Kate Barker: Monetary policy – from stability to financial crisis and back?

Speech by Ms Kate Barker, Member of the Monetary Policy Committee, Bank of England, at the National Institute of Economic and Social Research, London, 8 March 2010.

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It is a particular pleasure for me to have the opportunity to return to NIESR, where I worked in the early 1980s in the aftermath of a previous recession, to talk in my present role as a policy-maker. At that time, one of my responsibilities was to monitor and project world trade – I am very thankful that I didn't have to deal with the analysis of a fall in trade of the magnitude seen in this recession, when world trade[1] fell by a cumulative 18% over the fourth quarter of 2008 and the first quarter of 2009, before starting to recover – up 11% on the low point by the end of 2009.

Today I want to pursue a number of monetary policy issues, looking back over the almost nine years I have been on the MPC and seeking to draw lessons from that experience for the very difficult decisions that seem likely to face the Committee over the next couple of years. In particular, I will make some observations about the problems that policymakers inevitably face in assessing the implications for inflation of the pressure of demand on the economy's supply capacity, and also about the time horizon over which the MPC seeks to bring inflation back to target. A more general theme of this discussion reflects on whether the approach to policy should be somewhat different in the more uncertain economic environment we face today, compared with the relatively tranquil period of the MPC's first ten years.

The pre-crisis period

Given the scale of the recent financial crisis and consequent recession, it is not possible to look back over my lengthy period as a policymaker with the degree of satisfaction I would have wished. The big question it seems natural to ask is: to what extent did the conduct of monetary policy contribute to that crisis? Here the real issue must be about the role of policy in the period prior to the summer of 2007. Once the financial crisis was underway, I remain doubtful that monetary policy could have done very much more to alleviate the depth of the recession. Despite the speed with which Bank Rate was cut to 0.5% in late 2008 and early 2009, and the rapid move to quantitative easing, the economy is still looking fragile.

During the pre-crisis period, MPC members recognised in a number of speeches the possibility that the upward trends in property prices and in the growth of credit were increasing the risk of a period of economic instability. For example, as long ago as 2003, Charlie Bean suggested: "Action taken today to reduce the build-up of imbalances might pay off in the longer term by reducing the future uncertainty that the policymaker will face as imbalances unwind."[2] At around the same time I commented, with reference to the rising household debt/income ratio, that this "...may have increased the risk from policy error, or from an adverse shock to the household sector."[3] And Andrew Large argued: "the key issue

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[1] World trade monitor, source: Netherlands Bureau for Economic Policy Analysis.

[2] Bean (2003).

[3] Barker (2003).

for monetary policy is that the more capital gearing or leverage increases, the greater the vulnerability to shocks and the consequent adjustment to consumption behaviour."[4]

One conclusion might be that the depth of the present crisis might have been mitigated if the MPC had taken the view that, in those circumstances, it was preferable to miss the inflation target on the downside in the short-term. Some former members of the MPC have certainly argued more recently[5] that it would have been preferable to have "leant against the wind" of credit growth by having had higher interest rates during the mid-2000s. But on the whole, I continue to think that there are a number of problems with this proposal.

Firstly, it is unclear how much higher UK interest rates would have needed to be to have kept the expansion of credit and debt to an acceptable level (not least as there is considerable uncertainty about what that level might be). It seems likely that interest rates might have needed to be substantially higher, in real terms, to have had any noticeable effect. In this case, CPI inflation could well have seen an extended period below target. (The CPI was in any case below target for the first 18 months after the change to CPI from RPIX as the key inflation measure.) There would in these circumstances have been a risk of a damaging loss of credibility in the inflation targeting regime – although it would clearly have had to be weighed against the (as yet uncertain) costs of the subsequent crisis.

Secondly, and more significantly, it is not clear that this policy would have tackled effectively the major problem of banks' misjudgement of risks and expansion of financial sector balance sheets. At the margin, it might have led to a little more caution among financial institutions, but unless policymakers had been prepared to shock the economy into a period of slow growth it seems unlikely that the financial crisis would have been wholly averted. However, modestly higher Bank Rate might have had the merit of discouraging households and firms from increasing their own debt levels, and therefore left the economy somewhat more resilient in the face of the crisis.

