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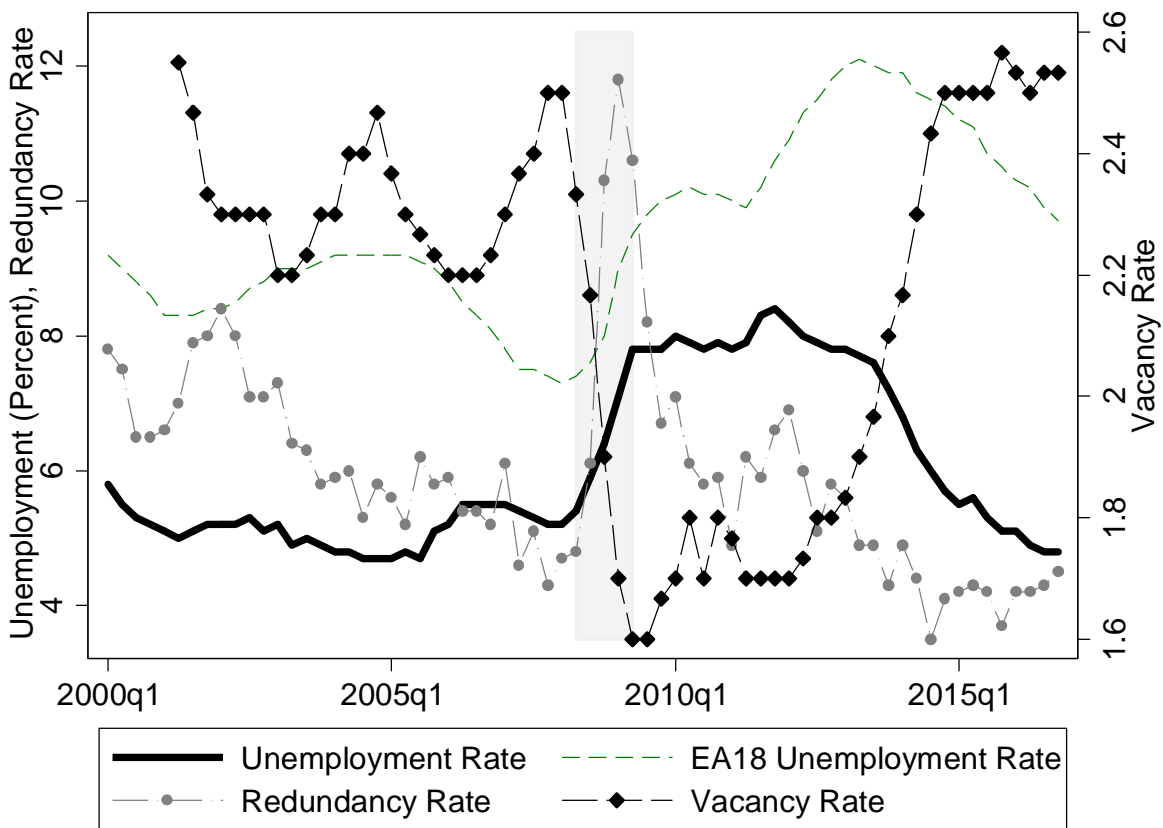
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TITLE: THE LABOR MARKET IN THE UNITED KINGDOM, 2000-2016

TEASER: Unemployment rose only modestly during the Great Recession and fell strongly since, with productivity and wages lagging behind

KEY WORDS: Unemployment; productivity; United Kingdom



Sources: <https://www.ons.gov.uk> (series MGSX, BEIR, AP2Z) and <http://ec.europa.eu/eurostat> (series une_rt_q)

ELEVATOR PITCH: The UK labor market experience in the Great Recession is consistent with the view that the UK labor market is relatively flexible. Unemployment rose less and recovered faster than in most other European economies. An open question is whether the stagnation of productivity and wages, which is the flipside of this success story, represents a cyclical phenomenon or a structural problem. The planned exit of the UK from the European Union, possibly the greatest current threat to the UK labor market, is not yet visible in labor market statistics.

¹ The opinions expressed in this publication do not necessarily reflect the opinion of the European Commission.

PROS	CONS
Unemployment returned to below its pre-2008 recession level. The UK market suffered less and recovered better from the Great Recession than most other EU countries.	The flipside of the low levels of unemployment and high levels of employment is stagnating labor productivity. After the 2008 recession, labor productivity growth never recovered to its pre-recession growth rate.
While wage inequality was increasing until about the year 2000, it has been decreasing over the last 10 years.	Real mean/median weekly and hourly earnings remain below their pre-recession levels..
While both non-EU and EU immigrants had higher unemployment rates than UK-born workers before the Great Recession, both groups of immigrants have fared relatively better since 2008.	The exit of the UK from the European Union , is likely to have large effects on the UK labor market.
The female-male median hourly earnings ratio has been narrowing and is 90% as of 2016.	

AUTHORS' MAIN MESSAGE:

The UK labor market weathered the Great Recession well, at least compared to other European countries. Unemployment rose by about 3% points, started declining relatively soon after, and is now back at the pre-recession level of around 5%. The female wage gap and earnings inequality have been decreasing for the past 10 years. The gap between the unemployment rates of foreign-born and UK-born workers narrowed after the Great Recession and completely disappeared for European immigrants. The flipside of this success story is a stagnation of labor productivity and earnings. While output per hour worked was steadily growing at about 2% annually before 2008, the crisis led a seemingly permanent slowdown in productivity growth. Output per hour remains at a low level compared to other OECD countries.

