How close to full employment are the UK and the USA?

David N.F. Bell
Division of Economics, Management School, University of Stirling, IZA and CPC

and

David G. Blanchflower
Bruce V. Rauner Professor of Economics,
Department of Economics, Dartmouth College,
Division of Economics, Management School, University of Stirling,
GLO, Bloomberg and NBER

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“If there's no tension between unemployment and wage inflation then it's hard to say that we're at full employment.”
Mary Daly, President of the San Francisco Federal Reserve, 12th February 2010.¹

How would we know if a labor market is approaching full employment? The answer simply put is that we should observe a rapid rise in wages. In this paper we examine how US and UK labor markets behaved in the years of recovery that followed the 2007-08 recession especially in the years since 2015 as unemployment rates tumbled. In the US, the unemployment rate fell from a peak of 10 per cent in Oct 2009 to 3.6 per cent in January 2020 at the time of writing, up from 3.5% the prior two months. In the UK, the unemployment rate fell from a maximum of 8.6 per cent in October and November 2011 to 3.8 per cent in September 2019 to 3.8% in November 2019 at the time of writing.² In both countries, by mid-2019, unemployment rates were close to a post-war low.

Yet only towards the end of this period was there any marked uptick in wage growth in both countries in 2018 but then during 2019 wage growth slowed in both countries. In the years from around 2010 through 208 or so, in both countries wage growth was set in the range of 2%-2.5%. In 2018 there was a pick-up to 3% and in 2019 it moved towards 4% but fell back again during the year. At the same time inflation surprised on the downside also. Why was the wage response so weak? The answer seems to be that there is a good deal more available work or 'slack' in the labour market available than suggested by the unemployment rate (Blanchflower, 2019 and Bell and Blanchflower, 2020).

Our goal is to assess the usefulness of the unemployment rate as an indicator of labour market slack in the US and UK. Put another way, how close is the labor market to the NAIRU, or full employment, given the very low unemployment rates? Full-employment means that being out of work would be reduced to short intervals of "standing by" as Beveridge (1960, p.18) noted in his tome on full-employment first published in 1944, "with the certainty that very soon one will be wanted in one's own job again or will be wanted in a new job that is within one's powers".

At full-employment one would expect to see a marked rise in wage growth as firms do not have a pool of labor – Marx's reserve army of the unemployed – to draw from. To get workers they would have to bid them away from other firms at higher wages. One obvious possibility is that wage growth remains weak because of continuing labour market slack and that labor markets are still operating well above the NAIRU. Rising wage growth is thus the central indicator of a tightening

¹ Laura Noonan and Brendan Greeley, 'Fed's Daly says US job market still has room to run', Financial Times, 12th February 2020.

² The UK’s Office of National Statistics reports labour market data for rolling three monthly averages, so the latest data available is for Oct-Dec 2019, that we report as the midpoint of November 2019. However, it does publish single month data on its website in a spreadsheet called X01 that it warns are 'variable'. Of note is the drop in the unemployment rate from 4.0% in September 2019 to 3.5% in October 2019 and then back to 3.9% in November and to 3.8% in December 2019. So most recently the reported unemployment rate for Oct-Dec 2019, or October, of 3.8% is the average of 3.5%; 3.9% and 3.8%. In contrast the United States has data available for January 2020. The UK along with Greece provide less timely official labor market data than any other advanced country. See: https://ec.europa.eu/eurostat/documents/2995521/10159296/3-30012020-AP-EN.pdf/b9a98100-6917-c3ea-a544-ce288ac09675
labor market. We document that wage growth has been weak but picked up in 2018 but did not reach pre-recession levels, before falling back in 2019. In the past at unemployment rates of under 4%, wage growth would have been higher; hence the puzzle.

At full employment it seems likely to us that those who say they want fewer hours (the overemployed) and those who want more hours (the underemployed) would increasingly be able to get them. If it was difficult to find workers as the pool of available workers diminished, one obvious response for firms would be to increase working time for those who wanted more hours (the overemployed). We might even see the overemployed, who want fewer hours, at full employment being able to reduce their hours because of increased numbers of job opportunities becoming available, including some offering fewer hours. Full employment should give workers flexibility to optimize the number of hours they work.

We update our earlier analyses published in this Review to 2020, to see what has happened as the labour market tightened; the question is by how much and is it close to full employment (Bell and Blanchflower, 2018a; 2018b; 2014, 2013, 2011 and Blanchflower, 2013). If labour markets were close to the NAIRU or full employment, we would likely see the high level of underemployment, we have previously documented, resulting in optimizing actions by workers attempting to remove the hour constraints and moving their desired hours closer to their actual hours. Something ought to change as a labour market approaches full employment; the question is whether it has? We find little or no evidence for such a claim either in the US or the UK.

We also examine six additional ways workers might seek to do this:

a) Taking another job.
b) Increasing hours in their existing jobs, perhaps through more overtime or moving from part-time to full-time.
c) Looking for, and taking, a new job with more hours.
d) Move to self-employment which, by definition, has flexible hours.
e) Moving from temporary to permanent jobs.
f) Giving up low paid, insecure Zero Hours Contracts, where the employer sets the schedule.

If the economy is at full employment, workers who are hours constrained in their main jobs should be able to move readily and easily to new jobs with an hours-mix that better meets their preferences. Or they may move to self-employment to give so that they can choose their working time, subject to demand. Another possible way to increase hours would be to take another job, which may or may not be self-employed with more or less hours. Or at least it should be easier to obtain jobs where actual hours are closer to desired hours as the labor market moves to full employment than if it was a long way away from it. Both the underemployed and the overemployed are unhappy (Bell and Blanchflower, 2019, Mousteri et al, 2020), so presumably being able to adjust their actual hours to their desire hours would make them happier, which gives them an incentive to adjust their hours.

Here we investigate these channels to determine how far they may have offset workers’ hours constraints. And because these mechanisms affect wage outcomes without necessarily affecting unemployment, they shift the NAIRU, weakening the predictive power of previous estimates of
its relationship to wage inflation. In addition, if the economy was moving toward full-employment, worker's bargaining power would increase and we would likely see wage increases for existing workers as well as workers moving from lower paying jobs to higher paying jobs, more than they did when there was more labour market slack.

We start by presenting evidence on a series of labour market variables across the two countries including unemployment and underemployment rates; participation and employment rates as well as the percent of employment accounted by temporary workers and part-timers and pay growth. We then present evidence on multiple jobholding and trends in self-employment.

If the UK or US economies close to full employment, we would have expected to see evidence of fundamental changes as workers move to their labour supply curves. This most likely would start to occur as the unemployment rate dropped from around 6% to below 4% - we are looking for evidence of discontinuities. Our expectation was that we would find some, but we see no such evidence that anything much has changed since 2016. The absence of any discontinuities or marked changes in any labour market variable suggests that neither labour market is anywhere close to full-employment. The NAIRU does not seem to be anywhere close in either country.

