

Paul Fisher: Why is CPI inflation so high?

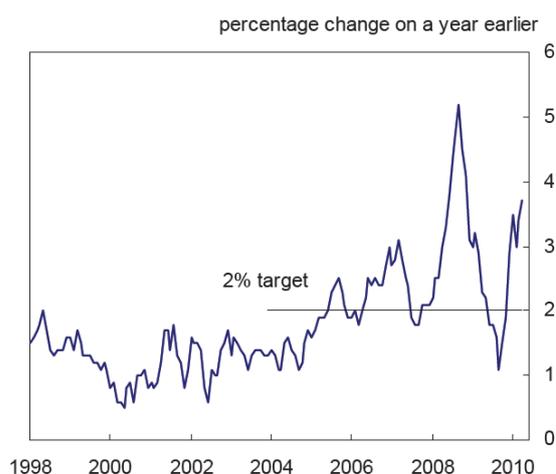
Remarks by Mr Paul Fisher, Executive Director, Markets, and Member of the Monetary Policy Committee of the Bank of England, based on a talk to Merseyside Young Professionals, Liverpool, 14 June 2010.

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Annual CPI Inflation reached 3.7% in April (Chart 1). Given the Monetary Policy Committee's remit to target CPI inflation of 2%, you might well want to ask "how has inflation got so high and what is the MPC going to do about it?"¹ I intend to tackle those questions head on this morning and, in the process, illustrate some of the challenges the Committee faces in setting monetary policy.

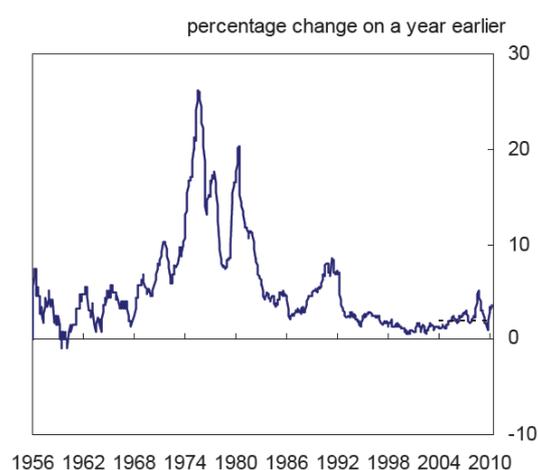
First we should note that inflation has become more volatile in the past few years than it has been at any time since the early nineties (Chart 2). CPI inflation had previously risen as high as 5.2%pa in September 2008 before falling back to just over 1%pa in the autumn of 2009 and then rising to its recent peak. But historical data suggest that it was the stability of price inflation between 1993 and 2007 that was unusual, not the recent volatility which has been quite mild compared with the pre-nineties experience.

Chart 1: CPI inflation^(a)



(a) Includes data up to April 2010.

Chart 2: "Long run" inflation^(a)

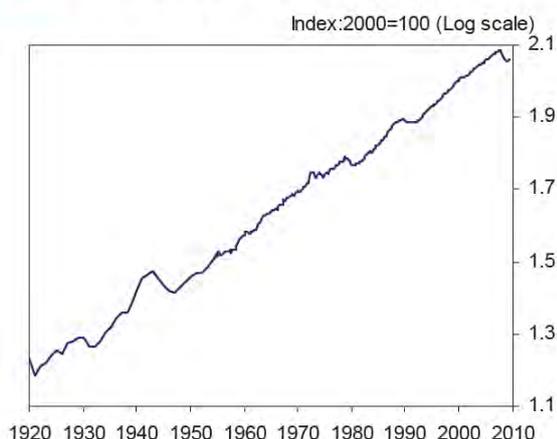


(a) Includes data up to April 2010. The time series is based on CPI after 1975 and RPI before then.

The rise in inflation since mid-2009 was surprising given that it happened against the background of a deep recession which generated the biggest fall in output in the UK economy since at least the Second World War (Chart 3). The fall in output from peak to trough was around 6% (Chart 4). And output is some 10% below where it would have been, had it continued to grow at its pre-recession trend (about 2 ¾ % between 1998–2008).

