2.8$) of productivity growth with only 9% of the market economy value added is no small achievement, but this sector *already* accounted for 0.2 percentage points of the growth under the Conservatives (when it constituted 8% of market economy value added). And this leaves 86% of aggregate market economy growth due to other sectors. Further, the contribution of finance also increased in other economies: its contribution more than doubled in the US over the same periods (from 0.2 to 0.5) and doubled in the EU as a whole (0.1 to 0.2). So the idea that all of the productivity growth in the UK relative to others was due to a bubble in finance does not seem to square with this evidence. Furthermore, if we exclude the effect of finance altogether, productivity growth in the UK would have been broadly constant at around 2.5% per annum in the pre and post-1997 periods¹³.

Of the total growth of 2.83%, 0.31p.p relates to financial services, with larger contributions coming from Distribution (0.88p.p) and Business Services (0.55p.p). See DAL BORGO, M., GOODRIDGE, P., HASKEL, J. E. & PESOLE, A. 2011. Productivity and Growth in UK Industries: An Intangible Investment Approach. *Imperial College*.

¹³ Note that we weight the sector contributions to productivity growth using nominal GVA to be consistent with the KLEMS growth accounting methodology. We also experimented with weighting by GVA share in constant prices, and by share of employment (see Cory, Valero and Van Reenen, 2011). The picture does not change much and business services remain the sector with the largest increase in contribution between the pre and post-1997 periods. When we use constant prices GVA, we see that electrical machinery, post and communication, a sector that has seen productivity gains of 7.2%, makes a larger contribution, due to the fact that prices in the sub-sectors have fallen in recent years (following technology improvements and the impact of competition and regulation in the telecoms and postal sectors) and hence a smaller share in current price GVA compared to constant price GVA. When we use sector shares in employment we see that electrical machinery, post and communication makes a much smaller contribution as these are not labour intensive sectors.

Figure 7: Sector contributions to market economy productivity growth



Notes: Analysis based on EU KLEMS data. EU represents all EU-15 countries for which growth accounting could be performed, i.e. AUT, BEL, DNK, ESP, FIN, FRA, GER, ITA, NLD & UK. Data for France and EU are available from 1981 onwards. Average sectoral growth rates for the periods 1979-1997 and 1997-2007 are weighted by each sector's average share in market economy nominal GVA over the relevant period. The reallocation effect refers to the labour productivity effects of reallocations of labour between sectors that have different productivity levels.

Although the productivity growth performance does not seem directly attributable to the “bubble” sectors of finance, property and the public sector, there could be some other indirect mechanism. Could productivity in business services, for example, all be driven by the demands from financial services? This seems somewhat unlikely, as many parts of business services (e.g. consultancy and legal) are serving primarily non-financial firms. A more subtle argument is that the financial bubble created a kind of unsustainable excess consumption demand that was propping up fundamentally inefficient companies. However, (Giles, 2011) shows that the data does not support the assertion that there was a great consumer boom before the financial crisis. In fact, there was a drop in household consumption as a share of national income, from 63.3% in 2002 to 61.3% in 2007. Furthermore, even if this consumption bubble story were true, it is unlikely that this would artificially inflate productivity. A general bubble would increase output and employment hours (temporarily) above their sustainable levels. But it is unclear why this would flatter the productivity numbers. In fact, if generally unproductive activities were being drawn in, this would be more likely to lower measured productivity.

The role of non-market sectors

Our focus has been on the market economy, but one could also perform a growth accounting exercise for health, education, public administration activities and real estate. This is unlikely to be very reliable because output is extremely hard to measure in these primarily public service activities (Timmer et al., 2010) with productivity growth assumed to be zero in most sectors and in most countries. Nevertheless taking this for a moment at face value, we find that UK output growth in the non-market sectors was greater in the Labour period than under the Conservatives, but that labour productivity growth fell from 0.6% pa to zero. Other EU countries also experienced a decline (but not the US). This appears to be largely due to negative TFP growth which affected all countries but was strongest in the UK (see Table 4).

This is consistent with the story that the large increase in public services expenditures led to a fall in productivity in these sectors. For example, even after improvements in measurement following the Atkinson Review (2005), NHS productivity appears to be at best flat. Undoubtedly, low productivity in the public sector is a major problem and there is much debate over whether Labour's much-delayed reforms to public services had any effect on efficiency.

Table 4 Decomposition of growth in value added, public admin, education and health

		UK		EU		US		France	
		1979-1997	1997-2007	1979-1997	1997-2007	1979-1997	1997-2007	1979-1997	1997-2007
1	Output (2+3)	0.9	1.5	1.8	1.5	1.4	1.7	2.2	0.8
2	Hours worked	0.3	1.5	0.8	0.8	1.5	1.4	1.0	0.4
3	Labour productivity (4+5+6+7)	0.6	0.0	1.0	0.7	-0.1	0.3	1.2	0.4
<i>Contributions from</i>									
4	Labour composition	0.6	0.6	0.3	0.3	0.3	0.3	0.4	0.2
5	ICT capital per hour	0.3	0.2	0.2	0.2	0.3	0.4	0.1	0.2
6	Non ICT capital per hour	0.2	0.1	0.3	0.3	0.6	0.5	0.3	0.3
7	TFP	-0.5	-0.9	0.2	-0.1	-1.4	-0.9	0.4	-0.3
8	Contribution from knowledge economy (4+5+7)	0.4	-0.1	0.7	0.4	-0.8	-0.2	0.9	0.1

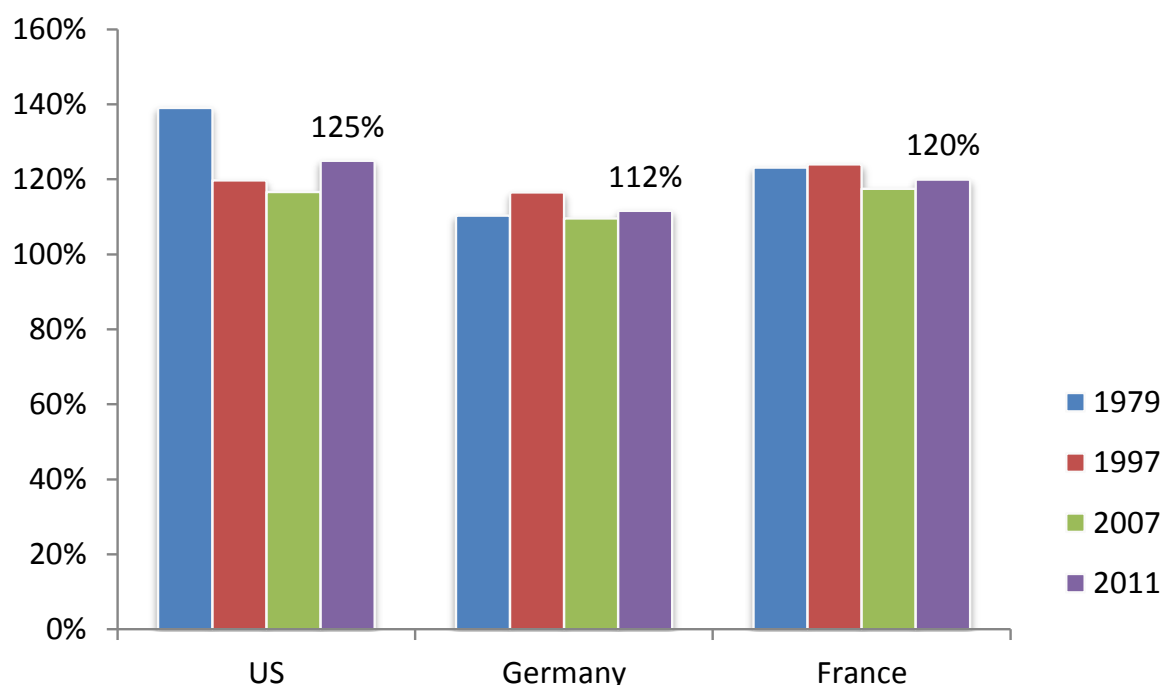
Notes: Data: EU KLEMS. EU represents all EU-15 countries for which growth accounting could be performed, i.e. AUT, BEL, DNK, ESP, FIN, FRA, GER, ITA, NLD & UK. Data for France and EU are available from 1981 onwards.

