BANK OF ENGLAND

Speech

Lags, trade-offs and the challenges facing monetary policy

Speech given by

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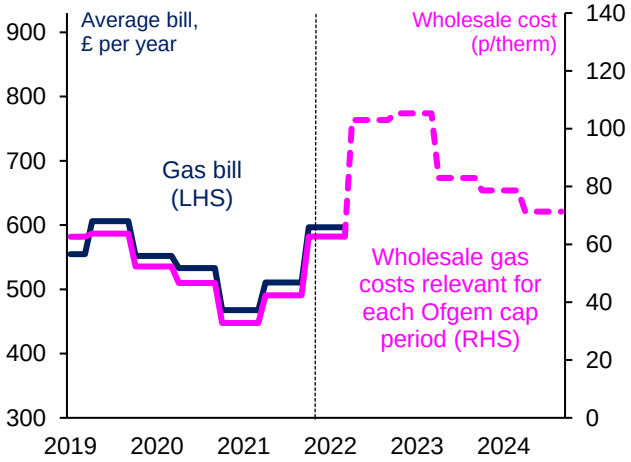
I've received helpful comments from colleagues at the Bank of England. I'd like to thank Fabrizio Cadamagnani for his help in preparing the speech. The views expressed are my own and do not necessarily reflect those of the Bank of England or other members of the Financial Policy Committee or the Monetary Policy Committee.

Good morning! Thank you for asking me to speak to you today. It's a great pleasure to do so in person, something I haven't been able to do for almost two years. Virtual meetings are all very well – and were clearly indispensable during the worst of the pandemic – but I think there's something missing if that's the only way in which we ever talk to each other. It's an additional pleasure to be in Leeds. As you may know, as part of a plan to increase our staff presence across the UK we announced earlier this year we'd be setting up a new hub right here in Leeds.

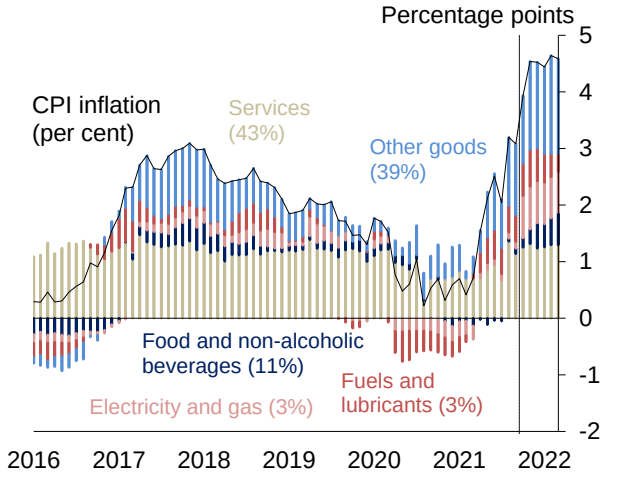
I'm coming here at an extraordinary time for the economy in general and for monetary policy in particular. Annual CPI inflation rose to over 4% in October, with the jump in domestic energy bills the single most important contributor to the change on the month. The aggregate rate of inflation is likely to rise further over the next few months and the chances are that it will comfortably exceed 5% when the Ofgem cap on retail energy prices is next adjusted, in April. The cap is based on a trailing average of forward prices in wholesale energy markets. The relevant period for next April is between August this year and February 2022. Two-thirds of the way through we can already be reasonably certain (unfortunately) of a further significant rise in retail energy prices next spring (Chart 1).

Chart 1. Gas bills likely to rise significantly again next April



The Ofgem cap is adjusted twice a year. The figure set in month t, and for the following six months (t till (t+5) inclusive), is based on the forward price for the following year (t – (t+11)) observed between three and nine months earlier. The dotted line indicates prices relevant for the cap based on current futures contracts.
Sources: Ofgem, Bloomberg Finance L.P. and Bank calculations.

Chart 2. Goods prices account fully for the current overshoot in inflation relative to target



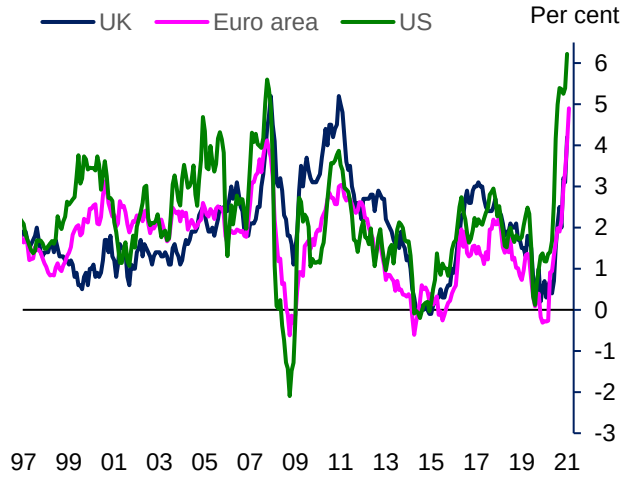
Contributions to annual CPI inflation. Figures in parentheses are basket weights in 2021 and do not sum to 100 due to rounding. The chart was shown in the November MPR and does not include the latest data, for October 2021.
Sources: Bloomberg Finance L.P., Department for Business, Energy and Industrial Strategy, ONS and Bank calculations.

It would be wrong to say this inflation is only about energy. It's broader than that. What we can say, however, is that most of it – thus far, at least – has been concentrated in tradable goods in general (non-energy as well as energy), much less of it in the non-traded parts of the economy. One indication of that is Chart 2, which plots the arithmetic contribution of various broad components to the change in the aggregate CPI in the UK. Just about the entire overshoot in overall inflation, relative to the MPC's 2% target, reflects unusually rapid inflation in prices of (largely tradable) goods. Though it's also been rising, price

inflation for (largely non-tradable) consumer services is currently close to its average during the inflation targeting period.

