Speech by

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Inflation, Expectations and Monetary Policy

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1. 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 UK economics has traditionally tended to emphasize the importance of theory, downplaying the role of observation.[1] Larry Summers, until recently Harvard president, said it well in relation to macro-economics.

> 'Good empirical evidence tells its story regardless of the precise way in which it is analyzed. In large part it is its simplicity that makes it persuasive. Physicists do not compete to find more elaborate ways to observe falling apples. Instead they have made progress because theory has sought inspiration from a wide range of empirical phenomena. Macroeconomics could progress in the same way. But progress is unlikely as long as macroeconomists require the armor of a stochastic pseudo-world before doing battle with evidence from the real one'. (1991, page 146).

I went to the web and found the Institute's Mission Statement, as it says "its orientation is towards the relevance of market approaches and market solutions in determining economic well-being". The research and analysis that I have been carrying out – about which I am here to talk to you today - is, in the true tradition of Hume, about what *is* going on in the UK economy – not what *ought* to be going on. Hume was one of the first writers to make this "*is / ought*" distinction that has since become known as "positive

[1] 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 organization of economists, and which is responsible for dating recessions, emphasizes the importance of empirical work. The NBER concentrates on four types of empirical research: developing new statistical measurements, estimating quantitative models of economic behavior, assessing the effects of public policies on the U.S. economy, and projecting the effects of alternative policy proposals.

economics" (what *is* happening), in contrast to "normative economics" (what *ought* to be happening, i.e. a value judgment).

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 UK exhibits broad similarities to the US experience. It does seem to me that we really know very little, in 2008, about how truly to stabilize 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 UK 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.

2. Inflation in the UK 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. Price stability is defined by the Government's inflation target, which is announced each year by the Chancellor of the Exchequer in the annual Budget statement. The current inflation target of 2% is expressed in terms of an annual rate of inflation based on the Consumer Price Index (CPI). The inflation target is symmetric, in other words inflation below the target of 2% is judged to be just as bad as inflation above the target. 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.

Inflation in the UK was high and unstable in the 1970s and 1980s (Chart 1). 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 UK 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 UK has been relatively low and stable.

Since 1997, inflation has so far only once moved more than 1 percentage point away from the Government's target – in March 2007 CPI inflation rose to 3.1%. This necessitated the first ever open letter to the Chancellor from the Governor. Inflation subsequently fell back towards the target, but in recent months there has again 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. UK producer input and output price inflation has risen significantly. In spite of this, annual RPI inflation was 3.8% down from 4.1% in March 2008, RPIX was 3.5% down from 3.7% and annual CPI inflation was 2.5% unchanged from February which was all welcome news.

Nonetheless, the MPC's central projection is for CPI inflation to rise quite sharply in the short-term, and be considerably above the 2% target for much of the rest of 2008. This is shown in Chart 2, the Bank's famous CPI inflation fan chart projection.[2] The chart is drawn assuming that Bank Rate falls in line with market yields.[3] 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. However, a recent survey by the Bank's Agents suggests that businesses facing consumers feel unable to pass all of their cost increases on in higher prices, so their margins will be hit. Further ahead, the Bank expects inflation to fall back as commodity prices stabilise.

There are considerable risks to this forecast: in my view the medium term risks to inflation to the downside, arising due to the likely slowing of the economy, outweigh those to the upside. 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 arise in the real economy - from the housing market, the labour market, from consumer spending or even from further machinations of the credit crunch. The risks to inflation on the downside are of more concern to me than those to the upside: 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 non-zero and rising.

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[2] The fan chart depicts the probability of various outcomes for CPI inflation in the future. If economic circumstances identical to today's were to prevail on 100 occasions, the MPC's best collective judgment is that inflation over the subsequent three years would lie within the darkest central band on only 10 of those occasions. The fan chart is constructed so that outturns of inflation are also expected to lie within each pair of the lighter red areas on 10 occasions. Consequently, inflation is expected to lie somewhere within the entire fan chart on 90 out of 100 occasions. The bands widen as the time horizon is extended, indicating the increasing uncertainty about outcomes.

[3] Expectations of Bank Rate implied by market yields in per cent in the February 2008 Inflation Report were:

2008				2009				2010			
Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
5.3	4.8	4.6	4.5	4.4	4.4	4.4	4.4	4.5	4.5	4.6	4.6

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 per cent monthly fall in house prices, the biggest since 1992. Persimmon the house builders last week reported a decline in sales volume of 24 percent on the year, and a decline in sales value of 18 percent.