This matters as many economists and central bankers in the US especially have argued that from around 2015 with an unemployment rate falling below 5% this was full employment. In large part the increases were based upon participant's views that the labour market was close to full employment. From December 2015 through December 2018 the FOMC raised rate eight times. At its December 18-19th 2018 meeting where the target range for the federal funds rate was raised from 2¼ to 2½ percent, the dot plots projected three further raises in 2018 and four in 2019. The minutes of that meeting (p.11) said that "members generally anticipated that growth would remain above trend".

Interestingly this was not consistent with the reports of economic conditions in the December 2018 Beige book. As reported in the first part of Table 1 eleven of the twelve districts of the Federal Reserve reported that growth that month was 'moderate' or 'modest'. The twelfth, St. Louis, said that economic conditions had 'improved slightly'. Subsequently, rates were cut three times in 2019 and the market is pricing in another rate cut in 2020. The second part of Table 1 reports the outcomes in the January 2020 Beige Book. Eight districts report 'moderate' or 'modest' growth. Two report growth was 'slight' (Philadelphia and St. Louis). Kansas City said growth had edged up, while Dallas reported growth had expanded 'solidly'. The January 2020 Beige Book also reported that "wage growth was characterized as modest or moderate in most districts." There seems to be a disconnect between FOMC actions and information on the ground being reported by the twelve Districts.

The Fed's action in raising rates has brought President Trump's ire. On February 11th, 2020, Trump tweeted – noting that his tweets are official government communications - as Chairman Powell was giving testimony before Congress.

3 Source: Federal Reserve Beige Book, December 5th, 2018 and January 15th 2020

"When Jerome Powell started his testimony today, the Dow was up 125, & heading higher. As he spoke it drifted steadily downward, as usual, and is now at -15. Germany & other countries get paid to borrow money. We are more prime, but Fed Rate is too high, Dollar tough on exports."

By the end of 2019 the FOMC had come to recognize that there was still a good deal of slack in the US economy as both wage growth, as we discuss below, and economic growth slowed. The following is a quote taken from the FOMC minutes at their meeting on December 10-11th, 2019.

"Participants judged that conditions in the labor market remained strong, with the unemployment rate at a 50-year low, job gains remaining solid, and some measures of labor force participation increasing further. The unemployment rate was likely to remain low going forward, and various participants remarked that there were some indications that further strengthening in overall labor market conditions was possible without creating undesirable pressures on resources. In particular, a number of participants noted that the labor force participation rate could rise further still. Moreover, measures of wage growth had generally remained moderate." (page 9.

The coronavirus took hold in early 2020 and stock markets around the world plummeted by around 11% in a few days. At the time of writing in on February 28th 2020, markets are pricing in a rate cut with a 70% probability at the FOMC's March 17-18th 2020 meeting from its current target rate of 150-175 with more cuts to come. By its December 2020 target rate probabilities suggest the following probabilities – 125-150 = 2%; 100-125-12%; 75-100 = 28%; 50-75 = 32%; 25-50 = 21% and 0-25 = 7%. Markets also see one rate cut each for the ECB and the Bank of England. By the MPC's November meeting target rate probabilities are 0.25% probability=46%; 0.5% probability=36% and 0.75% probability=16%. Of note also is the fact that so many Americans are hurting as documented, for example by Arnade (2019) Kristof and WuDunn (2020); Quinones (2015); Vance (2017) and Deaton and Case (2020) who documents the rise of hopelessness and deaths of despair - from drug poisonings, suicide and

5 US real quarterly GDP growth appears to have been boosted in 2018 by the Trump tax cuts but its influence then waned in 2019. Quarter GDP growth was as follows Q32017 0.8%; Q42017 0.9%; Q12018 0.6%; Q22018 0.9%; Q32018 0.7%; Q42018 0.3%; Q12019 0.8%; Q22018 0.5%; Q32018; 0.5%; Q42018 0.5%. UK quarterly GDP growth was even lower and also slowed. Over the nine quarters from Q22017 to Q42019 quarters growth, including a negative quarter in Q22019 was 0.3%; 0.4%; 0.1%; 0.5%; 0.6%; 0.2%; 0.6%; -0.1%; 0.5% and 0% respectively. As reported on 14th February 2020 German GDP growth was zero, having averaged zero over the prior two quarters also, with France, Italy and Finland all negative in Q42019 as Eurozone growth hit seven year low.


heavy drinking – especially among the prime age-less educated whites in the United States. Blanchflower and Oswald (2019) document that one in three Americans in a recent international survey report that over the previous for weeks they had been in pain 'often' or 'very often'. This compares with an average of 20% in other countries. Much of this seems to be labour market driven (Blanchflower, 2019).

We now examine labour market quantities and prices in the UK and the USA, especially in the period when unemployment rates dropped below 6% from 2015/2016 onwards. There is no sign of any major discontinuities.

1. **Background US v UK labor market changes over the last quarter century**

It makes sense to compare and contrast what has happened in the US and UK labour markets given there are a number of similarities and a number of differences

**Similarities**

- a) There has been strong labour market recovery in the decade since the Great Recession, so unemployment and underemployment rates have fallen.
- b) In both unemployment rates are below pre-recession levels while underemployment rates are not.
- c) Wage growth in both has been weak.
- d) There has been little change in second job holding rates.
- e) Average hours have been broadly flat.
- f) The proportion of workers in part-time jobs has declined in recent years.
- g) Labor force participation and employment rates in both countries have risen as the unemployment rate fell.
- h) In neither country has there been any dramatic changes - or anything approaching a discontinuity - since the unemployment rates fell below 5%, suggesting that both are still not at the NAIRU.

**Differences**

- a) Employment rates and labor force participation rates in the UK are well above pre-recession levels but this is not the case in the United States.
- b) Self-employment rates in the UK have risen in the years since the Great Recession but they have fallen in the USA.
- c) The proportion of workers in temporary jobs has fallen in the UK bt has remained broadly flat in the United States.

**Figure 1a-d** sets the scene and shows the pick-up and subsequent decline in the unemployment and underemployment rates (U7). In **Figure 1a** for the UK we define the underemployment rate as the number of part-time workers who say they want full-time jobs, expressed as a percent of employment and in **Figure 1b** for the US we define it as the number of part-time for economic reasons divided by employment (Bell and Blanchflower, 2019) that we call U7. In both countries,

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8 Nicholas Kristof, 'The Hidden Depression Trump Isn’t Helping. The economy may get the president re-elected, but not everyone is sharing in its strength', The New York Times, February 8th, 2020.
in contrast to the underemployment rate, the underemployment rate remains above pre-recession levels.

Of particular interest is what happened to other labor market indicators as the unemployment rate fell below 5%, which we take as a major cut-off. In the UK the recession started in April 2008 and the unemployment rate was 5.2%, and in the US where the recession started in December 2007, it was 5% exactly that month. The drop in the unemployment rate below 5% first occurred in the UK in October 2016 and in the US in August 2014. In the past unemployment rates below 5% were associated with wage growth of 4% and higher in both countries. For example, in the UK the unemployment rate dropped below 5% in September 2003 and stayed there until October 2005 and weekly earnings growth averaged 4.4%. In the USA the unemployment rate dropped below 5% in December 2005 and remained there until December 2007. Average weekly earnings growth over that period averaged 4.0%. In the UK in the period from October 2016 through November 2019 weekly pay growth averaged 2.9% and in the US from August 2014 it averaged 2.6%.