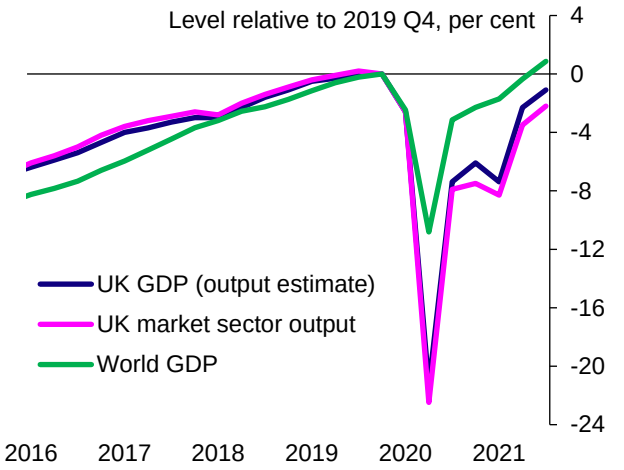
Another indication is that we've seen similar surges in inflation in many other developed economies as well (Chart 3). This is a global phenomenon. And what's striking is that this has happened even though global (UK-weighted) economic activity has only just returned – and in several individual countries has yet to return – to pre-pandemic levels (Chart 4). In the UK, in the third quarter of the year, output in the private sector – the part of the economy that actually sets prices – was still 2% lower than it had been at the end of 2019. More often than not higher inflation is associated with stronger, not weaker, economic activity. At least if you consider the last eighteen months or so as a whole, taking account not just of the resurgence this year but the huge contractions in 2020, that's not what's happened on this occasion.

Chart 3. Inflation has risen significantly in many countries...



Twelve-month CPI inflation. Includes November flash estimate of Euro Area inflation.
Sources: Eurostat, ONS, Refinitiv Eikon from LSEG, US Bureau of Economic Analysis and Bank calculations.

Chart 4. ...even though advanced-economy output is barely higher than a couple of years ago



World GDP is constructed using GDP data of 188 countries weighted according to their shares in UK exports. UK market sector output is real market sector gross value added.
Sources: IMF World Economic Outlook (WEO), ONS, Refinitiv Eikon from LSEG and Bank calculations.

This pattern – levels of output that are still relatively subdued but rapid and skewed price rises – has been evident for some time. Qualitatively, at least, nor has there been any change in the best explanation we have for it. Inflation in global goods prices looks to be the result of a big shift in global consumer demand, induced by the pandemic, away from services and towards goods. Even at the best of times it would have been hard for the supply sides of our economies to adapt to this. With the pandemic also affecting global supply chains for goods it's proved that much harder[1].

There are still good reasons to think that this rapid inflation in tradable goods prices is likely to fade, and in some cases reverse, before a policy decision taken now could do much to offset it. In contrast, and although

[1] Many individual policy makers have discussed these points (I did so in a couple of speeches earlier this year - "Covid and the Composition of Spending" in January, and then "Mismatch" in July). As the MPC we've done so in successive *Monetary Policy Reports* this year (see, in particular, the 'in focus' section in the August *Report*).

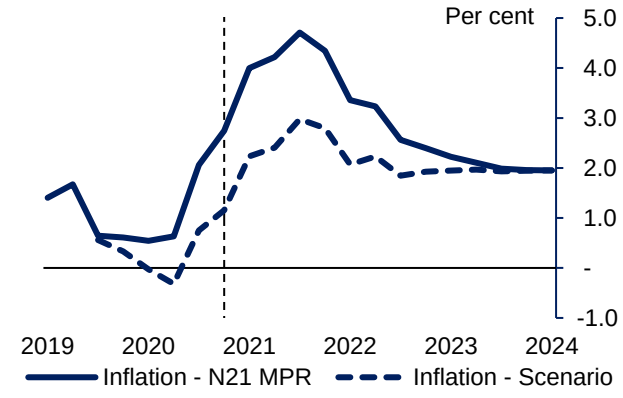
it's so far contributed much less, the tightening of the domestic labour market is likely to be a more persistent source of inflation. That's why the MPC has paid close attention to it, and in particular how it's behaving now that the furlough scheme has ended.

As I say, I'll have a little more to say about these things – whether rapid goods inflation is likely to prove transitory, what people have actually meant by that word, and what we've learned about the post-furlough labour market – in a bit.

Sandwiched around those points, both at the end and now, are a couple of more general points about monetary policy. These too are familiar but they're particularly relevant in the current environment and are therefore worth reiterating.

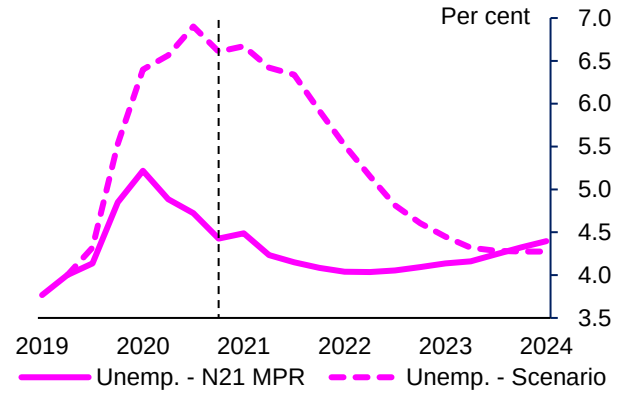
One is that it takes time for policy to work. A change in interest rates has its peak impact on inflation only after a significant delay – probably eighteen months or more[2]. One implication is that, fully to offset the inflation we've seen through the course of this year, monetary authorities would have to have foreseen the various things that have pushed it up (including, for example, the recent problems with gas supplies). Another is that they would have to have tightened policy pretty aggressively – by enough to push up unemployment materially, with the explicit aim of depressing nominal wage growth – just ahead of or during the first wave of the pandemic. Using the Bank's economic model, and assuming perfect foresight of the rise in tradable goods prices, a simulation suggests you would have needed comfortably more than an extra 2% points on the rate of unemployment – something around eight hundred thousand jobs – to have kept overall CPI inflation at 2% in the fourth quarter of this year (Charts 5a and 5b).

Chart 5a. Tighter monetary policy to achieve 2% inflation now…



CPI inflation excluding VAT. Sources: ONS and Bank calculations.

Chart 5b. …would have resulted in much higher unemployment



Sources: ONS and Bank calculations.

[2] In the literature estimates of the policy lag seem to vary quite a bit. In Cloyne and Hurtgen (2016, 'The macroeconomic effects of monetary policy: a new measure for the United Kingdom', *American Economic Journal: Macroeconomics*), the authors find that the peak effect of changes in UK monetary policy takes well over two years to come through. Cesa-Bianchi, Thwaites and Vicondoa (2020, 'Monetary policy transmission in the United Kingdom: a high frequency identification approach', *European Economic Review*) provide evidence of material effects after barely a year.

