



Inflation Report

August 2005

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/index.htm.

Overview

Since the May Report, the world economy has continued to grow robustly and the price of oil has risen further. In the United Kingdom, output growth over the past year is now estimated to have fallen below trend. Household spending and business investment were reported to be broadly flat in Q1, but public expenditure grew robustly. Market interest rates declined, sterling depreciated and equity prices rose. Labour cost pressures remained contained, but input price inflation moved higher. CPI inflation edged up to meet the 2% target. In the Committee's central projection under the assumption that official interest rates follow a path implied by market yields, GDP growth remains a little below trend in the near term, but thereafter picks up as the influence of recent movements in asset prices is felt. Inflation moves above the 2% target in the near term and then eases, reflecting in part the transient impact of the higher level of oil prices. It then moves above the target again as growth recovers. The risks to growth and inflation are weighted slightly to the downside.

The international economy

The world economy continued to expand at a solid pace. Euro-area GDP rebounded in the first quarter but the underlying picture appears to have been somewhat weaker, with surveys pointing to below-trend growth in Q2. Buoyant consumption and investment underpinned robust US output growth in the first half of the year. Output rose strongly in Japan, while the Chinese economic expansion continued apace. World import growth slowed sharply at the beginning of the year, but that is likely to prove to be a temporary phenomenon. The Committee judges that world output is likely to continue to grow steadily, albeit somewhat more slowly than last year.

The spot price of Brent crude oil rose to around \$60 per barrel, almost twice the level in the spring of 2004. So far, the impact of higher oil prices on global activity and inflation seems to have been relatively modest. Despite the recent increase in oil prices, world export price inflation eased in Q1. The prospect is for world export prices to continue to increase at a moderate rate.

Demand in the United Kingdom

Household spending is reported to have been broadly flat in the first quarter, though revisions to past data contained in the latest *Blue Book* release suggest that it was stronger than previously thought through much of last year. Retail sales and private car registrations data point to a pickup in the second quarter. Although the Committee expected consumer spending

to slow, the apparent sharpness of the deceleration this year has been surprising and the data could yet be revised.

Nevertheless, it is possible that the slowdown in the housing market may have had a greater effect than anticipated or that higher interest rates may have weighed more heavily on the spending of highly indebted households. The Committee expects moderate growth in consumers' expenditure in the near term, though considerable uncertainty surrounds that judgement.

Business investment was also estimated to have been broadly flat in Q1, while revised data suggest that capital spending in the recent past was weaker than previously believed. But early estimates of investment are particularly prone to revision as more information becomes available and it is quite possible that some of the recent weakness may eventually be revised away. Companies' capital spending is expected to remain subdued in the near term, but adequate profitability and favourable financial conditions should help support moderate growth going forward.

Government spending grew steadily, as did the government's demand for resources, which is more relevant for assessing the prospects for inflation. Both are set to continue growing briskly over the next couple of years.

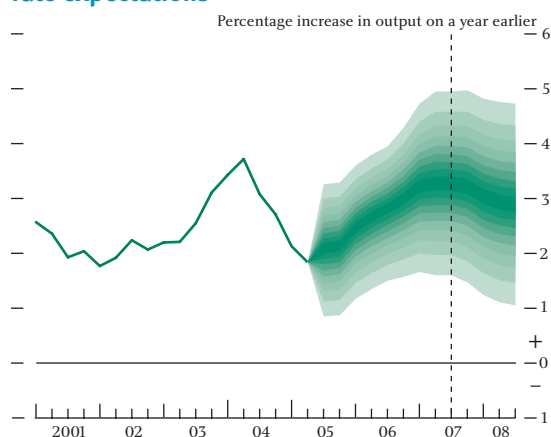
Reflecting the hiatus in global import growth at the beginning of the year, UK exports fell. However, this was offset by weaker imports so that net trade made a small positive contribution to demand growth. Recent data suggest that exports and imports have since rebounded.

There have been substantial movements in UK asset prices since the *May Report*. Short-term market interest rates fell markedly, reflecting in part the impact of soft economic data on market participants' expectations of the future path of official interest rates. Long-term nominal interest rates also eased, in line with falls in global yields. The sterling effective exchange rate depreciated by over 3%, somewhat more than can be attributed to relative interest rate movements, and taking it below the level at the beginning of the year. Equity prices rose substantially. If sustained, these asset price movements would together impart a significant impetus to demand growth in the medium term.