Motivation

The UK's labor market is an important case to study since, while part of the European Union, it has long been considered the most 'American' of European labor markets. UK workers enjoy by far the least employment protection in Europe. Even internationally, only few countries such as the US, Canada, and New Zealand offer workers less protection.² Another distinct feature is that, potentially due to language and other cultural factor, the UK has for a long time been an attractive destination for both low- and high-skilled migration.

Discussion of pros and cons

Aggregate Unemployment

The Graphical Abstract shows the seasonally adjusted unemployment rate from 2000 to 2016. As indicated by the gray shading, the Great Recession in the UK started in the second quarter of 2008 and lasted five quarters. The unemployment rate rose from 5.4% to 7.8% in the second quarter of 2009. After that, the unemployment rate stayed elevated at slightly below 8%, but began falling in 2011. The reduction in unemployment accelerated in late 2013, and as of the 4th quarter of 2016, UK unemployment was back at pre-recession level of 4.8%.

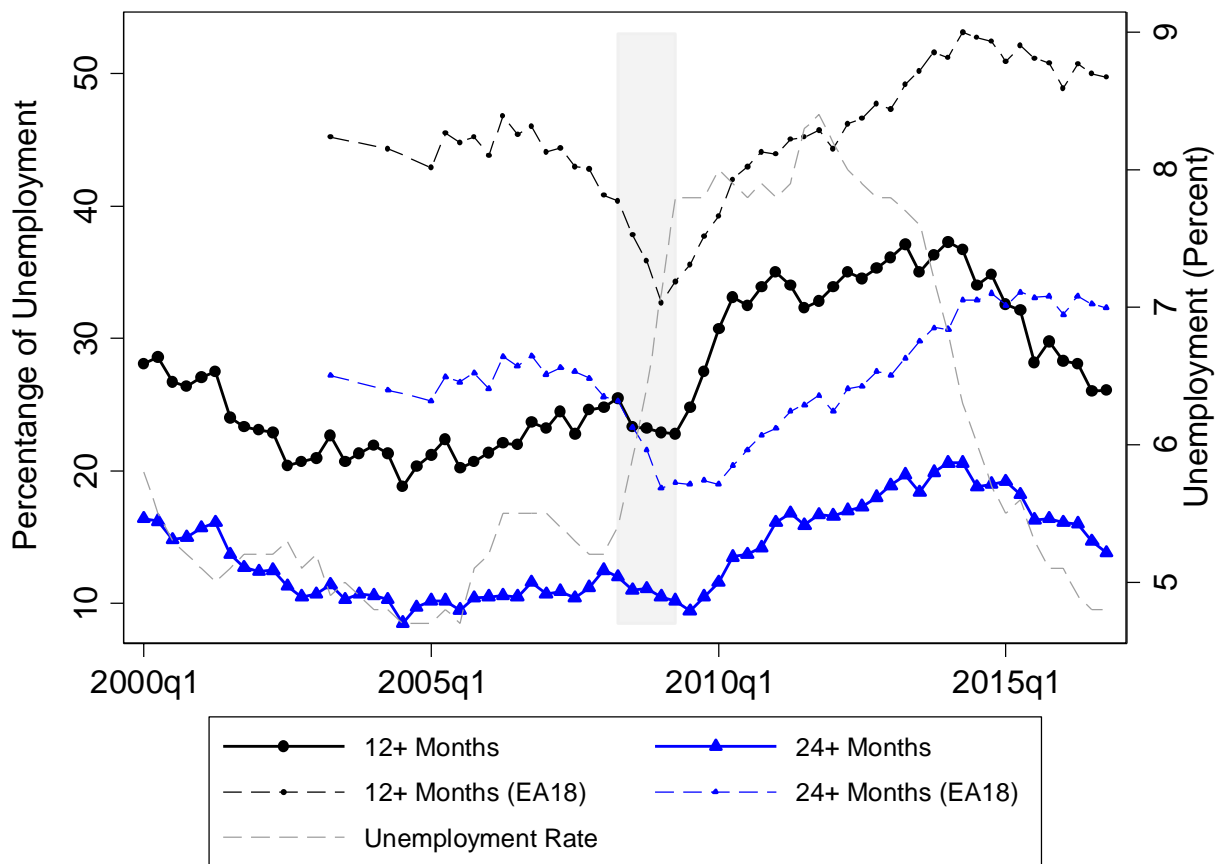
The Graphical Abstract also shows the redundancy rate (number of redundancies per 1,000 employees) and the job vacancies ratio (vacancies per 100 employee jobs), which are reported by the Office for National Statistics (ONS) since the 2nd quarter of 2001. The redundancy rate was continuously falling until the 2nd quarter of 2008, increased sharply during the recession but then returned to its pre-recession level quickly. Vacancies, on the other hand, remained suppressed for several years after the official end of the recession and only increased to their pre-recession level towards the end of 2014.

