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COMMENTARY: LABOUR MARKET SLACK IN THE UK

David N.F. Bell* and David G. Blanchflower**

Given the recent unexpectedly rapid fall in the unemployment rate, the extent of labour market slack in the UK economy is an important issue for policymakers, particularly the Bank of England's Monetary Policy Committee (MPC). However, in our view, the MPC is arbitrarily reducing its estimate of the impact of two important components of labour market slack, risking damaging mistakes in the formulation of monetary policy. The first is *long-term unemployment* and the second is *underemployment*. In each case the MPC has explained these adjustments in a box in its May 2014 *Inflation Report* called 'Assessing the degree of spare capacity'. The purpose of this article is to explain why we think the MPC's approach is incorrect.

Long-term unemployment

The MPC's current assessment is that the amount of spare capacity in the economy is "probably in the region of 1–1.5 per cent".[1] The vast majority of this spare capacity, they argue, is not inside firms but within the labour market. But their estimate of the medium-term equilibrium unemployment rate, and hence of the difference between actual and equilibrium unemployment, is crucially driven by their assumptions on the role of the long-term unemployed in the labour market. There are two elements to this argument. The first is that the longer that someone has been out of work, the lower the probability of them finding a job. This is true; those who have been unemployed for more than twelve months are about a third as likely to find a job as those unemployed for fewer than six months.[2] The second is that this implies that the long-term unemployed therefore put less downward pressure on wages. This, however, is not substantiated by the evidence, which does not support the claim that the long-term unemployed have a different impact on wages than the short-term unemployed.

This argument dates back to Layard and Nickell (1987), who argued that the long-term unemployed imposed much less wage pressure than the short-term unemployed. In a series of annual time-series regressions they found evidence that a long-term unemployment term, defined as the number of those who had been unemployed expressed as a proportion of total unemployment, entered positively in a wage equation. However, this and other subsequent work (Rudebusch and Williams, 2014; Llaudes, 2005) suffers from the problem that it is hard, if not impossible, to separate out the impact of high overall unemployment from high long-term unemployment due to the high correlation between the two variables using aggregated time series methods (Blanchflower and Oswald, 1994).

By contrast, Blanchflower and Oswald (1990) showed, using micro-data for the UK, that this was not the case and long-term unemployment *did not* play any independent role in wage determination. They concluded that "the British evidence does not support the view that long-term unemployment is an important element in the wage determination process".

Up-to-date analysis continues to support this view. For the US, Blanchflower and Posen (2014) examined the impact of long-term unemployment in a series of hourly and weekly wage equations using data from the Current Population Survey pooled across state and year cells, for the period 1990–2013. The authors included year and state fixed effects, a lagged dependent variable and the log of unemployment and inactivity rates, which both entered significantly negative. They also included separate variables for the proportion of the unemployed with durations of 15+ weeks: 27+ weeks and one year and over. No evidence was found that the long-term unemployed had a smaller wage-reducing effect than

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the short-term unemployed, confirming the earlier work in Blanchflower and Oswald (1990). If anything, they even found some evidence to suggest long-term unemployment lowered wage growth even more than short-term unemployment.

Similar evidence indicating that long-term unemployment and short-term unemployment have equivalent effects on inflation in the USA has been found using data on prices rather than wages. In a recent paper, Kiley (2014) considered this issue using cross-section time series data on 24 large metropolitan areas. The dependent variable is the Consumer Price Index (CPI) in each metropolitan area by year. As in the Blanchflower and Posen (2014) estimation procedure, year and area fixed effects are included with long-term unemployment being defined as an unemployment spell of 27 weeks and over. Rather than including a variable for the long-term unemployment proportion as in our analysis, Kiley includes both short-term and long-term unemployment rates, which is functionally similar.

It is notable that Kiley finds that the coefficients in his price change equations on local unemployment rates are similar and precisely estimated; hence, the data do not reject the hypothesis that short- and long-term unemployment rates have identical effects on inflation. Kiley is thus able to conclude that "the results suggest that long-term unemployment has exerted similar downward pressure on inflation to that exerted by short-term unemployment in recent decades".

