



BANK OF ENGLAND

# Speech

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## **Monetary Policy-Making: Fact and Fiction**

Speech given by

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At a South West Agency Dinner in Bristol

24 May 2005

I am grateful to Alison Stuart and Michael Sawicki for help in preparing this speech. I have also benefited from comments and discussions with many colleagues at the Bank. The views expressed here are personal and should not be interpreted as those of the Bank of England or other members of the Monetary Policy Committee

## **Monetary policy-making: fact and fiction**

This week marks the end of the second year of my three-year term as a member of the Monetary Policy Committee. It seems like a good moment to reflect on what I have learnt over that period about the process of setting monetary policy, and on how things look from my perspective today.

As someone who is not a professional economist, there is no doubt that I did have a great deal to learn. But my biggest single lesson has not been about abstruse theory or econometric modelling. It's been about something much more simple – something which came as rather a surprise to someone from my background in newspapers.

It's been about uncertainty.

In journalism, certainty is what matters. You generally need to express your views with the absolute confidence that anyone who disagrees with you is a fool or a knave.

In monetary policy, exactly the opposite is true. It is critically important to recognise the lack of certainty about all the key issues which have to be addressed. There are some concepts to help clarify the mind about how things stand today, and how they might look in a couple of years' time. And there are some yardsticks against which to judge the appropriateness of this or that course of action.

But few of them are directly measurable, or easily observable. Most of them are built on assumptions which may simply be wrong, and on data which are subject to revision. And all of them may be subject to different interpretations at different stages of the economic cycle.

In other words, there are no set rules.

This uncertainty applies to even the most basic questions – such as: is the current rate of interest accommodative – meaning is it low enough to encourage credit growth and economic expansion? Or is it restrictive, in the sense that it is squeezing down on animal spirits and cutting back demand?

The so-called neutral rate of interest is the level at which economic activity would grow at a sustainable rate over time, while also keeping inflation under control. One way of arriving at this magic number is to estimate the neutral real interest rate, and add to that figure the inflation target to arrive at the appropriate nominal interest rate. When I joined the Committee, there seemed to be a pretty solid consensus among outside pundits that the neutral nominal rate stood somewhere around 5 to 5.5 per cent. That view was based on the idea that the long term real rate was probably in the region of 2.5 to 3 per cent, while the inflation target – then pinned on the RPIX measure – was 2.5 per cent.

But the problem is that the neutral real rate is not a constant. Instead, it varies over time, depending on a host of changing circumstances such as the rate of productivity growth, fiscal policy and the rate of savings both at home and abroad. Moreover, estimates of the average neutral rate will vary depending on what period of time is taken into consideration. A crude proxy for the neutral real rate taken from index-linked gilts (between five and ten years ahead) reached almost 6% in the late 1980s but had fallen to under 4% ten years later (Chart 1).

More recently, the rate appears to have edged down further (to around 2.5%). There are several possible explanations for this, including demographic change, investment demand, international flows of savings, or more market specific factors. Since we can't be certain about the relative importance of these competing explanations, we can't be confident about where real rates might go from here. And this in turn means it is impossible at any moment in time to pin down the neutral rate with the degree of precision necessary to use it as a guide to each month's decision.

It seemed easy enough when I joined the Committee two years ago: the Bank's repo rate had been declining for three years and at 3.75 per cent was close to what turned out to be the trough. That, it was clear to me, was an accommodative rate whichever way it might be assessed.

But with rates now up at 4.75 per cent, the picture is much less clear. In nominal terms, this is a modest figure by the standards of recent economic cycles. There seems to be plenty of liquidity available in the corporate sector and although the growth in secured borrowing by retail customers has slowed down a bit with lower house price

inflation and the fall in housing market transactions, demand for unsecured borrowing remains strong (Chart 2).

Inflation as measured by the Consumer Price Index has risen more sharply than expected from its low point last September, and not exclusively because of the impact of higher oil prices (Chart 3). Producer output price inflation has picked up smartly in the last three years (Chart 4). And there is reason to think that import prices will also be pushing up on inflation over the next year or two. All this could suggest that interest rates might need to rise a little further in order to ensure that inflation remains low and stable over time. But other evidence points in a different direction.

