UK COMMISSION FOR EMPLOYMENT AND SKILLS

The Labour Market Story: The UK Following Recession

Briefing Paper
July 2014

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The Labour Market Story is based on research undertaken by the Institute of Employment Studies, the Warwick Institute for Employment Research, Cambridge Econometrics and UKCES. We would also like to acknowledge the assistance of expert reviewers who provided comments on early drafts.

Executive Summary

- The UK economy is now returning to sustained recovery, but there is some distance to make up after a sharp recession and a delayed return to growth. Amidst those tough times, the rise in UK unemployment following recession was smaller and less sustained than previous experience would suggest, and unemployment is now falling rapidly as the economy grows.
- The most troubling aspect of the period since the onset of recession is the fall in labour productivity, and its subsequent weakness. This has applied across industries and seems to result from a combination of factors, including problems of mismatch between skills supplied and demanded in the labour market.
- While the rise in unemployment was smaller than expected, it was still substantial, and hit hardest upon those at the margins. But other problems have longer term origins, including the decline in youth employment, rising underemployment in terms of skills, and a falling number of jobs in traditional middle-skill occupations.
- All regions and nations within the UK have been affected by recession, but there has been some variation, typically strengthening existing differences. On the other hand, looking at local level within England, the experiences of different types of area suggests traditional 'north-south' narratives are far from the whole story.
- The marked decline in real pay since the onset of recession (and its prior stagnation, on some measures) is linked to the drop in labour productivity. Additional factors such as non-wage costs of employment, and a rise in inequality within wages, also play a part.
- Evidence through the recession continues to show that those with higher skills and qualifications are more likely to stay employed and have substantially higher earnings prospects.
- Policy can help by shaping education, training and employment institutions and practices to ensure that they adapt to changing market conditions and business needs. Arguably, policy based on government 'pushing' skills to employers has not been successful. Effective policy depends on employers' participation in designing, implementing and engaging with the solution.

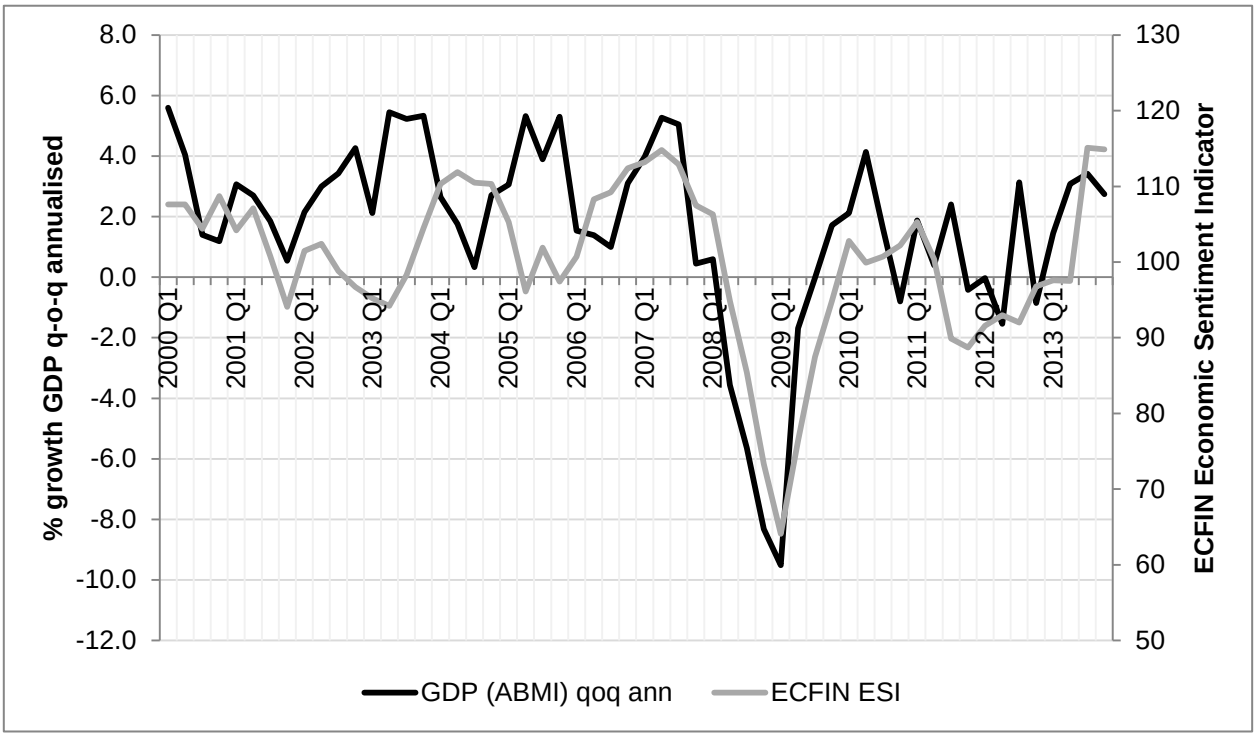
1 The UK economy: recession, recovery and potential

The recession of 2008 and 2009 brought to an end the longest period of sustained, stable economic growth the UK has known with one of its sharpest contractions. Years of continued progress in closing the longstanding gap in productivity with leading advanced economies such as the US and Germany saw significant reverses. Recovery has taken longer than before, not helped by severe problems in the Eurozone, one of the UK's largest export markets. While employment fared better than historic and international experience would have suggested, productivity has struggled to recover as the recession and its aftermath cast a harsh light on the weak points in the UK economy.

1.1 Recession and recovery

From the end of the early 1990s recession until 2008, the British economy experienced a continued expansion in output, alongside low and stable inflation and high and growing employment. Improved macroeconomic stability and increased market flexibility, combined with greater opportunities in a growing global economy, created benign conditions for growth. During the 2000s, a combination of structural weakness, commodity price shocks, and the arrival of a global financial crisis in 2007-08 contributed to falling business and consumer confidence, and an extremely sharp recession during 2008 and 2009 (Figure 1.1).

Figure 1.1 UK GDP growth and economic sentiment, 2000-2013



Source: ONS GDP at constant prices, SA, and European Commission ECOFIN Economic Sentiment Indicator

The UK's high profile in financial services, and close proximity to the particularly troubled Eurozone export markets contributed not only to the depth of the recession but also a weak recovery. As a consequence, at the time of writing, UK output remains below its pre-recession peak.

The particular set of circumstances driving the deep recession and relatively weak recovery (compared to previous recessions) show through in the macroeconomic indicators (Figure 1.2). Clearly, the fall in confidence led to sharp cutbacks in household consumer expenditure and businesses' investment plans. In particular, business investment has remained stalled around the lower levels seen early in the recession, some 20 per cent below the pre-recession peak of 2008.[1] Meanwhile, while exports have recovered from the depths, after more than a 10 per cent fall during the recession, problems in key export markets including the Eurozone have restrained their role in powering further recovery.

Also hinted at is one of the less expected features of recession and recovery – that the demand for labour did not fall along with output, and recovered much more rapidly than has output. Marking a departure from the UK's recent history, the combination of a sharp drop in output but a mild fall in employment sets the British economy apart from many of the other advanced economies.

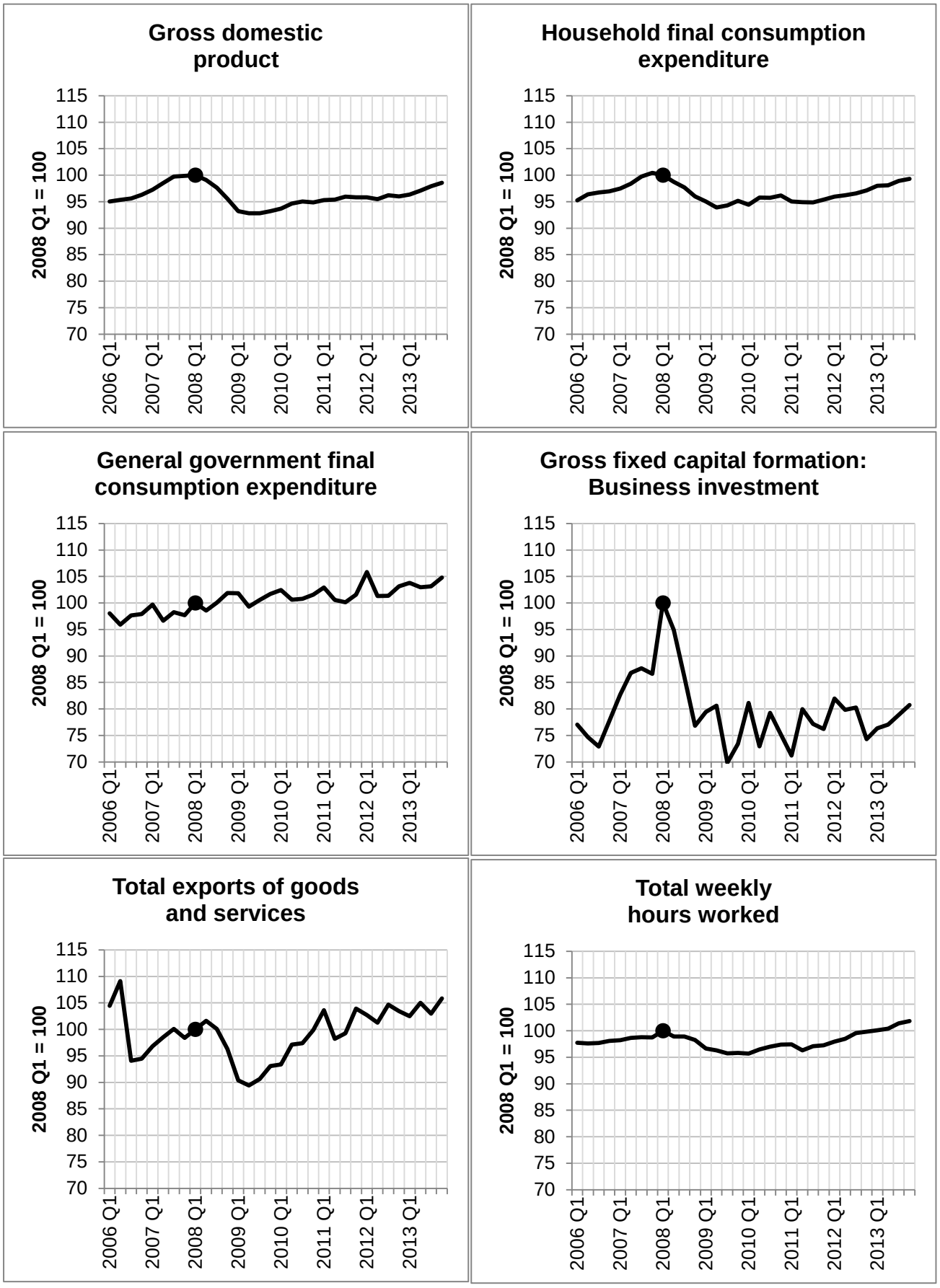
[1] It is worth noting that this was very much a peak level, as the panel in Figure 1.2 suggests; growth in business investment in fixed capital was limited for some years before the recession.

As Figure 1.3 shows, the UK's experience across the period 2007 to 2012 is worse than many other leading economies in terms of output growth, but its unemployment rate changed only moderately; indeed, it was slightly better than the US and not much worse than Australia, both of which fared much better in terms of output growth. The German experience, of falling unemployment, has not been matched by particularly strong growth in output, sharing with the UK the symptoms of struggling productivity, with employment outpacing output.

It is now becoming clear that starting in the second half of 2013, the UK economy began to reach the pace of recovery long hoped for, demonstrating across 2013 a leading performance among advanced economies (Figure 1.3). The return of robust business and household confidence (see Figure 1.1), of growing strength in asset markets (especially housing) and increases in household spending all point to a long-awaited recovery.

The Office of Budget Responsibility's (OBR) latest (March 2014) forecasts suggest GDP growth of 2.7 per cent in 2014 and 2.3 per cent in 2015; growth thereafter depends on improvements in business investment and exports raising prospects for household incomes. There remain substantial risks in the global economy, and significant domestic challenges, such as the need to consolidate the public budget deficit, to manage a smooth exit from unconventional monetary policy, and to tackle the supply-side weak points that have become clear these past few years.

Figure 1.2 UK macroeconomic performance since 2006 Q1



Source: ONS data (2014)

Figure 1.3 Change in output and unemployment across advanced economies, 2007-2013

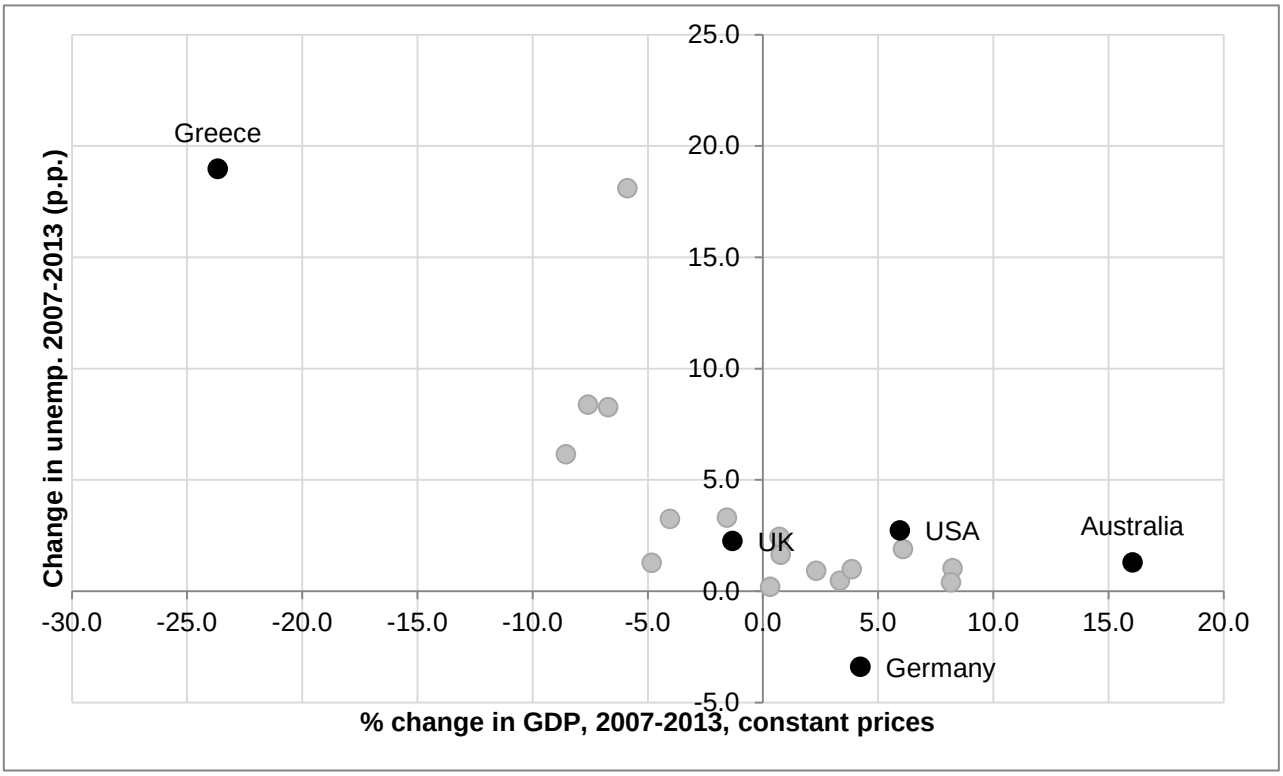
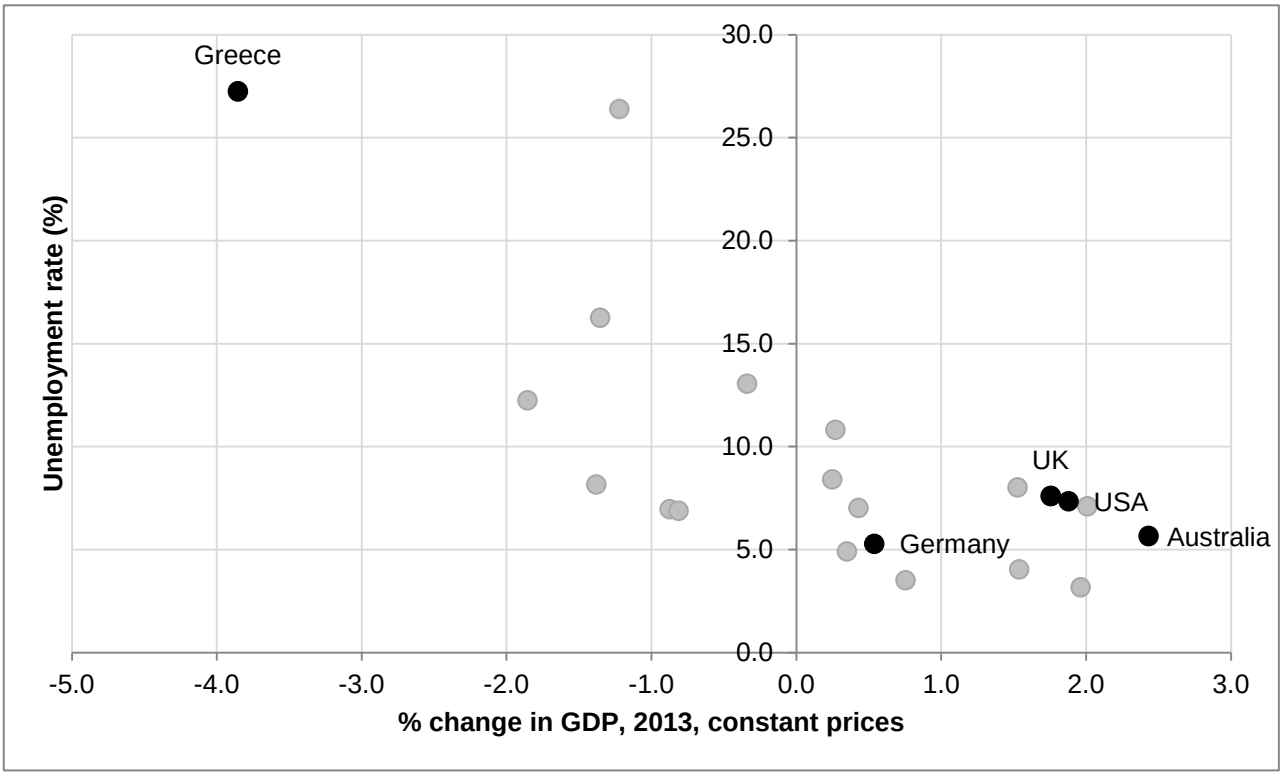


Figure 1.4 Output growth and unemployment across advanced economies, 2013



Source: IMF World Economic Outlook, March 2014. Advanced economies include Australia, Austria, Belgium, Canada, Czech Republic, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Japan, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, UK, US.