In other words, there would've been no way to control inflation in prices but, at the same time, leave nominal wages and nominal household incomes untouched. It's sometimes been suggested that, had monetary policy acted to suppress it, consumers might have been protected from this rise in the cost of living. Unfortunately, that's not true. At a fundamental level this is because monetary policy cannot, over the long run, offset real economic shocks. If structural productivity grows more slowly, for example – as it did after the financial crisis – then, ultimately, real wages will do so as well, no matter what happens to monetary policy. And if strong worldwide demand and impaired global supply chains raise the price of a good we buy on global markets, as we've seen over the past year, there's no avoiding the consequences of that for real incomes either. One way or the other, either via lower nominal pay or higher prices, real incomes will be lower than they otherwise would have been. Indeed, because suppressing nominal wages itself involves a real cost – unemployment would need to rise – real incomes would be that much lower in the first case than in the second (i.e. in the simulation depicted in Charts 5a and 5b than they actually have been this year).

What policy can do – assuming these shocks are foreseeable, or persist for long enough – is to make a choice between these outcomes. Again supposing all this had been predictable in advance, in the spring of 2020, the policy maker in this simulations might have chosen not to tighten policy quite so aggressively, and to tolerate a degree of above-target inflation at the end of this year, in order to avoid such a steep rise in unemployment.

But this obviously involves a trade-off. In the face of big increases in import prices of this sort, either you stick rigidly to the primary inflation objective, and suffer the greater hit to real incomes and domestic output; or you accommodate somewhat higher inflation and pay some attention to the secondary goal of stabilising the domestic economy. In these "exceptional circumstances" the MPC's remit requires explicitly that Committee balance these considerations and, if necessary, that it set policy with a view to taking somewhat longer to return inflation to target[3]. For these considerations to matter, clearly, these "trade-off-inducing" shocks should be sufficiently persistent, or sufficiently foreseeable, to affect inflation further into the future than the usual policy lags.

I'll return to these points in the conclusion. Before then I want to look at the latest evidence on traded goods prices – trying to define a little more precisely what how word "transitory" should be understood in this context – and then the domestic labour market.

[3] "In exceptional circumstances, shocks to the economy may be particularly large or the effects of shocks may persist over an extended period, or both. In such circumstances, the MPC is likely to be faced with more significant trade-offs between the speed with which it aims to bring inflation back to the target and the consideration that should be placed on the variability of output. In forming and communicating its judgements the Committee should promote understanding of the trade-offs inherent in setting monetary policy to meet a forward-looking inflation target while giving due consideration to output volatility".

Will inflation in traded goods prices prove "transitory" (and what have people meant by the word anyway)?

I should say up front that the split between "global" and "domestic" sources of inflation is not, strictly speaking, an entirely clean one[4]. And I don't really buy the argument one sometimes hears that monetary policy can't do anything about the first – "imported" inflation, as it's sometimes called – purely because it's unable directly to affect the source of it. As the MPC cannot affect the global supply of oil, for example – this is how the argument goes – then it can't do anything about an inflation caused by rising oil prices, even if that were to continue for a long time.

That's true, of course. But it's also true of just about everything that might otherwise affect inflation, including the many domestic influences. Policy has no direct control over those, either. As long as you've got a floating exchange rate there's nothing about being an open economy (and therefore subject to swings in import prices) that prevents monetary policy from controlling overall inflation, at least over the medium term.

What being an open economy might mean, in the shorter run, is that inflation is more volatile. That's because prices of traded goods tend to be more volatile (Chart 6). And it's here that the distinction is more significant.

Chart 6. Goods price inflation tends to be more volatile and less persistent than services inflation

Volatility measured as standard deviation over the sample (annual data 2001-21). Persistence measured as the lagged coefficient of a first-order auto-regressive model.
Sources: ONS and Bank calculations.

Take oil prices as an example. These move around a lot more than those of non-traded goods and services and often have a significant and fairly immediate impact on the CPI. But that impact also tends to dissipate relatively quickly, after a year or so. And it's for this reason, not because a change in interest rates can't affect the supply of oil (obviously), that the orthodox response of monetary policy to a change in oil prices is in the first instance to look through it. By the time policy could really do anything to offset such a rise, allowing for the delay between action and effect, the direct impact on inflation would largely have disappeared.

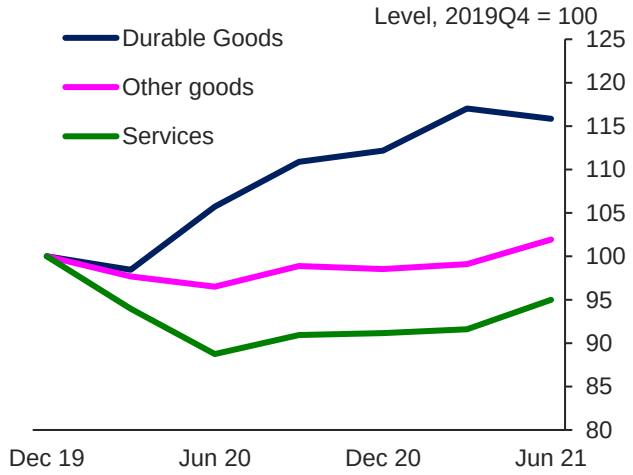
It's in this context that, referring to the current surge in tradable goods prices, several policy makers have used the word "transitory". By that they do not mean (and never meant) that these effects will be gone in one, two or even twelve months. As we saw at the start, thanks to the protracted way in which developments in wholesale markets feed through to the Ofgem cap, the recent jump in wholesale gas prices will directly

[4] My predecessor Charlie Bean explained this point very clearly in a talk in Jackson Hole in 2006.

boost CPI inflation in the UK for twelve months. The relevant question is whether the global factors currently pushing up on goods prices are still there by the time a policy decision taken today could have any significant effect of its own. What is their prospective contribution to inflation in eighteen, twenty-four months and beyond? This is the horizon that matters for policy and against which the word "transitory" should be measured.

As I outlined earlier, one key contributor to the big acceleration in traded goods prices has been the big shift in consumer spending, across the developed world, away from services and towards goods. Unable to spend anything like as much on consumer services during the pandemic – restaurants, leisure and transport, for example – consumers didn't save all the proceeds; they shifted quite a bit of them to goods. This was already evident as early as the start of this year. In the UK, for example, retail sales grew pretty strongly through 2020, even as spending on services collapsed (if you can't go to the cinema, why not spend those savings on a new TV?). Across the advanced economies in aggregate, spending on services in first quarter of the year was 5% lower than at the end of 2019; spending on goods was 5% higher (Chart 7).