We have re-estimated the Bell-Blanchflower seasonally adjusted underemployment index for the UK up to 2019Q3 that we report in Figures 1c and 1d. In Figure 1c we plot the number of (higher) desired hours of the underemployed along with the desired (fewer) hours of the overemployed. In the latest data they are once again close together. In Figure 1d we translate these data into an underemployment rate, which then is very close to the unemployment rate. We note of course, that the over-employment rate was well above the unemployment rate before the Great Recession.

The path of underemployment is broadly similar when in Bell and Blanchflower (2020) we made use of a continuous hours measure across EU countries available from the European and UK Labour Force Surveys. These data are not available for the US hence why we use U7. It is apparent from these data that it is not just involuntary part-timers who want more hours, but that is also the case of voluntary part-timers; there are more of them but on average they want fewer additional hours. In EU countries including the UK, we have also found recent declines in the number of hours the underemployed wanted to raise their hours by, and conversely, in the number of hours the overemployed wanted to their hours reduced. So, even though unemployment rates have been well below pre-recession levels underemployment rates, and wage growth, have not been.

Figure 2 plots employment to population (EPOP) and labor force participation rates (LFPR) in both the UK and the USA. Of note is that the LFPR in the UK has risen steadily over time and is well above pre-recession levels, whereas it is lower in the US compared with the start of the Great Recession. The US LFPR from around 2000 to 2005 and then remained flat through 2009 and fell again through 2015. It then remained flat through 2018 and picked up slightly since then. This is in contrast to many forecasts that predicted an inexorable decline. For example, in 2014 Aaronson et al (2014) argued that "the aggregate participation will likely decline further over the next

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9 Source: ONS spreadsheet A01, Table 13 - AWE total weekly single month pay.

10 Based on seasonally adjusted weekly earnings of PNSW.
"decade" and later. "we see further declines in the aggregate labor force participation rate as the most likely outcome". That hasn't happened.

Between September 2014 and January 2020, the seasonally adjusted LFPR for those ages 25-34 it has risen from 81.0% to 83.4%, for ages 35-44 it has risen from 81.9% to 83.6% and for ages 45-54 it has risen from 79.5% to 81.8% respectively. It has been risen for the age group 55 and above from 40.0% to 40.3% and for those under 25 it is up from 55.2% to 56.0%. This suggests the fall in the LFPR in the US was more cyclical and less structural than other commentators thought.

Prior to the Great Recession the US EPOP rate was above that in the UK but now it is below it. Both countries saw a drop in their EPOPs after the onset of recession in 2008 and 2009 and a subsequent pick-up. The EPOP in the UK is well above its pre-recession level while in the USA it remains below it and especially so versus 2000. The UK EPOP was below its US counterpart until around 2011 and now is above it. On these two measures the US is clearly not at full employment.

A recovering labor market has seen a rise in EPOP and LFPR in both countries but at a slower rate in the United States. As the economy has recovered this has pulled people into the labour force from outside it. This additional slack is not picked up by the unemployment rate and suggests that there is a discouraged worker effect going on. When conditions improve, those who are out of the labor force (OLF) rejoin the job market.

Figure 3 plots the long-term unemployment rate. Long-term unemployment refers to people who have been unemployed for 12 months or more. The long-term unemployment rate shows the proportion of these long-term unemployed among all unemployed. Unemployment is usually measured by national labour force surveys and refers to people reporting that they have worked in gainful employment for less than one hour in the previous week, who are available for work and who have sought employment in the past four weeks. This indicator is measured as a percentage of unemployed. It shows that the level has traditionally been lower in Canada and the United States than in Europe or Japan. In Japan the rate has ticked up steadily since the early 1990s, even though unemployment has been low. It fell in Europe and the UK until around 2008 and then picked up and then fell back. In the US it rose sharply to levels similar to this in the UK, before falling back. This rise did not occur in Canada.

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11 In his discussion of the paper Jim Stock concurred with the Aaronson et al (2014) conclusion. "Looking across the results in the authors’ paper and the alternative estimates I present here, the picture of the participation rate is one of continuing decline over the coming decade, possibly with some near-term sideways motion as the economy continues to strengthen." (Stock, 2014, p. 260)

12 According to the NBER Business Cycle Dating Committee the US entered recession in December 2007. Of note in the United States is that overall, seasonally adjusted EPOP has not returned to its pre-recession levels – it was 62.7 in December 2007 versus 61.2 in January 2020. That was also true of whites that their EPOP remains below starting levels – 63.5 and 61.4 respectively. In contrast EPOP of African Americans is now higher than pre-recession – 57.8 and 58.9 respectively. Prime-age female LFPRs ages 45-54 have also now returned to pre-recession levels although those of men have not.

It was argued in the 1980s in Europe that the long-term unemployed exerted less wage pressure than the short term unemployed, but this was shown not to be the case\textsuperscript{14} (Blanchflower and Oswald, 1990). The late Alan Krueger in his 2015 Martin Feldstein lecture "How tight is the labor market?'' similarly asserted that this was true in the United States and the long-term unemployed were on the margins of the labor market and hence exerted little or no wage pressure. The implication here is that the effective unemployment rate was in fact lower than the reported rate implying even greater wage pressure for a given unemployment rate. A deal of empirical work for the US suggested that was not the case.\textsuperscript{15} Blanchflower and Levin (2015) examined wage regressions that incorporated various measures of long-term unemployment that were never statistically significant. The pace of wage growth we found was linked to the overall level of unemployment and does not depend on its composition, i.e., the relative incidence of long-term vs. short-term unemployment. Bell and Blanchflower (2014) found no evidence of any effects of long-term unemployment in the UK in the years 1992-2013. Long-term unemployment does not explain weak wage growth in the US or the UK.

Of note though is that the total numbers of hours worked since the onset of recession has risen in a similar fashion, in both countries. Figure 4 shows that average hours have followed similar time series paths, falling in the early 2000s, then sharply down in the Great Recession and then recovering by around 2013 to pre-recession rates.

Figure 5a and Figure 5b respectively present evidence on nominal and real weekly pay growth in the UK and the USA. Many workers do not know how many hours they work, although they do know what is in their pay packets at the end of the week or the month. This matters in a world where workers often report they are underemployed and would like more hours. We focus on weekly earnings as so doing so allows for variations in hours, and when times are good pay can be boosted by paid overtime that carries a pay premium.

At the start of 2019 it looked like pay growth was beginning to accelerate. Among US private sector production and non-supervisory workers (PNSW), that make up four-fifths of the private sector workforce, and for whom a wage series is available through 1964, wage growth hit 4.0% in January. But that was the high point and has declined steadily ever since, to 2.7% in January 2020.