Thirdly, action only in the UK might have had limited effect on what has proved to be an internationally widespread crisis whose roots lie to a significant extent in the excess of savings in Asian countries and consequent excess of capital inflows into the US and Europe.

The conventional answer to the question about the pre-crisis period therefore has become that policymakers did not have the right tools available. In the UK there was no provision for macroprudential instruments to be used to deal directly with the problems building up within financial institutions, and to a lesser extent in the indebtedness of households and firms. A more targeted approach to these issues seems highly preferable to using the blunt instrument of Bank Rate. But despite these cautions, it is possible that it would have been preferable to have taken a more long-term view of the risks to inflation from economic instability. Certainly I seriously underestimated the scale of the downside risks from a potential financial crisis, and that implied overrating the ability of monetary policy to offset this shock. I will return later to the question of how a more long-term perspective might sometimes alter the desirable approach to policy. Before that, I want to discuss some issues around the MPC's inflation projections and how we assess uncertainty.

The balance of demand and supply

The MPC's projections for inflation, absent external shocks, are determined to a significant extent by our judgements about inflation expectations and about the likely developments in the pressure of demand on supply (this phrase is a better description than the more usual "output gap" – however I will now use the latter as a convenient shorthand). During my stint

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4 Large (2005).

5 Gieve (2009).

on the MPC, the way in which we have chosen to assess the output gap, as reflected in the assumptions underlying our main macro-model, has changed on a number of occasions. Of course, one model has never been the sole guide to our projections – a number of other models are also drawn on as appropriate. And the final shape of the fan charts published in the *Inflation Report* is the product of the MPC's judgement including on the insights from these models.

When I joined in 2001, the output gap concept which underlay the MPC's judgements was a short-run estimate of the difference between the present level of output and full capacity (full capacity was defined as currently employed labour and capital being utilised at normal levels). This implied that there was also a medium-term output gap in which capacity was measured assuming employment was at its natural level.[6]

During 2003, the MPC's thinking moved on to estimate potential output as what would be produced at the natural rate of employment with normal levels of factor utilisation (average hours, labour productivity and capital utilisation all at trend).[7] In 2004, some modification of this concept was introduced in order to account better for the impact of the government sector during a period of rising public spending. The government sector's impact on aggregate demand is most appropriately assessed by considering the government's demand for private sector output and the opportunity costs of employing labour in the government, rather than the market sector. During periods of rapidly rising public spending, this tended to increase estimates of the level of activity in the economy, and so reduce the level of spare capacity.[8]

A subsequent judgement was made in 2007, to use the NAIRU, or short-term measure of equilibrium unemployment, rather than the longer-term natural rate in assessing present capacity pressures. This reflected the intuition that the downward pressure on firms' margins from higher oil or import prices would tend to result in downward pressure on real wages as firms sought to restore margins. The NAIRU captures the shift in unemployment required for workers to accept this real wage adjustment.

These alterations in the main estimates of the output gap were pragmatic responses by the MPC to changes taking place in the economy. It is not appropriate to ask which of these proved in some sense "better" given that the different measures were reflecting the MPC's judgements about different economic events. In any case, the sequence of oil price fluctuations and the depreciation of sterling in 2007–08 have had short-term impacts on inflation which have tended to make it more difficult to judge the trend underlying this greater volatility.

However, earlier in the MPC's life there is some indication that the committee tended to overestimate inflationary pressure. Up to the end of 2003, the MPC produced fan charts around projections for RPIX inflation. During this period of relative inflation stability, those projections were broadly clustered around the outturns, and indeed inflation was generally quite close to target. However, outturns of RPIX, excluding the (misleadingly-named) housing depreciation component of the index, would have tend to be below the projections (Chart 1 shows the opening up of the gap between RPIX and RPI excluding housing costs). The MPC does not pretend to any ability to project house prices, although there are some broad assumptions underlying the central projection. These generally did not foresee the periods of strong house price increase in the first half of the 2000s.