The outlook for GDP growth

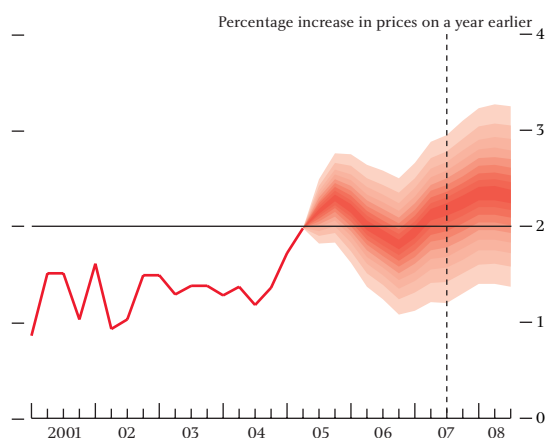
GDP is provisionally estimated by the ONS to have grown by 0.4% in Q2 with robust growth in business services and finance, offset by weaker growth in other services and a contraction in manufacturing. The new *Blue Book* data also suggest that although growth was stronger than previously thought in 2003

Chart 1
Current GDP projection based on market interest rate expectations



The fan chart depicts the probability of various outcomes for 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 GDP growth over the subsequent three years would lie within the darkest central band on only 10 of those occasions. The fan chart is constructed so that outturns of GDP growth 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 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.

Chart 2
Current 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 charts are constructed so that outturns of inflation are also expected to lie within each pair of the lighter red areas on 10 occasions. Consequently, inflation is expected to lie somewhere within the entire fan chart on 90 out of 100 occasions. The bands widen as the time horizon is extended, indicating the increasing uncertainty about outcomes. 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.

and early 2004, output subsequently slowed more sharply. But business surveys and reports from the Bank's regional Agents suggest that the slowdown may have been less marked than implied by the current vintage of official data. The Committee has given some weight to that evidence in evaluating the recent pace of expansion.

Chart 1 shows the MPC's assessment of the outlook for four-quarter GDP growth under the assumption that official interest rates follow a path implied by market yields. In the central projection, output growth remains subdued in the near term, reflecting the continued sluggishness of domestic demand. Output growth then picks up as the impetus from recent movements in asset prices works through to consumption, investment and net trade. The profile is weaker in the near term than in the *May Report*, but stronger further out.

Costs and prices

Consistent with the loss of momentum in activity, total hours worked fell in the three months to May and claimant-count unemployment edged higher. Reports from the Bank's regional Agents point to a further easing in employment growth. Settlements in the private sector edged up, but regular pay growth eased. Unit labour cost growth picked up on the back of decelerating productivity, but only to around recent averages.

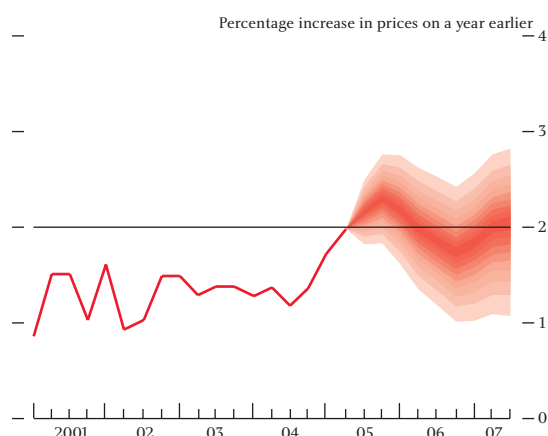
Other cost pressures were mixed. Manufacturers' input price inflation rose, reflecting higher fuel prices, but output price inflation eased from its recent high levels. The available indicators for services output prices, though mixed, on balance point to little change in inflationary pressures in that sector. The prices of imported consumer goods have stopped falling.

CPI inflation edged up to 2.0% in June. The pickup in CPI inflation since last year is likely to reflect both the direct and indirect impacts of higher oil prices as well as the pressure of demand on supply in the first half of last year.

The outlook for inflation

Chart 2 shows the Committee's assessment of the outlook for CPI inflation, also assuming that official interest rates move in line with market yields. Under the central projection, inflation moves above the 2% target and then dips, as the impact of recent increases in oil prices wanes and pressures on capacity ease. Inflation then rises above the target once more, as output growth picks up and the contribution from import prices increases. Compared with May, the profile is a little higher in the near term and also somewhat higher in the final year of the projection.