\textsuperscript{14} Blanchflower and Oswald (1990) showed using microdata for the United Kingdom that long-term unemployment did not play an independent role in wage determination. The problem was that high long-term unemployment is highly correlated with high unemployment. They concluded that “the British evidence does not support the view that long-term unemployment is an important element in the wage determination process.”

Average weekly earnings of all employees have also declined steadily since the start of 2019. The slowing of the annualized growth rates of the two private sector series is presented below.\textsuperscript{16}

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<tr>
<th></th>
<th>All employees</th>
<th>PNSW</th>
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<tbody>
<tr>
<td>January 2019</td>
<td>3.6%</td>
<td>4.0%</td>
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<tr>
<td>February 2019</td>
<td>3.2</td>
<td>2.9</td>
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<tr>
<td>March 2019</td>
<td>3.4</td>
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<tr>
<td>April 2019</td>
<td>3.0</td>
<td>3.2</td>
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<td>May 2019</td>
<td>3.0</td>
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<tr>
<td>June 2019</td>
<td>2.8</td>
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<td>July 2019</td>
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<tr>
<td>August 2019</td>
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<td>September 2019</td>
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<td>October 2019</td>
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<tr>
<td>November 2019</td>
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<td>December 2019</td>
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<td>January 2020</td>
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In the UK the main data, on wages that are available are Average Weekly Earnings (AWE) Total Pay growth which is a combination of regular and bonus pay and is a 'national statistic'. AWE single month annual wage growth averaged 4.0\% from January 2001 to the start of the recession in April 2008, obtained by simply averaging the monthly rates. Between January 2009 and December 2018, it averaged 1.8\% and in 2019 it averaged 3.3\%, with some clear slowing in the second half of 2019, falling from 4.0\% in May 2019 to 2.8\% in December 2019.

In the US weekly earnings of the 106 million private sector production and non-supervisory workers (PNSW) who make up 82\% of the private sector workforce annual wage growth averaged 4.0\% from 1964-2008.\textsuperscript{17} From 2009 through 2018 PNSW pay growth averaged 2.3\%. It has picked up a little in 2019 averaging 3.0\%. The decline in average hours in 2019 has resulted in weaker growth in weekly earnings than in hourly earnings for PNSW.

As can be seen from Figure 5a real wages in the UK are still 3.7\% below peak 2008 levels.\textsuperscript{18} In the US in Figure 5b real wage growth has been stronger and by January 2020 is up 10.5\% to $317 compared to $287 its January 2008 levels but is still 8\% below its February 1973 peak of $346.

\textsuperscript{16} The estimates for December 2019 and January 2020 are considered preliminary as they will have to go through two further rounds of revisions before they are assumed to be final.

\textsuperscript{17} PNSW constitute about 80\% of the private sector workforce. We have pay data back to 1964. The series has the benefit that it excludes the right-hand tail of the most highly paid that pull up the overall average.

\textsuperscript{18} It has been suggested to us that it is inappropriate to use the peak real earnings level of £522 found in February 2008 (and £512 in January 2008) to compare to the most recent real AWE total pay real wage rate of £503 which has been observed in the last three months of data currently available (November and December 2019). The suggestion is the February 2008 peak, which coincidentally is two months before the onset of recession in April 2008 is an outlier due to bonus payments. That doesn't seem to be the case. Bonus payments were £32.49, £28.44; £35.93 in the three months before February 2008, were £33.24 that month and £32.66; £29.46 and £34.11 the following three months so there is no spike in bonus payments that we can see.
The major puzzle for central bankers and macroeconomists has been why wage growth has been so low at such low rates of unemployment and similarly why price inflation has also been so low. Ex Fed Governor Janet Yellen (2019) put it well. We agree labor market slack is the big story.

"An important question is just why the relationship between inflation and unemployment has become so attenuated—in the view of some observers, almost nonexistent—and our presenters today will consider some possibilities. One possibility is that labor market slack is not appropriately measured by the civilian unemployment rate. Perhaps broader measures of slack including, for example, individuals involuntarily working part-time or some who are considered to be out of the labor force entirely are relevant to wage and price inflation. The willingness of individuals considered to be out of the labor force to enter in response to strong opportunities may also restrain inflation. Prime age labor force participation has declined considerably in the United States. It moved up during the expansion but, even now, remains roughly half a percent below its level just prior to the Great Recession. Another possibility is that the flatness of the Phillips curve reflects downward rigidity of nominal wages: firms are generally reluctant to impose wage cuts on their employees and, during the early years of the Great Recession, wage inflation fell very little. Perhaps for this reason, both wage and price inflation were restrained during the recovery."

In Bell and Blanchflower (2020) we showed that the unemployment rate does not enter wage equations in either the UK or the US, as well as in an international panel of countries. What does enter is the underemployment rate U7, which remains elevated. Slack at the internal rather than the external margins is what is keeping pay in check. Policy makers having wrongly looked at the unemployment rate as their preferred measure of labor market activity.

Finally Figure 6 reports changes in part-time work as a percent of the total. There are definitional differences here. In the UK part-time is self-reported. Full-timers on average in June 2019 worked 37.2 hours per week versus 16.3 hours for part-timers and 9.3 for second jobs. In the US part-timer refers to those who worked 1 to 34 hours. The BLS reports (https://www.bls.gov/cps/cpsaat20.htm) that in 2018 part-timers who say they do part-time work for economic reasons (slack work; could only find part-time work; seasonal work or job started or ended during week) was 23.2 hours and for non-economic reasons 21.3 hours.

In the UK the percent part-time rose through 2012 to 27.6% and then fell back to 26.0% in October 2019, in part as those who were part-time because they couldn’t find full-time jobs found them. In the US the proportion fell steadily from 1994, through 2000 and rose again and then fell back until it picked up sharply in the Great Recession. As in the UK it then fell back, but even more sharply, from 19.8% in October 2009 to 17.3% in January 2020. In part this is due to those who were in part-time jobs for economic reasons moving to full-time jobs as the economy recovered.

In both the UK and the USA, we have data on temporary work, but they look quite different with the UK definition covering two and a half times more workers 4.4% and 1.9% respectively in the most recent data). In the UK in the individual level survey Labour Force Survey workers are asked
if they have a permanent or a temporary contract. In October 2019 there were 1.459 million temporary workers down from a peak of 1.716 million in October 2014. In the US we have monthly data available from Current Employment Statistics, an employer survey, in thousands on temporary help services, seasonally adjusted. The numbers started falling from 2,647,000 in March 2007 to a low of 1,754,000 in June 2009 and have now recovered to 2,950,000 at the start of 2020. Figure 6 shows that, the percent has remained flat at 1.9% since 2014. In contrast in the UK, the rate fell from 5.0% at the end of 2017.