² <http://www.oecd.org/els/emp/oecdindicatorsofemploymentprotection.htm>

That is, while increase in the unemployment rate during the recession was a consequence of both increased redundancies (inflows into the unemployment pool) and less hiring (decreased outflows), the sustained high levels of unemployment after 2009 seem to be mostly due to the difficulty of unemployed workers in finding new jobs.

While the UK labor market was substantially affected by the recession in 2008, it fared rather well compared to other European labor markets. (The unemployment rate for the EA18 (the 18 nations in the euro zone as of 1 January 2014) is also shown in the Abstract.) While unemployment in the EA18 was consistently about 3 percentage points higher compared to the UK, there were some signs of convergence before the 2008 recession. Compared to the UK labor market, the 2008 recession affected the EA18 unemployment rate much more profoundly than UK unemployment. The unemployment rate in the EA18 stayed elevated for years after the financial crisis in 2008 and remains so at the end of 2016.

Figure 1: Unemployed for more than 12 and 24 months in the UK and EU18 (as share of total unemployment)



Sources: <http://ec.europa.eu/eurostat> (series une_ltu_q) and <https://www.ons.gov.uk> (series MGSX)

Long Term Unemployment

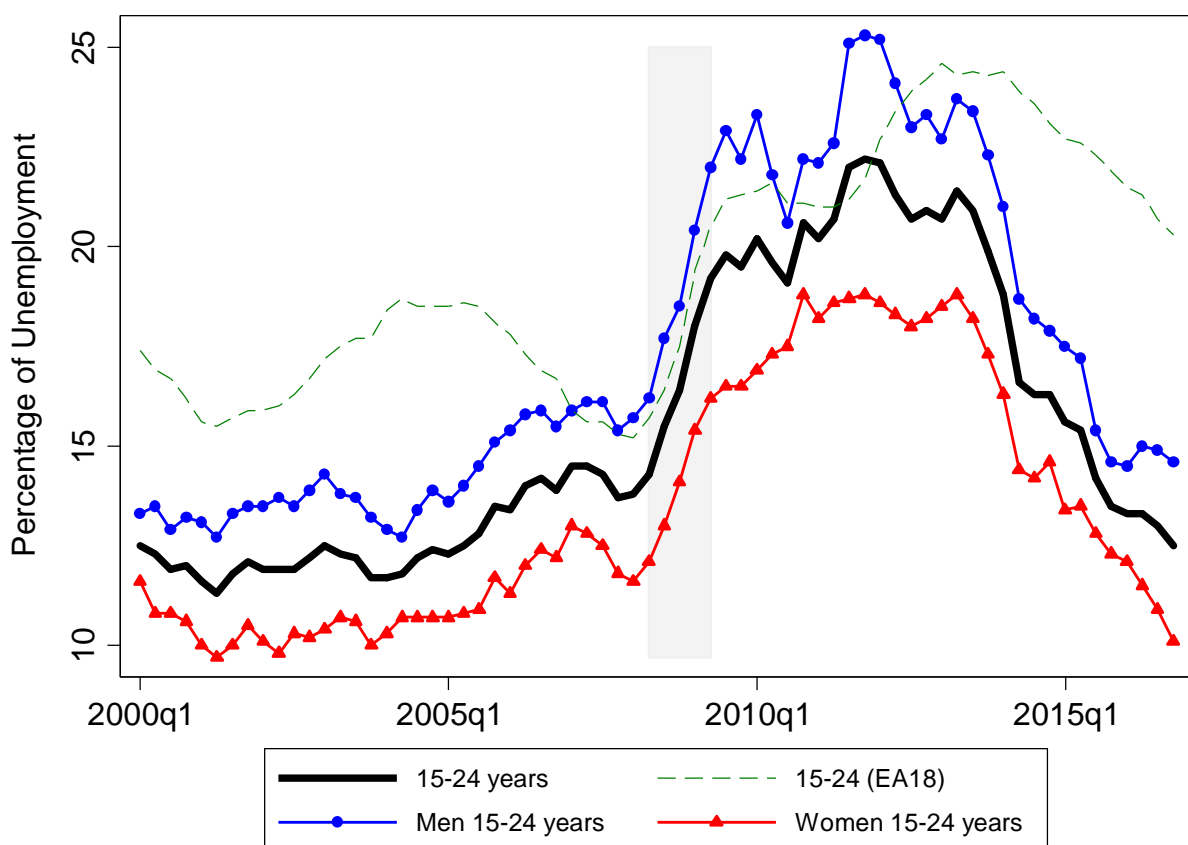
An important concern for both economists and policy makers is the development of long-term unemployment [1]. While short term unemployment is a necessary side-effect of the reallocation of talent within the labor market, high numbers of long-term unemployed may point toward structural problems in labor market institutions and thus may indicate the

need for reform. Long-term unemployment also has important social consequences because a disproportional share of the burden of a recession is concentrated on relatively few individuals. It is a major cause of poverty and affects people's mental and physical health. Furthermore, the long-term detachment of workers from the labor market may lead their human capital to depreciate, since this makes it even harder for them to find a job in the future, spurring a vicious cycle and potentially increasing the 'structural' rate of unemployment.