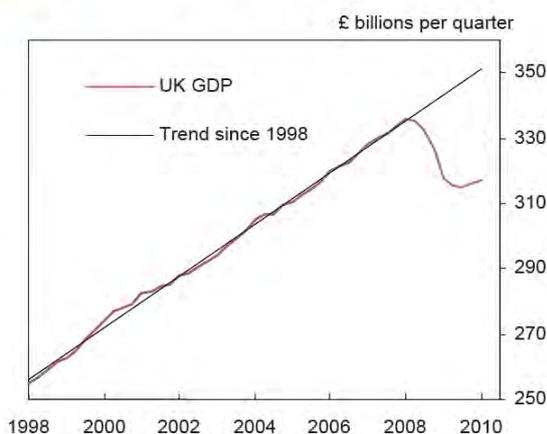
¹ May CPI data were published after the date of this talk: inflation fell back to 3.4%.

Chart 3: “Long-run” output^(a)



(a) The chart uses quarterly data from the National Accounts from 1955 Q1. Prior to that, annual data are used: National Accounts data from 1948 and estimates produced by Sefton and Weale before then. (Appendix A.3 from “Balanced Estimates of National Income for the United Kingdom, 1920-1990” by James Sefton and Martin Weale.)

Chart 4: Output since 1998^(a)



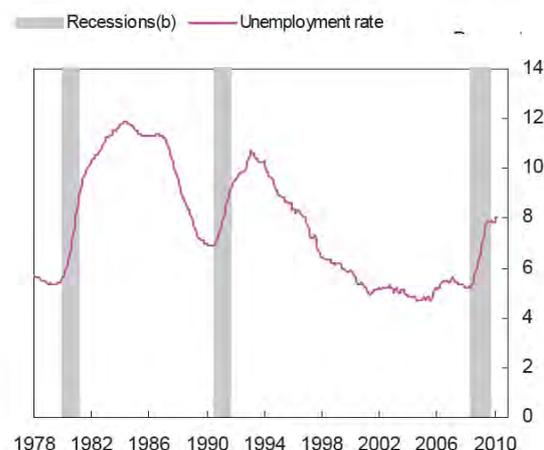
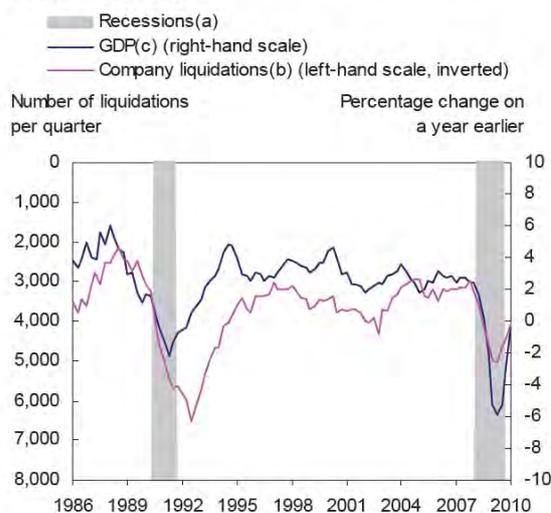
(a) The trend line represents a simple linear time trend of UK GDP between 1998 Q1 and 2008 Q1. The trend has been projected forward for the rest of 2008, 2009 and 2010 Q1.

One might have expected a recession of this depth to exert considerable downwards pressure on inflation – such that the current CPI inflation rate could easily have been negative. The recovery in inflation seems to reflect two factors. First, given the scale of the fall in demand, the downwards pressure from the recession doesn't appear to have been as strong as it might have been. Second, there have been a number of temporary factors pushing upwards.

Taking the impact of the recession first, the UK economy appears to have behaved differently during this downturn than in previous recessions. The number of company bankruptcies has been fewer than in the early nineties (Chart 5) – despite the fall in output being twice as big, and despite there being more than twice as many companies in existence now. And even though there are over 850,000 extra people out of work following the recession, and the unemployment rate has reached 8%, (Chart 6) a 6% fall in output could have been expected to generate much more unemployment than it has.² Unemployment peaked at nearly 12% in the eighties and over 10% in the early nineties – after smaller falls in output.