Chart 7. Switch from services to goods has been a global phenomenon. Services consumption started recovering with the lifting of restrictions



Sources: OECD Quarterly National Accounts, IMF World Economic Outlook and Bank calculations.

Shifts in demand happen all the time and, as long as supply can shift in response, they needn't have any impact at the macro-economic level. But this one was far larger, more widespread and occurred much faster than most. And, far from shifting in response, and meeting that extra demand, the pandemic meant the global supply of goods was actively impaired. Local lockdowns affected production in many Asian countries and effective capacity in shipping and other forms of transport was also hit.

Earlier this year my own guess was that these things would visibly start to reverse by the end of it. Because they were caused by the pandemic it was reasonable to expect the shifts in demand to reverse, and the problems in supply chains to abate, as vaccinations took effect.

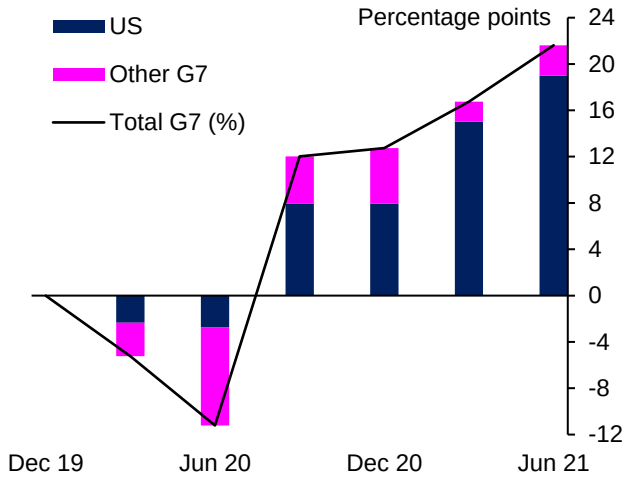
As yet it's clear that hasn't happened to the degree that I, at least, expected. Shipping costs remained very high throughout the autumn; as we've seen, energy (and particularly gas) prices took a huge lurch upwards; at the retail level there is no sign yet of any deceleration in goods prices.

In the case of energy markets there are probably specific factors to blame. A prolonged period of cold weather last winter had reduced inventories of gas in Europe. Interruptions to the supply of renewables further increased the demand for gas, as did efforts to shift away from coal in Asia. And there have been supply problems too in Norway and Russia.

More generally, there are several possible reasons why these trends have continued, despite the worldwide easing of Covid restrictions.

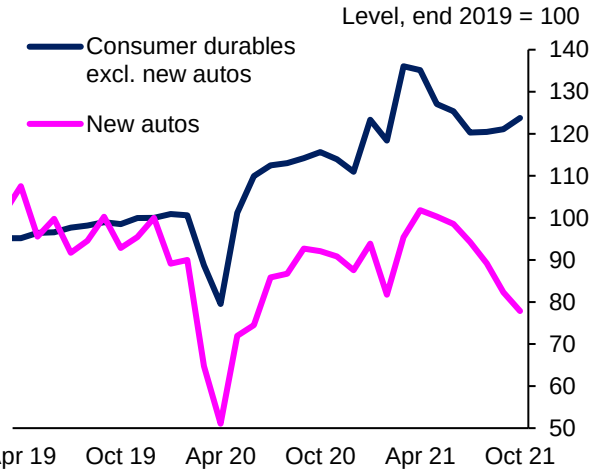
The substantial fiscal easing in the United States gave a renewed and significant impetus to spending on consumer durables, both in that country and therefore the world as a whole. In some cases – notably cars – supply problems meant this demand couldn't be met. But US spending on other durables nonetheless rose significantly further between the first and second quarters of this year, as fiscal transfers started to come through, and in 2021Q2 was almost 30% higher than immediately before the pandemic (Charts 8 and 9).

Chart 8. US accounts for much of the growth in global demand for durable goods



Contributions to percentage change on 2019 Q4.
Sources: OECD Quarterly National Accounts, Refinitiv Eikon from LSEG and Bank calculations.

Chart 9. Large increase in durables consumption in the US, now partly easing back



Sources: Refinitiv Eikon from LSEG, US Bureau of Economic Analysis and Bank calculations.

In addition, and even if the pandemic itself has receded, some of the shifts in spending it produced have proved more enduring. Working from home is still much more prevalent than before the crisis, reducing spending on travel and some other local services as well. For the same reason some of the geographical shifts – away from city centres and towards the suburbs and countryside – have also lasted longer.

Third, "zero-covid" policies in some Asian countries have meant that, even though vaccination rates have risen significantly, restrictions continue to be imposed in response to local outbreaks of the virus[5]. Coupled with the continuing strength in demand, these have contributed to significant congestion on shipping routes,

[5] There were two major port closures in the summer in China, after some workers tested positive. Outbreaks in Vietnam, an important producer of consumer durables for the US market, led to a significant tightening of restrictions throughout the summer. These were ended in early October, but have had knock-on effects on delivery times and shipping demand since then.

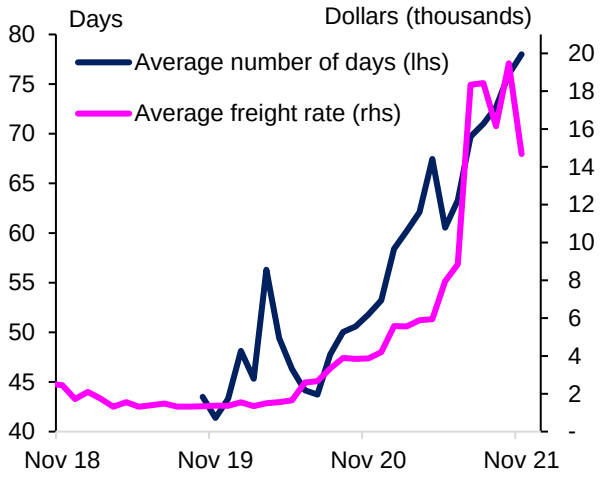
particularly those from East Asia to Europe and North America. For example, despite new shipping capacity coming on stream, door-to-door delivery times on the China-US route have continued to lengthen through the autumn (Chart 10).

However, I still think it's more likely than not – looking a couple of years ahead as we should – that these pressures on traded goods prices are more likely to subside than intensify.