David Miles and co-authors at Morgan Stanley, in their 'bull' scenario predict that house prices will fall by 10 per cent this year and 5 per cent next year, forcing 1.2 million borrowers into negative equity. They paint an even gloomier scenario in their 'bear' scenario, suggesting that if house prices fell by 25 per cent over the next two years, more than 2 million — or a quarter of all borrowers — would be affected. Of course, this is only one point of view among many, but it is indicative of the general sentiment about the current state of the housing market.

In my view a correction of approximately one third in house prices does not seem implausible in the UK 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 six 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 UK 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. A gloomy picture of the retail sector emerged from the British Retail Consortium in a recent report showing that like-for-like sales, which exclude the effects of new floor space, fell 1.6% in the year to March, compared with March 2007, when sales rose 3.9%. It was the biggest fall since July 2005, when shops were affected by bad weather. The survey showed that heavy discounting failed to boost sales. Food sales slumped after two consecutively strong months, and sales of clothing and footwear were the poorest in eight years. Sales of homewares and furniture also floundered. Surveys by the Bank's Agents, BRC, CBI Distributive Trades have also shown consumption to be weakening. Consumer confidence is falling. For example, the headline GfK consumer confidence balance fell two points in March to -19, its lowest level since December 1992. The headline balance is an average of 5 balances, which refer to the general economic situation over the past and next 12 months, personal finances over the past and next 12 months, and whether it is a good time to make a major purchase. All five of these balances fell in February.

In 2007 Q4, employment rose 175K and unemployment fell 61K. But the rise in employment was accompanied by a decline in total hours. The Bank’s Agents also reported 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, JP Morgan said recently, doubling its previous forecasts. That would equate to 5 percent of City jobs. 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. Average 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. More on that later.

3. 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. For a given path of nominal market interest rates, if households and companies expect higher inflation, this implies lower expected real interest rates, making spending more attractive relative to saving. But if nominal market interest rates rise in response to expectations that the MPC will raise Bank Rate to curtail any inflationary pressure, real rates might not actually decline.

What is of interest for monetary policymakers 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 no easier. This is just one of the many uncertainties that we face as MPC members and which makes monetary policymaking 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, e.g. 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. Indeed, as mentioned above, there is some evidence that expectations of some households have been formed on the basis of their perceptions of inflation in the recent past.

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, 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. Non-responses are higher when respondents are asked to enumerate the extent to which prices have risen or will rise, as in the Bank of England/NOP surveys: they are smaller when qualitative responses are asked for as in the GfK survey which asks less detailed questions on the likely direction prices will follow. 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. From the responses received, there is evidence that satisfaction with the job the Bank of England is doing has deteriorated since mid-2007, post Northern Rock and alongside significant increases in both fuel and commodity prices. Chart 4 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. Similarly, expectations of future changes in *unemployment* are highly correlated with the current unemployment rate.

Fourth, the probability of predicting inflation 'correctly' twelve months ahead, that is within one percentage point either side of the actual outcomes of the CPI or the RPI, is higher among males, home owners, 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 (i.e. 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 a higher employment rates (i.e. 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.

4. 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 3). The quarterly survey carried out by GfK/NOP for the Bank has picked up over the past two years, as has an alternative survey for the European Commission. In January there was a marked rise in 12-month ahead expectations in the YouGov/Citigroup survey but this has fallen back subsequently. 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 2005-6. However, expectations have remained elevated during 2007 despite the easing in inflation from March onwards.

In addition to asking respondents about their 12-month ahead expectations, the YouGov/Citigroup survey also asks respondents about their views on inflation five to ten years ahead. Typically, changes to this measure have been similar to those one year ahead. However, the change in this measure was significantly less marked in January. Financial market measures suggest that on average CPI inflation is expected to remain around the 2% target from 2009 onwards. But market based measures have risen since 2005 at the five and ten year horizons, and remain elevated. At shorter horizons they have been broadly unchanged.

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 (Bank of England 2008). 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. Of course, as discussed above, the surveys may be influenced by RPI, rather than CPI inflation; although the former has eased since its March 2007 peak, the fall has been less marked than for CPI inflation.