² Labour force data were published after the date of this talk: unemployment has dropped to 7.9% in the three months to April.

Chart 5: Company liquidations in England and Wales and GDP **Chart 6: UK unemployment^(a)**



(a) Recessions are defined as two consecutive quarters of falling output (at constant market prices) estimated using the latest data. Recessions are assumed to end once output started to rise.
 (b) Data are to 2010 Q1. Changes to legislation, data sources and methods of compilation mean the statistics should not be treated as a continuous and consistent time series. Since the Enterprise Act 2002, a number of administrations have subsequently converted to creditors' voluntary liquidations. These liquidations are excluded from the headline figures published by The Insolvency Service and excluded from the chart.
 (c) Chained-volume measure.

(a) Rolling three-month measures (to March 2010).
 (b) Recessions are defined as two consecutive quarters of falling output (at constant market prices) estimated using the latest data. Recessions are assumed to end once output started to rise.

Throughout the recession we have heard many reports from firms about how they and their workforces have responded to recessionary pressures. Those reports are from our Agents or MPC members talking directly to business contacts across the regions and in all sectors – a truly invaluable source of information for the Committee. It has been clear that there has been an unusual response from companies and their employees. Many firms have sought to retain staff wherever possible, rather than shed them as in previous downturns – hours have been shortened and wages frozen or even cut where possible, rather than making people redundant. Large firms with smaller suppliers have tried to work with suppliers to keep their supply chains intact, which has helped smaller firms to survive. Many employees – at least in the private sector – have been willing to forgo income in order to retain their jobs. Tax officials have worked very hard with firms to give them the time for tax bills to be paid. And even the banks, despite the fierce criticism from some firms who did not receive the financial support they expected, do not seem to have been as quick to pull the plug on their borrowers as they were during previous downturns.

Overall, the fall in output does not appear to have done as much damage to employment and firm survival as one might have expected. At the same time, the implication of business surveys is that the degree of spare capacity in firms is rather less than implied by the fall in output. So estimates of the gap between overall demand and the economy's capacity to produce goods and services – an indicator of inflationary pressure known as the "output gap" – are extremely uncertain at the current juncture. The "output gap" appears to be much smaller than the fall in demand alone would have suggested, but there is little evidence of widespread destruction of supply capacity.

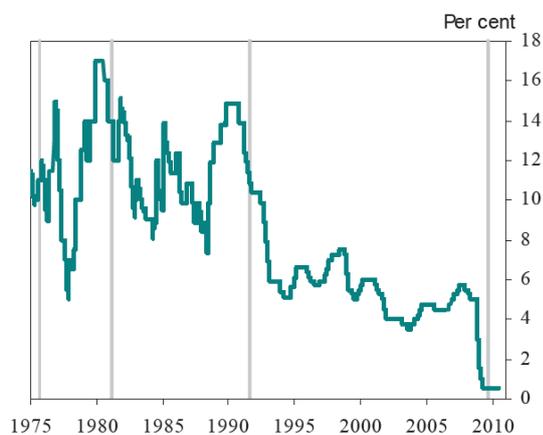
Whatever the balance between demand and supply, it seems that many firms have maintained prices, not cut them, in the face of weak demand. That may have been a rational

response. In order to survive they needed to maximise their present cash flow and they would only have cut prices if the demand response was likely to outweigh the lost revenue. Comparisons with behaviour in previous post-war recessions are difficult, partly because inflation was much higher during those episodes. One of the benefits from low inflation is that firms can concentrate on real relativities rather than decisions being dominated by the general rise in prices. Whatever the reason, the downwards pressure which normally arises from a fall in output, has not been sufficient to push inflation negative.

The explanations for these changes in behaviour and their inflationary consequences are likely to be many and varied. And it may be some time before we can be sure which of many hypotheses are correct. But one factor we know is that interest rates have been at an all-time historic low during this recession (Chart 7). And Bank Rate started to fall well before the trough in output. The effect of this on, for example, firms' cash flow, has been very significant and was reinforced by the effects of the asset purchase programme reducing corporate borrowing costs.