Productivity levels

Although the UK's overall productivity growth has been strong, it is worth recalling that productivity in terms of levels still lags behind other countries despite the gap narrowing

since the early 1990s. Over the 2000s, UK GDP per hour worked was 17% below the US in 2010, 14% lower than France and 12% lower than Germany (see Figure 8).

Figure 8: Labour productivity levels, GDP per hour (2005 \$ PPP)



Notes: Analysis based on Conference Board data (2012). GDP is US\$, constant prices, constant PPPs, CB base year (2011).

1.4.SUMMARY ON OVERALL UK ECONOMIC PERFORMANCE SINCE 1997

Since 1997 UK economic performance has been strong compared to other countries, and this continues a historical trend which began after 1979 with Mrs Thatcher. GDP per capita grew faster than most of the other G6 nations between 1997 and 2011 (second only to Germany) with productivity growth second to only the American “productivity miracle”. This UK performance was due to a continued rapid rate of TFP growth and an increasingly important role for skills and ICT. Importantly, the performance was *not* primarily driven by finance which contributed only around 0.4% of the 2.8% productivity growth in the market sector during the Labour period (compared to 0.2% of the 2.7% productivity growth under the Conservatives). Business services and distribution were much more important sectors. The growth in hours in the non-market sector due to rising government expenditure and a property boom held aggregate productivity back, but not enough to make much of a change in Britain’s relative growth position (see Table 1).

2. OTHER MEASURES OF BUSINESS PERFORMANCE

2.1. INTRODUCTION

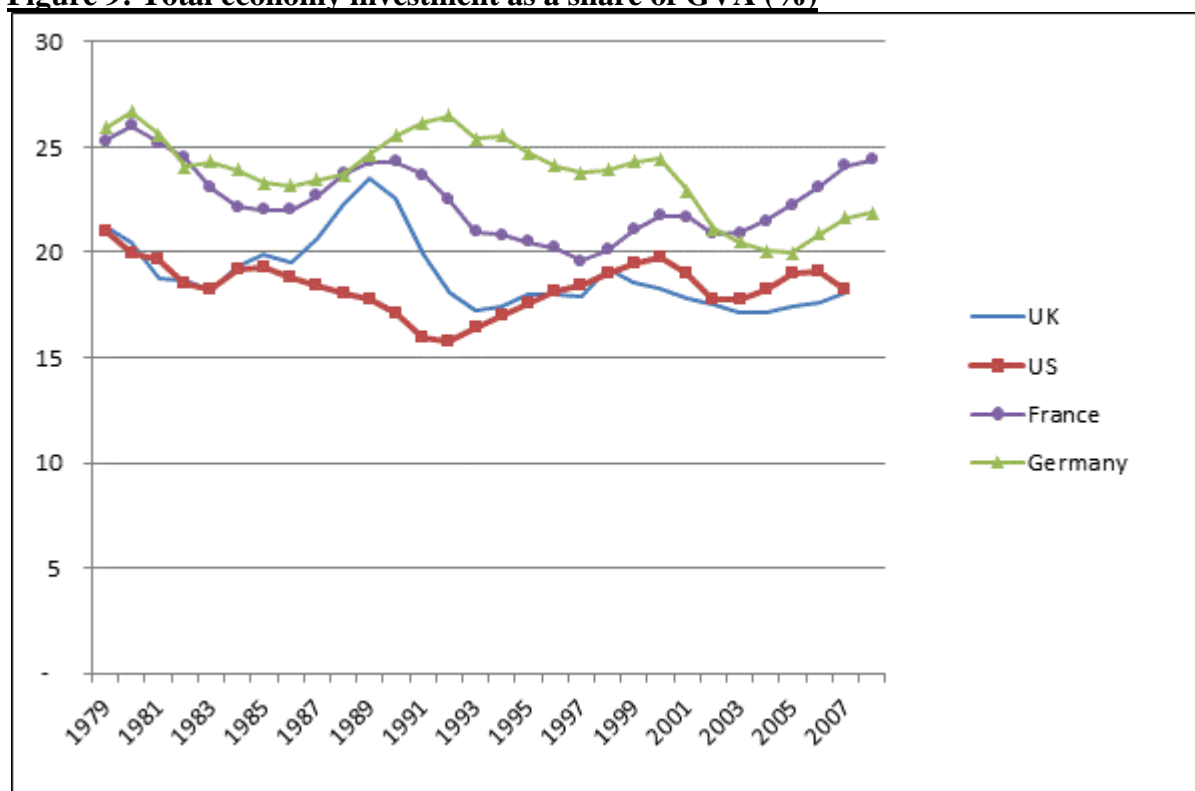
We have focused on productivity because, for economists, this is the key measure of long-run performance. In this section we present a short tour of other indicators of business performance (including regional inequality). This is more of a mixed bag, but overall our sense is that these alternative indicators support a continuation of the positive trends in business performance since 1997, but with many remaining problems of the levels of performance relative to other countries. We investigate investment (domestic and foreign direct), innovation, management, skills, entrepreneurship, exports, profits and regional differences. Data constraints prevent us from implementing the fully consistent analysis of all of these performance measures of the UK relative to other countries before and after Labour, but we use the data available where we can.

2.2.ANALYSIS OF KEY INDICATORS

Investment

In sub-section 1.3 we showed the importance of investments in ICT and non ICT capital to productivity growth. The contribution of ICT capital to growth was nearly as high in the UK as in the US (and higher than the EU), and the contribution of non-ICT capital in the UK was the same as the US in both the pre and post-1997 periods. However, when we look at the levels of total investment, standardised as a percentage of value added, UK levels are consistently lower than France and Germany, but similar to the US (Figure 9). In the post-1997 period, average UK investment was 17.9% of value added compared to 18.7% in the US, 21.8% in France and 22.1% in Germany.

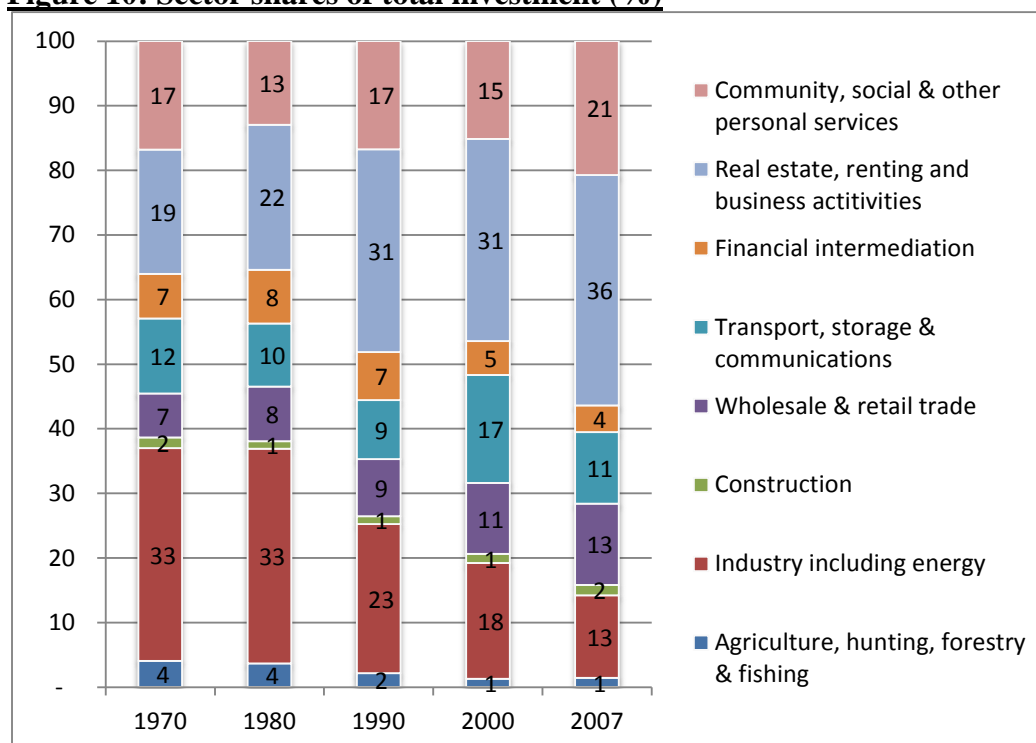
Figure 9: Total economy investment as a share of GVA (%)



Notes: OECD STAN database. Investment intensity is calculated as the ratio of gross fixed capital formation to value added

The more favourable performance of the UK in the late 1980s was mainly driven by real estate during the Lawson boom as shown by Figure 10, which gives the sector breakdown of total investment. Indeed, the largest share for the most part has related to real estate¹⁴.

