
The flexible UK labour market myth

In most aspects of life flexibility is thought to be a good thing. This is no less true of economies, and in particular their labour markets. The conventional wisdom is that the US and UK labour markets have it, whereas Europe badly needs it. But the current recession has thrown up some interesting challenges to these widely held views. In particular, we question whether the UK labour market is as flexible as it is generally believed to be. In fact, we argue that during the current recession, the UK labour market has in most respects behaved far more like its German counterpart than its American cousin.

In his 1997 Keynes Lecture, Robert Solow gave the following definition of a perfectly flexible labour market¹:

"A perfectly flexible labour market would then be one that interposes no obstacle to the frictionless matching of an unfilled job and an unemployed worker with the appropriate skills. In that case vacancies and unemployment could never coexist."

In Solow's perfectly flexible labour market, labour market prices (the wage rate), and quantities (the number of employed people) adjust instantaneously so that there can be no unemployed people whenever job vacancies exist, and no job vacancies whenever unemployment exists.

As Solow himself is quick to acknowledge, no labour market can ever be perfectly flexible according to his own definition. Important, and to a degree unavoidable frictions prevent the instantaneous adjustment of either labour market prices or labour market quantities. But starting from Solow's definition of a perfectly flexible labour market, we would suggest that the degree of labour market flexibility can be measured by the speed with which both wages and employment are able to adjust following an economic shock. More flexible labour markets will see rapid adjustment of labour market prices and quantities enabling the labour market to return to equilibrium more quickly.

In this article, we argue that the UK labour market, contrary to most public opinion, has been anything but flexible during the current recession. Indeed, we will argue that whereas most commentators, including it seems the Bank of England, have interpreted the relatively

¹ "What is labour market flexibility? What is it good for?" in Proceedings of the British Academy, **97**, 189-211.



mutated fall in employment in response to what has been the sharpest decline in output in the UK's post-War history as a sign of flexibility; the reverse is actually the case. The fact that neither employment nor wages have adjusted rapidly in the UK means that real unit wage costs, which we argue are the best available measure of the true cost of labour, have rocketed, storing up trouble for the future.

The biggest fall in demand since WW II

The UK economy has now suffered at least five consecutive quarters of falling output. The consensus is that it will record a small gain in the third quarter of 2009, though our own forecast is for another small fall. Nonetheless it seems that the UK economy, along with most other economies, is emerging from its deepest recession since at least the Second World War.

Chart 1

GDP during recessions

Index, peak in output = 100

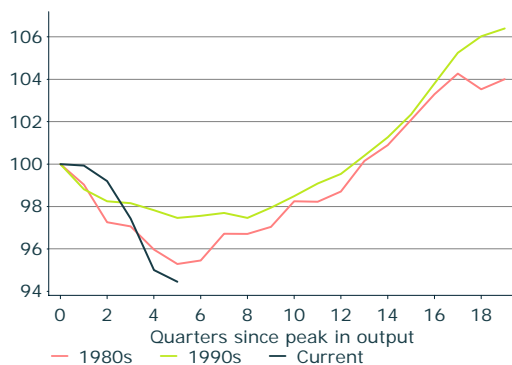
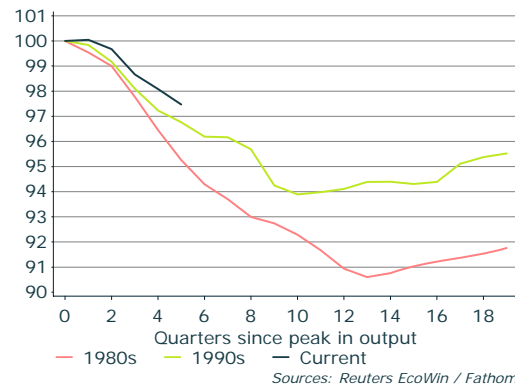