Of course, there are significant differences between the UK and US labour markets. In table 1 we report the results of estimating a series of hourly and weekly wage equations using data from the Labour Force Surveys for the UK, pooled across twenty regions defined based on residence and from 1993 to 2013 in the case of hourly pay and from 1992 to 2013 for weekly pay.[3] Along with a lagged dependent variable, we also include the log of the regional unemployment rate plus a long-term unemployment variable, defined as the proportion of the unemployed that have been continuously unemployed for at least a year, which has a mean of 31.1 per cent. If the long-term unemployed exert less pressure on wages than the short-term unemployed, this variable should be significant and positive – but it never is. We calculate both of these variables from the LFS data. In column 1 we

Table 1. Wage equations and long-term unemployment, 1992–2013

	(1)	(2)	(3)	(4)
a) Hourly (1993–2013)				
Lagged Wage$_{t-1}$	0.9625 (59.93)	0.1343 (2.72)	0.0999 (1.99)	0.1109 (2.18)
Lagged Wage$_{t-2}$				0.0503 (1.00)
Log unemployment rate$_t$	–0.0025 (0.23)	–0.0556 (3.42)	–0.0352 (2.03)	–0.0045 (0.23)
Log unemployment rate$_{t-1}$				–0.0373 (1.87)
Long-term unemployment$_t$	0.0171 (0.39)	0.0756 (1.38)	0.0357 (0.64)	–0.0015 (0.03)
Long-term unemployment$_{t-1}$				0.0989 (1.79)
Year dummies	Yes	Yes	Yes	Yes
Region dummies (20)	No	Yes	Yes	Yes
Personal controls	No	No	Yes	Yes
N	399	399	399	379
Adjusted R^2	0.9772	0.9871	0.9874	0.9884
b) Weekly (1992–2013)				
Lagged Wage$_{t-1}$	0.9144 (51.90)	0.0573 (1.75)	0.0300 (0.92)	0.0785 (1.52)
Lagged Wage$_{t-2}$				0.0142 (0.44)
Log unemployment rate$_t$	0.0110 (0.84)	–0.0550 (3.59)	–0.0482 (3.00)	–0.0157 (0.84)
Log unemployment rate$_{t-1}$				–0.0438 (2.27)
Long-term unemployment$_t$	–0.0240 (0.44)	0.0071 (0.14)	–0.0176 (0.15)	–0.0127 (0.24)
Long-term unemployment$_{t-1}$				0.0604 (1.16)
Year dummies	Yes	Yes	Yes	Yes
Region dummies (20)	No	Yes	Yes	Yes
Personal controls	No	No	Yes	Yes
N	418	418	418	398
Adjusted R^2	0.9772	0.9888	0.9892	0.9895

Source: Labour Force Surveys.
Notes: personal controls include 5 schooling variables, age, gender and 4 race dummies. T–statistics in parentheses.

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include these variables along with a set of year dummies and then in column 2 we add region dummies. The log unemployment rate is now significant and negative for both hourly and weekly wages. In column 3 we add a series of personal controls. If wages adjust with a lag, we might expect the lagged equivalent of the unemployment variables also to enter with a lag. Column 4 extends the dynamics of the model by introducing a second lag on the dependent variable and lags on the log unemployment rate and the long-term unemployed share. The lag in the long-term unemployed variable is weakly significant (t = 1.79) in the hourly wage equation but is always insignificant for weekly wages. Though this provides the most supportive evidence that the long-term unemployed have a different effect on wage settlements than do the short-term unemployed, the level of significance is weak, the lagged wage is not significant and the result is highly sensitive to changes in specification.