Some of those weak points may be within the labour market. There are concentrations of unemployment and evidence of mismatches whether quantitative (wanting more or fewer working hours) or qualitative (underskilled or overskilled for jobs). For young people in particular, there are concerns that sustained unemployment leaves a 'scarring' effect (see e.g. Bell and Blanchflower, 2011), with a permanent loss in human capital lowering their future earnings and employment outcomes.

But it remains the case that the UK labour market has been efficient in keeping people in work, considering the experience of recession and recovery. Unemployment has fallen below the seven per cent level identified as a guidepost for monetary policy by the Bank of England. Employment has now surpassed pre-recession peaks in terms of jobs (2012) and hours worked (2013). In keeping with the different experience of output growth, per capita output remains significantly below its pre-recession peak; and on the OBR's forecasts will not surpass previous levels until 2017.

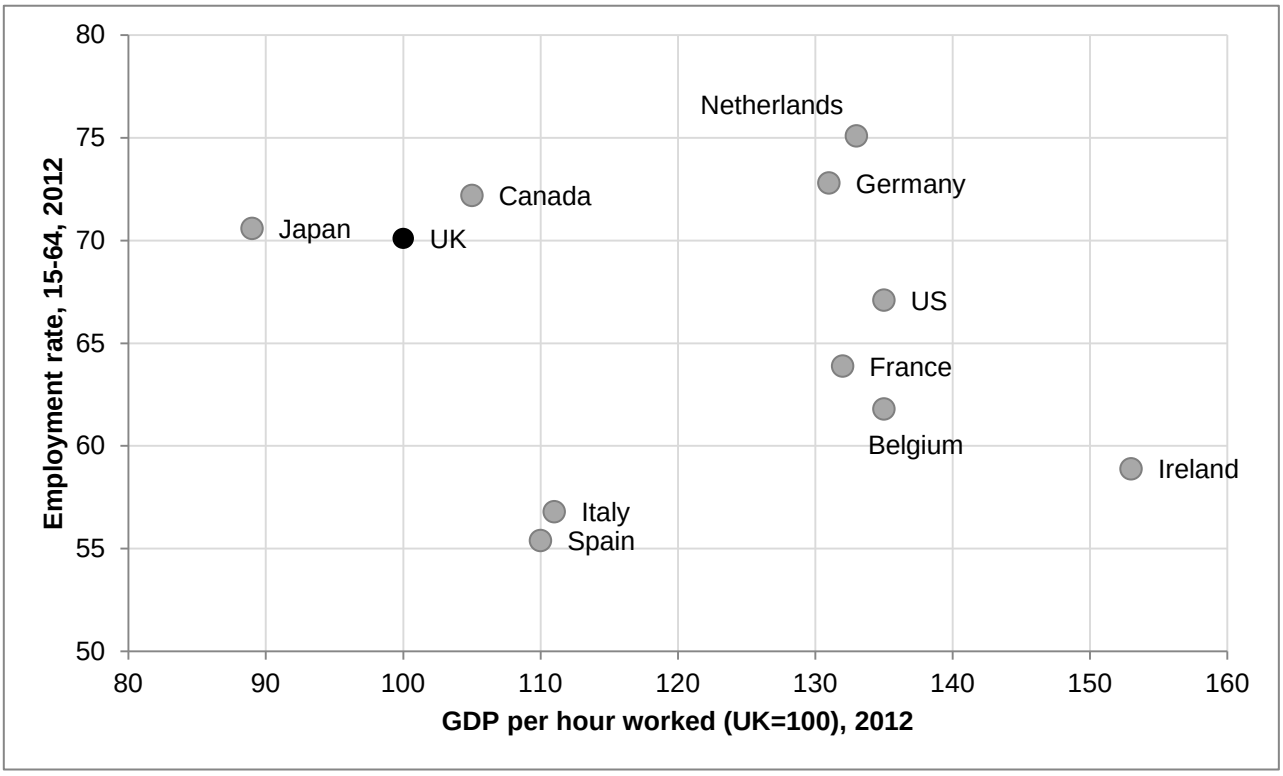
1.2 Productivity

In the period before 2008, the so-called 'Great Moderation', the UK made significant progress in making up the gap in labour productivity against other advanced economies (most notably, the US and several northern European countries). The particular experience of recession and recovery in the UK since 2008 brought that progress to a halt, and indeed reversed some of it, as UK productivity declined slightly while that of other nations continued to increase.

As Figure 1.5 shows, after the recession there therefore remains a substantial gap in labour productivity for the UK compared with leading advanced economies. Compared with some of those advanced economies, the UK might consider its higher levels of employment a desirable trade-off. But the Netherlands, Germany and the US, each of which have similar or better employment rates, all have a 30 per cent or greater advantage in the output generated for every hour worked.

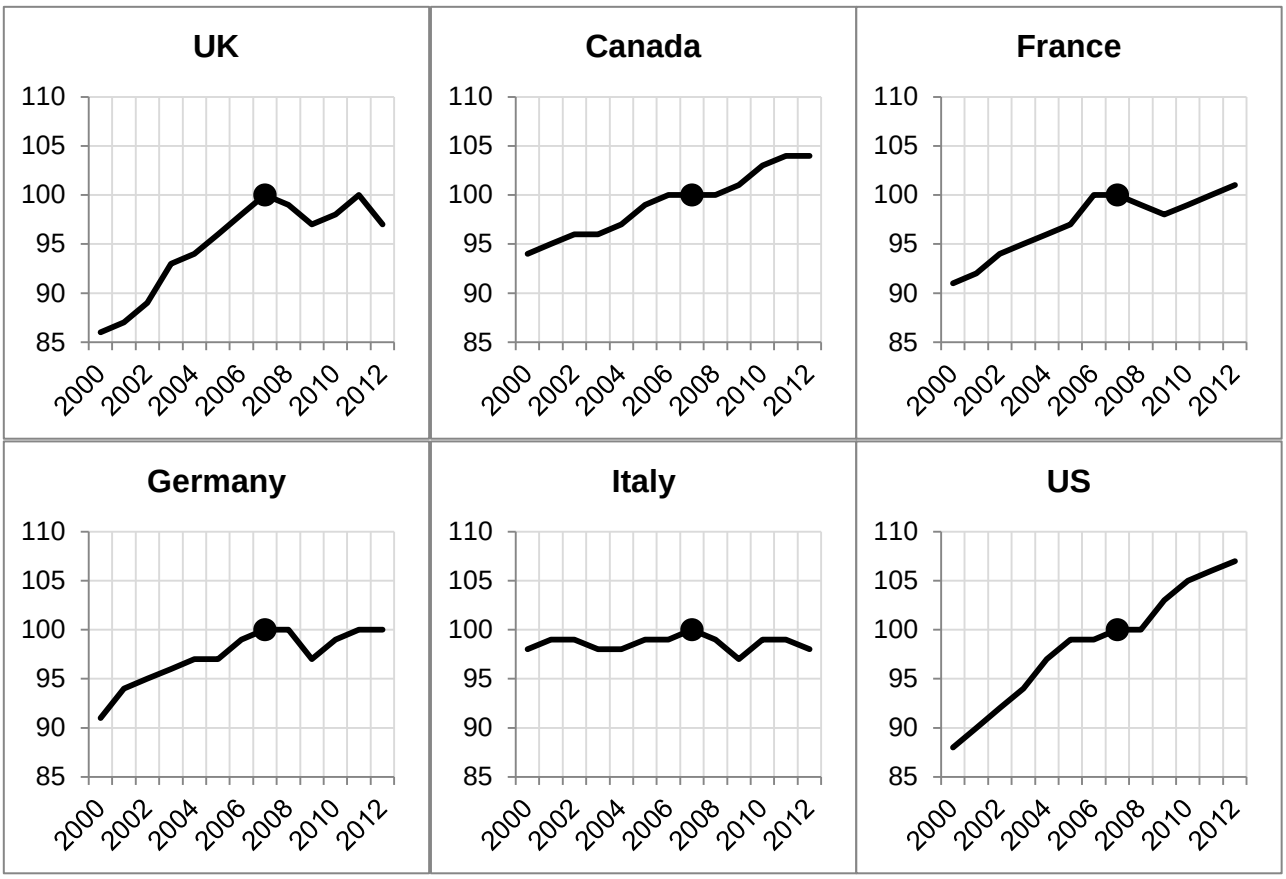
Figure 1.6 shows that the UK's story is marked by a stronger contrast between pre-recession and post-recession than other advanced economies. The UK's growth in productivity through the 'Great Moderation' was strong and sustained, outpacing even the US case. By contrast, many European countries had seen relatively modest growth in productivity in those years, and across the 2000s, Italy had barely made any gains at all. But where the US and Canada continued to see productivity growth through the recession, and countries such as France saw a return to growth after seeing a fall during recession, the UK changed from a high performer to stagnation.

Figure 1.5 2012 Productivity and employment performance, advanced economies



Source: ONS International Comparisons of Productivity 2012 (February 2014) and OECD Employment Rates by Age Group

Figure 1.6 GDP per hour worked, 2000-2012, selected advanced economies (2007=100)



Source: ONS International Comparisons of Productivity 2012 (February 2014), Table 3

The UK's weak productivity performance could be seen as the consequence of its combination of poor output growth and resurgent employment. As a matter of simple arithmetic, the new highs in hours worked and a failure to surpass pre-recession peaks in output means labour productivity is lower. The comparable post-recession experience of Germany, with a less sharp recession in output, but a fall in unemployment across the period, supports the idea.

There certainly seems to be some truth that during the years immediately after the recession hit, UK firms held on to ('hoarded') employees amidst constrained demand, at the expense of measured productivity (Martin and Rowthorn, 2012; Barnett *et al.,* 2014). But given their lasting nature, changes in the composition of output and employment seem likely to be more a reflection of sustained adverse shocks in the UK's terms of trade (Broadbent, 2014), weaknesses in reallocation of resources between firms (Barnett *et al.*, 2014) especially in the context of a banking crisis (Broadbent, 2012; Oulton, 2013), as well as measurement issues relating to the rising importance of 'intangibles' investment (Goodridge *et al.*, 2013). As the global economy moves to a more stable growth path, and especially as the largest emerging economies continue to develop and increase their demand for the high-value services in which the UK is a leading exporter, there is potential for productivity growth to return to the levels of the 1990s and 2000s (Besley and Van Reenen, 2013).

1.3 Competitiveness

However, leaving aside some of the progress lost in recession and recovery, there remains that substantial gap between the UK's productivity performance and those of the leading advanced economies. And many of those institutional weaknesses, in domestic markets and the way many British firms manage and operate, will continue to limit the success of efforts to close the gap in labour productivity.

Given growth in the global economy, export demand for high-value products and services means that some of the UK's most advanced, forward-thinking businesses will continue to grow and succeed. Their performance will in turn provide the basis for a solid growth performance across the UK economy, creating an increased demand for domestic private services and growing tax revenues to fund public services.

But it is in these domestic sectors that we know that there is a 'long tail' of firms with weak management practices. Insulated in markets with limited competition and with poor accountability, too many of these firms 'make do' rather than seeking to drive continuous improvements and innovation. All countries have these firms; but on average, in management practices the UK falls behind many of those countries with similar or better productivity, with the difference made up by the number of poorly managed firms (Bloom and Van Reenen, 2010).

Our particular concern here is with the interface between firm performance and the labour market. Weaknesses in productivity relate not only to the direct issue of poor management, but also the complex connection between the role of firms, employees and government in investing in human capital. The Department for Business, Innovation and Skills (BIS, 2012), drawing on a wide range of evidence, identifies the following competitive weaknesses in the UK's workforce:

- the quality of education in the UK is moderate, with the quality of mathematics and science education perceived to be low;
- the percentage of people aged 25 to 64 years of age with below upper secondary education is relatively high;
- UK workers compare unfavourably with their counterparts in the OECD with respect to basic numeracy and literacy skills; and
- management capability is less well developed in the UK than in countries such as the USA, and UK businesses feel constrained in developing their management effectiveness by an inadequate supply of managerial human capital.

As that summary suggests, the picture is mixed. Concentrating on multinational companies' perceptions of the workforce available to them as they consider investment, recent research for BIS finds the UK ranked second out of seven countries for the overall skills of its workforce, just behind Germany and ahead of the USA (Tingle *et al.*, 2014). Generally, the perception is that the UK workforce performs well on relevant qualifications and communication skills, but less well on areas such as business development, team working, management, or technical competence.

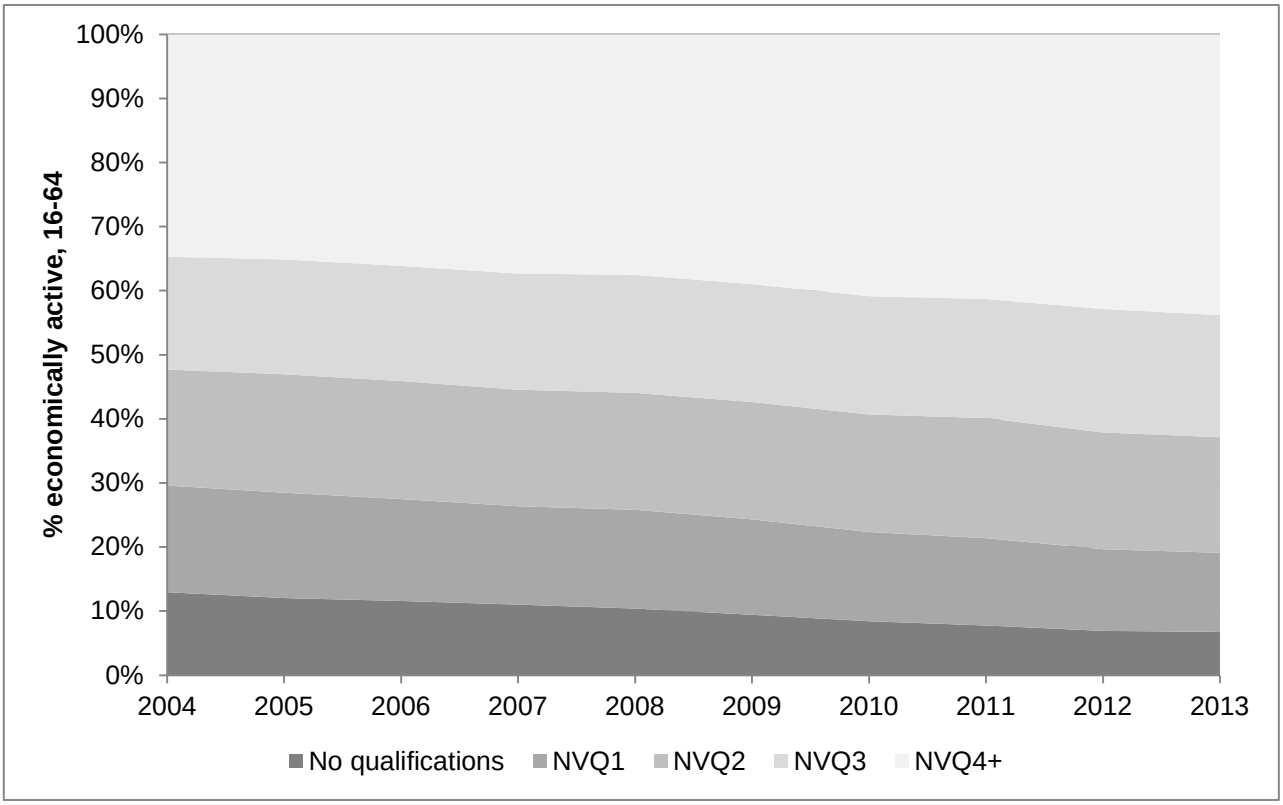
Indeed, for all that there are substantial issues with the lower skill workforce, and general weaknesses in maths, science and management, the expansion of higher education over several decades has resulted in a substantial and sustained growth in the number of graduates available to UK businesses (Figure 1.7). Almost certainly, that has been an important base for the growth of the financial and business services sector, and the shift of UK manufacturing to focus on its high-value specialisms, although there are questions over how well this expanded graduate skills base is being used by employers.