Through the autumn there have been signs that some countries in the pacific region are abandoning "zero-covid" policies, or at least pursuing them less stringently[6]. (Obviously the new Omicron variant might interrupt that process, depending on the effectiveness of existing vaccines against it and the severity of its health effects. Those we don't yet know.)

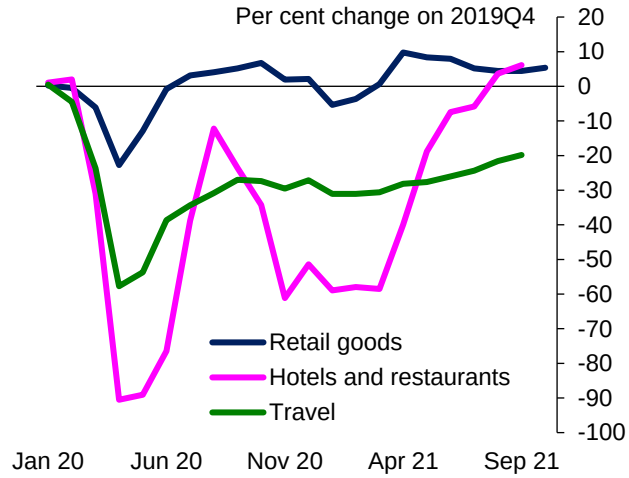
The easing in US fiscal policy is past its peak and the impetus it's provided to US durables demand has therefore started to decline. There is probably still significant pent-up demand for cars and, as and when constraints on auto production are overcome, we can expect that spending to pick up again. But as far as other durables are concerned, the pace of new buying has meant that the stock of them, relative to income, has been rising and is now significantly above average. This suggests that the current pace is unlikely to be maintained indefinitely (there are only so many cars and cookers you need).

Chart 10. Shipping congestion has intensified in recent months though cost down a bit



Average number of days: end-to-end (factory to warehouse) shipments between China and the US. Average freight rate: shipments from China/East Asia to North America West Coast.
Sources: Freightos.com and Freightos Baltic Index.

Chart 11. In the UK, recovery of consumer-facing services output suggests demand is rotating back, but some sectors lag behind



'Retail goods' series is retail sales in volumes. The other series are output measures.
Sources: ONS and Bank calculations.

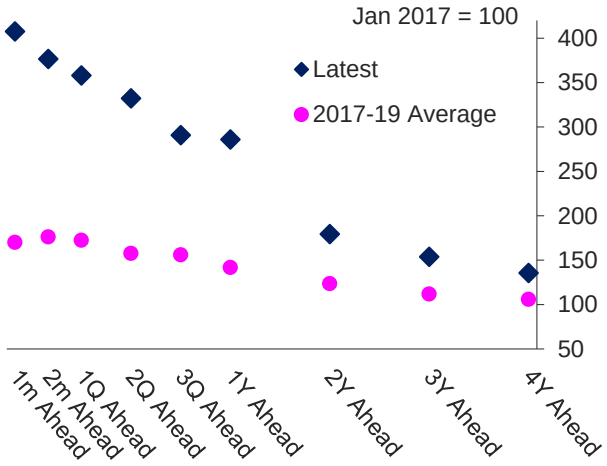
At a deeper level there are also some signs of a rotation away from goods demand and back towards services. Non-auto durables spending in the US has fallen back a little in the second half of this year. And although trends in the UK are less important in this respect (our share of global goods demand is small), you

[6] See "Asian countries are at last abandoning zero-covid strategies", The Economist Oct 9th 2021 edition.

can see from Chart 11 that retail spending here has also declined since the spring. I mentioned a moment ago that some of the shifts in spending caused by the pandemic had persisted, even as pandemic itself receded. You can also see in Chart 11 that spending on transport is still a long way short of pre-pandemic levels, not least because many of us are still working from home (to some extent, at least). But total spending on services has nonetheless outgrown that on goods in the second half of this year.

Finally, and more generally, we know that, in many instances, tradable goods prices exhibit a significant degree of mean reversion. More often than not, big rises are followed not just by slower growth but outright declines. Where they exist, that's consistent with the current pattern of forward prices, as you can see from both Chart 1, for wholesale gas, and Chart 12 for shipping costs. (For what it's worth, the spot price of shipping containers, plotted as the red line in Chart 10, has actually declined in recent weeks, down nearly 30% from its peak in mid-September.) It's therefore quite possible that, in a couple of years, the contribution of some of these items to UK inflation will be not only smaller but negative.

Chart 12. Shipping costs have fallen in recent months and forward contracts suggest further material declines



Sources: Baltic Exchange and Bank calculations.
Panamax is a sub-index covering mid-sized vessels travelling on 5 of the 23 shipping routes of the full index. It co-moves closely with the overall Baltic Exchange Dry Index.

Having said all that, there's no doubt that the path of these global goods prices is highly uncertain. Even if it's still the right judgement that recent inflation rates are "transitory", in the sense I defined earlier, that doesn't mean our central forecasts are an inevitability. In the last Monetary Policy Report the MPC produced two forecasts for inflation, one in which gas prices followed the full path priced into financial markets, and therefore fell steeply throughout the next three years, another in which they stabilised at a relatively high level. Even varying just this one thing, the two-year inflation forecast was half a percentage point higher in the second case than in the first.

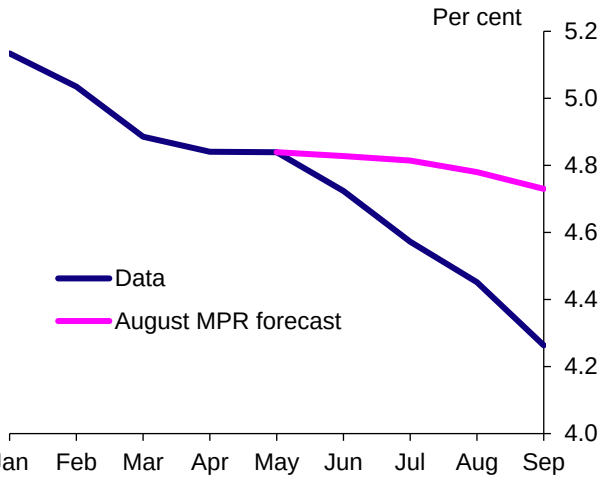
And, in the meantime, we also know that these global pressures are not the only determinant of future inflation. Arithmetically, domestic pressures have been less important so far. But the domestic labour market has also come under increasing strain through the course of this year. I now want to have a look at the latest evidence in this area.