Consumers seem to have become distinctly more cautious about their spending habits in recent months. Growth in household consumption slowed sharply to just 0.2 per cent in the final quarter of 2004, and gloomy news from the high street, from the car saleroom, from surveys, and from the Bank's regional Agents suggest that conditions have not got much better so far this year.

It's not clear precisely what's behind the recent weakness of consumption considering that employment growth has picked up a little, real incomes are in reasonable shape, and the housing market appears to have stabilised. Against this background, it certainly is not obvious to me that interest rates are currently set too low to ensure low and stable inflation in the years to come.

This view is reinforced by the latest numbers from the manufacturing sector, which have been surprisingly weak.

Of course there are other tools you can deploy to help form a judgment about where interest rates should stand. One much-used example is the Taylor rule, under which interest rates are raised or lowered according to whether current output is above or below trend, and current inflation is above or below the target. But this rule is backward looking and does not take into account other information that might be pertinent to the outlook for inflation. It also requires an assessment of the neutral real interest rate and an assessment of spare capacity. So once again, such rules can help to clarify thinking, but do not provide a precise guide to the appropriate interest rate.

Depending on how the different variables are assessed, the Taylor rule would point at present to an interest rate somewhat *below* the current level (Chart 5).

In this example, one big uncertainty is about the level of spare capacity in the economy – an issue which I’ve spent many happy hours discussing over the past two years.

Setting a course for monetary policy requires some assessment to be made about the pressure of aggregate demand relative to the economy’s productive potential. If there appears to be quite a bit of capacity left to be filled before bottlenecks start to appear, interest rates may be kept lower than otherwise would have been the case without leading to a build up of inflation.

For example, growth in the American economy has been above its long run average for much of the last year or so. But there has been enough spare capacity in the system to permit the Fed to raise interest rates at a measured pace from their historically low levels.

The percentage difference between the level of GDP consistent with the sustainable full employment of resources and the current level of real GDP is described as the output gap. I’ve learnt that this is another important but extremely slippery concept.

One way of demonstrating this slipperiness is to look at current estimates of the output gap in the UK (Chart 6). On the Treasury’s version, the economy is running comfortably below its productive potential, with noticeably more spare capacity than was available in the late 1990s. No obvious reason to worry about inflationary bottlenecks here.

But according to the OECD’s Economic Outlook, which is published today, the opposite is true: the economy is already operating close to, or slightly above, capacity and capacity constraints are a little higher than was the case through most of the 1990s.

The National Institute of Economic and Social Research, in its latest analysis published last month, also suggests that relatively strong growth in the recent past

means that the output gap has now closed. Although capacity constraints are not expected to be as tight as they were around 2000-01, the National Institute says that further expansion in the coming months will bring “some signs of emerging inflationary pressures”.

To be fair, the three institutions draw up their numbers on a different basis, which means they are not directly comparable. But the challenges for monetary policymakers are obvious. Estimates about the level of spare capacity have to be constantly adjusted as new evidence comes in. And quite small changes in these assumptions can lead to quite sizeable changes in estimates of the future levels of price inflation.

Big mistakes here can lead to big trouble. An estimate by Bank of England economists a few years ago suggested that monetary policy errors due to output gap mis-measurement contributed between 3 and 7 percentage points to average UK inflation in the 1970s, and between 1 and 6 percentage points in the 1980s.<sup>1</sup>

Rather than concentrating simply on a single measure of the output gap, the MPC likes to look more broadly at the balance between supply and demand in both the product and the labour markets. Here again, it is impossible to draw precise conclusions. But helpful ways of thinking about the challenge were contained in the Bank’s last two Inflation Reports, for February and for May. An article in the February report took a look at factor utilisation in the private sector: how hard private sector companies are using their capital and labour. This examined a number of measures of productivity and the intensity with which companies were using capital and labour, and compared the results with the surveys of capacity utilisation produced by the CBI and the British Chambers of Commerce.