Likewise, wider perceptions of UK competitiveness suggest some weaknesses, but some strengths on which to build as well. For example, the World Economic Forum (2013, pp3-4; also Table 1.1 for the top 25) finds that:

> The United Kingdom rounds out the top 10, falling by two places in this year's assessment… Overall, the United Kingdom benefits from clear strengths such as the efficiency of its labor market (5th), in sharp contrast to the rigidity of those of many other European countries. The country continues to have sophisticated (9th) and innovative (12th) businesses that are highly adept at harnessing the latest technologies for productivity improvements and operating in a very large market (it is ranked 6th for market size). The highly developed financial market also remains a strength overall, despite some weaknesses last year.

The UK has many well-managed firms, and has an efficient labour market and deep capital markets. But it has a long tail of low-performing firms operating in markets characterised by limited competition, a workforce characterised by general weaknesses in important skill areas, and a sense (explored below) that although the labour market gets people into work, it may be efficient in doing so, rather than effective: skills are variable, but enhanced skills are not always fully used in the workplace.

Figure 1.7 Workforce qualification levels, % economically active, 2004-2013



Source: ONS Annual Population Survey

Table 1.1 Global Competitiveness Index 2013-2014 rankings

	GCI 2013-2014		GCI 2012-2013	
Country/Economy	**Rank**	**Score**	**Rank**	**Change**
Switzerland	1	5.67	1	0
Singapore	2	5.61	2	0
Finland	3	5.54	3	0
Germany	4	5.51	6	2
United States	5	5.48	7	2
Sweden	6	5.48	4	-2
Hong Kong SAR	7	5.47	9	2
Netherlands	8	5.42	5	-3
Japan	9	5.40	10	1
United Kingdom	**10**	**5.37**	**8**	**-2**
Norway	11	5.33	15	4
Taiwan, China	12	5.29	13	1
Qatar	13	5.24	11	-2
Canada	14	5.20	14	0
Denmark	15	5.18	12	-3
Austria	16	5.15	16	0
Belgium	17	5.13	17	0
New Zealand	18	5.11	23	5
United Arab Emirates	19	5.11	24	5
Saudi Arabia	20	5.10	18	-2
Australia	21	5.09	20	-1
Luxembourg	22	5.09	22	0
France	23	5.05	21	-2
Malaysia	24	5.03	25	1
Korea, Rep.	25	5.01	19	-6

Source: © 2013 World Economic Forum | www.weforum.org/gcr

The UK continues to enjoy the advantages of being an advanced economy, including a relatively efficient labour market. While their productivity growth is impressive, leading emerging economies such as the BRIIC countries[2] offer much lower levels of productivity and do not benefit from the institutional strengths of an advanced economy such as the UK. But they are moving fast, and because of technology and increasingly international education, they are able to move up into high-value markets much more quickly than has been the case historically. Working to catch up, they invest heavily in ensuring the necessary resources (including a skilled workforce) are there in the right quantity and quality to support growth. As they continue to grow and develop, this strength in making the best use of available talent will allow them to make a sharp challenge to established advanced economies such as the UK.

[2] Brazil, Russia, India, Indonesia, China.

1.4 Industry sectors

Following the recession, the government identified a key challenge for the UK as being "to achieve strong, sustainable and balanced growth that is more evenly shared across the country and between industries" (HM Treasury, 2011). The UK economy has a large concentration in business services, and especially in finance, alongside a substantial public sector, reflecting a large public role in education and health.

During the 'Great Moderation' of the 1990s and 2000s, financial and business services generated much of the expansion in output, in turn leading to increased tax revenues which financed a sustained growth in public sector output and employment. That same pattern of growth also led to a substantial division in the sources of growth across nations and regions, with London having a high share of growth in the high value added sectors, especially in finance, while the growing public sector accounted for much of the expansion in other parts of the country.

The sectoral composition of economic activity reflects a number of long term changes in economic conditions, and especially in terms of global competition and technological change. Like most advanced economies, the UK has seen a substantial fall in the role of manufacturing and a shift to services. That in large part reflects the emergence of increased competition, first of all in lower-value products but rising in sophistication over time, from developing economies. Falling trade barriers (generally, but also for the UK in the shape of the single European Market) have encouraged the trend, promoting trade but also increasing the trend to specialisation according to comparative advantages. While initially losing much of its low-value manufacturing base, the UK (like other advanced economies) has in time gained greatly in the shape of low cost imports and new markets for high value products and services.

Technological change has also played a major role. In particular, those sectors leading growth over the past three decades, including specialist engineering, information technology and financial services, have been highly dependent on new technology. Their growth has been highly dependent on the supply of high level science, technology, engineering and mathematics skills (UKCES/Bosworth *et al.*, 2013). A relatively strong supply of graduates, especially in the sciences, has enabled the UK's specialisation in these sectors. The UK has successfully attracted foreign direct investment (FDI), especially where the UK has ready access to European markets such as car production.

Table 1.2 Growing and contracting industry sectors, 2002-2012

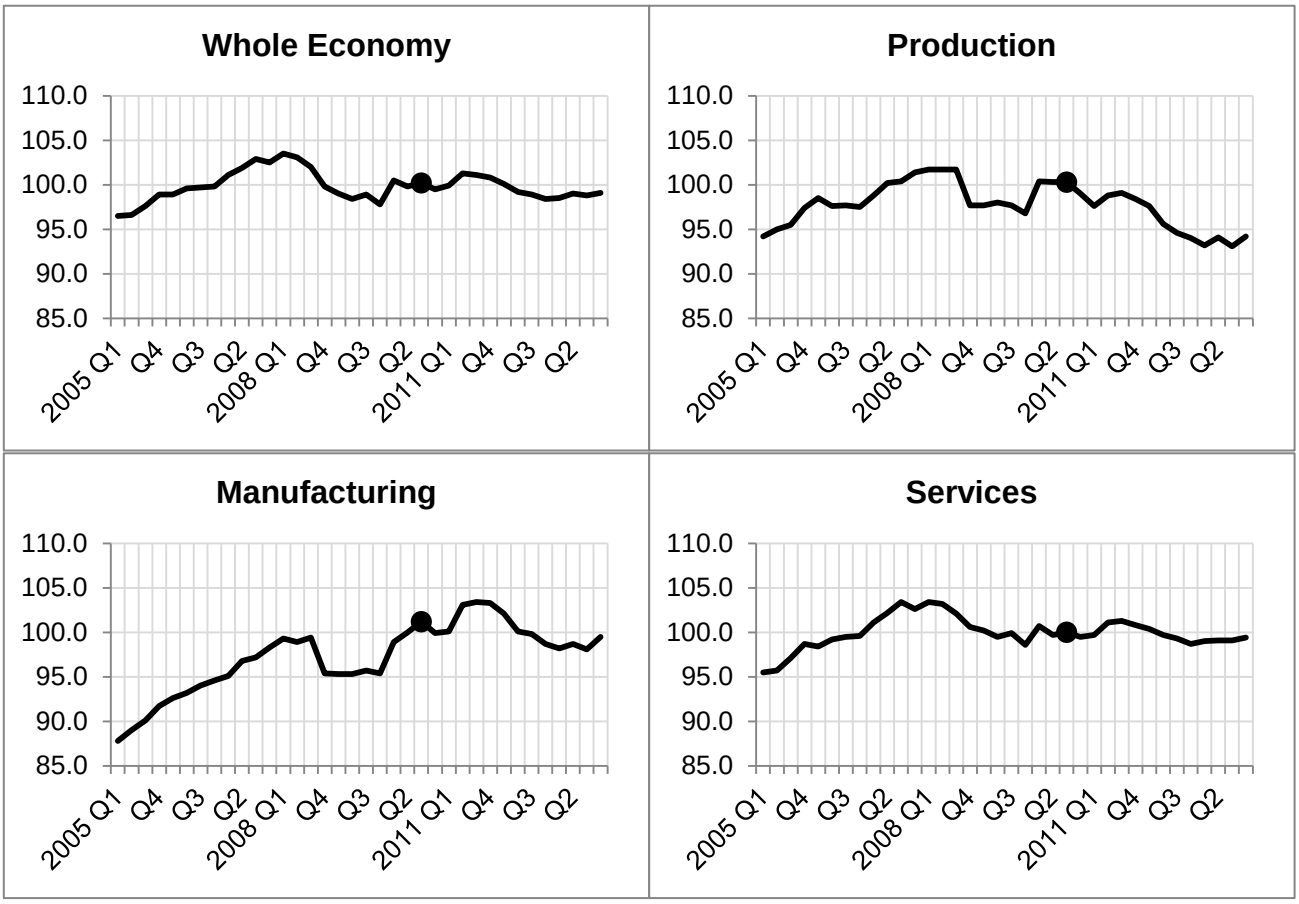
Output (% pa, 2002-2012)	Employment (% pa, 2002-2012)	Productivity (% pa,2002-2012)
Fastest growing		
Other transport equipment (7%)	Head offices (6%)	Water transport (6%)
Head offices (7%)	Real estate (4%)	Other transport equipment (6%)
Water transport (5%)	Legal & accounting (3%)	Metal products (6%)
IT services (6%)	Residential & social care (3%)	Manuf of motor vehicles (5%)
Architectural & related services (5%)	Other professional services (3%)	Textiles etc (3%)
Slowest growing		
Mining & quarrying (-8%)	Textiles etc (-5%)	Mining & quarrying (-5%)
Warehousing & postal (-6%)	Manuf of computers, etc (-5%)	Warehousing & postal (-5%)
Printing & recording (-3%)	Printing & recording (-5%)	Coke & petroleum (-3%)
Coke & petroleum (-3%)	Manuf of motor vehicles (-5%)	Agriculture (-3%)
Textiles etc (-3%)	Pharmaceuticals (-4%)	Water, sewerage & waste (-2%)

Source: UKCES/Wilson et al. (2014)

In the decade to 2012, sectors experiencing fastest growing output included both manufacturing and services industries but jobs growth was greater in professional and other business services, and some public services (see Table 1.2). Some of the fastest growing sectors in terms of employment were also the largest: residential and social care, real estate and legal/accounting. Productivity growth was highest in some manufacturing industries which have increasingly concentrated on high-skill, high-value production, with declining employment but substantial increases in the value generated by each employee.

The slowest growing sectors overall were mainly manufacturing and primary industries (such as agriculture, mineral extraction and processing activities) operating in highly competitive international markets. The development of productivity through the recession and recovery period tells an interesting story here, with strong productivity growth in manufacturing before the recession but growth in the production and services sector much weaker. Manufacturing and services have seen broadly stagnant productivity since the recession, but production industries have seen a significant fall (see Figure 1.8).

Figure 1.8 Output per hour worked, by sector, 2005-2013



Source: ONS LPRODHIST Historical series of labour productivity (April 2014)

Future projections of the UK labour market suggest these trends will continue over the decade ahead, with manufacturing continuing to decline in its share of output and employment (UKCES/Wilson *et al*., 2014). Growth will be driven by business services, ranging from ICT through to commercial and legal services, where the UK's combination of skills and institutions give it unique advantages, and where demand is growing to support the fast-expanding production industries in the large emerging economies.

The same projections of the shape of the labour market show that private services are expected to contribute 80 per cent of net job growth between 2012 and 2022, reflecting a continuation of the move towards services. The health and social care sector is expected to generate the greatest number of additional jobs within a single industry category. However, replacement demand (the need to fill jobs following retirement or death) will mean continued job openings and career opportunities across almost all industries, including those projected to see net decline (UKCES/Wilson *et al.*, 2014).

The projections suggest continuation of another trend - a polarisation of the labour market tilted towards higher skilled jobs, with 2.3 million additional high level jobs (for managers, professionals, associate professionals); 800,000 fewer middle ranking administrative, skilled manual and routine blue collar jobs; and 600,000 additional jobs in lower skilled caring, leisure and other service roles. But again, replacement demand means that even in declining middle skill roles there will still be substantial new job opportunities. The shift to a higher skill workforce will continue through to 2022, when more than half of all jobs are projected to be held by people qualified at degree level.

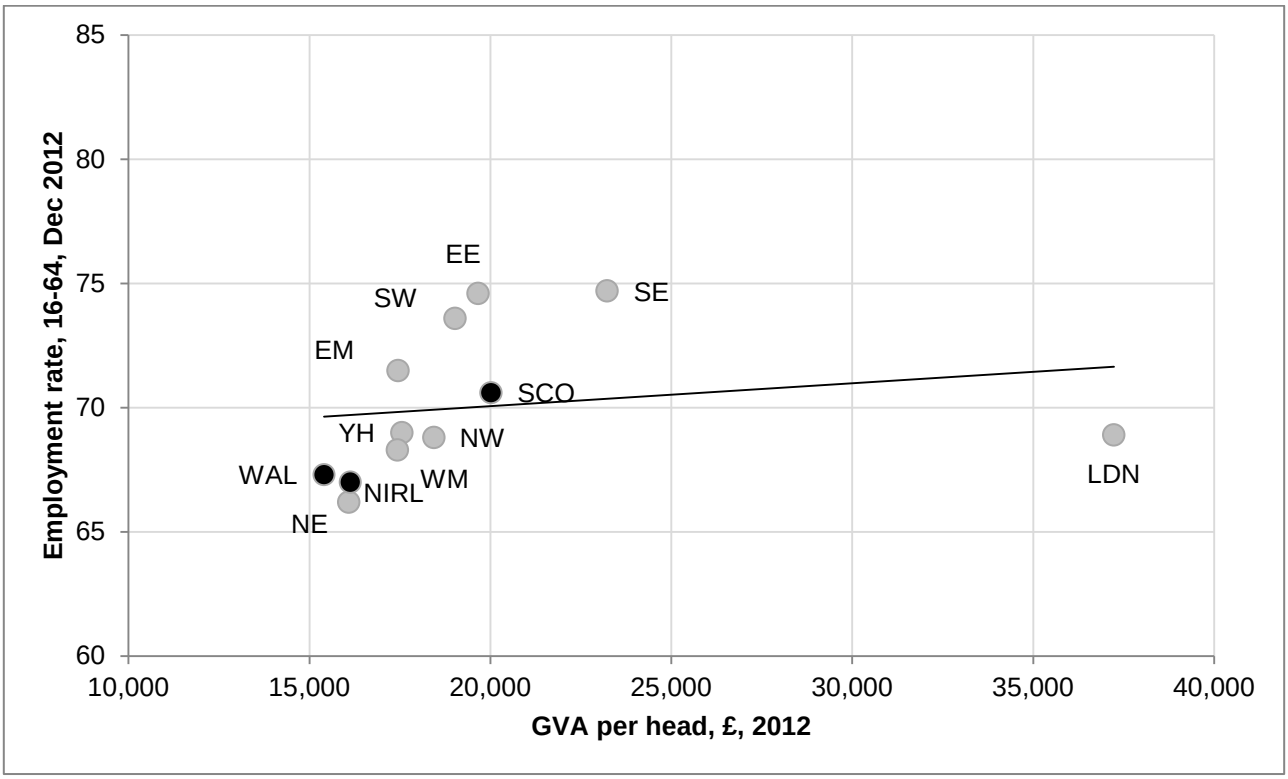
High skilled, high value work is increasingly found in emerging economies such as India and China. In several competitor countries industrial policy has nurtured growth in sectors such as ICT, pharmaceuticals and nano-technology, which have developed rapidly and become internationally competitive. Previously emerging, developing economies are increasingly providing direct competition to UK firms in higher value markets, and the place of the UK within these markets is less and less assured.

1.5 Spatial variation in economic performance

The UK economy has long been characterised by substantial disparities in output and employment between the different nations and regions. In particular, since the interwar period, southern England has benefited from the expansion of service industries while the rest of the UK has remained dependent on traditional, often declining industries. After it too had seen a decline over many decades, London's economy has become the focus in recent decades, with a dramatic expansion in employment and output, driven in large part by the clustering of financial and business services in and around the City.

Looking across the devolved nations and English regions (Figure 1.9) reinforces that perception, with London's output per head far and away above the rest of the UK, even with a below-average employment rate. Among the rest of the UK, it is the southern regions of England which fare best in terms of output and employment. Aside from Scotland, which stands out for its 'southern' level output per head with the assistance of the North Sea oil and gas sector, there is a general picture of greater distance from London resulting in lower output and lower employment, especially in Wales, Northern Ireland and the English North East. Changes through the recession and recovery period have intensified some of the gaps, with growth in London and the South East setting the pace. Most of all, Northern Ireland saw a sharp reduction in output (four per cent nominal contraction 2007-2012) from an already low base.

Figure 1.9 Output per head and employment rate across nations and regions, 2012



Source: ONS Regional Gross Value Added (Income Approach) NUTS1 Tables, Table 1.1; Annual Population Survey

A review of the Local Enterprise Partnership (LEP) areas in England demonstrates that these disparities continue below regional level, but with some interesting complexities. Figure 1.10 compares per capita output with the employment rate in each LEP area in 2012. London stands out from the crowd immediately, with output per head in excess of £37,000. Only one LEP area, the nearby Thames Valley Berkshire, even comes close to this level.

Amongst the rest, a straightforward north-south story can be easily disproved by the high output per head of Cheshire and Warrington, and the lowest output per head (just £13,000, less than a third of the UK level) in Cornwall and the Isles of Scilly. While London and the Thames Valley clearly lead, and some of the poorest performers in terms of output and employment are in the north, intra-regional factors and urban-rural divides are also important.