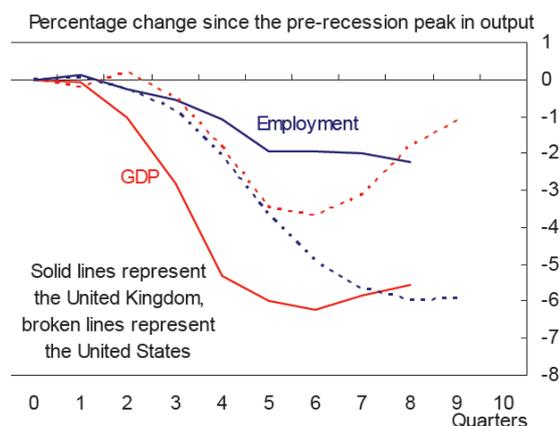
It seems a reasonable starting assumption that behaviour during the recession should be broadly symmetric during the recovery. When demand growth strengthens, output could be flexibly ratcheted up, reversing the processes seen during the downturn. If so, then it is unlikely that substantial inflationary pressure would be generated as the result of a recovery in demand: there will be plenty of capacity within firms and a ready supply of labour, both of which should help to keep costs subdued. But this is clearly a major uncertainty and hence a risk in our projections of future inflation. Not only has the UK economy behaved differently from its previous experience, it has also behaved differently from other countries. In the United States for example, the fall in employment relative to output has been larger than in the United Kingdom (Chart 8).

Chart 7: Bank of England 'official' interest rate^(a)



(a) Grey areas indicate trough in output (2009Q3, 1991Q3, 1981Q1, 1975Q3).

Chart 8: Output and employment in the United Kingdom and the United States^(a)



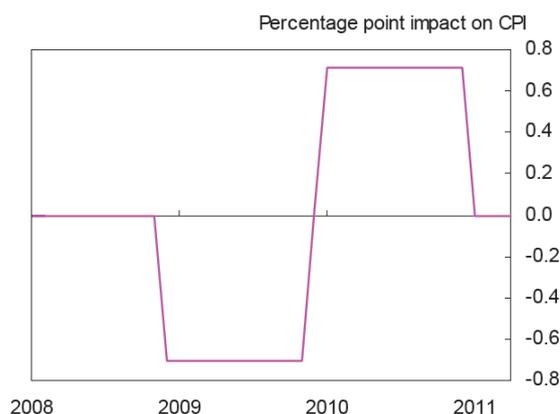
(a) Pre-recession peak is 2008 Q1 for the United Kingdom and 2007 Q4 for the United States.

Weak downwards pressure on inflation from the recession can only go so far in helping understand recent movements in inflation. It cannot explain why inflation has been rising recently. For that we need to look at a series of shocks to relative prices that have put temporary upwards pressure on CPI inflation. These shocks include the change in the VAT rate; changes in oil (and hence petrol) prices and changes in the prices of imports relative to domestic goods and services.

Because inflation is measured as a 12-month rate, a change in the level of prices will impact on the inflation rate for a year. When the VAT rate was cut in December 2008, that pushed down the price level and the annual inflation rate. Although the precise timing and impact is uncertain, estimates from the ONS suggest it is likely to have reduced inflation by about $\frac{3}{4}$ pp at that time. That effect would have fallen out of the inflation rate a year later. And when the VAT rate was restored in January 2010, the effect of that is likely to have pushed up on the price level and the inflation rate. So, just from the mathematics of the calculation, that's likely to have generated a substantial swing in the measured inflation rate of the order of $1\frac{1}{2}$ percentage points between the end of 2009 and early 2010. It will also imply a boost to the measured inflation rate through 2010.³ Chart 9 sets out an illustration of how this might have affected the inflation rate.