This suggests that there could have been some offsetting error, and in terms of the underlying assumptions used by the MPC one candidate is a frequent overprediction of

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6 Bank of England (2000).

7 Harrison et al (2005).

8 Hills et al (2005) sets this issue out fully.

growth in earnings. It would not be right to suggest that this had automatically led to a systematic overestimate of inflationary pressure, since, as explained above, the published projections are also based on overall MPC judgements. But it is notable that despite frequently-expressed concerns by the MPC about periods of higher inflation leading to higher wage inflation, the relationship between earnings growth and RPI has become weaker over time. Chart 2 does not suggest a consistent relationship. Indeed, since 1995 the correlation between RPI (lagged by one quarter) and average earnings has been just 0.3, compared with 0.8 over the 1977–95 period.

These comments on the past, however, clearly do not exhaust the range of potential uncertainties about the size and interpretation of the output gap. These include mis-measurement in the data, incorrect calibration of the relationship between demand and supply, and changes in the implications for inflation of any particular estimate of excess capacity. How might these difficulties affect the outlook at the present time? There is some concern about mis-measurement of the level of demand in the economy. But compared to the past, changes in ONS methodology and improvements in the measurement of financial sector output in particular, should mean that the very large revisions to growth in the past, which prompted large revisions to views of inflationary pressure, now seem less likely.[9] And, in the present context of a fall in output of 6.2% in the six quarters to the third quarter of 2009, there seems little doubt that a sizeable output gap has opened up. Nevertheless, the MPC indicated in the last *Inflation Report* that we expect GDP data for 2009 to be revised up somewhat in due course, and that was taken account of in the forward projections.

A second source of uncertainty stems from the specification of the output gap. The way in which potential output is estimated in BEQM reflects largely shocks to supply (the capital stock and labour supply). However, arguably for judging inflation pressure after some shocks this is not necessarily the right approach.[10] For example, a rise in commodity prices, or a fall in the exchange rate, may have a long-run impact on supply, by making some supply uneconomic and bringing about some capital scrapping. This is captured in our framework. In the short term, the increases in firms' costs, leads to both a fall in output and a rise in inflation pressure. This fall in output does not indicate a negative output gap. Indeed, if prices are slow to adjust fully, there might even be a positive output gap, on this basis, for a time.

The degree to which this is important hinges on how flexible firms' prices are. The Bank's recent survey on firms' pricing practices indicated that, while price changes have become more frequent for many firms over the past decade, for some sectors and smaller firms a substantial minority will take more than six months to adjust prices, and therefore output, after a cost shock.[11] This suggests that the downward effect on supply might have been quite strong recently, following the oil price increases and fall in the exchange rate. It is very unlikely that this would be sufficient to alter the conclusion that presently the output gap is significantly negative, but it might affect interpretation of the effect of the output gap over the recent past, and judgements about how quickly the gap could be closed.

And at the present conjuncture other considerations are also relevant. The key shock firms are facing is to the availability and cost of credit. Unlike a one-off shock to commodity prices, this will not have affected all firms at the same time, as the impact will be felt when a firm seeks to expand, or to replace investment. So the impact on supply capacity may build up over a longer period. This kind of effect was reflected in the MPC's judgment in the February 2010 *Inflation Report* that effective supply capacity might at the moment be reduced below

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[9] Nelson and Nikolov (2005) suggest that in the 1980s the average real-time output gap measure was over 5 percentage points below the average final measure, of which more than 4 percentage points was due to revisions to the level of output.

[10] Discussed in detail in Neiss and Nelson (2005).

[11] Greenslade, J and Parker, M (2008).

the estimate which would result from simply looking at trends in capital, labour and total factor productivity.