Chart 2

Employment during recessions

Index, peak in output = 100



As we show in Chart 1, by 2009 Q2 the level of GDP was 5.6% below the peak recorded in 2008 Q1. The total peak-to-trough fall in output was just 2.6% in the early 1990s recession and 4.7% in the early 1980s recession. By contrast, the rate at which jobs have been lost in response to this dramatic decline in demand has been less rapid than was the case previously. In particular, up until now it has been far less rapid than during the recession of the early 1980s (see Chart 2). This observation has led a number of commentators to take a rather positive view of the prospects for the UK labour market. Much greater flexibility on the part of workers, it is argued, through a combination of reduced hours and wages, has allowed firms to rein in their costs, thereby allowing greater staff retention. The point presumably being that when demand recovers, the relatively small decline in employment should mean that the UK consumer will be well placed to lead the recovery. Bank of England Chief Economist Spencer Dale put it like this in his recent speech:



“Although there has been a substantial fall in employment over the past year or so, the size of this adjustment to date has, if anything, been less than we might have feared given the falls in output. This may partly reflect the greater degree of wage flexibility that has been apparent in this recession compared to that in either the 1980s or 1990s. This greater flexibility has meant that more of the burden of firms’ adjustment to the recession has been spread over the workforce as a whole, rather than on those losing their jobs.”²

It is certainly true that pay growth, as measured by the Average Earnings Index (AEI), has been modest over the past year or so. Bonus payments in particular have been very weak. And some firms, such as Honda, who earlier this year shut down their Swindon car plant for four months, have agreed substantial cuts in hours with their staff³. More recently, British Airways has announced a combination of wage cuts and job losses, which though undoubtedly painful are probably smaller than might have been expected given the drop in profits.

But this raises two very important questions. First, how have these eye-catching initiatives affected the true cost of labour, and hence corporate profitability? And second, will their impact be sufficient to prevent further large-scale job losses? In order to address these questions, we argue that one needs to examine the evolution of real unit wage costs. Essentially these measure the real cost to the firm of hiring sufficient labour to produce a unit of output. As such, they are close to an ideal measure of the true cost of labour. Real unit wage costs are a good indicator of the extent to which, for a given path of output, further adjustment in the labour market, whether in terms of the number of employees, or average wage rates, might be necessary.

In the first section below, we use information on productivity, on average wage rates and on the prices charged by firms for their output to construct measures of both nominal and real unit wage costs. In the second section, we construct separate measures of productivity and average wage rates for both the public and private sectors. We consider whether the fall in whole-economy productivity is largely a consequence of a net transfer of staff from the private to the public sector. In the third section we describe an empirical model of the UK labour market. We use this model to make predictions about how much further unemployment

² “Separating Fact from Fiction: Household Balance Sheets and the Economic Outlook”. Speech given by Spencer Dale at a lunch hosted by the Exeter Chamber of Commerce on 24 September 2009. www.bankofengland.co.uk

³ According to press reports, 2,500 of the firm’s 3,700 employees received full pay for the first two months, and around 60% pay for the final two months of the shutdown. So from Honda’s perspective, this ‘flexibility’ came at a price.



might need to rise in a number of alternative scenarios. The final section draws some conclusions.

Measuring the cost of labour

We began this article by noting that, although the percentage reduction in output during the first five quarters of this recession had been larger than the percentage reduction in output during the two previous recessions, the percentage reduction in employment had been smaller. A natural consequence of these two statements is that the percentage reduction in productivity so far during this recession must have been unusually large. Chart 3 shows the four quarter percentage change in two different measures of productivity: output per worker, defined as GDP divided by the LFS measure of employment; and output per hour, defined as GDP divided by the LFS measure of the total number of hours worked. The reduction in output per worker over the year to 2009 Q1, at 4.4%, was the largest since at least the 1960s, when these productivity measures were first constructed. More recent data show a reduction in output per worker over the year to 2009 Q2 of 3.9%. The reduction in output per hour was a little smaller, confirming that average weekly hours per worker have been falling. Nonetheless, the fall in output per hour has been dramatic, and contrasts with the situation during the 1990s recession. We consider the international implications of this plunge in productivity later in the note, but it is worth recording here that the UK experience stands in stark contrast to that of the other supposedly 'flexible' labour market – the US. US output per hour actually rose by 1.9% over the year to 2009 Q2.

