

Inflation Report

May 2008



BANK OF ENGLAND





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In order to maintain price stability, the Government has set the Bank's Monetary Policy Committee (MPC) a target for the annual inflation rate of the Consumer Prices Index of 2%. Subject to that, the MPC is also required to support the Government's objective of maintaining high and stable growth and employment.

The *Inflation Report* is produced quarterly by Bank staff under the guidance of the members of the Monetary Policy Committee. It serves two purposes. First, its preparation provides a comprehensive and forward-looking framework for discussion among MPC members as an aid to our decision making. Second, its publication allows us to share our thinking and explain the reasons for our decisions to those whom they affect.

Although not every member will agree with every assumption on which our projections are based, the fan charts represent the MPC's best collective judgement about the most likely paths for inflation and output, and the uncertainties surrounding those central projections.

This *Report* has been prepared and published by the Bank of England in accordance with section 18 of the Bank of England Act 1998.

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The Overview of this *Inflation Report* is available on the Bank's website at www.bankofengland.co.uk/publications/inflationreport/infrep.htm.

The entire *Report* is available in PDF at www.bankofengland.co.uk/publications/inflationreport/2008.htm.

PowerPoint™ versions of the charts in this *Report* and the data underlying most of the charts are provided at www.bankofengland.co.uk/publications/inflationreport/2008.htm.

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Overview

In the United Kingdom, output growth moderated and surveys point to further easing. Indicators of household spending were mixed, while the investment climate worsened. International prospects deteriorated, especially in the United States. Stresses in global financial and credit markets intensified in March but latterly there have been signs of improvement. Sterling depreciated further and in April the MPC cut Bank Rate by 0.25 percentage points. Under the assumption that Bank Rate moves in line with market yields, the Committee's central projection is for output growth to slow further over the next year and then recover. But there is a risk that the slowdown may be more prolonged.

CPI inflation was 2.5% in March. Energy and import cost pressures increased. Pay growth remained muted but measures of household inflation expectations rose. In the central projection, higher energy and import prices push inflation up sharply in the near term. The emerging margin of spare capacity, together with a declining contribution from energy and import prices, then brings inflation back to around the 2% target in the medium term. The conflicting risks to inflation from a more prolonged slowdown in demand growth and from the impact of persistently elevated inflation on inflation expectations have both increased since the *February Report*. Overall, the balance of risks is presently judged to lie to the upside.

Financial markets

Financial markets remained under stress. The dislocation in global wholesale funding markets intensified in March but conditions improved a little thereafter, in part reflecting central bank initiatives, including the introduction by the Bank of England of a long-term facility to swap liquid assets for high-quality, but presently illiquid, collateral. Even so, funding costs for banks remained elevated. These stresses in funding markets, coupled with the need to reduce balance sheet exposures to risk, were reflected in a further tightening in credit supply by UK banks, with higher premia charged, particularly to riskier borrowers, and the withdrawal of some products. As a result, mortgage approvals fell sharply, while loan growth to non-financial companies also slowed.

The MPC cut Bank Rate to 5% at its April meeting. Forward market interest rates imply less further policy easing than at the time of the *February Report*. The effective exchange rate for sterling depreciated by 3½%, leaving it some 12% lower than at its peak last July. Only a small part of that fall can be directly attributed to movements in expected interest rates here and overseas. The remainder may indicate a reassessment by investors of the sustainable value of sterling

or an increase in the risk premium required for holding sterling assets.

Domestic demand

Domestic demand growth moderated in 2007 Q4 on the back of a sharp slowdown in consumers' expenditure growth. The official estimate of retail spending suggested a resilient first quarter, but surveys of retailers and reports by the Bank's regional Agents were more downbeat. Housing market activity weakened further and house prices fell. Looking forward, the recent and prospective pickup in inflation will weigh on real household income growth. Together with the tightening in the supply of credit and increased precautionary saving, that can be expected to dampen household spending growth.

Business investment growth eased a little in the fourth quarter. And against a backdrop of heightened demand uncertainty and reduced credit availability, investment intentions fell back, pointing to a further moderation this year. Investment in dwellings is expected to fall sharply.

Government spending made a moderate contribution to nominal domestic demand growth in 2007. According to the fiscal plans set out in *Budget 2008*, the public sector's contribution to nominal demand growth is set to decline over the forecast period, similar to the path assumed in the *February Report*.

Overseas trade

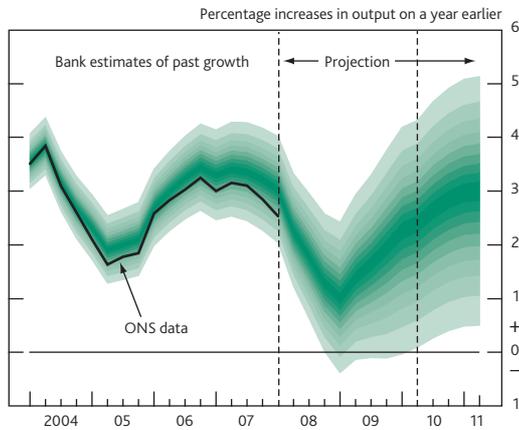
International economic prospects have continued to deteriorate since the *February Report*. In the United States, output barely grew, employment fell, the housing market slump deepened and credit conditions tightened. But there is a considerable policy stimulus in the pipeline, which should in due course promote recovery. In the euro area, GDP growth eased and business surveys pointed to growth continuing at a subdued rate. In Asia, though, the pace of expansion remained robust, maintaining the upwards pressure on global commodity prices.

Weaker growth in overseas markets will bear down on the growth of UK exports. But the gain in competitiveness associated with sterling's depreciation, together with weaker import growth as the result of sluggish domestic demand, should help to boost the contribution of net trade to GDP growth over the next few years.

The outlook for GDP growth

According to the ONS's preliminary estimate, GDP growth in Q1 eased to 0.4%, on the back of slower growth in the

Chart 1 GDP projection based on market interest rate expectations



The fan chart depicts the probability of various outcomes for GDP growth. To the left of the first vertical dashed line, the distribution reflects the likelihood of revisions to the data over the past; to the right, it reflects uncertainty over the evolution of GDP growth in the future. If economic circumstances identical to today's were to prevail on 100 occasions, the MPC's best collective judgement is that the mature estimate of GDP would lie within the darkest central band on only 10 of those occasions. The fan chart is constructed so that downturns are also expected to lie within each pair of the lighter green areas on 10 occasions. Consequently, GDP growth is expected to lie somewhere within the entire fan on 90 out of 100 occasions. The bands widen as the time horizon is extended, indicating the increasing uncertainty about outcomes. See the box on page 39 of the November 2007 *Inflation Report* for a fuller description of the fan chart and what it represents. The second dashed line is drawn at the two-year point of the projection.

non-distribution services and energy sectors. Business surveys and reports from the Bank's regional Agents point to a further moderation in growth in the second quarter.

Chart 1 shows the Committee's best collective judgement for four-quarter GDP growth, assuming that Bank Rate follows a path implied by market yields. In the central projection, output growth slows markedly through 2008, opening up a margin of spare capacity. Sluggish real income growth and tighter credit supply dampen consumer spending, while the weaker demand outlook and lower property prices also weigh on business and residential investment. Growth then recovers, as credit conditions ease and the lower level of sterling continues to feed through to net exports. The outlook is somewhat weaker than in the February *Report* over the first part of the projection.

Costs and prices

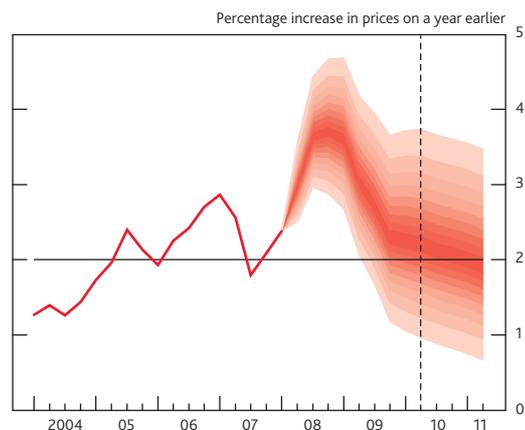
CPI inflation was 2.5% in March, some $\frac{3}{4}$ of a percentage point higher than six months earlier, reflecting higher energy and food price inflation in particular. Higher energy and import prices are expected to exert further upward pressure on inflation through the rest of this year. Oil prices have risen by a quarter since the February *Report*, reflecting both continued growth in the demand for oil and constraints on oil supply. There was an equivalent movement in wholesale gas prices and a further round of domestic energy price increases over the summer seems probable. Price inflation of imported goods rose to its highest since 1995, in part reflecting the substantial depreciation of sterling.

The scale and persistence of the projected rise in CPI inflation is uncertain, however. Businesses early in the supply chain appear to have passed some of the cost increases through into higher output prices, and survey measures of businesses' pricing intentions have remained elevated. But a survey by the Bank's regional Agents suggested that many consumer-facing businesses were not in a position to pass on cost increases to their customers, perhaps on account of the weaker outlook for consumer demand.

Those businesses not able to pass on cost increases may instead attempt to push down on other costs, especially pay. But the past and prospective pickup in consumer price inflation may also lead employees to press for higher wages to compensate. So far, pay growth has remained subdued, despite quite strong employment growth. Easing employment intentions point to a weaker labour market in the future, which is likely to add to the downward pressure on wages.

Both pay and prices are likely to be influenced by expectations of future inflation. Measures of short-term household inflation expectations rose again, broadly in line with the recent and

Chart 2 CPI inflation projection based on market interest rate expectations



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 judgement 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 outcomes 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. See the box on pages 48–49 of the May 2002 *Inflation Report* for a fuller description of the fan chart and what it represents. The dashed line is drawn at the two-year point.

prospective movements in consumer price inflation. But some longer-term indicators of inflation expectations have also edged up. If expectations were to remain elevated, then that would pose an upside risk to inflation in the medium term.

The outlook for inflation

Chart 2 shows the Committee's best collective judgement of the outlook for CPI inflation, assuming that Bank Rate follows market yields. In the central projection, higher energy and import prices push inflation further above the 2% target, to a level requiring a number of explanatory open letters to the Chancellor. The margin of spare capacity, together with waning contributions from energy and import prices, then brings inflation back to around the 2% target in the medium term. The profile is higher than in the February *Report* for most of the projection.

As usual, there are substantial uncertainties surrounding these projections. The key risks to inflation are: on the downside, the possibility that a more prolonged period of subdued demand opens up a larger margin of spare capacity; and, on the upside, the possibility that the persistent period of above-target inflation leads to a lasting increase in medium-term inflation expectations. Both risks are judged to have increased since the February *Report*. Overall, the risks around the central projection to growth lie to the downside in the medium term, while those to inflation are to the upside. There is a range of views among the Committee on both the central projection and the balance of risks.

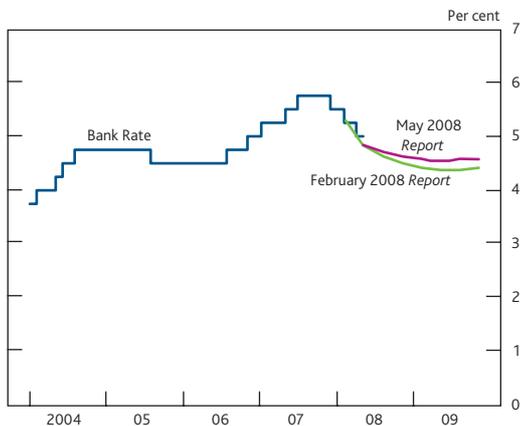
The policy decision

At its May meeting, the Committee noted that the immediate prospect was for a sharp increase in inflation, which was already above the target, and sluggish output growth. The latter would open up a margin of spare capacity, but that was likely to be necessary in order to return inflation to the target in the medium term. There were particular uncertainties relating to the severity of the slowdown and the future path of inflation expectations. The key challenge for policy was to balance those conflicting risks. The Committee judged at its May meeting that it was appropriate to leave Bank Rate unchanged in order to meet the target for CPI inflation over the medium term.

1 Money and asset prices

Since the *February Report*, Bank Rate has been reduced once, by 0.25 percentage points, on 10 April. Stresses in financial markets intensified in March. But conditions improved a little thereafter, in part reflecting central bank initiatives, including the Bank of England's Special Liquidity Scheme. Sterling depreciated further. Residential and commercial property prices fell in Q1 and near-term indicators for the housing market pointed to further weakness in Q2. Credit supply tightened, especially for higher-risk borrowers. Growth in secured lending to households continued to moderate.

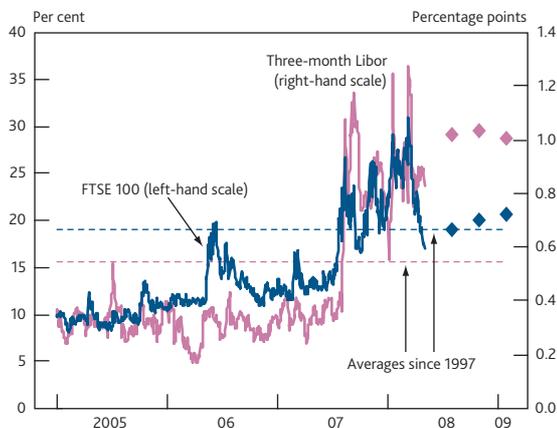
Chart 1.1 Bank Rate and forward market interest rates^(a)



Sources: Bank of England and Bloomberg.

(a) The May and February 2008 curves are based on fifteen working day averages to 7 May and 6 February respectively. These curves are estimated based on a combination of general collateral gilt repo rates at short maturities and instruments that settle on Libor at longer horizons (see the box on page 12 of the November 2007 Report).

Chart 1.2 Market implied volatility^(a)



Sources: Bank of England and Euronext.liffe.

(a) Three-month implied volatilities are derived from the prices of options traded on Euronext.liffe for the FTSE 100 and three-month Libor. The solid lines represent the evolution of uncertainty over the next three months. The diamonds represent uncertainty over a three-month period beginning in three, six and nine months' time respectively.

Financial market stress intensified in March, amid uncertainty about banks' financial positions. However, in recent weeks there have been some signs of improvement in sentiment after central banks, including the Bank of England, acted to increase liquidity and raise confidence in the banking system. But the outlook remains highly uncertain. A key issue for monetary policy is how the continued upheaval affects both asset prices (Section 1.1) and the availability and terms of credit to households and businesses (Section 1.2). The effect of these developments on monetary aggregates is discussed in Section 1.3.

1.1 Financial markets and asset prices

Interest rates

Since the *February Report*, Bank Rate has been reduced once, by 0.25 percentage points to 5%. The box on page 10 summarises the reasons for the Committee's policy decisions in March and April. In the United States, the Federal Open Market Committee reduced the target federal funds rate by 0.75 percentage points in March and a further 0.25 percentage points in April. Official interest rates were unchanged in the euro area and in Japan.

In the period leading up to the May MPC meeting, the path implied by forward market interest rates was for Bank Rate to fall by a little under half a percentage point over the next year (**Chart 1.1**). The path lies above that in the *February Report*. A Reuters survey of economists' interest rate expectations ahead of the May MPC meeting showed a slightly larger decline, of around 0.75 percentage points. However, the elevated level of three-month Libor implied volatility (**Chart 1.2**) indicated considerable uncertainty about the outlook for short-term interest rates. Some of that may reflect uncertainty about the future path of policy rates. But some will also reflect uncertainty about the future spread between expected policy rates and the rates that banks charge to each other.

Monetary policy since the February Report

The MPC's central projection in the February *Report*, under the assumption that Bank Rate followed a downward path implied by market yields, was for GDP growth to slow markedly through 2008. CPI inflation was projected to rise sharply in the near term, but then to ease back to a little above the 2% target in the medium term.

In the month leading up to the Committee's meeting on 5–6 March, sentiment in international credit and money markets appeared to have deteriorated. Term interbank spreads had risen; equity prices were broadly unchanged; and the sterling effective rate had fallen around 1½%.

In the United States, the latest estimate for growth in the fourth quarter of 2007 was 0.2%, and indicators suggested subdued growth in 2008 Q1. In the euro area, consumption growth had been surprisingly weak in Q4. World commodity prices had continued to rise rapidly.

In the United Kingdom, the latest estimate for Q4 GDP growth was unchanged at 0.6%. However, the expenditure data had showed consumption growth slowing sharply to 0.2% and business investment contracting by 0.5%. Indicators of activity in Q1 had given mixed signals, but, if anything, pointed to less of a slowdown than at the time of the February *Report*.

Pay settlements had remained steady in January. In contrast, other cost pressures had intensified. The news on energy and other commodity prices over the month had been adverse for near-term inflation prospects, with increasing evidence of price pressures further down the supply chain. Higher household gas and electricity prices meant that CPI inflation was likely to rise quite sharply in the coming months. Further ahead, inflation was likely to fall back, but the extent to which it did so would depend on whether inflation expectations remained anchored on the 2% target. Measures of inflation expected over the next twelve months had risen recently but the evidence on longer-term inflation expectations was mixed.

For the majority of members, the balance of risks had not changed sufficiently to merit a change in Bank Rate. So far, output and CPI inflation were evolving broadly in line with the central projection in the February *Report*. As such, the economy appeared most likely to be roughly on track for CPI inflation to return to target in the medium term. However, some members felt weaker prospects for the US economy had increased the downside risk to UK growth and that there was no sign that oil and commodity price increases were likely to feed through to wage settlements.

Given these considerations, seven Committee members voted to maintain Bank Rate at 5.25%. Two members preferred a decrease in Bank Rate of 0.25 percentage points.

In the month leading up to the MPC meeting on 9–10 April, sentiment in financial markets had deteriorated further. The functioning of money markets remained heavily impaired. Term interbank spreads had risen again and market prices suggested that they were expected to remain elevated throughout 2008 and beyond. Investment-grade bond spreads had risen.

In the United States, indicators suggested that activity had been weak in Q1. There had been little reported growth in consumption in January and February and non-farm payrolls had fallen by almost 250,000 in the first quarter. There had been little news about activity in the euro area.

In the United Kingdom, official measures of output growth had as yet slowed little, but forward-looking indicators looked less robust. The Bank's latest *Credit Conditions Survey* suggested that UK lenders would be tightening credit conditions for households and businesses by more than had previously been expected. The UK housing market was weakening, with prices falling, so there was an increased downside risk to residential investment and to consumption.

Nominal pay growth showed few signs of picking up. Several other cost pressures, however, had intensified. Sterling had depreciated further, there had been increases in the price of oil, and the wholesale gas futures curve had shifted upwards.

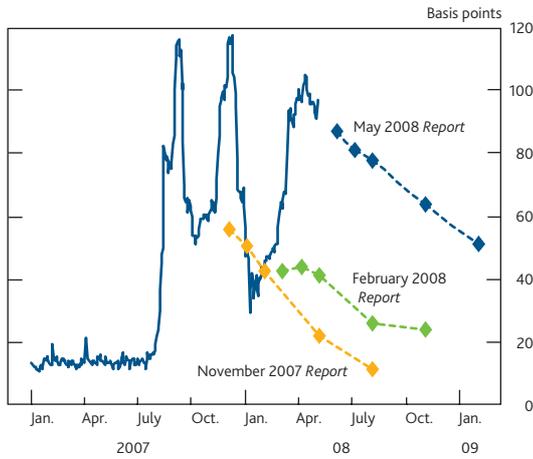
For the majority of members, an immediate reduction in Bank Rate of 0.25 percentage points was warranted. In order to avoid an excessive increase in the margin of spare capacity and hence undershooting the inflation target in the medium term, it was necessary to offset, partly but not wholly, the current and prospective downward shift in demand arising from the deterioration in global credit conditions and its consequences.

For one member, a larger reduction in Bank Rate was warranted. The near-term increase in inflation was likely to be short-lived and forward-looking survey indicators were generally signalling a marked slowdown in domestic activity. For some other members, no change in Bank Rate was yet called for. Consumption and output had not slowed by as much as expected at the time of the February *Report* and there was further inflationary impetus from higher oil prices and a weaker pound. There was also a danger that higher inflation expectations would persist.

Six Committee members voted to reduce Bank Rate by 0.25 percentage points to 5%. Two members preferred to maintain Bank Rate at 5.25% and one member preferred an immediate reduction of 0.5 percentage points.

At its meeting on 7–8 May, the Committee voted to maintain Bank Rate at 5%.

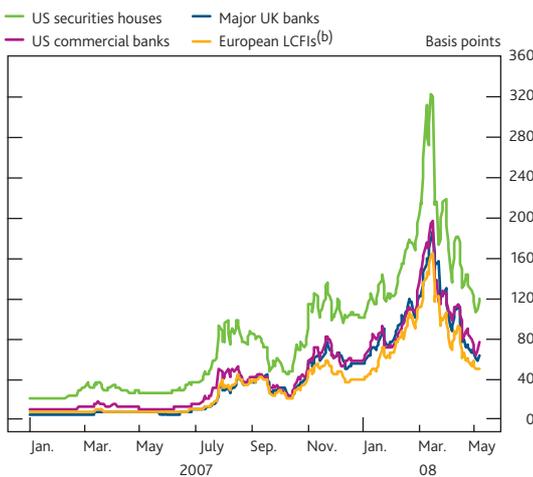
Chart 1.3 UK three-month interbank rates relative to future expected policy rates^(a)



Sources: Bloomberg and Bank calculations.

(a) Three-month Libor spread over overnight interest rate swaps. Dashed lines show forward spreads derived from forward rate agreements and are based on the fifteen working day averages to 7 May 2008, 6 February 2008 and 7 November 2007.

Chart 1.4 Credit default swap premia^(a)



Sources: Markit Group Limited, Thomson Datastream, published accounts and Bank calculations.

(a) Asset-weighted average five-year premia.
(b) Large complex financial institutions.

Chart 1.5 Sterling exchange rates



In March, there was a marked deterioration in financial market conditions. In part, that was due to the uncertainty created by the overhang of illiquid assets on banks' balance sheets. A number of central banks, including the Bank of England, subsequently acted to improve liquidity, and confidence in the banking system. On 21 April, the Bank of England announced a Special Liquidity Scheme to allow banks to swap their high-quality mortgage-backed and other securities for UK Treasury bills for up to three years. That followed co-ordinated announcements by several major central banks — including the Bank of England — in early March, as well as new measures announced by the Federal Reserve.⁽¹⁾

The deterioration in financial market conditions contributed to strains in money markets. Banks and other non-bank financial institutions, such as money market mutual funds, remained reluctant to provide term funding. That was reflected in the spreads between expected future policy rates and the rates that banks charge to each other (for example, three-month Libor). These spreads widened in the United Kingdom (Chart 1.3), as well as in the United States and euro area. At the time of the November and February Reports, market participants had indicated that the three-month Libor spread would narrow to around its pre-crisis level by mid-2008, as reflected in forward spreads. However, such a narrowing has not yet occurred. In the run-up to the May Report, market participants expected three-month Libor spreads to remain significantly above pre-crisis levels into early 2009. The expected persistence in forward spreads was also seen for US and euro-area rates.