At the start of 2020 in both the UK and the USA, the unemployment rate is below its pre-recession level. Consistent with that in the UK the employment rate and the LFPR are above their starting levels. In contrast in the United States neither have returned. Underemployment rates in both countries are above pre-recession levels and as a result nominal wage growth remains below pre-recession norms. Self-employment in the UK has risen but in the US it has fallen. Part-time employment is higher in the UK than in the US despite the fact that it is self-reported in the UK and part-timers work fewer hours than they do in the United States. In both countries part-time work picked up in the Great Recession, not least as workers were forced involuntarily into part-time jobs. As recovery came the part-time proportions have fallen in both countries. Wage growth was surprisingly weak in both countries from 2010-2018 and since then picked up at the start of 2019 but then fell back.

Self-employment
One way to overcome hours constraints is to set up in business on your own. There is evidence that low unemployment rates have a positive impact on self-employment rates (Blanchflower, 2000, 2004, 2015). Figure 7 sets out movements in both self-employment rate by country – defined as a proportion of overall employment. The self-employed in the US can be classified as incorporated or unincorporated. The data for the incorporated is only available since 2000 and is not seasonally adjusted whereas the unincorporated data is available from 1992 and is seasonally adjusted. The former rose from 2000 through 2008 declined a little after the Great Recession and has remained broadly flat at 3.5% ever since. In contrast, the US unincorporated rate has been in a steady decline for decades.

In contrast, the self-employment rate in the UK has risen steadily since 2000 from around 11.7% to 15.3% in November 2019, the highest on record. Between January 2010 and December 2016 self-employment in the UK increased by 900,000 or 32% of the total increase in employment. In the period January 2017 through October 2019 self-employment grew by 200,000 or 20% of the increase.

In the UK at the end of 2019 the number of self-employed is more than four times the number of those with second jobs (5,027,000 self-employed versus 1,130,000 in October 2019) while in the

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19 Indeed, unemployment rates around the world are low. According to the most recent data release from Eurostat on 30th January 2020 seven of the 27 member states had unemployment rates below 4% (Czech Republic 2.0%; Germany 3.2%; Netherlands 3.3%; Poland 3.3%; Hungary 3.4%; Malta 3.4%; Bulgaria 3.7%; and Romania 3.9%).
https://ec.europa.eu/eurostat/documents/2995521/10159296/3-30012020-AP-EN.pdf/b9a98100-6917-c3ea-a544-ce288ac09675 In addition, the OECD reports that six non-EU member states also have rates below 4% - Iceland 3.5%; Israel 3.4%; Japan 2.2%; Korea 3.8%; Mexico 3.2% and the United States 3.6%.
https://www.oecd.org/sdd/labour-stats/harmonised-unemployment-rates-oecd-02-2020.pdf The Euro Area unemployment rate in December 2019 was 7.4% the same as it was in Aril 2008 at the start of the Great Recession.
US the ratio is about double (9,455,000 unincorporated and 6,472,000 incorporated versus 8,152,000 in second jobs in January 2020).

It is worth noting that higher self-employment rates are not positively correlated with GDP per capita or other macro aggregates by country (Blanchflower, 2000, 2004 and Blanchflower and Shadforth, 2007). Blanchflower (2004), for example, argues that "I have seen no convincing evidence of any kind in the literature that either increasing the proportion of the workforce that is self-employed, or having a high level of self-employment, produces any positive macroeconomic benefits. Such evidence that does exist suggests quite the reverse. More is not better," (p.30).

Boeri, Giupponi, Krueger and Machin (2020) note the decline across twenty-six OECD countries in the proportion of the self-employed with employees. The proportion of total self-employment that was solo were down from 17.4% in 2000 to 16% in the UK in 2017 and from 26.2% to 22.9% in the US. They estimated cross-country hourly wage growth regressions and provide evidence that wage growth has not just been pushed downwards by unemployment and underemployment but that solo self-employment also significantly undercuts wages of those working in traditional forms of employment.

"In this paper, we place more structure to the argument by considering underemployment, but also thinking that there is more slack because of the new forms of employment—both solo self-employment and gig work—that are present in today’s labor market and were not there 10 or 15 years ago. ...when a variable for solo self-employment is added to the explanatory variables, it has an additional statistically significant effect in line with the notion that it too reflects some degree of slack in the labor market. In particular, there is evidence that a higher share of solo self-employed is associated with lower wage growth." (2020, p.18.)

Boeri et al (2020) confirm our findings on the role of underemployment lowering wage pressure and conclude that

"the conventionally used unemployment rate has become increasingly narrow in its inability to pick up various aspects of underemployment that have acted to dampen wage growth in the recent past. Our surveys suggest that measures of labor market slack could usefully be refined to take into account the hours-constrained features of some of the new solo self-employment and other types of alternative work arrangements that have become increasingly prominent in contemporary labor markets."

The downward pressure from solo self-employment is likely especially high in the UK given the marked rise in the solo self-employment rate shown in Table 2. The US solo rate fell from 9.7% to 8.9% and Germany's rate fell from 7.0 to 5.7. Of note though is that over the period 2000-2017/18 the Netherlands and the UK had the largest rate rises of 3.3 and 1.9 percentage points respectively, but six others also had increases. Belgium (+0.4); Czech Republic (1.4); Estonia (+0.1); France (+0.7); Greece (+0.7) and Slovakia (+2.3).

Multiple job holding (MJH).
Another possible way to increase hours is to obtain a second or even more jobs, but there is little sign in either country that declining unemployment rates have resulted in a rise in second or even multiple jobholding. Pouliakas (2018) has argued that "multiple job-holding can help workers maintain their desired standard of living when their primary job does not provide adequate hours or income." He suggests that the motives behind moonlighting as MJH is sometimes called are as follows.

- Individuals may face constraints on their hours or earnings that he calls the financial motive.
- Individuals who experience negative financial shocks may choose to find a second job to smooth their consumption.
- Employees faced with job insecurity may use second jobs as an insurance device to hedge against the risk of primary job loss and to diversify their options of remaining in the labor market by holding multiple employments (Bell, Hart and Wright, 1997).
- Individuals may derive utility from their second job that differs to that received from their primary employment (e.g. some people may be employed as teachers in their first job but in the evening, they sing in a band). Job heterogeneity might thus be another motive to moonlight.
- Workers may decide to take on another job as a way to gain new occupational skills that will enable them to transfer to an alternative line of work.

Kimmel and Powell (1999) found that Canada and the US saw strong increases in 'moonlighting' rates in the 1980s. They reported rates in Canada of 3.4% in 1981; 4.0% in 1985; 5.0% in 1991 and 5.5% in 1995 versus 4.6%; 5.2%; 6.0% and 5.9% (in 1994) in the United States in those years. They found that in the US moonlighters were most likely to combine a full-time job with a second part-time job, whereas in Canada white Canadians were increasingly becoming holders of multiple part-time jobs.