Thus, consistent with Blanchflower and Oswald (1990), we also find that the UK evidence does not support the view that long-term unemployment is an important element in the wage determination process. We find no convincing evidence that the long-term unemployed have any different impact on wages than the short-term unemployed. Hence, we conclude that it is inappropriate for the MPC to reduce the estimated level of slack due to the amount of long-term unemployment. The MPC has produced no evidence for the UK; and based on the new analysis presented here we draw exactly the opposite conclusion; no downward adjustment should be made.

Evidence on underemployment and its impact

In a series of recent papers we have examined the extent of underemployment in the UK economy (Bell and Blanchflower, 2011, 2013a, 2013b) based on data from the Labour Force Surveys from 2001 Q2 to 2014 Q4.[4] Workers are asked if they would "like to work longer hours, at current basic rate of pay, given the opportunity?" If they respond in the affirmative they are asked for the number of hours they would like to work. A similar set of questions is asked for those who would like shorter hours.

The responses for each series through 2014Q1 are plotted in figure 1, which shows that until 2008 the two series were essentially equal to each other. After that date, with the onset of recession, there was a slight drop in the 'fewer hours' series alongside a big jump in the 'more hours' series. Figure 2 plots the seasonally adjusted underemployment rate and the unemployment rate. In 2014Q1 the underemployment rate was 8.4 per cent and the unemployment rate 6.8 per cent; both have dropped from their peaks in 2011Q4.[5] The MPC in its *Inflation Reports* also reports the underemployment rate using our methods although it expresses it as the number of hours the currently employed on average would like to work, which of course is equivalent. In its May 2014 *Inflation Report*, Table 3D, it reported the level of underemployment as follows.

Figure 1. Number of desired hours

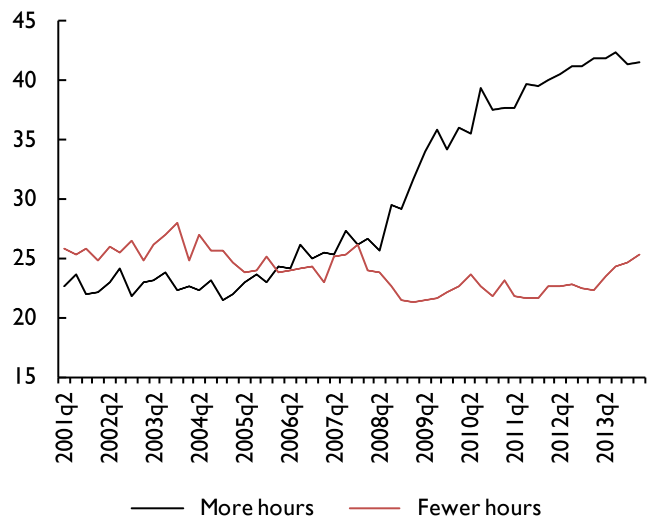
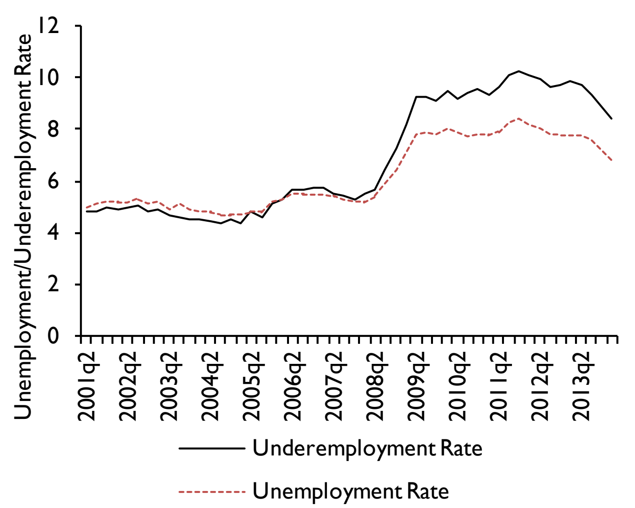


Figure 2. Underemployment and unemployment rates SA (%)