Chart 3

Whole economy: Productivity

Four-quarter percentage changes

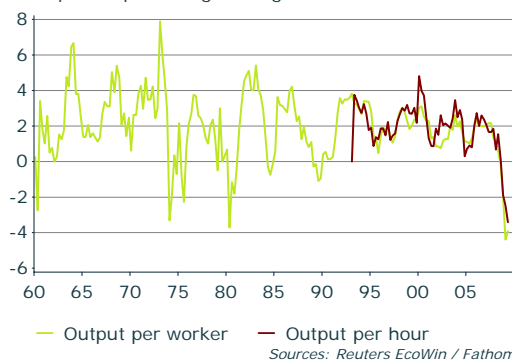
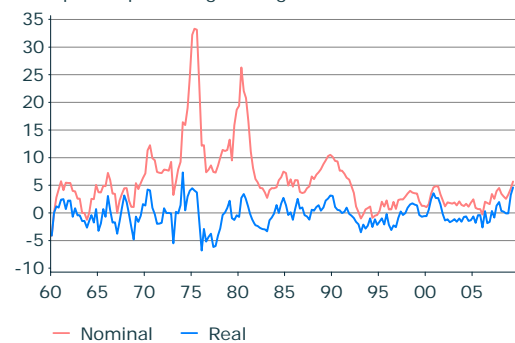


Chart 4

Whole economy: Unit wage costs

Four-quarter percentage changes



The impact on a firm's bottom line of such a significant fall in productivity will depend on what has been happening to average rates of pay. Average rates of pay per worker in the UK are still rising, albeit at a relatively



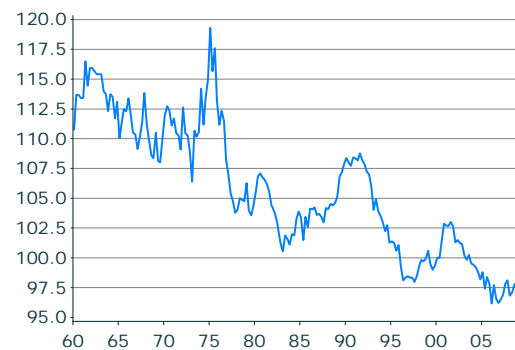
modest rate⁴. In the year to 2009 Q2, average rates of pay rose by 1.6%. Put together with the productivity data, this means that that over the year to 2009 Q2, nominal unit wage costs (UWCs) - the ratio of average wage rates to average output per worker - rose considerably. Chart 4 shows that nominal UWCs rose by 5.7% over the year to 2009 Q2. That was the biggest increase in staffing costs, in cash terms, since the early 1990s.

Large increases in staffing costs are less problematic, from the firm's perspective at least, if it can pass these costs on to the final consumer. The GDP deflator is a comprehensive measure of the prices charged by UK firms for all the goods and services that they produce. Over the year to 2009 Q2 it rose by 1.0%. So staffing costs rose much more rapidly than prices charged by firms. Real UWCs, defined as nominal UWCs divided by the GDP deflator, rose sharply. In fact, as the pale blue line in Chart 4 shows, the rise in real UWCs over the year to 2009 Q2, at 4.6%, was the largest since the first quarter of 1974. In other words, it was the largest since the introduction of the three-day week – which is not an episode often associated with either great flexibility or economic success.