The average forecast by professional forecasters for CPI inflation at the end of 2008 is 2.4%. This is expected to return to 2.0% by the end of 2009.[4] 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% pa 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 2.0% (Chart 5).

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

[4] Source: H M Treasury of forecasts received between 27th of February and 5th of March 2008.

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 5). As long-horizon inflation expectations of professional forecasters have remained broadly unchanged over this period it is possible, as discussed, that the rise reflects a higher inflation risk premium and/or a change in the wedge between RPI and CPI inflation. There is some evidence to suggest that strong pension fund demand for inflation-protected bond has pushed down their yields down 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 UK remains muted, with annual growth of around 3.4%[5]. The average wage increase in pay settlements in manufacturing at the end of March was 3.2 percent, the same as the previous four months, according to a recent report by the Engineering Employers' Federation. My preferred pay measure - hourly earnings of full-time workers in the 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. Annual hourly earnings growth in the LFS was as follows

[5] The AEI-weighted twelve-month whole-economy settlements mean for February 2008 at 3.4%, was unchanged from the previous month.

2005Q4	4.7%
2006Q4	4.2%
2007Q2	4.1%
2007Q3	3.2%
2007Q4	2.6%

Source: Table 38.
http://www.statistics.gov.uk/downloads/theme_labour/LFSHQS/LFS_HQS_CQ.pdf

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. The latest ONS data released on April 16th on the Average Earnings Index (AEI) which is the National Statistic on earnings, suggests that the year on year change (3mth average) of earnings with bonuses continues to fall. In February 2008 the whole economy rate for the AEI was 3.7% compared with 4.5% in February 2007 and 4.0% in February 2006. The experimental Average Weekly Earnings (AWE) whole-economy annual earnings growth (including bonuses) was 3.6% in the three months to February, 0.3 percentage points lower than the three months to January. 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 twenty employees. It also excludes the self-employed which account for approximately 13.3% of all workers. This selection rule excludes 98.0% of all private sector firms and 39.4% of all private sector workers and 27.1% of all private sector employees (source: http://stats.berr.gov.uk/ed/sme, Table 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 relevant wage statistics to use as a labour market starts to loosen.

So far I have highlighted the importance of inflation expectations for monetary policymaking. I don't think that inflation expectations have become de-anchored, although to be honest I have absolutely no idea what 'de-anchoring' means *empirically*, and I am unsure anyone else does.[6] Other than an intriguing phrase in various arcane articles in monetary theory I have been unable to have anyone tell me how I would know what de-anchored expectations would even look like. But as discussed earlier, in reality our interest lies in managing what those involved in setting prices and wages think will happen to inflation. From this perspective, although survey based expectations have increased, those among professionals and forecasters have not increased as much. Thus I am not too worried about the recently reported increases.

I hope that it is clear that this is not me being complacent about inflation; I have been inaccurately referred to as a '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 some kind of 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 UK may fall into recession, and aggressive action is required to prevent this from occurring. The reason that

[6] Technically, inflation expectations are said to be de-anchored when the largest root in the stochastic process describing medium-term inflation expectations is close to the unit circle, i.e. they are, or are near to, a random walk.

this eventuality concerns me is not because I am obsessed with growth, and unconcerned about the inflationary implications of cutting rates; rather it is because I am concerned about the implications for inflation on the downside of a large fall in GDP growth. 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. In any case I find it hard to understand what capacity means in the service sector anyway, other than the availability of labour. Skill shortages are a *fact of life* in a dynamic economy: insurance companies, for example, will *always* have shortages of salesman who can sell millions of pounds of policies every year. You can buy a new laptop in an hour: work can be sub-contracted to the self-employed or abroad, people can work from home, cell phones and the internet are widely available.

5. 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 UK and half in the US 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 UK and the United States which suggest that in the UK we are also going to see a substantial decline in growth, a pick-up in unemployment, little if any growth in real wages, declining consumption growth driven primarily by significant declines in house prices. The credit crunch is starting to hit and hit hard.

In Data Appendix 1 I chart four phases of the downturn in the United States based on data up to 23rd April 2008. Twelve monthly data series are reported covering house prices and quantities, consumer confidence, labour market, retail sales, consumption and real personal disposable income.

