Inflation, expectations and monetary policy

In this speech, Professor David Blanchflower, member of the Monetary Policy Committee (MPC), talks about the importance of inflation expectations for monetary policy making. He discusses what has happened to inflation and inflation expectations in recent months, and what actions should be taken in this area in the context of the current conjuncture. He then identifies four distinct phases of the downturn in the United States, and notes a number of similarities with the United Kingdom, suggesting that in the United Kingdom we may see a substantial decline in growth, a pickup in unemployment, and declining consumption growth driven by significant declines in house prices. He emphasises the importance of getting ahead of the curve in order to head off these downside risks.

Introduction

It is a great pleasure to be addressing you here this evening at the David Hume Institute. I am a strong believer in Hume's own view that we should not seek to solely explain events and behaviour with theoretical models, rather, as Hume wrote in his A Treatise of Human Nature, we should use 'experience and observation' i.e. the empirical method. As Arnold Harberger (1993) famously said 'economics is fundamentally an observational discipline'. I even made a speech on this theme last year entitled 'The economics of walking about' (Blanchflower (2007a)). In the United Kingdom economics has traditionally tended to emphasise the importance of theory, downplaying the role of observation. (3)

In this speech I am going to talk about the current conjuncture and especially what has happened to inflation and inflation expectations recently and what should be done about it. I am particularly concerned that the United Kingdom exhibits broad similarities to the US experience. It does seem to me that we really know very little, in 2008, about how truly to stabilise economies and run them properly in the face of shocks both to commodity prices and to credit. We are probably in the grip of world forces that are greater than most people realise. Forecasting is thus very difficult at such times. I believe more action is needed to prevent the United Kingdom falling into recession. An important first step is the Bank of England's Special Liquidity Scheme to increase liquidity into the system announced last week. Monetary policy in my view still remains restrictive currently, and we need to take action to loosen policy sooner rather than later. I do feel that the slower rates fall, the further they will eventually have to go down to boost the economy.

Inflation in the United Kingdom and the monetary policy framework

The Bank's monetary policy objective is to deliver price stability — low inflation — and, subject to that, to support the Government's economic objectives including those for growth and employment. The inflation target is symmetric, and if the target is missed by more than 1 percentage point on either side — i.e. if the annual rate of CPI inflation is more than 3% or less than 1% — the Governor of the Bank must write an open letter to the Chancellor explaining the reasons why inflation has increased or fallen to such an extent and what the Bank proposes to do to ensure inflation comes back to the target. This has happened only once so far, in March 2007.

Inflation in the United Kingdom was high and unstable in the 1970s and 1980s. Following the 1973 and 1979 oil price shocks, inflation was greater than 10% for much of the 1970s, with RPI reaching a high of just over 26% in 1975. Inflation targeting was adopted in the United Kingdom in 1992, and in 1997 the Bank of England was granted independence to set interest rates to meet the Government's inflation target. Since 1997, inflation in the United Kingdom has been relatively low and stable.

(1) This is an abbreviated version of a speech delivered at the Royal Society, George Street, Edinburgh on 29 April 2008. The full version can be found on the Bank's website at www.bankofengland.co.uk/publications/speeches/2008/speech346.pdf.
(2) Bruce V Rauner Professor, Dartmouth College, University of Stirling, IZA, CESifo and NBER. I am most grateful to Mike Goldby, Roger Kelly, Helen Lawton and Nicki Scott for their invaluable assistance in preparing this speech, and to colleagues for helpful comments.
(3) In the United States there is a much stronger tradition in empirical work. The National Bureau of Economic Research, where I am a research associate, which is the pre-eminent organisation of economists, and which is responsible for dating recessions, emphasises the importance of empirical work. The NBER concentrates on four types of empirical research: developing new statistical measurements, estimating quantitative models of economic behaviour, assessing the effects of public policies on the US economy, and projecting the effects of alternative policy proposals.
In recent months there has been strong upward pressure on UK inflation, because of higher global prices, particularly for energy and food. The price of oil has reached record highs of almost $120 a barrel for US light crude and annual food price inflation is currently estimated to be running at over 5%. These higher global prices have been compounded by the recent fall in the sterling effective exchange rate.