Chart 3
Current CPI inflation projection based on
constant nominal interest rates at 4.5%



See footnote to Chart 2.

Chart 3 shows the corresponding projection for inflation assuming that interest rates are maintained at their current level of 4.5%. Output growth is a little weaker under this assumption, and the pickup in inflation towards the end of the projection is consequently less marked.

As usual there are substantial risks surrounding the central projections. These include: the momentum in consumer spending; the sources of the recent pickup in inflation; and the prospect for oil prices. There is a range of views among members, but the Committee judges that, relative to the central projection, the overall balance of risks to growth is slightly to the downside in the near term. The balance of risks to inflation is correspondingly slightly to the downside further out.

The policy decision

At its August meeting, the Committee noted that under the central projection conditioned on market interest rates, annual output growth remained subdued in the near term but grew briskly thereafter, with inflation rising to, and then above, the target two or so years ahead. The Committee also noted that under the central projection conditioned on a constant interest rate of 4.5%, growth was projected to be a little weaker, with inflation close to the target at the two-year horizon. In the light of this outlook, and bearing in mind the balance of risks, the Committee judged that a reduction of 0.25 percentage points in the repo rate to 4.5% was necessary to keep inflation on track to meet the target in the medium term.

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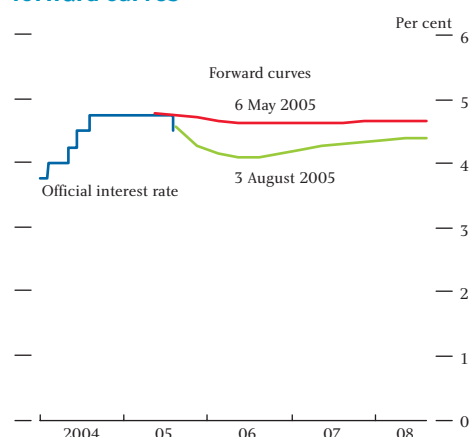
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Money and asset prices

1

The MPC reduced the official interest rate by 0.25 percentage points to 4.5% on 4 August. Short-term market interest rates fell between early May and early August. Global equity indices revived and the sterling exchange rate depreciated. UK house prices have been broadly stable since the beginning of 2005. Broad money accelerated further. Credit card lending growth fell and write-offs associated with that type of debt rose. Household debt servicing obligations increased. Company finances appeared healthy.

Chart 1.1
Bank of England repo rate and two-week forward curves^(a)



Sources: Bank of England and Bloomberg.

(a) Forward rates can be thought of as interest rates expected to prevail in a future period. They are calculated by comparing spot rates at different time horizons. The forward curves in Chart 1.1 are fifteen-day averages to 3 August 2005 and 6 May 2005. They have been derived from instruments that settle on the London interbank offered rate (Libor). That includes market rates on short sterling futures, swaps, interbank loans and forward rate agreements. The curves have been adjusted for credit risk.

Table 1.A
Asset price movements in July 2005

Daily changes ^(a)	7 July	8 July	21 July	22 July
Forward interest rates ^(b)	-0.18	0.14	0.05	0.01
FTSE All-Share	-1.4	1.5	0.1	0.4
Sterling ERI	-1.0	-0.2	0.1	-0.1

Sources: Bank of England and Bloomberg.

(a) These data show the percentage daily changes at close of business, except for short-term interest rates which show percentage point changes.

(b) Two-year forward rates as defined in Chart 1.1.

1.1 Asset prices

Interest rates

At its meeting on 4 August, the Monetary Policy Committee (MPC) reduced the official interest rate by 0.25 percentage points to 4.5%. Short-term forward interest rates provide a guide to market expectations about the future path of monetary policy. In the United Kingdom, they have fallen during the past three months (Chart 1.1). In the run up to the MPC's decision, forward rates suggested that market participants expected the policy rate to be in the region of 4% to 4.25% at the end of 2006. According to the regular Reuters poll, market economists also revised down their expectations for the official rate in 2005 and 2006. Forward rates fell following news of the terrorist attacks in London in July. But those declines were short-lived (Table 1.A). Indeed, after the incidents on 21 July the market recovered within the day.