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	1998–2007	*2012*	*2013 H1*	*2013 Q3*	*2013 Q4*
Average hours	32.4	31.9	32.0	32.1	32.1
Desired hours	32.1	32.4	32.7	32.7	32.6

Averaged across all workers, underemployment amounts to approximately an additional half an hour per worker. Given there are 32.7 million workers in the UK working an average of 32.1 hours, this would amount to approximately half a million additional workers.[6]

In table 2 we attempt to determine who are the underemployed, using micro data from the LFS from 2001 through 2014 Q1. In total there are 2.8 million observations. We set the dependent variable to zero if the worker responds that they don't want to change their hours; if they want longer hours, then the number of hours they say they want is included as a positive number. If the worker says they want fewer hours then that number is included as a negative number. The mean of the variable is negative from 2001–8 and positive after that.[7] We include controls for region of residence; year dummies and controls for type of public sector organisation and schooling (not reported) as well as for age, gender, race, whether the respondent was an A8 or A2 migrant and whether he/she was a full-time worker. Separate estimates are provided for the whole time period as well as for the recession years of 2012 Q1–2014 Q1.

Table 2. Desired hours 2001–14

		2012–2014	Employees only	
Age 25–29	–0.6524 (41.33)	–0.8886 (18.56)	–0.5037 (32.28)	–0.4391 (15.05)
Age 30–34	–1.3005 (86.41)	–1.6092 (34.97)	–1.0375 (68.24)	–0.8211 (28.83)
Age 35–39	–1.5279 (105.10)	–1.9401 (42.38)	–1.1409 (76.11)	–0.9276 (32.91)
Age 40–44	–1.5830 (110.20)	–1.9573 (44.22)	–1.1128 (74.14)	–0.8682 (30.78)
Age 45–49	–1.7047 (116.52)	–2.0798 (47.34)	–1.1920 (77.27)	–1.0124 (35.02)
Age 50–54	–2.1587 (143.60)	–2.5277 (56.40)	–1.6074 (100.41)	–1.4325 (48.04)
Age 55–59	–2.6944 (170.54)	–3.2351 (68.52)	–2.1065 (124.22)	–1.9123 (61.00)
Age 60–64	–3.5527 (189.76)	–4.4464 (83.73)	–2.9184 (143.44)	–2.7428 (73.26)
Age 65–69	–4.4674 (152.81)	–5.6215 (77.31)	–3.7716 (112.21)	–3.5155 (56.73)
Age 70–74	–4.4329 (91.78)	–6.0835 (50.33)	–3.7236 (63.13)	–3.5328 (32.10)
Age 75+	–4.2355 (55.62)	–6.0277 (27.29)	–3.6375 (35.53)	–3.424 (18.21)
Male	1.1722 (149.01)	1.3612 (60.49)	1.1198 (141.34)	1.1562 (80.12)
Self-employed	0.0432 (3.98)	0.4122 (13.59)	n/a	n/a
Degree	–0.9532 (65.75)	–1.0255 (21.44)	–1.1011 (72.98)	–0.7466 (25.44)
Higher education	–0.6636 (40.14)	–0.7781 (14.44)	–0.7437 (43.78)	–0.4772 (15.22)
A-level	–0.5501 (38.74)	–0.6384 (13.18)	–0.5844 (39.51)	–0.4304 (15.78)
O-level	–0.3581 (24.79)	–0.3245 (6.62)	–0.3837 (25.80)	–0.2882 (10.61)
Other qualifications	0.0810 (5.07)	0.1372 (2.47)	0.0191 (1.16)	0.0643 (2.14)
A8 Accession	1.1696 (24.52)	0.9303 (7.57)	0.9678 (20.38)	0.8201 (9.38)
A2 Accession	2.0563 (16.40)	1.7823 (8.83)	1.7476 (10.58)	1.1678 (3.80)
Mixed	0.4625 (9.97)	0.2694 (2.31)	0.3979 (8.56)	0.4468 (5.26)
Asian	0.8983 (45.73)	1.0987 (22.27)	1.0182 (50.18)	1.0355 (27.00)
Black	1.3511 (48.08)	1.6573 (22.29)	1.3421 (47.91)	1.2125 (22.85)
Chinese	0.4176 (6.13)	–0.0987 (0.21)	0.4135 (5.81)	0.5435 (4.06)
Other race	1.1728 (32.40)	1.1417 (11.91)	1.1136 (29.99)	1.2133 (17.22)
Fulltime	–3.7337 (416.87)	–4.6141 (181.65)	–3.4483 (374.53)	–3.2765 (196.20)
Tenure years			–0.0853 (67.21)	–0.0740 (32.33)
Tenure squared			0.0017 (44.98)	0.0016 (23.20)
Permanent job			–0.8543 (53.77)	–0.7565 (25.53)
Log hourly pay				–0.5663 (38.98)
Constant	3.8277	5.5699	4.6417	5.2240
N	2,805,715	415,120	2,424,768	707,893
Adjusted R^2	0.0878	0.1074	0.0978	0.0994