The conclusion was that companies taken in aggregate did appear to be working at or above their normal levels of capacity. This is consistent with reports from the Bank’s regional Agents, and with what many companies themselves are saying. And if it were to be sustained over time, it would eventually push up on the pace of consumer price inflation.

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<sup>1</sup> Nelson, E and Nikolov, K (2002), ‘UK inflation in the 1970s and 1980s: the role of output gap mismeasurement’, Bank of England Working Paper 148.

Factor utilisation is one aspect of the balance between the demand for private sector output and the resources required to produce it. The other is the tightness of the labour market, which is the subject of an article in this month's Inflation Report. The degree of labour market tightness depends on the extent to which demand for labour is matched by the potential supply of workers who are able and willing to take on jobs. If companies find it difficult to hire and retain people, there is likely to be upward pressure on their wage costs which they may seek to pass on by pushing up the selling price of their goods and services.

Before I joined the Committee, I'd read many pundits who agreed that the MPC got very uncomfortable when the annual rate of wage increases exceeded 4.5 per cent. This view, I discovered, stemmed from comments in Inflation Reports back in the late 1990s to the effect that - given the UK's historic levels of productivity growth of roughly 2 per cent a year and the then inflation target of 2.5 per cent - it would indeed be something to worry about if average earnings grew by much more than this figure over a sustained period without clear signs of an improvement in underlying productivity growth.

But alas, this too was yet another number which did not turn out to be very helpful when thinking about the appropriate level for interest rates. For one thing, the MPC has a symmetric target: it has to be just as worried about inflation turning out to be too low as is about inflation being too high. On this reading, therefore, it should also get uncomfortable if average earnings rose by much less than this figure for a prolonged period, which of course has been the case for much of the past few years.

For another, the MPC is not in the "stop-go" business: it does not wait until a particular data series passes a particular spot and then slam on the brakes. Much better to study the trends, exploring whether changes are temporary or structural, and - when appropriate - lean against them gradually, rather than waiting to do anything until the last minute.

Finally and most important, the Committee does not form its views about the labour market simply on estimates of the growth of average earnings. Rather it bases its judgments on a view of the overall tightness of the labour market, which means

looking at movements in supply and demand as well as in wages. As with everything else, no single piece of evidence is decisive.

One big question here is about the equilibrium unemployment rate, that is the level of unemployment consistent with stable inflation. If this figure could be assessed with any degree of precision, it would provide a much better view of capacity constraints in the labour market at any given moment than otherwise would be the case.

But once again this is a moving target. Four years ago, Committee member Steve Nickell and his co-author Glenda Quintini showed how, on one measure, the equilibrium unemployment rate in the UK had fallen from nearly 10 per cent in the late 1980s to under 6 per cent by the late 1990s – the result among other things of the reduction in the power of trade unions, along with changes in benefits and employment taxes, and in product market competition.<sup>2</sup>

It's a fair bet that the equilibrium unemployment rate has fallen further in recent years, helping to explain why wage inflation has remained relatively subdued despite rising levels of employment.

The article on labour market tightness in the latest Inflation Report looks at a range of indicators and business surveys and suggests that conditions have not got tighter over the past 12 months: it may be the case that they have slackened a little. One possible explanation is that the relative strength of the UK economy has pulled in more workers from overseas. Indeed, it may be the case that old ideas about equilibrium unemployment and the output gap may have to be rethought in a world of free movement of labour across much of the European Union.

On this view of factor utilisation and the labour market, the overall economy may be running somewhere around – but not much above – its productive potential. That could point to some inflationary pressure in the economy but would not suggest that things are getting out of hand.

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<sup>2</sup> Nickell, S and Quintini, G (2002), 'The recent performance of the UK Labour Market', Oxford Review of Economic Policy, 18/2.

In its efforts to understand the data, the Committee spends a lot of time trying to sort out the news from the noise – in other words, aiming off for statistical aberrations or for data that past experience shows are particularly subject to revision. I will mention two current examples.