Unemployment higher than before the pandemic but the labour market nonetheless looks very tight

As we saw earlier, while the economic recovery this year has been predictably rapid, cumulative growth over the period of the pandemic as a whole – taking account of the deep trough from which the economy was having to recover – has not been as impressive. In the third quarter of this year private-sector output grew by a little less than we'd anticipated in August and was still 2% lower than at the end of 2019Q4.

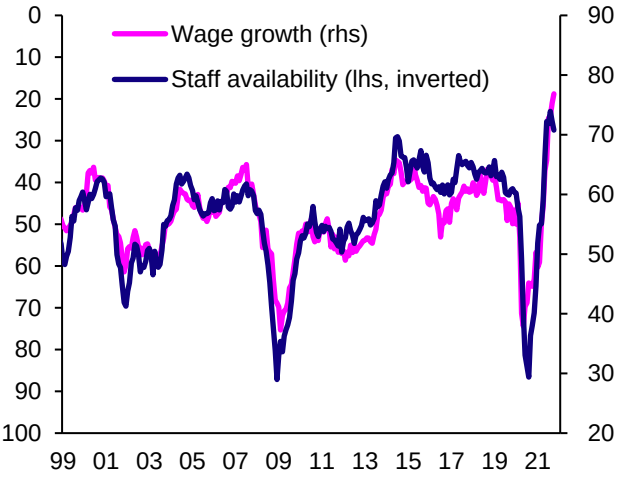
In contrast, employment growth was stronger than we'd expected and unemployment fell further (Chart 13). And, although in the three months to September it was still a little (0.3 percentage points) higher than just before the pandemic, and still slightly above the MPC's existing estimate of the long-run "natural rate" of unemployment, other indicators point to a much tighter labour market. Some survey measures of labour availability are at their lowest level at least since inflation targeting began (Chart 14). Vacancies are at a record high (the official series began in 2001). Both suggest a tighter labour market than you'd normally expect at current levels of unemployment.

Chart 13. Unemployment has surprised to the downside in recent months



Sources: ONS and Bank calculations.

Chart 14. Survey measures point to tighter labour market than unemployment alone would suggest



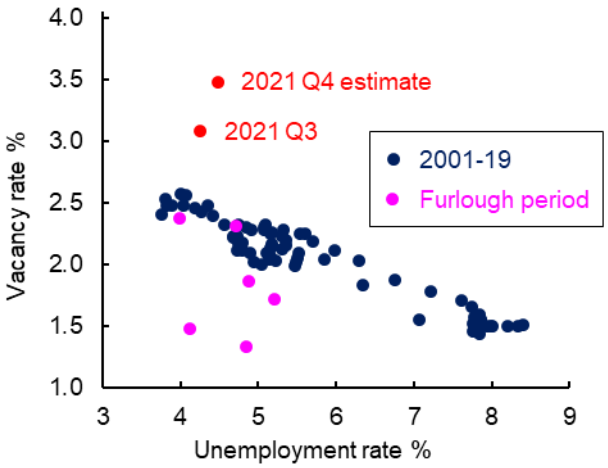
Indices: 50 = no change on the previous month.
Wage growth series weighs together the 'Permanent staff salaries' and 'Temporary staff pay rates' indices according to the shares of permanent and temporary employees in the Labour Force Survey.
Sources: KPMG/REC UK Report on jobs, ONS and Bank calcs.

Over the cycle, there tends to be a reasonably stable – and inverse – relationship between vacancies and unemployment, known as the "Beveridge curve". In an upswing, vacancies rise and unemployment declines. But in recent months, at least relative to the pre-pandemic curve, the former has clearly outstripped the latter (Chart 15). The labour market looks to be having a harder time clearing – ensuring matches between available workers and available jobs – than it used to.

What's causing all this? As far as the decline in unemployment is concerned, one possibility is that a disproportionate number of those who've lost jobs (or failed to find one in the first place) have quit the labour

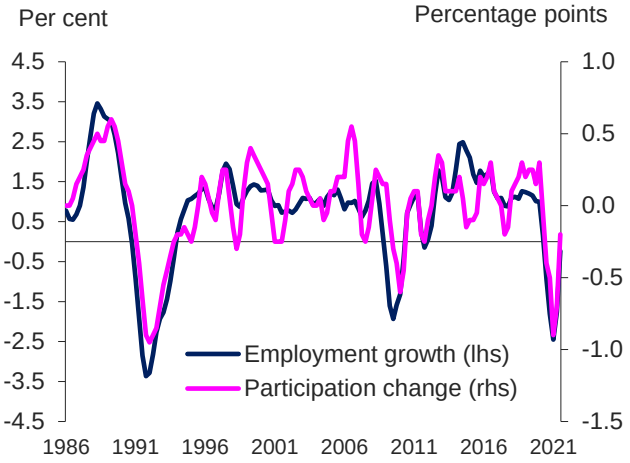
market altogether. We know that inactivity rose significantly last year. But participation in the labour market is typically cyclical – Chart 16 plots annual changes against those in employment – and I don't see anything that unusual here. Participation has been returning alongside the recovery in the labour market.

Chart 15. High vacancies suggest labour market is having more trouble than usual in clearing



Vacancy rate calculated as number of vacancies / active workforce. 2021 Q4 estimate based on October vacancy data and the Q4 unemployment rate projected in the November MPR.
Sources: ONS and Bank calculations.

Chart 16. Behaviour of participation rate doesn't look out of the ordinary



Two-quarter averages.
Sources: ONS and Bank calculations.

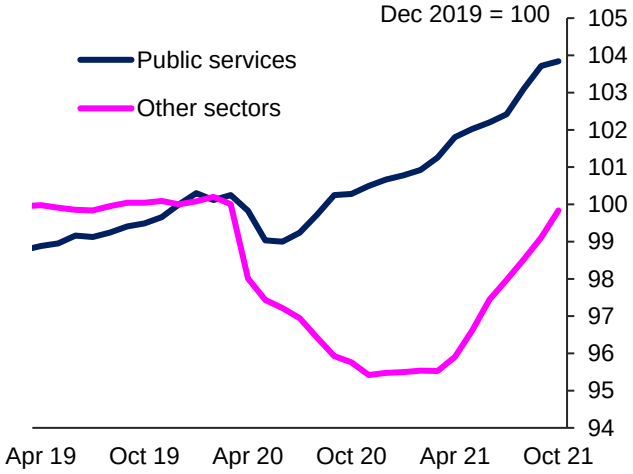
A more obvious contributor is the pace of hiring in the public sector. Since the beginning of the pandemic employment in public services has risen by over 4% (Chart 17). Some of this could be temporary – people hired for "track and trace", for example, or to administer vaccines. However, based on the spending plans in the November Budget, the OBR expects overall employment in the public sector to carry on growing, by a further 3% over the next three years. If some of the recent hires are temporary they look set to be replaced by others[7].