Figure 10: Sector shares of total investment (%)



Notes: OECD STAN database. Investment share represents investment composition of the total economy. It is calculated by dividing each industry's gross fixed capital formation by gross fixed capital formation for the total economy.

The classic interpretation problem with investment is whether it is “too low” in the Anglo-Saxon countries because of access to finance, short-termism, low public investment or “too high” in Continental Europe due to (for example) high minimum wages and union bargaining power. In either case, things have not changed much over time.

Foreign Direct Investment

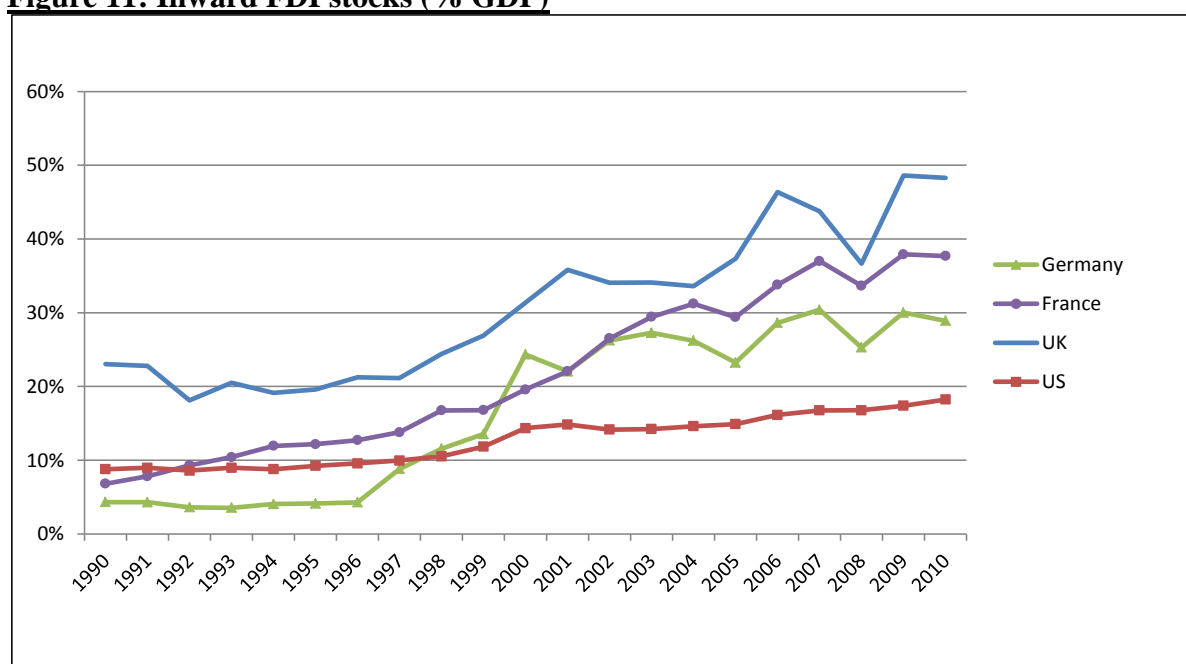
Foreign Direct Investment (FDI) may be important for two reasons. First, it is a signal of the success of the UK in attracting overseas firms. Second, FDI may bring new technologies and modern management practices as well as stimulating greater competition (Bloom et al., 2011).

¹⁴ The split between real estate and renting and business activities is only available from the early 1990s, but most of this overall investment consists of real estate activity.

These mechanisms mean that FDI may create positive spillovers raising the productivity of domestic firms¹⁵.

The UK has been successful at attracting FDI, with inward FDI stocks higher than comparators both pre and post-1997 as shown in Figure 11 (unfortunately, OECD data is not available on a consistent basis pre 1990). All countries shown have grown between 1997 and 2010, with Germany showing the highest cumulative annual growth rate of 10%, compared to 7% for the UK. The relative acceleration witnessed in the UK, France and Germany may be due to the effects of European integration since the mid-1990s (the growth in US FDI stocks has been constant). UK FDI inflows appeared to be strongly pro-cyclical, picking up from 1997, reaching a peak of 8% of GDP in 2000 during the “dot com boom” before falling back to pre-1997 levels until another peak in the mid-2000s (see Figure 12)¹⁶.

Figure 11: Inward FDI stocks (% GDP)

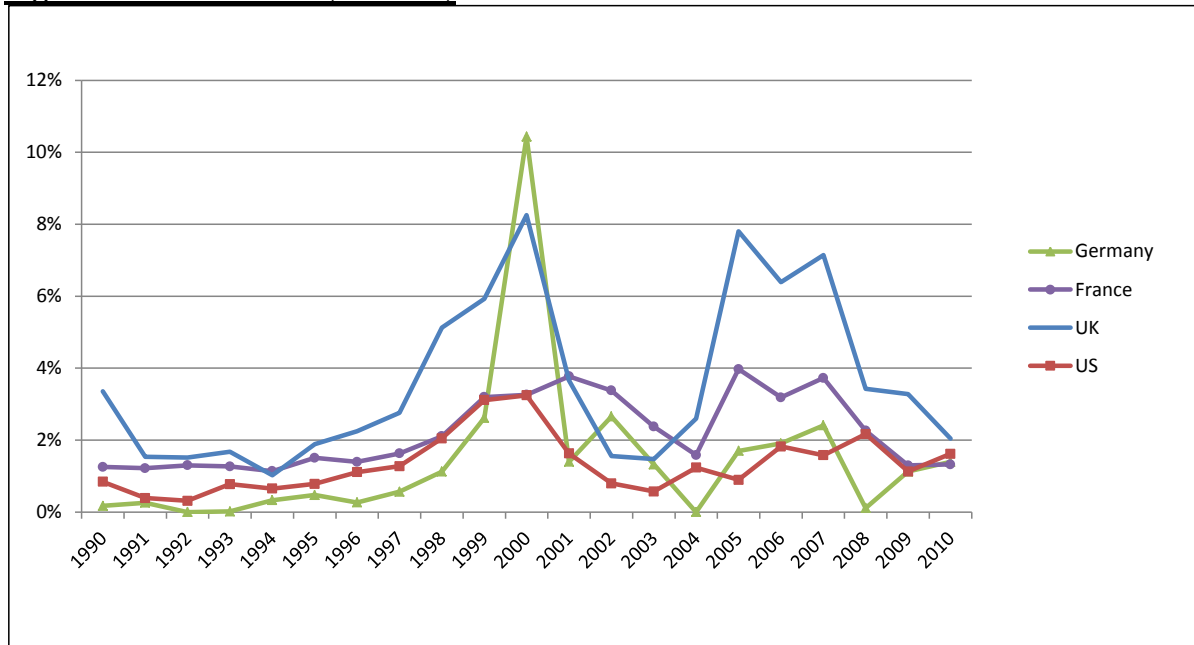


Notes: Analysis based on OECD data sourced from www.oecd.org/investment/statistics

¹⁵ The evidence on FDI spillovers is mixed (see HASKEL, J. E., PEREIRA, S. C. & SLAUGHTER, M. J. 2007. Does inward foreign direct investment boost the productivity of domestic firms? *Review of Economics and Statistics*, 89, 482-496.)

¹⁶ Outward FDI followed a similar pattern to inward FDI. The UK had higher outward FDI stocks than its comparators since the early 1990s, and these began to accelerate for the European countries. France saw the highest CAGR since 1997 of 10%, compared with 8% for the UK. FDI outflows follow a pro-cyclical pattern, with a peak of 16% of GDP in 2000, and another peak of nearly 12% of GDP just before the Great Recession.