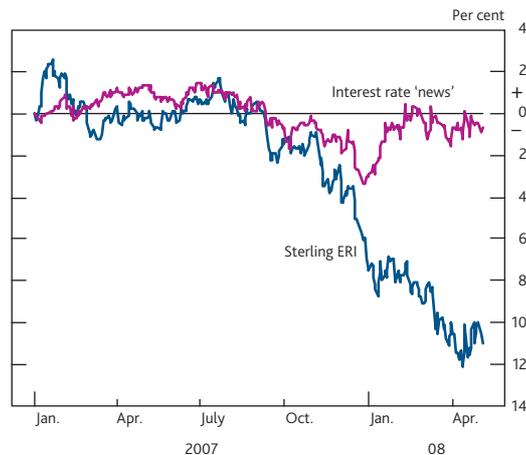
To some degree, the increase in Libor spreads reflected market concerns about the creditworthiness of banks and securities houses. Credit default swap (CDS) premia for banks and securities houses — which provide a measure of the cost of insuring against default — rose sharply in February and early March (Chart 1.4). CDS premia peaked around the time of the collapse of Bear Stearns, a US securities house. However, they have subsequently fallen back, perhaps in response to the rescue of Bear Stearns and the measures announced by various central banks around the world. In addition, many institutions have announced plans to raise new capital. That will strengthen their balance sheets and is therefore likely to have been a factor contributing to the decline in CDS premia. Nevertheless, the premia remain well above their pre-crisis levels, and are likely to stay elevated until the location and magnitude of financial losses is fully resolved.

Exchange rates

In the fifteen working days to 7 May, the sterling ERI was 3.7% lower than the starting point for the February Report.

(1) Further information about the Special Liquidity Scheme can be found at www.bankofengland.co.uk/publications/news/2008/029.htm. The box on pages 58–60 of the April 2008 *Financial Stability Report* describes the recent actions by central banks in more detail.

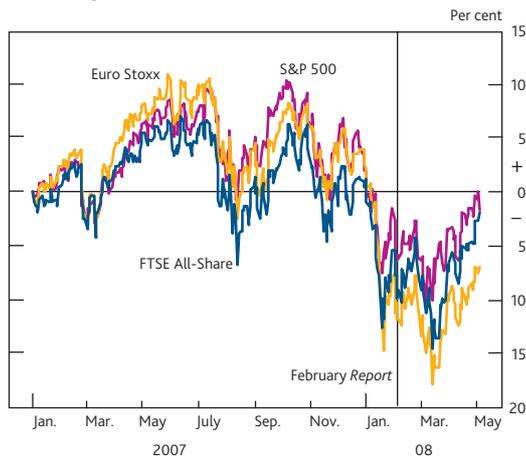
Chart 1.6 Cumulative changes in the sterling ERI and interest rate 'news' since 4 January 2007^(a)



Sources: Bloomberg and Bank calculations.

(a) Interest rate 'news' is calculated from the uncovered interest parity (UIP) condition. Unanticipated movements in UK relative to international forward interest rate differentials are cumulated from the start point of 4 January 2007. For more information see Brigden, A, Martin, B and Salmon, C (1997), 'Decomposing exchange rate movements according to the uncovered interest rate parity condition', *Bank of England Quarterly Bulletin*, November, pages 377–89.

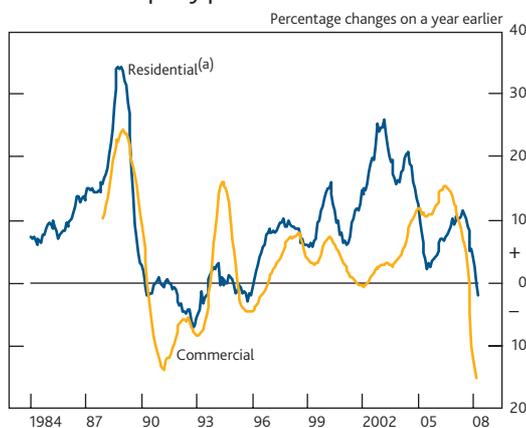
Chart 1.7 Cumulative changes in equity prices since 4 January 2007^(a)



Source: Thomson Datastream.

(a) In local currency terms.

Chart 1.8 Property prices



Sources: Bank of England, Halifax, Investment Property Databank, Nationwide and Thomson Datastream.

(a) Average of the Halifax and Nationwide measures from 1991 onwards. Prior to that, the Halifax measure is used as the Nationwide measure is not available at a monthly frequency. The published Halifax index has been adjusted in 2002 by the Bank of England to account for a change in the method of calculation.

Since July 2007, the sterling ERI has fallen by around 12% (**Chart 1.5**), and remains close to its lowest rate since early 1997. The decline has been more pronounced against the euro than the US dollar, with sterling down around 15% against the former, but only 4% against the latter.

In principle, exchange rate movements should equalise the expected risk-adjusted returns on assets denominated in different currencies. In other words, exchange rate movements should reflect changes in relative interest rates. However, while the downward movement in sterling last year could, in part, be accounted for by changes in relative interest rates, that has not been the case since the start of 2008 (**Chart 1.6**).

An alternative explanation for the recent depreciation is related to an increase in the risk premium that investors require for holding sterling assets. The recent decline in sterling has coincided with the dislocation in financial markets and a shift in the outlook for the economy. As in the *February Report*, sterling implied volatility — a measure of uncertainty about the future path of the exchange rate — has remained elevated. A measure of the balance of risks to sterling — based on options prices — suggests that market participants place more weight on a further depreciation.

Another possibility is that market participants may have reassessed their views about the sustainable real value of the currency. That reassessment may have been precipitated by the dislocation in financial markets. However, it may also reflect an emerging belief of the need for a rebalancing of growth between domestic demand and net trade.

Equity prices

The FTSE All-Share index was 4.1% higher in the run up to the *May Report* than three months earlier (**Chart 1.7**). Movements in equity prices in the United Kingdom over the past year have been similar to those seen in the United States and the euro area. Market implied volatility — a measure of uncertainty about future equity prices — has fallen back to its average over the past decade since the *February Report* (**Chart 1.2**).

Property prices

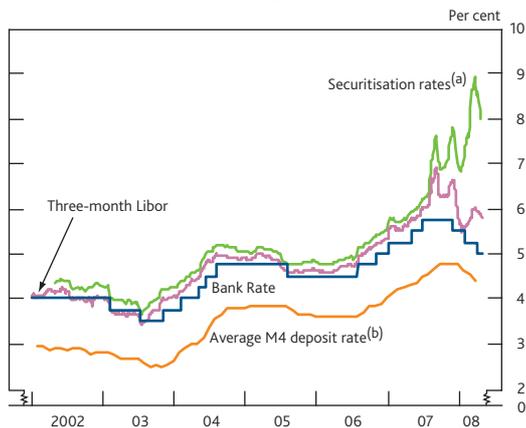
The residential property market has weakened further since the *February Report*, amid a tightening of credit supply (Section 1.2). In March, the Royal Institution of Chartered Surveyors (RICS) survey measure of house price inflation fell to its lowest level since records began in 1978, while the average of the Nationwide and Halifax house price indices recorded a second quarterly decline, falling by 1.4% in Q1. In the month of April, the average of the Nationwide and Halifax indices fell further, by 1.2%, leaving house prices 2.2% lower than a year earlier (**Chart 1.8**).

Table 1.A Housing market indicators^(a)

Activity	Averages since 2000	2007		2008		
		Q3	Q4	Jan.	Feb.	Mar.
Activity						
Mortgage approvals (000s) ^(b)	106	106	80	73	72	64
RICS sales to stocks ratio ^(c)	0.42	0.38	0.33	0.29	0.26	0.25
RICS new buyer enquiries ^(d)	-5	-38	-32	-36	-39	-49
HBF net reservations balance ^{(e)(f)}	-2	-27	-43	-48	-53	-75
HBF site visits balance ^{(e)(f)}	-11	-35	-59	-54	-44	-62
Prices						
HBF current balance ^{(d)(f)}	20	-2	-22	-41	-47	-59
RICS current balance ^(g)	14	-3	-38	-55	-66	-78
RICS expectations balance ^(g)	10	-15	-49	-56	-58	-73

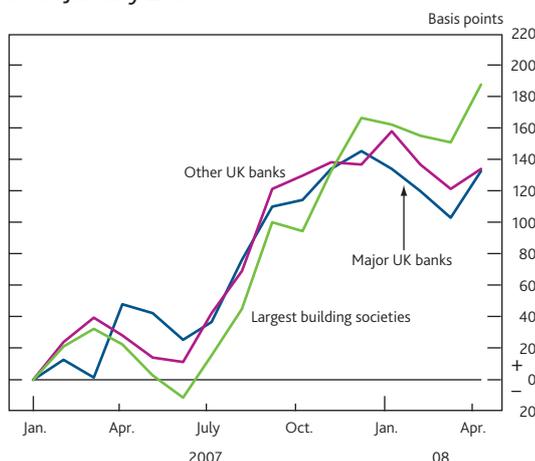
Sources: Bank of England, Home Builders Federation (HBF) and Royal Institution of Chartered Surveyors (RICS).

- (a) Averages of monthly data. All series are net percentage balances unless otherwise stated.
 (b) Loan approvals for house purchase.
 (c) Ratio of sales recorded over the past three months relative to the level of stocks on estate agents' books at the end of the month.
 (d) Compared with the previous month.
 (e) Compared with a year ago.
 (f) Seasonally adjusted by Bank staff.
 (g) Changes during the past three months or expected over the next three months.

Chart 1.9 Lenders' funding costs

Sources: Bank of England, Bloomberg, Lehman Brothers and Bank calculations.

- (a) Calculated using three-month Libor rates and spreads on a range of asset-backed securities, weighted together by annual issuance.
 (b) Average of effective deposit rates for households, private non-financial corporations and other financial corporations, weighted by their shares in M4. Data for effective rates are only available to March.

Chart 1.10 Changes in one-year fixed-rate bond spreads since January 2007^(a)

Sources: Moneyfacts Group and Bank calculations.

- (a) Average of banks' and building societies' quoted rates less the one-year swap rate in the same month.

Housing market activity — often a good indicator of near-term developments in prices — has also continued to slow (**Table 1.A**). In March, mortgage approvals for house purchases were around 45% lower than a year earlier. The decline in approvals reflected, in large part, the tightening in credit supply identified in the Bank's latest *Credit Conditions Survey* (Section 1.2). The Home Builders Federation (HBF) net reservations balance fell to its lowest level since records began in April 1992 and the RICS measure of the ratio of sales to stocks, an indicator of market tightness, fell to its lowest level since 1996. The RICS new buyer enquiries and HBF site visits balances also fell sharply in March.

Commercial property prices fell by 7.4% in the three months to March, according to the Investment Property Databank, and were around 15% lower than a year earlier (**Chart 1.8**). Looking ahead, derivative contracts imply that market participants expect further price falls during 2008.

Section 5 discusses the implications of lower property prices for future consumption and investment spending.

1.2 Credit conditions

Bank lending behaviour

Commercial banks play a key role in the economy by intermediating the flow of funds from savers to borrowers. The global financial market dislocation has impacted materially on this process. Several factors have constrained the supply of credit to both households and businesses. These include: the availability and cost of banks' sources of funding; the impact on key capital ratios of write-downs and the unintended expansion of balance sheets; changes in the perceived riskiness of lending to households and companies; and changes in competitive conditions.

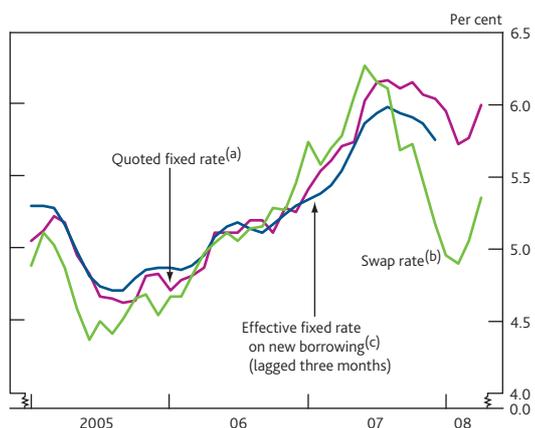
Banks can fund their lending activities through both retail and wholesale markets. The former is largely made up of retail deposits, while the latter encompasses a range of sources, including unsecured wholesale deposits and securitisation — the packaging and selling on of existing loans. In the first half of 2007, around one third of net lending was being funded through securitisation. However, since August 2007, the primary securitised debt market has been effectively closed and wholesale funding rates have picked up relative to Bank Rate (**Chart 1.9**). If the securitisation market were to remain closed then that would continue to affect funding for new lending and would also require banks with maturing mortgage-backed securities to find alternative sources to fund existing lending. Some lenders have looked to fund their expanding loan books through increased retail deposits. That has been reflected, for example, in the rates offered on one-year fixed-rate bonds, which have risen substantially relative to the equivalent wholesale swap rate (**Chart 1.10**).

Table 1.B Household credit: changes in effective interest rates

Basis points	Change between Aug. – Dec.	Change between Dec. – Mar.	Total change Aug. – Mar.
Rates on outstanding stock^(a)	3	-15	-12
<i>of which:</i>			
Secured	6	-18	-12
– fixed	11	11	22
– variable	-8	-45	-53
Unsecured	-18	-1	-19
Rates on new borrowing^(b)	8	-4	4
<i>of which:</i>			
Secured	7	-13	-6
– fixed	21	-17	4
– variable	-14	-12	-26
Unsecured	8	-4	4
Memo:			
Bank Rate ^(c)	-25	-25	-50
Two-year swap rate	-77	-34	-111

Sources: Bank of England and Bloomberg.

- (a) Weights together the secured and unsecured effective stock rates by the outstanding balances.
 (b) Weights together the secured and unsecured effective new business rates by the amount of new lending.
 (c) End-month rate.

Chart 1.11 Quoted and effective rates on new household secured credit

Sources: Bank of England and Bloomberg.

- (a) Based on a 75% loan to value ratio, assuming the share of fixed-rate borrowing for two, three and five-year fixed-rate mortgages is 66%, 4% and 30% respectively.
 (b) Weighted average of two, three and five-year swap rates (at the end of the month), based on the weights used for quoted fixed rates.
 (c) Based on new mortgages taken out with a fixed-rate period of between one and five years. Lagged three months to reflect typical delay between movements in quoted rates and effective fixed rates on new business.

The continued dislocation in financial markets has resulted in further bank write-downs. Since the start of the turmoil, the major UK banks have written down around US\$14 billion.⁽¹⁾ That mostly reflected exposures to the US sub-prime mortgage market, and reduced some banks' capital ratios (capital relative to risk-weighted assets).⁽²⁾

There are several ways in which banks can respond to pressures on their balance sheets. They can issue new capital or lower dividend payments. Alternatively, they can reduce the amount or riskiness of the lending they undertake, or dispose of assets. Over the past three months, banks in the United Kingdom and elsewhere have pursued a range of these options.

With some lenders scaling back their new lending, or leaving the market altogether, the larger UK banks that remain active in the mortgage market have seen a substantial rise in the demand for their products. In the three months to March, most of the growth in secured household lending was accounted for by the five largest UK banks; this compares with less than half in the year to August 2007. The surge in loan demand has increased the pressure on these banks' capacity to process new loans and, as such, may further constrain the availability of credit in the near term.

Price and quantity of household credit

When assessing the latest developments in interest rates faced by households, there are three key measures — the average rate on the existing stock of debt, which reflects the rates paid by all borrowers; the average rate paid on new borrowing; and quoted rates, which are based on the rates advertised by banks and building societies.

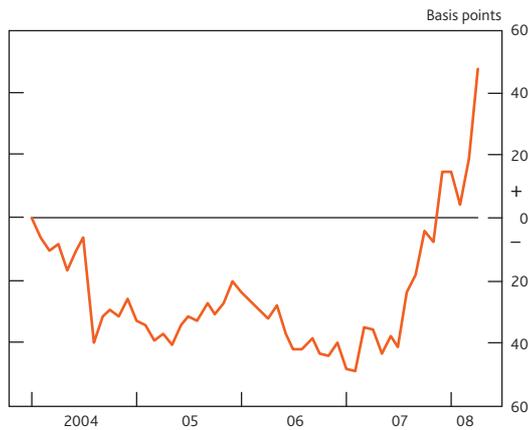
The average (effective) rate on the outstanding stock of secured lending has fallen a little since August, reflecting the fact that existing borrowers with variable-rate mortgages have typically seen the reductions in Bank Rate passed on (Table 1.B). However, the average mortgage rate faced by new borrowers was broadly unchanged over the same period, as spreads on new lending rose.

A more timely read on the mortgage rates facing new borrowers can be provided by quoted rates. In April, quoted rates on new tracker products — which usually move in line with Bank Rate — were broadly unchanged. For fixed-rate mortgages, quoted rates — which in the past have been a good guide to developments in average rates on new borrowing — rose in March and April following declines earlier in 2008 (Chart 1.11). Compared with risk-free rates such as

(1) Figure includes write-downs where information has been disclosed, but excludes any provisional disclosures. See Table A on page 8 of the April 2008 *Financial Stability Report*.

(2) The box on pages 40–41 of the April *Financial Stability Report* assesses the capital positions of UK banks in more detail.

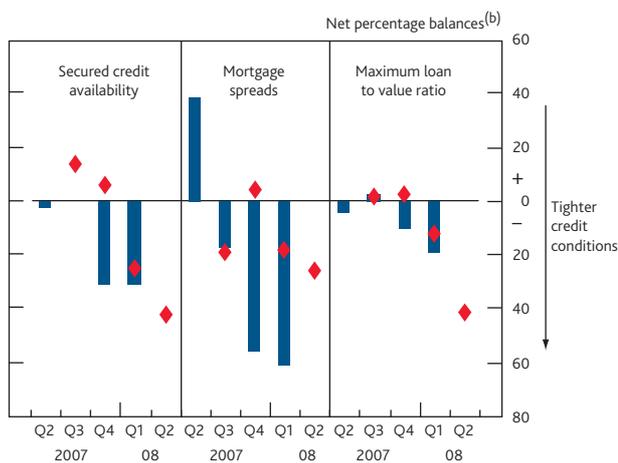
Chart 1.12 Change in quoted mortgage rates relative to risk-free rates since January 2004^(a)



Sources: Bank of England and Bloomberg.

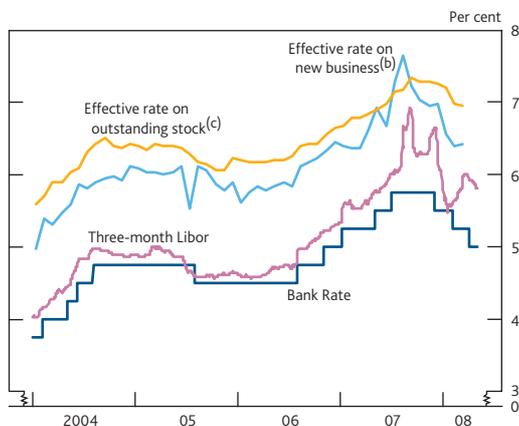
(a) Quoted two-year, three-year and five-year fixed and tracker mortgage interest rates relative to a 'risk-free' rate of similar maturity. For tracker rates, that is assumed to be Bank Rate. For the fixed-rate products, yields on government bonds (gilts) of similar maturities are used (based on the final observation in the previous month).

Chart 1.13 *Credit Conditions Survey*: household credit^(a)



(a) The blue bars show responses over the previous three months. The red diamonds show expectations over the next three months. Expectations balances have been moved forward one quarter so that they can be compared with the actual outturns in the following quarter.
(b) A positive balance indicates that more credit is available, mortgage spreads are narrowing and maximum loan to value ratios are rising.

Chart 1.14 Interest rates facing businesses^(a)



Sources: Bank of England and Bloomberg.

(a) Bank Rate and three-month Libor series show daily data to 7 May. Monthly effective rates data are available to March 2008.
(b) Average rate paid by new borrowers on loans, calculated using data on interest rate flows and the stock of new borrowing. Excludes overdrafts due to data availability.
(c) Average rate paid by existing borrowers on overdrafts and other loans, calculated using data on interest rate flows and the outstanding stock of borrowing.

Bank Rate and government bond yields, quoted rates have risen sharply (Chart 1.12).

Recent developments in mortgage rates do not necessarily imply that the monetary transmission mechanism is impaired. It is likely that the rates paid by households would have been even higher had Bank Rate not fallen. And even with limited pass-through into retail rates, the impact of Bank Rate reductions on banks' balance sheets and access to funds should increase the volume of funds available for lending. An important part of the transmission mechanism also works through the impact of falls in Bank Rate on the exchange rate, with lower interest rates (relative to other countries) likely to push down on sterling.

As well as increasing interest rate spreads, lenders have been reducing the availability of credit to borrowers. The Bank's 2007 Q4 *Credit Conditions Survey* suggested that lenders began tightening the availability of secured credit to households in late 2007.⁽¹⁾ That tightening continued in the first quarter of 2008. And the latest survey showed that lenders expected to reduce both secured and unsecured credit availability further in Q2, in part by imposing more stringent loan to value (LTV) requirements (Chart 1.13). The box on pages 16–17 examines the developments in non-price terms in more detail. It concludes that, in the past three months, the tightening in household credit conditions has moved along the risk spectrum from the highest-risk borrowers (with adverse credit histories) to somewhat less risky borrowers.

The tightening in credit supply has been an important factor in the decline in mortgage approvals and the subsequent moderation in the annual growth of household lending. Annual growth in secured borrowing — which accounts for around 85% of lending to individuals — was 9.1% in Q1, the weakest since late 2001. Unsecured lending growth picked up in Q1, to 6.7%. In part that is likely to reflect the increased numbers of university students eligible for tuition fee loans.

Price and quantity of corporate credit

The Bank's latest *Credit Conditions Survey* suggests that lenders have continued to raise their corporate lending rates relative to Libor (a key benchmark for corporate loans). However, average borrowing costs on the outstanding stock of corporate lending declined over the three months to March and the average rate on new lending fell by 0.5 percentage points (Chart 1.14). In part, that is likely to reflect the decline in the three-month Libor rate in 2008 Q1 compared with 2007 Q4. However, it also seems likely that the fall in the average rate reflects a change in the composition of new lending, with banks cutting back on riskier, higher-rate loans. It may also reflect increased drawdowns of pre-committed

(1) A more detailed description of the survey results is available at www.bankofengland.co.uk/publications/other/monetary/creditconditions.htm.

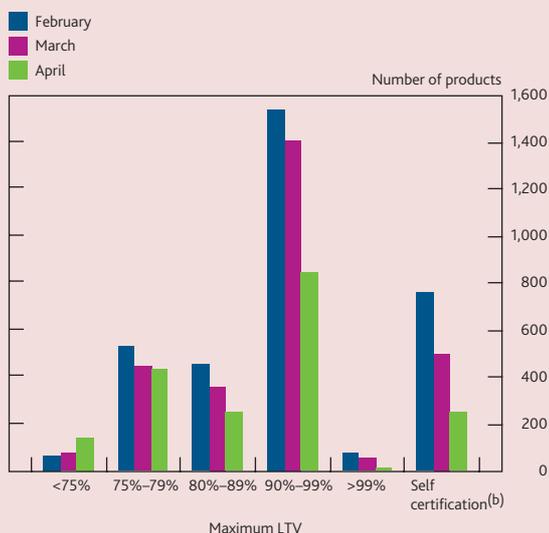
How far along the risk spectrum has secured credit supply tightened for households?

An important consequence of the financial market dislocation has been the tightening in credit supply for households and companies. One way of assessing the degree of tightening for households is to examine how far along the risk spectrum lenders have moved in reducing credit availability and increasing interest rate spreads.