Chart 5

Real unit wage costs: UK

Index, 2000 Q1 = 100

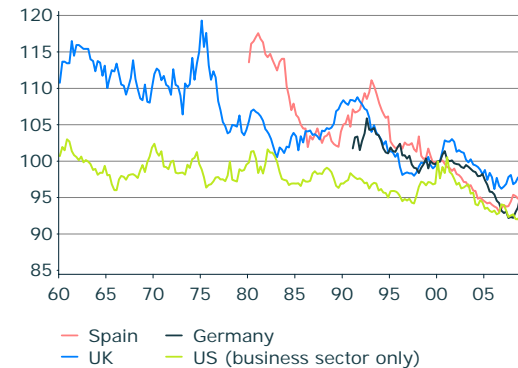


Sources: Reuters EcoWin / Fathom

Chart 6

Real unit wage costs: International

Index, 2000 Q1 = 100



Sources: Reuters EcoWin / Fathom

Chart 5 shows how the level of real UWCs has varied since 1960⁵. There are at least two points worth making: first, real UWCs appear to have been on a downward since at least the mid 1970s; and second, real UWCs have a strong cyclical component – they tend to rise as the economy slows and fall as growth picks up again. The reason for the downward trend is uncertain. Its corollary is an upward trend in the profit share of

⁴We define average rates of pay per worker as wages and salaries from the national accounts divided by LFS employment.

⁵Real UWCs are a good indicator of the true cost of labour, but they are imperfect. That is because real UWCs ignore any non-wage costs associated with employing staff. These non-wage costs will include employers' National Insurance contributions as well as any other deadweight costs, such as redundancy costs.



GDP. But any factor that tends to raise the supply of labour relative to the supply of capital should put downward pressure on the equilibrium level of real unit wage costs. Chart 6 shows that the UK has not been alone in this experience. The level of real unit wage costs has been trending down in most developed economies. One obvious explanation is the gradual dismantling of barriers to international trade - a trend which received a significant boost following China's WTO accession. China's emergence as a major trading partner has produced a substantial increase in the effective supply of labour relative to capital across the world. Other things equal, it should have weakened the rewards to labour (measured by real UWCs), and boosted the rewards to capital (measured by the inverse of real UWCs) – a point highlighted in previous Fathom research.

Chart 6 also shows that the cyclical component to real UWCs is common to most developed countries. It is almost certainly a by-product of various rigidities in labour and product markets. As we noted in our introduction, the idea of a fully flexible labour or product market is one best suited to textbooks and economic models. In reality there will always be some market imperfections or rigidities at work. When faced with a substantial fall in demand of uncertain duration, the presence of hiring and firing costs means that it can make sense for firms to retain staff in the hope that demand will soon recover. With wages and product prices slow to adjust, this will tend to produce big falls in productivity and big gains in real UWCs. This is what appears to have happened in the UK, and in Germany, but not in the US where hiring and firing costs are generally thought to be much lower.

Over time, real UWCs will adjust back to their equilibrium level. How will that adjustment take place? Logically, it can happen in one of four ways: through a reduction in employment; through downward pressure on wages; through a rapid recovery in aggregate demand; or through upward pressure on product prices, otherwise known as inflation. Typically we may see some combination of all four factors at work.

It would be nice to think that the surge in UK real unit labour costs will be unwound through a sharp rebound in growth. However, the Budget forecast aside, few independent forecasters place much weight on that scenario. The consensus envisages a slow and sub-par recovery stretching over a number of years before anything that might reasonably be called an above-trend pace is reached. In our view, even that may be too optimistic an assumption. Assuming that the Bank of England does not abandon its inflation target, that leaves just two channels: lower employment; or weaker wage growth. In section 3 of this note we use an empirical model to evaluate the likely magnitude of the adjustments both to pay and to employment.

But first we dig a little deeper into the UK data. In particular we examine whether the sizeable increase in labour costs has occurred largely in the



public or largely in the private sector. If, for example, we discovered that the main driver of increased labour costs across the economy as a whole had been a net transfer of staff from the private to the public sector, and if we judged that the government would be happy to fund indefinitely greater public sector employment as a means to prevent further job losses, then the rise in real UWCs may be less troubling.