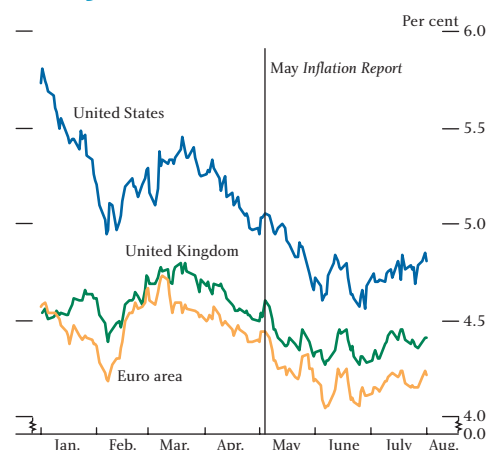
In February and March, long-term forward rates around the world had started to rise from their unusually low levels. But since then they have fallen back (Chart 1.2). A box in the *May Report* outlined possible reasons why the level of long-term interest rates has been so low. It concluded that the changes in the balance between desired saving and investment, as well as in investor appetite for risk, have probably played important roles.⁽¹⁾

Corporate bond yields

Many companies borrow by issuing bonds. The difference (or spread) between corporate bond yields and the yield on risk-free government debt should be indicative of market perceptions about the financial health of corporate issuers. For example, an increase in the spread could suggest that market

(1) See the box on pages 6 and 7 of the *May 2005 Inflation Report*.

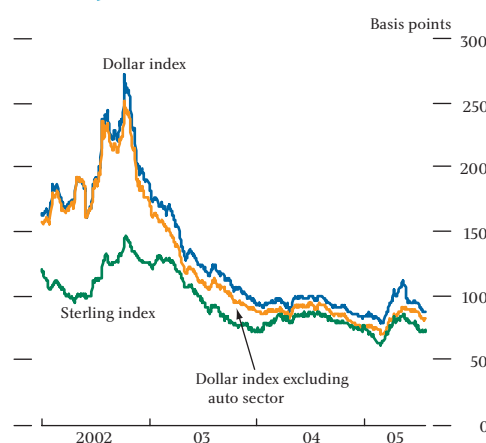
Chart 1.2
Ten-year instantaneous nominal forward rates
in 2005^(a)



Sources: Bank of England and Bloomberg.

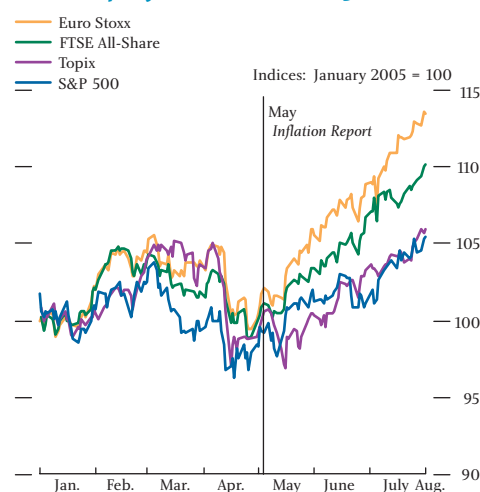
(a) The interest rate expected to prevail in precisely ten years' time.

Chart 1.3
Dollar and sterling investment grade credit spreads



Sources: Bank of England calculations and Bloomberg.

Chart 1.4
World equity indices^(a) in 2005



Sources: Bloomberg and Thomson Financial Datastream.

(a) In local currency.

participants have become more worried about the risk that companies will default on their debt.

Investment grade corporate bond spreads generally widened between March and May, partly reflecting developments specific to the auto sector in the United States (Chart 1.3).⁽¹⁾ Even when that sector is excluded, spreads widened, perhaps indicating a rise in default risk. But, as Chart 1.3 shows, those increased spreads have partly reversed during the past three months.

Equity prices

Global equity prices, after stumbling in March and April, have rallied during the past three months (Chart 1.4). The terrorist attacks in London on 7 July and 21 July appear to have had no lasting impact on UK equity prices (Table 1.A and Chart 1.4). Taking the past three months together, the FTSE All-Share index has increased by 8.5%. That increase, which was broadly based across sectors, lifted the index to its highest level in nearly four years.

Movements in equity prices can be attributed to changes in three factors: expected future corporate earnings, real interest rates and an implicit risk premium (the additional premium investors require to compensate them for uncertainty about future equity returns). A rise in future earnings should push equities higher. Similarly, by reducing the rate at which those earnings are discounted, a fall in expected future real interest rates should also boost equity prices. Any remaining rise in equity prices that cannot be ascribed to these factors can be attributed to a fall in the implied equity risk premium.