Quantity restrictions

One way in which lenders can tighten credit supply is through restricting the quantity of lending available at a given interest rate. One proxy for that is the number of products offered. Based on those data, lenders began tightening the quantity of credit available to the riskiest type of borrowers soon after the beginning of the financial market dislocation, and have continued to do so over the past three months. Since August 2007, the number of credit-impaired mortgage products⁽¹⁾ available has fallen by around 75%. And the number of mortgage products that were based on 'self certification' — where borrowers are not required to provide proof of their income, and as such are likely to carry increased risk — fell by around two thirds between the end of February and April (Chart A).

Chart A Number of mortgage products offered by maximum loan to value (LTV) ratio^(a)



Sources: Moneyfacts Group and Bank calculations.

- (a) Includes products for first-time buyers and those remortgaging. Data are end-month.
 (b) Self-certification mortgages can have a range of maximum LTV ratios, but do not require the borrower to provide proof of income.

Some lower-risk borrowers have also been finding it increasingly difficult to obtain credit. This has been particularly the case for those borrowers with good credit records, but relatively high loan to value (LTV) ratios. For example, by early April, none of the major lenders were

offering mortgages with a maximum LTV ratio of 100% or more, irrespective of the borrower's employment status or credit record. And the number of products with a maximum LTV ratio greater than 80% declined by nearly half between February and April.

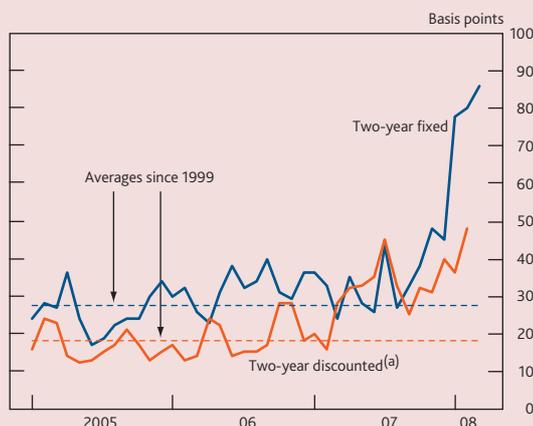
Those borrowers with relatively large deposits — or existing equity in the case of those remortgaging — appear to have been less affected by restrictions on credit availability to date. Indeed, the number of products with a maximum LTV ratio of less than 75%, while small compared to higher LTV ratio products, more than doubled between February and April.⁽²⁾ That is consistent with discussions with UK mortgage lenders, who have indicated that they have been increasingly reluctant to advance credit to borrowers without large deposits.

It is difficult to assess with precision the quantitative impact that the decline in credit availability will have on overall household secured borrowing. In recent years, a significant proportion of new lending has been at relatively high LTV ratios. In 2007, for example, around 30% of new lending was to individuals who had an LTV ratio greater than 90%; a further 20% was to those with an LTV ratio of between 80%–90%. New borrowers in both of these groups have found it increasingly difficult to obtain a mortgage.

Rates charged

Another way in which lenders have tightened credit supply is by raising the interest rate charged. As with quantity restrictions, the change in interest rates has not been uniform across borrowers with different risk characteristics. Since the start of the financial market dislocation, quoted rates for the highest-risk borrowers — those defined as 'extra heavy adverse credit'⁽³⁾ individuals — have increased by over 200 basis points relative to the least risky borrowers, with a 75% or lower LTV ratio.

Chart B Differences between quoted interest rates on 95% and 75% loan to value (LTV) ratio products



(a) Data not available for April 2008 due to the small number of lenders in the sample offering 95% LTV products.

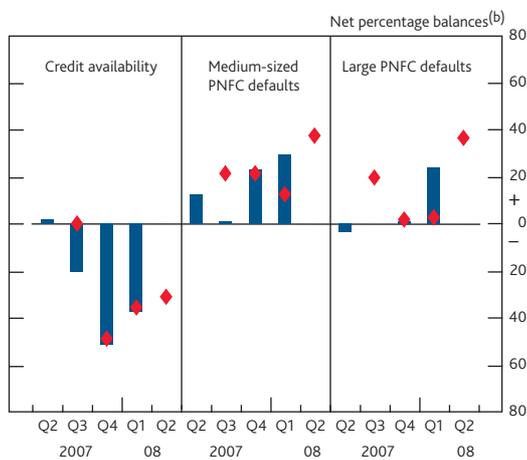
As with credit availability, borrowers without an adverse credit history, but with relatively high LTV ratios, have also been required to pay higher rates of interest. New borrowers with only 5% equity have seen the rate of interest they are charged on fixed-rate borrowing rise by around 40 basis points relative to those with 25% equity since August last year (Chart B). The interest rate premium on these higher LTV ratio products is now more than three times its average since 1999.

These increases in secured lending rates will affect borrowers remortgaging as previously agreed fixed-rate deals expire. If those remortgaging this year with an LTV ratio in excess of

90% were forced to move on to the standard variable rate (SVR), household sector interest payments would increase by around 0.3% of households' aggregate annual post-tax income. That increase would only be slightly larger if those with an LTV ratio of 80% or more were included.⁽⁴⁾

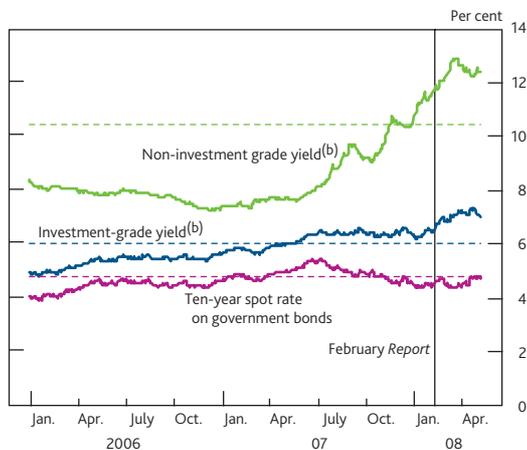
- (1) Defined as those which grant credit to borrowers who have a County Court Judgement of £1,000 or more.
- (2) Those borrowers with 25% or more equity would also be able to access the vast range of higher LTV products.
- (3) Loans to individuals with County Court Judgements over £10,000 in value.
- (4) These calculations assume that all those borrowers with loan to value ratios over 90% and 80%, or with loan to income ratios over 3.5, cannot refinance their expiring fixed-rate mortgage deals and have to pay the average quoted April 2008 SVR.

Chart 1.15 Credit Conditions Survey: corporate credit^(a)



- (a) The blue bars show responses over the previous three months. The red diamonds show expectations over the next three months. Expectations balances have been moved forward one quarter so that they can be compared with the actual outcomes in the following quarter.
- (b) A positive balance indicates that more credit is available, and default rates are rising.

Chart 1.16 Sterling corporate bond yields and the ten-year spot rate on government bonds^(a)



Sources: Bank of England, Bloomberg and Merrill Lynch.

- (a) Dashed lines show averages since 1998.
- (b) Investment-grade yields are calculated using an index of bonds with a composite rating of BBB3 or higher. Non-investment grade yields are calculated using an index of bonds with a composite rating lower than BBB3.

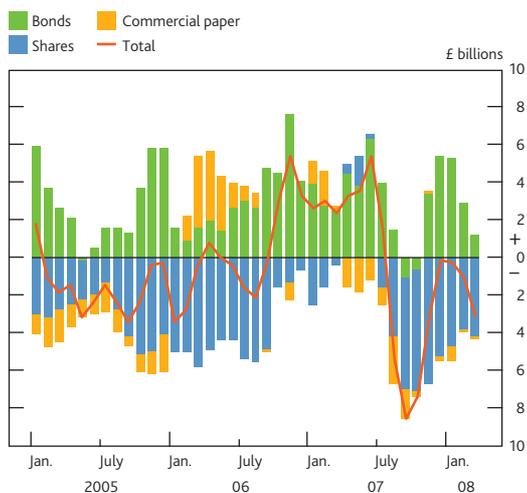
lines of credit at a more favourable rate arranged some time ago.

The *Credit Conditions Survey* suggested that lenders have tightened the overall availability of credit to businesses over the past six months, and expect to continue tightening in Q2 of this year (Chart 1.15). In addition to increasing borrowing rates, lenders are also expected to tighten non-price terms, such as maximum credit lines, collateral requirements and loan covenants. Part of that tightening may reflect concern about rising default rates for corporate loans. In the *Credit Conditions Survey*, lenders reported a rise in defaults — albeit from a very low level — for both medium and large private non-financial corporations (PNFCs) in Q1 and expected a further increase in Q2. In part, that is likely to reflect the weaker outlook for the commercial and residential property markets.

Consistent with the banks' reported reduction in credit supply, annual growth in lending to PNFCs fell sharply in Q1 (Table 1.C). However, growth remains relatively high. In part, that reflects the unanticipated expansion of UK banks' corporate loan books in the second half of 2007, as deals that would previously have been intended for distribution have remained on their balance sheets since then.

With lending conditions set to tighten, businesses may instead look to the capital markets to raise funds for investment. However, corporate bond yields have risen sharply, despite there being little change in the rate on government bonds, reflecting the reappraisal of risk since the start of the financial market dislocation (Chart 1.16). Yields on investment-grade bonds, which account for around 90% of global corporate bond issuance, have risen by around 0.5 percentage points over the past three months and remain well above the average of the past decade. Yields on non-investment grade bonds also continued their recent rise; although they fell back a little in April, they remain close to their highest rate since March 2003.

Chart 1.17 Private non-financial corporations' net capital market issuance^(a)



(a) Three-month rolling sum of sterling and foreign currency bond, share and commercial paper issuance. Data are non seasonally adjusted.

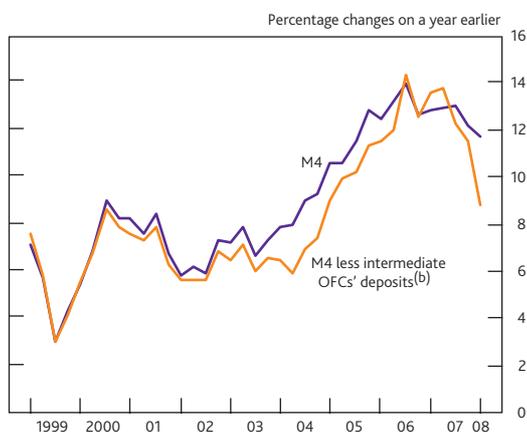
Table 1.C Broad money and M4 lending^(a)

Percentage changes on a year earlier

	2005	2006	2007		2008
			H1	H2	Q1
Broad money (M4)	11.0	12.7	13.0	12.7	11.9
<i>of which:</i>					
Households	8.4	8.1	8.1	8.4	8.7
Private non-financial corporations	9.6	11.6	13.4	9.8	6.2
Other financial corporations	19.5	26.2	24.3	24.2	21.6
M4 lending	12.2	14.6	14.5	14.5	13.4
<i>of which:</i>					
Households	10.8	10.0	10.1	9.2	8.6
Private non-financial corporations	13.7	17.2	18.6	17.0	14.0
Other financial corporations	14.7	24.2	21.3	24.2	23.2

(a) M4 lending data exclude the effects of securitisations and loan transfers. All growth rates are period averages, except 2008 Q1 which is last month of the quarter.

Chart 1.18 Impact of specific OFCs on M4^(a)



(a) Quarterly data. Data are non seasonally adjusted.

(b) M4 excluding OFCs' bank deposits held by: other activities auxiliary to financial intermediation; mortgage and housing credit corporations; non-bank credit grantors; and bank holding companies.

Overall, net finance raised through the capital markets declined over the past three months (**Chart 1.17**). Rising cost is likely to be one factor weighing on net bond issuance by PNFCs in recent months. The implications of the increased cost of finance for business investment are discussed in Section 2.1.

1.3 Monetary aggregates

M4 deposit growth eased over the past three months, partly due to slower growth in PNFCs' deposits (**Table 1.C**). Despite the effective closure of securitisation markets, the rate of growth of deposits by other financial corporations (OFCs) — a diverse group including special purpose vehicles set up by banks to facilitate the securitisation of loan portfolios — has fallen only modestly. However, that may be affected by large intra-group transfers, some of which may be related to the financial market dislocation. A measure based on previous work in the Bank, which excludes these and other OFC deposits unlikely to be closely linked to nominal spending, suggests that M4 growth has fallen more rapidly (**Chart 1.18**).⁽¹⁾

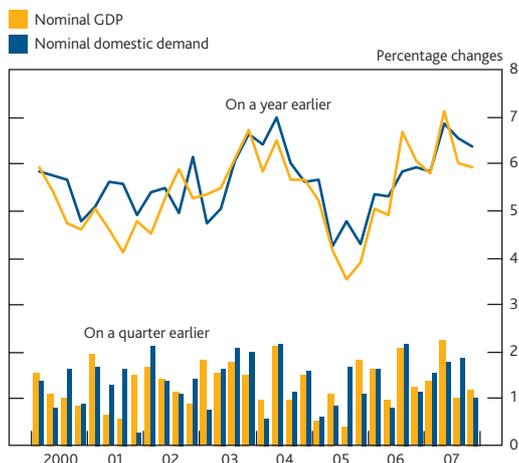
Household deposits continued to grow strongly. That could reflect substitution away from risky assets such as equities, as well as the relatively more attractive rates of return available on many cash deposits (including ISAs). As discussed in Section 1.2, the latter reflects the banks' response to the near closure of the wholesale funding market.

(1) See Burgess, S and Janssen, N (2007), 'Proposals to modify the measurement of broad money in the United Kingdom: a user consultation', *Bank of England Quarterly Bulletin*, Vol. 47, No. 3, pages 402–14.

2 Demand

Domestic demand growth eased in 2007 Q4. Estimates of household spending in 2008 Q1 were mixed, but forward-looking indicators point to a more material slowing in the near term. Business investment growth fell back a little in 2007 Q4 and surveys of investment intentions turned down more sharply in 2008 Q1. Economic conditions in the United States continued to deteriorate. Euro-area growth moderated, but growth in Asia remained strong. Surveys of UK export orders fell back a little, but most remained above their averages over the past decade.

Chart 2.1 Nominal demand^(a)



(a) At current market prices.

Table 2.A Expenditure components of demand^(a)

Percentage changes on a quarter earlier	Averages			2007	
	2005	2006	2007 H1	Q3	Q4
Household consumption ^(b)	0.3	0.7	0.7	0.8	0.2
Government consumption	0.6	0.3	0.6	0.6	-0.5
Investment	1.0	2.3	0.1	2.1	1.8
<i>of which, business investment</i>	0.7	3.0	0.3	2.7	1.8
Final domestic demand	0.5	0.9	0.6	0.9	0.4
Change in inventories ^{(c)(d)}	-0.1	0.0	0.1	0.2	-0.1
Alignment adjustment ^(d)	-0.1	0.0	0.1	0.5	0.2
Domestic demand	0.2	0.8	0.9	1.5	0.4
'Economic' exports ^(e)	2.0	0.9	0.0	1.4	-0.4
'Economic' imports ^(e)	1.2	1.0	0.1	4.2	-1.0
Net trade ^(d)	0.2	-0.1	0.0	-0.9	0.2
Real GDP at market prices	0.5	0.8	0.8	0.6	0.6

(a) Chained-volume measures.

(b) Includes non-profit institutions serving households.

(c) Excludes the alignment adjustment.

(d) Percentage point contributions to quarterly growth of real GDP.

(e) Goods and services, excluding the estimated impact of missing trader intra-community (MTIC) fraud.

Monetary policy affects inflation through its impact on nominal demand. Four-quarter nominal GDP growth slowed a little in 2007 Q4 to 5.9% (Chart 2.1). Over the same period, nominal domestic demand growth also eased. But both growth rates remained above their averages over the past decade. Trends in nominal demand reflect movements in both prices and real activity. Prices are discussed in Section 4; the remainder of this section looks at developments in real demand.

Real domestic demand growth moderated in 2007 Q4 on the back of a sharp slowdown in consumer spending (Table 2.A). Data on household spending in 2008 Q1 were mixed. But forward-looking indicators point to further weakness in domestic demand growth in the near term (Section 2.1). And real GDP growth was provisionally estimated by the ONS to have slowed to 0.4% in 2008 Q1 (Section 3).

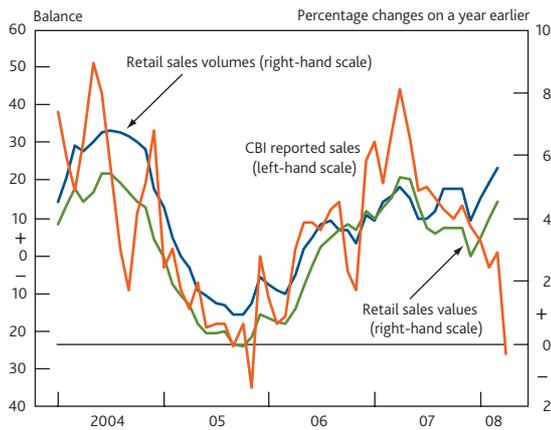
A key question for the outlook is the extent to which UK export growth will compensate for slower growth in the domestic economy (Section 2.2). That will depend on the extent to which the boost to exports from recent falls in sterling offsets weaker world demand.

2.1 Domestic demand

Recent household spending data

Official figures for overall consumer spending are only available to 2007 Q4; these showed quarterly growth of just 0.2% (Table 2.A). That was sharply lower than the strong reading for 2007 Q3, partly reflecting weak net tourism data.

Indicators of household spending were mixed for 2008 Q1, with the official data painting a different picture to surveys. According to official figures, twelve-month retail sales growth picked up sharply in both volume and value terms (Chart 2.2). As retail goods make up around 40% of overall spending, that suggests some bounceback in official estimates of

Chart 2.2 Indicators of household spending

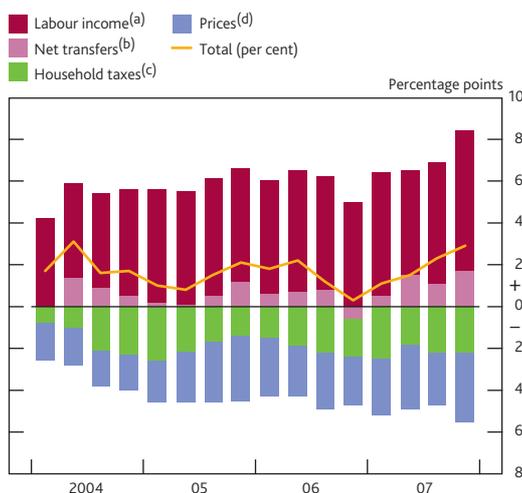
Sources: CBI and ONS.

consumption growth in 2008 Q1. In contrast, the *CBI Distributive Trades Survey* suggested weak household spending growth in Q1 and a marked slowing in April (**Chart 2.2**). Reports from the Bank's regional Agents also suggested a continued easing in the growth of spending on both retail goods and consumer services in early 2008.

The recent divergence between the official data and business surveys could reflect a number of factors, including differences in sample composition — for example, the surveys undersample smaller retailers — and the impact of seasonal factors, in particular the unusually early Easter. As a result, the underlying pace of retail sales growth in Q1 is somewhat unclear. But, given the uniformity of the weakness in business surveys and deteriorating prospects in key influences on consumption, some slowing in growth seems likely. If the ONS data were to come into line with the current survey data in 2008 Q2, that would imply a sharp fall in ONS retail sales growth on the quarter.

Influences on household spending

A number of factors are likely to push down on consumption growth in the near term, including muted growth in real take-home pay and the tightening of credit supply. The remainder of this section looks at how these factors may have influenced consumption in the recent past. Section 5 considers their implications for the medium-term spending outlook.

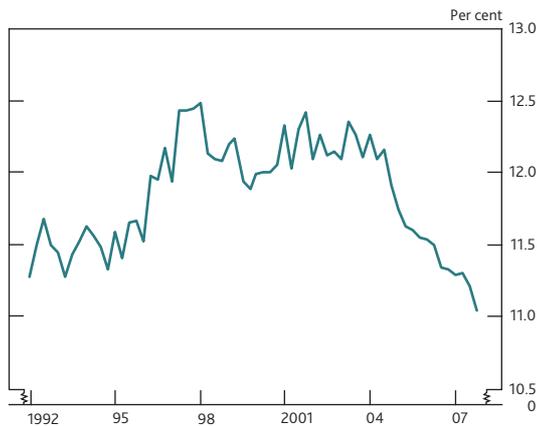
Chart 2.3 Real take-home pay growth

- (a) Wages and salaries plus mixed income.
 (b) General government benefits minus employees' National Insurance contributions.
 (c) Taxes including income tax and Council Tax.
 (d) Consumer expenditure deflator (including non-profit institutions serving households).

Real take-home pay growth has been subdued for much of the past four years (**Chart 2.3**). And although annual growth picked up towards the end of 2007, it is likely to come under further significant downward pressure in the near term. Higher energy prices are likely to contribute to a marked increase in CPI inflation in the coming months: a further round of domestic energy price increases over the summer seems probable following recent rises in wholesale oil and gas prices (Section 4). And higher import prices will also put upward pressure on CPI inflation in the near term: annual imported goods inflation reached its highest level in January since 1995. Both of these developments will push down on real take-home pay growth.

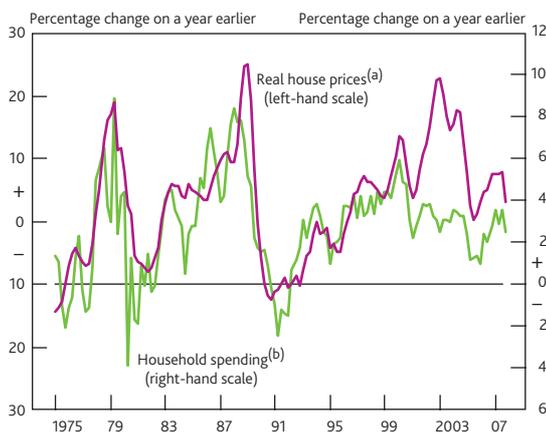
Recent developments in credit markets (Section 1) may amplify the impact of weaker real take-home pay on spending. For some households, reduced access to credit will hinder their ability to use borrowing to 'smooth through' any perceived temporary weakness in take-home pay growth. These households will be more reliant on developments in current income growth than they were in the past. For those households facing fewer credit constraints, expectations about future income may have more of a bearing on spending decisions than current income. It is possible that the tightening in credit supply and prospective easing in GDP

Chart 2.4 Share of durables in nominal consumer spending^(a)



(a) At current prices. Excludes non-profit institutions serving households.

Chart 2.5 Real house prices and household spending

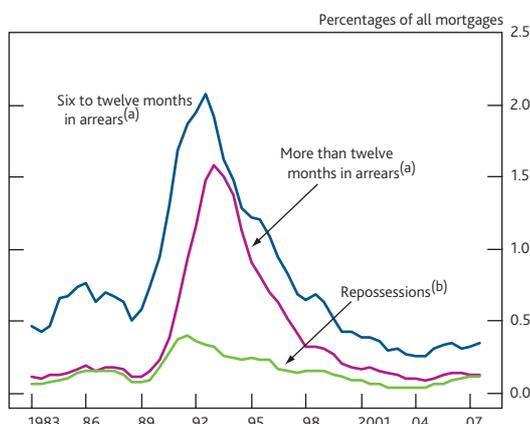


Sources: Halifax, Nationwide, ONS and Bank calculations.