Figure 12: FDI Inflows (% GDP)

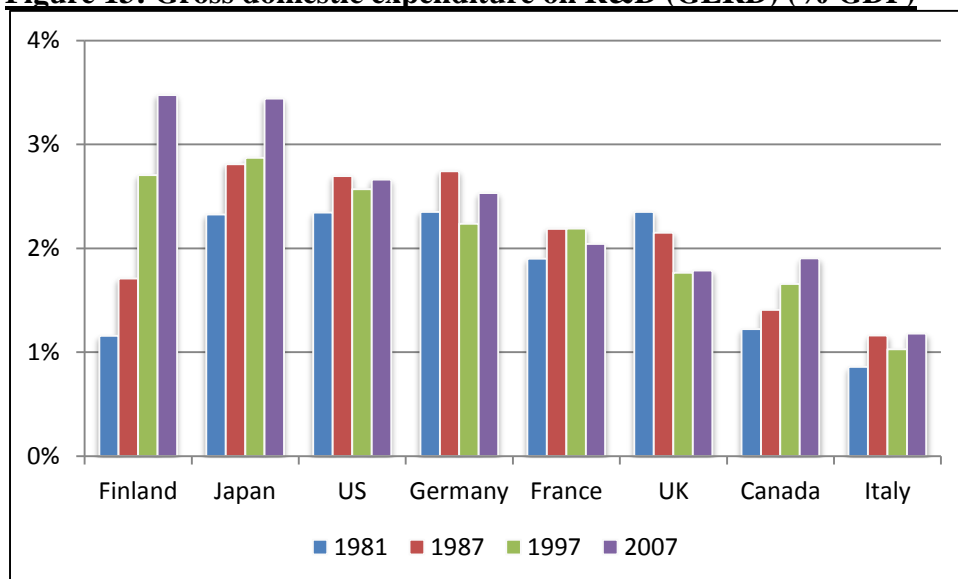


Notes: Analysis based on OECD data sourced from www.oecd.org/investment/statistics

Innovation

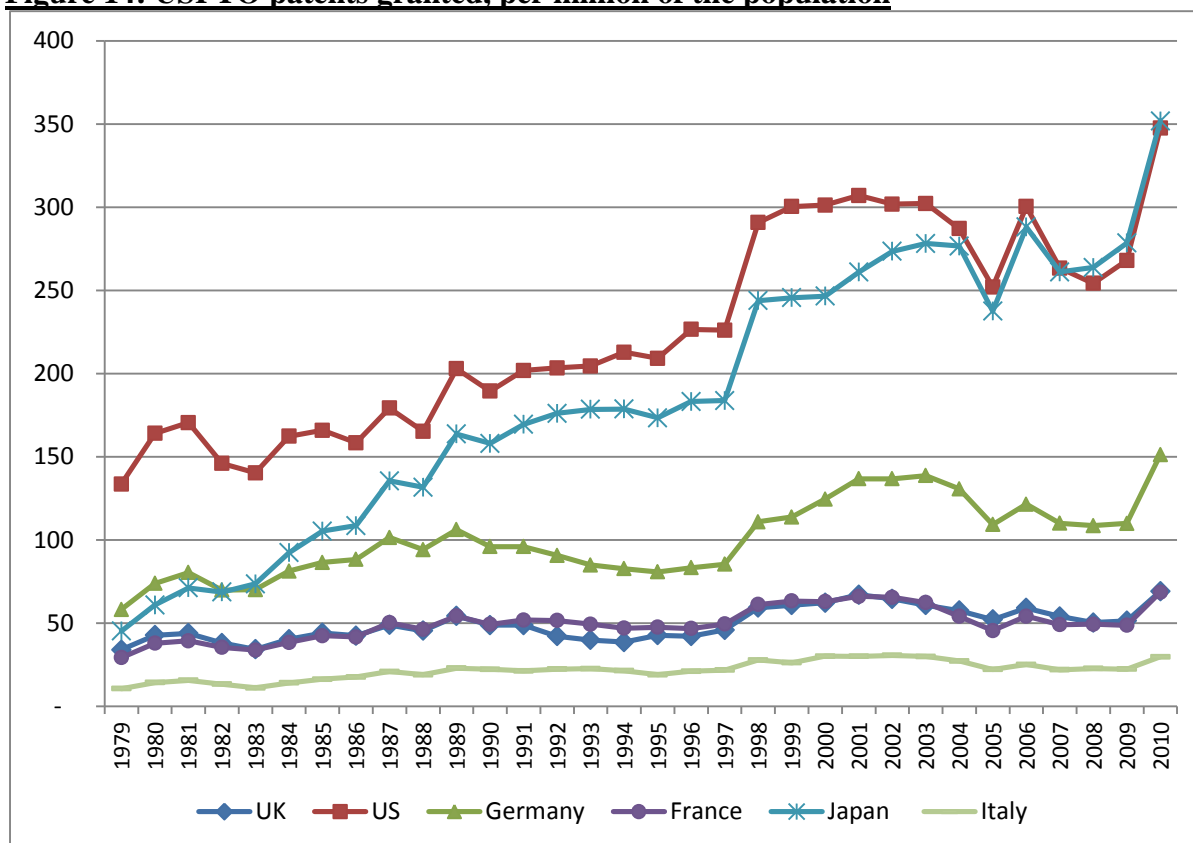
A standard measure of innovative inputs is R&D (business financed R&D makes up 62% of the total in the UK (BIS, 2010a)). R&D has increased slightly as a proportion of GDP between 1997 and 2008 after falling steadily since the late 1970s (Van Reenen, 1997). Still at 1.8% the ratio is lower than other major developed countries (see Figure 13). Similarly, the UK lags behind the US and Germany with respect to patents granted, though it has been tracking France since the 1990s (see Figure 14).

Figure 13: Gross domestic expenditure on R&D (GERD) (% GDP)



Notes: Analysis based on OECD MSTI June 2010 (data not available on a consistent basis prior to 1981)

Figure 14: USPTO patents granted, per million of the population

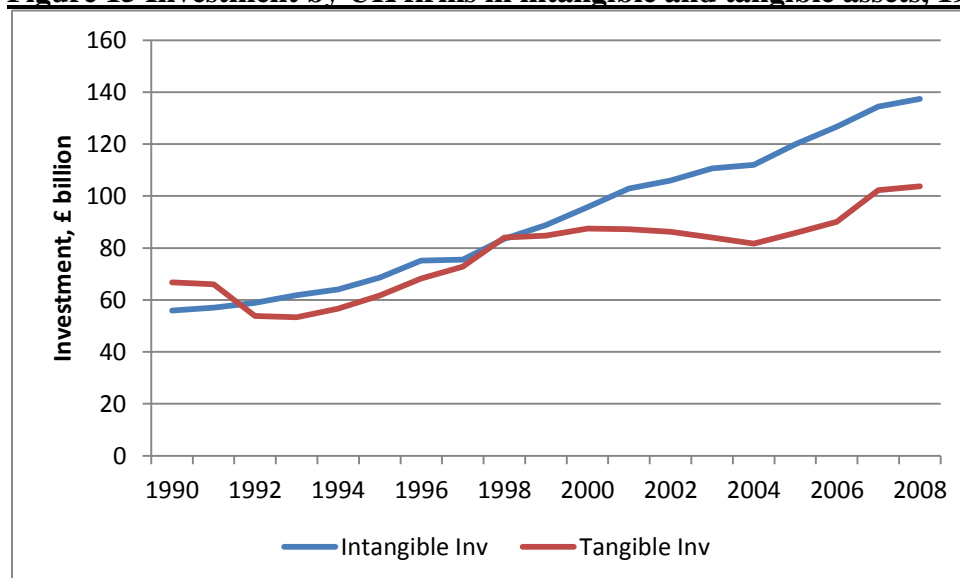


Notes: Data on patents granted from US Patent and Trade Mark Office, population data from OECD

A wider view of intangibles should also be considered. These are difficult to measure and to compare across countries. On one set of recent data the inclusion of intangibles indicates that the UK had a higher share of value added in intangibles than all other G7 nations (BIS, 2010c). In addition to “traditional innovation” which refers to R&D, design and IP; “software development” and “economic competencies” are included (the latter comprises training, organisational development, marketing and branding). Capturing the intangibles gives a better view of the service sector’s investment on innovation that is probably understated in the traditional Frascati-based measures of R&D. Other sources of intangible data however show the UK in a less favourable light compared to other countries (e.g. some OECD data).