Panos et al (2014) using data from the British Household Panel Survey from 1991-2005 found a similar path with a rise through 1997 and a subsequent fall back. That matches the rise and fall of the unemployment rate, suggesting MJH was procyclical over this early period. Wu et al (2009) also used data from the BHPS and argued that in 2001 there were 2.888 million the job holding rate in the UK versus 1,158 in the LFS data we used in Figure 1. The rates in Panos et al were also much higher (8% in 2001). It is mostly because the question in the BHPS was broader (Q. Do you currently earn any money from a second job or from work that you might do from time to time apart from your main job?). The major difference though is that the BHPS question refers to the
last calendar month whereas the LFS question refers to the past week. It does seem though that the data from the LFS and BHPS have the same time series paths.

Simic and Sethi (2002) examined multiple job holding using LFS data and reported that the number of workers with second jobs rose from 713,000 in 1984 – with a MJH rate of 2.9% - to a peak of 1.3 million in 1996 before declining. The number of men with second jobs increased by 68% between 1984 and 2001 and more than doubled among women.

The reasons given for moonlighting in the May 2004 CPs, according to Hipple, which is the last time information on main reasons for multiple job holding was collected in the US was 1) needing to earn extra money (38%); 2) to meet expenses to pay off debt (26%); 3) 18 percent said it was for the enjoyment and 4 percent said it was to build a business or get experience in a different job. The more highly educated were most likely to say they did a second job because they enjoyed it – 9.6% of those with a high school diploma age 25 and over versus 22.7% with a bachelor's degree and 32.1% of those with a doctorate.20

Using data from the 1979 NLSY Amuedo-Dorantes and Kimmel (2009) found that while male moonlighting does not seem to respond to business cycles, female moonlighting does. Specifically, the authors found that female moonlighting appeared countercyclical during the 1980s and early 1990s. Hipple (2010) however, finds that since then regular monthly jobholding data became available in the CPS in 1994 "there has been no clear cyclical pattern". Nothing seems to have changed in subsequent years.

Hirsch, Husain, and Winters (2016) using the Current Population Surveys Merged Outgoing Rotation Group files for workers ages 18-65 from 1998-2013 confirm the finding of no relationship in the US between MJH and unemployment. Hirsch et al (2016) conclude: "Our evidence clearly indicates that to the extent that MJH responds to unemployment, the net response is procyclical, but tiny in magnitude." Lalé (2015) finds similarly while Zangelides argues that workers respond to labour market insecurity by holding a portfolio of jobs "individuals are more likely to hold a second job and to spend more hours in their secondary employment, when part-time jobs and short-term temporary contracts are more prevalent in the labour market." (2016, p.9)

**Figure 8** plots the proportion of workers that hold second jobs in both the UK and the US. The proportion is everywhere higher in the United States, but both have a similar time series path, rising through the mid 1990a and then falling. The UK had a pick-up and then fall from 2006 to 2015 and a subsequent decline. The US rate has been broadly steady through 2019 when there

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was a pick-up through the early part of 2019 which then reversed from the summer of 2019 onwards.

Table 3 reports LFS data from 2014-2018 showing how MJH rates have changed relatively little, along with data for 2008. There is an increase after 2008 but then a steady fall. There was a decline in the proportion of those with second jobs who are employees from 2008 through 2014 but the proportion has remained steady ever since. For those whose second job is not permanent, the largest proportion say they do casual work and that proportion is largely unchanged. Also, the majority say their second job is somewhere quite separate from home. A quarter say their second job is at home or in a different place using home as a base. Finally, we see, for four years, that the most cited reason for being self-employed in a second job was for higher income. We do not have these data in 2018. Little seems to have changed over time either in the US or the UK.

Looking for a different job
We do have additional evidence from the UK on workers' desire to find a different job and why. We pooled together the micro data files of the UK Labour Force Surveys of January 2014-September 2018, the latest available to look at who wants a new or additional job. We excluded children under the age of sixteen and restricted the sample to workers only. That created a sample size of 838,763 workers. We initially looked at the desire to find a different job and whether that had changed over time. In the LFS workers are asked whether they were looking for (1) a new job to replace your present (main) job or (2) an additional job.21 We impose person weights in what follows (pwt16 and pwt17). The proportions by year were as follows

<table>
<thead>
<tr>
<th>Year</th>
<th>New job</th>
<th>Additional job</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>6.1</td>
<td>1.0</td>
</tr>
<tr>
<td>2015</td>
<td>5.7</td>
<td>0.9</td>
</tr>
<tr>
<td>2016</td>
<td>5.4</td>
<td>0.9</td>
</tr>
<tr>
<td>2017</td>
<td>5.2</td>
<td>0.9</td>
</tr>
<tr>
<td>2018</td>
<td>5.1</td>
<td>0.8</td>
</tr>
</tbody>
</table>

Both options show declines as the labor market tightened. At the same time, of course, the number of underemployed was falling.

In addition, workers who say they want an additional job to replace their main one, are then asked, 'why were you looking for another job'? Responses for 2014-2018, including those indicating that a worker wants a job with more or less hours, are reported in Table 4. Workers also report on whether their present job may come to an end, or they are unhappy with their pay or unhappy with their commute as well as whether they want to change occupation. There is a decline in each of these, over time.

21 The ONS notes that 'looking for a different or additional paid job" or business may cover a wide range of activities, from looking through newspaper advertisements to actively writing to prospective employers and attending interviews. It represents something more than simply feeling dissatisfied with the present job but beyond the respondent deciding whether he or she was looking for work. Self-employed people may interpret 'looking for additional business' as trying to increase their present business. They are coded 1 only if they were looking for a different business last week, and not just for additional clients.
Even as the labour market tightened, there was little change in those seeking another job and a steady decline in the proportion of workers saying they wanted a job with more hours. There is a decline in both the number who want longer hours but the proportion who want more remains constant. The average number of hours the underemployed want declines from 2.00 to 1.59 – this of course includes all those who say zero. The number of over hours is unchanged. There is no evidence that there is any sharp change to ease binding hours constraints. This likely would be the case if the economy was at full employment: further, at full employment they would be finding them.

Zero hours contracts
Workers on zero hours contracts agree to be available for work as and when required, with no guaranteed hours or times of work. (Datta et al 2018). The ONS publishes data on the number of workers on zero hours contracts from the Labour Force Survey (LFS). As part of the survey the LFS asks people in employment if their job has flexible working and if so to choose from a list of employment patterns those which best describe their situation. Only those people who select "zero-hours contract" as an option are counted, so the number of people who are shown as on a zero-hours contract will therefore be affected by whether people understand whether they are on a zero-hours contract and will be affected by how aware they are of the concept. Workers on these contracts are on average likely to be low paid, younger, female and still in full-time education.

Overall numbers on ZHCs were broadly flat around 200,000, or under 1% of employment until 2012 when they started to rise inexorably through 2016. Clarke and Cominetti (2019) noted a decline in 'zero-hours' contract (ZHC) working, which are employment contracts under which a worker is not guaranteed any hours and is only paid for work carried out. This may well have turned around more recently.

ZHCs rose steadily from 2012 through 2016 but dropped back in 2017 and 2018 as unemployment fell. Numbers on ZHCs are shown below in thousands with the percent of employment in parentheses. From 2014 there are two sets of data each year for April-June and October-December, so we average the two, while in 2019 it is for April-June. The question is whether the steady rise since the start of 2018 is the start of a new upward trend; it certainly looks like it.