Source: LFS 2001–2014.

Notes: dependent variable desired change in hours. All equations include a full set of 23 region and 14 year dummies. Excluded categories Wave 1; age 75 and over; white and no qualifications. Region is region of residence. A8=Poland, Czech Republic; Hungary: Estonia; Latvia; Lithuania, Slovenia and Slovak Republic and are set to 1 only if year>=2004 A2=Bulgaria and Romania are set to 1 only if year>=2007. Controls are also included but not reported for DK and not answered for region, race and schooling. T-statistics in parentheses.

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The third and fourth columns are restricted to employees only and add years of tenure and its square and whether the job was permanent. In the final column the log of hourly pay is included as a control; which reduces the sample size as earnings data are only provided in the first and fifth of the five sample waves.

The main findings are that the young and the least educated and minorities, who have the highest unemployment rates, are especially likely to say they would like more hours.[8] Similarly migrants from the A8 and the A2 Accession Countries are also especially likely to desire more hours, as are racial minorities. The self-employed also want more hours as do those whose jobs are temporary along with part-timers. In the final column, and ignoring issues of endogeneity, it is apparent that the low-wage workers want more hours. All this is consistent with the view that underemployment is both real and large.

However, in the May 2014 *Inflation Report*, the MPC makes a similar downward adjustment to labour market slack as for long-term unemployment, estimating that "only around half of the present gap between actual hours and the estimate of desired hours represents labour market slack". This judgement appears to be based on calculations presented in a recent speech by Martin Weale (2014a). Weale argued that

> "It is obviously tempting to look at these figures and regard the gap between actual hours and desired hours as a simple additional source of labour market slack. On that basis it might seem that hours worked could rise by around 1½ per cent, simply as a result of people finding as much work to do as they would like to do. There are, however, grounds for caution, even before those figures are translated into effective labour supply… It may be the case that some of the net underemployment is a response to the state of the economy rather than any indication of genuine extra capacity. For example people whose partners lose their jobs may well say that they would like to work longer. But once their partners find new jobs, they may lose interest in doing so."

Weale's quantitative analysis uses LFS data based on a longitudinal sample of individuals observed in the first wave in 2012 and for the fifth time in. His findings are reported in table 3, along with the sample sizes in parentheses. Weale found that those who said they were underemployed said they wanted an average of 11.7 extra hours. Those who were underemployed in the first wave but fully-employed in the fifth wave increased their hours by 6.5 hours. Those who were over-employed in the first wave and were fully-employed in the second desired a reduction of 11.3 hours, but actually achieved a reduction of 4 hours. Table 4 reports the hourly wages Weale obtained from his sample; those who were underemployed at both waves had wages of £8.74 compared with £9.49 if they were fully employed in 2013. In the case of the over-employed, the wage rates were £17.24 and £16.16 respectively. For those fully employed at both sweeps, the average wage was £13.94. He reported the hourly pay for people underemployed in 2012 and fully employed in 2013 was £9.40 in 2012 and £9.58 in 2013 (2013 Q4 £s).