Changes in output and employment through the recession and recovery period also reveal geographic disparities (Figure 1.11). In 2012, southern Oxfordshire and northern Cheshire and Warrington had a similar level of output per head and a three percentage point difference in employment. But that conceals a wide difference in performance since 2007 – Oxfordshire seeing a one per cent rise in the employment rate and nearly 12 per cent in (nominal) output growth, while Cheshire and Warrington saw a one per cent fall in employment and 5.4 per cent in output growth.

Figure 1.10 Output per head and employment across LEP areas, 2012

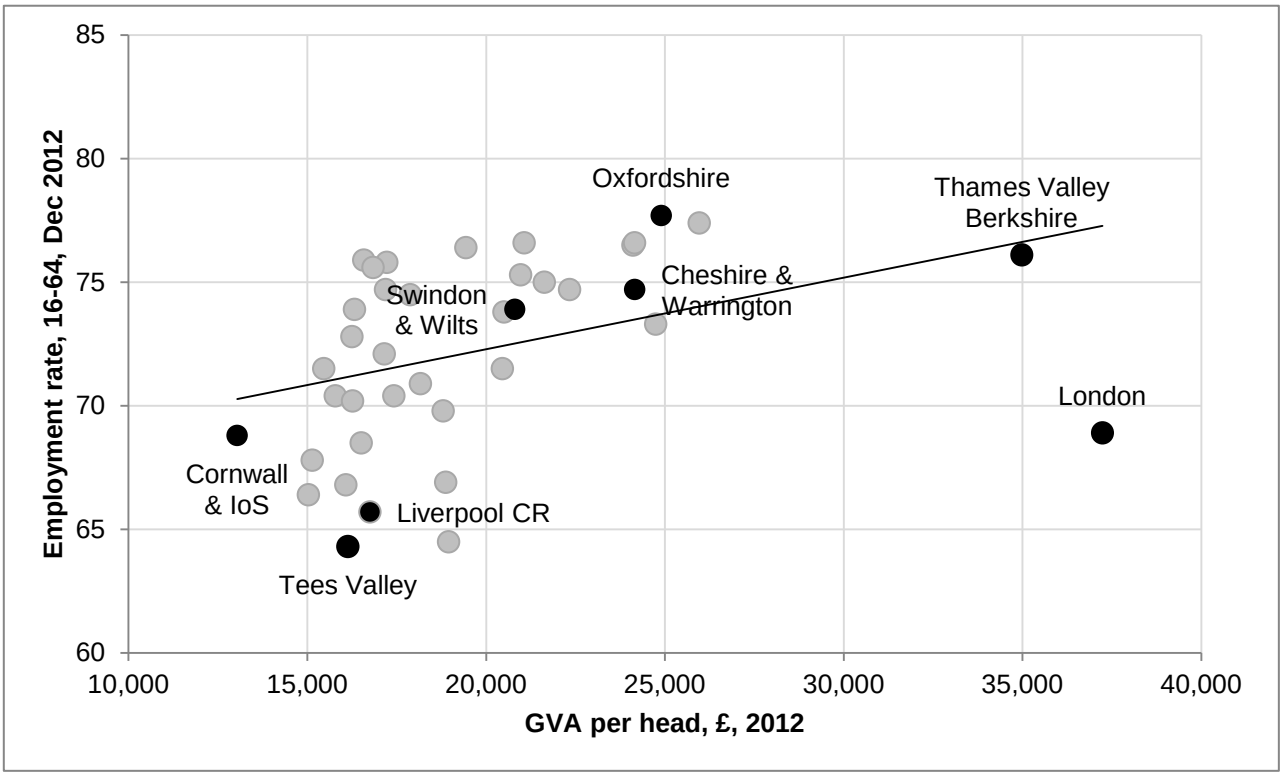
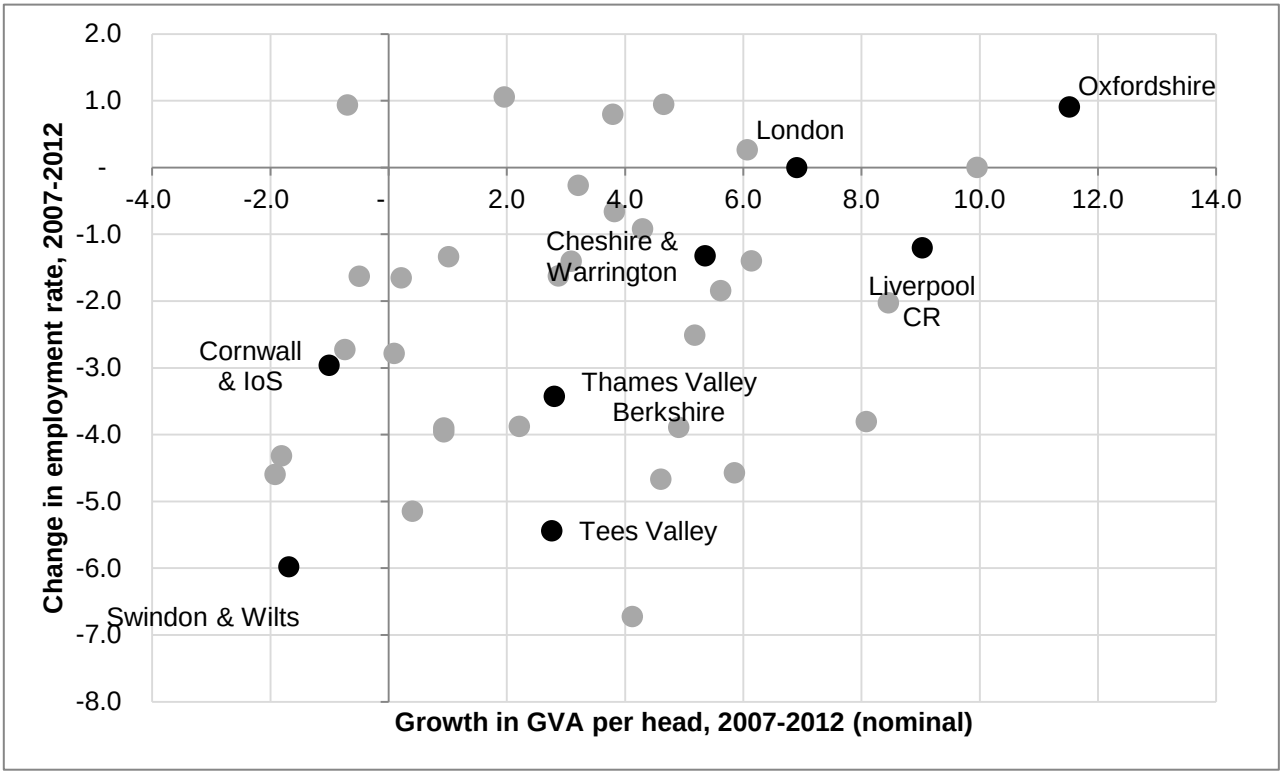


Figure 1.11 Change in output and employment across LEP areas, 2007-2012



Source: ONS LEP Gross Value Added release (April 2014) and Annual Population Survey employment rates

Low output, low employment LEP areas in the north such as Tees Valley and Liverpool saw output growth between 2007 and 2012; nine per cent in Liverpool's case, the third fastest of all LEP areas. Meanwhile in the south, high output Thames Valley Berkshire saw relatively modest output growth, and Swindon and Wiltshire (above-average for output and employment) saw one of the sharpest falls in the employment rate (six per cent) and in nominal output (1.7 per cent).

2 The labour market

The clearest insight into the strengths of the UK labour market has come from the very different experience of the 2008 recession compared to previous episodes. In 1980 and 1990-1991, contractions in output were shallower than in 2008 and recovered much sooner. But in each of those recessions, employment effects magnified the falls in output, with employment falling and not recovering until many years later.

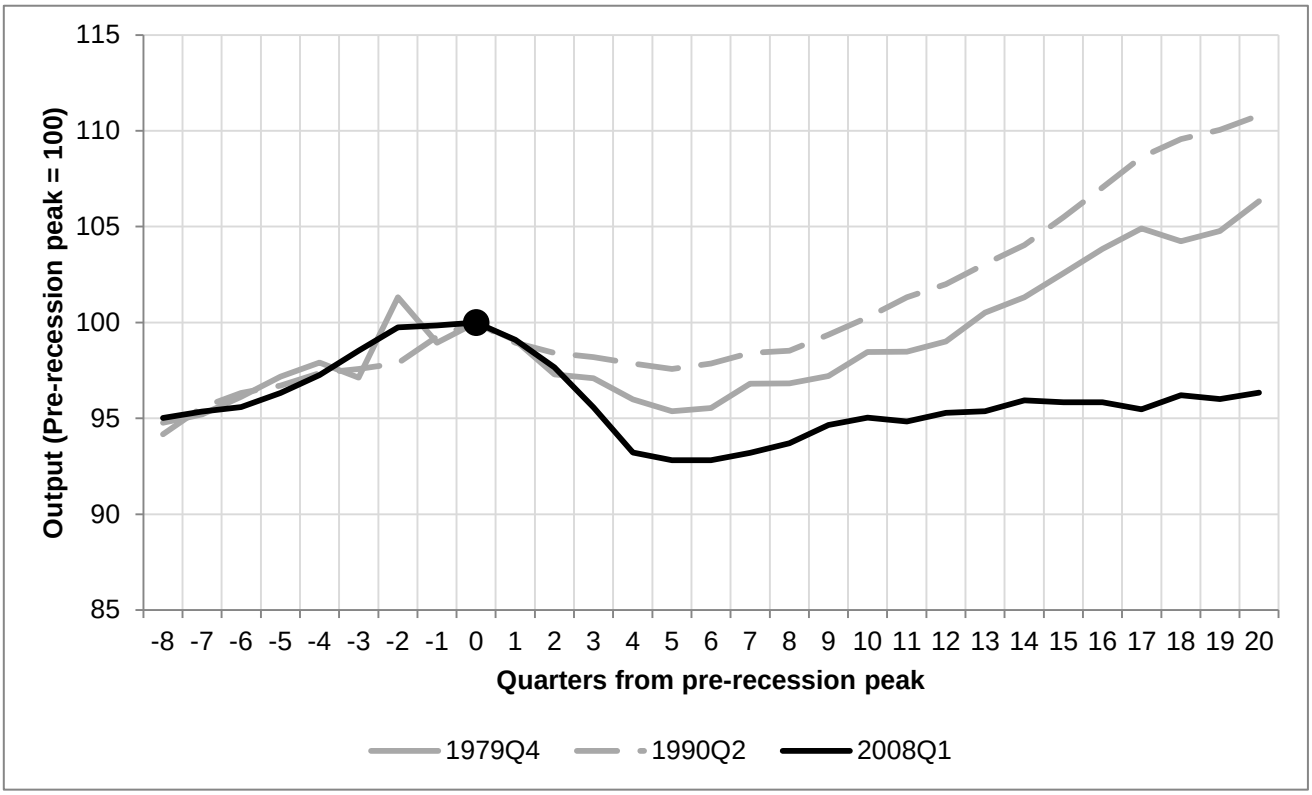
2.1 Unemployment and job creation

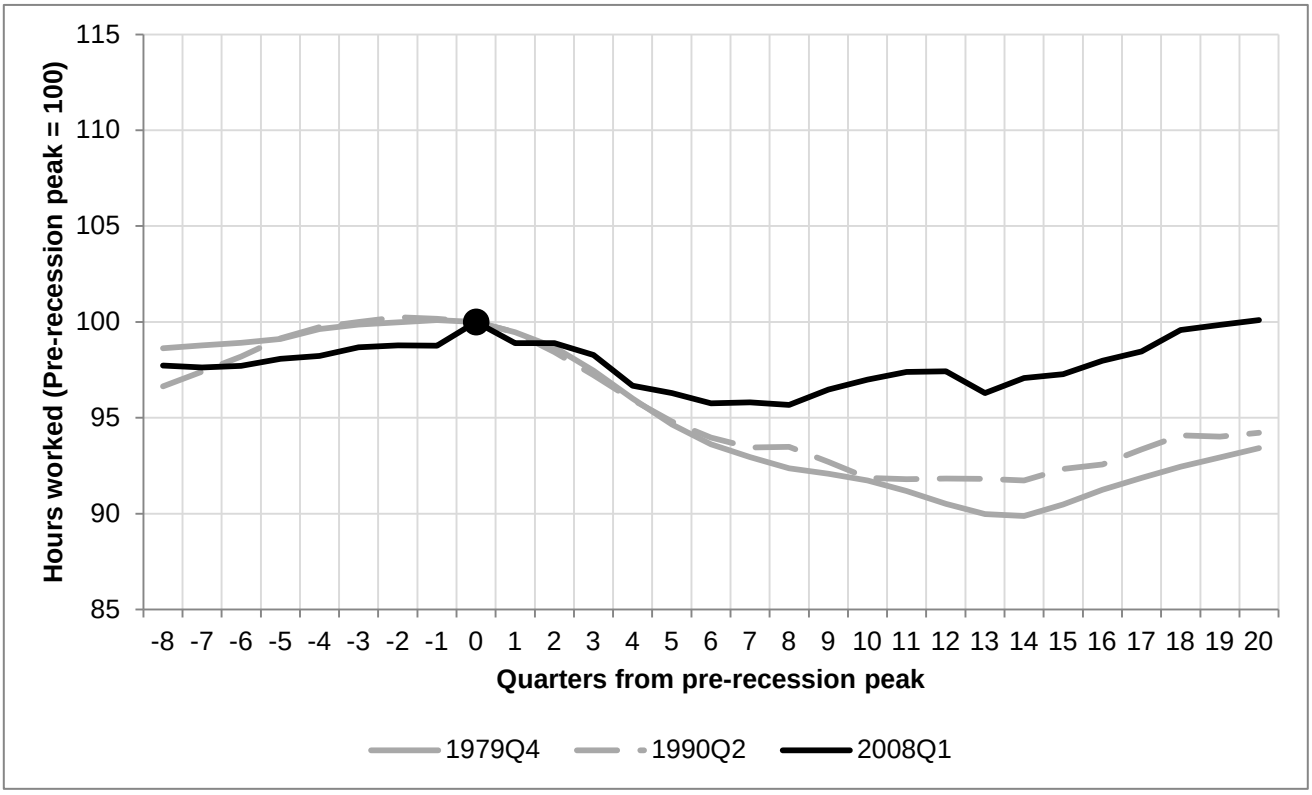
The 2008 recession was much sharper in terms of the contraction in output (Figure 2.1), twice as deep as the 1980 recession, and still some way from recovery five years after the pre-recession peak. But the fall in employment was much less, and had been recovered within five years; although an increase in the size of the workforce means that unemployment has not returned to previous levels, it is far from the levels seen in the 1980s long after the recession had ended and the UK economy was experiencing robust growth.

In a recent review of unemployment in the 'Great Recession' across countries, Pissarides (2013) explores the UK and US experience through a Beveridge curve analysis, mapping the unemployment and vacancy rates against each other. In particular, he notes the much smaller initial shift outwards in the curve (resulting in a higher vacancy rate relative to the unemployment rate) during the recession in the UK, but the much faster rebound in the US where the vacancy rate quickly recovered (see also Smith, 2012). He concludes that the UK suffered a slower return to job creation because of macroeconomic rigidity (the same rigidities clear in the slow response of output following the recession), but at the microeconomic level unemployment did not increase as much as in the US, for a similar contraction in the vacancy rate:

> The UK case can easily be explained. The reforms to the institutional structure of the labour market in the 1980s, and their consolidation in the 1990s and 2000s, clearly had an effect. The reforms shifted the labour market policy incentives to employment through tax reductions and tougher unemployment (and non-participation) support, and increased the institutional flexibility of the labour market. Important reforms took place in the role of trade unions and employment protection legislation. (2013, 395)

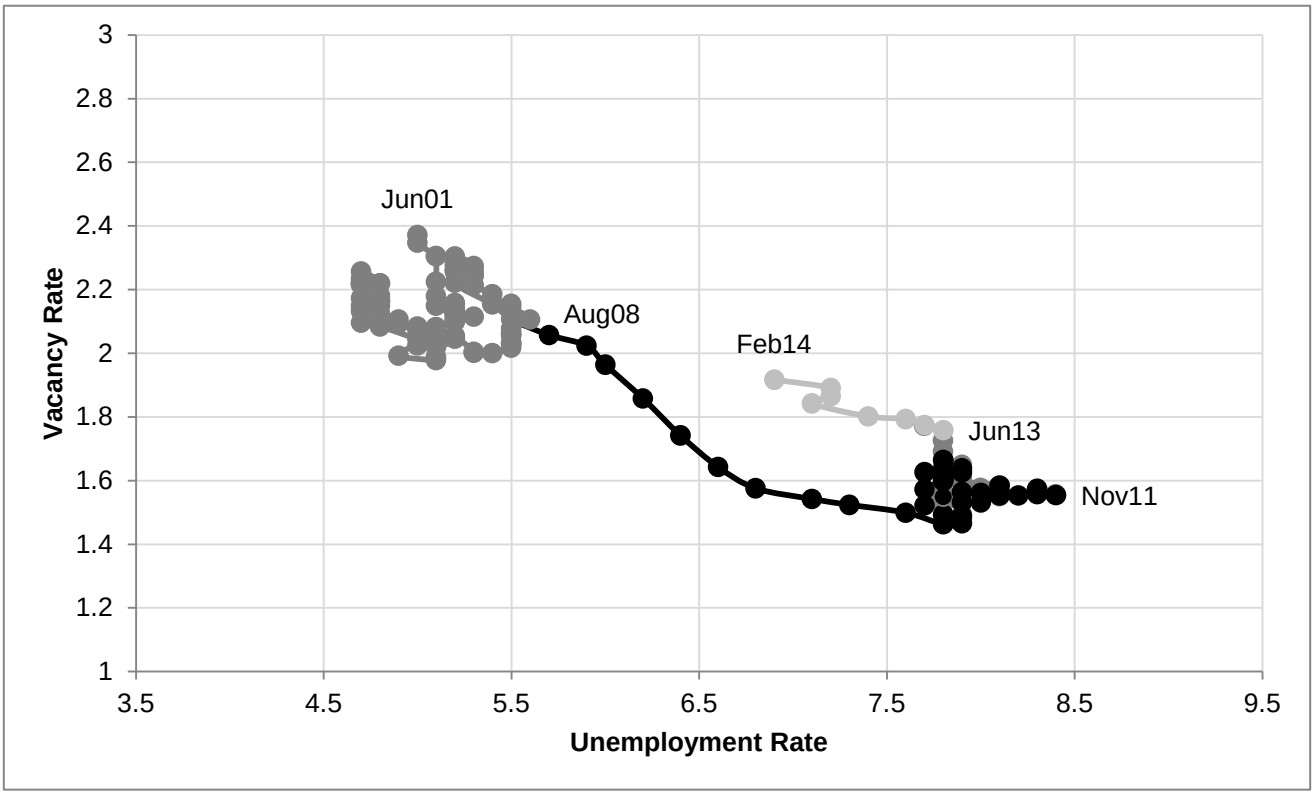
Figure 2.1 Output and employment in three UK recessions





Source: ONS GDP at constant prices, SA (ABMI) and Total actual weekly hours worked (millions) (YBUS)

Figure 2.2 UK Beveridge Curve 2001-2014



Source: ONS LFS unemployment rate (MGSX) and vacancy rate (= AP2Y / (AP2Y+MGRZ))

An updated Beveridge curve is presented at Figure 2.2. It shows the decisive shift as recession took hold: from September 2008 to May 2009, the vacancy rate fell by more than a quarter, and unemployment increased by two percentage points. For the following three years, the UK labour market remained around this new steady state, with labour demand increasing enough to absorb the growing workforce, but with fewer vacancies and higher unemployment.