(a) House prices are average of Nationwide and Halifax from 1983 onwards. Prior to that the Nationwide measure is used. Real house prices are calculated as the nominal house price measure divided by the consumer expenditure deflator (including non-profit institutions serving households).

(b) Chained-volume measure. Includes non-profit institutions serving households.

Chart 2.6 Mortgage arrears and repossessions



Source: Council of Mortgage Lenders.

(a) Mortgages in arrears at half-year end.

(b) Possessions per half year.

growth has also triggered a downward revision of income expectations.

Although income expectations cannot be directly observed, a number of measures can serve as a guide. One such indicator is spending on durable goods, which is likely to be more sensitive to changes in expectations about future income than other elements of consumption. Durables consumption fell sharply as a share of total spending in 2007 Q4 (**Chart 2.4**). However, growth in private new car registrations — a more timely but partial indicator of durables spending — has been relatively firm recently. Declines in durables expenditure could also reflect households cutting back on more discretionary spending in response to higher inflation of food, fuel and domestic energy.

Another indicator of expected future income is consumer confidence. Confidence measures have fallen markedly in the recent past (see the box on page 22), and that is potentially consistent with a reassessment of income expectations. However, past sharp falls in confidence have typically not contained additional information about likely consumer spending trends above and beyond standard macroeconomic indicators.

The outlook for the housing market has weakened (Section 1), but the implications of that for household spending are not clear-cut.⁽¹⁾ In particular, while those wishing to trade down are likely to be worse off when house prices fall, those wishing to trade up or enter the market for the first time benefit. Even when house prices and household spending have moved together on occasions in the past, for example during the early 1990s, that is likely to have reflected common influences — such as income expectations and interest rates — rather than a direct causal link. And household spending does not always move with house prices, for example during the early part of this decade (**Chart 2.5**).

The combination of tightening credit supply and weaker house price inflation has nevertheless meant that numerous homeowners — especially those with only small amounts of housing equity — have found it more difficult or expensive to remortgage (Section 1). However, surveys suggest that many existing homeowners have built up a sizable amount of housing equity in recent years. According to the 2007 NMG survey, for example, around 60% of mortgagors had more than £100,000 of equity in their homes in September 2007. This equity cushion has left these households somewhat less exposed to the recent tightening in credit terms. In the data available so far, indicators of household financial stress have not risen significantly; arrears picked up only slightly over 2007, while repossessions were broadly unchanged

(1) See Benito, A, Thompson, J, Waldron, M and Wood, R (2006), 'House prices and consumer spending', *Bank of England Quarterly Bulletin*, Summer, pages 142–54.

The implications of recent falls in consumer confidence for spending

Consumer confidence measures have fallen markedly over the past eight months (**Chart A**). For example, the headline GfK balance declined to its lowest level since 1990, and both the Nationwide and YouGov indices have also fallen. This box considers the potential implications for consumer spending. It concludes that, while declines in consumer confidence may corroborate the message from other indicators of some underlying weakness in current spending, the implications for future spending trends are less clear.

Chart A Indicators of consumer confidence



Sources: Nationwide, research carried out by GfK NOP on behalf of the European Commission, YouGov and Bank calculations.

- (a) The headline balance is calculated as the average of the five component balances shown immediately below. The major purchases balance has been seasonally adjusted by Bank staff.
 (b) Latest data are for April 2008.

Historically, a large proportion of movements in confidence can be 'explained' by changes in measurable determinants of household spending such as wages, employment, the cost of living, asset prices and interest rates. However, only around half of the fall in the headline GfK consumer confidence balance between August 2007 and March 2008 can be accounted for by developments in macroeconomic indicators, with the remainder being 'unexplained'.⁽¹⁾

Past Bank research has shown that 'unexplained' falls in confidence have not, on their own, typically been associated with slowdowns in spending growth. In other words, consumer confidence measures have historically contained little information about consumer spending over and above other macroeconomic indicators. However, there are a number of reasons why the recent declines in confidence may contain pertinent information.

First, consumer confidence measures are more timely than official measures of spending and its determinants. Typically, confidence data for any given quarter are available around two

months before official estimates of aggregate household spending first become available, and three months prior to official data on real take-home pay. Confidence indicators may therefore provide early information about developments in household spending. So the recent declines in confidence may mean that there has already been a deterioration in the determinants of consumption, and that spending growth is already slowing.

Second, given the unusual nature of recent financial market events, past statistical relationships between consumer spending data and confidence may not hold. For example, the 'unexplained' falls in confidence may reflect the effect of difficult to measure variables — such as credit availability or income expectations — that are likely to be particularly important at present. Looking beyond the headline confidence balances can help shed light on whether that may be the case.

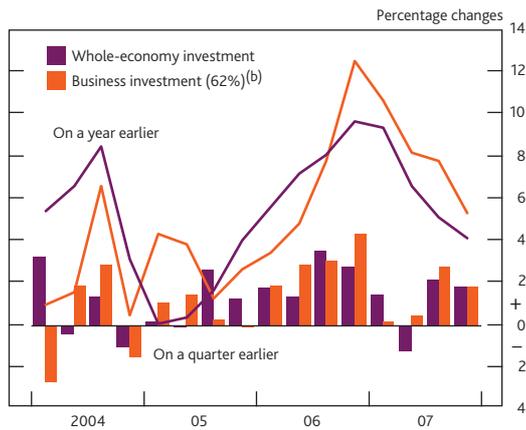
Both reduced access to credit and lower income expectations are particularly likely to affect spending on major purchases. Within the headline GfK balance, the major purchase balance — which asks households about whether now is a good time for people in general to make a major purchase — has fallen the most sharply (**Chart A**).

Another way of assessing the information in confidence balances is to look at whether households are becoming gloomy about prospects for the economy in general, or about their own finances in particular. Confidence about the general economic situation has deteriorated by more than confidence about households' personal situation, according to the GfK survey (**Chart A**). Declines in confidence about households' personal situation may be more relevant for spending decisions than confidence about the economy more generally.

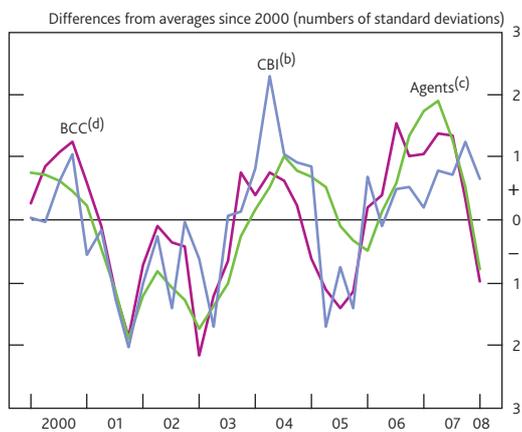
A further potentially useful split of the headline confidence balances is into confidence about the past and about the future. Changes in confidence about the future may be more informative about future spending trends. But the evidence from the GfK survey is mixed: while personal financial confidence about the future has fallen more than about the past, the opposite is true for confidence about the general economic situation (**Chart A**). The corresponding split in the YouGov data also paint a mixed picture.

Overall, the evidence that recent declines in consumer confidence contain additional information about future spending trends is not strong at present. But if there were a further marked fall in households' reported views of their own financial situation or future economic trends, that could signal a weaker outlook for consumer spending.

(1) See Berry, S and Davey, M (2004), 'How should we think about consumer confidence?', *Bank of England Quarterly Bulletin*, Autumn, pages 282–90. The equation used to inform the analysis in this box is an updated version of that described in the article, and has been re-estimated from 1984 to 2007.

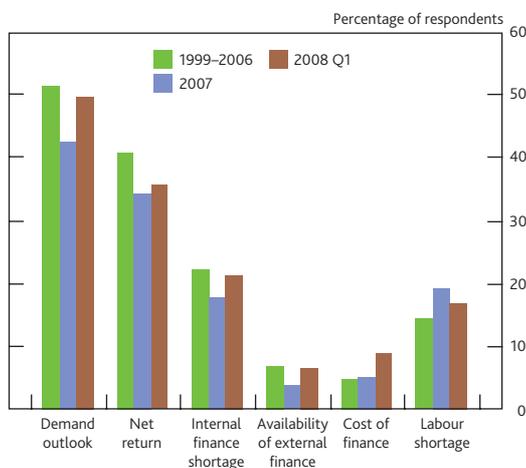
Chart 2.7 Whole-economy and business investment^(a)

(a) Chained-volume measures.
 (b) Adjusted for the transfer of nuclear fuel reactors from the public corporation sector to central government in 2005 Q2. Figure in parentheses shows share of total investment in 2007.

Chart 2.8 Investment intentions^(a)

Sources: Bank of England, BCC, CBI, CBI/Grant Thornton, CBI/PwC and ONS.

(a) Measures weight together sectoral surveys using shares in real business investment.
 (b) Net percentage balances of companies who plan to increase investment in plant and machinery over the next twelve months.
 (c) Companies' intended changes in investment over the next twelve months.
 (d) Net percentage balances of companies who say they have revised up their planned investment in plant and machinery over the past three months. Non seasonally adjusted.

Chart 2.9 Factors likely to hold back investment^(a)

Sources: CBI, CBI/Grant Thornton, CBI/PwC and ONS.

(a) Measures weight together sectoral surveys using shares in real business investment. Companies are asked for their twelve-month forecast of factors likely to limit capital expenditure authorisations. Financial services companies are not asked to distinguish between a shortage of internal and availability of external finance, so response is used for both questions.

(Chart 2.6). And although repossession orders have risen more markedly than actual repossessions, market intelligence suggests that this is because some lenders have increasingly been using repossession orders as a way of encouraging repayment. Section 5 discusses the medium-term risks for household spending associated with the housing market and tighter credit supply.

As discussed in previous *Reports*, there are a number of reasons why households may raise their saving in the current economic climate: increased macroeconomic uncertainty; reduced access to credit; and lower asset prices. The latest data show that the saving ratio remained low relative to historic standards in 2007 Q4, at 3.3%.

Investment

Both whole-economy and business investment growth eased a little in 2007 Q4, to 1.8% (Chart 2.7). Moreover forward-looking surveys of investment intentions fell back in 2008 Q1, some quite markedly (Chart 2.8). These indicators suggest that business investment growth may weaken further in the near term.

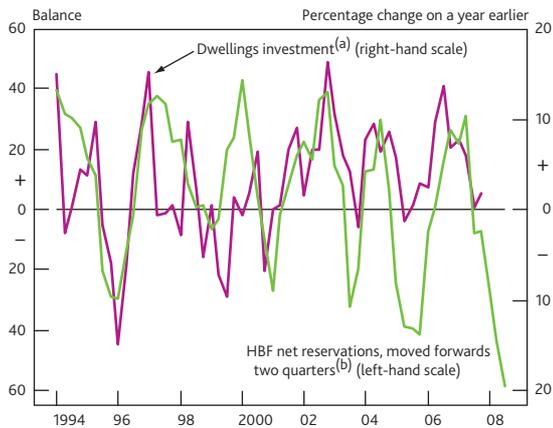
A key influence on investment intentions is the outlook for demand; if demand weakens, then investment is likely to be less profitable. Companies may also postpone investment if they become more uncertain about demand. The percentage of companies citing the outlook for demand as a factor likely to constrain investment rose in 2008 Q1 (Chart 2.9). Reports from the Bank's regional Agents suggested that the prospective easing in demand was an important reason for the fall in investment intentions.

The cost and availability of finance will also influence investment intentions, although companies typically say that these factors are secondary to the outlook for demand. Companies can draw upon both external finance — such as loans and bonds — and internal finance for investment spending. Concerns about the cost and availability of both rose in 2008 Q1 (Chart 2.9).

Developments in commercial property markets are also important to the overall outlook for business investment. Although commercial property prices have been falling for some time (Section 1), investment in non-residential buildings and structures — which accounts for around one third of business investment — was firm in 2007 Q4. That may reflect a delay between the initiation of new projects and their appearance in the investment figures. Recent surveys point to falls in construction activity (Section 3), which may indicate weaker near-term commercial property investment.

With the housing market weakening, the outlook for dwellings investment is another key consideration. Dwellings investment accounted for around 20% of overall investment in

Chart 2.10 Dwellings investment and housing market activity

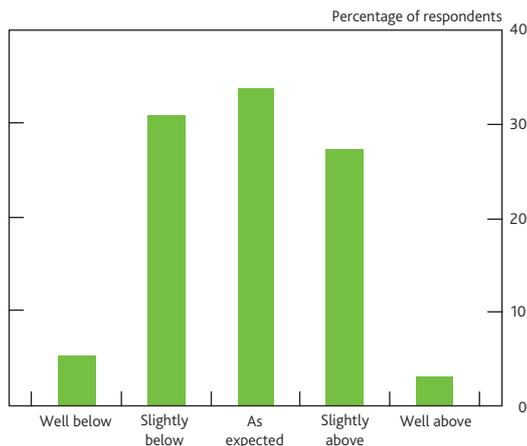


Sources: Home Builders Federation (HBF), ONS and Bank calculations.

(a) Chained-volume measure. Includes new dwellings and improvements to dwellings by both the private sector and public corporations.

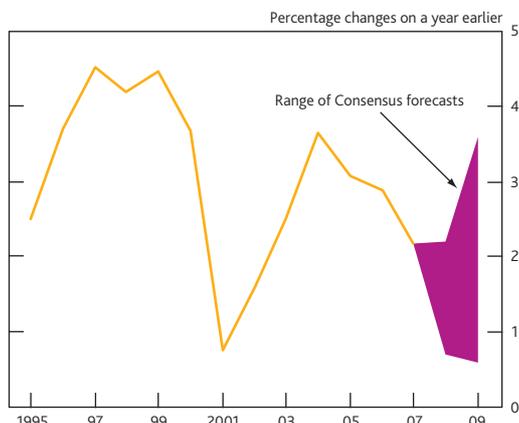
(b) Seasonally adjusted by Bank staff. Quarterly averages of monthly data.

Chart 2.11 Agents' survey: actual versus expected sales^(a)



(a) Based on 245 responses to a survey of companies by the Bank's regional Agents in March 2008, weighted by respondents' turnover. Contacts were asked the following question: 'How did actual sales differ from expected sales over the past six months?'

Chart 2.12 US GDP Consensus forecasts^(a)



Sources: Consensus Economics and US Bureau of Economic Analysis. For further information on Consensus forecasts, see www.consensuseconomics.co.uk.

(a) Chained-volume measure. Range of forecasts taken from April 2008 Consensus forecast.

2007. Although annual growth in dwellings investment picked up a little in 2007 Q4, it remained weak, and growth was also revised down in the previous quarter. In the past, dwellings investment has moved quite closely with indicators of housing market activity (**Chart 2.10**). So the recent weakening in housing market activity (Section 1) may indicate a significant fall in dwellings investment in the near term. Lower dwellings investment may be particularly noticeable in the market for flats: in England, flats accounted for around 45% of housing starts in the 2006–07 financial year, compared with only 15% in 1997–98.

Inventories

In 2007, there was a significant accumulation of inventories. However, data on inventories are particularly uncertain, so some of this unusually large increase may be revised away. Consistent with that, a survey conducted by the Bank's regional Agents in March found that companies had not experienced a significant unexpected accumulation of stocks over the past six months. Indeed, on average, businesses found that sales over the past six months were close to their expectations (**Chart 2.11**).

Government spending

In 2007 as a whole, nominal government spending rose by 5.3%. For 2008 and onwards, the plans set out in *Budget 2008* showed government spending growth easing over the next three financial years, following a broadly similar path to that outlined in the *Pre-Budget Report and Comprehensive Spending Review* published in October 2007. The Government also revised down its expectations for near-term tax revenues, largely reflecting a weaker outlook for GDP growth.

2.2 External demand and net trade

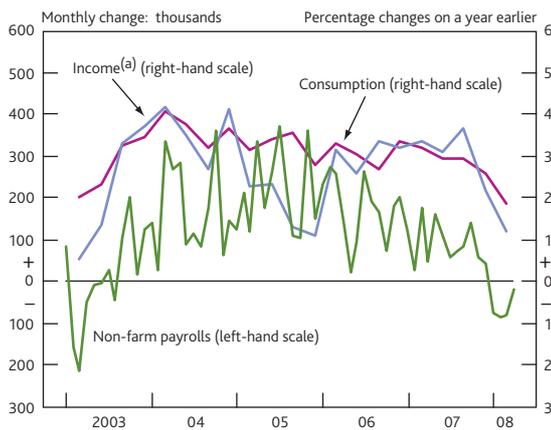
Financial markets have remained under stress since the *February Report* (Section 1). A key consideration is the extent to which that market dislocation feeds through into economic activity in the United Kingdom's trading partners.

The United States

The US outlook has deteriorated. But there is marked uncertainty over the severity and duration of the slowdown, as reflected for instance, in the wide range of outturns envisaged by forecasters in the Consensus panel (**Chart 2.12**). Indeed, the dispersion of forecasts for US GDP growth in 2008 and 2009 has increased sharply over the past six months.

The depth and persistence of the downturn in US growth depends on a number of factors. One is the extent to which spillovers from the housing market affect the economy more widely. The weakness in the housing market has become more pronounced in recent months. House price inflation fell further in February, according to the latest Case-Shiller

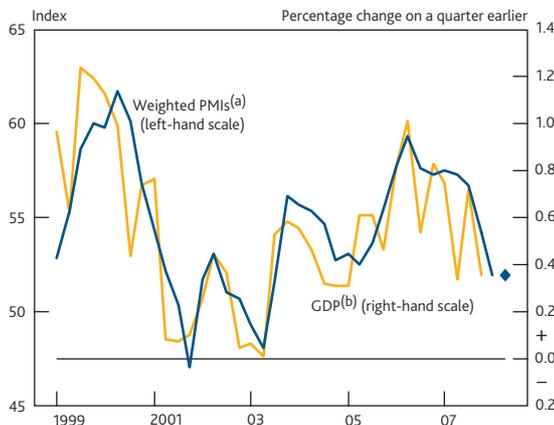
Chart 2.13 US non-farm payrolls, consumption and real disposable income



Sources: US Bureau of Economic Analysis and Bureau of Labour Statistics.

(a) Real personal disposable income.

Chart 2.14 Indicators of euro-area output



Sources: Eurostat and Reuters.

(a) Quarterly averages of monthly manufacturing and services business activity indices weighted together using nominal shares of industrial production and services in gross value added. A reading of above 50 indicates increasing output and a reading below 50 indicates decreasing output. The diamond shows the outturn for April.

(b) Chained-volume measure.

measure; housing starts declined in March to their lowest level since 1991; and residential investment fell sharply in 2008 Q1, by 7.4%.

Another important consideration is developments in credit conditions. Credit conditions continued to tighten for both households and companies, according to the April *Senior Loan Officer Opinion Survey*. For example, 62% of respondents reported that they had tightened prime mortgage lending standards, compared with 53% in the January survey. However, lower official interest rates, together with measures introduced by the Federal Reserve Board to increase liquidity and raise confidence, should help to mitigate this over time.

Another key influence is the outlook for real income growth. Real take-home pay growth has eased, and may be depressed further by falls in employment in 2008 Q1 and April (**Chart 2.13**). However, the fiscal package — which is expected to boost household income in 2008 Q2 — should provide some impetus to household spending in the near term. The package is targeted at lower income households, who should be more likely to spend the extra money.

The euro area

Official data showed that euro-area growth eased in 2007 Q4 (**Chart 2.14**). Household spending fell, driven by a decline in spending in Germany. So far in 2008, survey data suggest that overall output growth has been below its average over the past decade. Retail sales growth in 2008 Q1 was subdued.

Looking ahead, the determinants of domestic demand in the euro area as a whole are broadly supportive. Employment growth has been strong, which should boost labour income growth. And although households have become more concerned about the prospect of unemployment, business surveys of employment intentions point to only a small reduction in employment growth in the near term. Tighter credit supply may limit households' access to credit, but the tightening so far has been quite modest. In the external sector, the recent appreciation of the euro is likely to push down on euro-area export demand. However, recent muted wage growth in many euro-area countries means that companies are still relatively well placed to compete in export markets.

Rest of the world

Japanese growth was relatively strong in 2007 Q4, at 0.9%, compared with 0.3% in the previous quarter. But some forward-looking indicators, such as the Tankan survey of business confidence, suggested a weakening in demand in the near term.

The emerging market economies of Asia have been a key driver of world growth over the past few years. Recently, growth has generally remained robust, with China, for example, growing

by 10.6% in the year to 2008 Q1, despite the turbulence in global financial markets. Commodity-rich countries continue to benefit from high commodity prices.

Net trade

The Committee's central projection envisages a slowing in GDP growth (Section 5). But within that, a stronger contribution from net trade is expected to provide a partial offset to weaker domestic demand growth. In 2007 Q4, net trade is estimated to have added to growth: net trade contributed 0.2 percentage points to real GDP growth (Table 2.A), a stronger picture than earlier in the year. The current account balance also rose sharply in 2007 Q4, to -2.4% of GDP, more than reversing the deterioration in 2007 Q3. But that increase was driven primarily by increased net income from abroad, reflecting lower payments by foreign-owned banks in the United Kingdom to their parent companies, following mark-to-market losses in 2007 Q4.

Although weaker world trade prospects are likely to pull down on UK exports in the near term, the depreciation of sterling (Section 1) should weigh against that over time. Surveys of export orders fell back a little in early 2008, but most remained above their averages over the past decade (Table 2.B). The CIPS/NTC export orders balance fell below its average in Q1, but was broadly unchanged in April. As well as supporting export demand, the fall in sterling should also dampen import demand, further boosting net trade.

Table 2.B Export orders^(a)

	Averages since 1998	2007			2008
		Q2	Q3	Q4	Q1
Manufacturing					
BCC orders ^(b)	5	26	29	19	16
CIPS/NTC orders ^(c)	50.2	53.7	53.9	52.6	49.0
CBI orders ^(d)	-27	-8	-9	-4	-12
Agents' scores ^(e)	0.8	2.9	2.9	2.7	2.6
Services					
BCC orders ^(b)	7	13	12	11	10

Sources: Bank of England, BCC, CBI and CIPS/NTC.

(a) Dates refer to the period in which the survey was conducted.

(b) Percentage balance of respondents reporting orders to be 'up' relative to 'down' over the past three months.

(c) A reading above 50 indicates increasing orders/new business this month relative to the situation one month ago. Quarterly data are averages of monthly indices.

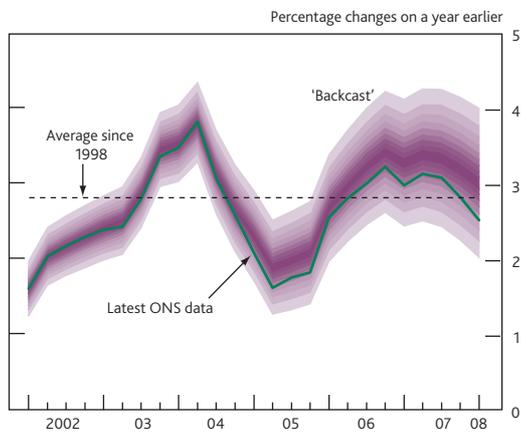
(d) Percentage balance of respondents reporting volume of orders to be 'above' relative to 'below' normal.

(e) Volume of sales over past three months compared with same period a year ago.