The MPC is prompted to look at this type of explanation against the background that at present CPI inflation (adjusted for estimates of the impact of the VAT change and of higher oil prices) is rather higher than might have been expected given the sharp fall in output. But the possible explanations discussed above suggest that the output gap has recently not been as large as simple models might suggest, and therefore higher CPI is less surprising. One reason for thinking that this effect may be pertinent is that indicators of spare capacity (Chart 3 shows one example) have fallen by less in response to the sharp fall in output than might be expected. But it is also probably true that these surveys are more difficult than usual to interpret in the wake of very large shocks to demand.

The implication of these possible explanations is, if these exchange rate and commodity price effects ease as expected, or credit conditions become less tight, inflation will fall as the influence of the underlying demand and supply imbalance becomes the dominant influence. But an alternative and less reassuring explanation might be that the pricing climate has changed (following a lengthy period in which firms appeared to set prices in conditions of intense competition), suggesting that firms' prices might respond less for a given degree of slack in the economy.

The key conclusion I would draw from this is, that although from time to time criticised for too much reliance on one model, the MPC has in fact shown itself open to considering a range of interpretations over time, and is fully aware that different circumstances may point to different challenges. At present, neither the extent of excess capacity nor the impact of capacity pressures on inflation are easy to assess. The track record of the judgements we made in more stable times may well not be a good guide to the future. It therefore makes sense to look at a range of estimates both of the gap and of its effect in order to give some guidance to the range of likely economic outcomes.

Implicitly, such a range is contained within the fan charts of GDP and of CPI inflation published quarterly in the *Inflation Report.* In practice, these fan charts are constructed on the basis of the experience of past forecast errors and the MPC's judgement of the present degree of uncertainty. Given that the period of the MPC has been characterised by a time of unusual stability followed by one of unusual volatility, the more subjective element of this approach has proved to be fully justified. However, an alternative guide to the MPC's internal deliberations on this issue might also be provided by a more explicit consideration of a range of approaches to measurement of the output gap and its impact on inflation.

The policy horizon

In considering the policy decision month by month, the MPC has tended to put weight on the projection for CPI inflation around two years ahead. This has not meant simply changing policy in response to whatever the central forecast is at that horizon; policy decisions will also take into account the pattern of deviations from the target over the whole three-year forecast period, and, importantly, the balance of risks around the central projection.

There are clear and familiar benefits to having a forward-looking policy regime. A Taylor rule regime based on current data would have the considerable disadvantage that it would be more likely to result in volatility of output growth, and also that policy might tend to react too strongly to unreliable current data. But it is less clear precisely how far ahead the policy horizon should be. Relevant considerations are likely to include the length of the lags in the monetary transmission mechanism, the impact on private sector inflation expectations of the period taken to bring inflation back to target and the expected impact on the volatility of output. Commenting on some Bank of England work on optimal policy horizons, Goodhart (2001) suggested that: "the…selection of monetary policy horizons is so model/context specific that little advance can be made unless such studies can be brought to apply to the specific model/context under consideration as used in practice by the MPC."

Inevitably there is uncertainty about all of these factors. But it is worth considering whether, in present circumstances, there might be a case for considering a longer-term policy horizon. One reason for this is that quantitative easing might have longer lags before it reaches maximum effect than do changes in Bank Rate – part of the reason for focusing around two years ahead is that is judged to be the point at which policy has its maximum effect. This would reflect the early indications that one of the key channels through which this policy takes effect has proved to be an increase in asset prices, whereas for Bank Rate changes in the distribution of income plays a larger role.

In addition, in the past three years CPI inflation has been above target for 27 out of 36 months, is now 3.5% and likely to remain above target for the first half of 2010. The reasons for this period of relatively high inflation are related in large part to external pressures from past exchange rate depreciation (and the exchange rate has recently depreciated further) and the rise in the oil price over the past year. Some domestic inflationary pressures remain low, as indicated by the present low rate of increase in wages (the latest data for average weekly earnings showed an annual increase of just 0.8% for total pay in the three months to December 2009). So looking beyond 2010, the latest inflation projection suggested there that inflation could be a little below target at the two-year horizon. However, the present above-target inflation background suggests little cause for anxiety about inflation expectations becoming deanchored on the downside, if the MPC were to suggest it might take a little longer to move the underlying inflation trend back to target. Indeed, that might be one way to respond to the balance of risks the MPC faces, with inflation uncomfortably high in the short term, but medium-term prospects still likely to be on the downside.