Figure 1 shows the long (more than 12 months) and very-long term unemployed (more than 24 months) as a share of total unemployment. In the 2008 recession, long-term unemployment fell as a percentage of total unemployment, only to rise substantially during the recovery. This is consistent with the increase in the overall unemployment rate being driven primarily by increased redundancies, whereas the persistently high unemployment during the recovery was mostly due to low finding rates (compare to the Graphical Abstract).

During the recovery, almost 40% of unemployed workers in the UK had been unemployed for at least a year. While striking, this number is relatively small compared to other European countries. The share of long and very-long term unemployment in the EA18 was about 20 percentage points higher than in the UK. In addition, while the share of long term unemployment in the UK started falling again in 2013 and is now back at pre-recession levels, the effect of the 2008 recession on long-term unemployment in the EA18 is still visible today.

Figure 21: Youth unemployment (as share of total unemployment)



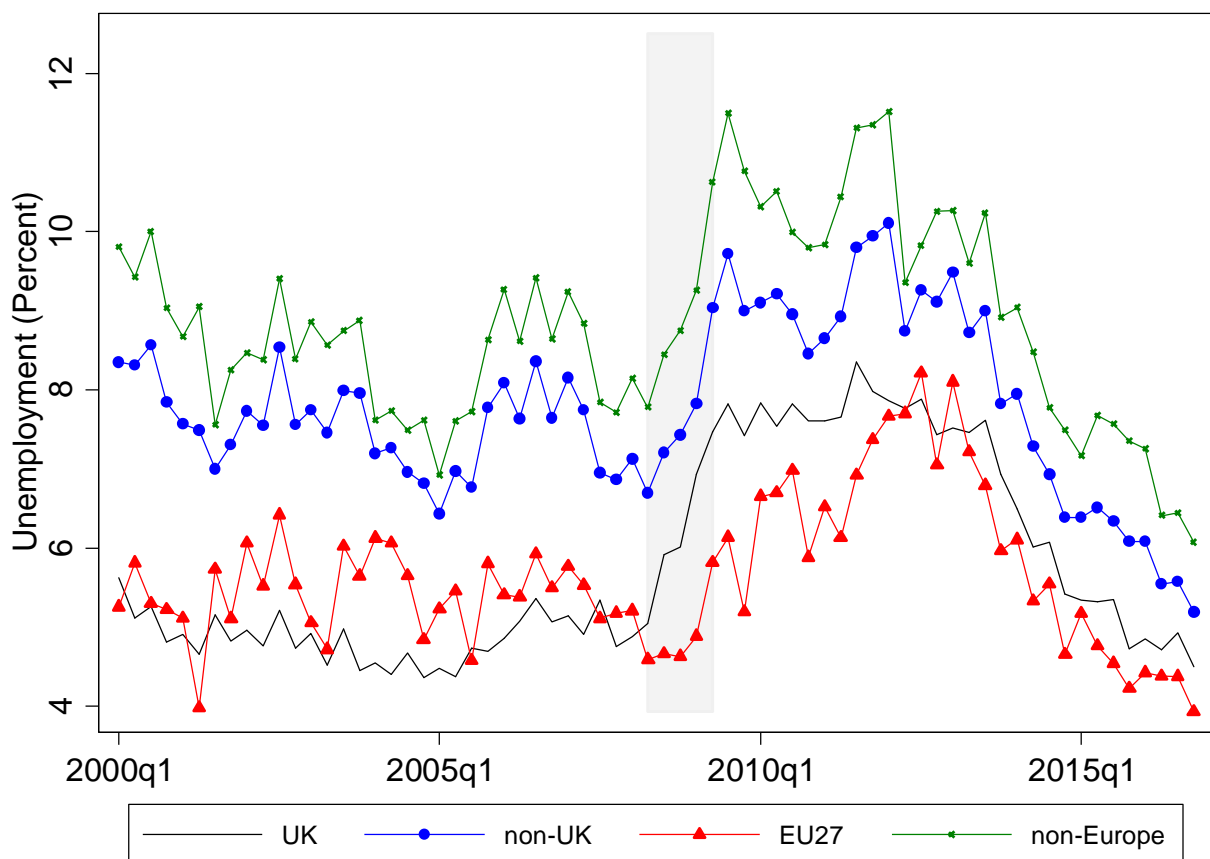
Sources: <http://ec.europa.eu/eurostat> (series une_rt_q)

Unemployment among young workers is particularly worrying, since it may predict elevated unemployment rates in the future. Moreover, since the young unemployed neither attend school nor gather labor market experience, it may be an indicator of depressed future earnings as well.

Figure 2 shows the unemployed aged 15 to 24 as a share of total unemployment. Youth unemployment contributed substantially to the overall increase in unemployment during the Great Recession: the share of youth unemployment went up from about 12% to 20%. Youth unemployment stayed elevated for several years after the recession was over, but has recently returned to pre-recession levels. Again, the UK compares favorably to the rest of Europe in this respect.

Unemployment among Immigrants

Figure 3: Unemployment rate by country of birth



Sources: <https://www.ons.gov.uk> (data set A12)

Foreign-born workers are more likely to be unemployed than native workers. Before the Great Recession of 2008 the unemployment rate of immigrants was about 2 percentage points higher than that of the UK-born population. The Great Recession affected foreign-born workers less than UK-born workers, and immigrants continued to catch up in the subsequent recovery. By 2016, the difference in the unemployment rate between the two groups was reduced to 0.7 percentage points [2].