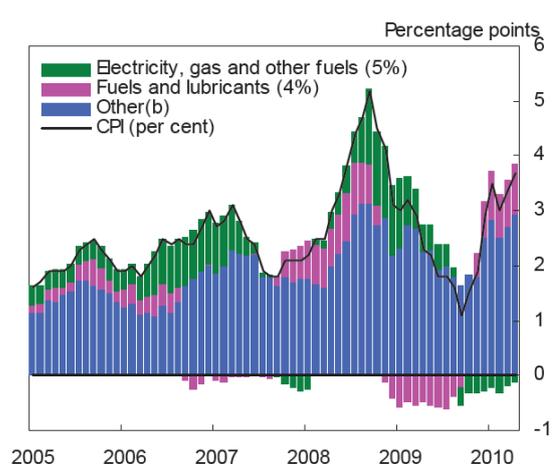
Changes in the relative price of oil, and hence petrol and other fuel-related transport costs, similarly have a big impact on the price level and the annual inflation rate. The difference is that we have seen several erratic swings in the price of oil – sometimes up and sometimes down. Recent inflation outturns have reflected a big rise in petrol prices worth perhaps nearly 1 percentage point on the April rate (Chart 10). That reflects higher sterling oil prices, which rose by some 60% in the year to April.

Chart 9: Illustrative impact of the 2008-10 VAT change^(a)



(a) This is a simple illustration of the impact of the VAT change on CPI. It assumes that 50% of the VAT changes are passed through to CPI and that the effects occur immediately.

Chart 10: Contributions to CPI inflation^(a)



(a) Contributions to annual CPI inflation. The figures in parenthesis show shares in the CPI basket in 2010.
(b) Includes a rounding residual.

Some other energy prices – such as gas and electricity – have generally been falling recently and thus subtracting from the inflation rate, albeit at a declining rate (Chart 10).

³ In addition, since the date of this talk, the Government has announced an increase in the VAT rate to 20% from January 2011.

Chart 11: The sterling effective exchange rate index (ERI)



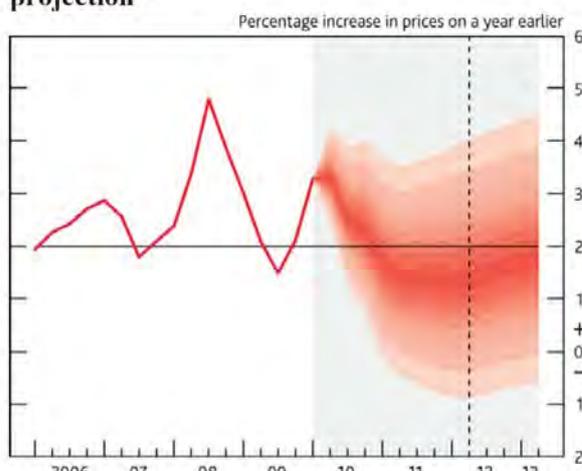
Finally, the most complicated relative price shock has been that from the depreciation of the sterling exchange rate (Chart 11). The effect of any exchange rate change depends crucially on why it has itself moved. For example, one would expect that different inflation rates across countries would lead to exchange rate fluctuations, so as to equalise the cost of internationally traded goods and services. If there had been a shock to inflation overseas there may be no additional inflationary consequence for the UK of our exchange rate changing to reflect that shock. But the 25% depreciation of sterling since August 2007 in my view more likely reflects a re-appraisal of the UK economy given the financial crisis and the significance of the financial sector to the UK (in the context of what was a very large and growing current account deficit). In such a case, we would expect to see a large part of the exchange rate depreciation reflected in higher prices for goods and services imported into the UK and hence higher CPI inflation. The size and timing of such an effect, however, would be very uncertain, and would partly reflect whether firms think the lower exchange rate would be sustained and what they believe the monetary policy reaction might be. I think that the depreciation of sterling since August 2007 has had a substantial – but likely temporary – impact on inflation. Estimates are uncertain but my best guess is that it is probably adding between 1 and 2 ½ percentage points to the current inflation rate. But I also believe that, if the exchange rate is reacting to a re-evaluation of real economic prospects – and not to some other inflationary shock – the effect should be a one-off change in relative prices, albeit spread out over time.