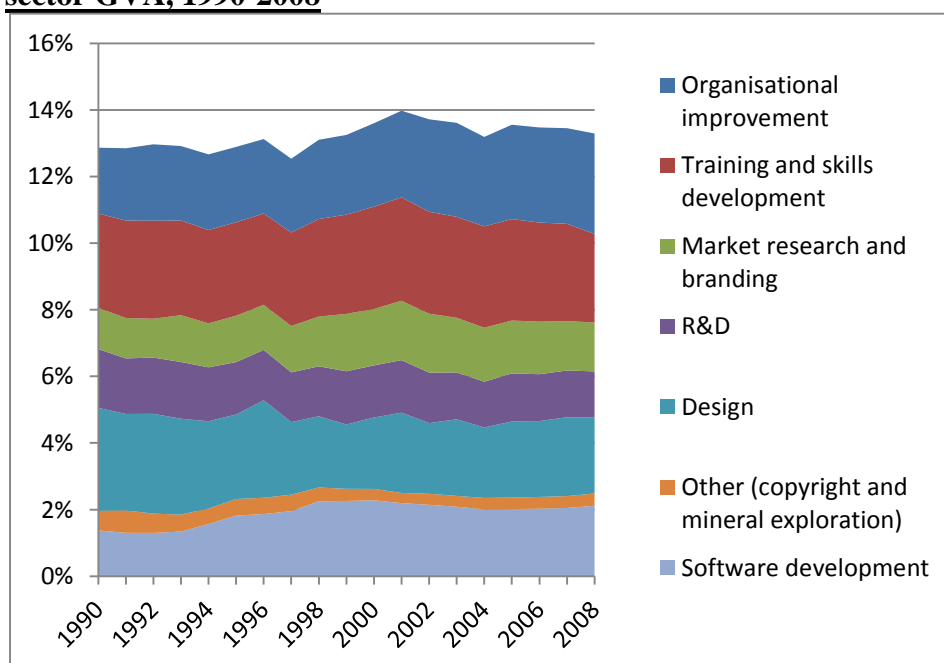
Consideration of the time series dimension shows that intangible investment has been increasing over time. Nominal investments in intangibles have increased faster than tangible assets: the gap between these different types of investments has widened since 1998 such that by 2008 investments in intangibles were £34 billion higher than those of tangibles (Figure 15). We note however, that intangible investment as a share of market output (excluding government) remained broadly stable in recent years, as has its composition (Figure 16).

Figure 15 Investment by UK firms in intangible and tangible assets, 1990-2008



Notes: NESTA/BIS Annual Innovation Report 2010.

Figure 16: Investment by UK firms in intangible assets by category – share of market sector GVA, 1990-2008



Notes: NESTA/BIS Annual Innovation Report 2010.

Management

Management is believed to be an important factor in raising productivity and the UK is generally perceived to have a deficit of quality compared with some other leading nations. This perception may just be based on the popularity of British exports of TV shows showcasing poor managers in “The Office” and Fawlty Towers”, of course. It is very difficult to credibly measure management practices, but Bloom and Van Reenen (2007), (2010) have recently developed techniques to gauge some important aspects of it related to monitoring, targets and incentives management practices. The latest version of their database covers 20 countries including the UK.

In terms of average management scores, the UK is in the middle of the pack, similar to Italy and France but significantly below the “Premier League” of nations lead by the US, but also including Japan and Germany (Figure 17). Bloom and Van Reenen (2007) show that the UK’s management gap with the US is accounted for by the preponderance of family firms, lower human capital and weaker competition.

Unfortunately, the time series of their management data is too short to examine the whole of the 1997-2010 period. However, there did appear to be some catching up with the US over the 2004-2010 period on management scores (Bloom and Van Reenen, 2010).

Figure 17: Average management quality across countries



Notes: Analysis from Bloom and Van Reenen (2010). Average score across 18 questions.

Education and Skills

Public investment on education increased in the UK between 1995 and 2007, from 5% to 5.4% of GDP (see Table 5). In 2007, public expenditure on education in the UK exceeded that in the US (5.3%) and Germany (4.5%) and was just below France (5.6%).

Table 5 : Public expenditure on education as a percentage of total GDP (% total public expenditure)

	1995	2000	2007
UK	5.0 (11.4)	4.3 (11.0)	5.4 (11.7)
US	4.7 (12.6)	4.9 (14.4)	5.3 (14.1)
Germany	4.6 (8.5)	4.4 (9.8)	4.5 (10.3)
France	6.3 (11)	6.0 (12.5)	5.6 (12.5)

Notes: Expenditure on educational institutions as a percentage of GDP, reproduced from IPPR (Lent and Nash, 2011) based on OECD Education at a glance data. Note that Public expenditure presented here includes subsidies to households for living costs (scholarships and grants to students/households and students loans).

Since 1997, the proportion of tertiary (or post-secondary school) educated adults rose from 23% to 33% in the UK, representing an average annual growth rate of 3.2%, which is higher than its comparators. In levels, the UK does better than Germany and France with 25% and 27% respectively in 2008; however it still lags behind the US where 41% of 25-64 year olds have a tertiary education (see Table 6).

Table 6: Percentage of 25-64 year old population by educational level

		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	ave growth
UK	Below upper secondary	41	40	38	37	37	36	35	34	33	32	32	30	-2.7
	Upper secondary and post-secondary non-tertiary	37	36	37	37	37	37	37	37	37	38	37	37	0.2
	Tertiary education	23	24	25	26	26	27	28	29	30	31	32	33	3.2
US	Below upper secondary	14	14	13	13	12	13	12	12	12	12	12	11	-1.8
	Upper secondary and post-secondary non-tertiary	52	52	51	51	50	49	49	49	49	48	48	48	-0.8
	Tertiary education	34	35	36	36	37	38	38	39	39	39	40	41	1.7
Germany	Below upper secondary	17	16	19	18	17	17	17	16	17	17	16	15	-1.0
	Upper secondary and post-secondary non-tertiary	61	61	58	58	59	60	59	59	59	59	60	60	-0.1
	Tertiary education	23	23	23	23	23	23	24	25	25	24	24	25	1.0
France	Below upper secondary	41	39	38	37	36	35	35	34	33	33	31	30	-2.6
	Upper secondary and post-secondary non-tertiary	39	40	40	41	41	41	41	41	41	41	42	43	0.6
	Tertiary education	20	21	21	22	23	24	24	24	25	26	27	27	2.9

Notes: OECD Education at a glance, www.oecd.org/edu/eag2010, See Annex 3 for notes (www.oecd.org/edu/eag2010).

The UK does more poorly with upper secondary and post-secondary, non-tertiary education (which tends to represent vocational courses). Only 37% of 25-64 year olds in the UK have education of this level, compared with 43%, 48% and 60% in France, US and Germany respectively. However, this proportion has risen since 1997, with an average annual growth rate of 0.2% (compared with a decline in US and Germany but a greater rise in France).

Finally, the percentage of 25-64 year olds with below upper secondary education is 30% in the UK in 2008 (Table 6). This has fallen from 41% in 1997, at an average annual rate of 2.7%, representing a faster decline than its comparators. In 2008, the unskilled proportion of the workforce in the UK was of a similar level to France, but much higher than in Germany (15%) and the US (11%).

Therefore it appears that since 1997 progress was made, at faster rates than in comparator countries. However, given the gap at the beginning of the period, the UK is continuing to lag behind its comparators in levels - apart from in tertiary education where the UK is beaten only by the US.