In keeping with the wider picture on recovery, from the middle of 2013 there finally seems to be signs of an inward shift, with increasing vacancies driving falling unemployment. Vacancies remain below pre-recession levels, in contrast to their rapid recovery in the US, while unemployment is responding more slowly in recovery than in decline; the latest vacancy rate matches a 6.9 per cent unemployment rate, but the same level of vacancies saw unemployment between six and 6.2 per cent in the autumn of 2008. That may simply be because vacancies are changing faster than unemployment, or it may be that there has been a permanent outward shift in the operation of the Beveridge curve, so that the vacancy rate is higher for any given unemployment rate than has been the historical experience; only time will tell.

Certainly in a European context, the UK seems to have fared much better than many other member states, despite suffering a sharper contraction in output than many of them. The UK unemployment rate peaked at 8.4 per cent at the end of 2011 and has since fallen back down below seven per cent. By contrast, the EU average remained at 10.7 per cent at the end of 2013, higher than the UK peak unemployment rate. However, the EU average obscures some very large differences. Because of debt crises in several Eurozone member states, there are extreme cases of macroeconomic rigidity driving increases in unemployment, with Greece and Spain both seeing 2007 unemployment rates of 8.3 per cent, rising to 27.3 per cent and 26.4 per cent by 2013 (Eurostat).

In accounting for the improved efficiency of the labour market in adapting to a sharp recession, there are arguments that add to the straightforward explanation of greater flexibility. For example, Brinkley (2009) argues that firms' increasing reliance on and investment in human capital makes skilled workers prized assets which employers are resistant to losing even as trading conditions decline.

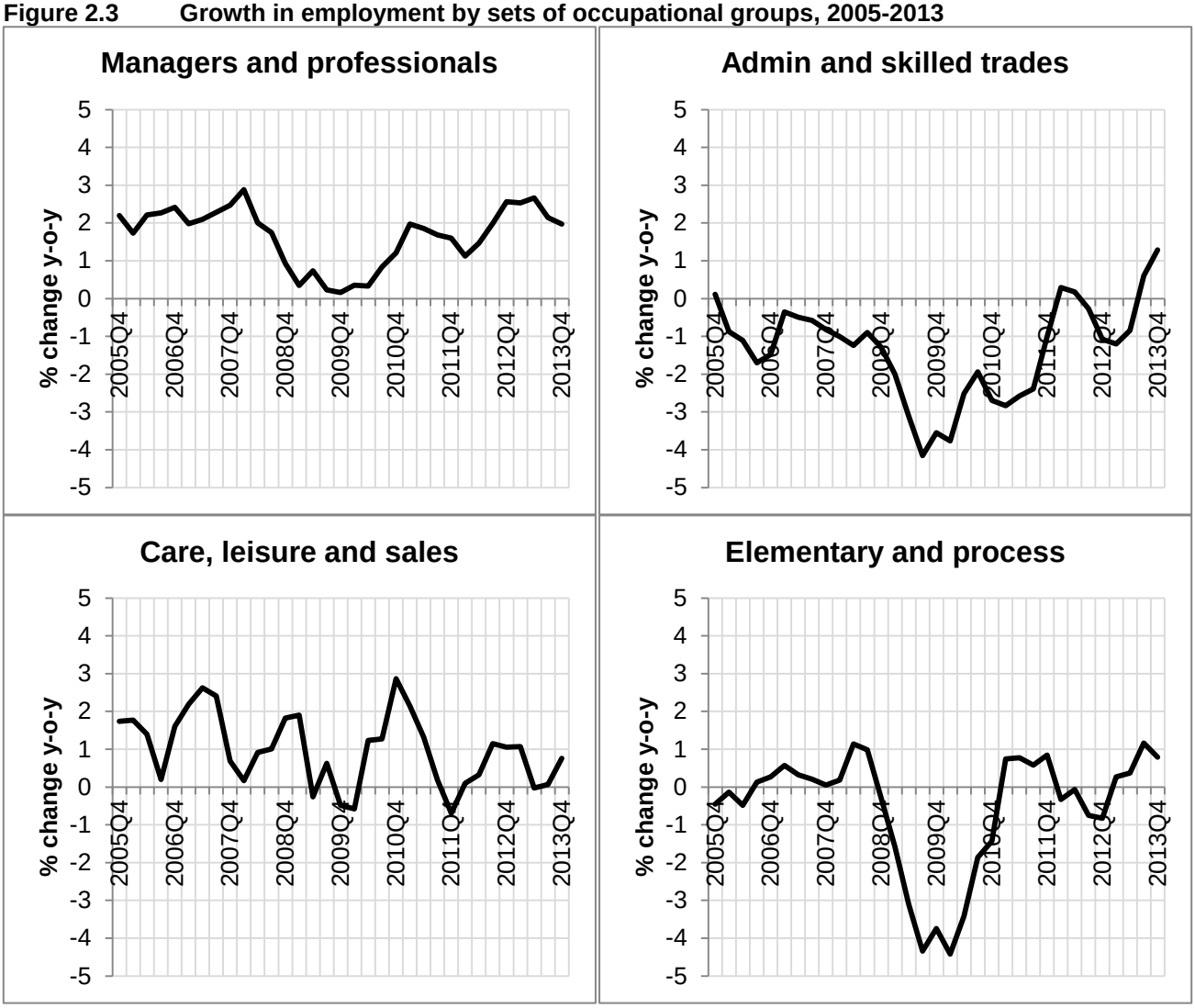
The greater stability of business investment in training (UKCES/Felstead *et al.*, 2013) compared to fixed capital provides one indication that this may be going on. So also does the composition of changes in employment through the recession and recovery, which have favoured higher skilled roles. Magnifying long term trends towards a more 'polarised' labour market, and one favouring higher skilled, managerial and professional roles, jobs characterised by more routine tasks (whether cognitive or manual) suffered a sharp fall in recession (see Figure 2.3), with little recovered even as employment as a whole has reached new highs.

Meanwhile managerial and professional roles, but also those service roles characterised by a need for personal contact, saw little decline through the recession, with growth just stalling for a while. Figure 2.3 summarises the changes across four headline categories. The experience presented here suggests that, in keeping with evidence from the US (Jaimovich and Siu, 2012), longer term shifts in workforce composition may be concentrated in episodes such as the 2008-2009 recession.

2.2 Employment: a range of experiences

For such a sharp and serious recession, the UK has seen only a moderate increase in unemployment. But as the occupational composition of the fall in employment shows, the effects have not been uniform, and some parts of the workforce have fared better and worse than others in the years since 2008; and before then, too. Tough times in the labour market hit those at the margins especially harshly, and the recession and recovery period has been no different here.

Figure 2.3 Growth in employment by sets of occupational groups, 2005-2013



Source: ONS Annual Population Survey via NOMIS, employment by SOC 2010 Major Group. 'Managers and professionals' = Major Groups 1-3; 'Admin and skilled trades' = Major Groups 4 and 5; 'Care, leisure and sales' = Major Groups 6 and 7; 'Elementary and process' = Major Groups 8 and 9.

Chief among those affected by tough labour market conditions have been young people, with much media attention as youth unemployment went above the one million mark. It is certainly true that youth unemployment has been particularly high during recession. And the decline in jobs in elementary occupations has hit the young particularly harshly, as they account for a substantial proportion of jobs taken by young people; understandably given the need for education and experience, numbers of young people in high-skill occupations are limited.

But it is also true that there is a longer term shift at work here, with the employment participation of young people diverging markedly from the rest of the workforce from around 2004. The greater change in the recession in part reflected that earlier divergence, where youth unemployment had already increased relative to the rest of the labour market. Figure 2.4 helps to see some of the changes through the years of recession and recovery, with large falls in 16-24 employment and a large rise in the unemployment rate.

Perhaps the most interesting comparison is with the 50+ age group, which has seen an increase in the employment rate through the period; the difference is all the greater considering the decline in the size of the young people's workforce and a substantial growth in the workforce of those over 50. The consequence of changing employment rates amidst changing workforce size is that, between 2007 and 2013 1.2 million more over-50s found work while 400,000 fewer young people were employed.

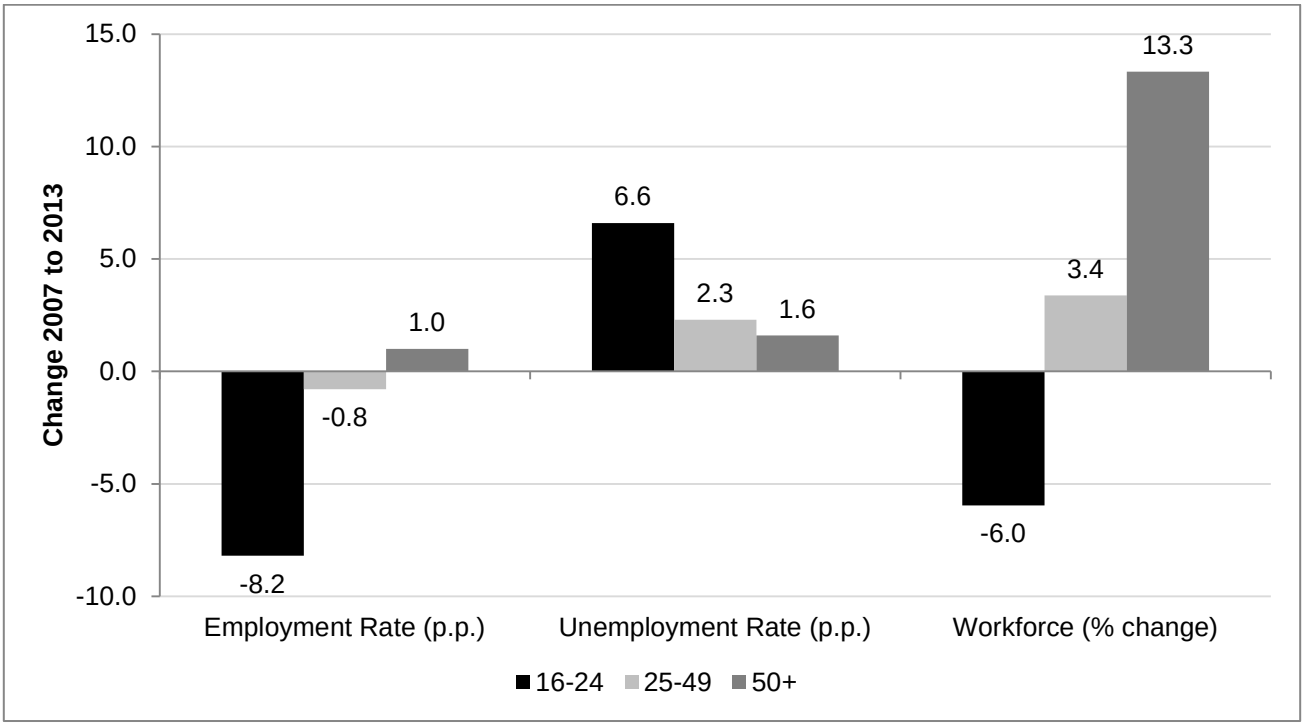
One of the complexities in understanding the youth unemployment problem is that, in international comparison, institutional differences in the level of education participation can lead to different unemployment rates. Because unemployment rates are measured against those working and looking to work, variations in the proportion of those in education and not looking for work can obscure the picture. For that reason, unemployment proportions (comparing against the total age group population) are often a more reliable guide and here, the UK is a poor performer, substantially above the EU average (12.4 per cent in the UK, 9.7 per cent EU average in 2012).

An interesting feature of the evidence on young people and the labour market is the changing overlap between work and education. Paradoxically, given the increasing profile of apprenticeships, there has been a sustained decline in the number of British young people combining study and employment. Where the UK used to have a relatively high proportion of those combining study and employment, it has declined through the 2000s and is now middling. Figure 2.5 suggests that among north European economies (which often share the UK's low overall unemployment), the continuing high levels of combined work and study play a part in maintaining low overall youth unemployment.

Both because of the new arrivals into unemployment, and the greater difficulty in finding work, a recession in the labour market is often associated with increased long term unemployment. This is a particular concern where recovery in the overall economy has taken so long. Figure 2.6 highlights the breakdown between durations of unemployment, with an increase in short term unemployment feeding through into the longer duration categories.

On the other hand, while long term unemployment has increased (the latest data suggest a 12-month rate of 2.5 per cent, double the rate before the recession), the median unemployment duration has remained well below the levels seen in the 1990s.[3] It took until 1997, more than five years after the end of recession, for the median duration of unemployment to fall below 30 weeks. In recent years, the median peaked at 26 weeks. On international comparisons, the UK fares well in terms of long-term unemployment; around the OECD average but lower than the EU-15 average of four per cent.