The MPC's central projection is for CPI inflation to rise quite sharply in the short term, and to be considerably above the 2% target for much of the rest of 2008. The reason for the projected increase in the short term is because commodity and import price increases are likely to work their way through the supply chain and may put upward pressure on prices beyond the energy and food sectors. Further ahead, the Bank expects inflation to fall back as commodity prices stabilise.

There are considerable risks to this forecast. The risks to inflation on the downside are of more concern to me than those to the upside, and I think that the probability of having to write an open letter to the Chancellor because inflation has fallen below 1% at some point before the end of my present term on the MPC is rising. As I said in my recent testimony to the Treasury Select Committee, I am concerned about the possibility of seeing something 'horrible', which I think is more likely to arise in the real economy.

These risks to the downside have increased since the February Inflation Report was published, as new data have come in suggesting that the prospects for the real economy have slipped, driven by declining house prices and limited credit availability. According to the Royal Institute of Chartered Surveyors, the number of estate agents saying house prices rose, rather than fell, has dropped to the lowest point since the survey began in 1978; the new instructions to sell balance and the new buyer enquiries balance were both lower in March. This confirms the bleak picture painted in the Halifax index which reported a 2.5% monthly fall in house prices, the biggest since 1992. Persimmon the house builders last week reported a decline in sales volume of 24% on the year, and a decline in sales value of 18%

In my view a correction of approximately one third in house prices does not seem implausible in the United Kingdom over a period of two or three years if house price to earnings ratios are to be restored to more sustainable levels. That would mean the ratio of over 6 would have to come down to around four which is closer to its long-run value. This is broadly in line with the projections made by the IMF (2008) who note that the United Kingdom is especially vulnerable to house prices declines — along with France, Ireland and the Netherlands — and suggest that UK house prices are 30% higher than justified by fundamentals. I am not suggesting that such a drop will necessarily occur, but it may. Cutting interest rates now may help to prevent such a dramatic fall.

The downbeat news from the housing sector now seems to have started to spread to the consumer. Surveys by the Bank’s Agents, BRC, CBI Distributive Trades have shown consumption to be weakening. Consumer confidence is falling. For example, the headline GfK consumer confidence balance fell in February to its lowest level since December 1992, with all five of the component balances falling.

The Bank’s Agents report a weakening of employment intentions in both services and manufacturing sectors. The KPMG/REC Report on Jobs for March suggested that there had been a slowing in the growth of vacancies and demand for labour and that wages were slackening. The Chartered Institute of Personnel and Development had reported that the proportion of businesses expecting to make some staff redundant in the near term had risen. Total job losses in London’s financial district may hit 40,000, JPMorgan said recently, doubling its previous forecasts. The most recent labour market data published by the ONS (Labour Market Statistics, First Release, April 2008) suggests that the decline in the numbers of unemployed has slowed. Total hours are falling, and the number of part-time workers who can’t find a full-time job has increased. The labour market seems to be turning.

Inflation expectations

But the extent to which inflation falls back in the face of a potential slowdown depends to a large extent on what happens to inflation expectations. Inflation expectations play an important part in an inflation-targeting regime, although what matters most for inflation prospects are the expectations of those directly involved in setting prices and wages. Wages are set on an infrequent basis, thus wage-setters have to form a view on future inflation. If inflation is expected to be persistently higher in the future, employees may seek higher nominal wages in order to maintain their purchasing power. This in turn could lead to upward pressure on companies’ output prices, and hence higher consumer prices. Additionally, if companies expect general inflation to be higher in the future, they may be more inclined to raise prices, believing that they can do so without suffering a drop in demand for their output. A third path by which inflation expectations could potentially impact inflation is through their influence on consumption and investment decisions.

What is of interest for monetary policy makers such as us in the MPC are signs that expectations have become de-anchored, which we can interpret as being the case if the public reacts to a short period of higher-than-expected inflation by increasing their long-run expectations. As we will see, measuring inflation expectations is far from an exact science, so measuring when they have become de-anchored is certainly not easy. This is just one of the many uncertainties
that we face as MPC members and which makes monetary policy making interesting!

One of the problems we face is that we don’t know how individuals form expectations. Indeed, in practice, it is probably impossible to generalise, as individuals are likely to form their expectations heterogeneously, using different information sets, relying on different models and having different capacities for processing the information. This heterogeneity is noted in a useful study from the Bank of England (Driver and Windram (2007)). The study reports that some households may form their expectations based on a structural relationship, such as the trade-off between inflation and unemployment or demand; others may use an empirical approach, eg their recent memories of inflation data.