Phase 1 (January 2006-April 2007). The housing market starts to slow from its peak around January 2006 (columns 1 and 2). Negative monthly growth rates in house prices start to appear from the Autumn of 2006.

Phase 2 (May 2007-August 2007). Substantial monthly falls in house prices and housing market activity including starts (column 3) and permits to build (column 4) are observed from late Spring/early Summer of 2007. Consumer confidence measures (columns 5 and 6), alongside qualitative labour market indicators, such as the proportion of people saying jobs are plentiful (column 7), started to drop precipitously from around September 2007.

Phase 3 (September 2007-December 2007). Average hourly earnings growth (column 8) starts to slow from September 2007 as does real consumption (column 11). The growth in private non-farm payrolls starts to slow (column 8). House price and activity declines speed up.

Phase 4 (January 2008-). By approximately December 2007 the housing market problems have now spilled over into real activity. The US 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 seventeen 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 April 18, according to the Mortgage Bankers Association's weekly application survey. Refinance volumes fell 20.2% on the week.

Nominal retail sales (column 10) and real personal disposable income (column 12) have both fallen sharply since the start of the year. Real annual GDP growth in 2007Q4 is now down to +0.1%, from 1.2% in 2007Q3.

Spending on big-ticket items in the US is tumbling. For example, Harley-Davidson the biggest U.S. motorcycle maker is cutting jobs and reducing shipments to dealers amid declining sales. Harley sold 14% fewer bikes in the US 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 U.S. 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 U.S. comparable-store sales fall 0.8 percent in March 2008, the first decline since March 2003.

The most recent labour market data release for the United States, for March 2008, showed the biggest drop in payrolls in five years, while applications for unemployment benefits are on the increase. The benefit claims average for the past two months has already risen to a level similar to where it was at the start of the 2001 recession and with no sign of bottoming out. Unemployment jumped from 4.8% to 5.1% with particularly large increases for the least educated.

Declines in employment to this point in the United States have been concentrated in manufacturing, construction and financial activities. The numbers below report the declines by industry grouping and are in thousands, seasonally adjusted between November 2007 and December 2008. (Source: Table B1, The Employment Situation, March 2008, Bureau of Labor Statistics, Washington DC).[7] Private sector non-farm payrolls over this period have fallen by three hundred thousand with a decline of more than sixty percent of the job loss from construction, even though it accounted for only 6.5% of the stock at the start of the period.

	November 2007	March 2008	Change
Private non-farm	115,759	115,459	-300
Manufacturing	13,794	13,643	-151
Construction	7,520	7,338	-182
Financial activities	8,260	8,228	-32
Government	22,278	22,387	+109

In Data Appendix 2 I present equivalent supporting data for the UK. There seems to be a number of similarities with the United States: the big difference is that in the UK the housing market was booming in 2006 and most of 2007.

Phase 1 (August 2007-October 2007). House prices start to slow in 2007Q2 and 2007Q3 (columns 1, 2 and 3). Housing activity measures also slow (columns 4 and 5) from around October 2007.

Phase 2 (November 2007-January 2008). Consumer confidence measures start slowing sharply also from around October 2007 (columns 6, 7, 8 and 9). The qualitative labour market measures such as the REC Demand for Staff index also start slowing from around October 2007.

[7] http://www.bls.gov/bls/newsrels.htm

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 .38 in September 2007 to .25 in March 2008. 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 forty seven percent per cent 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%.

Hourly earnings growth is sluggish - both the AEI and LFS measures are slowing. Total hours and average hours started to fall in early 2008. Claimant count numbers for February 2008 are revised up from a small decline to an increase. There is a growth in the number of part-timers who say they have had to take a full-time job because they couldn't find a part-time job - up 37,000 in March alone. Even though the number of unemployed has fallen, the duration of unemployment appears to be rising, which means that the outflow rate from unemployment has fallen. The numbers unemployed over 6 months in March 2008 was up 22,000 while the numbers unemployed for less than 6 months was down 47,000.

As in the United States, recent declines in employment in the UK are concentrated in manufacturing, construction and financial activities. The numbers presented below are in thousands, seasonally adjusted and relate to the number of workforce jobs. (Source: Labour market Statistics, First Release, April 2008, ONS). The quarterly data relate to the period September-December 2007 while the annual data refer to December 2006-December 2007.