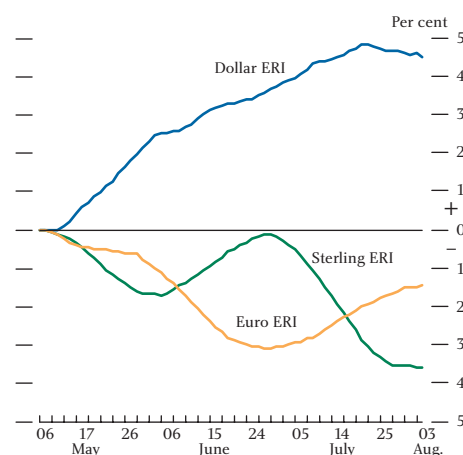
Falls in interest rate expectations may have played some role in boosting UK equity prices. But they seem unlikely to have caused the entire rise in equities during the past three months. It is possible that expectations about future earnings growth have improved, or that the perceived risks associated with investing in equities have fallen. However, it has not yet been possible to find firm evidence that discriminates between those explanations.

Exchange rates

The sterling effective exchange rate index (ERI), a measure of the United Kingdom's exchange rate against a trade-weighted basket of currencies, has depreciated during the past three months. In the fifteen working days to 3 August, the index stood at 98.6, 3.6% lower than the equivalent period used in the May Report (Chart 1.5).

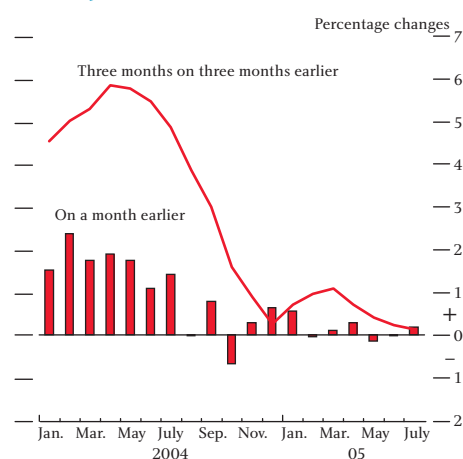
(1) See pages 55–62 of the June 2005 *Financial Stability Review*.

Chart 1.5
Cumulative changes in international
effective exchange rate indices^(a) since
the May Inflation Report



(a) Changes since the May Inflation Report calculated on a fifteen-day moving average basis.

Chart 1.6
House price inflation^(a)



Sources: Halifax and Nationwide.

(a) Based on the average of the Halifax and Nationwide house price inflation rates.

Table 1.B
Housing market activity

	Average ^(a)	2005 Q1 ^(b)	April	May	June
Mortgage approvals ^(c)	96	87	95	96	96
RICS sales to stocks ratio ^(d)	0.35	0.28	0.28	0.29	0.30
RICS new buyer enquiries ^(e)	-1	-4	-6	-10	7
HBF net reservations ^(f)	8	-42	-50	-51	-32
HBF site visits ^(f)	1	-37	-40	-36	-28

Sources: Bank of England, HBF and RICS.

(a) Averages since January 1993 except for mortgage approvals (April 1993) and RICS new buyer enquiries (April 1999).

(b) Averages of the monthly observations.

(c) For house purchase only. Thousands.

(d) Ratio of sales recorded during the past three months relative to the level of stocks on estate agents' books at the end of the month.

(e) Net percentage balance. Compared with the previous month.

(f) Net percentage balance. Compared with a year ago. The HBF data have been seasonally adjusted by Bank of England staff.

Interest rate expectations and currency movements should be linked. That is because market arbitrage should ensure that expected risk-adjusted returns on similar assets in different currencies are the same. So if expectations about future domestic returns change relative to those abroad, the exchange rate should shift to equalise them. For example, an unexpected fall in UK interest rates relative to those abroad should lead to an immediate sterling depreciation. That should be followed by a faster appreciation (or a slower depreciation) than would have been the case to compensate for the lower returns on sterling-denominated assets.

Some of the decline in the ERI may have reflected reduced interest rate expectations in the United Kingdom compared with those abroad. Another possibility is that market participants revised down their views about sterling's long-term sustainable real value. That could have occurred, for example, if they had thought that long-term demand prospects had weakened in the United Kingdom relative to abroad. Most of the fall in sterling occurred at the end of June and early July, coinciding with the release of the National Accounts for 2005 Q1 and *Blue Book* revisions to the historic data. It is possible those data prompted market participants to revise down their views about longer-term demand prospects in the United Kingdom.