There are other arguments on both sides. The remit for the MPC invites us, subject to achieving the inflation target, to consider the Government's polices for growth and employment. In the present context, a strong argument for continuing to focus on the two-year horizon is that would encourage policy to aim at a rate of growth in the short-term which would reduce the scale of excess capacity in the economy as fast as possible. Robust growth now would also potentially have the benefit of reducing the likely erosion of the economy's supply capacity – the more quickly growth is resumed, the less skills will be eroded and the capital stock effectively run down. The longer-term outlook for growth is therefore improved.

This is indeed a powerful reason for continuing to focus on the two-year horizon, and one which seems to trump the considerations around the lags in the policy process and worries about inflation expectations. But it is not the only relevant longer-term consideration. I argued earlier that in the period running up to the financial crisis, it might have been beneficial if policy had taken more explicit account of how it was contributing to imbalances in the economy. And there may be risks in the present circumstances in driving growth up quickly in the UK, if the global economy, and particularly our major trading partner, the EU, experiences a somewhat sluggish recovery.

Slow growth elsewhere would make it more difficult for the UK to achieve an improvement in the external balance. The UK's external sector has so far perhaps had a rather disappointing response to the depreciation of sterling. Manufacturing output in the UK has not, so far, performed any better in the early stages of recovery than has the US, Germany or France. Recent surveys do suggest that export orders are improving (for example, the February 2010 CIPS/Markit survey of manufacturing suggested that export orders grew at their fastest pace since the survey began in 1996). But with the public sector now seeking to reduce its own deficit, concern over likely improvement in the UK's external balance would suggest that a fast recovery in the UK would only be possible if the household and corporate sector balance sheets were to deteriorate. It is relevant for monetary policy decisions to consider whether this implies a renewed risk to economic and financial stability further in the future. So the judgement about the choice of policy horizon remains, for me at least, one which is finely balanced.

I am here suggesting that the optimal horizon to consider may depend on the precise economic circumstances. There may be merit in considering risks beyond the present forecast horizon which might result from different choices of paths for future monetary policy.

Quantitative easing

These difficulties of policy judgement are compounded by uncertainties around quantitative easing (although it is important to recall that the low level of Bank Rate is also having a continuing expansionary impact on the economy). These uncertainties can of course be overstated, as quantitative easing works in many respects in a similar way to changes in Bank Rate. And I have no hesitation in saying that it was the right policy to deploy, and to deploy at significant scale, in the circumstances which faced us last spring when the downside risks to the economy were very significant.

There have been a number of positive effects from the policy of injecting additional money into the economy – including a sharp fall in corporate bonds spreads, a rise in equity prices, and the fall in three-month LIBOR back towards expected Bank Rate.[12] In addition, the MPC's continuing strong commitment to support the economy and therefore achieve of the inflation target over the medium-term has had a positive effect on confidence. Most indicators of consumer confidence have been improving fairly steadily from low points in early 2009, as have indicators of business confidence.

A significant part of the transmission mechanism has been via the rise in the prices of riskier assets. As yet, I don't consider the evidence suggests that this rise in asset prices has gone too far, and therefore do not believe that this has become another risk to future economic stability. Rather, my concern is that this channel might become less powerful if quantitative easing were to be extended, as confidence effects might be less apparent, and there might be reluctance to engage in further portfolio rebalancing as the price of risky assets rose.

This could prove a concern, given that there are still some risks on the downside to the path of economic activity, including a continuing weakness in the world economy, particularly the EU. Credit conditions also remain a concern. The cost of credit for households remains high relative to Bank Rate (Chart 4), and there is still evidence from smaller firms that credit is either difficult to obtain or unacceptably costly. Banks' own funding has become a little less costly, but the major UK banks still face a considerable funding challenge over the next few years, as well as uncertainty about how much capital they will be required to hold in the longer-term.