	Change on quarter	Change on year
All jobs	+13 (0.0%)	+208 (0.7%)
Manufacturing	-29 (-0.9%)	-53 (-1.6%)
Construction	-19 (-0.9%)	-7 (-0.3%)
Finance & Business Services	-5 (-0.1%)	+149 (2.3%)

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 UK are starting to look eerily similar to those in the US six months or so ago. There has been no decoupling of the two economies: contagion is in the air. The US sneezed and the UK 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[8] where it was stated as follows.

> "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" March 18th, 2008.

I have identical concerns for the UK. Generally, forecasters have tended to under-predict the depth and duration of cyclical slowdowns.

6. 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.[9]

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[8] Minutes of the Federal Open Market Committee of the Board of Governors of the Federal Reserve on March 18, 2008, page 5 - http://www.federalreserve.gov/monetarypolicy/fomc.htm#calendars

[9] 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.

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* March 27th 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 UK 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 UK doesn't slip into recession, causing us to significantly undershoot the inflation target. It isn't too late.

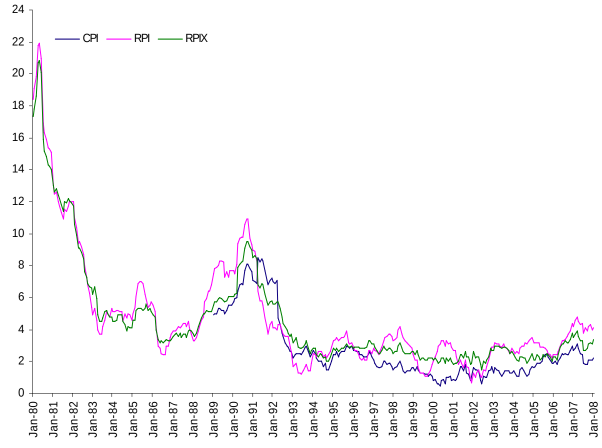
There have been difficulties recently with the very high rate of the 3-month LIBOR, which is one measure of the rate at which banks lend unsecured funds to each other on the

London wholesale money market. LIBOR at term maturities beyond a month normally stays reasonably close to actual or expected policy rate, however it has exceeded Bank Rate by a considerable margin in recent months. In chart 6, it is clear that 3 month LIBOR spreads over overnight index swaps (an approximation of the expected policy rate) have risen since around August 2007, at times reaching 100bp, a spread not seen since sterling left the ERM in 1992. At the time of writing the LIBOR rate was 5.89% compared with Bank Rate of 5.0%.

The spread between LIBOR and Bank Rate is a measure of liquidity and is often used as an indicator of credit risk. The spread tends to be much wider during times of financial stress, because at such times banks and other financial institutions are reluctant to lend to each other, as they perceive that there is a higher risk that they will not be repaid. As a consequence, when we cut rates by 25bps on April 10th was not reflected in lower retail rates. The credit markets need to be unlocked. The Special Liquidity Scheme, that I welcome, is designed to addresse the impasse in credit markets by putting further liquidity into the system, allowing banks to swap temporarily their high quality mortgage-backed and other securities for UK Treasury Bills. The hope now is that the LIBOR rates will fall and the normal transmission mechanism of monetary policy is restored. This needs to be done in combination with lowering of interest rates.

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.

Chart 1: UK Inflation (monthly % change in prices on a year earlier)