In the summer, it looked as though the remaining numbers in the furlough scheme might also be part of the answer. On the face of it, in July, there were still 1.6 million private-sector jobs – around 6% of the total – still in the CJRS. In principle, all these people were ready and able to come back fully into employment and quench the growing thirst for labour. But even then it was puzzling that more of them hadn't already been re-employed: even when furlough costs were paid in full by the taxpayer it would presumably have been cheaper for firms just to pick up someone on furlough than to go looking for someone else and post a new vacancy. That puzzle became more acute once firms were required to contribute progressively more to those costs. And although the number of people in the scheme continued to decline through August and September, that made no visible impression on indicators of labour-market tightness.

[7] Tax-financed rises in government spending needn't be inflationary because there is an offsetting hit to demand in the private sector. But the current increase has been largely deficit financed so far.

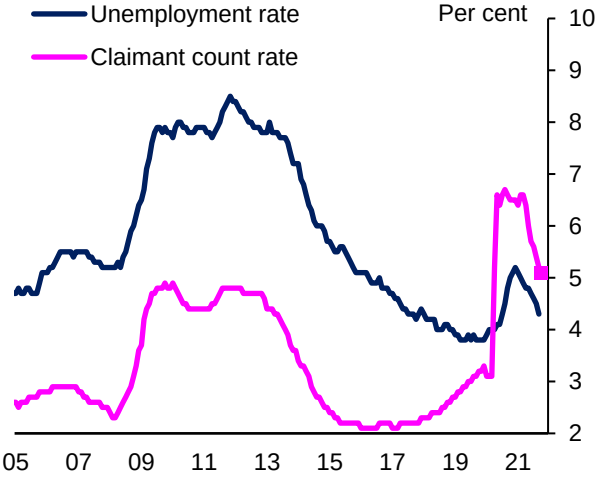
So far as we can tell, and although there were still 1.1 million jobs furloughed in the final week of September, just prior to its end, nor has there been any visible effect now that the CJRS has formally closed. There is obviously more to come on this: we'll get the first post-furlough release of the Labour Force Survey, for October, just at the time of next week's policy meeting. But we know already that there's been no decline in vacancy numbers for that month, no tick-up in surveys of labour availability, and no sign either of any increase in benefit claims (Chart 18). In fact, they all went in the opposite direction: the labour market looks to have tightened further.

Chart 17. Public sector employment has risen significantly during the pandemic



'Public services' include public administration and defence, social security, education, health and social works.
Payrolled employment data from Pay As You Earn (PAYE) Real Time information (TMI).
Sources: HMRC and Bank calculations.

Chart 18. Claims of unemployment-related benefits fell further in October



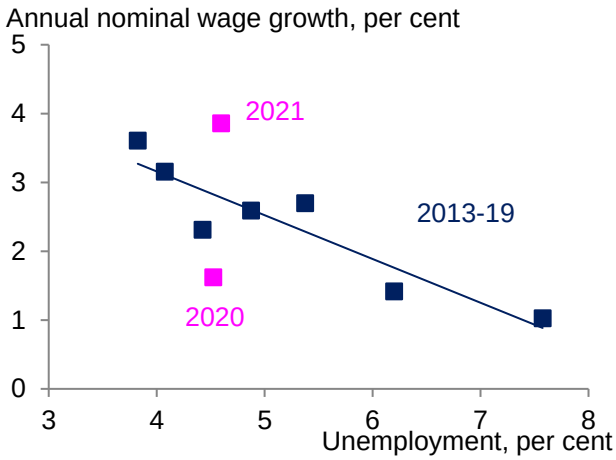
As part of the UK government's response to COVID-19, more people became eligible for unemployment-related benefits, although still employed. As a result, changes in Claimant Count will not be due wholly to changes in the number of unemployed people.
Unemployment data up to September, claimant count data up to October. Claimant count (CC) rate = CC / (CC + workforce jobs).
Sources: ONS and Bank calculations.

There remain two possibilities, I think, as to why the labour market looks so tight despite somewhat higher unemployment than before the pandemic. One, which I discussed in the summer, is that there's a continuing degree of mismatch between the jobs on offer and the people looking for work. The shifts in demand during the pandemic – which are geographical as well as sectoral – may have introduced a degree of dislocation between the two.

Another is that the sheer speed of the recovery has thrown some sand in the wheels of the labour market. It's usual for actual hiring to lag changes in vacancies and, so rapid has been that increase in vacancies, there was bound to be a bit of friction in the process of filling them (see Chart 15). These aren't mutually exclusive, but the latter would be slightly more benign because it would need only time for things to improve. Once those wheels start to turn, and jobs get allocated, one would expect some of this pressure to abate.

Whether that's the case remains to be seen, however. And, in the meantime, the result is continuing upward pressure on pay. Chart 14 included a survey index of wage growth for new employees. Chart 19 plots official numbers for average wage (AWE) growth across the economy as a whole, in the years since the financial crisis, against the rate of unemployment. Unfortunately, labour market data have been subject to significant distortions during the pandemic. The latest numbers for wage growth, in 2020 and 2021, have been adjusted for the various distortions affecting the official data, and are below the headline figure. But this year's number is still noticeably higher than would normally be the case at the current rate of unemployment. (And arguably, if you think that some of those on furlough have actually been looking for other jobs while on the scheme, and therefore helping to depress wage growth to some degree, perhaps a better estimate would have both the red dots somewhat to the right, making the latest figure for wage growth look that much stronger, compared with the pre-pandemic relationship[8].)

Chart 19. Wage growth stronger than usual, given the rate of unemployment



Regular-pay average weekly earnings (AWE) in the private sector. The chart uses a Bank staff estimate of underlying AWE that strips out Covid-related compositional effects.
Sources: ONS, Bank of England, and Bank calculations.