However, there are grounds for optimism from recent data that the recovery is broadly on track. GDP in the fourth quarter of 2009 is now estimated to have grown by 0.3% with growth in consumer spending. Household balance sheets have already been strengthened. Employment trends have remained surprisingly robust, and firms' employment intentions continue to recover from the low point early in 2009 in the bulk of the business surveys. I don't think it is yet possible to be confident in the pace of recovery, and still expect the path to be bumpy. But some of the severe downside risks have diminished.

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12 These impacts have recently been set out very effectively in Miles (2010).

Conclusions

As this is my final formal talk as an MPC member, it is a good opportunity for me to say that it has been a real privilege to serve on the Committee for such a long period, and to have done so alongside such excellent and stimulating colleagues. Since mid-2007 decisions have become more difficult and the task more stressful, but the overriding objective of achieving the CPI inflation target and maintaining confidence in this target has remained the right guide for policy.

A significant part of an MPC member's work is explaining policy to various audiences, or accompanying the Banks' regional Agents on visits and discussions with business and other contacts. I am sure that the work of the Bank's twelve Agents based around the UK, and the willingness of MPC members to be seen out and about, both contribute to the credibility of the MPC. They also serve the valuable purpose of giving us high-quality and up-to-date feedback on business trends.

While these visits enable business audiences to question and debate policy, perhaps another aspect of accountability has been a little less satisfactory. Once a quarter, several members of the MPC accompany the Governor to an appearance before the Treasury Committee. The purpose of the sessions is to hold us to account for our individual votes. However, despite some recent improvement, it remains the case that the vast majority of questions from the MPs tend to be directed at the Governor. My view is that it would be better in future to ensure that each MPC member attending, including the external members, has the opportunity to explain their recent votes and to comment on the key policy issues.

As I leave the MPC, the challenges remain considerable. In retrospect, my first two terms on the MPC were periods which now look like the small change of monetary policy – small changes in Bank Rate aimed at adjusting for relatively small anticipated deviations of inflation from target. As I suggested at the start, it may however also have been the period in which a large error was made in allowing the belief to become established that policymakers had solved the issue of economic instability. As Jean-Claude Trichet recently commented: "...remedial action has often been triggered as soon as the financial firestorm has threatened the stability of the economic system. But such action risks raising expectations that macroeconomic policy will always insure against tail risks, no matter how large."[13] Even when policymakers have added robust macroprudential instruments to their armoury, it will be important to be clear that there will still be sources of macroeconomic instability. This may not be easy during any prolonged period without such a shock, unless policymakers are prepared to be a little less assiduous about fine tuning.

More recently policy has certainly not felt like fine tuning. In this talk, I have tried to suggest some ways in which policy might be approached a little differently, but without moving away from the month-by-month decision-taking which has served the UK well. There is presently much uncertainty about the size of the output gap, partly as it is not easy to reconcile a large negative output gap with recent upward surprises on inflation. It may be that firms have been responding more than expected to the rise in unit labour costs, in which case as growth resumes inflation pressure might diminish. But there are other possible explanations for higher inflation. One suggestion might be that the MPC could consider using a range of different plausible estimates of the output gap and its effect on inflation as a part of the methodology of constructing the growth and inflation fan charts. It might also be useful to reconsider the merits of looking to inflation prospects beyond the normal forecast horizon, to ensure any future risks to economic stability are taken fully into account. With the benefit of hindsight, this approach might have been helpful in the period before the financial crisis.

[13] Trichet (2009).

Since the summer of 2007, life on the MPC has certainly felt very challenging. It may well be some time before all the lessons for the conduct of monetary policy can be fully appreciated. However, the MPC's framework has overall proved to be resilient during the crisis and capable of making substantial responses to events. I am sure that this will remain true.