Weale's underemployment index is then calculated by adjusting the raw figures for the extent of under and over employment to reflect both actual (as opposed to desired) increases or decreases in hours realised by those who changed their hours, and the differences in wages between the two groups (relative to the fully employed). The result is that, in contrast to our estimate of labour

Table 3. Desired and actual changes in hours worked between 2012 and 2013

	Labour market status in 2012		
	Under-employed	Fully-employed	Over-employed
Labour market status in 2013			
Under-employed			
Desired	13.5 (722)	0.0 (1127)	–8.3 (30)
Actual	1.2	–2.9	10.0
Fully employed			
Desired	11.7 (769)	0.0 (12,286)	–11.3 (656)
Actual	6.5	–0.5	–4.0
Over-employed			
Desired	9.7 (33)	0.0 (1,224)	–11.3 (628)
Actual	7.1	1.4	–1.5

Source: Weale (2014a) and private communication.
Notes: sample sizes in parentheses.

Table 4. Hourly rates of pay by employment category (2013Q4 prices)

	Labour market status in 2012		
	Under-employed	Fully-employed	Over-employed
Labour market status in 2013			
Under-employed	£8.74 (395)	£10.09 (571)	£12.65 (14)
Fully-employed	£9.49 (402)	£13.94 (6331)	£16.16 (400)
Over-employed	£10.96 (17)	£15.42 (674)	£17.24 (390)

Source: Weale (2014a) and private communication.
Notes: sample sizes in parentheses.

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market slack from underemployment equivalent to about half a million workers, Weale's estimate is equivalent to only about a third of that.

However, in our view, there are numerous problems with this analysis:

- As Weale recognises, there are issues of selection bias. Only 60 per cent of those in the survey at the start are still there five quarters later, especially as young people who want the most extra hours are the most likely to drop out, along with the least educated. This problem is illustrated in table 5, which reports the overall distribution of labour market status in 2012 and 2013 for five groupings – the inactive; the unemployed; the 'fully-employed' who say they don't want to change their hours; the 'underemployed' who say they want to increase them and the 'underemployed' who want to lower them. It is clear that the underemployed and the overemployed are markedly under-represented in Weale's samples.

- The analysis is based on surprisingly small sample sizes. Desired hours data are available, for example, on only 722 workers who are underemployed in both 2012 and 2013 and 628 overemployed workers in both years in table 4. The sample sizes fall to 395 and 390 respectively in table 4 when wages are examined.

- Weale's analysis focuses primarily on individuals who were underemployed in 2012, but as can be seen from table 5, of the 2424 workers who were underemployed in 2013, 177 were inactive in 2012; 190 were unemployed while 1305 were fully-employed. In the case of the 2105 underemployed, 14 were inactive in 2012; 29 were unemployed while 1401 were fully employed.

- The analysis incorporates an adjustment for relative productivity, as measured by wages. These adjustments result in a substantial reduction in the index of underemployment. However, because the sample sizes are relatively small, there is huge uncertainty associated with these adjustments – which are of course magnified when applied to various labour market aggregates. Moreover, the hourly wage data used to calculate 'productivity adjustment' only relates to employees. This excludes all self-employed workers who, as we know from table 4, want more hours than employees.

- It is well known that longitudinal data analysis creates downward biases due to measurement error biases. Misclassification of a small number of workers will produce a much larger error in longitudinal data than in cross-section analysis and cannot be readily ignored. Freeman (1984) points out that the reason for the greater error is twofold. On the one hand, random misclassification of workers in two periods will produce a larger number of misclassified workers than random misclassification in one period. On the other hand, by obtaining information on underemployment on small numbers of changers, the longitudinal analysis will contain a smaller number of correct observations. As a result the proportion of observations in error will be much larger in the longitudinal analysis than in the cross-section analysis producing a larger downward bias.