However long it lasts, and whatever the long-run equilibrium rate of unemployment, there looks to have been rise in the shorter-term equilibrium (the so-called "NAIRU").

Conclusion

This is an extremely challenging period for monetary policy. Despite relatively weak growth over the past two years as a whole, domestically and globally, inflation has risen very significantly. In this country it was over 4% in October. In the spring of next year, when the next rise in the Ofgem cap on gas and electricity bills comes through, it will probably climb comfortably through 5%, a long way north of the MPC's 2% target.

Given the origins of this inflation – just about all the overshoot reflects unusually rapid rises in prices of tradable goods (including energy) – monetary policy could never have done anything about the consequences of the current inflation for real incomes. If global demand pushes up the price of something

[8] Based on the Labour Force Survey, it is reasonable to assume that approximately 10% of those on the CJRS could be added to estimates of slack in the labour market. On that basis, the dots for 2020 and 2021 might be shifted to the right by 1.2 and 0.9 percentage points respectively.

we buy, and the price of our imports therefore goes up, that reduces real national income come what may[9]. Even assuming these shocks had been foreseeable, the only way to prevent the near-term consequences for inflation would have been to ensure that nominal wage growth was lower to at least the same extent. And because that, in turn, would have required much higher unemployment, real incomes would actually have been lower. This is in the nature of what's called a "trade-off-inducing" shock, one that pushes the primary objective of policy (stabilising inflation) in one direction, the secondary objective (stabilising demand and employment) in the other.

These things crop up all the time, to one degree or another. Prices of imports (especially energy) are volatile; slowdowns in productivity growth, which are common enough, can sometimes have the same effect[10]; so can rises in excise duties or VAT. But, in reality, these things rarely have much of a bearing on policy because, very often, their impact on inflation doesn't last long enough. Changes in interest rates take time to work. And if a shock to inflation is gone before monetary policy could do anything to offset it there's not much point in taking action.

This hasn't always been the case. After the Brexit referendum, for example, the MPC judged that the inflationary consequences of the big drop in sterling's exchange rate probably would last long enough to matter at the "policy horizon" (as had been the case after the financial crisis). The Committee therefore had to balance this effect against the fact that, for much of that period, the economy was operating with a degree of space capacity.

There's a good chance that this shock too, larger though it is, will have dissipated by the time a policy decision taken now could take effect. Indeed it's quite possible that, in a couple of years, some of these tradable goods prices will be falling, pulling down on inflation. And even if you took a different view, and thought it was more likely that they'll still be rising at that point, you would also need to judge the extent to which that would depress domestic demand and spending (especially at a time when, on current plans, tighter fiscal policy will be doing the same). Persistent rises in import prices introduce a trade-off between the MPC's primary and secondary objectives, complicating the appropriate response to them.

However, this is not the only source of inflation the economy is facing. Output in the private sector was still quite a bit smaller, in the third quarter of this year, than it was before the pandemic. Yet unemployment is barely any higher, in part because of strong hiring in the public sector. And other indicators – surveys, vacancies and wage growth (at least in certain sectors) – all point to a labour market that's significantly

[9] Strictly speaking, in this context, it's the price of imports *relative* to the price of exports that matters for national income. All big net exporters of goods also import some of them. But, because they're net exporters, a big rise in their price in general – imports as well as exports – will raise national income. It's a gain in the "terms of trade" rather than a decline. Regarding the underlying source of a rise in import prices one should distinguish something driven by real forces (in this case stronger demand for goods and impairments to supply) from a purely monetary increase. In theory, a rise in inflation in our trading partners driven purely by looser monetary policy would not have the same impact because it would be offset by a strengthening of sterling's exchange rate.

[10] The impact on inflation of a period of slower productivity growth depends on what it does to demand and on how easily wage growth falls in response. If people recognise the drop in productivity growth, and demand growth falls alongside it, and/or if nominal wage growth is reasonably flexible and can accommodate the decline in the warranted real wage without unemployment having to rise, it needn't result in higher inflation. But if demand fails to decline or if there's resistance in real wages inflation is likely to rise.

tighter than the rate of unemployment alone would suggest. Though this assessment is necessarily preliminary, the news since the end of the furlough scheme does not look to have changed that picture. In October, claims for unemployment benefit fell again and survey indicators of labour market conditions tightened further.

Although it's made little contribution to higher inflation so far, the risks to future inflation from the tight labour market may well be more significant. Developments in domestic costs tend to be more persistent than those in tradable goods prices (Chart 6 is one indication of that). They're unlikely to introduce the same degree of a trade-off between the MPC's objectives: stronger labour demand narrows the output gap and raises inflation[11]. And, although it's possible that these strains too could pass – there's a chance these frictions are simply the result of the sheer speed of hiring, and will ease of their own accord – there's also an upside risk to wage costs from currently high inflation. If wage earners' expectations of future inflation rise in response, of if they seek compensation for the rises in the costs of living that have already occurred, wages could also accelerate further, even without any additional decline in unemployment.

The paths of all these things are, of course, extremely uncertain. But that's always the case, to one degree or another. Precisely because policy decisions take time to work, and because other things can intervene in the meantime, it isn't possible to control inflation perfectly. What we can do – and what is the best possible approach – is to think at every meeting about the level of interest rates that will maximise our chances, a couple of years from now, of hitting the inflation target exactly. That is what we will continue to do.

Thank you.

[11] This is a more subtle question than I've pretended here. Stronger demand for labour clearly doesn't introduce a trade-off: it reduces slack and, at the same time, raises inflation. But a deterioration in the supply side of the labour market may do, depending on its nature. If (for example) the NAIRU goes up (temporarily) but the underlying "natural rate" of unemployment that maximises economic welfare, and that is relevant for the MPC's secondary objective, does not, then inflation might rise for a bit but the welfare-relevant output gap wouldn't, and could even widen. And I've argued that such a deterioration is part of the story here. However, I don't think it's the whole story: I think the strength of labour demand (including from the public sector) is also playing a part in reducing slack in the labour market. It's also possible that the rise in the NAIRU will last longer than we think (and that it amounts to a rise in the longer-run natural rate as well). I touched on the question of potential trade-offs in the labour market in a talk some years ago ("Unemployment and the conduct of monetary policy in the UK"). The canonical academic reference is Blanchard and Gali (2007), 'Real wage rigidities and the New Keynesian model', *Journal of Money, Credit, and Banking*.