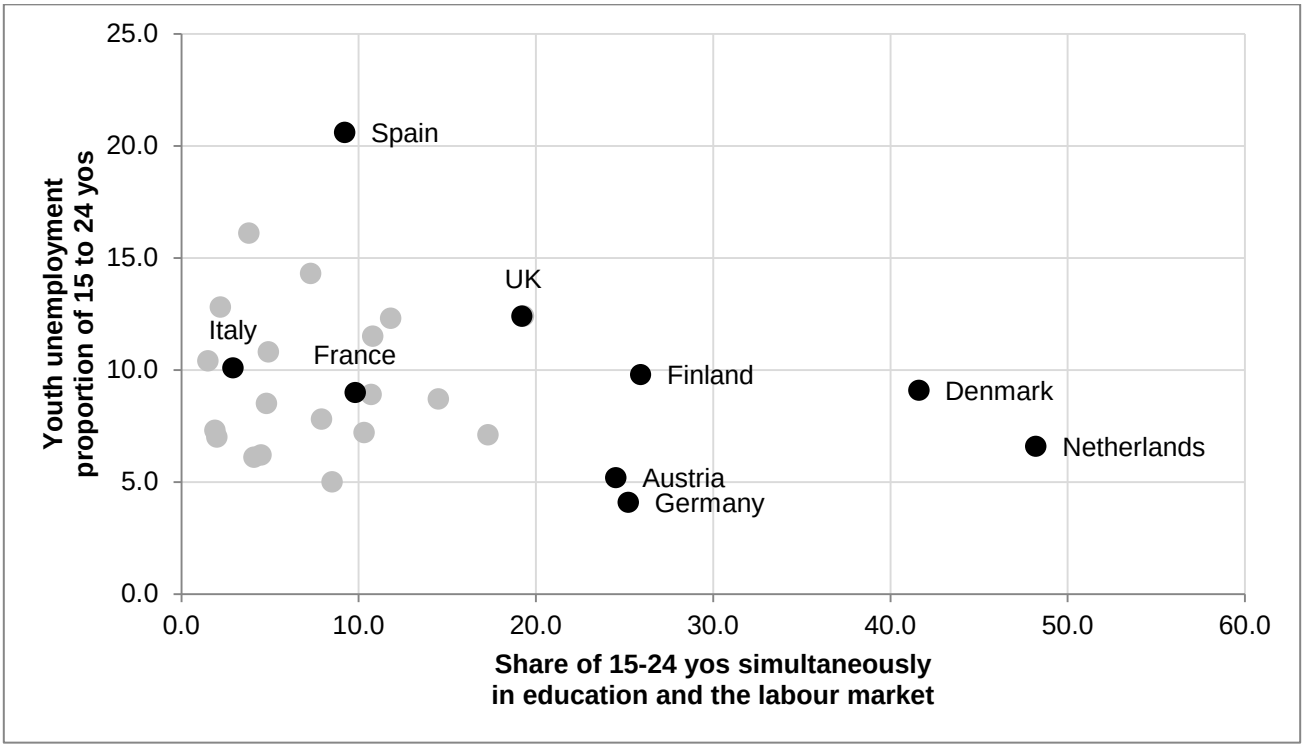
Figure 2.4 Change in employment and unemployment, by age group, 2007-2013



Source: ONS Annual Population Survey, employment and unemployment by age (Jul-Jun data for 2007 and 2013)

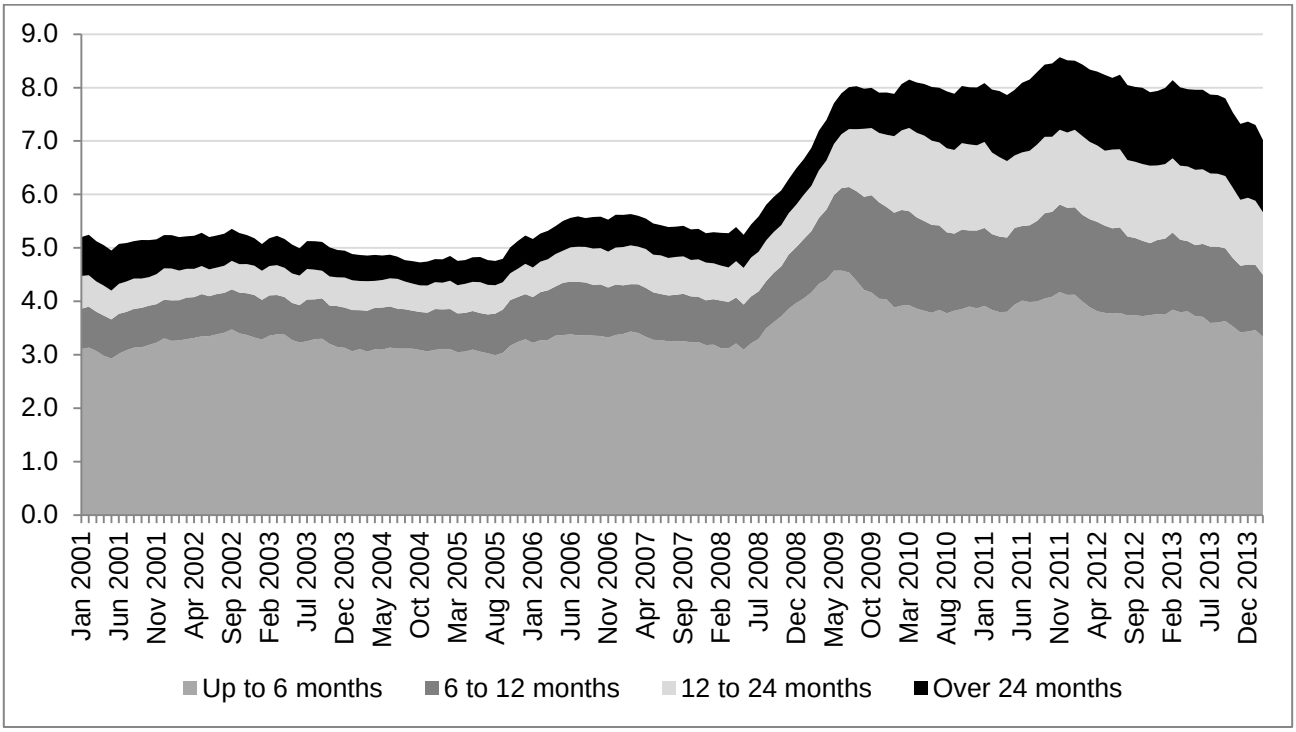
[3] Using DWP Claimant Count data, via NOMIS.

Figure 2.5 Youth unemployment and earning while learning, EU member states, 2012



Source: ONS Young People in the Labour Market, 2014, using ELFS data

Figure 2.6 Unemployment by duration, 16-64



Source: ONS Labour Market Statistics, UNEM01 table.

2.3 Changing employment practices

One particular dimension of the labour market recovery has been the substantial role played by self-employment. While most advanced economies, including the US, have seen significant falls in self-employment, the UK has seen a sustained growth, accounting for 83 per cent of the net gains in employment since 2007 (Ashworth *et al.*, 2014). That development builds on an already high rate of self-employment, and has taken place across regions. The move to self-employment seems to be concentrated among two groups. Among the UK-born, it is overwhelmingly concentrated among the over-50s; among the non-UK-born, almost half belong to the 30-39 years age bracket (Ashworth *et al.*, 2014, p7).

The significance of this development for the long term health of the economy is not yet fully clear. The increase seems to have taken place alongside a fall in the relative earnings from self-employment, with a substantial real terms reduction in income. On the other hand, recent survey research for the Resolution Foundation[4] shows that 72 per cent of self-employed people preferred their current situation, while among the newly self-employed, 28 per cent expressed a preference to be an employee. As the recovery develops, it will be interesting to see how the choices made by the recently self-employed continue to evolve: whether their incomes rise, they seek to return to employment, or they settle with limited income from self-employment (perhaps to supplement a pension).

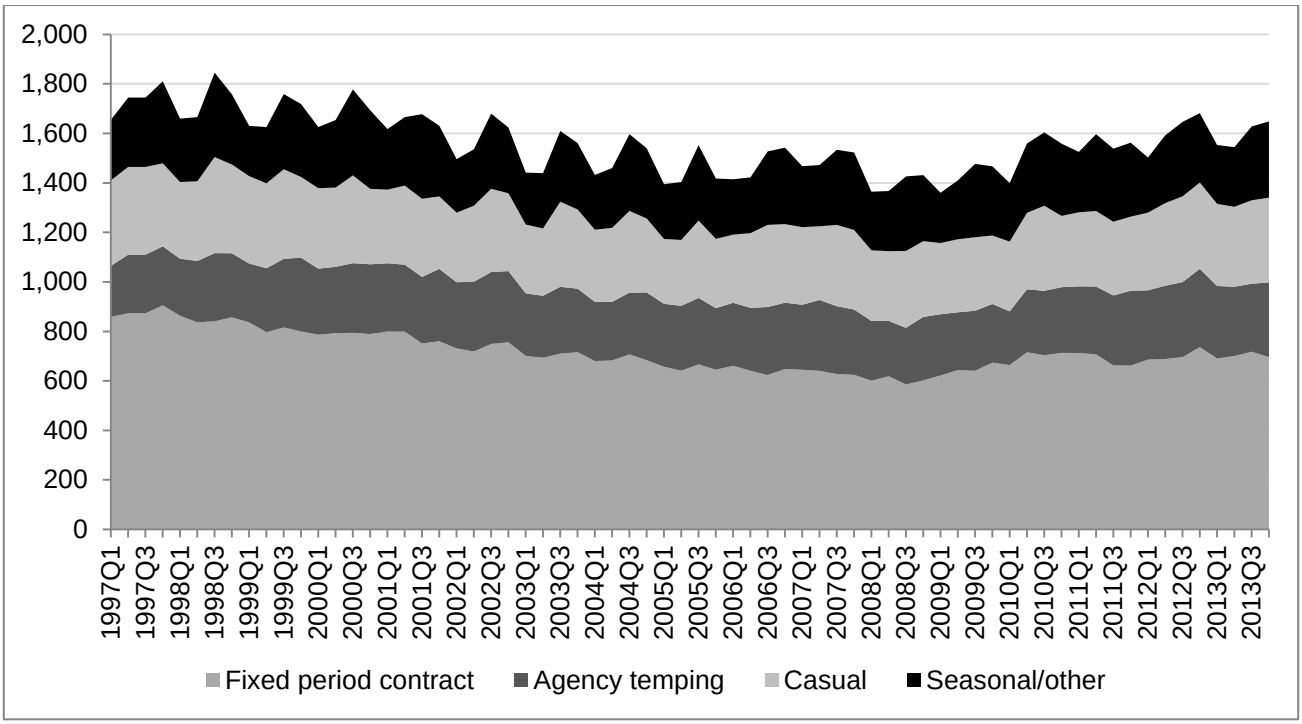
Another change in employment practice comes from the rise of ‘precarious’ forms of employment, including casual, very short-term arrangements or those with ‘zero hours’ guaranteed. In terms of temporary contract arrangements, the long term trend before the onset of recession was for a slow decline in these arrangements (even as employment increased). Recession has led to a moderate reversal of this trend, with a sustained increase in the use of fixed period contracts and casual employment (Figure 2.7).

Again, it will be interesting to see the extent to which this change is a symptom of recession and recovery, and whether a return to sustained growth will see a decline once again. Temporary employment has advantages in offering flexibility, but there are concerns over its increased use. In particular, zero-hours contracts require that employees only attend work and are paid when there is work to be done.

[4] http://www.resolutionfoundation.org/press/self-employed-survey/

In early 2014, the ONS (2014a) conducted a new business survey specifically to tackle these problems and estimate that there are 1.4m employee contracts "that do not guarantee a minimum number of hours".[5] Overall, 13 per cent of businesses report using them, with higher proportions for large businesses and those in accommodation and food services (45 per cent) and health and social work. While more likely to work part time, zero hours contracts employees are much more likely (35 per cent to 12 per cent) to want more hours' work than they currently get.

Figure 2.7 Temporary employees, 1997 to 2013 quarterly, 000s employees



Source: ONS Labour Market Statistics, table EMP07

2.4 Migration and the labour market

During the 2000s, immigration saw a substantial and sustained increase, accounted for by migrants from the Accession 8 (A8) EU member states[6] and more recently Bulgaria and Romania, as well as a general increase in migration from outside the EU. From 2001 to 2012, the latest estimate is that there was net inward migration of 2,359,000. Because of emigration by UK nationals, the effect on the composition of the workforce can be understated: in a typical year in the 2000s, around half a million people migrated to the UK.

[5] One person may hold several contracts, and whether an employee is always conscious of not having an hours guarantee may vary greatly with their situation. Individual level perceptions imply that 583,000 people are on zero hours contracts.
[6] Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia, Slovenia.

From 2004 to 2012, the UK added to its resident population an estimated 949,000 A8 citizens, 141,000 citizens from the previous EU member states, and 647,000 non-EU citizens.[7] During the same period, the labour market performance of migrants improved. Where previously, migrants typically had higher unemployment, migrant men became more likely to be in work than native men (Frontier Economics, 2013, p87). These changes have had substantial implications for the composition of the workforce, with much subsequent discussion on their implications.

Recent migrants have been more likely to be employed in low-skilled work; over a decade, migrant shares in low skilled sectors increased by six percentage points, rather than three percentage points in other sectors, with similar results for occupations. Sectors with high levels of temporary working seem more likely to employ migrants, and agency working is also an important route for migrant employment, especially among A8 workers. Paradoxically, while more likely to be employed in less skilled work, recent migrants are on average better educated than native workers (Frontier Economics, 2013, pp87-89).

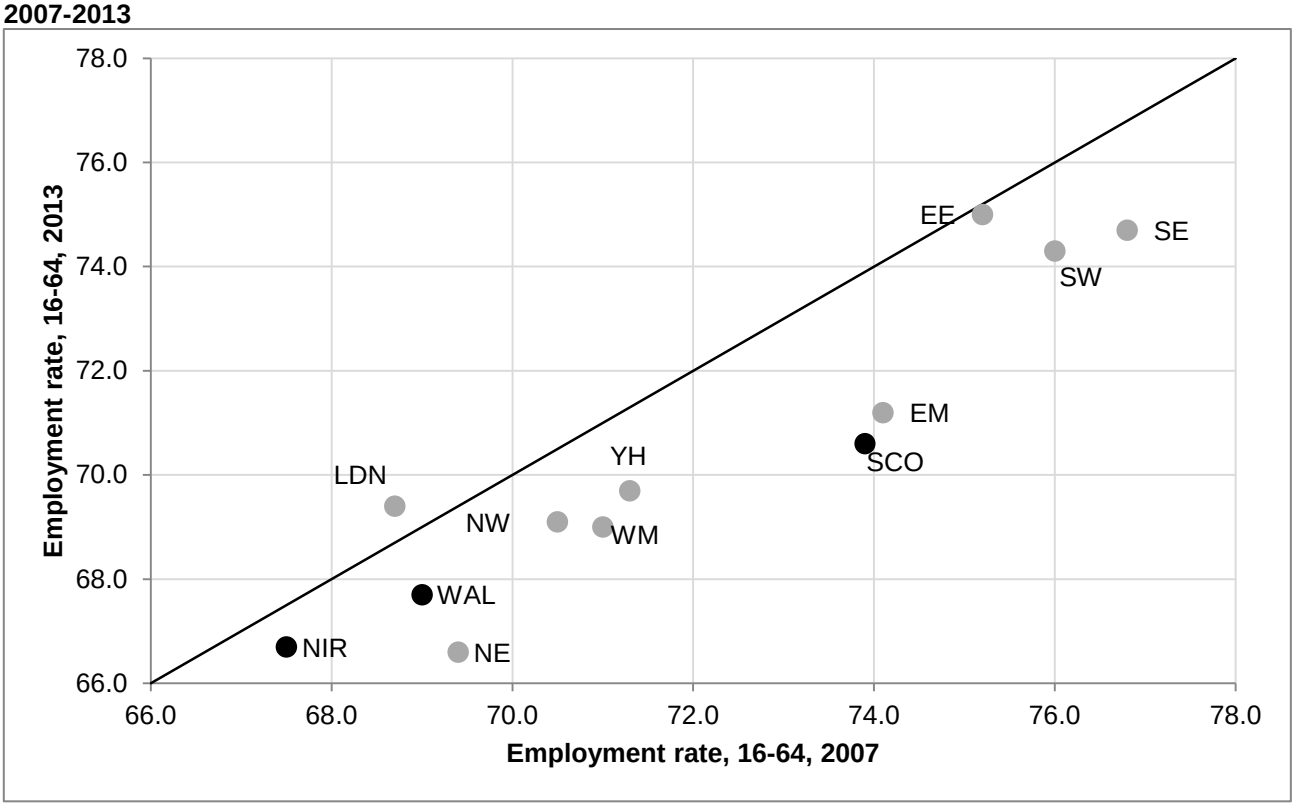
While there is some evidence of employers viewing young native workers as having 'attitude problems', there is little evidence of a general desire to hire migrant workers in preference to native workers (Green *et al.*, 2013). There is on the other hand evidence that the arrival of migrants into lower skilled work has encouraged low-skilled native workers to move into more communication-intensive roles, while migrants, often less skilled in the English language, focus on manual task-intensive roles (Bisello, 2014).

2.5 Labour markets across nations and regions

Figure 2.8 highlights the different experiences of devolved nations and English regions through the period 2007 to 2013, by exploring the employment rate before and after for each area. The 45 degree line represents stability across the six-year period. Those below the line have seen a fall in employment, which is the case for everywhere except London. The South East, with the highest employment in 2007 remains the second highest despite a two percentage point fall.

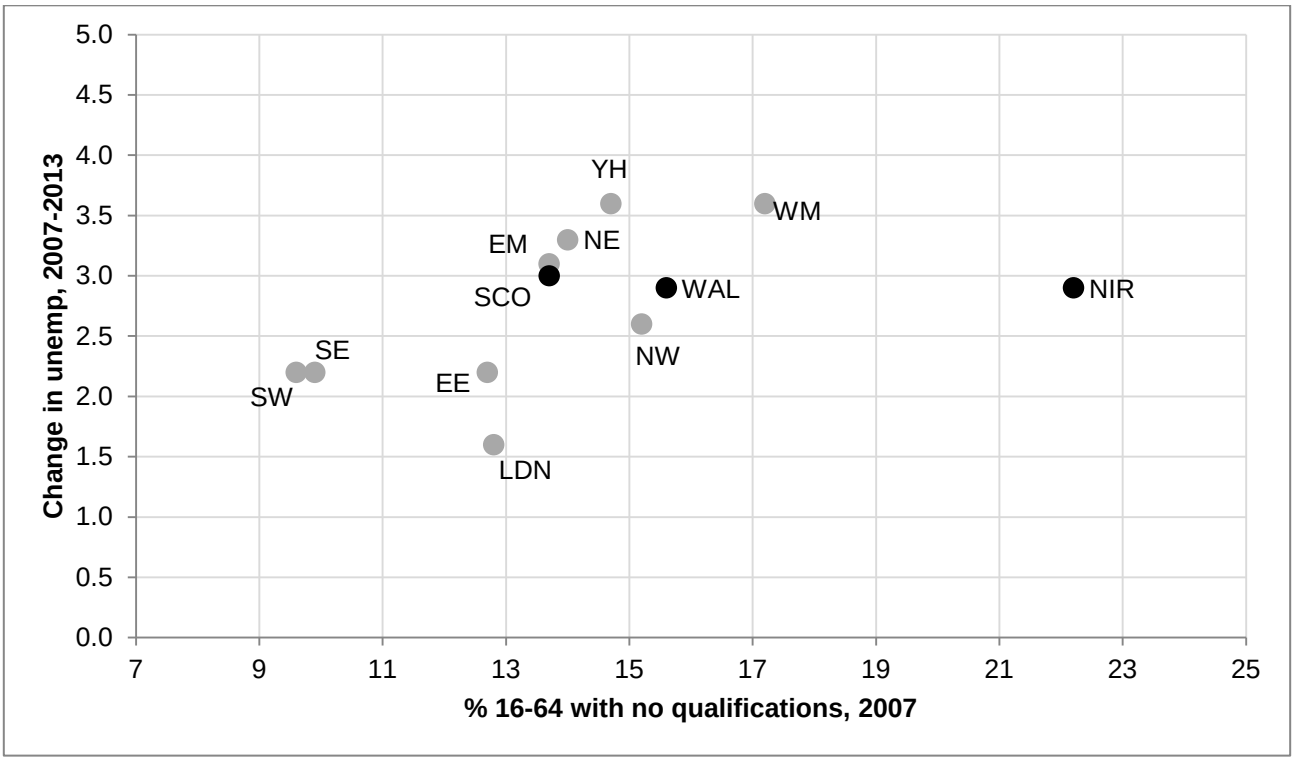
[7] Data from ONS International Compendium: Population Theme, 24 April 2014.