<table>
<thead>
<tr>
<th>Year</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>225</td>
<td>(0.8%)</td>
</tr>
<tr>
<td>2005</td>
<td>119</td>
<td>(0.4%)</td>
</tr>
<tr>
<td>2008</td>
<td>143</td>
<td>(0.5%)</td>
</tr>
<tr>
<td>2011</td>
<td>190</td>
<td>(0.6%)</td>
</tr>
<tr>
<td>2012</td>
<td>252</td>
<td>(0.8%)</td>
</tr>
<tr>
<td>2013</td>
<td>585</td>
<td>(1.9%)</td>
</tr>
<tr>
<td>2014</td>
<td>661</td>
<td>(2.1%)</td>
</tr>
<tr>
<td>2015</td>
<td>775</td>
<td>(2.5%)</td>
</tr>
<tr>
<td>2016</td>
<td>905</td>
<td>(2.9%)</td>
</tr>
<tr>
<td>2017</td>
<td>892</td>
<td>(2.8%)</td>
</tr>
</tbody>
</table>

22 ONS 'EMP17: People in employment on zero hours contracts', 18th February 2020. From 2014 on data are provided for April-June and October-December each year, we just average the two here.
Table 5 reports ONS data on the desire for an additional job and/or additional hours according to whether the worker was on a zero-hours contract (ZHC), for April-June 2017, October-December 2018 and April-June 2019. Those on ZHCs were at least six times more likely to want more hours in a current job or a replacement job than those not on ZHCs. Between the two dates the former showed declines whereas the latter stayed unchanged. For example, 57% of those on ZHCs in 2017 said they did not want more hours compared with 64% in 2018.

The issue with ZHC for a worker is that face potentially inadequate hours as noted in Table 4 but also earnings instability caused by the variability of hours on a weekly basis. Datta et al (2018) noted the stark dichotomy "between workers who value the flexibility provided by ZHC jobs, and workers who would rather work more and more regular hours and therefore appear to be engaged in ZHCs out of necessity rather than choice." The authors conducted a survey of 1167 ZHC workers aged 18-65 in 2018 of and found that 45% wanted more regular hours while 43% were satisfied. In addition, 28% said they were on a ZHC as it was the only option available plus a similar proportion said it gave them flexibility to perform other actions. Overall 21% of those on ZHCs said they were dissatisfied or very dissatisfied.

Attitudes to the Labour Market

As we noted earlier there was a major disconnect in the United States between what members of the FOMC were saying and what the twelve District banks were reporting around the country, especially in 2018, which was much less upbeat. It seems that disconnect is repeated in the UK by the MPC. Data from business and consumer surveys have weakened sharply in the UK just as they did prior to the Great Recession.

Figure 9 reports on the attitudes of businesses and consumers to the UK labour market. Figure 9a and Figure 9b present details from the EU Commission surveys in services and retail. Respondents in firms are asked to report on their expectations of employment over the next three months. Of note is that the two surveys started plunging in early 2008. Recalling that the unemployment rate in the UK went below 5% in early 2017, both series have been in steady decline since 2014. The services score fell from 23 in February 2018 to 9 in January 2020. It was 24 in January 2008 and -15 in August 2008. The retail score was 6 in August 2018 and -26 in January 2020. It was 6 in March 2008 and -20 in November 2008.

23 The Reserve Board of Governors (2018) found that three-fifths of workers would prefer a hypothetical job with stable pay versus one with varying but higher pay (p.2). In Bell and Blanchflower (2018b) we found the more that actual hours differ from preferred hours the lower is a worker's well-being. This is true for those who say they want more hours (the underemployed) and those who say they want less (the over employed). We reported an especially large rise in anxiety and depression among workers in general and the underemployed in particular.

Figure 9c reports on EU Commission surveys consumers' expectations of unemployment over the next twelve months. This series rose sharply from the Spring of 2008. It has risen steadily from the Spring of 2014. As the unemployment rate fell survey respondents continued to expect unemployment to rise and still do. The same unemployment expectations score started rising steadily from around January 2008 from 28 to 50 in August 2008.

Figure 9d reports the Bank of England's Agents' scores on investment and employment intentions, which are comparable to the Beige Book in the US. Scores are reported by business contacts and, in both cases, a long series of old scores and a more recent new rescaled series is available. Both investment and employment intentions fell sharply in early 2008. They have both fallen steadily since 2015.

None of the Figure 9 charts suggest that the UK labour market is or has been anywhere close to full employment, especially in the most recent years as the unemployment rate dropped below 5%. Some of these declines may be Brexit related but certainly suggest ongoing weakness in the labor market.

**Concluding Remarks**

There is clearly evidence of improvements in labor market conditions in the UK and the USA in the years since 2009. In both countries the unemployment rate is currently below 4%. Our main underemployment measure U7 has fallen from its post-recession peak in both the US and the UK but it remains elevated and at the same time in both countries the percent reporting they are part-time has also fallen. The Bell/Blanchflower underemployment index for the UK has fallen and is now approximately the same as the unemployment rate but still remains above pre-recession levels when it was below it. In both countries wage pressure remains well below the 4-5% levels seen pre-recession although it ticked up in early 2019 in both countries but has subsequently fallen back, especially in the USA. Long-term unemployment plays no independent role in wage determination.

We were looking to see if there had been increases in multiple job holding; and various dimensions in hours of work, including changes in part-time and temporary status in the US and the UK and found little evidence that much had changed. We saw no evidence that as the unemployment rate tumbled from 6% to below 4% that any of these variables had altered markedly.

In the UK we have seen a rise in self-employment rates, but not in the US. We also saw no decline in zero hours contracts in the UK, and their numbers remain high and have picked up sharply recently. We also could find little or no evidence of any marked changes in worker's desire for different or additional jobs in the UK.

Our purpose in doing this analysis was to have a better steer on how close these countries are to full employment even though unemployment rates are at historic lows. It was our contention that as labor markets moved towards full-employment workers who wanted jobs would be able to find them. Similarly, underemployed and overemployed workers, similarly who were not at equilibrium as their actual hours were not the same as their desired hours would be able to adjust their hours; moving to jobs, including self-employed work, where there were more hours; finding a second job or increasing the hours in their existing job. We found little sign of that.
There is little evidence from these data that either the UK or the US labor markets are anywhere close to full employment and haven't been in the last decade in the years since the onset of the Great Recession. The wage data tells the story; wage pressure is weak and weakening, and inflation is low, because of continuing softness in labor markets. Wages continue to be the dog that hasn't barked.
Table 1. Economic Conditions in the USA from Beige Books December 2018 and January 2020

a) 2018

Boston
Activity continued expanding at a moderate pace

New York
The regional economy expanded at a modest pace

Philadelphia
Economic activity continued to expand at a modest pace

St. Louis
Economic conditions have slightly improved

Cleveland
The District economy grew modestly.