- The analysis only considers one form of transition –

Table 5. Number of unweighted observations by labour force status (%)

	All 5 waves		Wave 1	Wave 5	Wave 1 Weale	Wave 5 Weale
	2012	2013	2012	2013	2012	2013
Inactive	35.4	35.3	40.3	35.3	35.7	35.7
Unemp.	4.9	4.6	4.4	4.6	4.2	3.9
Under-emp.	7.0	7.1	5.2	7.8	4.6	6.2
Fully-emp.	47.4	47.6	46.0	47.2	51.3	48.7
Over-emp.	5.4	5.5	4.2	6.4	4.1	5.4
N	321,429	307,476	69,915	54,836	38,842	38,842

Source: Labour Force Surveys, 2012 and 2013 and private communication with Weale.

Table 6. Transition rates between labour market states, 2012 Wave 1 – 2013 Wave 5

	2012 status					
	Inactive	Unem-ployed	Under-employed	Fully employed	Over-employed	Total
2013 status						
Inactive	12503	302	66	909	77	13857
Unemp.	471	640	53	324	35	1523
Under-emp.	177	190	722	1305	30	2424
Fully-emp.	726	469	932	15979	827	18933
Over-emp.	14	29	33	1401	628	2105
N	13891	1630	1806	19918	1597	38842

Source: Weale (2014a).

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from underemployment or overemployment to full employment. He does not pick up those who were fully employed in the first instance and subsequently express a desire to increase or decrease their hours. As is clear from table 6, a larger number moved from being fully employed to underemployed (n = 1305) than either stayed underemployed (n = 722) or became fully employed (n = 932).

Finally, the biggest problem for the argument being put forward by Weale and the MPC is that our index indicates that there was no underemployment when the economy was running close to full-employment. As figures 1 and 2 show, there was essentially no underemployment in the UK from 2000–2007 when the average unemployment rate was a mere 5.2 per cent. Then, when the recession hit, the difference between the number of extra hours that were desired increased, while the number from people who wanted less remained broadly flat. It seems hard to believe that the two series won't close back to pre-recession equality, if and when the economy returns to full employment.

Conclusions

To illustrate the adjustments the MPC is making, if we take the most recent data available for 2013 Q4, we have an unemployment rate of 7.2 per cent and an underemployment rate of an additional 1.8 per cent, making an underemployment rate of 9 per cent. The MPC's adjustment for long-term unemployment reduces the unemployment rate by 18 per cent, or about 1.3 percentage points; its adjustment for underemployment reduces that by half, or 0.9 percentage points. So, for the purposes of calculating labour market slack, the underemployment rate according to the MPC is *really* 6.8 per cent and the unemployment rate 5.9 per cent. This in turn underpins their forecasts for rising real wage growth.

Our paper contests the view that the long-term unemployed, because of their supposed greater distance from work, should be treated as a different category when assessing the level of slack in the UK labour market. Microeconometric evidence from both the USA and our own evidence from the UK cannot distinguish any statistically significant difference between long-term unemployment and overall unemployment in their effects on wages. There is no empirical justification for focusing only on the short-term unemployed when calibrating slack in the UK labour market.

We also argue that there is insufficient evidence to infer that our recent estimates of underemployment tend to exaggerate the extent of labour market slack. Weale argues that survey responses in the UK Labour Force Survey cannot be taken at face value. When asked whether they want to increase or decrease their weekly hours of work, he contends that the employed exaggerate the change in working time that they desire – upwards or downwards. Using data only for 2012, he found that those who wanted to increase or decrease their hours at the beginning of the year and then claimed that they were fully employed at the end of the year did not achieve the increase or reduction in hours that they wanted at the outset.

There are several empirical issues with Weale's analysis. These include sample selection biases, small sample sizes, which inevitably lead to relatively large standard errors and undermine the precision of adjustments to aggregate changes in desired hours. In particular, the 'productivity' adjustments, which are crucial to his argument, are subject to significant uncertainty. These within-sample issues are further amplified by the fall in response rates between Wave 1 and Wave 5 and the absence of the self-employed from the analysis.