Figure 2.8 Change in employment rates, 16-64, devolved nations and English regions, 2007-2013



Source: ONS Annual Population Survey, employment (Jul-Jun data for 2007 and 2013)

Figure 2.9 Workforce with no qualifications and change in unemployment, 2007-2013



Source: ONS Annual Population Survey, employment (Jul-Jun 2007 and 2013) and qualifications (Oct-Dec 2007)

Interestingly, the largest falls in the employment rate are in two areas with higher-than-average employment levels in 2007: Scotland and the East Midlands, with both seeing a fall of around three percentage points. Those nations and regions with the lowest prevailing rates (again, excepting London) such as Northern Ireland, Wales, and the North East, also all saw falls by 2013. Excepting London (and, narrowly, the East of England), all nations and regions shared in lower employment rates by 2013. However, those areas already suffering employment problems have not been spared further increases in unemployment either. At the local level too, areas with relatively high levels of unemployment at the start of the decade also had them in 2010 (Ormerod, 2014).

Spatial employment differences are especially pronounced for those people with no or low qualifications. London and the surrounding regions of the 'Greater South East' have disproportionately high shares of jobs requiring higher level qualifications in the UK, while areas such as the North East and the North West have the lowest rates. Given that we know those with no qualifications face poorer prospects for employment and earnings (see below), it is unsurprising that regions and nations with more people with no qualifications saw greater rises in unemployment (Figure 2.9).

2.6 Matching skills to needs

While the UK labour market has performed very well in efficiency terms through the tough times of recession and a slow recovery, there are larger question marks about its effectiveness in matching labour supply to employer needs. At the macro level, there are certainly questions about the level of underemployment in the workforce, with substantial numbers reporting a wish for greater or fewer hours of work than they currently have.

Such arguments are summarised in the Bell-Blanchflower underemployment index,[8] which adds to the conventional unemployment rate an estimate of net additional hours' work which is desired but not fulfilled. That index suggests substantial additional potential in the labour market, if employees can be matched to the right job opportunities. A similar approach is taken in Weale (2014), but with further adjustments made to account for revealed preference in changes to hours worked, and for the distribution of hours according to productivity, which again suggests some slack in the labour market, but only a little under one per cent of GDP.

[8] http://bellblanchflowerunderemployment.com/

Perhaps more interesting is how well the labour market is adapting to the substantial and continuing supply-side changes to the UK economy. Figure 2.10 sets out the way industry sector labour markets have adapted over the past few years, plotting each sector in terms of its unemployed past workers and its available industries. The trendlines help to identify the relative tightness of different sectors. Those above the line are those with a higher ratio of vacancies to unemployment, and those below have relatively fewer vacancies.

A snapshot is taken at three points: the pre-recession low for unemployment; the post-recession peak; and the most recently available data. There is some stability in relative positions around the economy-wide trend, with the same major sectors above the line (financial, professional services, education, health and social work) and below the line (construction and manufacturing). Interestingly, it is those sectors initially below the line which see the most substantial changes amidst recession. This is particularly significant given ambitions to grow the share of export-led manufacturing in the economy.

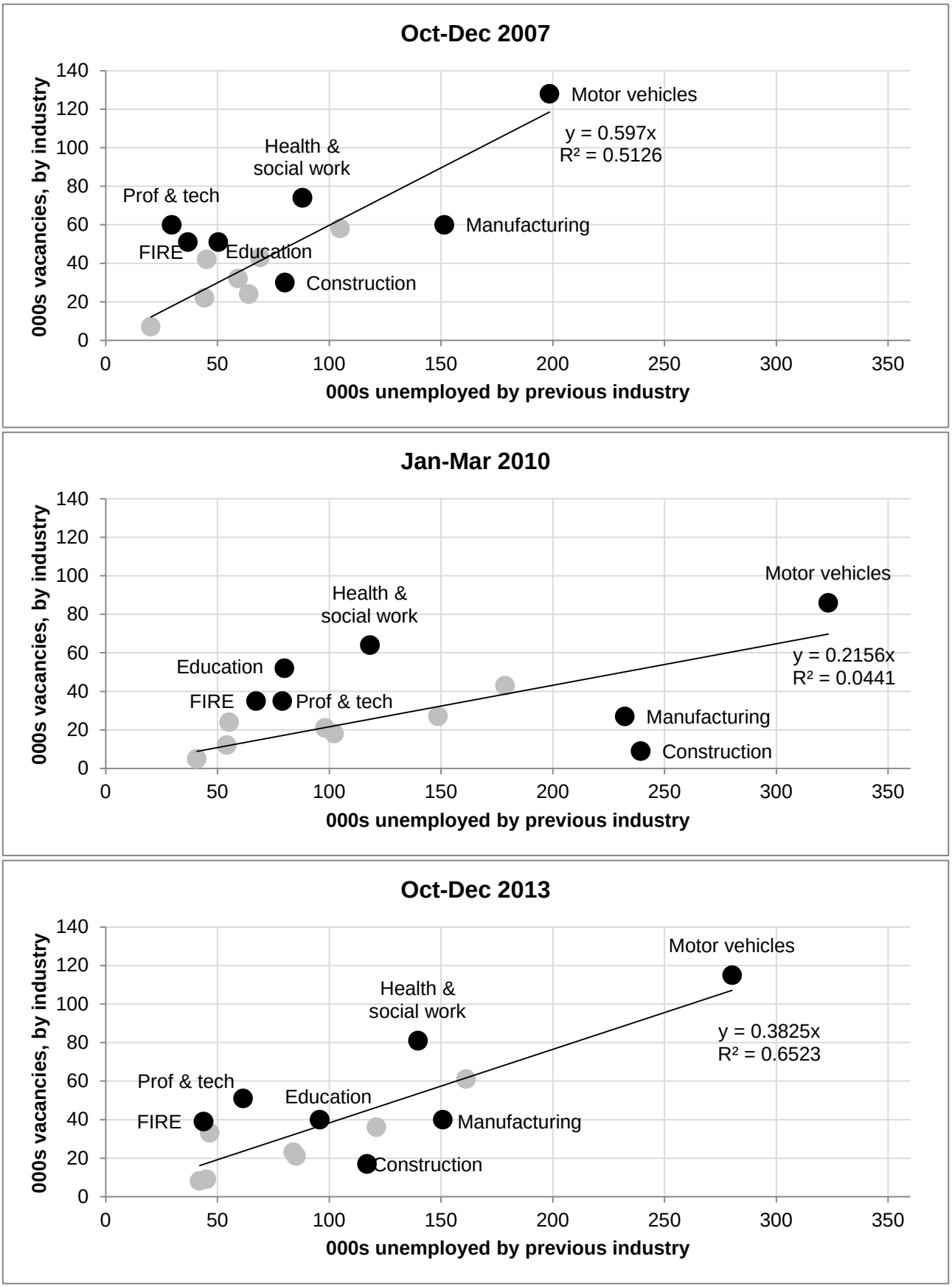
Also worth noting is that the broad picture across sectors is clearly returning to a similar pattern to that seen before the recession, with a tightening even in those sectors which were most clearly affected, and an upward shift in the slope of the trendline. That reversion corresponds to the path of the overall ratio of unemployment to the number of vacancies (2.4 in late 2007, 5.5 in early 2010 and moving back down to 4.1 at the end of 2013).

That said, given the troubled recent record on productivity growth and the particular weak points in the British economy, it is worth considering whether labour market mismatch is leaving some of the workforce underused while some firms can't grow because they can't find the right skills. Certainly, the 2013 UK Commission's Employer Skills Survey (UKCESS) provides evidence on both counts. In that year, a tightening labour market saw 22 per cent of vacancies characterised by skills shortages, up from 16 per cent two years before. In Scotland, skills shortages accounted for 25 per cent of vacancies up from 15 per cent. (UKCES/Winterbotham *et al.*, 2014, p27)

Altogether, the estimate was of 146,000 skills shortage vacancies in the UK labour market in 2013; a small number in a workforce of 30 million. But there is clear evidence that skills shortage vacancies are likely to occur precisely where firms need those skills, and that employers end up facing higher wage costs or seeking to 'make do' with less skilled employees, both hindering productivity growth (Haskel and Martin, 1993). Alongside skills shortages during recruitment, 15 per cent of establishments report skills gap with their existing workforce, accounting for an estimated 1.4m employees in 2013 (UKCES/Winterbotham *et al.*, 2014, p39).

At the same time, we find nearly half (48 per cent) of establishments reporting employees with both qualifications and skills more advanced than is required for their current job role, accounting for some 16 per cent of the total workforce, an estimated 4.3 million workers; more than are considered to have skills gaps (UKCES/Winterbotham *et al.*, 2014, pp49-50). The coincidence of skills shortages and skills gaps in some firms with underemployment of skills in other firms seems a paradox, but there are some likely explanations: for one, that the composition of workforce skills is not the same as that needed by employers. For a second explanation, it may be that even where the skills are available in the workforce, the labour market is not as effective as we would like at matching those skills to employers' needs. (See 'The Labour Market Story: The State of UK Skills' for further discussion of skills shortage vacancies, gaps and under-use of skills).

Figure 2.10 Vacancies and unemployed by industry, before, during, after recession



Source: ONS Labour Market Statistics, UNEM03 and VACS02 tables. Trendlines are fitted with a zero intercept; higher slopes indicate tighter labour markets, with more vacancies per unemployed person. 'FIRE' = financial services, insurance and real estate activities; 'Prof & tech' = professional, scientific and technical activities.

Patterson *et al.* (2013) explore the question of mismatch between workers and jobs in the UK, by estimating a matching function with Labour Force Survey data. They find 'imbalances between vacancies and unemployed workers may be much more important for skilled (high wage) workers', and that such imbalances have increased with persistence as a result of recession, perhaps reflecting the continued tightness in growth sector labour markets seen in Figure 2.10. The same analysis does not find mismatch to have worsened across geographic areas.

Comparing the UK with the US, there appears to be a lower level of mismatch in the UK but the recession saw a much steeper rise, perhaps because of its particular exposure to change in the financial sector and the Eurozone export markets. Also, interestingly, where the US seems to have seen the level of mismatch fall consistently since the end of the recession, in the UK it saw a sharp fall and then a growth through 2011 and 2012 (Patterson *et al.,* 2013, p14). This could reflect underlying structural issues such as demand deficiency.

3 Skills, pay, and mobility

Labour markets matter not only in the aggregate sense of matching available labour to employers' demands, but also in creating opportunities for individuals to earn and to develop their careers. As a society, we want the labour market to not only be efficient at keeping people in work and effective at matching skills requirements, but also to afford people the opportunity to do fulfilling work, earn decent wages, and progress according to their skills and merit.

3.1 The link between skills and employment and earnings outcomes

Skills matter a great deal for individuals' labour market outcomes. They maximise the prospects of being in work:

> So, do less educated workers bear the brunt of unemployment? [The data] suggest that they do … Workers who left school prior to age 18 not only face significantly higher rates of entry into unemployment, they also experience substantially longer jobless spells relative to their more educated counterparts. Thus, higher rates of unemployment among the low-skilled appear to be a consequence of both increased incidence and increased duration of unemployment spells. (Elsby *et al.*, 2011, 361)

The same applies to earnings potential. Using the OECD PIAAC survey to look at skills rather than qualification, Hanushek *et al.* (2013) find the UK to have a high lifetime returns to skill in comparison with the majority of advanced economies: 23 per cent additional earnings for a one standard deviation improvement in numeracy skills, compared to 18 per cent across 22 countries.

Recent research by the Social Market Foundation highlights the fifth of the UK workforce employed on low rates of pay (defined as earning less than two-thirds of the median hourly wage). While a high proportion among advanced economies, more concerning is that the majority do not move out of the low paid category after a year. One in eight workers are in low pay and will still be so a year later; of those currently in work paid above the two-thirds median hourly wage, only five per cent will be low paid a year later (Keohane and Hupkau, 2014).

More than half of those on low pay are educated to GCSE level or below; 51 per cent of those with no qualifications are on low pay (Keohane and Hupkau, 2014, p27). Not that all is lost due to prior educational attainment: those least likely to move occupational group were those on low pay who did not receive training in the past year (Keohane and Hupkau, 2014, p28).

Skills play a critical role in shaping employment and earning. That includes the addition of new skills, and it is not only limited to graduate skills. Recent analysis for BIS estimates that a Level 2 Apprenticeship adds a net present value between £48,000 and £74,000 to lifetime earnings, and a Level 3 Apprenticeship between £77,000 and £117,000. Likewise, holding a Level 3 NVQ makes men nine percentage points more likely to be employed compared to holding Level 2 or lower qualifications; for women, the difference is 17 percentage points (Conlon *et al*., 2011).

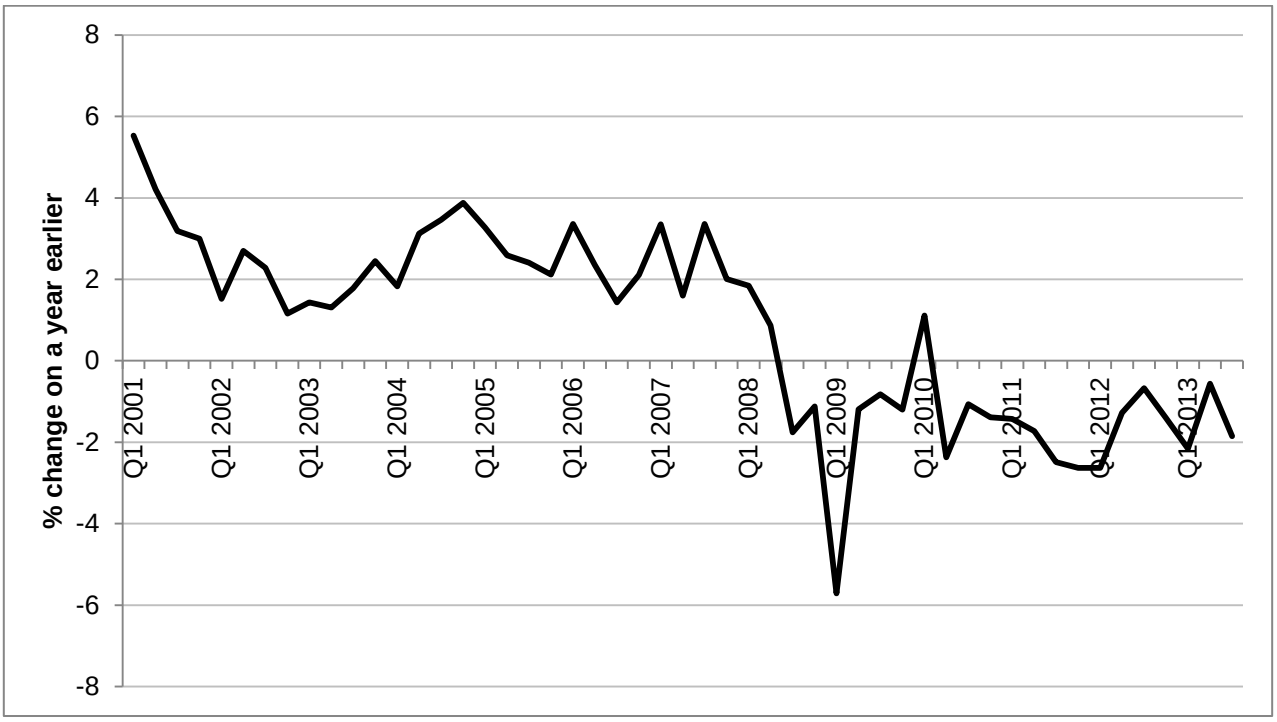
3.2 Earnings and living standards

One of the biggest changes in the UK labour market since the onset of recession is the sustained decline in real wages. Starting in 2008, wages have not grown as fast as consumer prices, and so real wages have declined (Figure 3.1). Such has been the strength of the decline that real wages at the end of 2013 were around the levels first achieved a decade earlier.

There is an argument that this change started earlier: across much of the wage distribution, wages stagnated as early as 2003. Given the growing economy for the years from 2003 to 2008, these trends have led to concerns that wages have ‘decoupled’ from productivity, with calls to set policy to increase the share of GDP paid out in wages (Lansley and Reed, 2013).