One concerns the long term decline in the average hours worked across the UK economy, a pattern which stretches back over decades and which has been particularly marked over the past ten years. This appears to have been driven in good measure by structural changes, such as increased demand for flexible working as female participation in the workforce has risen, and a general tendency to reduce working hours as society gets more prosperous. More recently measures such as the Working Time Regulations are likely to have reduced average working hours yet further. If the fall in average hours is indeed the result of structural changes, then the implication would be that the level may have been permanently reduced.

In the past few months, however, the average for all workers has crept up a little to 32.2 hours a week. This modest looking increase, if it's really happening, would add up to a measurable increase in the supply of available labour. On one interpretation, that might help to take the heat out of wage inflation, if it were permanent. On another, it might suggest that businesses were finding it difficult to recruit new employees to cope with increased demand, and so could presage some pick up in wages and inflationary pressures.

Yet there are reasons for thinking the latest numbers may represent some kind of measurement error: for one thing, a measure of usual hours worked has not risen to the same extent (Chart 7). For the time being, then, put this one down to noise more than news.

A different example: I've already mentioned the view that the growth in household consumption – which played a vital part in the overall economic expansion of the past decade – is slackening. But past experience shows that initial readings of consumption – such as the official data for the final quarter of 2004 – are subject to quite sizeable revisions. There have been times – such as in the summer of 1998 – when what at first looked like a marked slowdown was subsequently largely revised away. And on other

occasions, such as the second quarter of 2003, consumption rapidly bounced back after a weak first quarter.

This time, though, the tales of gloom from the high street, and from some other consumer sectors, are too consistent to suggest that what we have seen so far is just a statistical aberration. The picture is far from clear, since retail sales represent a little less than two-fifths of household consumption. But in this case, it seems to me, there may be more news than noise in the latest readings.

Another challenge, I've learnt, is that data can be highly volatile. One example: through most of the first half of 2004, inflation as measured by the Consumer Price Index was coming in noticeably below the MPC's central expectation. The CPI, as you remember, had replaced the RPIX measure as the official target from December 2003.

By the late summer, the rate was running at not much more than 1 per cent, and since the CPI had not reached 2 per cent for around 7 years, I confess that I was beginning to worry that the path back up to the new 2 per cent target could turn out to be improbably steep.

The central projection in last August's Inflation Report was that the target would be reached in the summer of 2006. As it turned out, though, it took little more than six months for the CPI to rise to its current rate of 1.9 per cent, and on our latest central projection we will reach the 2 per cent mark in the very near future.

This is not in itself a cause for alarm. The MPC is set a symmetric inflation target, which means that over time the rate of inflation will inevitably run above as well as below the target.

It is true that the past decade has seen a period of unusual stability in the UK economy, with output growing steadily and inflation remaining low and stable. But the next few years may well be more challenging.

There is no longer a sufficient margin of spare capacity to offset unexpected price increases, and we cannot expect import prices to keep dragging down on inflation in

the way that they have done in recent years. So when the economy is hit by a shock, such as the steep rise in oil prices, we may have to get used to a world where the relationship between output and inflation changes, and looks less benign. And where, for a period, output slows below trend but inflation rises a little above target as cost pressures feed through the supply chain.

So monetary policy is a process in which there are no set rules, where most of the data are subject to revision, and where trend lines can shift with surprising speed. Does this mean that decisions about monetary policy are entirely a matter for the Committee's discretion, and that its members are permanently blundering around in the fog?

The answer to both questions is, of course, a resounding "no".

The Committee does not have endless room for discretion: to the contrary, it is subject to the overriding and ever-present requirement of its statutory mandate – to maintain price stability as defined in the inflation target and, subject to that, to support the Government's objectives for growth and employment. This is the sole objective at which policy is directed, and against which the Committee's performance must be assessed. It imposes a powerful discipline on our monthly meetings and keeps our attention permanently focused on the key issues. The quarterly forecast round and publication of the Inflation Report also discipline the Committee to consider how the economic jigsaw fits together. Discussions are aided by the Bank's quarterly forecasting model which provides a coherent and consistent framework for thinking about the way the economy functions. And the Committee also spends a long time considering alternative models and the uncertainties and risks surrounding particular forecasting judgments.