3 Output and supply

Output growth eased in 2008 Q1, and survey indicators point to a further slowing in the near term, particularly in those sectors most exposed to the dislocation in financial markets. Capacity pressures within businesses were reported to have fallen back in Q1. Employment growth was strong in the three months to February. However, surveys of employment intentions suggested weaker growth over the coming months. Indicators of labour market tightness remained mixed.

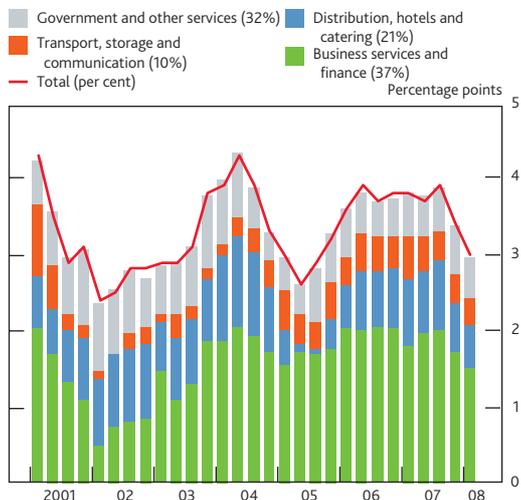
Chart 3.1 GDP at market prices^(a)



Sources: ONS and Bank calculations.

(a) Chained-volume measures. The fan chart depicts an estimated probability distribution for GDP growth over the past. It can be interpreted in the same way as the fan charts in Section 5 and forms the first part of the fan chart shown in Chart 5.1 on page 39. For more information, see Cunningham, A and Jeffery, C (2007), 'Extracting a better signal from uncertain data', *Bank of England Quarterly Bulletin*, Vol. 47, No. 3, pages 364–75. When calculating growth rates, the level of output prior to 2003 is set to equal the ONS data. The post-1998 average is calculated using the latest ONS data.

Chart 3.2 Contributions to four-quarter service sector output growth^(a)



(a) Chained-volume measures. Figures in parentheses are shares in services in 2003. The bars in the chart do not sum precisely to total services growth because of rounding differences.

Over the past nine months, the policy debate has been shaped by two key events — the dislocation in financial markets and the continued rise in energy and import prices. These developments are likely to affect both output (Section 3.1) and potential supply (see the box on page 28). Changes in the balance between output and potential supply are a key determinant of inflationary pressure, and will be reflected in both capacity pressures within companies (Section 3.2) and the degree of slack in the labour market (Section 3.3).

3.1 Output

Quarterly GDP growth eased in 2008 Q1 to 0.4%.

Four-quarter growth also moderated to 2.5%, slightly below its average over the past decade. Excluding oil and gas output, which fell sharply in Q1, the slowdown in annual GDP growth was slightly less marked.

Early estimates of GDP growth are subject to revision. The MPC therefore places weight on a range of other indicators, including business surveys and past patterns in the data, when assessing the pace of output growth. Overall, the Committee judges that four-quarter GDP growth is more likely to be revised up than down over the past (Chart 3.1). Even so, the MPC's 'backcast' incorporates a slowing in four-quarter growth in 2008 Q1.

Looking ahead, the MPC expects a further slowdown in output growth in the near term, driven in particular by weaker growth in the service and construction sectors.

Sectoral trends

In the service sector, which makes up around 75% of UK output, four-quarter growth eased in 2008 Q1, to 3% (Chart 3.2). Within that, growth in the business services and finance sector continued to moderate: at 0.4%, quarterly growth was the weakest since 2003 Q2. The latest monthly Index of Services data also point to weakness in the hotels and

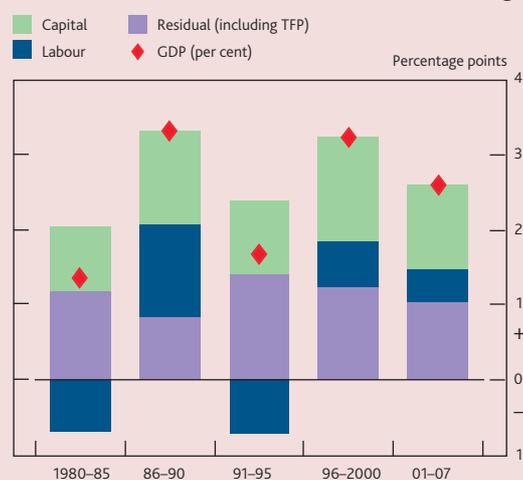
The impact of the dislocation in financial markets on potential supply

The outlook for inflation depends not only on prospects for output, but also on prospects for potential supply. This box discusses the impact of the dislocation in financial markets on potential supply. It concludes that the developments in credit markets could push down on potential supply growth, although there are marked uncertainties about the magnitude and timing of that impact.

What drives potential supply?

The economy's potential supply depends on the amount of labour and capital at its disposal, as well as the technical efficiency with which businesses can combine them, sometimes referred to as total factor productivity (TFP). There are a variety of ways of estimating the relative importance of these three factors. One decomposition suggests that labour and capital have accounted for around 60% of the growth in output since the mid-1990s (**Chart A**).⁽¹⁾ The residual in **Chart A** includes the impact of TFP growth and a number of other factors, including measurement errors. The remainder of this box discusses how tightening credit supply can affect TFP, labour and capital in more detail.

Chart A Estimated contributions to annual GDP growth^(a)



Sources: ONS (including Labour Force Survey) and Bank calculations.

(a) Chained-volume measure. The decomposition is based on total hours worked, whole-economy capital services and the latest vintage of ONS GDP growth estimates. The estimated contributions of capital and labour are based on a Cobb-Douglas production function, with constant income shares of labour and capital (0.7 and 0.3 respectively).

Total factor productivity

The tightening in credit supply will reduce the availability and increase the cost of external finance relative to internal funds (such as retained profits). As a result, those businesses without deep wells of internal funds may no longer be able to undertake new, productive investment, leading to slower aggregate TFP growth. That may be particularly applicable to innovative start-ups, who may be more reliant on bank

finance. In that case, the tightening in credit supply could contribute to slower TFP growth by restricting market entry and hindering competition.

Tighter credit supply and heightened uncertainty about the future economic outlook are likely to lead to a reduction in research and development (R&D) spending. That effect may be greater if those businesses that engage in significant amounts of R&D have greater leverage. Heightened risk aversion within the banking sector could also lead to a redistribution of credit away from riskier, more productive businesses to safer, less productive ones, further intensifying the impact. However, given that technological advances usually take time, the impact of weaker R&D spending on potential supply may not be immediately evident.

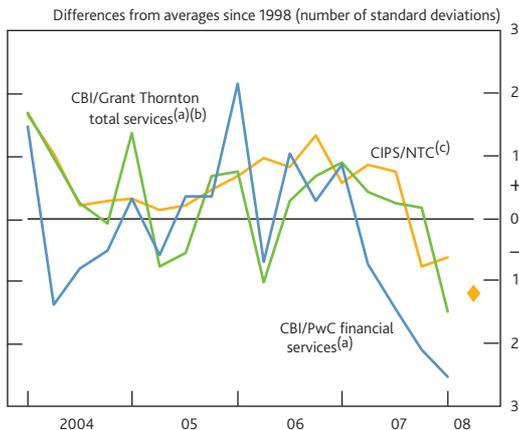
Labour and capital

Developments in credit markets could also affect potential supply via their impact on labour and capital. In recent years, UK labour supply growth has been boosted by net inward migration. The prospective slowdown in the United Kingdom may temporarily discourage inward migrants, pushing down on labour supply growth (Section 3.3). If the likelihood of finding work falls (following, for example, a rise in unemployment), then domestic jobseekers may also become discouraged and leave the labour market, temporarily reducing participation. But against that, participation may rise as lower asset prices reduce household wealth. And some employees may try to work longer hours in an attempt to offset the squeeze of tighter credit supply on disposable incomes.

In principle, tighter credit supply can put upward pressure on businesses' non-wage costs — for example, by pushing up debt-servicing costs or by making it more difficult to borrow working capital before production begins. There is mixed evidence to suggest that tighter credit supply has contributed to higher non-wage costs. Although the cost of bond finance has risen since the *February Report*, the effective bank lending rates facing businesses have, on average, fallen in recent months (Section 1). And CBI surveys suggest that, outside the financial services sector, few respondents have yet cited availability of external finance as a constraint on output. Higher non-wage costs can affect potential supply in a number of ways — including via labour supply (Section 3.3).

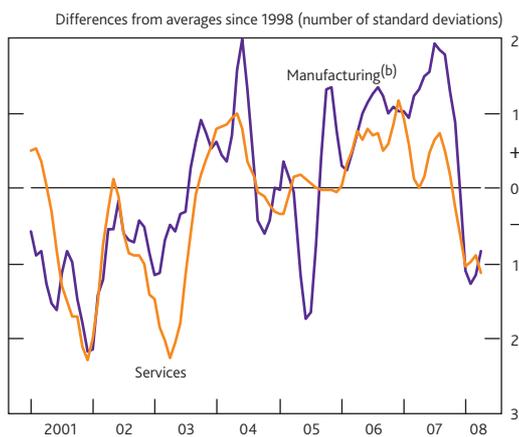
The financial market dislocation may lead to postponement or even cancellation of investment plans (Section 2), pushing down on future levels of businesses' capital. However, given that quarterly business investment flows only make up around 2% of the private sector capital stock, this effect is likely to take some time to have a substantial impact.

(1) For more details on decomposing output growth into the contributions of capital, labour and TFP, see the box on pages 26–27 of the *May 2003 Report*.

Chart 3.3 Indicators of service sector output growth

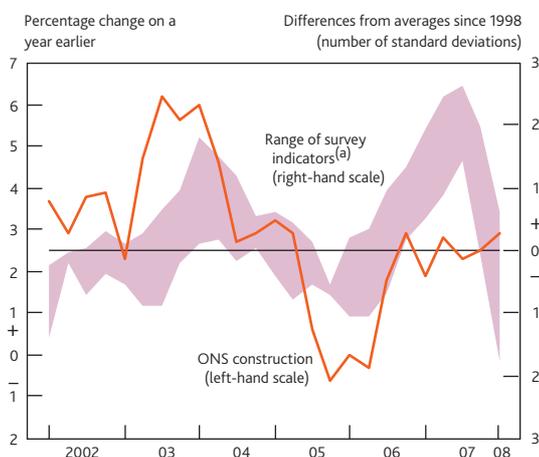
Sources: CBI/Grant Thornton, CBI/PwC and CIPS/NTC.

- (a) Percentage balances of respondents expecting volume of output/business to be 'up' relative to 'down' over the next three months.
 (b) Deviations from average since 1998 Q4.
 (c) Based on quarterly averages of the new orders index. The question asks whether orders are higher or lower relative to the situation one month ago. The diamond is based on the monthly outturn for April.

Chart 3.4 Indicators of changes in backlogs of work^(a)

Source: CIPS/NTC.

- (a) The question asks whether the level of backlogs/outstanding business is higher or lower relative to the situation one month ago. Three-month moving averages.
 (b) Differences from average since November 1999.

Chart 3.5 Indicators of construction sector output

Sources: Bank of England, CIPS/NTC, Experian and ONS.

- (a) The swathe consists of: quarterly averages of the Experian construction activity index and the CIPS/NTC construction activity balance; and the end-quarter Agents' score for construction sector output.

catering sector in the three months to February, consistent with reports from the Bank's regional Agents.

Surveys suggest that service sector output growth is likely to slow in the near term. The CIPS/NTC new orders balance fell sharply in April (**Chart 3.3**). Surveys also point to a marked slowdown in those industries most exposed to the financial market dislocation. For example, the *CBI/PwC Financial Services Survey* expected output balance has fallen materially in recent quarters.

The CIPS/NTC survey also suggests that businesses have been clearing backlogs of work that had built up during the period of strong demand growth in 2007 H1 (**Chart 3.4**). That process may have been supporting overall output growth in recent months. The lower level of backlogs may provide less support to output growth going forward.

Historically, the construction sector, which accounts for around 5% of UK output, has been particularly sensitive to the economic cycle. According to official data, construction sector output growth remained steady in 2008 Q1 despite weaker housing market turnover and falls in property prices (Section 1). But given that the ONS has limited information about Q1 construction output at this stage, growth may be revised down in the future. Indeed, recent surveys point to a sharp slowing in construction output growth (**Chart 3.5**).

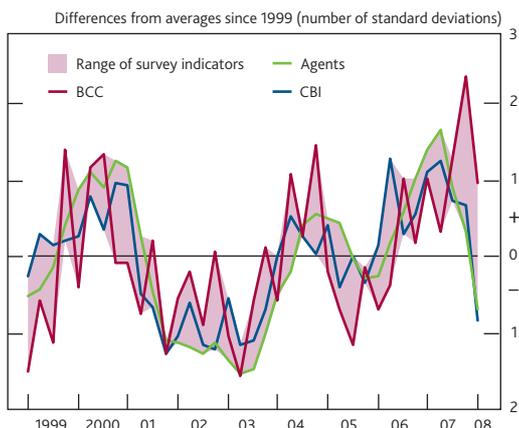
Quarterly growth in the production sector, which makes up around a fifth of UK output, fell slightly in Q1. That was driven by sharp falls in the energy sector. Manufacturing output expanded modestly in Q1. That is likely to reflect the impact of the fall in the sterling ERI since the summer of 2007 (Section 1), resilient growth in emerging economies, and businesses clearing backlogs of work (**Chart 3.4**). But reports from the Bank's regional Agents suggest that domestic orders have fallen, while surveys of export orders fell back a little in early 2008 (Section 2).

3.2 Capacity pressures and capital

Imbalances between output and potential supply will be reflected in capacity pressures within businesses. Business surveys, which provide one measure of capacity pressures, suggest that capacity utilisation fell in Q1 (**Chart 3.6**) across both the manufacturing and service sectors.

The marked decline in capacity pressures contrasts with the relatively mild slowdown in output growth, suggesting that other factors may be pushing down on reported capacity utilisation. For example, some of the decline may reflect expectations of a future slowdown in output growth — in particular, the Agents' measure relates to expected capacity pressures over the next six months, rather than current capacity constraints. But the continued strength of

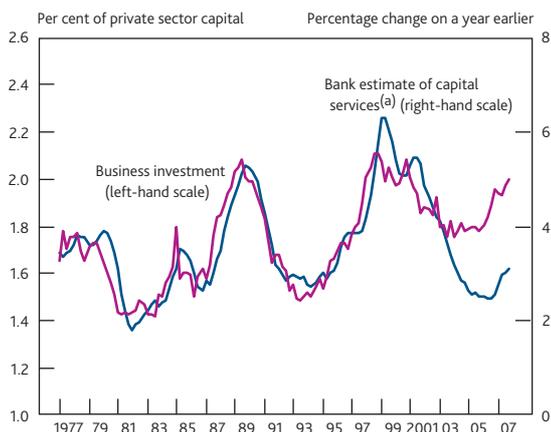
Chart 3.6 Measures of capacity utilisation^(a)



Sources: Bank of England, BCC, CBI, CBI/Grant Thornton, CBI/PwC and ONS.

(a) Three measures are produced by weighting together surveys from the Bank's regional Agents (manufacturing, services), the BCC (manufacturing, services), and the CBI (manufacturing, financial services, business/consumer services, distributive trades), using nominal shares in value added. The BCC data are non seasonally adjusted.

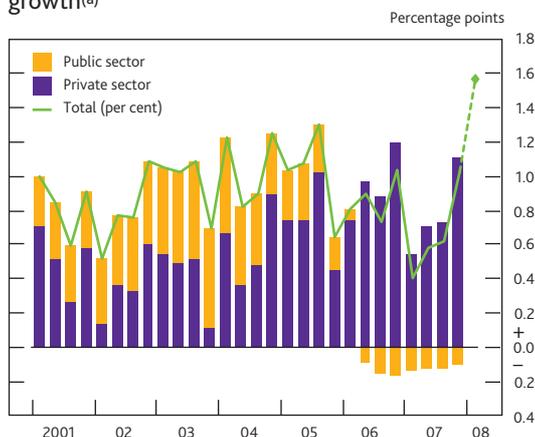
Chart 3.7 Private sector capital services and business investment



Sources: ONS and Bank calculations.

(a) See Oulton, N and Srinivasan, S (2003), 'Capital stocks, capital services, and depreciation: an integrated framework', Bank of England Working Paper no. 192 for more information on how the capital services data are constructed.

Chart 3.8 Contributions to annual employment growth^(a)



Source: ONS (including Labour Force Survey).

(a) Public sector employment data have been adjusted to be on a calendar-quarter basis. The diamond shows annual employment growth in the three months to February.

employment growth (Section 3.3) may also have alleviated some of the pressure on existing capacity.

Another possible explanation is an increase in the economy's capital stock. When assessing trends in potential supply, the MPC looks at a capital services measure, which weights together assets by their estimated contribution to potential output. Estimates of capital services growth are uncertain, for example because of the difficulty in estimating the contribution that additional investment makes to output, and the uncertainty surrounding estimates of business investment across different assets. Nonetheless, the latest Bank estimates suggest that capital services growth has risen recently, after a period of robust business investment (Chart 3.7).

Over time, however, the higher cost and lower availability of credit may reduce businesses' incentives and ability to invest in new capital (see Section 2 and the box on page 28). And if companies react to recent increases in energy prices by scrapping particularly energy-intensive machinery, that would push down on capital services growth.⁽¹⁾ Overall, capital services growth is likely to be muted in the near term.

3.3 Pressures within the labour market

Imbalances between output and potential supply will also be reflected in labour market pressures. This section discusses the influence of demand-side and supply-side factors, before turning to measures of labour market tightness.

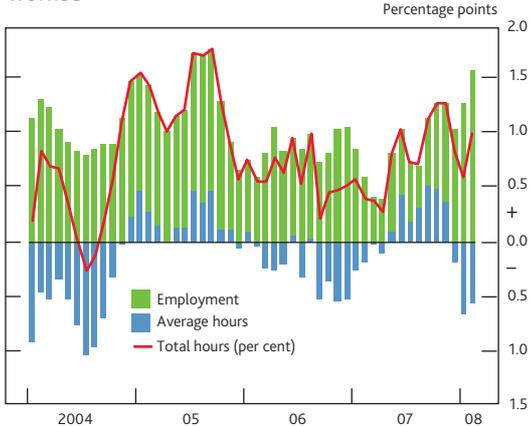
Demand-side factors

Annual employment growth was robust in Q4, driven by a further increase in private sector employment (Chart 3.8). Public sector employment, which had contributed positively to annual employment growth in the early part of the decade, has fallen over the past two years. Given the Government's spending plans (Section 2), it is likely to remain muted in the near term. Following a period of robust growth between 2006 and late 2007, self-employment growth has also been subdued in recent months.

Annual employment growth picked up further over the three months to February, despite the slowdown in output growth. This juxtaposition could reflect data mismeasurement: the Workforce Jobs measure of annual employment growth in Q4 was much weaker than that based on the Labour Force Survey (LFS). However, it is more likely that the strength in LFS employment simply reflects the lags involved between changes in the economic outlook and changes in employment decisions. Much of 2007 was characterised by robust output growth and heightened pressure on existing capacity (Chart 3.6), requiring businesses to work their existing

(1) See the box on page 19 of the November 2005 Report for a more detailed discussion of how higher energy prices may affect capital and potential supply.

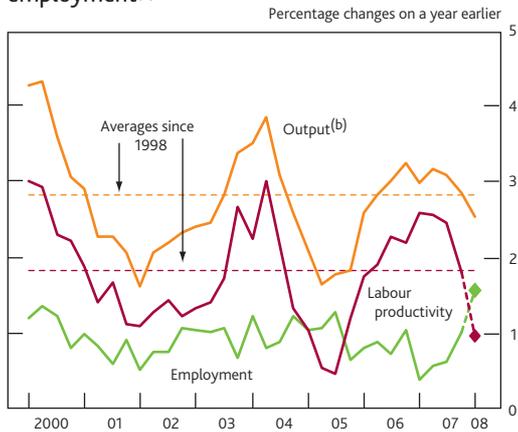
Chart 3.9 Contributions to annual growth in total hours worked^(a)



Source: Labour Force Survey.

(a) Three-month moving average measures. Average hours are defined as total hours worked divided by LFS employment.

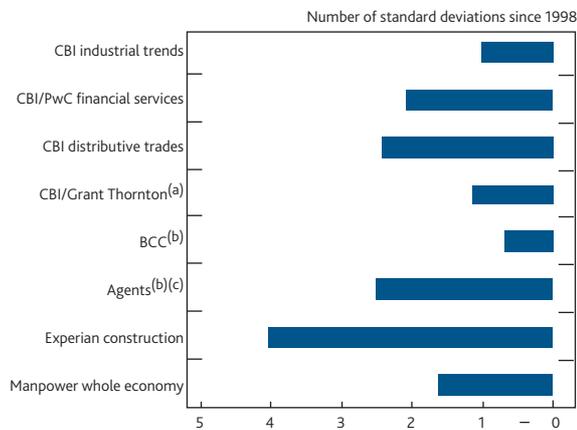
Chart 3.10 Output, labour productivity and employment^(a)



Sources: ONS (including Labour Force Survey) and Bank calculations.

(a) Labour productivity defined as GDP divided by total LFS employment. Diamonds for employment and productivity in 2008 Q1 are based on employment in the three months to February and Q1 GDP.
 (b) Chained-volume measure, at market prices.

Chart 3.11 Changes in surveys of employment intentions since September 2007



Sources: Bank of England, BCC, CBI, CBI/Grant Thornton, CBI/PwC, Experian, Manpower and ONS (including Labour Force Survey).

(a) Consumer, business and professional services. Average since 1998 Q4.
 (b) Manufacturing and services measures weighted together using employment shares. The BCC data are non seasonally adjusted.
 (c) The Agents' scores refer to companies' employment intentions over the next six months.

employees more intensively than usual. That was reflected in the pickup in average hours worked in the latter part of the year (Chart 3.9), and may have prompted businesses to hire more staff. Average hours have fallen back in recent months reflecting higher employment levels and the easing in output growth, pulling down on total hours worked.

Looking ahead, the near-term outlook for employment growth will depend in part on businesses' expectations of the likely magnitude and pace of the slowdown in output growth. Some companies may expect the slowdown to be mild or relatively short-lived. If so, they may choose to hold onto existing staff, given the costs associated with firing and rehiring workers and the recruitment difficulties reported by many businesses during 2007. In that case, fluctuations in output will be largely mirrored in changes in labour productivity, as has been the case over the past decade (Chart 3.10). But if businesses expect either a deep or a persistent slowdown in output, then employment growth will weaken markedly.

Changes in vacancies and surveys of employment intentions are both useful ways of gauging companies' hiring plans. Annual vacancies growth eased further in the three months to March. And the latest employment intentions survey balances have fallen sharply since 2007 Q3, particularly in the financial, retail and construction sectors (Chart 3.11). That points to a slowdown in future employment growth.

Supply-side factors

Demand-side factors are not the only influence on labour market pressures. Supply-side factors, including changes in net migration, participation rates and businesses' non-wage costs are also important.

Over the past four years, there has been a significant increase in labour supply. That was driven to a large extent by higher net migration, though other factors, such as increased labour market participation, also played a role. A key influence on net migration since 2004 has been the inflow of workers from the A8 Accession countries in Eastern Europe. According to the Worker Registration Scheme, the number of A8 applicants approved for work in the United Kingdom has risen by over ¾ million since 2004. Around ½ million of these people came from Poland.