It is important to stress that the MPC could try to offset all the price level effects of such shocks in order to leave the inflation rate unchanged. The problem with that idea in practice is the time it takes for Bank Rate to affect inflation. To counter short-term movements induced by relative price shocks would need very large and frequent changes in Bank Rate – including to offset the lagged responses of earlier changes. That sort of policy response would be very de-stabilising, likely to cause undesirable volatility in output, and be damaging to the economy as a whole. This is where the full remit of the MPC becomes effective – requiring us to support the Government's objectives for growth and employment. Once there has been a shock to inflation, the Committee have to decide how quickly it should bring inflation back to target. To do that we have to judge the underlying state of inflationary pressure. And we have to monitor inflation expectations to check that they are not adversely affected by a succession of temporary shocks to the price level. If people came to believe

that inflation was not going to be brought back to the 2% target, then Bank Rate would have to change by a potentially much larger amount in order to ensure that inflation is, in fact, returned to target.

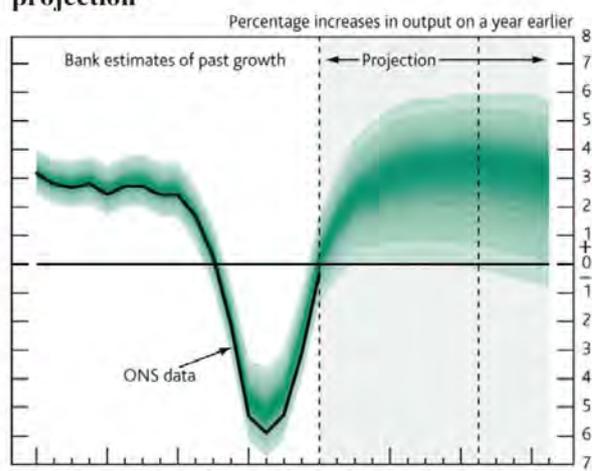
The recent high rate of CPI inflation can be largely attributed to a number of temporary factors, combined with weak downwards pressure on inflation from the subdued level of demand. Nevertheless, given the expected degree of spare capacity in the economy over the next few years, and that the temporary factors should wear off, the most likely outcome is that inflation falls back to below target over the next couple of years as shown in the May *Inflation Report* (Chart 12). On that basis it was sensible not to try and offset the recent rise in inflation by tightening policy.

Chart 12: May Inflation Report CPI projection^(a)



(a) Based on market interest rates expectations and £200bn asset purchases. See also the footnote to Chart 3 of the Overview in the May *Inflation Report*.

Chart 13: May Inflation Report GDP projection^(a)



(a) Based on market interest rates expectations and £200bn asset purchases. See also the footnote to Chart 1 of the Overview in the May *Inflation Report*.

But let me be clear about the risks. Our central expectations could be wrong. Certainly the inflation data have tended to consistently surprise on the upside, month-by-month. What if spare capacity continues to exert much less restraint on inflation than anticipated? Or perhaps current data estimates have significantly underestimated demand and output growth? Or the exchange rate effect is bigger than incorporated in the projections? We could also be wrong in the other direction: downside pressures on UK output growth (Chart 13) could yet lead to an even bigger fall in inflation than the central case. And, of course, there could be further shocks in either direction.

So it is important to use whatever cross-checks on our projections that we can. One way to do that is to look for any nominal indicators that might signal risks of persistently above target inflation in the medium term, such as money or wage growth. Underlying money growth is currently just over 1% on an annual basis. And underlying wage growth is around 2%. There are some tentative signs that money and wage growth are rising, but neither of these figures are even close to being consistent with above-target inflation in the medium term.

Taking these indicators together with the degree of slack in the economy – and given some of the factors likely to restrain growth in the UK and in Europe – the economics of the situation does suggest that inflation should fall back from its current high point. But there are risks on both sides.

On the one hand we need to be sensitive to the risk of tightening policy prematurely, stifling the nascent recovery. In that case, some of the flexible response to the recession could be swept away, delivering higher unemployment, more company failures and the risk of inflation significantly undershooting the target. The risk of deflation – which prompted the start of the MPC's asset purchases in 2009 – may have faded, but it hasn't gone away and would require greater efforts to deal with, if it materialised now.

On the other hand, should it appear likely that inflationary pressure is sustained at a higher level into the medium term, then it is clear what our mandate would require us to do. The MPC has the tools at its disposal to tighten monetary conditions, both in the form of raising Bank Rate and by selling the assets that we bought in 2009 as part of the quantitative easing programme.