As for ways of coping with the uncertainties I have described, I would like to mention six that I have found important over the past two years.

- 1) Consider as wide a range of information inputs as possible, but be aware that some are worth a lot more than others. Beware of anecdote and gossip. One of the things that surprised me as a newcomer to the Bank was the sheer strength and professionalism of its economic analysis – an extraordinary resource,

which among other things helps the Committee to understand what bits of data are more reliable than others, how to use the business surveys to supplement official data, and how to make intelligent guesses about underlying economic trends. I'd been in and out of the Bank many times over the years, but I had not appreciated quite how strong it has become in this respect.

- 2) Don't get too carried away by the latest data – there's a temptation to do so, given the regular programme of monthly MPC meetings and the constant stream of economic news from around the world. The fact that, say, US non farm payrolls may turn out a shade higher or lower in a single month than the markets expected may make an interesting headline, but is not by itself going to do much to change the UK outlook.
- 3) Instead, concentrate on the big picture and on the issues which would lead to trouble if the Committee got them badly wrong. The quarterly Inflation Report round, which takes the form of a whole series of lengthy Committee meetings, provides a wonderful opportunity to clarify the mind. And the monthly meetings, focusing on the outlook for future inflation, provide a regular check on whether the economy is moving along the expected lines. Forecasting errors can be corrected, and judgments adjusted accordingly.
- 4) Forecasts of economic growth and inflation are not to be translated into policy in a mechanical way and Committee members do have to be ready to exercise their judgment. February's Inflation Report, on the central projection, had the CPI rising at 2.2 per cent after year two and by 2.3 per cent at year three. Since the Committee's view was that the economy was rising at close to its trend rate and operating at or a little above its potential capacity, this, on the face of it, could have been a reason for pushing interest rates higher at that time. But the Committee always looks carefully at the risks surrounding the forecast. In February it concluded that the risks to both growth and inflation were somewhat on the downside, thanks – among things – to uncertainty about the outlook for consumer spending and the prospects for the global economy. This, for most members, was reason enough to leave the rate unchanged at that and subsequent meetings.

- 5) The structure and make-up of the Committee is itself an invaluable aid to sound decision making. A small group of people with a diverse set of experiences but a single objective can challenge each other's assumptions and learn from their mistakes. There is enough continuity on the MPC to provide a collective memory of how problems were tackled on similar occasions in the past, and enough fresh thinking to bring new ideas to bear. Studies in both the US and the UK suggest that groups of people who are prepared to debate with and learn from each other are capable of producing better results than their smartest individual member, and my experience of the past two years has convinced me of why this is the case.<sup>3</sup>
  
- 6) Finally, the trend in inflation expectations is a matter of critical importance to the Committee. Here again there are no precise observations. Readings differ a little depending on whether they are extrapolated from the financial markets or from surveys, and expectations cannot themselves be targeted. Instead, they are shaped by the extent to which the conduct of monetary policy is seen to be credible. But so long as expectations remain as they are, anchored firmly around the target, that makes the job of the Committee – to meet its mandate of low and stable inflation – much more manageable (Chart 8).

For a good part of my time on the MPC, the decision making process seemed rather straightforward. By the late autumn of 2003, it was clear that the economy was picking up steam and that interest rates, at a 50-year low of 3.5 per cent, were heading higher. The only real question was about how rapid the increases should be, and since we had made it plain that we favoured a gradual approach to rate increases, there wasn't even much room for argument about that.

More recently, though, the task has become more challenging. It's true that the central projections in our latest Inflation Report, for May, look remarkably benign: the economy growing around trend, inflation pretty well bang on target for most of the next three years, market expectations of interest rates moving sideways at around their

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<sup>3</sup> Blinder, A S and Morgan, J (2000), 'Are two heads better than one: an experimental analysis of group vs individual decision making', NBER Working Paper, No. 7909, September; Lombardelli, C, Proudman, J and Talbot, J (2002), 'Committees versus individuals: an experimental analysis of monetary policy decision-making', Bank of England Working Paper 165.

current level for years to come. The weakness in consumption turns out to be temporary, and the recent upswing in Consumer Price Inflation is not sustained.