For many of these people, economic factors, including the probability of finding a job and the level of wages at home and abroad, will affect whether they choose to emigrate. But economic factors change over time. For example, in Poland, there has been an acceleration in output and wages as well as a sharp fall in the unemployment rate relative to the United Kingdom (Table 3.A). The Polish zloty has also appreciated substantially against sterling, reducing the value of Polish workers' sterling remittances. These factors are likely to discourage some Polish workers from coming to the

Table 3.A Comparison of selected economic indicators in the United Kingdom and Poland

	2004	2005	2006	2007	2008
GDP growth (per cent)^(a)					
United Kingdom	3.3	1.8	2.9	3.0	2.5
Poland	5.3	3.6	6.2	6.5	n.a.
Unemployment rate (per cent)^(b)					
United Kingdom	4.7	4.8	5.3	5.3	5.2
Poland	19.0	17.7	13.8	9.6	8.0
Wage growth (per cent)^(c)					
United Kingdom	5.2	5.9	5.3	4.3	3.7
Poland	3.9	5.3	7.1	14.4	n.a.
Polish wages as a percentage of UK wages ^(d)	15.9	17.7	18.1	19.8	n.a.
Zloty per pound ^(e)	6.7	5.9	5.7	5.5	4.6

Sources: Bank of England, Eurostat and ONS (including Labour Force Survey).

(a) At market prices. The UK 2008 observation is based on four-quarter growth in 2008 Q1.

(b) Based on Eurostat data. The UK 2008 observation is based on the unemployment rate in the three months to February. The Polish 2008 data are based on the unemployment rate in the three months to March.

(c) Compensation of employees. The UK observation for 2008 is based on annual growth in the private sector average earnings index in the three months to February.

(d) Calculated using market exchange rates.

(e) Annual averages. 2008 observation based on average to 7 May.

Table 3.B Selected indicators of labour market pressure^(a)

	Average 1998–2006	2007	2008		
		Q4	Jan.	Feb.	Mar.
LFS unemployment rate ^(b)	5.3	5.3	5.2	5.2	n.a.
Claimant count ^(c)	3.3	2.5	2.5	2.5	2.5
Weighted non-employment rate ^(d)	7.0	7.6	7.6	7.5	n.a.
Vacancies/unemployed ratio ^(e)	0.40	0.41	0.42	0.42	n.a.
Recruitment difficulties ^(f)	1.7	1.0	0.9	0.6	0.3

Sources: Bank of England, ONS (including Labour Force Survey) and Bank calculations.

(a) Based on three-month moving average measures, unless otherwise stated.

(b) Percentage of the economically active population.

(c) Percentage of the sum of the claimant count and Workforce Jobs, monthly data.

(d) Percentage of the working-age population. This measure weights together the different types of non-employed by a proxy of their likelihood of finding work based on transition rates into employment derived from the Labour Force Survey (LFS). Weights are backward-looking four-quarter moving averages of the quarterly transition rates of each group into employment.

(e) The vacancies/unemployed ratio is calculated as the number of job vacancies divided by the LFS measure of unemployment. Vacancies exclude agriculture, forestry and fishing. Average is since June 2001.

(f) Agents' scores for recruitment difficulties in the most recent three months compared with the situation a year earlier.

United Kingdom to work, and encourage others to return home.

However, there are other influences that work against that, at least to a degree. For example, the level of Polish wages remains low compared to UK wages. And the establishment of social networks by previous waves of migrants may encourage further net migration, by reducing the social and cultural hurdles associated with relocation. Any reduction in Polish migration flows may also be offset by higher inflows from other countries.

Overall, the cyclical slowdown in demand may discourage net inward migration, and hence push down on labour supply growth. And, as the box on page 28 discusses, the prospective slowdown, combined with the financial market dislocation, may affect labour supply growth in other ways — for example, through changes in the participation rate.

Labour supply growth may also be restrained by increases in companies' costs. Higher non-wage costs ultimately require a downward adjustment to workers' real take-home pay relative to productivity.⁽¹⁾ If workers resist that adjustment, then businesses will tend to scale back hiring plans and unemployment will rise. Indeed, that is likely to have been the case during the adjustment to the 2004–06 rise in non-wage costs. Recently, non-wage costs have risen again following increases in energy and import prices (Section 4). Although wage growth has so far remained muted, the adjustment to higher non-wage costs could put renewed upward pressure on the unemployment rate in the near term, amplifying any impact from the slowdown in demand.

Labour market tightness

Measures of the balance between labour demand and supply — or labour market tightness — remained mixed. Many indicators have changed little since the February *Report* (Table 3.B). Some, such as the weighted non-employment rate, pointed to a slight tightening in the labour market; while others, such as the Agents' score for recruitment difficulties, were consistent with a slight loosening.

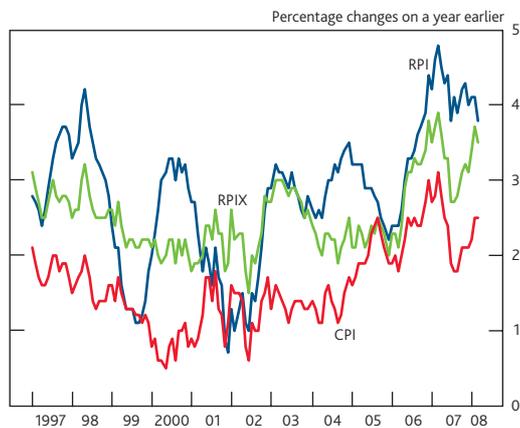
The implications of movements in labour market tightness for wage pressures will depend on the causes of the change. For example, a rise in unemployment driven by weaker cyclical demand for labour would typically be associated with a reduction in wage pressures. However, this would not necessarily be the case if a rise in unemployment were driven principally by supply-side factors. The medium-term outlook for wage pressures is discussed in Section 5.

(1) See the box on pages 30–31 of the November 2006 *Report*.

4 Costs and prices

CPI inflation was 2.5% in March and is expected to rise sharply in the near term as a result of higher domestic energy and import prices. Commodity prices have risen further over the past three months, with wholesale gas prices rising markedly and oil prices reaching record highs. Import prices increased sharply. Measures of household inflation expectations also continued to rise. But private sector pay growth remained muted. Companies' pricing intentions increased further, with survey balances reaching their highest levels for more than a decade.

Chart 4.1 Measures of consumer prices



CPI inflation has risen in recent months. In the near term, it is likely to rise further (Section 4.1), with higher commodity and import prices contributing to a further rise in companies' costs. The implications for medium-term inflationary pressure depend on a number of factors, including the response of inflation expectations and the extent to which the erosion of profit margins and real wages is resisted.

4.1 Near-term outlook for CPI inflation

CPI inflation — the measure targeted by the MPC — rose to 2.5% in March, from 2.1% in December (**Chart 4.1**). RPI and RPIX inflation were somewhat higher, at 3.8% and 3.5% respectively. In an accounting sense, the rise in CPI inflation since December reflected the increase in gas and electricity tariffs announced in early 2008, and the impact of higher global oil prices on the cost of petrol.

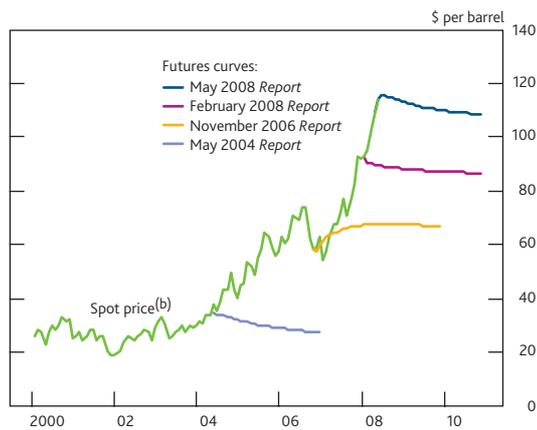
CPI inflation is likely to rise further in the near term. The cuts in gas and electricity tariffs in mid-2007 (**Table 4.A**) will fall out of the twelve-month rate in the coming months and so push up on the headline CPI inflation rate. And, since the *February Report*, Scottish and Southern Energy has announced tariff increases of around 15%. That is in line with the assumptions embodied in the MPC's February inflation projections and will be incorporated in the CPI figures from April.

The recent sharp increases in oil and wholesale gas prices (Section 4.2) are likely to place additional upward pressure on household energy bills and petrol prices later in the year. The implications for CPI inflation will depend in part on the persistence of higher wholesale prices and the response of domestic energy suppliers. But it will also be influenced by the extent to which energy-consuming companies respond by bearing down on labour costs or absorbing the increase in lower profits, rather than raising prices. Given these factors, there is considerable uncertainty around the near-term

Table 4.A Food and domestic energy prices^(a)

Percentage changes on a quarter earlier	2007				2008
	Q1	Q2	Q3	Q4	Q1
Electricity, gas and other fuels (3.5%)	2.3	-3.6	-4.1	0.0	8.3
Food and non-alcoholic beverages (10.9%)	0.4	1.4	-0.4	3.5	1.1

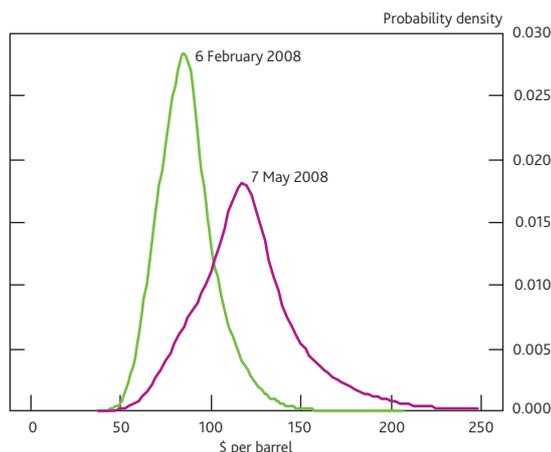
(a) Non seasonally adjusted CPI inflation rates. The figures in parentheses show the 2008 weights in the CPI basket.

Chart 4.2 Brent crude oil prices^(a)

Sources: Bloomberg and Thomson Datastream.

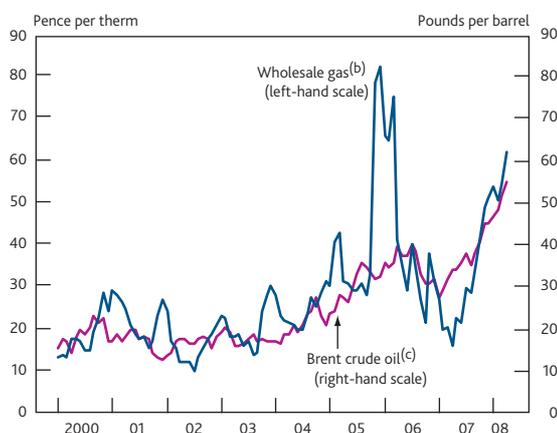
(a) Futures prices and spot price for May 2008 are averages during the fifteen working days to 7 May 2008. The equivalent data for the May 2004, November 2006 and February 2008 Reports are averages during the fifteen working days to 5 May 2004, 8 November 2006 and 6 February 2008 respectively.

(b) Monthly averages of daily data. Forward price for delivery in 10 to 21 days' time.

Chart 4.3 Market beliefs about oil prices six months ahead^(a)

Sources: New York Mercantile Exchange and Bank calculations.

(a) Data refer to the price of West Texas Intermediate crude oil. These calculations use options data and assume that investors are risk-neutral. For more details, see Clews, R, Panigirtzoglou, N and Proudman, J (2000), 'Recent developments in extracting information from options markets', *Bank of England Quarterly Bulletin*, February, pages 50–60.

Chart 4.4 Sterling oil and gas prices^(a)

Sources: Bank of England, Bloomberg and Thomson Datastream.

(a) Monthly averages of daily data.
 (b) One-day forward price of UK natural gas.
 (c) Forward price for delivery in 10 to 21 days' time.

outlook for CPI inflation. But the MPC's central projection is conditioned on a benchmark assumption that there is a further 15% rise in retail gas and electricity prices later in the year (Section 5).

Higher food prices are also likely to contribute to above-target CPI inflation in the near term. Global food prices have risen rapidly over the past year (Section 4.2). And, as with energy prices, the falls in consumer food prices in mid-2007 (Table 4.A) are due to drop out of the twelve-month rate in the summer. In an accounting sense, that will push up on CPI inflation a little.

Sterling's recent depreciation will also put upward pressure on CPI inflation in the coming months. Import prices rose sharply in 2008 Q1 (Section 4.2). And to the extent that this feeds through to consumer prices, it will add to near-term inflationary pressure.

The remainder of this section discusses the key influences on CPI inflation in more detail; Section 5 sets out the MPC's medium-term outlook.

4.2 Global costs and prices

Commodity prices

A key influence on companies' costs has been the rise in global commodity prices since 2003. Oil prices have more than trebled over that period (Chart 4.2). Looking ahead, the Brent crude oil futures curve was, on average, 27% higher over the next three years than at the time of the February Report. But there is considerable uncertainty about the outlook, and options prices suggest that financial market participants believe a wide variety of outcomes to be possible (Chart 4.3).

Wholesale gas prices have increased sharply in recent months. In the fifteen working days to 7 May, the wholesale gas futures curve was, on average, 37% higher over the next three years than at the time of the February Report. The rise in wholesale gas prices over the past three months has closely followed higher oil prices (Chart 4.4). The United Kingdom imports a significant amount of gas from the Continent, where there are close links between the gas and oil markets. And the link to continental gas prices may have strengthened in recent years following increases in the amount of gas that the United Kingdom imports from these economies.

Global food prices have also risen markedly, doubling since the start of 2003. The imposition of restrictions on rice and wheat exports by certain producers, along with increasing demand for biofuels, has contributed to global food prices rising by around 5% since the February Report.

As discussed in previous Reports, the rise in commodity prices partly reflects the growth in emerging economies, which have

become major consumers of primary commodities.⁽¹⁾ China, for example, has accounted for all of the increase in world demand for aluminium and copper since the start of 2005 and around a third of the increase in world oil consumption. That demand is likely to persist if the emerging economies continue to grow rapidly. But supply factors have also been important. OPEC producers have not raised their oil production quotas significantly since 2005, while non-OPEC supply has been consistently weaker than expected by international energy organisations. And poor harvests in North America, Europe and Australia in 2007 had a substantial downward impact on the supply of food.

One further consideration is the degree to which increased financial speculation has played a role. The continued turbulence in equity and credit markets has led to growing interest in commodities as an asset class, both as a source of higher returns and to allow greater portfolio diversification. But the Bank's market contacts report that, while speculative activity may have amplified commodity price movements in the short term, sustained price increases tend to reflect market fundamentals. That is consistent with research from the International Monetary Fund, which suggests that speculative activity tends to follow, rather than drive, movements in prices.⁽²⁾

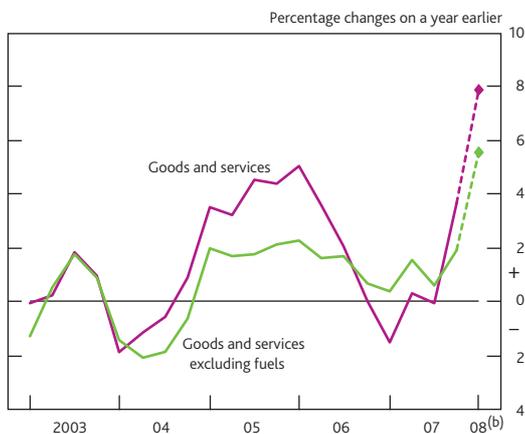
Import prices

Import prices have risen sharply in recent months (Chart 4.5): annual imported goods inflation reached its highest level in January since 1995. The implications for final consumer prices will depend on both the factors driving the change in import prices and the expected monetary policy response.

A key factor behind the rise in import prices has been sterling's 12% depreciation since July 2007. The subsequent impact on UK import prices depends on the reasons for the fall in sterling (Section 1) and the degree to which overseas companies exporting to the United Kingdom expect it to persist. However, depreciations in sterling have typically been accompanied by increases in UK import price inflation (Chart 4.6), although the limited sample of directly measured import prices can make it hard to interpret official estimates.

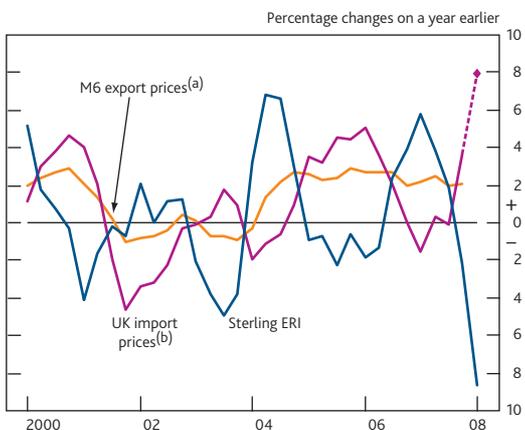
Sterling's depreciation has not been the only factor pushing up on import prices. There has also been a broader pickup in cost pressures overseas. In part, that reflects the sharp rises in commodity prices. But it could also reflect increasing capacity pressures within the emerging market economies. For example, contacts of the Bank's regional Agents have been reporting a rise in the cost of imported finished and intermediate goods from both China and India for some time.

Chart 4.5 Import prices^(a)



(a) Excluding the estimated impact of missing trader intra-community (MTIC) fraud.
(b) The 2008 Q1 observations are based on the three-monthly growth of the imported goods deflator (including and excluding oil) in January and February.

Chart 4.6 UK import prices, the exchange rate and M6 export prices



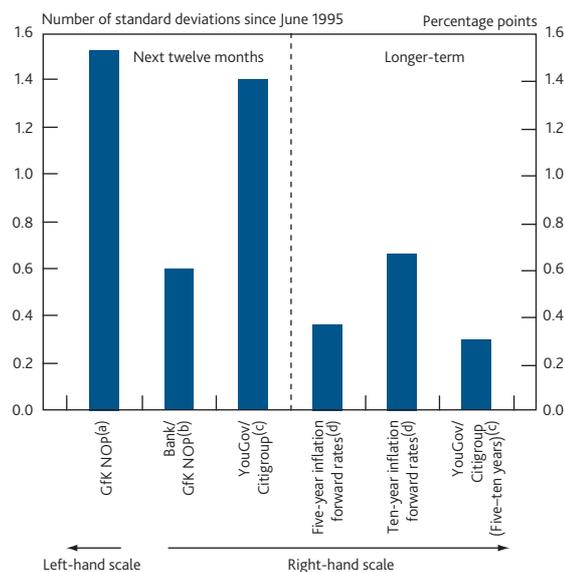
Sources: Bank of England, ONS and Thomson Datastream.

(a) The M6 consists of Canada, France, Germany, Italy, Japan and the United States. The index is an average of domestic currency export prices of goods and services for those countries, weighted by their share of UK imports in 2006. Due to a lack of data, the 2007 Q4 figure excludes Italy.
(b) Excluding the estimated impact of missing trader intra-community (MTIC) fraud. The 2008 Q1 observation is based on the three-monthly growth of the imported goods deflator in January and February.

(1) See the box on page 34 of the November 2007 Report.

(2) See Box 5.1 on pages 153–56 of the September 2006 IMF *World Economic Outlook*.

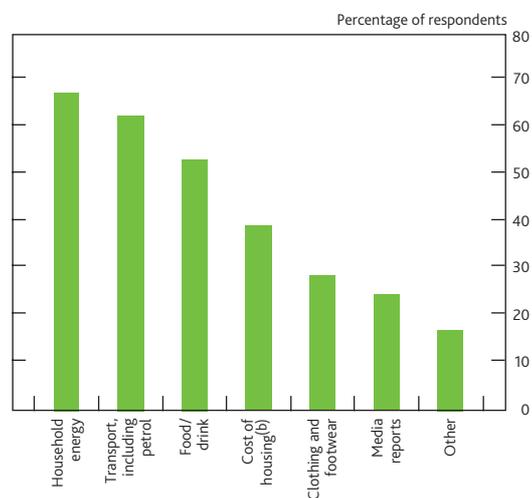
Chart 4.7 Changes in measures of inflation expectations since August 2007



Sources: Bank of England, Bloomberg, Citigroup, GfK NOP, research carried out by GfK NOP on behalf of the European Commission and YouGov.

- (a) Net balance expecting prices to increase. The question asks: 'In comparison with the past twelve months, how do you expect consumer prices will develop in the next twelve months?'.
 (b) Median of respondents' expected change in prices in the shops generally.
 (c) Median of respondents' expected change in prices of goods and services.
 (d) Implied instantaneous inflation rates five and ten years ahead based on the difference between the interest rates prevailing on nominal and index-linked government bonds.

Chart 4.8 Factors influencing people's perceptions of current inflation^(a)



- (a) Percentage of respondents to the February 2008 Bank of England/GfK NOP *Inflation Attitudes Survey* who said that each category was 'very important' when forming their current inflation perception.
 (b) For example, mortgage payments or rents.

4.3 Inflation expectations

Inflation expectations have risen further since mid-2007 (**Chart 4.7**). That could put upward pressure on both wage growth (Section 4.4) and companies' pricing intentions (Section 4.5). The degree to which that pressure persists will depend on whether there is a lasting increase in longer-term inflation expectations.

The rise in measures of short-term inflation expectations is not surprising given the recent increases in energy and food prices. Respondents to the February 2008 Bank/GfK NOP survey reported that these prices heavily influenced their perceptions of current inflation (**Chart 4.8**), which in turn informed their expectations of future inflation. Indeed, the latest rise in inflation expectations has been more pronounced among older age groups, who tend to devote a greater share of their spending to energy and food. Respondents appeared to be more uncertain about the outlook: there was a pickup in the latest survey in the proportion who said they had no idea how prices would change over the next twelve months.

Various indicators of longer-term inflation expectations have also risen (**Chart 4.7**). However, there are difficulties in interpreting these measures.⁽¹⁾ For example, the YouGov/Citigroup survey asks about the prices of goods and services, rather than CPI inflation in particular. And the financial market indicators are derived from instruments linked to RPI inflation, rather than the CPI measure targeted by the MPC. These financial market indicators also incorporate risk premia associated with uncertainty about future inflation and liquidity, and may be influenced by idiosyncratic market factors.

Despite the issues surrounding interpretation, there remains a risk that the rise across several different inflation expectations measures indicates a genuine change in medium-term inflation beliefs. That risk is discussed further in Section 5.

4.4 Labour costs

Private sector pay

Nominal wage growth has remained subdued over the past year. According to the average earnings index (AEI), the annual growth of private sector average earnings fell back to 3.7% in the three months to February (**Table 4.B**). That easing primarily reflected the influence of lower bonus payments: regular pay growth, which excludes bonuses, remained steady. That is consistent with information received by the Bank's regional Agents, who report that labour cost growth has so far remained broadly stable. The annual growth rate of the LFS measure of earnings per hour had fallen in 2007 Q4.

(1) See the box on pages 36–37 of the February 2008 Report.