Public and private sector UWCs

There are no official measures of either productivity or unit wage costs by sector of ownership. So we have constructed proxies using industry data on output, employment and average earnings. Specifically, we have defined the public sector as “public administration, education, health and social work”. Together these account for just under 20% of Gross Value Added. Although this decomposition will be imperfect, largely because a number of jobs in both education and health will be private sector jobs, we believe that it should be sufficiently robust for us to identify to what extent the public and private sectors have contributed to the fall in productivity, and to the rise in UWCs at the whole-economy level.

Chart 7

Public and private sector employment

Quarterly changes, thousands



Sources: Reuters EcoWin / Fathom

Chart 7 shows how the estimated number of public and private sector jobs, constructed using the sectoral decomposition outlined above, has changed in each quarter since 1980. It shows that the fall in the number of jobs during the recession to date has been driven entirely by a fall in the number of private sector jobs. The number of public sector jobs has actually risen. To some extent, this shift from private to public sector employment was also a feature of the early 1990s downturn, but on that occasion the increase in the number of public sector jobs was more muted.



But as we have already argued, changes in employment levels are not the full story. They need to be viewed in the context of the evolution of relative demand and wage growth. Charts 8 and 9 show estimated growth in productivity, measured as output per job, and estimated growth in average wage rates, measured by the average earnings index, in both the public and private sectors. Charts 10 and 11 show growth in estimated nominal UWCs, measured as average earnings divided by output per job, for the same two sectors.

Chart 8

**Public sector:
Wage rate and productivity**

Four-quarter percentage changes



Chart 9

**Private sector:
Wage rate and productivity**

Four-quarter percentage changes



Chart 10

**Public sector:
Nominal unit wage costs**

Four-quarter percentage changes



Chart 11

**Private sector:
Nominal unit wage costs**

Four-quarter percentage changes



It should be immediately apparent that, even though the private sector has shed all of the jobs, with the number of public sector jobs actually increasing since the recession took hold, it is in the private sector that productivity has fallen most sharply (Charts 7 and 8). Over the year to 2009 Q2, output per job in the public sector is estimated to have fallen by 1.0%, but output per job in the private sector is estimated to have fallen



by 3.4%⁶. Jobs might have been shed in the private sector, but output in the private sector, or more precisely, output in the whole economy excluding public administration, education, health and social work, fell by a staggering 6.9%. And moreover, although private sector workers appear to have shown more restraint than their counterparts in the public sector, this has not been anything like sufficient to offset the different rates of productivity growth. Hence the pick-up in private sector UWCs has been far more marked than that in the public sector (Charts 10 and 11)⁷. We have not been able to construct separate deflators for public and private sector output. Nevertheless, we would be surprised if the price of private sector output has been rising more rapidly than the price of public sector output.

On that basis, we conclude that most of the rise in whole-economy real UWCs has its roots in the private sector. And so we cannot dismiss it is a rise in the cost of employing public sector workers born willingly by a government keen to avoid further job losses. In that case we turn finally to our empirical model to see if we can shed some light on what it will take for real UK UWCs to return to their equilibrium path.

Fathom's empirical model of the UK labour market

Our model has a conventional structure, often associated with the work of Layard, Nickell and Jackman⁸. The main behavioural equations describe the paths taken by employment (measured by the number of employee jobs), wage rates (measured by total payments of wages and salaries divided by the number of employee jobs) and the GDP deflator.

Employment

Employment depends on the rate of growth of output, and on the 'cheapness' of labour, where the 'cheapness' of labour is measured by real UWCs. When real UWCs are unusually low, there will tend to be upward pressure on employment. When real UWCs are unusually high, there will tend to be downward pressure on employment. Unemployment is then determined as a residual, given the size of the labour force.

⁶These estimated sectoral productivity numbers are not directly comparable with the whole-economy figures in Chart 1. That is because we have used a measure of the number of jobs from an ONS survey of firms in the denominator for our estimated sectoral productivity numbers. By contrast, the denominator in the official productivity series shown in Chart 1 is a measure of the number of workers taken from an ONS survey of individuals (the Labour Force Survey).