But that may turn out to be too rosy a view. I've already mentioned the question marks over consumption, which represents over three-fifths of GDP. Government spending, representing around a fifth of GDP, is no longer accelerating. And the US news is a little less buoyant than it was a few months ago, while the euro zone remains sluggish.

At the same time, there are a few signs that inflationary pressures may be building a little around the world, and not just as a result of higher oil prices. After falling for much of the past six years, the Consumer Price Index for goods moved up to around zero in March and April, while that for services has edged up to 4 per cent. Pressures from the supply chain may continue, and import prices may start to edge higher.

So my third year on the Committee may turn out to be even more interesting and challenging than the first two. I look forward to it with enormous enthusiasm.

# Monetary policy-making: fact and fiction

**Chart 1**

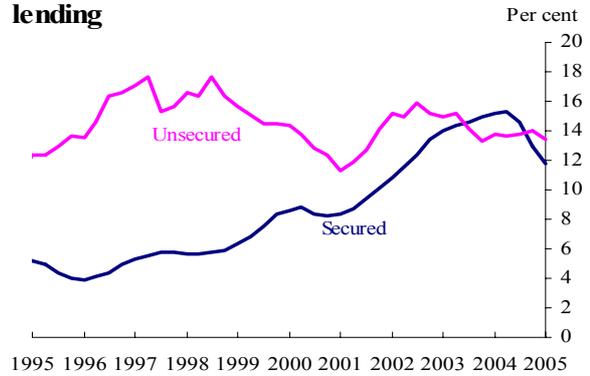
**Forward real interest rates between 5 and 10 years ahead**



Note: calculated as the average index-linked yield on government bonds in five to ten years' time, adjusted by the average difference between CPI and RPI inflation since 1989.