Table 4.B Private sector earnings^(a)

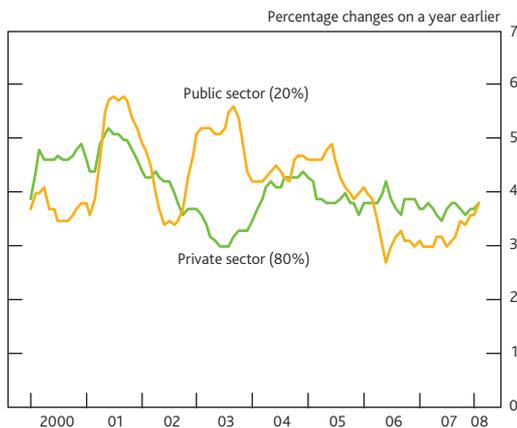
Percentage changes on a year earlier	Averages			2008		
	1998–2006	2007 H1	2007 H2	Jan.	Feb.	Mar.
	(1) Regular pay	4.2	3.7	3.7	3.7	3.8
(2) Pay settlements ^(b)	3.3	3.4	3.6	3.7	3.7	3.6
(1)–(2) Pay drift ^(c)	0.8	0.3	0.1	0.0	0.1	n.a.
(3) Total average earnings	4.3	4.2	4.1	4.0	3.7	n.a.
(3)–(1) Bonus contribution ^(c)	0.2	0.5	0.3	0.3	-0.1	n.a.

Sources: Bank of England, Incomes Data Services, Industrial Relations Services, the Labour Research Department and ONS.

- (a) Based on the monthly average earnings index. Three-month average measures.
 (b) Average of private sector settlements over the past twelve months.
 (c) Percentage points.

Chart 4.9 Real take-home pay relative to productivity^(a)

- (a) 1996 Q1–2007 Q4.
 (b) Households' post-tax wages and salaries divided by the consumption deflator. Includes non-profit institutions serving households. Productivity is calculated from ONS data on non-oil and gas market sector output divided by private sector employees.
 (c) Ratio of market sector non-oil and gas output prices to the consumption deflator, multiplied by the ratio of one minus the effective rate of tax on employees to one plus the effective rate of employers' social contributions. Profitability defined as the ratio of profits to value-added output.

Chart 4.10 Public and private sector regular pay^(a)

- (a) Three-month moving average measures based on the average earnings index. The figures in parentheses show employment shares in 2007.

An alternative measure of pay growth is provided by the experimental average weekly earnings (AWE) measure. Until recently, private sector AWE growth had markedly exceeded AEI growth. But AWE growth has since fallen back sharply, from 5.4% in the three months to November to 3.9% in the three months to February, reflecting a decline in the contribution of bonuses. Both earnings measures exclude the self-employed — whose earnings may be more sensitive to the economic cycle than those of employees — and do not directly capture the earnings of employees in small companies. The marked differences between the AEI and AWE estimates have led to an ongoing review of the AWE methodology.⁽¹⁾

Looking ahead, companies' labour costs are likely to be subject to a number of opposing forces. The past and prospective pickup in consumer price inflation may lead employees to press for higher wages to compensate. But, against that, if businesses expect the prospective slowing in the economy to be either deep or persistent, then employment growth will weaken (Section 3.3), pulling down on labour cost growth.

In addition, companies may try to offset the rise in their non-wage costs by pushing down on pay growth. The rise in companies' non-wage costs will ultimately lead to a downward adjustment in real take-home pay relative to productivity.⁽²⁾ One way of assessing the magnitude of the required adjustment is to compare real take-home pay with the level that would leave business profitability unchanged. In 2004–06, it took time for the decline in real take-home pay (relative to productivity) to be sufficiently large to offset the sharp pickup in non-wage costs (Chart 4.9). That relatively drawn-out adjustment is likely to have been one factor behind the increase in unemployment over that period. Unit non-wage costs have again picked up sharply over the past year. If companies respond by bearing down on wage growth, then real take-home pay would be very subdued over much of the forecast period (Section 5).

Public sector pay

Public sector earnings growth has picked up since the autumn (Chart 4.10) but remains below its average over the past ten years. Around 40% of public sector employees are covered by Pay Review Bodies, a number of which have recently announced their recommendations for 2008. These suggest a modest pickup in public sector pay growth over the next year.

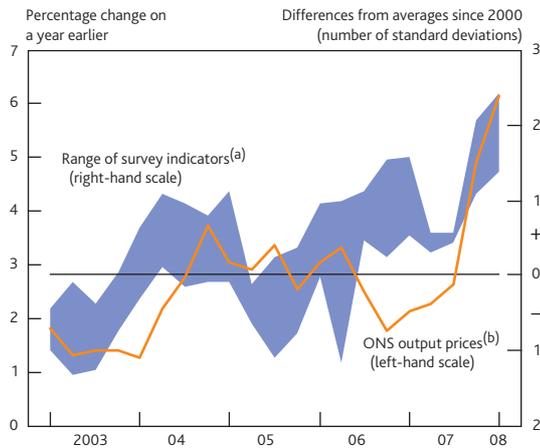
4.5 Companies' pricing decisions

A key issue is the degree to which rising costs are passed through into retail prices. In the medium to long run, that will be determined by monetary policy and the associated pace of nominal demand growth. But over shorter horizons, other

(1) See www.statistics.gov.uk/pdfdir/awe0208.pdf.

(2) See the box on pages 30–31 of the November 2006 Report.

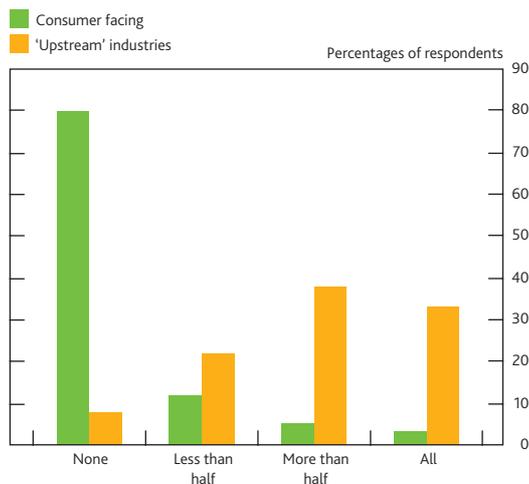
Chart 4.11 Manufacturing output prices and companies' short-term pricing intentions



(a) Three measures are produced by weighting together surveys from the BCC (manufacturing and services), the CBI (manufacturing: consumer, business and professional services; and distributive trades), and CIPS/NTC (manufacturing and services) using nominal shares in value added. The CIPS/NTC surveys ask about prices over the past month.

(b) Manufacturing sector excluding excise duties.

Chart 4.12 Agents' survey: share of costs expected to be passed on to customers^(a)



(a) Based on 190 responses to a survey of companies by the Bank of England's regional Agents between late January and early February 2008, weighted by respondents' turnover. The survey asked respondents: 'How much of any change in costs do you intend to pass on to your customers?'.

factors — such as the imbalance between the demand for private sector output and the resources available to supply it — are likely to play a role.

So far, companies earlier in the supply chain appear to have been able to pass some of the increase in their costs through to higher output prices. Early in 2008, manufacturing sector output price inflation was at its highest level since 1990, according to ONS data. And output price inflation in the service sector has remained above its average of the past decade.

Business surveys also point to a renewed pickup in companies' pricing intentions since mid-2007 (**Chart 4.11**). In a number of these surveys, the net balance of respondents expecting prices to rise in the coming months reached its highest level for over a decade. As discussed in previous *Reports*, most of these surveys track developments in current output prices fairly well.⁽¹⁾ But their additional predictive power for future inflation is less clear. Nevertheless, the surveys provide corroborative evidence that these companies remain confident about their ability to increase prices in response to rising non-wage costs. They are also consistent with a pickup in companies' inflation expectations, although there are no direct or comprehensive measures of these.

An important issue is the extent to which these price increases earlier in the supply chain feed through into final consumer prices. And here the evidence is mixed. According to the *CBI Distributive Trades Survey*, the net balance of retailing respondents expecting selling prices to rise over the next month has increased to its highest level since the mid-1990s. But a recent survey by the Bank's regional Agents suggested that a substantial majority of consumer-facing companies did not expect to pass increases in their costs on to their customers (**Chart 4.12**).

(1) See the box on pages 32–33 of the May 2007 *Report*.

5 Prospects for inflation

In the central projection, which assumes that Bank Rate follows market yields, GDP growth slows under the influence of weaker real income growth and tighter credit supply. But inflation rises further above the 2% target and remains there for several quarters as energy and import prices pick up sharply. The period of below-average growth opens up a margin of spare capacity which, together with the waning of the temporary boost from higher energy and import prices, helps to bring inflation back to around the target in the medium term. Both the slowdown in GDP growth and the pickup in inflation are more marked than in the *February Report*. The key risks to inflation are: on the downside, the possibility that a more prolonged period of subdued demand opens up a larger margin of spare capacity; and, on the upside, the possibility that the persistent period of above-target inflation leads to a lasting increase in medium-term inflation expectations. Overall the risks to growth lie to the downside in the medium term, but those to inflation lie to the upside.

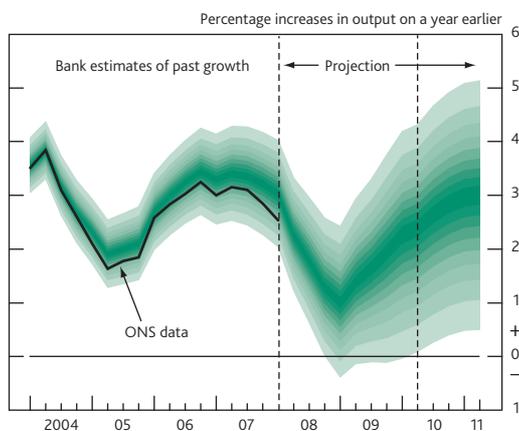
5.1 The projections for demand and inflation

The outlook for inflation continues to be shaped by two significant but opposing forces. Sharp increases in energy and import prices are set to push up further on inflation in the near term, posing risks to the medium-term outlook if inflation expectations remain elevated. At the same time, a pronounced tightening in the supply of credit, coupled with the pressure of higher energy and import prices on real incomes, is expected to slow activity this year, pulling down on future inflation. Both forces have intensified since the *February Report*. The key challenge for the Monetary Policy Committee is to judge where the balance of these risks lies in the medium term.

The outlook for aggregate demand is shown in **Chart 5.1**, on the assumption that Bank Rate edges down over the next year in line with market yields (see the box on page 40). In the central projection, four-quarter GDP growth slows markedly in the early part of the forecast period, reflecting subdued real income growth, tighter credit supply and weaker world activity. Further out, domestic demand recovers gradually as credit supply conditions begin to ease. And net trade helps to boost growth as exporters benefit from the depreciation of sterling. GDP growth is nevertheless subdued for much of the forecast period, creating a margin of spare capacity.

The central projection implies a sharper slowing in growth than in the *February Report*. That reflects the fact that a number of the downside risks identified three months ago — in particular a further tightening in credit conditions and weaker prospects for world growth — have since crystallised. The risks

Chart 5.1 GDP projection based on market interest rate expectations



The fan chart depicts the probability of various outcomes for GDP growth. To the left of the first vertical dashed line, the distribution reflects the likelihood of revisions to the data over the past; to the right, it reflects uncertainty over the evolution of GDP growth in the future. If economic circumstances identical to today's were to prevail on 100 occasions, the MPC's best collective judgement is that the mature estimate of GDP would lie within the darkest central band on only 10 of those occasions. The fan chart is constructed so that outturns are also expected to lie within each pair of the lighter green areas on 10 occasions. Consequently, GDP growth is expected to lie somewhere within the entire fan on 90 out of 100 occasions. The bands widen as the time horizon is extended, indicating the increasing uncertainty about outcomes. See the box on page 39 of the November 2007 *Inflation Report* for a fuller description of the fan chart and what it represents. The second dashed line is drawn at the two-year point of the projection.

Financial and energy market assumptions

As a benchmark assumption, the projections for GDP growth and CPI inflation described in **Charts 5.1** and **5.3** are conditioned on a path for official interest rates implied by market yields (**Table 1**).⁽¹⁾

Table 1 Bank Rate implied by forward market interest rates^(a)

Per cent	2008			2009				2010				2011	
	Q2 ^(b)	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
May	4.9	4.7	4.6	4.6	4.5	4.6	4.6	4.6	4.6	4.7	4.7	4.7	4.7
February	4.8	4.6	4.5	4.4	4.4	4.4	4.4	4.5	4.5	4.6	4.6	4.7	4.7

(a) The data are fifteen working day averages of one-day forward rates to 7 May and 6 February 2008 respectively. They have been derived from general collateral (GC) gilt repo rates at maturities up to a year and instruments that settle on Libor (including futures, swaps, interbank loans and forward rate agreements) further out, adjusted for credit risk.

(b) May figure for 2008 Q2 is an average of realised spot rates to 7 May, and forward rates thereafter.

In the period leading up to the MPC's May decision, the path implied by forward market interest rates was for Bank Rate to fall by a little under half a percentage point over the next year. The path lies slightly above that in the *February Report*. But these are only central estimates: market uncertainty about future short-term market interest rates remains elevated (see Section 1).

The starting point for sterling's effective exchange rate index (ERI) in the MPC's projections was 92.8, the average for the fifteen working days to 7 May. That was 3.7% below the

starting point for the February projections. Under the MPC's usual convention,⁽²⁾ the exchange rate is assumed to depreciate to 91.6 by 2010 Q2, and is lower throughout the forecast period than assumed in February.

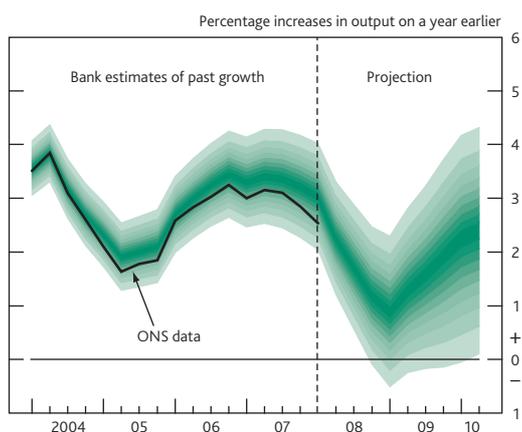
The starting point for UK equity prices in the MPC's projections was 3104 — the average of the FTSE All-Share for the fifteen working days to 7 May. That was 4.1% above the starting point for the February projection. In the long run, equity wealth is assumed to grow in line with nominal GDP; in the short run, it also reflects changes in the share of profits in GDP.

Energy prices are assumed to evolve broadly in line with the paths implied by futures markets over the medium term. Average Brent oil futures prices for the next three years were 27% higher (in US dollar terms) than at the time of the *February Report*, and the wholesale gas futures curve was on average 37% higher. There is considerable uncertainty about the scale and pace with which these developments will be passed on to the prices of gas and electricity faced by households and companies. But given the sharp increase in futures prices, the central projection is conditioned on a benchmark assumption that retail gas and electricity prices rise by around 15%, spread evenly over the four months between July and October this year.

(1) Given the continuing disruption in financial markets, these expectations have been derived using the alternative estimation method set out in the box on page 12 of the *November 2007 Report*.

(2) See the box 'The exchange rate in forecasting and policy analysis', on page 48 of the *November 1999 Inflation Report*.

Chart 5.2 GDP projection based on constant nominal interest rates at 5%



See footnote to Chart 5.1.

around this weaker near-term outlook are judged to be balanced. Further out, however, the risks lie to the downside, consistent with the possibility that the period of tight credit conditions and weaker demand may be more prolonged. **Chart 5.2** shows the projection for GDP growth on the alternative assumption that Bank Rate is held constant. The factors shaping the GDP projection are discussed in more detail in Section 5.2.

Chart 5.3 shows the outlook for CPI inflation, on the assumption that Bank Rate follows market yields. In the central projection, higher energy and import prices push inflation up sharply in the near term. With the central projection lying above 3% for several quarters, it is likely that the Governor will have to write a number of open letters to the Chancellor. But there are three key uncertainties around this near-term profile. First, the extent to which utility companies raise retail gas and electricity tariffs in response to the sharp increase in wholesale gas prices (see Section 4 and the box above). Second, the speed of pass-through of sterling's depreciation to import prices. And, third, the degree to which consumer-facing companies pass on higher energy and import costs into higher consumer prices, or instead absorb them by

Chart 5.3 CPI inflation projection based on market interest rate expectations

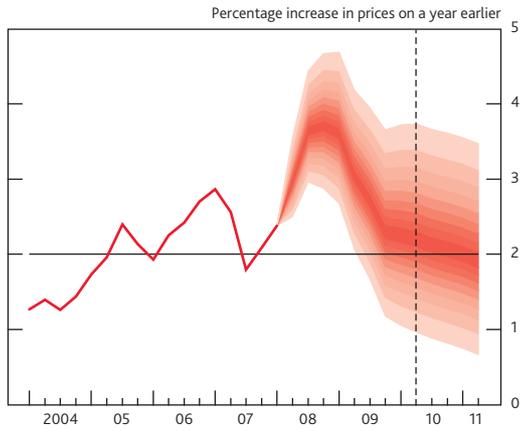
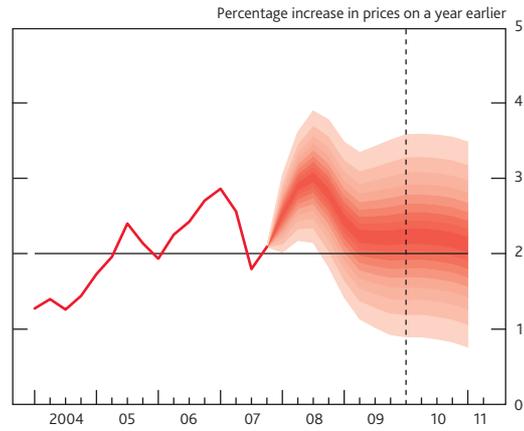


Chart 5.4 CPI inflation projection in February based on market interest rate expectations



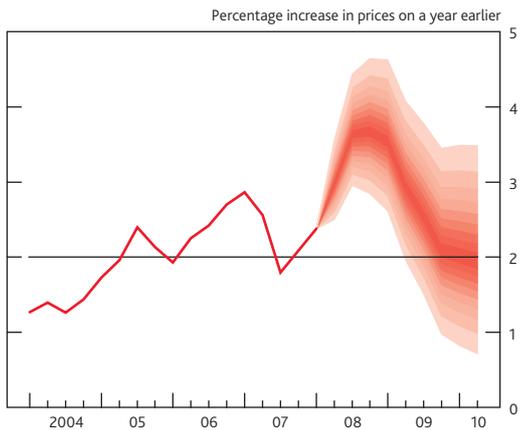
Charts 5.3 and 5.4 The fan charts depict the probability of various outcomes for CPI inflation in the future. If economic circumstances identical to today's were to prevail on 100 occasions, the MPC's best collective judgement is that inflation over the subsequent three years would lie within the darkest central band on only 10 of those occasions. The fan charts are constructed so that outcomes 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 charts on 90 out of 100 occasions. The bands widen as the time horizon is extended, indicating the increasing uncertainty about outcomes. See the box on pages 48–49 of the May 2002 *Inflation Report* for a fuller description of the fan chart and what it represents. The dashed lines are drawn at the respective two-year points.

pushing down on labour costs or accepting lower profits. The central projection for inflation falls back to around the 2% target in the medium term, as the temporary boost from higher energy and import prices wanes and subdued demand growth increases the margin of spare capacity.

Compared with the February *Report* (Chart 5.4), the central projection implies a pickup in inflation that is both larger and more prolonged. But policy must respond to the outlook for inflation in the medium term, and here there are also marked uncertainties. On the downside, a more prolonged period of subdued demand growth could open a larger margin of spare capacity, pulling down further on inflation. But on the upside, inflation could remain above 2% for longer if above-target inflation in the near term begins to affect the expectations of those setting wages and prices. Both sets of risks are judged to have increased since the February *Report*. But in view of the larger and more persistent period of above-target inflation, the balance of those risks is judged to lie to the upside, particularly in the medium term. There is a range of views among the Committee on both the central projection and the balance of risks. The factors shaping the inflation projection are discussed in greater detail in Section 5.3.

Chart 5.5 shows the outlook for inflation under the alternative assumption that Bank Rate remains constant.

Chart 5.5 CPI inflation projection based on constant nominal interest rates at 5%



See footnote to Charts 5.3 and 5.4.

5.2 Risks to demand

The key risks to demand come from the weakening in real income growth implied by the sharp rise in energy and import prices and the tightening in the supply of credit at home and abroad. But assessing the overall implications for GDP depends, first, on how deep and long-lasting the tightening in credit supply proves to be; second, on the sensitivity of domestic spending to tighter credit and weaker real income

growth; and, third, on the extent to which the fall in sterling insulates UK exporters from the effects of a credit-driven slowdown overseas.

How long will credit supply remain tight?

The dislocation in financial markets and the associated overhang of illiquid assets on banks' balance sheets have led to a marked tightening in credit supply conditions, particularly for higher-risk households. Interest rate spreads over Bank Rate have widened and lending growth has declined (Section 1). How long that tightening lasts will depend on: future trends in banks' funding costs; the speed with which banks adjust their balance sheets to deal with the consequences of past lending decisions; changes in the perceived riskiness of lending to UK households and companies; and developments in competitive conditions. In time, financing conditions for banks should begin to ease, as action by financial institutions and the authorities helps to improve banking sector liquidity and investors' confidence returns.⁽¹⁾ But risk premia in financial markets are unlikely to return to the unsustainably low levels seen in recent years. The adjustment in the supply of bank credit to households and businesses is likely to be drawn out, as banks take time to adjust their balance sheets and recapitalise. Moreover, uncertainty over future economic prospects is likely to reduce banks' willingness to lend, at least for a period.

In the central projection, credit is assumed to be in more limited supply for rather longer than in the February *Report*, through a combination of higher interest rate spreads and tougher non-price criteria. Credit supply conditions begin to improve later in the projection, but remain persistently tighter than their pre-turbulence levels even at the end of the forecast period, reflecting a judgement that risk had become underpriced in recent years.

Tighter credit supply will also have implications for asset prices. Prices of some assets, including equities and corporate bonds, have already moved down, in some cases quite markedly. Commercial property prices have fallen significantly, a process which had begun before the onset of the financial turbulence last summer, and which financial market participants expect to continue in the rest of 2008 (Section 1). House prices have also fallen, and forward-looking indicators of housing market conditions have worsened markedly. A further decline in the ratio of house prices to earnings is likely over the forecast period. But the implications for household spending are not clear-cut (see below).

It is possible that credit supply will recover more rapidly than assumed in the central projection, for instance if money market conditions ease materially in the near term. But, on

(1) These issues are discussed in greater depth in the April 2008 *Financial Stability Report*, available at www.bankofengland.co.uk/publications/fsr/2008/index.htm.

balance, the greater risk is that credit supply remains tight for longer, either because of a persistent overshooting in risk premia, or because of a sharper deterioration in credit quality as the result of lower asset prices or higher unemployment and bankruptcies. Tighter credit conditions and deteriorating economic conditions could reinforce one another, leading to a serious adverse feedback loop. However, the MPC continues to believe that this is unlikely to happen.

How far will domestic demand growth fall?

Slower income growth and tighter credit conditions will bear down on domestic spending over the forecast period, but the precise scale and timing of this effect remains uncertain. While credit supply has clearly tightened since the *February Report*, indicators suggest a mixed picture on the pace of the slowdown in household spending (Section 2). The projection therefore assumes a deeper and somewhat more drawn-out period of slow growth than in the *February Report*.