Furthermore, people may be entirely forward looking or entirely backward looking, or a combination of both. In inflation-targeting countries, people may simply assume inflation will equal the target.

In a paper that is to be released today (Blanchflower and Kelly (2008)), Roger Kelly and I have used data from the Bank of England/NOP survey and the GfK surveys to provide some broad generalisations about the macroeconomic literacy and numeracy of different groups of people. We also look at how good people are at forming inflation expectations. So while we may not be able to specify how people form their expectations, we can at least test how well they are doing it. The findings make for interesting reading.

First, there is evidence that significant numbers of individuals do not know what the inflation rate is, or how it has changed, and are increasingly unable to predict how it might change in the future. This is consistent with recent evidence from the United States suggesting very low levels of financial literacy.

Second, there is evidence of very high non-response rates in these various surveys to questions on how satisfied respondents are with the job the Bank of England has been doing as well as to how much prices have risen in the past or in the future. In all of these surveys non-response rates are especially high among the least educated, females, individuals with low incomes and the young. We cannot assume that non-response implies a lack of understanding, but it is one possibility. Chart 1 shows that this non-response — both of expectations and perceptions — has risen a lot recently.

Third, we find that price expectations are strongly influenced by past experience. There is evidence that expectations of the future path of prices are highly correlated with an individual’s evaluation of current inflation.

Fourth, the probability of predicting inflation ‘correctly’ twelve months ahead, that is within 1 percentage point either side of the actual outcomes of the CPI or the RPI, is higher among males, homeowners, workers, the more educated, richer individuals and those living in the South East.

To what extent is this lack of knowledge of (and possible lack of understanding of) rudimentary macroeconomic data an issue? In monetary theory, inflation expectations affect inflation through two main channels — by individuals bargaining over nominal pay and companies setting prices. As long as those who are actually in a position to influence the rate of inflation (ie those who are in a position to bargain for their wages/set prices) have an understanding of what inflation is and a well-grounded expectation of what it is likely to be in the future, then the assumption made in most macroeconomic models, including the Bank of England’s Quarterly Model, that inflation expectations are ‘model-consistent’, holds. It is probably safe to assume that companies involved in setting prices are on the whole sufficiently sophisticated to fall into this category. And our findings above demonstrate that the awareness of what inflation is (and the accuracy of people’s awareness/expectations of inflation) is higher among those categories who tend to have higher employment rates (ie males, the more educated, the employed, the ‘not young’ etc). This is likely to be because the inflation rate is a far more relevant concept to them, as they are likely to be in more of a position to influence their income (through the wage-bargaining process) than those who do not receive an income from employment. So on this basis it would seem that the assumption of model-consistent expectations is not unreasonable.

What has happened to inflation expectations in the recent past?

There are a number of possible ways to measure expectations. It is instructive to see what has happened to these measures in the recent past.
Survey measures of household inflation expectations have picked up markedly since early 2005 alongside the increase in inflation (Chart 2). As discussed earlier, there is evidence that households' inflation expectations are closely related to their perceptions of current inflation. Thus, some of the rise in expectations in recent months is likely to reflect the rise in inflation during 2005-06. However, expectations have remained elevated during 2007 despite the easing in inflation during the first half of the year.

Forecasters for an assessment of the risks around their forecasts. In the latest survey, published in the February Inflation Report, CPI inflation in two and three years' time was expected to be centred around the 2% target, with only around a one-in-ten chance that it would exceed 3% per annum over that horizon. At longer horizons, the latest Consensus Economics survey of expectations of annualised five-year RPIX inflation five years ahead, taken in October 2007, was 2.5% and of CPI was 2% (Chart 3).

Household inflation expectations may also be influenced by the degree of public coverage of inflation (Driver and Windram (2007)). More frequent discussions of inflation may increase awareness of inflation among members of the general public. Newspaper coverage was on an upward trend through much of 2006 and rose sharply in early 2007 (Driver and Windram (2007)). This may have contributed to the rise in households' inflation expectations during this period. However, both current CPI inflation and media coverage of inflation fell back through 2007, while expectations remained elevated. This may suggest that expectations are sticky, that is they may persist at a new higher level for a period of time, despite actual inflation moving down again. Or it may be that survey respondents were more focused on RPI inflation, which did not fall back as much as CPI.