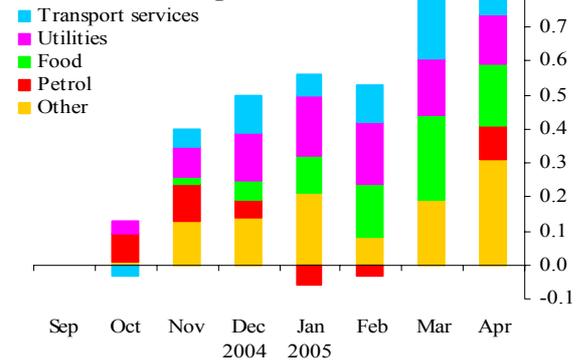
**Chart 2**

**Annual growth in secured and unsecured lending**



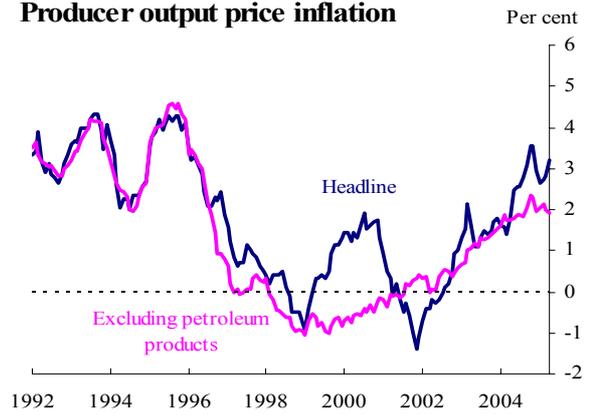
**Chart 3**

**Contributions to increase in CPI inflation since September 2004**

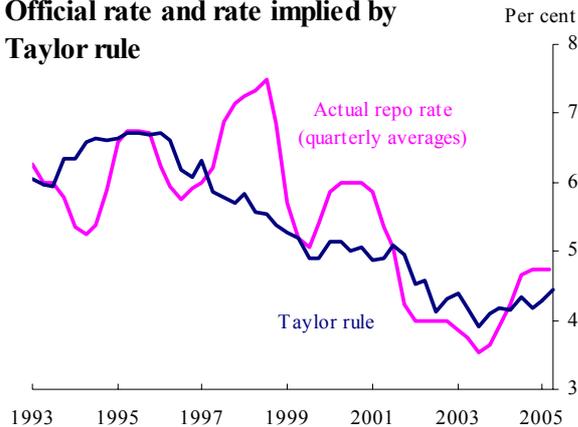


**Chart 4**

**Producer output price inflation**

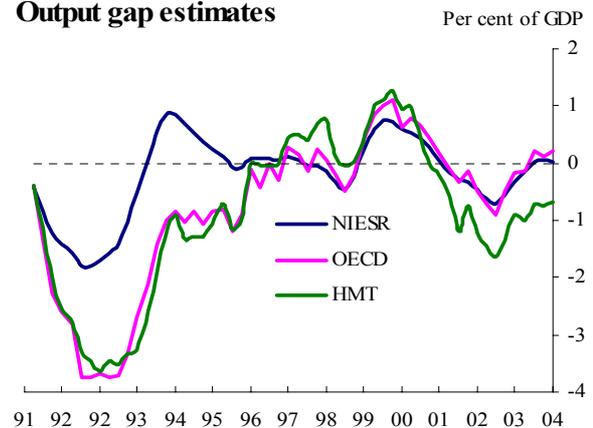


**Chart 5**  
**Official rate and rate implied by Taylor rule**

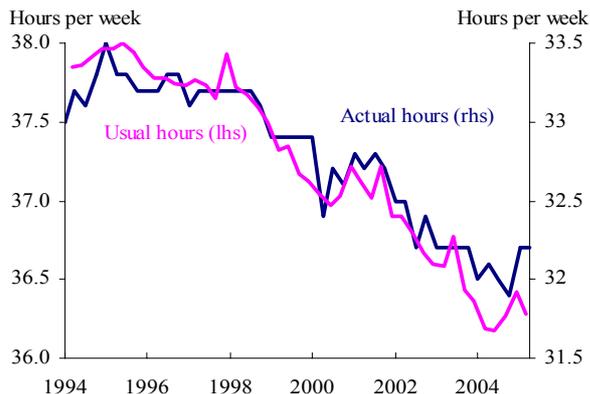


Note: The equilibrium real interest rate assumed for the Taylor rule is the HP-filtered trend of the 5-year real forward rate 5 years out, adjusted upwards to reflect the average difference between CPI and RPI inflation. Weights on the output gap and deviations of inflation from target are both equal to 0.5. Output gap is the deviation of real GDP from HP-filtered trend over period 1955Q1 to 2005Q1.

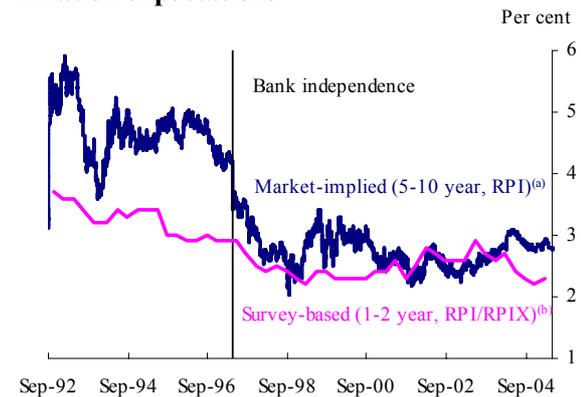
**Chart 6**  
**Output gap estimates**



**Chart 7**  
**Whole-economy average hours worked**



**Chart 8**  
**Inflation expectations**



(a) The difference between five-year forward, five-year yields on conventional and index-linked gilts

(b) Consensus Economics survey expectations for 1 to 2 years ahead  
 Note: RPI is the measure of inflation used for index-linked bonds, but is not the target measure of inflation in the UK. RPI will differ from both RPIX and CPI, which partly reflects the coverage of the index: for example, RPI includes mortgage interest payments. In addition, RPI will typically be higher than CPI due to a formula effect, as the arithmetic mean rather than the geometric mean is used to aggregate individual prices within each expenditure category.