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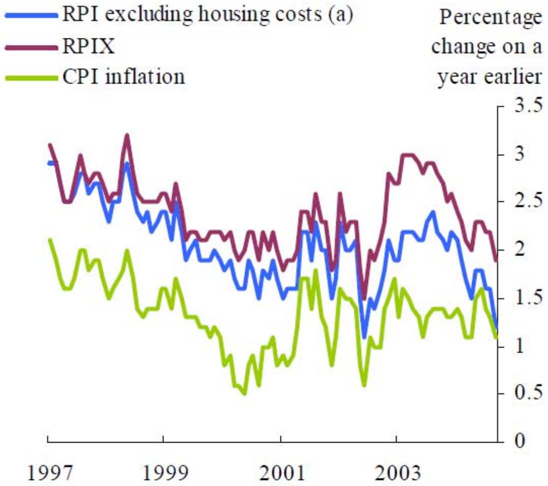
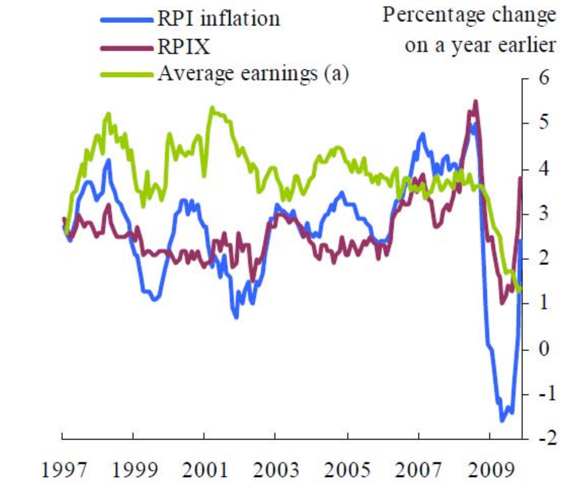
Chart 1: RPIX influenced by housing



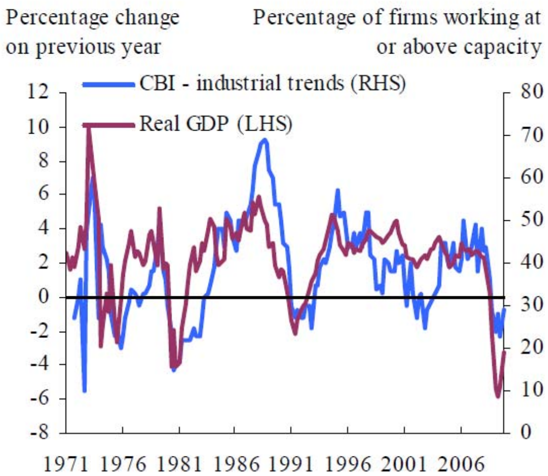
Sources: ONS and Bank calculations.
(a) RPI excluding MIPS and housing depreciation.

Chart 2: Average earnings and RPI



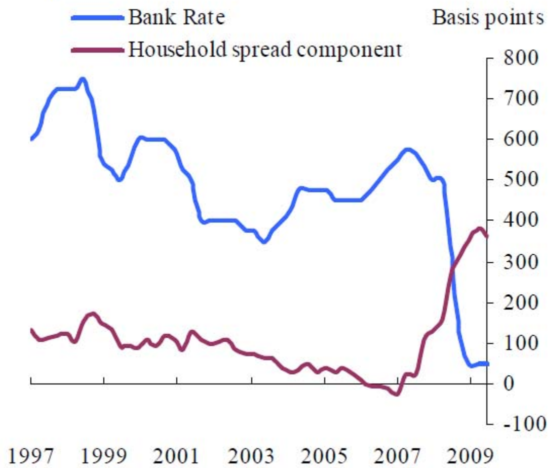
Sources: ONS and Bank calculations.
(a) Whole economy average earnings index (excluding bonuses).

Chart 3: Output and capacity:



Sources: ONS, CBI and Bank calculations.

Chart 4: Household lending rate components



Source: Bank calculations.