⁷ Though it is worth noting that public sector UWCs are rising at more than double the current rate of CPI inflation.

⁸Layard, Nickell and Jackman (1991) *Unemployment*, Oxford University Press.



Earnings growth

Earnings growth is influenced by the unemployment rate relative to the NAIRU, and by real UWCs relative to their long-run equilibrium. When unemployment is above the NAIRU, there will tend to be downward pressure on earnings growth. When unemployment is below the NAIRU, there will tend to be upward pressure on earnings growth. If real UWCs are too high, earnings growth will tend to fall relative to GDP deflator inflation, and conversely if real UWCs are too low, earnings growth will tend to rise relative to GDP deflator inflation in order to bring real UWCs back to more normal levels.

GDP deflator inflation

GDP deflator inflation is affected by the output gap – the difference between actual output and potential output, where potential output is a function of the working-age population, trend participation, trend productivity and the NAIRU. When actual output is above potential, GDP deflator inflation will tend to rise. When actual output is below potential, GDP deflator inflation will tend to fall⁹.

In order to use our empirical model to make projections for unemployment, wage inflation and GDP deflator inflation we first need to make a number of assumptions about variables that are exogenous to the model. Specifically, all the projections we describe in this note are conditioned on the following set of assumptions:

- The steady-state rate of growth of the working-age population is 0.4% per annum, close to its average over the past 40 years.
- Trend productivity growth is 1.85% per annum – a shade below its average over the past 40 years, but somewhat above its average over the past 20 years.
- The steady-state participation rate is 79%, close to where it is today, and close to its long-run average.
- Much of the reduction in real UWCs during the first half of the noughties reflected a sharp increase in the supply of labour relative to capital following China's emergence as a major global trading

⁹ More recent so-called New Keynesian models suggest that, in general, product price inflation will depend on the difference between actual and equilibrium product prices. We are implicitly using the output gap as a proxy for this difference. Batini, Jackson and Nickell (2000) show how, under a certain set of assumptions, real UWCs might provide a better indicator of the difference between actual and equilibrium product prices.



partner. This is unlikely to be reversed in the short-term. Consequently, we assume that over our forecast horizon, which extends to 2019 Q4, the equilibrium level of real UWCs is close to the level seen in 2005.

We conduct four alternative runs of our model, labelled for convenience as Runs 1 to 4.

Run 1. Consensus path for near-term GDP. No other restrictions.

In Run 1, we assume that, up until the end of next year, GDP evolves according to the median forecast among independent forecasters in September as reported by HM Treasury for calendar years 2009, and 2010. These median forecasts, of -4.3% and 1.1% respectively, are consistent with quarterly growth of between 0.3% and 0.4% in each of the next six quarters. In essence, the consensus appears much closer to a U-shaped, than a V-shaped recovery, with growth remaining below trend for some time.

Other than constraining growth to follow the consensus for the next six quarters, after which point it is assumed to return gradually to its trend rate of 2.25% per annum, we do not intervene in Run 1. The adjustment to a lower level of real UWCs is assumed to occur in much the same way as it has on average during the past 40 years.

Chart 12

**Run 1:
HMT panel GDP**
Per cent



Chart 13

**Run 1:
HMT panel GDP**
Four-quarter percentage changes



In this simulation, the working-age unemployment rate rises from its current level of 8.1% to peak at 10.1% in 2011 Q1. It then falls back reasonably quickly, to below 5% by 2016 (Chart 12). So at least some of the adjustment to a lower level of real UWCs comes about through lower employment in Run 1. But lower employment does not do all of the work. Our model suggests that nominal earnings growth will have to fall sharply too. In fact, it suggests that annual growth in nominal earnings will turn



negative next year, and remain negative for around three years (Chart 13). This implies a period of substantially negative real wage growth.