Source: Bank of England

Chart 2: CPI Inflation Based on Market Interest Rate Expectations

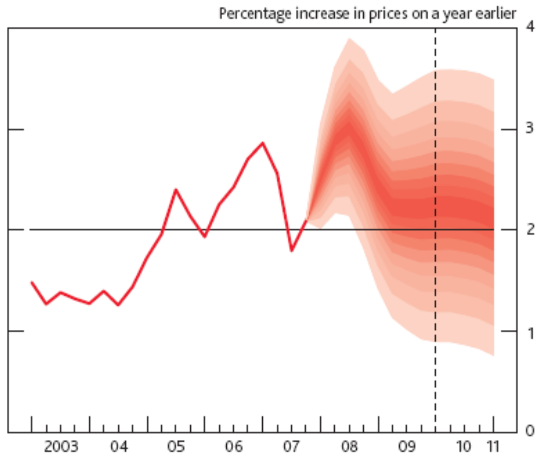
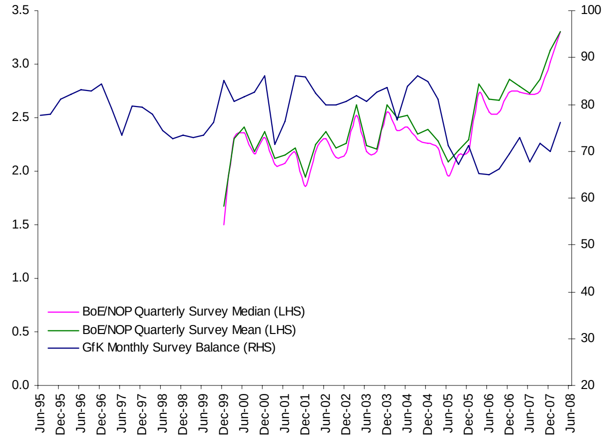
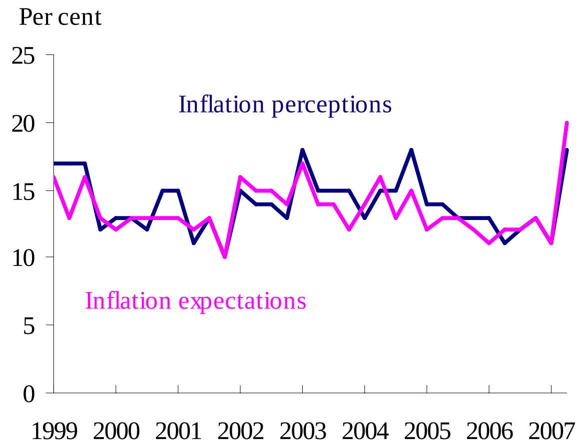


Chart 3: Consumer Inflation Expectations for the 12 Months Ahead



Source: Bank of England/NOP, GfK

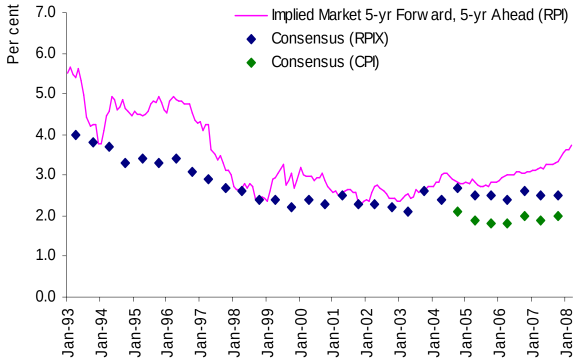
Chart 4. Non-response rates to inflation expectations and perceptions



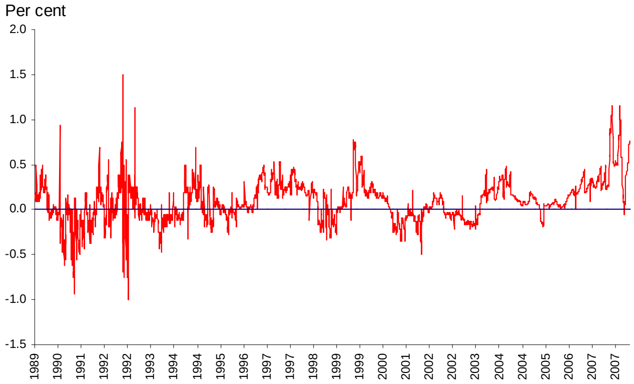
Source: Bank of England/NOP, GfK

Chart 5: Consensus and Implied market forecasts of inflation

Chart 6. The Spread between Bank Rate and LIBOR



Source: Consensus Economics and Bank of England



Source: British Bankers' Association

References

Blanchflower, D.G. (2007a), ‘Recent developments in the UK economy: the economics of walking about’, Bank of England Quarterly Bulletin, Q2, 47(2), pp. 317-329.

Blanchflower, D.G. (2007b), 'Is unemployment more costly then inflation?', NBER Working Paper W13505, October.

Blanchflower, D.G. and Kelly, R. (2008), 'Macroeconomic literacy, numeracy and the implications for monetary policy', working paper, Bank of England.

Blanchflower, D.G. and C. Shadforth (2007), 'Fear, unemployment and migration', NBER Working Paper W13506, October.

Driver, R. and R. Windram (2007), ‘Public attitudes to inflation and interest rates’, Bank of England Quarterly Bulletin, Q2, pp. 208-23.