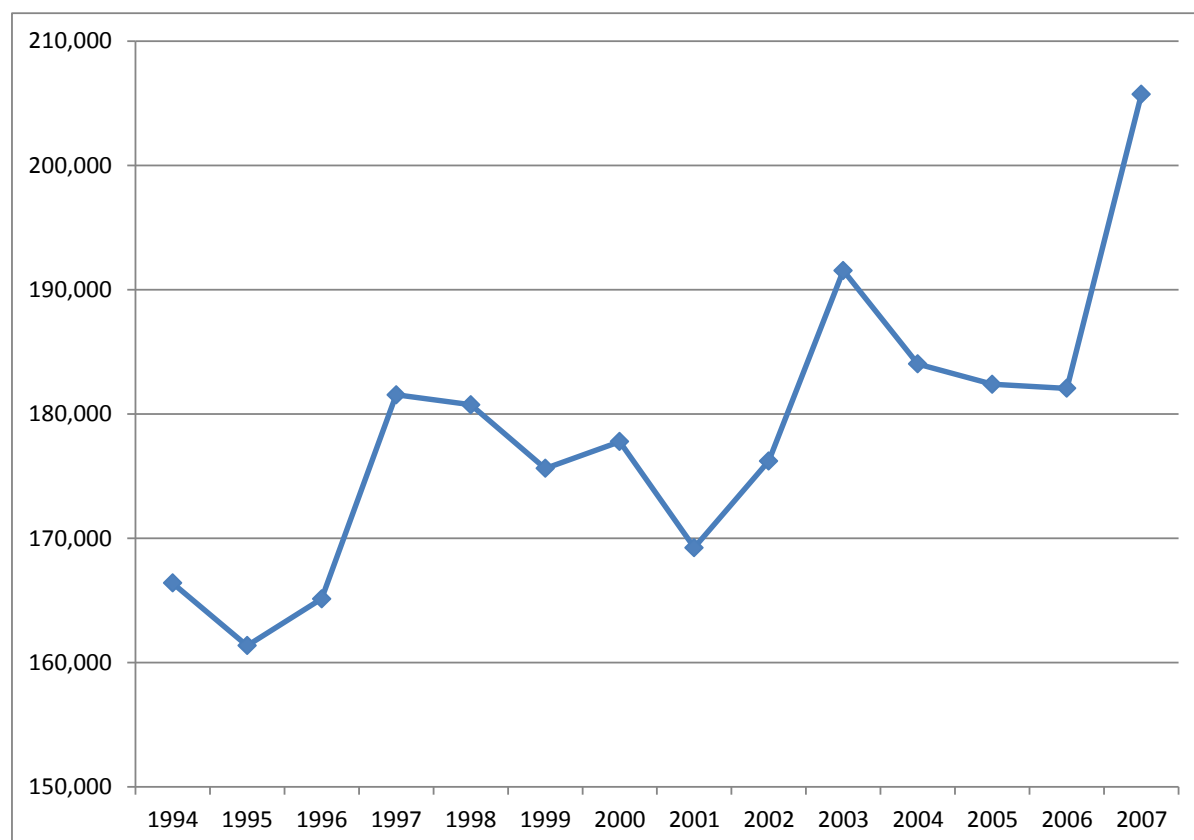
In terms of vocational skills, the UK is well-known to have problems with apprenticeships compared with some European countries like Germany, Austria and Switzerland (Steedman, 2010).

Entrepreneurship

A crude measure of entrepreneurial activity is the number of new firms being registered for VAT. Of course, many companies are registered and are actually non-trading entities, for example for tax purposes, therefore this measure is imperfect. In aggregate there has been an overall rise in registrations, from around 170,000 in 1994 to over 200,000 registrations in 2007 (see Figure 18).

Disaggregating total VAT registrations by sector, much of the aggregate rise appears to have been driven by “renting and business activities”, the same sector that has made the largest contribution to productivity gains since 1997. Within this category, further investigation (not reported here) shows that the largest sectors were legal and accounting services, which grew consistently over the period and IT/data services for which registrations were also high.

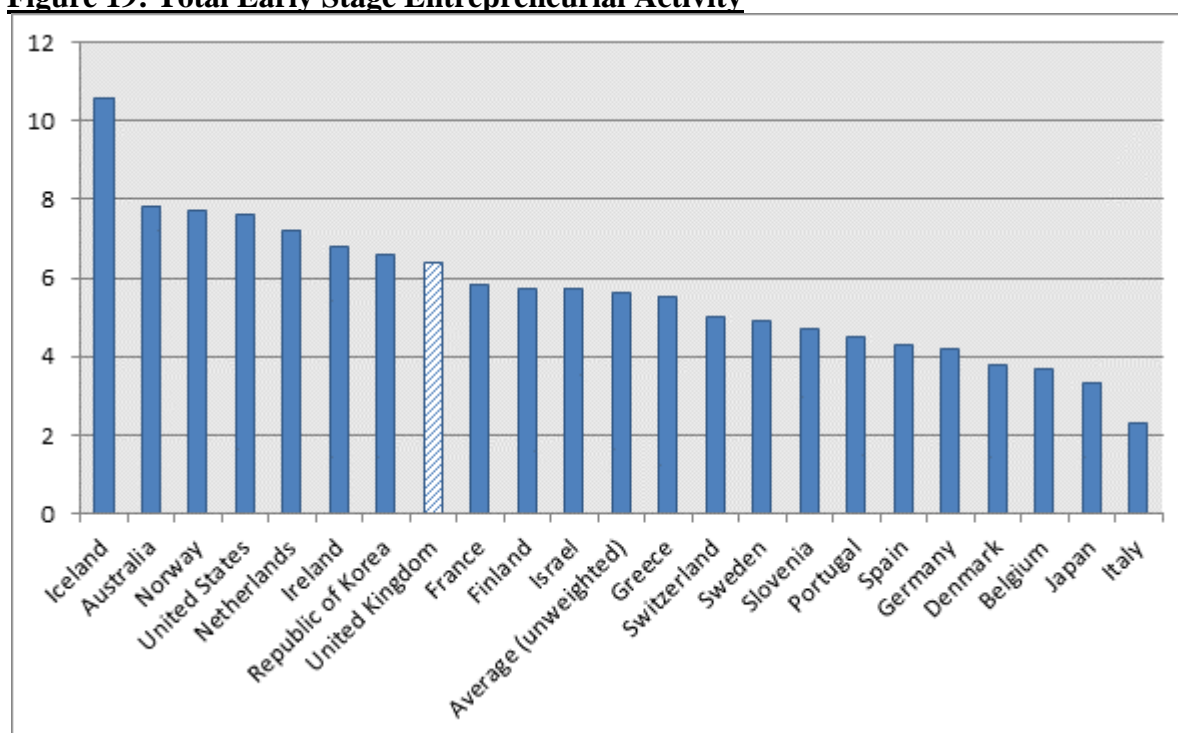
Figure 18: UK VAT registrations



Notes: BIS, <http://stats.bis.gov.uk/ed/vat/index.htm>

A measure based on survey data, collected by Global Entrepreneurship Monitor, is Total Early Stage Entrepreneurial Activity (TEA). This measures the prevalence of working age adults who are either nascent entrepreneurs (about to start up a business) or are working in a new firm (defined as the first 42 months since a business was launched). According to this data, the UK ranks above average and above Germany and France (though below the US), with just over 6% of working age adults involved in entrepreneurial activity (See Figure 19).

Figure 19: Total Early Stage Entrepreneurial Activity

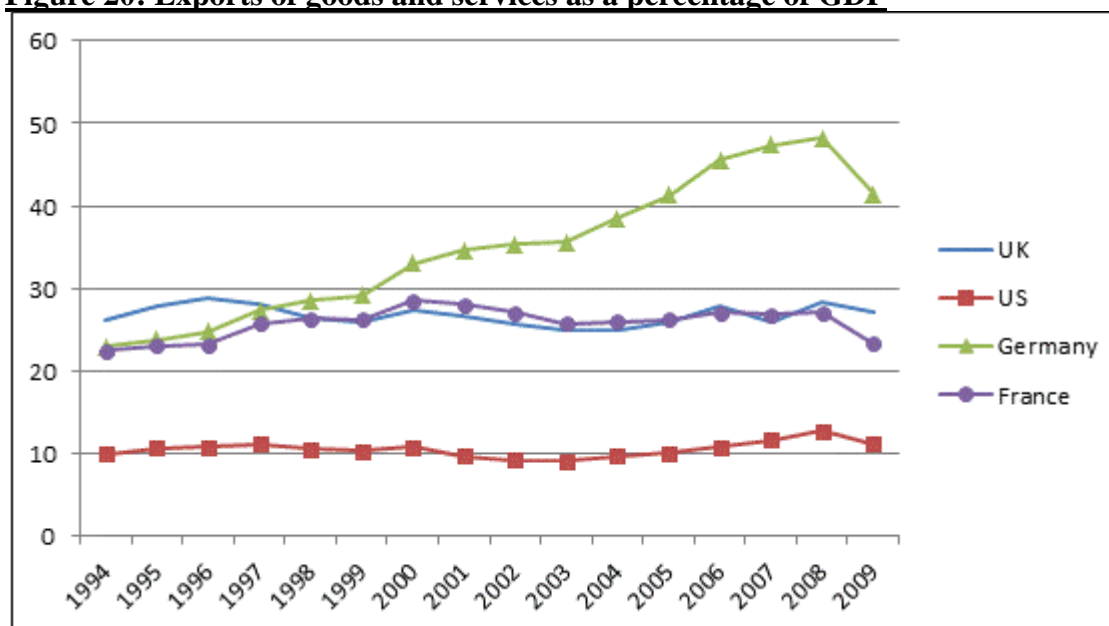


Notes: Data sourced from Global Entrepreneurship Monitor, 2010 Global Report, based on a 2009 survey. Total Early Stage Entrepreneurial Activity refers to proportion of working age population involved in starting or growing a new business (under 42 months old).