It is worth noting that in no previous recession for which data are available has nominal earnings growth ever turned negative, year-on-year, although periods of negative real earnings growth are more common. Our model is linear and does not contain any nominal wage rigidities. It does not recognise the difficulties inherent in persuading workers to accept nominal wage cuts. To counter this criticism of Run 1 we run an alternative simulation, Run 2.

Run 2. Consensus path for near-term GDP. No nominal wage cuts.

In Run 2, growth is again constrained to follow the consensus for the next six quarters. But in addition we impose a nominal wage rigidity. Specifically, we assume that there are no nominal wage cuts - nominal wage inflation cannot turn negative.

Chart 14

**Run 2:
HMT panel GDP, no nominal wage cuts**



Sources: Reuters EcoWin / Fathom

Chart 15

**Run 2:
HMT panel GDP, no nominal wage cuts**



Sources: Reuters EcoWin / Fathom

The *quid pro quo* for assuming less adjustment through nominal wages is that we get more adjustment through employment. In Run 2 the unemployment rate peaks a little higher, at 10.3% in 2011 Q2, but it then remains elevated for a prolonged period of time (Chart 14). It does not drop back below 5% for around ten years. In this alternative simulation with a nominal wage rigidity, those who remain in work keep a fixed wage, in cash terms, for three years. So they see a modest decline in real wages as product prices rise, but the decline is smaller than in Run 1 (Chart 15). But this smaller reduction in real income comes at a cost. The unemployment rate peaks a little higher, and remains above the NAIRU for three years longer than in Run 1.



Run 3. Consensus path for GDP. Unemployment peaks below 9%.

If growth evolves according to the consensus, then even a three-year pay freeze appears insufficient to stop a further sustained increase in unemployment. What if wages were to fall? Could this sustained rise in unemployment be avoided? In Run 3, we retain the consensus path for GDP over the next six quarters. But this time we impose an immediate 10% reduction in the average wage. In this environment, we estimate that the unemployment rate would peak at 8.8% in 2009 Q4. Thereafter it would fall back quickly, dropping below 5% within four years (Chart 16). But there is no free lunch. The price for a relatively quick turnaround in the labour market is a substantial one-off fall in real wages; real wages do not return to their 2009 Q2 level until 2014 Q2. Such a fall in real income would be unprecedented, at least in modern times. But were it to occur, there would be significant and obvious implications for consumer spending, house prices and other consumer-sensitive sectors.

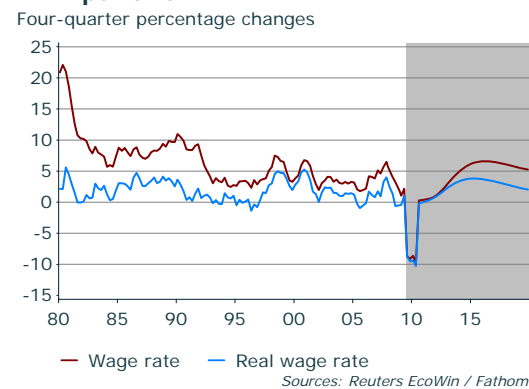
Chart 16

**Run 3:
HMT panel GDP, UR peaks at 9%**



Chart 17

**Run 3:
HMT panel GDP**



Run 4. Fathom's BEST mean forecast for GDP. No nominal wage cuts.

Our final scenario uses our own forecast for UK growth which is more pessimistic than the consensus. We see a sizeable risk of a W-shaped recovery, or 'double-dip' recession. Our mean expectation for growth in calendar year 2009 is -4.6%, and our mean expectation for growth in calendar year 2010 is -0.3%¹⁰.

¹⁰ For more detail on the reasoning behind our forecast, see "Fathom's BEST UK forecast", sent to clients on 31 July 2009, www.fathom-consulting.com.