Harberger, A. (1993), ‘The search for relevance in economics’, American Economic Review, Papers and Proceedings, 83, pp. 1–16.

International Monetary Fund (2008), World Economic Outlook: Housing and the Business Cycle, April 2008, Washington DC

Summers, L. H. (1991), ’The scientific illusion in empirical macroeconomics’, Scandinavian Journal of Economics, 93(2), pp. 129–48.

Data Appendix Table 1. US Economic Indicators, January 2006-April 2008

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Jan-06	10.4	14.7	2292	2224	106.8	91.2	27.0	0.6	3.3	2.3	3.2	3.1
Feb-06	8.4	13.8	2125	2129	102.7	86.7	27.4	0.6	3.5	2.6	3.3	3.2
Mar-06	7.2	12.3	1965	2097	107.5	88.9	28.3	0.6	3.6	3.1	3.3	3.2
Apr-06	4.0	11.2	1821	1987	109.8	87.4	29.4	0.6	4.0	1.9	3.0	2.8
May-06	5.3	10.0	1944	1918	104.7	79.1	29.1	0.5	3.8	1.4	3.5	2.4
Jun-06	0.1	8.6	1819	1879	105.4	84.9	28.0	0.4	4.0	0.8	2.5	2.4
Jul-06	1.0	7.2	1746	1774	107.0	84.7	28.6	0.3	4.0	0.8	2.5	1.9
Aug-06	-2.2	5.7	1646	1731	100.2	82.0	24.5	0.3	4.0	1.0	2.6	5.0
Sep-06	-1.8	4.3	1721	1654	105.9	85.4	26.2	0.4	4.2	0.8	3.0	3.1
Oct-06	-4.4	3.0	1470	1560	105.1	93.6	25.6	0.4	4.0	0.5	3.4	3.6
Nov-06	-3.4	1.8	1565	1527	105.3	92.1	25.7	0.3	4.2	0.0	3.3	3.2
Dec-06	-0.2	0.7	1629	1628	110.0	91.7	27.6	0.3	4.3	0.4	3.3	2.9
Jan-07	-3.0	-0.1	1403	1566	110.2	96.9	29.6	0.4	4.2	0.9	3.4	3.0
Feb-07	-1.0	-0.8	1487	1541	111.2	91.3	27.8	0.3	4.1	1.7	3.2	3.3
Mar-07	-0.1	-1.3	1491	1569	108.2	88.4	30.3	0.3	4.2	1.5	3.0	3.7
Apr-07	-1.2	-2.1	1485	1457	106.3	87.1	29.0	0.2	3.8	1.5	3.0	3.1
May-07	-2.5	-2.8	1440	1520	108.5	88.3	29.1	0.2	4.1	1.4	2.9	3.2
Jun-07	-0.1	-3.4	1468	1413	105.3	85.3	27.6	0.2	4.1	1.2	2.9	3.0
Jul-07	-0.7	-3.8	1371	1389	111.9	90.4	30.0	0.3	4.1	1.3	2.5	3.6
Aug-07	0.2	-4.3	1347	1322	105.6	83.4	27.5	0.2	4.0	0.6	3.2	4.0
Sep-07	-4.7	-4.9	1182	1261	99.5	83.4	25.6	0.2	4.1	0.9	3.2	3.4
Oct-07	-5.6	-6.1	1274	1170	95.2	80.9	24.1	0.2	3.8	0.7	2.7	2.7
Nov-07	-3.9	-7.7	1178	1162	87.8	76.1	23.3	0.2	3.8	1.3	2.8	2.0
Dec-07	-6.6	-9.0	1000	1080	90.6	75.5	23.6	0.2	3.7	0.9	2.2	1.8
Jan-08	-5.3	-10.7	1071	1061	87.3	78.4	23.8	0.1	3.7	0.8	1.9	1.4
Feb-08	-8.2		1065	984	76.4	70.8	21.5	0.0	3.7	-0.1	1.7	1.3
Mar-08			947	927	64.5	69.5	18.8	-0.2	3.6			
Apr-08						62.6						