Exports

Since the early 1990s, exports as a proportion of GDP have remained around 25-28% in the UK, which has been similar to France (see Figure 20). Exports make up a lower proportion of GDP in the US, at around 10-11%. All three countries have seen relatively flat trends. However, Germany's exports have increased from around 25% to nearly 50% of GDP before the Great Recession, falling to 40% in 2009.

Figure 20: Exports of goods and services as a percentage of GDP



Notes: Data sourced from IMF data mapper, balance of payments statistics.
<http://www.imf.org/external/datamapper/index.php>

In terms of export mix, 41% of UK exports are related to services in 2009 (BIS, 2010b). The UK's share of the world goods export market has declined in recent years, falling from 4 % in 2000 to 3% in 2009 (BIS, 2010b). With the exception of Germany (whose share increased during the same period) other major industrial economies have experienced a similar trend, due to the rising shares of emerging economies. However, the UK has increased its share of world services exports since 1990, reaching 7% in 2009 (one of the few developed countries to do so), and has remained the second (to the US) largest exporter of services.

The UK's export and import performance has been rather poor after 2008 despite a huge devaluation of sterling (see Corry, Valero and Van Reenen, 2011).

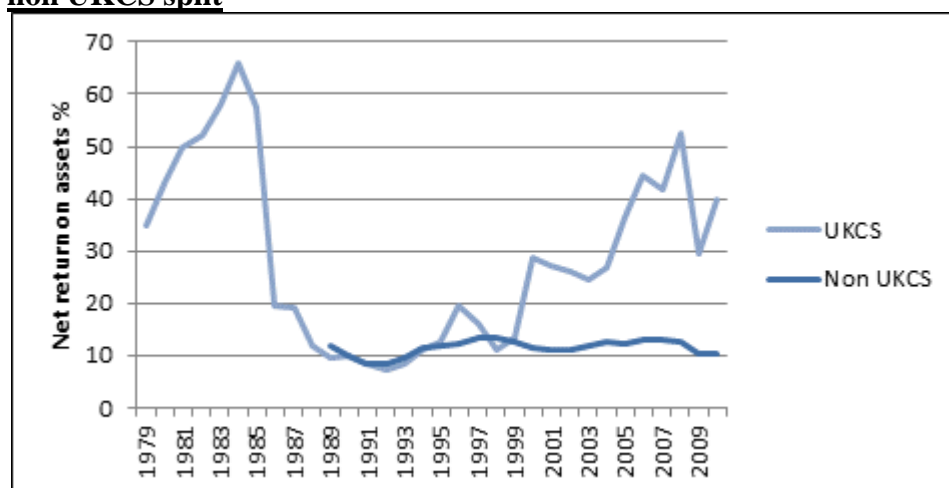
Profitability

While economists and policy makers measure focus on productivity, businesses themselves naturally focus on their bottom line. Profitability is rather an ambiguous indicator from a welfare point of view as it might rise for positive reasons (e.g. innovation) or negative ones (e.g. monopoly power).

Data from the ONS gives a time series of profitability measured as net operating profits over net capital employed. Figure 21 splits UK Continental Shelf (UKCS), which refers to North Sea Oil, from all other private non-financial institutions. While UKCS profitability has

tended to track the oil price, Non-UKCS profits have been relatively flat at around 10-15% over the period since 1989 for which data are available. There is no evidence of any systematic decline under Labour.

Figure 21: Annual net rates of return of private non-financial corporations, UKCS and non UKCS split

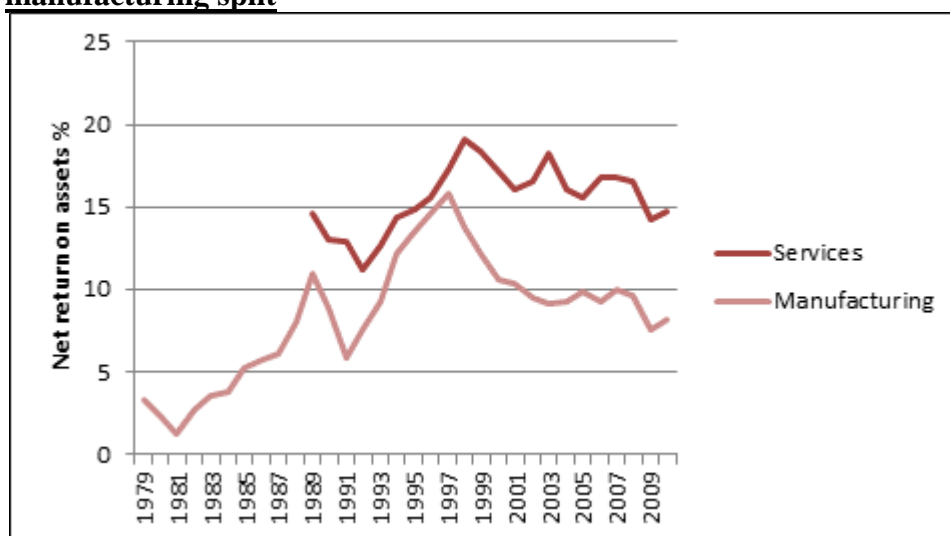


Notes: Analysis based on ONS data. UKCS refers to UK Continental Shelf, North Sea Oil production. Non UKCS consists of manufacturing, services, construction, electricity and gas, agriculture, mining, quarrying etc.

The ONS splits Non-UKCS companies between services and manufacturing, as shown in Figure 22. Here we see that profitability in both services and manufacturing appeared to peak around 1997. Interestingly, the decline in manufacturing margins post-1997 coinciding with a strong value of Sterling, and increasing competition from globalisation which puts downward pressure on margins. The margin seems to have settled around 10% from the early 2000s until the Great Recession. Services margins fluctuated at a higher level, with an average of 17% over the period 1997 to 2008, dropping off again during the recession.

Analysis of the share of profits in national income also shows considerable stability in the UK over time (Pessoa and Van Reenen, 2011).

Figure 22: Annual net rates of return of private non-financial corporations, services and manufacturing split



Notes: Analysis based on ONS data, net operating surplus divided by net average capital employed.

2.3.REGIONAL DISPARITIES

Regional disparities are often said to be a major problem for the UK and a cause not only of social concern but of worse overall performance. In particular it is thought that London's dominance over England (and the other three countries) "holds back" the UK. These claims need to be given some thought. Inequality can certainly be a moral concern, especially as this has grown dramatically since 1979 (Machin and Van Reenen, 2010). But it is ultimately inequality between individuals or households which is the main concern, not between areas *per se*. Since only a very small amount of the inequality between people appears to be accounted for by their region, it is hard to see why spatial inequalities should get as high a weight vis-à-vis individual and household inequality as they do (except for politicians whose constituencies are geographically based).

Since our focus in this report is on aggregate performance rather than distribution, a regional analysis would be relevant if it were the case that regional inequality was a causal influence on slower growth. But the evidence is that greater equality across places is consistent with faster and slower aggregate growth: there is no well-founded empirical or theoretical relationship. On the other hand, if growth is exclusively in one area (London and the South East), we can get situations of excess demand for labour and assets which can push up equilibrium unemployment (NAIRU). In addition, much literature on the benefits of agglomeration show that cities should be the engines of growth and the UK's failure –

especially in the 1980s - to have strongly growing cities outside London cannot have helped in efforts to secure growth and productivity.