It is possible that households believe that past above-target inflation outturns, combined with the prospect of further increases in inflation in the near term, are indicative of monetary policy being less restrictive in the future. If so, the rise in these short-term measures of inflation expectations would contain information about medium-term beliefs, which could have significant implications for wage and price-setting.

The average forecast by professional forecasters for CPI inflation at the end of 2008 is 2.4%. This is expected to return to 2% by the end of 2009.(1) The Bank asks professional forecasters for an assessment of the risks around their forecasts. In the latest survey, published in the February Inflation Report, CPI inflation in two and three years' time was expected to be centred around the 2% target, with only around a one-in-ten chance that it would exceed 3% per annum over that horizon. At longer horizons, the latest Consensus Economics survey of expectations of annualised five-year RPIX inflation five years ahead, taken in October 2007, was 2.5% and of CPI was 2% (Chart 3).

Financial market measures of inflation expectations are derived from instruments linked to RPI rather than CPI inflation, so movements could reflect changes in market estimates of the wedge between the two rates rather than changes in the markets' assessment of future inflation trends more generally (Bank of England (2008)). The interpretation of market-based measures is further complicated by the fact that these instruments also reflect risk premia associated with uncertainty about future inflation and liquidity, and they could be influenced by institutional factors, for instance if large institutional investors favoured attaching a higher value to inflation protection. Implied RPI inflation forwards have picked up steadily since 2005 at five-year horizons (Chart 3). There is some evidence to suggest that strong pension fund demand for inflation-protected bonds has pushed down their yields relative to those on conventional bonds, thereby pushing up implied inflation forwards.

Our concern on the MPC is whether inflation expectations remain anchored. My colleague Andrew Sentance has argued, and I agree with him, that the crucial test of whether inflation expectations remain anchored is whether wages remain under control. Wage settlements data show there has been little pass-through, if any, of price increases to wages so far — wage growth in the United Kingdom remains muted. My preferred pay measure — hourly earnings of full-time workers in the

(1) Source: HM Treasury of forecasts received between 27 February and 5 March 2008.
Labour Force Survey (LFS) — confirms earnings growth is benign and slowing fairly sharply. I use hourly earnings rather than weekly earnings to remove any variation caused by changes in hours, which are declining currently. The LFS has the great advantage that it is nationally representative of all wage workers, in contrast to other national wage measures. The latest ONS data — in the form of the AEl and AWE data — suggests that the year-on-year change (three-month average) of earnings with bonuses continues to fall. However, there are strong grounds for believing that both the AEI and AWE actually overstate earnings growth because the Monthly Wages and Salaries Survey, on which they are both based, excludes all workers employed in firms with less than 20 employees. It also excludes the self-employed. This selection rule excludes 98.0% of all private sector firms and 39.4% of all private sector workers and 271% of all private sector employees.¹ This is important, as the wages of those in the smallest firms in Britain tend to be particularly flexible downwards in the face of changes in labour market conditions. Furthermore, it tends to be the least skilled, who are disproportionately located in small firms, who gain the most in booms and lose the most in slumps. As a consequence, when economic conditions change, the bias from excluding the lowest part of the wage distribution also changes. Hence, the wage data in the LFS are the most relevant wage statistics to use as a labour market starts to loosen.

It is unclear whether workers will be able to resist further erosion of their spending power, but I suspect they will be unable to do so, certainly in the near term. I have argued for some months now that wages are well controlled. Workers are concerned about job security: one of my ex-students, who works at a major financial institution in the City, told me his boss had told him that his bonus this year was that he still had a job.