Minneapolis
The Ninth District economy grew moderately.

Richmond
The regional economy continued to grow at a moderate rate

Kansas City
Economic activity remained modestly above year-ago levels.

Atlanta
Economic conditions moderately improved.

Dallas
Growth in economic activity slowed to a moderate pace.

Chicago
Growth in economic activity was modest

San Francisco
Economic activity continued to expand at a moderate pace.

b) 2020

Boston
Economic activity expanded at a modest to moderate pace in the closing weeks of 2019

New York
The regional economy expanded at a modest pace.

Philadelphia
On balance, business activity slowed to a slight pace of growth

St. Louis
Economic conditions have slightly improved since our previous report

Cleveland
The economy continued to expand at a modest pace

Minneapolis
economic activity grew at a modest pace.

Richmond
On balance, the economy grew moderately

Kansas City
Economic activity edged up

Atlanta
Economic conditions improved modestly.

Dallas
Economic activity expanded solidly, with growth increasing in most sectors.

Chicago
Economic activity increased modestly

San Francisco
Economic activity expanded at a modest pace.
Table 2. Multiple job Holding Characteristics, 2014-2018, UK.

<table>
<thead>
<tr>
<th></th>
<th>2008</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
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<tr>
<td>Second job</td>
<td>3.8</td>
<td>4.0</td>
<td>3.8</td>
<td>3.6</td>
<td>3.6</td>
<td>3.5</td>
</tr>
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<td>Employee</td>
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<td>59.0</td>
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<td>70.4</td>
<td>70.0</td>
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<tr>
<td>Not permanent</td>
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<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Employment Agency</td>
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<td>6.8</td>
<td>6.7</td>
<td>7.3</td>
<td>6.2</td>
<td></td>
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<td>Casual work</td>
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<td></td>
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<td>5.0</td>
<td>5.3</td>
<td>4.9</td>
<td>5.8</td>
<td></td>
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<td>Fixed contract</td>
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<td>19.4</td>
<td>20.9</td>
<td>20.0</td>
<td>20.8</td>
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<tr>
<td>2\textsuperscript{nd} job did you work in?</td>
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<td></td>
<td></td>
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<tr>
<td>Own home</td>
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<td>17.8</td>
<td>16.5</td>
<td>19.0</td>
<td>20.0</td>
<td>20.1</td>
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<td>Home base</td>
<td>13.2</td>
<td>14.4</td>
<td>14.8</td>
<td>14.3</td>
<td>14.9</td>
<td>13.6</td>
</tr>
<tr>
<td>Separate from home</td>
<td>70.9</td>
<td>65.8</td>
<td>66.7</td>
<td>64.5</td>
<td>63.8</td>
<td>64.3</td>
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<tr>
<td>Why 2\textsuperscript{nd} job self-employed?</td>
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<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Better conditions</td>
<td>13.3</td>
<td>18.0</td>
<td>20.2</td>
<td>20.2</td>
<td></td>
<td></td>
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<tr>
<td>Nature of job</td>
<td>21.7</td>
<td>20.8</td>
<td>14.9</td>
<td>11.2</td>
<td></td>
<td></td>
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<tr>
<td>Higher income</td>
<td>34.8</td>
<td>32.6</td>
<td>35.7</td>
<td>33.6</td>
<td></td>
<td></td>
</tr>
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</table>

Source: LFS
<table>
<thead>
<tr>
<th>Year</th>
<th>Australia</th>
<th>Austria</th>
<th>Belgium</th>
<th>Canada</th>
<th>Czechia</th>
<th>Denmark</th>
<th>Estonia</th>
<th>Finland</th>
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Table 4. Looking for a different job and reasons why, plus average # under and over hours in the UK (%).

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<td>Present job may come to an end</td>
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<td>0.79</td>
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<td>Present job is to fill in time before finding another job</td>
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<td>0.42</td>
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<td>Pay unsatisfactory in present job</td>
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<td>Journey to work unsatisfactory in present job</td>
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<td>Respondent wants to work longer hours than in present job</td>
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<td>Respondent wants to work shorter hours than in present job</td>
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<td>Respondent wants to change sector - other reasons</td>
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<td>Average # under hours</td>
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<td>Average #over hours</td>
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N  
185,086  176,677  172,289  174,337  128,902

Source: LFS
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<td>Wants replacement job with longer hours</td>
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<td>Wants more hours in current job</td>
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|                                |       |     |       |     |
| a) April-June 2019             |       |     |       |     |
| Wants additional job           | 22    | 2.5 | 193   | 0.6 |
| Wants replacement job with longer hours | 52    | 5.8 | 235   | 0.7 |
| Wants more hours in current job | 163   | 18.2| 1,814 | 5.7 |
| Does not want more hours       | 516   | 57.6| 23,826| 74.8|
| Total                          | 896   | 100.0| 31,856| 100.0|

Source: ONS EMP17 spreadsheet.
Totals include those with unknown status.
References


Bell, D., R. A. Hart, and R. E. Wright (1997), 'Multiple job-holding as a “hedge” against unemployment', CEPR Discussion Paper No. 1626.


Clarke, S. and N. Cominetti (2019), 'Setting the record straight: how record employment has changed the UK', Resolution Foundation, January.


Mousteri, V., M. Daly and L. Delaney, (2020), 'Underemployment and psychological distress: propensity matching score and fixed effects estimates from two large UK samples', *Social Science and Medicine*, 244, January.


____________(1990), 'Multiple jobholding up sharply in the 1980’s,' *Monthly Labor Review*, July, pp. 3–10,

____________(1997) 'New data on multiple jobholding available from the CPS,' *Monthly Labor Review*, March, pp. 3–8


Figure 1a. UK monthly unemployment and U7 underemployment rate

Figure 1b. US monthly unemployment and underemployment rates
Figure 1c. Under and over hours, UK, 2001-2019

Figure 1d. Bell-Blanchflower underemployment index UK
2001q3-2019q3
Figure 2. Monthly Labour Force participation and employment (EPOP) rates
Figure 3. Long-term Unemployment rate (%) (Source: OECD)

Canada
European Union (28 countries)
Japan
United Kingdom
United States
Figure 4. Average hours
Figure 5a. UK Monthly Average Weekly Earnings Pay Growth, 2001-2019

AWE at 2015 constant prices (LHS)
Single month growth (RHS)

Figure 5b. US Monthly Private Sector Production and Non-supervisory Workers, 1965-2020

Average weekly earnings in constant 1982-1984 prices
Weekly wage growth
Figure 6. Monthly part-time and temporary working rates.
Figure 8. Monthly multiple job holding rates

UK

USA
Figure 9a. UK Services Expectations of Employment over next 3 Months

Figure 9b. UK Retail Expectations of Employment over Next 3 Months

Figure 9c. UK Consumer Expectations of Unemployment Next 12 Months

Figure 9d. BOE Agents' Scores on Investment and Employment Intentions

- Employment Intentions old-series
- Employment Intentions new scores
- Investment Intentions old series
- Investment Intentions new scores