The housing market

According to the lenders' indices, the level of house prices has been broadly flat since the beginning of 2005 (Chart 1.6). Estate agents' surveys, such as those from the Royal Institution of Chartered Surveyors (RICS), appear to have been more bearish about recent price developments: many of them have registered price falls in 2005. But the RICS survey does not ask about the scale of any changes, so it is possible that those declines have been small. That would be broadly consistent with the picture from the lenders.

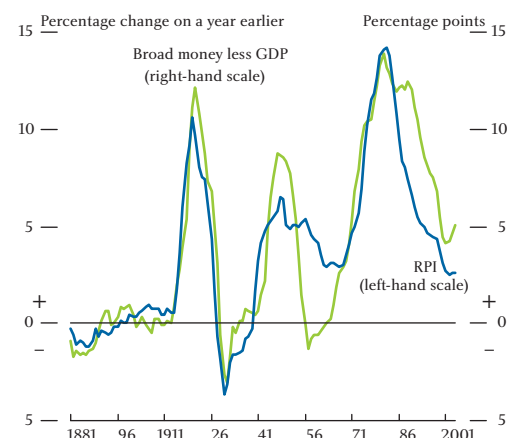
Measures of housing market activity appear to have stabilised (Table 1.B). Mortgage approvals for house purchase, after falling last year, have since recovered to around their long-term average. Housing market tightness, as measured by the level of sales relative to the amount of housing on estate agents' books (the sales to stocks ratio), has also increased a little.

1.2 Money, credit and balance sheets

Broad money

Since the beginning of the decade, broad money has grown well in excess of nominal GDP. And during the past two years, that pace of growth has quickened. In 2005 Q2, annual

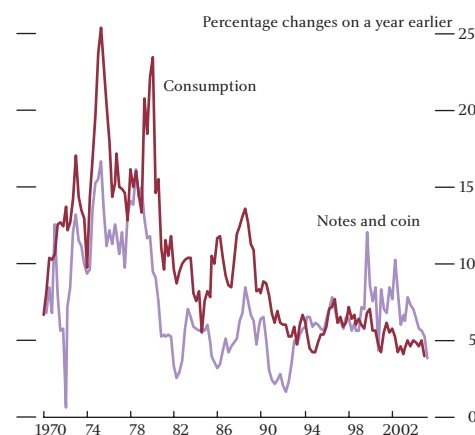
Chart 1.7
Annual RPI inflation^(a) and growth of broad money^(b) in excess of real GDP^(a)



Sources: Capie, F and Webber, A (1985), *A monetary history of the United Kingdom, 1870–1982, Volume 1: Data, sources, methods*, Allen and Unwin, London; Mitchell, B R (1988), *British historical statistics*, Cambridge University Press, Cambridge; Bank of England; and ONS.

- (a) Ten-year moving average measure.
(b) Broad money is measured using M3 until 1962 and M4 thereafter.

Chart 1.8
Notes and coin and consumption^(a)



- (a) Excludes non-profit institutions serving households.

Table 1.C
Mortgage equity withdrawal and consumer borrowing

£ billions	2004		2005	
	Q3	Q4	Q1	Q2
Mortgage equity withdrawal	12.4	8.3	6.4	n.a.
Other secured loan approvals ^(a)	6.7	5.8	6.0	6.2
Net unsecured lending	5.8	5.3	6.0	4.4

- (a) The gross value of secured loans approved for purposes other than house purchase or remortgaging. This category is close in concept to the part of secured borrowing most likely to be spent in the near term on goods and services or home improvements.

growth in M4 reached 11%. That may indicate that households and businesses are building up liquidity in order to finance current and future spending.

Over long periods of time, movements in inflation and broad money growth appear to be related (Chart 1.7). But the exact relationship is imprecise. Indeed, since the early 1970s, growth in broad money in excess of real activity has not been fully passed through to inflation (in other words, the income velocity of broad money has fallen). There are several reasons why that could have occurred: for example, more widespread use of the banking system; and financial liberalisation and increased competition between the banks.