The largest contribution to the slowdown in domestic demand from the peak in 2007 comes from consumption. Higher consumer prices and weaker employment growth are assumed to push down on growth in real take-home pay over the forecast period. And tighter credit conditions and heightened uncertainty are expected to prompt households to increase their rate of saving. There are marked uncertainties around this central case, particularly relating to the interaction between tighter credit conditions and the housing market. Lower house prices by themselves need not imply a sharp decline in aggregate consumer spending. While those wishing to trade down may be made worse off, those wishing to trade up or enter the market for the first time benefit from lower prices. And many existing homeowners have built up a sizable amount of housing equity in recent years (Section 2), making them less vulnerable to borrowing constraints placed on those with high loan to value ratios, at least for modest falls in house prices. At the same time, a sharper fall in house prices could increase the number of households denied credit. The impact on consumption could be further amplified if lower house prices coincided with a period of markedly lower income growth, for example if companies began to shed labour.

In the central projection, tighter credit supply and weaker property market conditions also bear down on investment growth. Dwellings investment is assumed to fall sharply. And businesses' spending on buildings and other investment assets is assumed to grow much less rapidly than in 2006–07, consistent with the indications from business surveys of a weaker and somewhat more uncertain outlook for demand. There are risks on both sides of this central case. On the upside, the net rate of return on capital employed in the private non-financial sector remains relatively high. But on the downside, tighter credit conditions or greater uncertainty about the strength of future demand growth could reduce investment spending more sharply.

According to the fiscal plans set out in *Budget 2008*, the public sector's contribution to nominal demand growth is set to decline over the forecast period, similar to the path assumed in the *February Report*.

Can stronger net trade compensate for weaker domestic spending?

With domestic demand growth expected to remain relatively subdued throughout the forecast period, a key question is the extent to which net trade will support overall activity. The substantial fall in sterling since last July should help this rebalancing process. But weighing against that is the deteriorating outlook for world growth.

In the central projection, UK-weighted world growth slows more rapidly than in the *February Report*. A deeper slowdown in the United States and tighter credit conditions weigh on activity in the developed economies, while policy actions aimed at preventing overheating attenuate the pace of expansion in China and other emerging markets. Global growth is nevertheless assumed to remain above the lows seen in 2001–02, as Asia and the commodity-producing economies continue to grow rapidly and activity in the euro area remains subdued but firm. Four-quarter growth in the United States is assumed to edge up from 2009, as conditions in the housing market begin to stabilise and the effects of easier policy work through.

The slowing in growth in overseas markets will bear down on UK exports. But in the central projection that is assumed to be more than offset by the gain in competitiveness associated with the substantial fall in sterling, enabling exports to grow robustly over the forecast period. With weaker sterling and slower domestic demand growth also helping to restrain the growth in imports, net trade makes a positive contribution to GDP growth over the forecast period. But the risks to the outlook for the world economy lie to the downside, for instance reflecting the possibility of a more persistent US slowdown or stronger spillovers to other countries.

5.3 Risks to inflation

CPI inflation is likely to rise further above target in the months ahead, reflecting sharp increases in energy prices and other non-wage costs (Section 5.1). But the key question for monetary policy is where inflation settles in the medium term, and that depends on three key factors. First, the ultimate size and duration of the pickup in non-wage costs. Second, the extent to which consumer-facing companies pass these on into higher prices, or absorb them by pushing down on labour costs or accepting lower profits at a time of slowing demand and rising spare capacity. And, third, the degree to which persistently above-target inflation in the near term raises the public's medium-term inflation expectations, putting upward pressure on wages and prices.

How high could imported cost inflation go?

The increase in world energy and food prices has again exceeded expectations over the past three months. And the upwards pressure on UK import prices has been amplified by the further fall in sterling (Section 4). Even if world energy prices now remain broadly stable, in line with futures prices, and sterling depreciates only modestly — the assumptions that underpin the central projection (see page 40) — companies' costs will rise substantially in the near term as past increases in energy and import prices work through the supply chain. The cumulative increase in costs in the central projection is materially larger than that assumed in the February *Report*, and that experienced in 2004–06 when commodity prices last picked up sharply.

There are marked risks on both sides of this central case. On the upside, commodity price inflation has repeatedly exceeded the level implied by futures prices in recent years, and may do so again if global demand continues to place strains on existing supply capacity. Import price inflation could also rise further than in the central case if sterling depreciates again or cost pressures in China and elsewhere intensify. But on the downside, a sharper or more persistent contraction in world demand could push down on the sterling prices of both raw and finished imports quite markedly, a process that would be compounded if sterling also rebounded from current levels.

How will businesses respond to the rise in costs?

If the cost pressures assumed in the central projection were to be passed on rapidly and in full to consumer prices, the pickup in CPI inflation could be very marked. But the experience of recent rises in costs has been that companies, mindful of competitive pressures, have opted to absorb part of the increase through some combination of lower profits and downward pressure on other costs, especially that of labour. The extent to which that happens again is a key uncertainty for the outlook.

The central projection assumes that profit margins do contract somewhat as the amount of spare capacity increases. That is consistent both with recent experience and with a survey by the Bank's regional Agents, which found that a majority of consumer-facing businesses did not expect to pass on recent increases in costs (Section 4). But there are risks on both sides of this central case, reflecting the uncertain influence of demand on prices.

The increase in non-wage costs is also assumed to lead companies to put renewed downward pressure on labour costs. Part of that is likely to come about through restraint in the growth of real take-home pay, as happened in 2004–06 (Section 4). But the pace and scale of this adjustment is uncertain. If pay growth were sufficiently weak to offset all of the sizable increase in non-wage costs assumed in the projection, then real take-home pay would be broadly flat over

much of the forecast period. Whether that happens will depend on the extent of any resistance by employees to further erosion in the growth of their spending power. In the central projection, real take-home pay growth does fall back quite markedly in the early part of the projection. But companies are also assumed to cut back on employment growth, reflecting both the slowing in demand and some real wage resistance by employees. There are risks on both sides of the central case for real wages. On the upside, real wage growth may be somewhat higher if employees resist real wage erosion more forcefully. But on the downside, real wage growth could fall further if a sharp fall in demand growth weakens employees' bargaining power substantially.

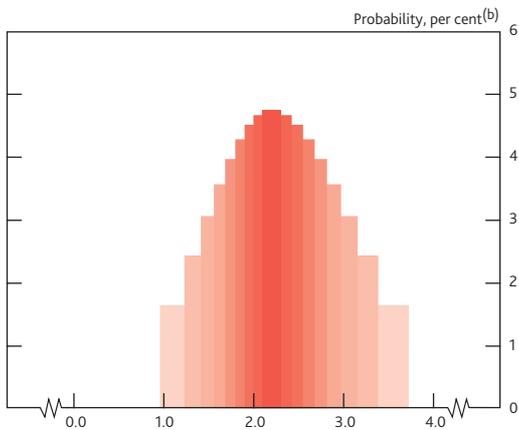
Weaker employment growth, if it reflected resistance to real wage adjustment, would also reduce the economy's supply capacity, at least for a time. Other factors may also bear down on supply over the forecast period. Tighter credit supply may reduce the availability of finance for new business start-ups, R&D and other investment activities conducive to productivity growth (Section 3). And weaker growth in demand, coupled with the decline in the value of sterling, may reduce the flow of migrant workers to the United Kingdom, leading to lower growth in labour supply. It is likely to be some time before the impact of such effects can be assessed, and the likely magnitude is subject to wide bands of uncertainty. Nevertheless, the central projection assumes that supply growth will be modestly depressed over the forecast period.

How likely are inflation expectations to remain elevated?

Although the central projection assumes that lower profit margins and labour costs offset some of the impact of higher non-wage costs on CPI inflation, the offset is far from complete. With inflation having been above target for much of the past three years, and set to rise further in the near term, there is a risk that households and businesses may start to expect CPI inflation to be persistently above 2%. If that happened, and those expectations were built into higher wages and prices, inflation could persist above the target for longer. Reducing inflation expectations from persistently high levels has in the past required prolonged periods of tighter policy and subdued growth.

It is difficult to assess the extent of this risk. Nominal earnings growth has remained subdued. But there has been a broad-based pickup in measures of inflation expectations since mid-2007 (Section 4). With the MPC committed to returning inflation to target, the most likely outcome is for these expectations — many of which are relatively short term — to fall back over time. Nevertheless, a further period of above-target inflation could lead to persistently elevated inflation expectations, posing upside risks to the medium-term outlook.

Chart 5.6 Projected probabilities of CPI inflation outturns in 2010 Q2 (central 90% of the distribution)^(a)



(a) **Chart 5.6** represents a cross-section of the CPI inflation fan chart in 2010 Q2 for the market interest rate projection. The coloured bands have a similar interpretation to those on the fan charts. Like the fan charts, they portray the central 90% of the probability distribution. If economic circumstances identical to today's were to prevail on 100 occasions, the MPC's best collective judgement is that inflation in 2010 Q2 would lie somewhere within the range covered by the histogram on 90 occasions. Inflation would lie outside the range covered by the histogram on 10 out of 100 occasions. **Chart 5.7** shows the corresponding cross-section of the February 2008 *Inflation Report* fan chart.
 (b) Average probability within each band. The figures on the y-axis indicate the probability of inflation being within ± 0.05 percentage points of any given inflation rate, specified to one decimal place.

Chart 5.7 Projected probabilities in February of CPI inflation outturns in 2010 Q2 (central 90% of the distribution)^(a)

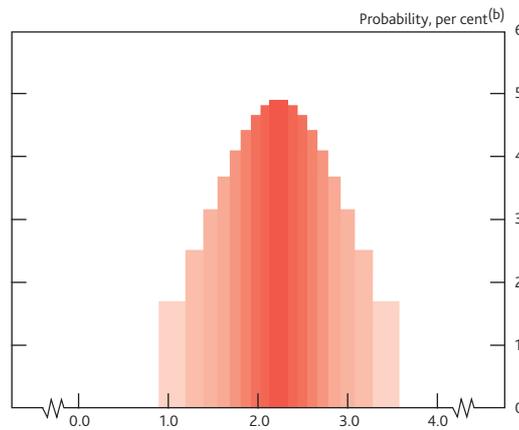
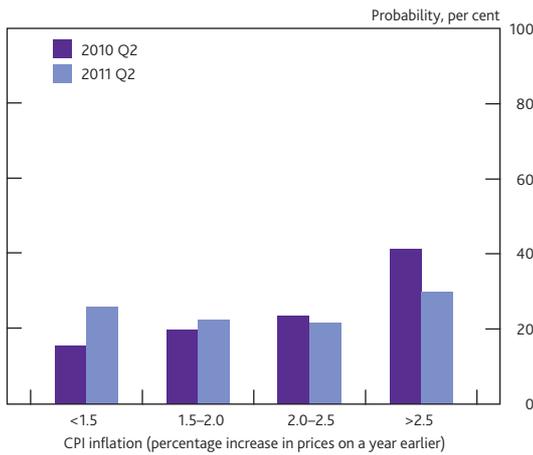
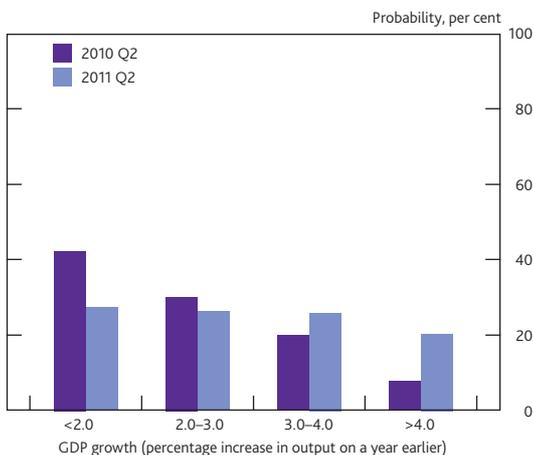


Chart 5.8 Frequency distribution of CPI inflation based on market interest rate expectations^(a)



(a) These figures are derived from the same distribution as **Chart 5.3**. They represent the probabilities that the MPC assigns to CPI inflation lying within a particular range at a specified time in the future.

Chart 5.9 Frequency distribution of GDP growth based on market interest rate expectations^(a)



(a) These figures are derived from the same distribution as **Chart 5.1**. They represent the probabilities that the MPC assigns to GDP growth lying within a particular range at a specified time in the future.

5.4 The balance of risks

Taking the factors discussed in Sections 5.2 and 5.3 together, the risks around demand are judged to be balanced in the near term but lie to the downside in the medium term. The risks around the central projection for inflation lie to the upside. The most likely spread of outcomes for CPI inflation at the two-year horizon is shown in **Chart 5.6**, and the equivalent outlook at the time of the February *Report* is shown in **Chart 5.7**. **Charts 5.8** and **5.9** show frequency distributions for inflation and output at the two and three-year horizons.

To judge the shifting balance of risks to inflation in the medium term, the MPC will be monitoring a range of data. In gauging the extent of tightening in credit conditions and its impact on demand at home and abroad, the Committee will focus particularly on: the price and quantity of credit, including banks' balance sheets; asset prices, including residential and commercial property prices; and timely indicators of household and corporate spending, including forward-looking surveys and reports from the Bank's Agents. In assessing the impact of global developments on the near-term inflation outlook, the Committee will look at: energy and food prices, UK import prices and the exchange rate. And in judging whether above-target inflation is becoming embedded in inflation expectations, the Committee will concentrate on: surveys of household inflation expectations and companies' pricing intentions; measures of inflationary pressure in the supply chain; and data on wages and earnings.

5.5 The policy decision

At its May meeting, the Committee noted that the immediate prospect was for a sharp increase in inflation, which was

already above the target, and sluggish output growth. The latter would open up a margin of spare capacity, but that was likely to be necessary in order to return inflation to the target in the medium term. There were particular uncertainties relating to the severity of the slowdown and the future path of inflation expectations. The key challenge for policy was to balance those conflicting risks. The Committee judged at its May meeting that it was appropriate to leave Bank Rate unchanged in order to meet the target for CPI inflation over the medium term.

Other forecasters' expectations

Every three months, the Bank asks a sample of external forecasters for their latest economic projections. This box reports the results of the most recent survey, carried out in late April. On average, external forecasters expected CPI inflation to be around the target from 2009 onwards (Table 1). However, there was a relatively wide distribution of views about the prospects for inflation in two years' time (Chart A).

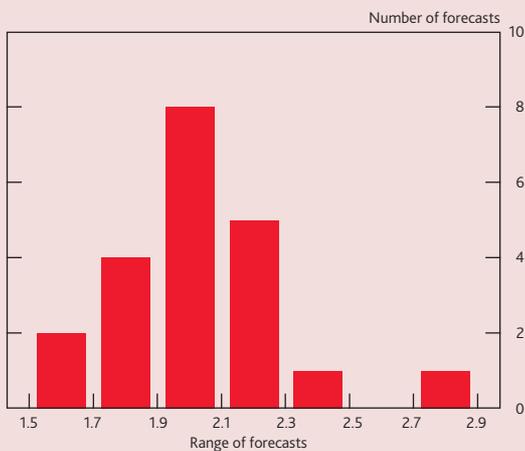
Table 1 Averages of other forecasters' central projections^(a)

	2009 Q2	2010 Q2	2011 Q2
CPI inflation ^(b)	2.1	2.0	2.0
GDP growth ^(c)	1.5	2.3	2.6
Bank Rate (per cent)	4.4	4.6	4.9
Sterling ERI ^(d)	92.9	92.8	93.0

Source: Projections of outside forecasters as of 23 April 2008.

- (a) For 2009 Q2, there were 23 forecasts for CPI inflation and Bank Rate, 22 for GDP growth and 19 for the sterling ERI. For 2010 Q2, there were 21 forecasts for CPI inflation, 20 for GDP growth and Bank Rate, and 17 for the sterling ERI. For 2011 Q2, there were 20 forecasts for CPI inflation, 19 for GDP growth and Bank Rate, and 17 for the sterling ERI.
 (b) Twelve-month rate.
 (c) Four-quarter percentage change.
 (d) Where necessary, responses were adjusted to take account of the difference between the old and new ERI measures, based on the comparative outturns for 2006 Q1.

Chart A Distribution of CPI inflation central projections for 2010 Q2

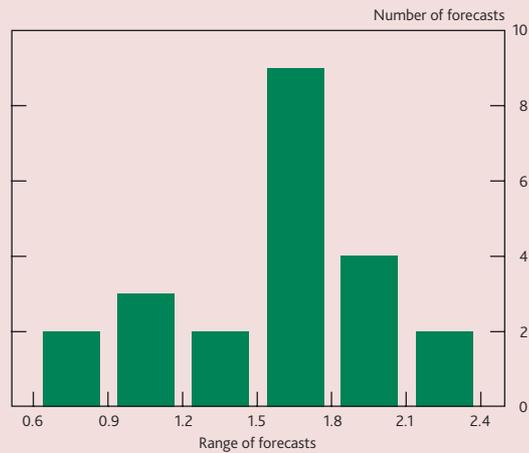


Source: Annual CPI inflation projections of 21 outside forecasters as of 23 April 2008.

For GDP, the average central projection for four-quarter growth was 1.5% in 2009 Q2, with growth expected to pick up over the following two years (Table 1). The average projection was weaker than that reported three months ago, particularly in the near term. Fewer respondents expected growth to be above 2.1% in a year's time (Chart B) than in the previous survey.

The Bank also asks forecasters for an assessment of the risks around their central projections for CPI inflation and GDP growth (Table 2). On average, forecasters judged that CPI

Chart B Distribution of GDP growth central projections for 2009 Q2



Source: Four-quarter GDP growth projections of 22 outside forecasters as of 23 April 2008.

Table 2 Other forecasters' probability distributions for CPI inflation and GDP growth^(a)

CPI inflation

Probability, per cent	Range:					
	<1%	1-1.5%	1.5-2%	2-2.5%	2.5-3%	>3%
2009 Q2	4	13	27	31	16	9
2010 Q2	6	15	29	25	16	10
2011 Q2	8	14	26	28	15	9

GDP growth

Probability, per cent	Range:			
	<1%	1-2%	2-3%	>3%
2009 Q2	24	44	25	7
2010 Q2	13	29	39	19
2011 Q2	11	26	37	26

Source: Projections of outside forecasters as of 23 April 2008.

- (a) For 2009 Q2, 23 forecasters provided the Bank with their assessment of the likelihood of twelve-month CPI inflation and four-quarter GDP growth falling in the ranges shown above; for 2010 Q2, 21 forecasters provided assessments for CPI and 20 for GDP; for 2011 Q2, 20 forecasters provided assessments for CPI and 19 for GDP. The table shows the average probabilities across respondents. Rows may not sum to 100 due to rounding.

inflation was more likely to be above target than below in 2009 Q2. But the risks to inflation were reported to be more evenly balanced in the medium term. On average, respondents believed that the risk that four-quarter GDP growth would be below 1% in a year's time had increased over the past three months.

External forecasters expected further cuts in Bank Rate over the next year or so and rises thereafter. The path was similar to that implied by market yields (see the box on page 40).

On average, the sterling ERI was expected to remain close to 93 over the next three years. That was considerably lower than the average projection three months ago.

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Text of Bank of England press notice of 6 March 2008

Bank of England maintains Bank Rate at 5.25%

The Bank of England's Monetary Policy Committee today voted to maintain the official Bank Rate paid on commercial bank reserves at 5.25%.

The minutes of the meeting will be published at 9.30 am on Wednesday 19 March.

Text of Bank of England press notice of 10 April 2008

Bank of England reduces Bank Rate by 0.25 percentage points to 5.0%

The Bank of England's Monetary Policy Committee today voted to reduce the official Bank Rate paid on commercial bank reserves by 0.25 percentage points to 5.0%.

CPI inflation rose to 2.5% in February. The Committee expects inflation to rise further this year, reflecting the continuing impact of higher energy and food prices, as well as the recent depreciation of sterling on import costs. Such pressures are already evident in producer input costs and pricing intentions.

Even if commodity prices remain at their current high levels, inflation should fall back. But to ensure that inflation meets the 2% target in the medium term, the Committee needs to balance two risks. On the upside, above-target inflation this year could raise inflation expectations so that, in the absence of some margin of spare capacity, inflation would remain above the target. On the downside, the disruption in financial markets could lead to a slowdown in the economy that was sufficiently sharp to pull inflation below the target.

In the Committee's judgement, the balance of these risks to the inflation outlook in the medium term justifies a cut in Bank Rate this month. Credit conditions have tightened and the availability of credit appears to be worsening. While the recent depreciation in sterling will support net exports, the prospects for output growth abroad have deteriorated. In the United Kingdom, business surveys suggest that growth has begun to moderate and that a margin of spare capacity will emerge during this year. This should help to keep domestic inflationary pressures in check in the medium term.

Against that background, the Committee judged that a reduction in Bank Rate of 0.25 percentage points to 5.0% was necessary to meet the 2% target for CPI inflation in the medium term.

The minutes of the meeting will be published at 9.30 am on Wednesday 23 April.

Text of Bank of England press notice of 8 May 2008

Bank of England maintains Bank Rate at 5.0%

The Bank of England's Monetary Policy Committee today voted to maintain the official Bank Rate paid on commercial bank reserves at 5.0%.

The Committee's latest inflation and output projections will appear in the *Inflation Report* to be published on Wednesday 14 May.

The minutes of the meeting will be published at 9.30 am on Wednesday 21 May.

Glossary of selected data and instruments

AEI – average earnings index.

AWE – average weekly earnings.

CDS – credit default swap.

CPI – consumer prices index.

CPI inflation – inflation measured by the consumer prices index.

ERI – exchange rate index.

GC – general collateral.

GDP – gross domestic product.

LFS – Labour Force Survey.

Libor – London interbank offered rate.

M4 – UK non-bank, non-building society private sector's holdings of sterling notes and coin, and their sterling deposits (including certificates of deposit, holdings of commercial paper and other short-term instruments and claims arising from repos) held at UK banks and building societies.

PMI – purchasing managers' index.

RPI – retail prices index.

RPIX – RPI excluding mortgage interest payments.

SVR – standard variable rate.

TFP – total factor productivity.

UIP – uncovered interest parity.

Symbols and conventions

Except where otherwise stated, the source of the data used in charts and tables is the Bank of England or the Office for National Statistics (ONS) and all data, apart from financial markets data, are seasonally adjusted.

n.a. = not available.

Because of rounding, the sum of the separate items may sometimes differ from the total shown.

On the horizontal axes of graphs, larger ticks denote the first observation within the relevant period, eg data for the first quarter of the year.

Abbreviations

A8 Accession countries – the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia and Slovenia.

BCC – British Chambers of Commerce.

CBI – Confederation of British Industry.

CIPS – Chartered Institute of Purchasing and Supply.

FTSE – Financial Times Stock Exchange.

GfK – Gesellschaft für Konsumforschung, Great Britain Ltd.

HBF – Home Builders Federation.

IMF – International Monetary Fund.

ISA – individual savings account.

LTV – loan to value.

M6 – Canada, France, Germany, Italy, Japan and the United States.

MPC – Monetary Policy Committee.

MTIC – missing trader intra-community.

OFCs – other financial corporations.

ONS – Office for National Statistics.

OPEC – Organization of the Petroleum Exporting Countries.

PNFCs – private non-financial corporations.

PwC – PriceWaterhouseCoopers.

R&D – research and development.

RICS – Royal Institution of Chartered Surveyors.

S&P – Standard and Poor's.

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