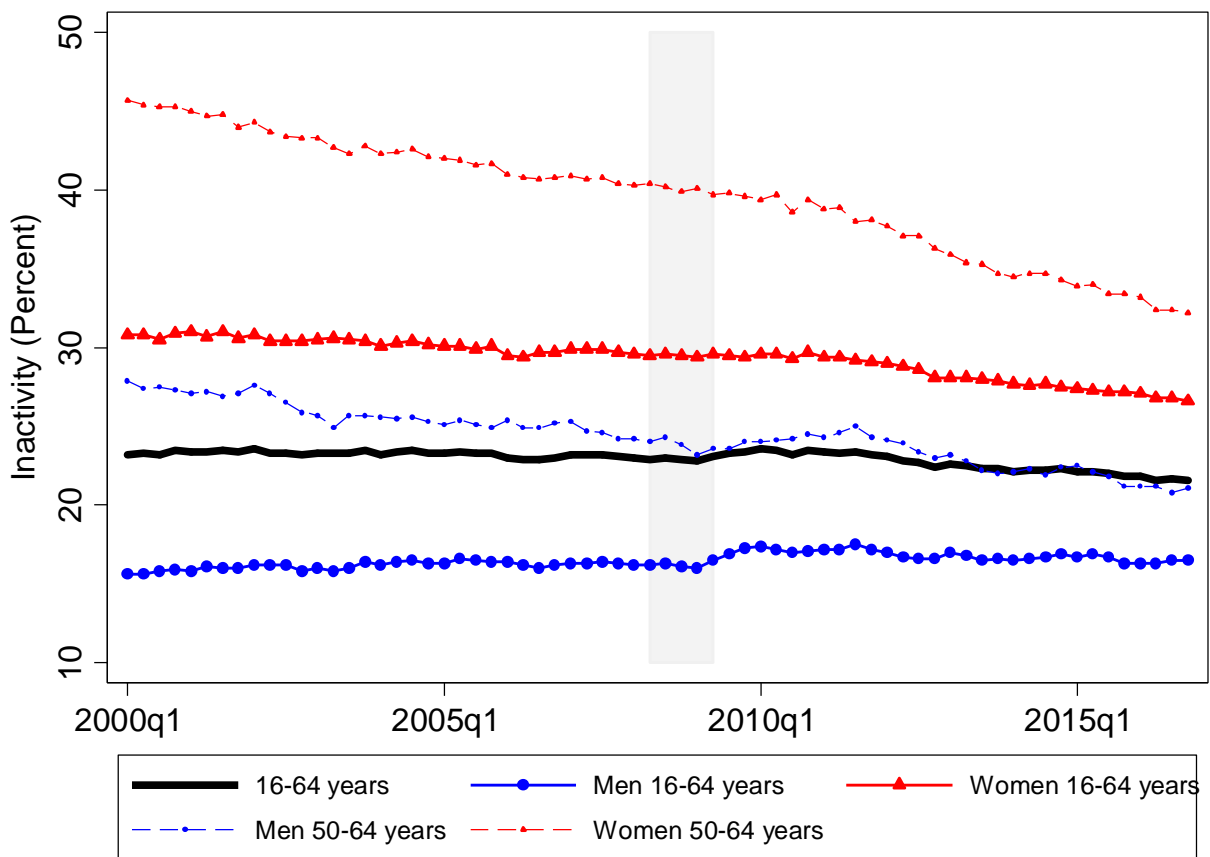
Figure 3 further decomposes the unemployment rate of foreign-born workers into workers born in the EU27, that is, the EU Member States excluding the UK, and that of workers born outside of the EU. European workers had a slightly higher unemployment rate than UK-born workers before 2008. However, since they were much less affected by the Great

Recession, unemployment among EU27-born workers has been slightly lower than that of UK-born workers since then, ending up at just below 4% in the 4th quarter of 2016.