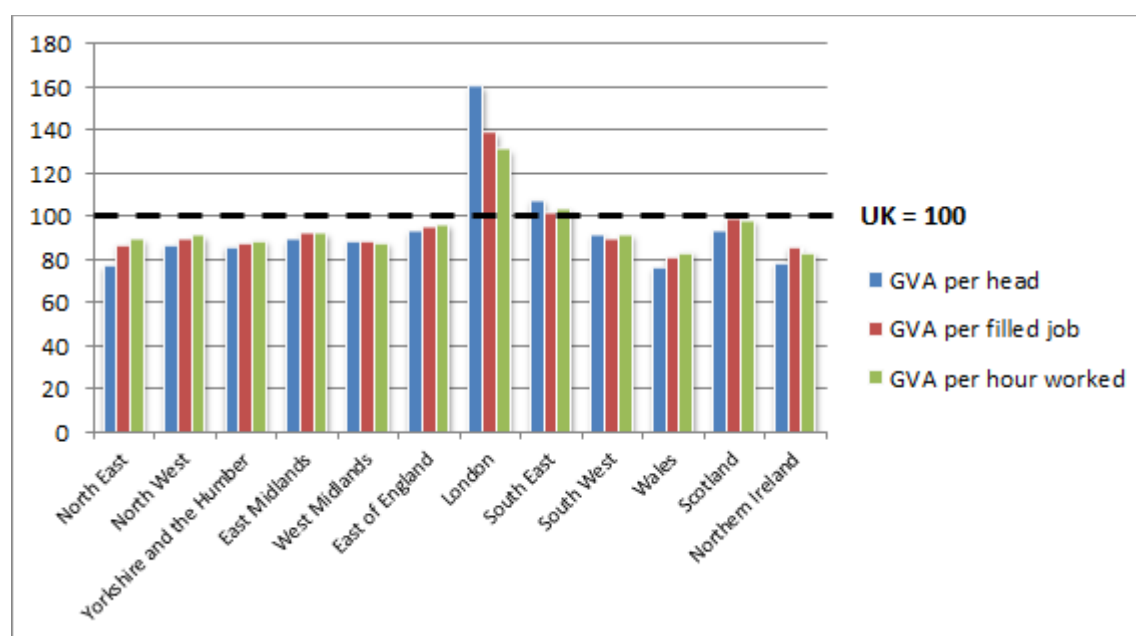
With this in mind, what are the facts?

UK regions are unequal

UK regions, cities and neighbourhoods appear unequal under a number of measures: average earnings, employment, and many other socio-economic outcomes. In terms of Gross-Value-Added per head, the top ranked 10% of UK (NUTS3 level¹⁷) regions have value added at least 50% higher than the bottom ranked 10% (SERC, 2011). Similarly, value added per hour in 2008 was over 50% higher in London than in Wales.

Figure 23 presents value added per head, per filled job and per hour at the level of the more aggregated (NUTS1) regions. Value added per head shows larger variation due to commuting patterns: commuters contribute to London's output which is then shared between Londoners. Therefore, productivity measures give a clearer picture. Value added per hour worked in London was at 32% above the UK average in 2009.

Figure 23: Regional economic indicators by NUTS1 region, 2009



Notes: Data sourced from BIS regional economic performance indicators, based on ONS data.

¹⁷ The NUTS classification is a hierarchical system for dividing up the economic territory of the EU for the purpose of regional analysis and policy. NUTS 1 are the major socio-economic regions, NUTS 2: basic regions for the application of regional policies and NUTS 3 are small regions for specific diagnoses. For further detail see http://epp.eurostat.ec.europa.eu/portal/page/portal/nuts_nomenclature/introduction

Regional inequality in the UK (as measured by wages or productivity) has been very stable since 1997. Overman (2010) analyses regional wages (rather than productivity) because (i) wages are linked to productivity and (ii) good individual level (micro) data on wages is available. The regions analysed are 157 “labour market areas” of which 79 are single “urban” travel to work areas and 78 are “rural areas” over the period 1998-2008. The overall level of between area wage disparities has remained roughly constant during the period. Figure 24 shows average wages in 2008 plotted against average wages in 1998. Wages are normalised by dividing by the year average.

[illegible]

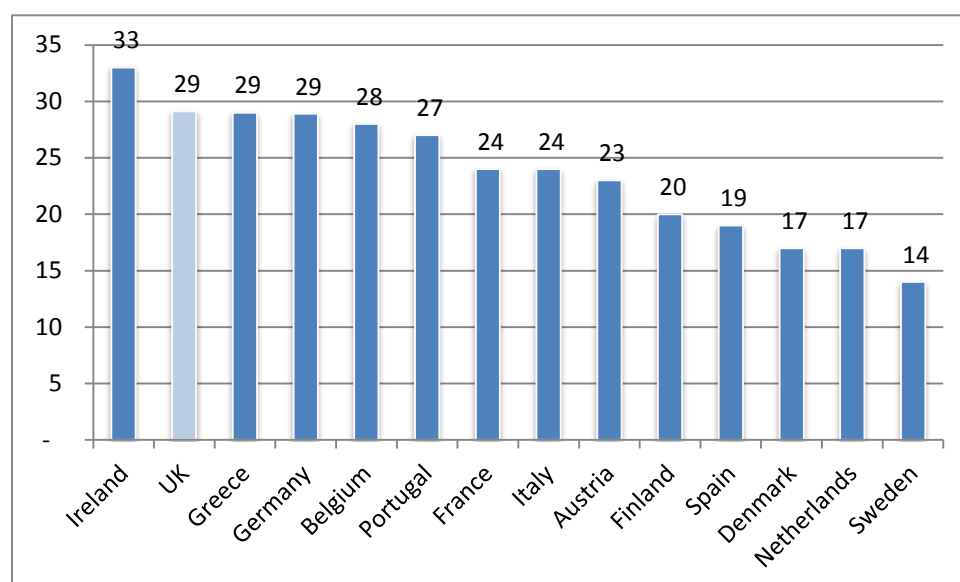
If relative average area wages were completely persistent across time the dots would sit on the 45 degree line. The dashed line (which shows the results from regressing 2008 normalised wages on 1998 normalised wages) shows this is not quite the case. On average, the lowest wages areas have caught up slightly, while the highest wages areas have fallen back although the effect is not very pronounced. Further, it appears that this 'churning' tendency amongst the rankings is not being driven by the highest wage areas which tend, if anything, to have seen their position improve (as they mainly sit above the 45 degree line).

To what extent do these disparities arise because of differences in the types of workers in different areas (sorting) versus different outcomes for the same types of workers in different areas (area effects)? Empirically, most of this wage disparity across areas is due to individual characteristics – i.e. who you are turns to be is more important than where you live.

Regional disparities in the UK are larger than other EU countries

The UK does seem to have somewhat greater inequality between regions than other countries, primarily because of the success of London. This is shown in Figure 25: compared to other EU15 countries, the UK is second only to Ireland in terms of the average regional difference from national GDP per capita.

Figure 25: Dispersion of regional GVA per capita (average regional difference from national GDP per capita (%)) in 2007)



Notes: Eurostat data on EU15 minus Luxembourg

Summary on regional differences

London has higher productivity and wages than other UK regions and this regional disparity is greater than most other countries. Most spatial inequality of wages is between individuals rather than regions (or more disaggregated areas) and most of this is due to individual characteristics rather than space-based “agglomeration” effects. In other words, the higher wages in London are mainly because more productive people live and work in London rather than because London somehow makes everyone who works there more productive.

The spatial distribution has been reasonably stable despite a lot of policies to try and get other regions growing faster than London since 1997. How much of this regional dispersion is an economic or ethical problem of an “unbalanced” economy is unclear.

2.4.SUMMARY ON INDICATORS OF BUSINESS PERFORMANCE

The UK’s economy shows some long-standing problems in terms of the level of business performance (e.g. in productivity, innovation and intermediate skills) but also shows some sign of improvement in recent years mirroring the productivity improvement. Skills, especially for college education have grown rapidly as has ICT investment. R&D intensity remains low, but has stopped falling and intangible investments and entrepreneurship seem impressive. Investment is lower than in Continental European countries, but FDI remains strong. Taken as a whole, these indicators certainly do not suggest that business performance and the underpinning requirements for productivity growth deteriorated under Labour since 1997, and there were clearly some movements in the right direction especially for human capital and innovation.

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