In a recent review of the path of real wages, the ONS (Taylor *et al.*, 2014) concluded that the decline since the onset of recession seems to be ‘the response to the fall in productivity in 2008 and 2009 and its subsequent weakness’. While they see a role for both rising hours worked and sectoral composition cutting into pay during the recession, both of these were factors during the downturn and have since been offset to some extent.

Figure 3.1 Growth in average real wages, 2001-2013



Source: Taylor et al. 2014. Real wages are from Average Weekly Earnings, deflated by CPI.

Taylor *et al*. (2014) suggest that the divergence between output and consumer prices also played a part. Specifically, while consumers faced higher import prices cutting the value of their wages, the cost of wages to employers remained much more stable in terms of the goods and services they sell (Figure 3.2). Adjusting for this difference in consumer and output pricing, wages track productivity much more closely.

Taking a longer term view of whether wages 'decoupled' from productivity, Pessoa and Van Reenen (2012) find likewise that much of the explanation lies in the divergence of wages from their cost to employers. That includes the different paths of consumer and output prices, but also the increased 'wedge' of labour costs over and above wages (most notably, pension costs). They find that, along with an increase in wage inequality, these changes can explain most of the apparent difference, and that 'there is almost no net decoupling [of wages and productivity] in the UK'.

In terms of the response to the conditions of recession and poor productivity, Gregg and Machin (2012) find that real wages have proven much more sensitive to unemployment in the recent recession than in previous episodes. In keeping with the path of the labour market in 2013, they suggest that unemployment's fall will be faster than the recovery in earnings. The increase in sensitivity has been across the wage distribution, although workers in the bottom half of the wage distribution face a much greater sensitivity of wages to unemployment. Equally, the low-paid labour market has not benefited from an overall positive effect on the wage distribution arising from immigration (Dustman *et al.*, 2013).

Figure 3.2 Consumption and Product Wages in the UK, 2000-2013

Source: Taylor et al. (2014), Consumption Wage uses CPI, Product Wage uses GDP deflator

3.3 Occupational change and job prospects

In the past decade the UK labour market has generated its largest number of jobs in high skill categories, which include managerial, professional and technical roles. The recent publication of the fifth iteration of the *Working Futures* projections suggest that this trend is set to continue in the years ahead, with over four million net new jobs added in these occupational groups (UKCES/Wilson *et al*., 2014). Besides these high-skill roles, only jobs in the caring, leisure and other services group are also set to see a net expansion (Figure 3.3), suggesting that those with greater skills will be in continuing demand for some years to come.

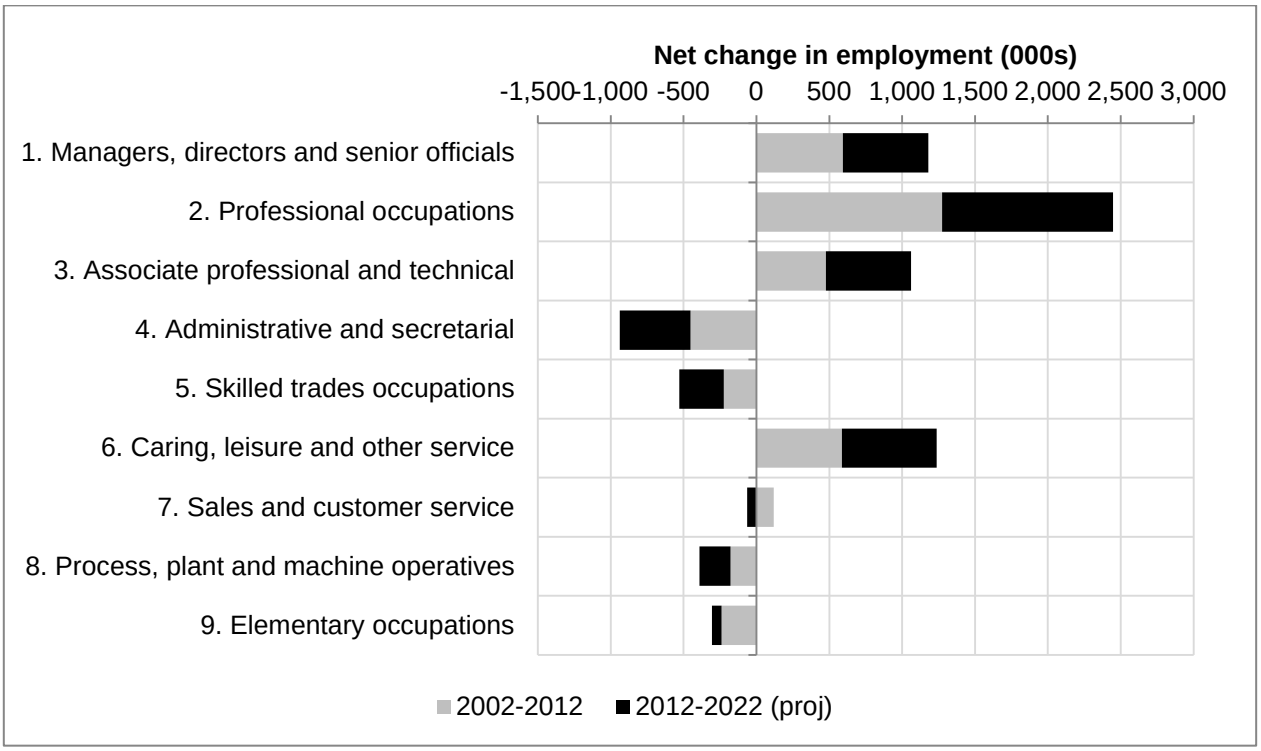
The leading cause for these changes is the falling cost of computational power, which allows routine tasks to be reliably automated, making possible a substitution of capital for labour where jobs are routine task-intensive. Combined with a general skills bias in technological change, demonstrated in high skills premia (Hanushek *et al.*, 2013), the change results in growing prospects for the highly skilled, with potentially falling prospects for the middle skilled.

The concern is that the sustained decline in middle-ranked occupations (administrative and secretarial, and the skilled trades) will limit opportunities for middle skill individuals to find fulfilling careers and earn decent incomes. There will be 'lovely' jobs for the high-skilled and 'lousy' jobs for the low-skilled (Goos and Manning, 2007). This is the much-discussed 'hollowing out' thesis: that the labour market is polarising into high- and low-skilled jobs, with a diminishing middle.

There is some controversy here, as some data suggests that these changes are less consistent than the theory proposes (Holmes and Mayhew, 2012). Further, analysis of the wage distribution suggests that opportunities in the middle are not disappearing, as "a number of relatively 'good' jobs begin to look a lot more like mid-wage jobs" (Holmes and Mayhew, 2012, p10).

It may be that qualitative polarisation, in terms of job types, is not reflected quantitatively, in terms of wages. It is also worth bearing in mind that the need to replace departing workers means that there remain plenty of new job openings all occupational levels, even in those occupations which are declining in terms of their overall number (UKCES/Wilson *et al*., 2014; McIntosh, 2013). On the other hand, qualitative change in terms of job type may be a problem if aspirations and education, training and employment institutions fail to fully adapt. The fates of those displaced from middle-skill occupations and the changes to career progression arising from polarisation remains a gap in the literature (McIntosh, 2013, p44).

Figure 3.3 Past and future net change in SOC2010 Major Groups



Source: UKCES/Wilson et al. (2014)

3.4 Inequalities in the labour market

There are significant differences in labour outcomes between various groups in the UK, including in income and earnings, economic activity, and employment and unemployment rates. For example, some groups in the population struggle to enter employment and maintain their position in the labour market. Women, people from minority ethnic groups, people with disabilities, and those aged under 25 and over 55 years are all more likely to be either unemployed or economically inactive (Brewer *et al.*, 2012).

The differences in the labour market position of men compared to women (including the distribution of workers by occupation and industry) have significant effects on the observed gender pay gap. Men typically work more hours than women and are more likely to work in higher-level occupations, which typically attract higher pay. The gender pay gap (the difference between men's and women's median hourly pay excluding overtime for full-time employees) was 9.6 per cent in April 2012 compared to 10.5 per cent in 2011 (data from Annual Survey of Hours and Earnings, 2012).

There is also variation across ethnic groups in the labour market. Employment, unemployment and inactivity for White and Indian individuals are close to the overall average. People from Pakistani and Bangladeshi ethnic groups tend to perform most poorly on measures of economic activity, with relatively high unemployment, low employment and high inactivity rates. However, within ethnic groups there are additional differences by gender, age and educational attainment, such that there is a complex relationship between groups' characteristics and their performance in the labour market.

There are also marked differences according to disability status with the unemployment rate for individuals with a long term health problem or disability being much higher than for people without a long term health problem or disability. Economic activity and employment rates are also considerably lower for people with disabilities compared to people without disabilities. The unemployment rate is nearly twice as high amongst people with a disability and the inactivity rate for people with a long-term health problem or disability is more than three times the rate for people without a disability. People with a disability have a number of labour market disadvantages – they are more likely to be part-time employees or self-employed than full-time employees compared with people without disabilities. People with a disability in employment are more likely to have no or low level qualifications and are, on average, older than workers without a disability (although this varies by type of disability).

4 Skills and policy: challenges and possibilities

In the long run, a return to sustained economic growth sufficient to make up lost progress in closing the productivity gap with leading advanced economies will require the UK to tackle limits on innovation, competition, infrastructure and investment. For an increasingly knowledge-driven service economy such as the UK, it is investment in 'intangibles' such as research and development, software, reputation, organisational improvement and training which increasingly matters the most: together, intangible investment was £37bn greater than traditional physical investment in 2008. Such investments are also highly complementary, with new technologies requiring new processes and new skills (Dal Borgo *et al*., 2013).

4.1 Skills and economic growth

For an advanced economy such as the UK, investment in improved skills makes a critical contribution to ensure that the right human capital is in place to take advantage of new market opportunities and new technologies. Recent research suggests that a one per cent increase in the graduate workforce results in an increase of 0.2 to 0.5 per cent in productivity (Holland *et al*., 2013).

Decomposition of the gap in productivity between the UK and leading advanced economies finds labour quality (primarily determined by skill levels) to account for around a fifth of the gap in the early 2000s (O'Mahony and de Boer, 2002). An analysis of the effects of skills shortages on firm performance in the 1980s suggests that if they had been reduced to European average levels, the UK would have seen 0.4 per cent faster productivity growth through the decade (Haskel and Martin, 1993).

At firm level, evidence shows that provision of skills training is associated with firm survival (Collier *et al.*, 2007). Improving productivity performance depends on possessing appropriate skills to develop ambitious product market strategies and then implementing them, which depends in turn on management capability (UKCES/Mason and Constable, 2012). Various training programmes, such as Apprenticeships, are associated with achieving a relatively good fit between the skills of employees and the needs of the workplace which contributes to overall organisational performance and growth (see for example Hogarth *et al*., 2012).

UKCESS shows that firms which develop their workforce are less likely to experience skill shortages or skill gaps, and are consequently less likely to lose business to competitors, experience delays in developing new products and services, or encounter problems achieving quality and customer expectations (UKCES/Winterbotham *et al*., 2014).

4.2 The state of the labour market

In this paper, we have presented an overview of the state of the labour market within the UK economy in early 2014, as it moves into sustained recovery after some tough years. The recession which started that period saw a sharper contraction than faced by most other advanced economies as an immediate result of the financial crisis. It is unsurprising that such a large shock uncovered a series of weaknesses with the UK economy, and in particular the labour market.

In fact, the greater surprise is that at the headline level the labour market performed as efficiently as it did; given the fall in output, experience of past recessions would have suggested a far greater and more sustained rise in unemployment. That said, there was still a substantial rise in the numbers unemployed, and this increase hit hardest on many at the fringes of the labour market, least able to withstand the shock, including especially young people and the long-term unemployed.

Alongside the unemployed are those for whom labour market outcomes have meant employment, but not necessarily the type of employment they are seeking. There is certainly evidence of many people quantitatively underemployed (wanting more hours than they have) and only able to find temporary work. The large rise in self-employment may also be a last resort for some of those involved; better than unemployment, but not as they would prefer. These are all fair criticisms of the limits of the labour market's efficiency; although, on the other hand, they are all likely superior outcomes than consigning those involved to lasting unemployment.

The larger issues are longer lasting ones, in many ways already existing and crystallised by the recession. Youth employment, for example, may have fallen sharply in the recession, but it had been falling for some years previously, amidst a tight labour market. Then there is the wider problem that while our labour market seems efficient, it may not always be so effective. Alongside that quantitative underemployment (hours), we seem to have plenty of qualitative underemployment, where people are unable to find work that properly utilises their skills. Worse still, we seem also to have many firms facing limits on growth because they can't find the skills they need.

To some extent, these problems will always be with us; but given the UK's particularly poor record on labour productivity performance since the onset of recession, tackling the rate of mismatches must become a top priority. While they remain they present yet more limits to the potential for longer term growth, for the wider economy but also for individuals, limiting their prospects to work and earn. For firms too, they represent lost opportunities to win new sales, improve efficiency or innovate new products and services. Whether through improving the skills of workers, improving firms' ability to match workers to job needs, or wider changes, investments in improving labour market effectiveness surely will have great value in the years ahead.

4.3 Policy challenges

In a time of great change in technology and global trading conditions, the UK labour market needs to continue to evolve and adapt if it is to match the skills of the workforce to the needs of firms as well as provide opportunities for people to earn a living and build a career. In particular, it must adapt to a number of major challenges:

- Sustaining the fall in unemployment, and working to ensure that those left long-term unemployed, especially those young when recession hit, can return to employment.
- Evolving education and training institutions to ensure that they support successful transitions from education and into employment.
- Ensuring that the supply of skills, and its matching, minimises unmet skills needs among firms, which in turn contribute to lower productivity growth.
- Adapting labour market institutions (education, employment and training) to match a world where traditional ideas about middle- and high-skill occupations are changing fast.

Perhaps most of all, the biggest challenge is encouraging a return to sustained productivity growth, which will contribute to rising wages, profit margins, and so greater investment and expanding opportunity. This point is fundamental to any policy discussion: improving labour market outcomes for individuals depends critically on creating the conditions for rising employer demands, as firms pursue opportunities for business growth. There are no magic wands that will lower unemployment, increase wages (especially for the low paid) and allow for more people to be challenged and promoted; all of these things depend on a successful business sector which embraces innovation and thrives on competition.

What do these challenges mean in practice? Sometimes, it is simpler to start with what they do not. As Lloyd and Mayhew (2010) point out, past attempts to move the UK labour market to deliver progression and higher wages by a general upskilling of those in the workforce without a qualification were not successful (see also Wolf *et al.*, 2006). The polarisation of the labour market means that there continues to be demand for labour-intensive, low-skill work, leaving aside the often multiple barriers facing those at the bottom of the labour market, not always so simply solved.

None of this should be surprising if we consider the role of skills investments as complements to technological and organisational changes. For that reason, skills needs are often very particular to the issues in local or sectoral labour markets, and solutions need to respond to those. The weakness is in ensuring the level of coordination necessary to form those solutions. It is in tackling these coordination problems at local level that the Government is channelling investment through Local Enterprise Partnerships, as well as the Regional Growth Fund and City Deals.

Economic policy plays a fundamental role in shaping employer behaviour and the operation of the labour market. Government's role is to create the 'framework conditions' in which businesses can operate effectively, by ensuring macroeconomic stability and supporting growth. Since the recession, the Government has implemented a range of structural reforms which support increased business investment, improved productivity and wider economic recovery (HM Treasury, 2011). Industrial strategies for key sectors are being developed to support effective long-term cross-working between government and industry, including co-investment. At the sectoral level, the Government has backed the Employer Ownership Pilots, to co-invest with employers, helping to create the infrastructure for lasting coordination improvements. These pilots have a wide variety of approaches, with some investing in recruitment, some in developing new qualifications, and some focused on training arrangements.

So too, Lloyd and Mayhew (2010) make the point that it is only changes in the structure and design of jobs, emanating from the demand-side (the employer side) of the labour market that will make a difference to prospects for pay and progression. Here again, Government efforts to improve the business environment, improving infrastructure and making investment attractive through lower Corporation Tax and removing unnecessary regulation are important, as well as the more targeted supply-side actions to address business and housing finance. In the longer term, Government commitment to invest in science will ensure a flow of research and development knowledge with the potential for substantial 'spillovers' into business opportunity.

It is in the connection between education, training and employment institutions that a lot of work will need to be done. Analysis of labour market change in the US suggests that the contraction in middle-skill roles has limited opportunities most for young people and the currently not employed, and that the expansion of high-skill roles is concentrated on graduates (Smith, 2013). Acting to ensure that our vocational training model is fit-for-purpose, attractive for young people, and delivers guaranteed high standards of skills, will be particularly important. That is why Government has invested heavily in Apprenticeships, is seeking to change them to improve their quality, and looking to employers to take the lead.

At the macro level, the UK needs to create and retain high skill jobs. At the micro level, we need to ensure that these jobs are in high performing organisations. Just as success of UK firms will be the ultimate constraint to improved labour market performance, employer action will be needed to meet challenges successfully. Labour market outcomes are determined by firms deciding to employ and to invest in the talents of their employees. Policy can seek to shape the conditions, to make hiring and investment more likely to succeed. The more that we can assure employers that those conditions are there, especially by involving them in their development, the more likely it will be that policy measures will themselves be successful.

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