Labor Force Participation

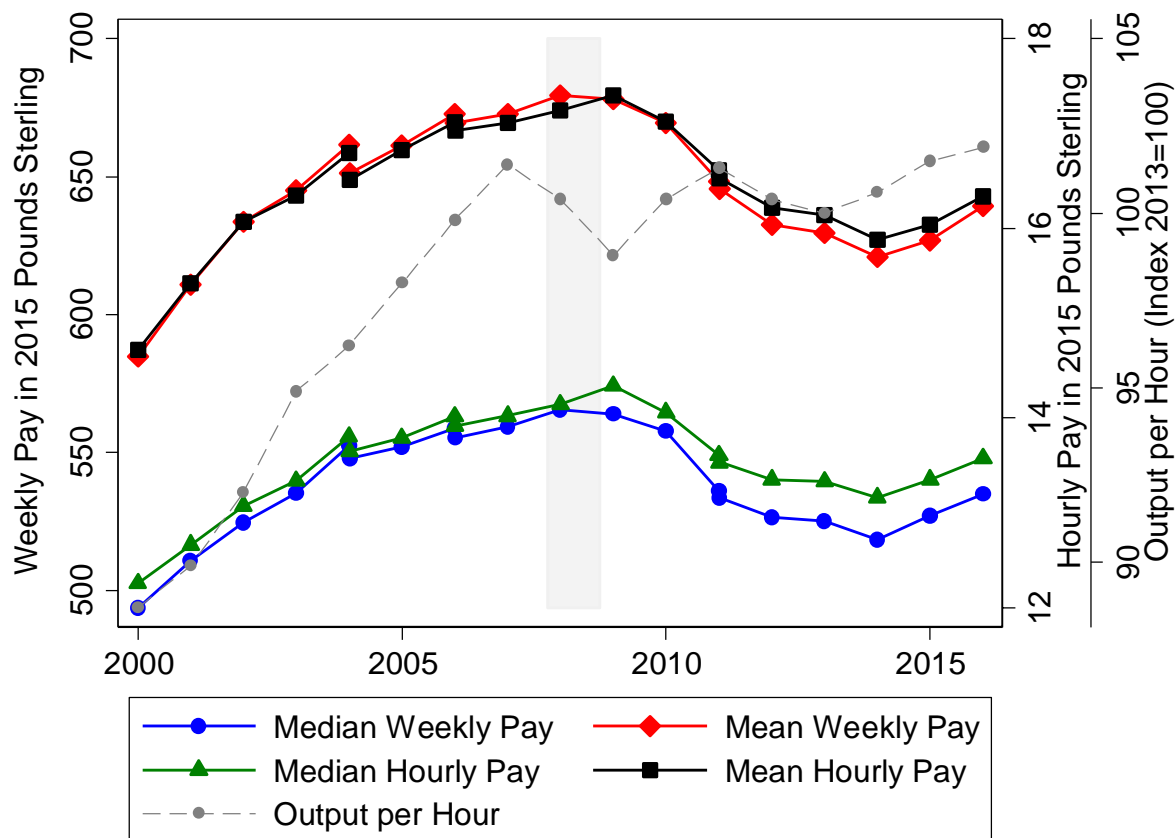
There have not been many changes in labor force participation in the UK. As in most developed economies, and as Figure 4 shows, there has been an increase in participation of women, in particular of 50-64 year olds. Contrary to the US labor market, inactivity (one minus the labor force participation rate) only slightly increased after the Great Recession.

Figure 4: Inactivity



Sources: <https://www.ons.gov.uk> (series LF2S, YBTM, LF2T, LWFK, LF2X)

Figure 5: Mean and median weekly and hourly pay



Sources: <https://www.ons.gov.uk> (data set "ASHE 1997 to 2016 selected estimates") and <http://ec.europa.eu/eurostat> (series LZVB)

Productivity and Wages

Figure 5 shows labor productivity measured as output per hour worked (relative to its 2013 level), along with mean and median weekly and hourly pay. Output per hour was growing steadily at almost 2% per year until it fell sharply in the 2008 recession. Since then, productivity growth has remained permanently below its pre-recession level, and output per hour only recently reached its pre-2008 level. This permanent low post-recession productivity growth trend has attracted a lot of attention. It is at odds with the recovery of productivity following previous recessions in the UK, and is often referred to as the 'productivity puzzle' [3]. In 2016, GDP per hour worked in the UK is 11% lower than in the EA18 and 20% below that of Germany, leading Chancellor of the Exchequer Philip Hammond to complain that it "takes UK workers five days to produce what Germans make in four".

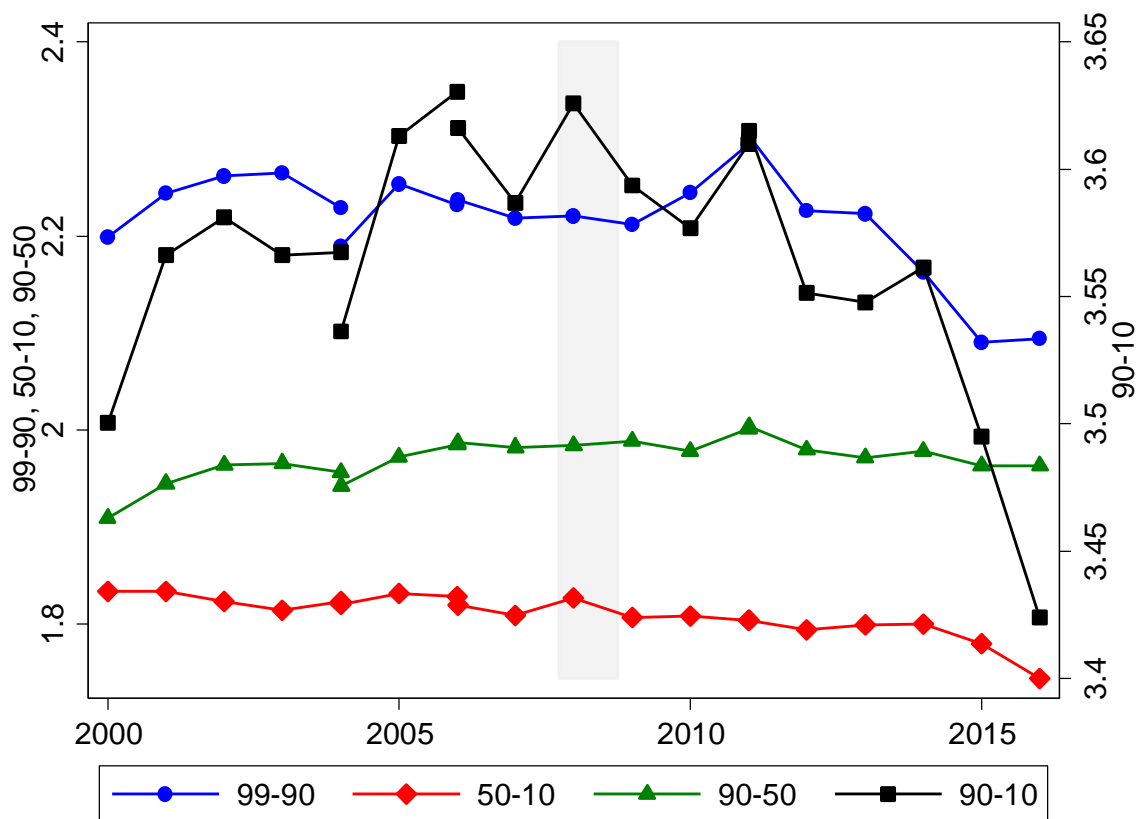
The disappointing evolution of productivity is reflected in wages. Mean wages in Figure 5 are higher than median wages, indicating a right-skewed pay distribution, but the cyclical pattern of all series for earnings is relatively similar. According to all four measures, there has been a very substantial reduction in real pay since the 2008 recession. Although wages did not respond much initially when the recession hit, until very recently they have fallen continuously. Pay is still well below pre-recession levels as of 2016. There is also some indication that the 2008 recession led to a reduction in hours worked, as weekly pay is lagging even more than hourly pay.