Notes to Data Appendix Table 1
Column 1. Median house prices of existing one family homes inc. condos National Association of Realtors % oya
Column 2. 20 city house price index - S & P / Case-Shiller % oya
Column 3. Housing starts - Census Bureau. Annualised level, thousands of units
Column 4. Permits to build - Census Bureau. Annualised level, thousands of units
Column 5. Consumer Confidence - Conference Board Index
Column 6. Consumer Confidence - Reuters / University of Michigan Index
Column 7. Consumer Confidence – Conference Board % saying jobs are plentiful
Column 8. Private non-farm payrolls - Bureau of Labor Statistics % change, three months on previous three months
Column 9. Private average hourly earnings – Bureau of Labour Statistics % oya
Column 10. Nominal Retail Sales - Census Bureau % change, three months on previous three months
Column 11. Real consumption - Bureau of Economic Analysis % oya
Column 12. Real personal disposable income – Bureau of Economic Analysis % oya

All data are seasonally adjusted except columns 1 and 2.

Data Appendix Table 2. UK Economic Conditions May 2004-March 2008

a) UK housing

	(1) Halifax House price Index	(2) Nationwide House price Index	(3) HBF Price balance	(4) RICS Sales to stock ratio	(5) Loan Approvals '000s
2007Q2	2.3	2.1	5	0.41	337
2007Q3	0.8	1.2	-1	0.38	318
2007Q4	-0.9	0.6	-22	0.33	242
2008Q1	-1.0	-1.7		0.27	
Aug-07	0.3	0.5	6	0.38	106
Sep-07	-0.6	0.5	-9	0.38	100
Oct-07	-0.7	1.1	-10	0.35	88
Nov-07	-1.3	-1.0	-24	0.33	81
Dec-07	1.4	-0.4	-33	0.30	72
Jan-08	0.0	-0.4	-41	0.29	74
Feb-08	-0.4	-0.5	-47	0.26	73
Mar-08	-2.5	-0.6		0.25	

b) UK consumer confidence

	(6) Nationwide consumer confidence	(7) GfK Balance	(8) GfK future Economic situation	(9) GfK Major purchases
May-04	100	-2	-14	12
Sep-04	106	-7	-14	5
Jan-05	110	1	-10	11
Jan-06	94	-3	-15	10
Sep-06	92	-7	-21	9
Dec-06	84	-8	-19	2
Mar-07	88	-8	-10	2
Apr-07	90	-6	-18	4
May-07	99	-2	-10	4
Jun-07	95	-3	-10	7
Jul-07	96	-6	-13	-5
Aug-07	94	-4	-15	3
Sep-07	99	-7	-19	-2
Oct-07	98	-8	-17	-2
Nov-07	86	-10	-21	-3
Dec-07	85	-14	-26	-8
Jan-08	81	-13	-26	-20
Feb-08	78	-17	-29	-21
Mar-08	77	-19	-32	-21
Series average	96	-7	-8	8

c) Labour market surveys

	(10) REC Demand for staff	(11) CIPS/NTC
28-Feb-05	54.5	50.1
31-Mar-05	55.0	52.2
30-Apr-05	55.9	51.9
31-May-05	56.3	50.7
30-Jun-05	55.4	50.8
31-Jul-05	54.7	51.3
31-Aug-05	55.1	51.0
30-Sep-05	53.8	50.9
31-Oct-05	54.7	51.0
30-Nov-05	55.4	50.3
31-Dec-05	55.9	51.2
31-Jan-06	54.3	50.9
28-Feb-06	52.3	51.0
31-Mar-06	54.6	51.5
30-Apr-06	55.2	52.4
31-May-06	57.4	52.5
30-Jun-06	57.0	53.4
31-Jul-06	59.1	53.1
31-Aug-06	58.2	52.1
30-Sep-06	56.8	53.3
31-Oct-06	59.3	53.2
30-Nov-06	61.2	53.6
31-Dec-06	61.8	54.3
31-Jan-07	60.8	53.8
28-Feb-07	59.0	54.0
31-Mar-07	62.3	53.3
30-Apr-07	60.5	52.5
31-May-07	59.4	53.7
30-Jun-07	63.2	53.9
31-Jul-07	64.1	53.4
31-Aug-07	60.1	53.8
30-Sep-07	60.2	52.5
31-Oct-07	57.4	53.0
30-Nov-07	53.7	51.9
31-Dec-07	50.7	52.1
31-Jan-08	51.4	51.4
29-Feb-08	49.0	51.3