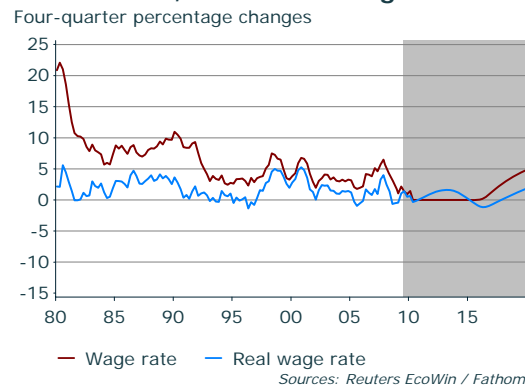
Chart 18

**Run 4:
Fathom GDP, no nominal wage cuts**



Chart 19

**Run 4:
Fathom GDP, no nominal wage cuts**



With this weaker profile for growth, and a nominal wage rigidity, albeit one that still allows nominal wage growth to fall to zero and remain there for a number of years, the unemployment rate peaks at 12.0% in 2012 Q3 (Chart 18). It remains elevated for a considerable period of time and does not drop below 5% until the early 2020s.

Conclusions

The performance of the UK labour market during the current recession has been unusual in that even though output has fallen more rapidly than it did during either the recession of the early 1980s, or the early 1990s, employment has fallen by less. Some economic commentators have attributed it as evidence of the UK labour market's 'flexibility'. According to this view, the seemingly benign performance of the UK labour market to date reflects greater flexibility on the part of workers with respect both to rates of pay and the number of hours worked. And it means that further substantial job losses will not be required. Lower wages and hours have shouldered the burden of adjustment for the good of the labour market as a whole. We are not convinced.

The flipside of the observation that output has fallen more rapidly, but employment less rapidly, than in either of the two previous economic downturns is, of course, that labour productivity has fallen dramatically. Large falls in productivity need not be problematic for firms if wage rates move in parallel. But that has not been the case.

We have argued that real unit wage costs - that is the real wage rate divided by labour productivity - are a good measure of the true cost of labour. And unfortunately, the increase in real unit wage costs over the past year has been the largest since the first oil crisis, and the

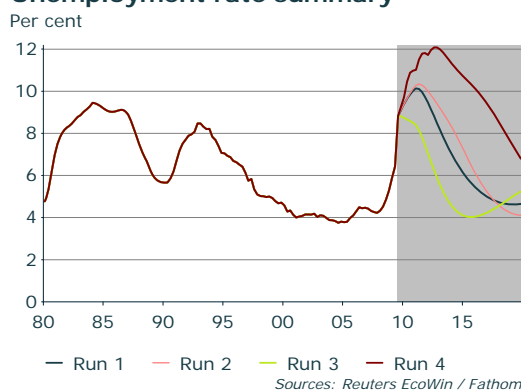


introduction of the three-day week in 1974. This makes the UK labour market performance look far more like Germany's than America's. And unless there has been a significant increase in the equilibrium level, then real unit wage costs will need to fall. The same is equally true in Germany.

The question is how might this adjustment come about? In short, there is no free lunch. We have run a number of different scenarios to illustrate the possible combinations that could return real UK labour costs to their equilibrium path. In the absence of a much sharper than currently envisaged economic recovery; or a significant burst of inflation (which followed the jump in real unit wage costs in 1974); the bulk of this adjustment is likely to come about in one of two ways: either employment needs to fall, or earnings growth needs to fall, or we need to see some combination of the two.

Chart 20

Runs 1-4: Unemployment rate summary



We presented four alternative simulations of unemployment, nominal earnings growth and real earnings growth. A comparison of the alternative paths for the unemployment rate is shown in Chart 20. If we rule out the third simulation, Run 3, which saw a one-off drop in average wages that was sufficient to prevent further sizeable rises in the unemployment rate, then an increase in the unemployment rate to more than 10% seems likely, even on the consensus path for GDP growth. Using our own, more sluggish forecast for recovery, unless workers are willing to accept sizeable cuts in both nominal and real wages, then unemployment could rise to 12%. In all cases, it looks set to remain elevated for a considerable period of time.

www.fathom-consulting.com