Last time interest rates were raised was in July 2007. At that time the unemployment rate was 5.5 per cent while our underemployment index stood at 5.8 per cent – a gap of 0.3 per cent. For the period February–April 2014, the unemployment rate was 6.6 per cent, while the underemployment index in the first quarter of 2014 was 8.4 per cent – a gap of 1.8 per cent. In July 2007, when interest rates were last raised, the CPI was 1.9 per cent and the RPI at 3.4 per cent. In May 2014, the CPI was increasing at 1.5 per cent and the RPI at 2.4 per cent. In our view there is little or no reason to believe that the underemployment rate will not return to balance, as the economy approaches full employment. When the labour market moves closer to full employment, individuals inevitably will become less constrained in their choices of how many hours to work, just as they were in the pre-recession years.

With little or no foundation, the MPC is making two arbitrary downward adjustments to labour market slack in the UK. This paper has argued that these judgements are inappropriate; the UK labour market is much further from full employment than the MPC calculates and in consequence there is much less wage pressure than it is forecasting. The crucial test is how quickly nominal wages start to rise, but there is absolutely no sign of this happening at the time of writing. Nominal wage growth in June 2014 was –1.7 per cent, and 0.7 per cent if 3-month on 3-month averages are used. The CPI grew

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by 1.5 per cent and the RPI by 2.5 per cent over the same twelve-month period.

In a subsequent speech Weale (2014b) sensibly concludes as follows: "there is the continuing unusual weakness in wages and a question of what signal should be drawn from that. It may well imply that there is rather more spare capacity in the economy than the Committee has assumed. Should wage growth fail to revive, that will, on its own, tip the scales further in favour of maintaining a strong monetary stimulus." We agree.

NOTES

1 External MPC members Ben Broadbent and Martin Weale have argued that the level of slack is approximately 1 per cent and 0.9 per cent respectively.

2 May 2014 *Inflation Report*, p.44

3 Gross weekly earnings is available in the LFS from Winter 1992, whereas hourly pay is available from Spring 1993. In the case of the 1992 data we can only use the Winter data. Region of usual residence is defined across these regions – Tyne & Wear; Rest of Northern Region; South Yorkshire; West Yorkshire; Rest of Yorkshire & Humberside; East Midlands; East Anglia; Inner London; Outer London; Rest of South East; South West; West Midlands (Metropolitan); Rest of West Midlands; Greater Manchester; Merseyside; Rest of North West; Wales; Strathclyde; Rest of Scotland; Northern Ireland

4 See http://bellblanchflowerunderemployment.com/ and also published quarterly by the Work Foundation at http://www.theworkfoundation.com/Datalab/The-BellBlanchflower-Underemployment-Index.

5 For details on how the underemployment rate is calculated see Bell and Blanchflower (2011, 2013a, 2013b).

6 In the US there has been little movement in underutilisation rates. The broad measure of underutilisation U-6 has moved very closely with the unemployment rate. What has moved is the inactivity rate which has fallen, which it has not done in the UK. For example in the US in 2008 Q1 the inactivity rate for 16–64 year olds was 25 per cent compared with 27 per cent in 2013 Q4, whereas in the UK the inactivity rate fell between these two dates from 24 per cent to 23 per cent. Blanchflower and Posen (2014) show that the inactivity rate along with the unemployment rate pushes down on wages.

7 The mean of the variable varies by year: 2001 = –0.27; 2002 = –0.29; 2003 = –0.31; 2004 = –0.33; 2005 = –0.25; 2006 = –0.17; 2007 = –0.16; 2008 = –0.04; 2009 = 0.24; 2010 = 0.27; 2011 = 0.37; 2012 = 0.40; 2013 = 0.39.

8 18–24 year old unemployment rates are 16.5 per cent while 16–17 year old rates are 35.4 per cent compared with 6.6 per cent overall in March 2014.

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