Earnings Inequality

A two-decade long rapid increase in earnings inequality in the UK came to a halt around 2000 and may have started to reverse in recent years. Figure 6 shows different measure of earnings inequality based on gross weekly earnings for full-time employees. The 90th percentile of weekly earnings is slightly less than double median pay, and this ratio has stayed roughly constant since 2000. The median is around 1.8 times the 10th percentile, and this ratio has declined somewhat, with growth in low wages outstripping wage growth for high earners. As a consequence, the 90-to-10 percentile pay ratio has decreased over the sample, especially in the last few years [4].

Finally, Figure 6 shows the evolution of inequality at the very top of the earnings distribution. There is a concern, particularly in the US, that earnings growth of the 'lucky few' is vastly outpacing that of other workers.. As can be seen in the figure, this is not the case in the UK. The 99-to-90 percentile pay ratio in fact decreased slightly from about 2.2 to 2.1 over these 16 years.

Figure 6: Earnings inequality



Sources: <https://www.ons.gov.uk> (data sets "ASHE 1997 to 2016 selected estimates" and "ASHE UK, Public and Private 90th - 99th Percentile data")

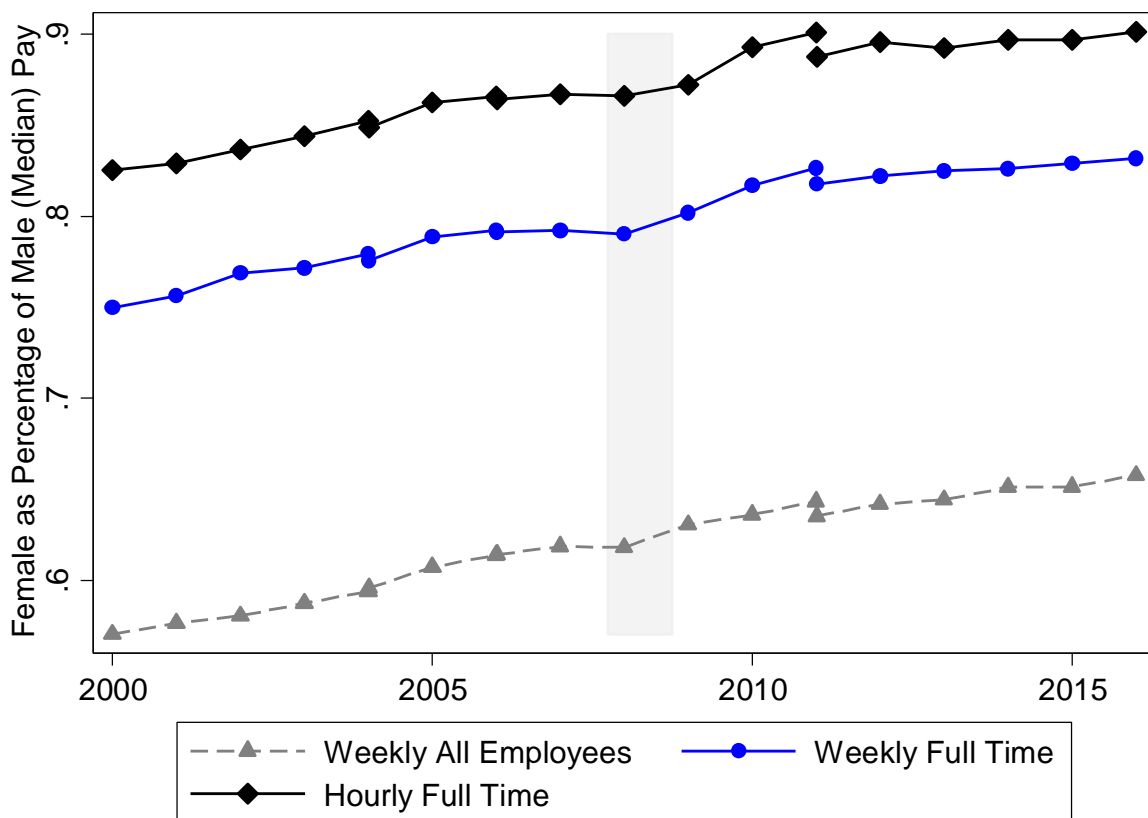
Female-Male Earnings Differences

Since the Equal Pay Act 1970, it has been illegal in the UK to reward women and men differently for the same work. Nevertheless, the gender wage gap has been slow to close. The good news is that, half a century later, we seem to be getting there.