So far I have highlighted the importance of inflation expectations for monetary policy making. I don't believe that inflation expectations have become de-anchored. I hope that it is clear that this is not me being complacent about inflation; I have been inaccurately referred to as an 'arch-dove'. I simply have not seen evidence of domestically driven medium-term inflationary pressures, particularly in the labour market. If I had seen these pressures, especially on the wage front, I would have voted for increases in interest rates. In reality I focus on what is going on in the data rather than having a pre-determined rate-setting agenda. David Hume would think of me as a 'positive' economist in this sense. As I mentioned earlier, I believe that we face a real risk that the United Kingdom may fall into recession, and I am concerned about the associated implications for inflation on the downside. Despite the current short-term inflationary pressures in the UK economy, my view is that there is a real risk that inflation may undershoot the target in the medium term, and take us into letter-writing territory; hence I am generally inclined to loosen policy. Members of the MPC are labelled doves and hawks based on their revealed preference for tighter or looser monetary policy; it does not reflect the degree to which they are concerned about inflation. We are all concerned about inflation, that's our job. My votes have been driven by my view that there are considerable amounts of spare capacity in the economy — both within firms and in the labour market. Hence, I have not expected to see much, if any, domestically generated inflationary pressure, and so it has turned out. And although output price inflation has risen recently, I think the slack labour market will prevent any second-round effects.

**Similarities between the US and UK experiences**

The big question is where the UK economy is headed over the next two to three years. I spend approximately half of my time in the United Kingdom and half in the United States and so I am probably quite well placed to make the comparison. For some time now I have been gloomy about prospects in the United States, which now seems clearly to be in recession. I believe there are a number of similarities between the United Kingdom and the United States which suggest that in the United Kingdom we are also going to see a substantial decline in growth, a pickup in unemployment, little if any growth in real wages, and declining consumption growth driven primarily by significant declines in house prices. The credit crunch is starting to hit and hit hard.

I have identified four phases of the downturn in the United States based on data up to 23 April 2008, as follows.

**Phase 1 (January 2006—April 2007)**. The housing market starts to slow from its peak around January 2006. Negative monthly growth rates in house prices start to appear from the autumn of 2006 (Chart 4).

**Phase 2 (May 2007—August 2007)**. Substantial monthly falls in house prices and housing market activity including starts and permits to build are observed from late spring/early summer of 2007. Consumer confidence measures, alongside qualitative labour market indicators, such as the proportion of people saying jobs are plentiful, started to drop precipitously from around September 2007 (Chart 5).

**Phase 3 (September 2007—December 2007)**. Average hourly earnings growth starts to slow from September 2007 as does real consumption. The growth in private non-farm payrolls starts to slow. House price and activity declines speed up (Chart 6).

¹ Source: [http://stats.berr.gov.uk/ed/sme, Table 1](http://stats.berr.gov.uk/ed/sme, Table 1).
Phase 4 (January 2008–). By approximately December 2007 the housing market problems have now spilled over into real activity. The United States seems to have moved into recession around the start of 2008. There have been big falls in house prices. In March 2008 housing starts were at a 17-year low. Foreclosure filings jumped 57% in March compared with the same month last year. One out of every 139 Nevada households received a foreclosure filing last month. California was second with a rate of one in every 204 homes with Florida third with a rate of one in every 282 being hit with a foreclosure filing. Mortgage application volume fell 14.2% during the week ending 18 April, according to the Mortgage Bankers Association’s weekly application survey. Refinance volumes fell 20.2% on the week.

Nominal retail sales and real personal disposable income have both fallen sharply since the start of the year (Chart 7). Real annual GDP growth in 2007 Q4 is now down to +0.1%, from 1.2% in 2007 Q3.

Spending on big-ticket items in the United States is tumbling. For example, Harley-Davidson, the biggest US motorcycle maker, is cutting jobs and reducing shipments to dealers amid declining sales. Harley sold 14% fewer bikes in the United States in the first three months of the year than in the same period in 2007. US automakers such as GM and Ford reported double-digit US sales declines in March as demand for trucks and sport utility vehicles plummeted, with consumers holding back because of concerns about gas prices, the housing slump and tightening credit. Even McDonald’s Corp.,
the world's biggest restaurant company, has seen US comparable-store sales fall 0.8% in March 2008, the first decline since March 2003. Declines in employment to this point in the United States have been concentrated in manufacturing, construction and financial activities (Chart 8).

There seem to be a number of similarities between the United Kingdom and the United States: the big difference is that in the United Kingdom the housing market was booming in 2006 and most of 2007.

**Phase 1 (August 2007–October 2007).** House prices start to slow in 2007 Q2 and 2007 Q3. Housing activity measures also slow from around October 2007 (Chart 9).