Figure 7 shows median female pay as a share of median male earnings. When considering all employees, women still earn much less than men, although the difference is slowly disappearing, from about 57% in 2000 to slightly over 65% in 2016. Interestingly, the recession seems to have sped up the shrinking of the gender wage gap somewhat, indicating that men were relatively more badly affected by the 2008 recession than women [5].

A large part of that difference in pay is due to women working fewer hours. When considering only full-time employees, the ratio of female to male pay in 2016 is 83%. When further looking at hourly instead of weekly earnings, the ratio further increases to about 90%, so the remaining pay gap in 2016 is about 10%. In addition, a simple comparison of female and male (median) pay per hour does not take into account differences in pay due to composition effects, that is, the fact that women and men tend to be employed in different industries or occupations. Controlling for these factors is likely to further decrease female-male pay differences and the 10% gender wage gap should therefore be seen as an upper bound.

Figure 72: Female-male pay differences



Sources: <https://www.ons.gov.uk> (data set "ASHE 1997 to 2016 selected estimates")

Limitations and Gaps

First, there is a tendency towards an increasing share of the UK workforce being employed either part-time or with contracts that do not guarantee a minimum number of hours, so-called 'zero-hours' contracts. While such labor contracts make the labor market more flexible, they may negatively affect incentives to invest in workers' human capital, which may have contributed to the disappointing productivity growth. Second, there are substantial regional disparities on the UK labor market: unemployment rates, earnings, and labor productivity vary across regions, in particular between London and the rest of the UK. These disparities are quantitatively important, and there is no apparent tendency of a 'convergence' over the last 15 years.

Finally, the event that is likely to have the biggest impact on the UK labor market since the Great Recession falls just outside of our sample period. On 23 June 2016, the UK voted to leave the European Union, and on 29 March 2017, Article 50 of the Lisbon Treaty was triggered to start this process, so that the UK is due to leave the Union on 29 March 2019. A key component of leaving the EU is that the UK will be able to limit the rights of European immigrants to work in the UK. The effects of Brexit on the UK labor market are therefore likely to be substantial. European immigrants are strongly overrepresented in some occupations, so that limiting immigration is bound to increase labor market mismatch, at least in the short run. However, it will be at the end of the next decade at the earliest that this effect will be visible in the statistics.

Summary and policy advice

The UK labor market weathered the Great Recession well, at least compared to other European countries. Unemployment rose by about 3% points, started declining relatively soon after, and is now back at the pre-recession level of around 5%. Unlike in other very flexible labor markets such as the United States, earnings inequality has been decreasing for the past 10 years.

The flipside of this success story is a stagnation of earnings and a permanent slowdown in labor productivity growth after the Great Recession. The underlying causes of this productivity 'puzzle' are still unclear. Some argue that it is a direct consequence of the flexibility of the UK labor, since the availability of cheap labor implies that firms have relatively little incentive to invest in capital, resulting in a lower capital-labor ratio. Moreover, since in the flexible UK labor market workers have on average short tenure-on-the-job, incentives to invest in on-the-job training and job-specific human capital may be lower as well.

If this explanation is correct, then concern about the productivity puzzle may be misplaced, since it is just the price to pay for the remarkable success of the labor market after the 2008 recession. It is not clear, however, why labor productivity recovered faster from previous recessions, when the labor market was similarly flexible. Some observers therefore argue instead that the post-crisis change in the productivity growth rate is directly related to an overly lax monetary policy, which allowed inefficient firms that would not normally be competitive to survive. An alternative, more positive interpretation is that the UK economy is going through structural changes that come with painful reallocations in the medium term but will imply high productivity growth in the longer run.

Further Readings

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DATA INFORMATION

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The wage data used in much of the article are based on the Annual Survey of Hours and Earnings (ASHE) by the Office of National Statistics. Before its redesign in 2004, the ASHE was known as the New Earnings Survey. The ASHE is based on an annual survey of approximately 50,000 businesses. The main advantage of the ASHE is that earnings information is based on payroll data and is therefore more reliable than data based on traditional surveys among employees (such as the Labour Force Survey). In the years 2004, 2006, and 2011 the ASHE underwent changes in methodology. In order to make the data comparable, we therefore provide two data points (on both the old and new basis) for these years. To make figures comparable over time, pay is expressed in 2015 Pounds Sterling by using the Consumer Price Index (CPI) provided by the ONS that tracks the prices of goods and services bought by households as a deflator. If not otherwise mentioned, all figures are reported for full-time employees.