**Phase 2 (November 2007–January 2008).** Consumer confidence measures start slowing sharply also from around October 2007. The qualitative labour market measures such as the REC Demand for Staff index also start slowing from around October 2007 (Chart 10).

**Phase 3 (February 2008–).** In early 2008 the Halifax index and the RICS survey both suggest that house prices falls have started to accelerate. The Council of Mortgage Lenders (CML) recently announced that mortgage lending in March was down 17% on the year. Loan approvals are down, and the RICS ratio of sales to stocks is down from 0.38 in September 2007 to 0.25 in March 2008 (Chart 11). Bradford and Bingley, Britain's biggest buy-to-let lender, has recently reported that some borrowers are finding it hard to repay their loans, so mortgage arrears are growing, reminiscent of what has been happening in the United States. The latest figures showed that the number of people whose homes were repossessed in 2007 went up by 21%. The CML said 27,100 homes, the highest figure since 1999, were taken over by lenders after people fell behind with repayments. According to data published by the British Bankers' Association, the number of mortgages granted to homebuyers dropped last month by 47% below the same month last year to its lowest level in more than a decade. Some 35,417 mortgages were approved for home purchase in March compared with 43,147 in February, a drop of 18%. As in the United States, recent declines in employment in the United Kingdom are concentrated in manufacturing, construction and financial activities (Chart 12).

Phase 4 is coming. More bad news is on the way. I think it is very plausible that falling house prices will lead to a sharp drop in consumer spending growth. Developments in the United Kingdom are starting to look eerily similar to those in the United States six months or so ago. There has been no decoupling of the two economies: contagion is in the air. The United States sneezed and the United Kingdom is rapidly catching its cold. I was especially taken by the following statement in the latest minutes of the FOMC at their March 2008 meeting:

> 'some participants expressed concern that falling house prices and stresses in financial markets could lead to a more severe and protracted downturn in activity than currently anticipated' 18 March 2008.

I have identical concerns for the United Kingdom. Generally, forecasters have tended to underpredict the depth and duration of cyclical slowdowns.

Conclusions

So what do we do? The job of the MPC is to focus on getting inflation to the target in the medium term, and subject to that, to support the Government's objectives for economic growth and employment, as set out in the Monetary Policy Committee's remit from the Chancellor. (1)

This part of the legislation was presumably included precisely for times such as this. We need to be mindful of the fact that it is Her Majesty's Government that sets the terms of our remit and the Bank of England simply implements it. Sam Brittan may well have a point though,

'It is one thing for central banks to hold price increases generated in their own countries or regions to 2 per cent. It is quite another to compress them to offset potentially large price increases emanating from outside their area. ...For the time being, all that is required is some emphasis on the domestic versus external elements in inflation in, for instance, the monthly press conference of the ECB or the letters the governor of the Bank of England is required to write to the chancellor when inflation strays by more than one percentage point from target.' Financial Times, 27 March 2008.

Currently, the MPC needs to look through the short-run inflation outlook: keeping monetary policy too restrictive would impact output and jobs negatively. At the present time inflation in the United Kingdom is largely being driven by imported goods, principally commodities, oil and food. I often tell my students that when we advocate a policy prescription we must always try to answer the question what if we are wrong, what are the downside risks? There is a danger, but I don't think it is a substantial one, that inflation expectations become de-anchored. People understand that prices have gone up because the price of oil has risen and that is not the fault of the Bank of England. People are concerned about falling house prices, low incomes and the possibility of negative equity. Indeed, there is evidence that people care more about unemployment than they do about inflation (Blanchflower (2007b)). The fear of unemployment is rising (Blanchflower and Shadforth (2007)). We need to look through the short-run hiccups in inflation that will occur over the next few months. Our main priority now is to ensure we conduct monetary policy in such a way that the United Kingdom doesn't slip into recession, causing us to significantly undershoot the inflation target. It isn't too late.

Some commentators have argued that the MPC should have been more aggressive in cutting interest rates in order to head off the downside risks. I agree. My biggest concern right now is that the credit crisis will trigger a rapid downward spiral in activity. Now it is time to get ahead of the curve.

(1) This remit is specified at least annually, the most recent (and unchanged) remit being specified in a letter from the Chancellor to the Governor on 11 March 2008.
References