A box in the previous *Report* noted that strong household money growth since the beginning of the decade could have been sustained by developments in the housing market, as well as more competitive rates on liquid deposits.⁽¹⁾ However, there is a possibility that current strong rates of money growth will filter through to stronger demand in the near term. That could occur directly, as households and businesses spend their money holdings on goods and services. Or it could occur indirectly if they use the funds to buy other financial assets, and those actions boost asset prices.

Notes and coin

In contrast with developments in M4, growth in the quantity of notes and coin in circulation has generally slowed since the second half of 2003 (Chart 1.8). Although it picked up in July, annual growth in notes and coin in 2005 Q2 stood at 3.9%. That was the lowest rate since 1992 Q4. Notes and coin are primarily held by households to facilitate spending. So the slowdown could confirm the recent weakness in household spending. However, Chart 1.8 shows that the relationship between consumer spending and notes and coin is imprecise.⁽²⁾

Household borrowing and household finances

Recent developments in household borrowing

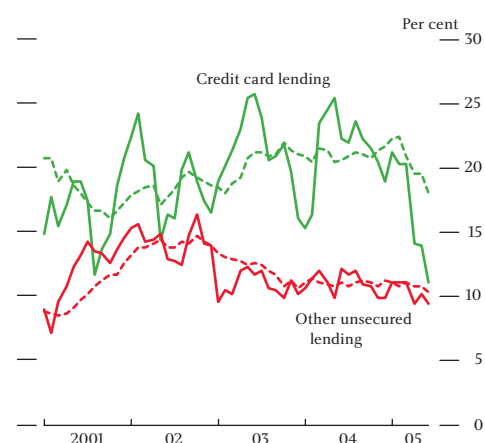
Growth in secured lending appears to have stabilised, consistent with developments in the housing market. In 2005 Q2, the three-month annualised growth rate of secured lending was 10.5%, broadly in line with growth seen since late last year. Within that, an estimate of the secured funds actively borrowed to finance near-term spending (one form of mortgage equity withdrawal) remained broadly flat in 2005 Q2 (Table 1.C).⁽³⁾

(1) See the box on pages 10 and 11 of the May 2005 *Inflation Report*.

(2) See Grant, K, Vlieghe, G and Brigden, A (2004), 'Assessing the stability of narrow money demand in the United Kingdom', *Bank of England Quarterly Bulletin*, Summer, pages 131–41.

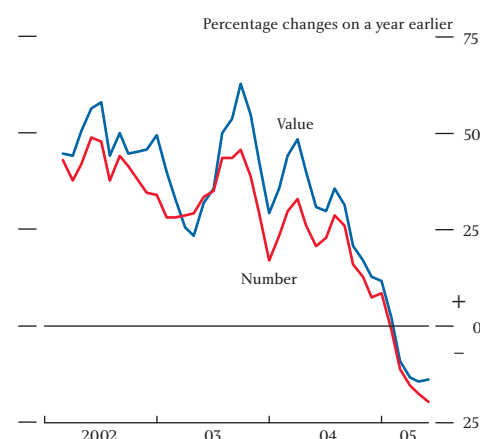
(3) See page 8 of the May 2005 *Inflation Report* for a discussion of the different forms of mortgage equity withdrawal, and of how likely each form is to be spent in the near term.

Chart 1.9
Growth in unsecured lending^(a)



(a) Solid lines indicate three-month annualised growth rates. Dotted lines indicate annual growth rates.

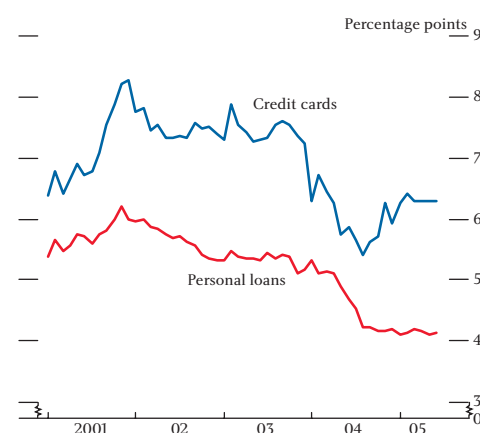
Chart 1.10
Credit card balance transfer transactions^(a)



Source: British Bankers' Association.

(a) For Visa and Mastercard credit cards only. Three-month moving average measures.

Chart 1.11
Unsecured lending spreads^(a)



(a) Effective rate less the repo rate. The credit card effective rate is the composite rate. It includes interest bearing and non-interest bearing balances.

In contrast, the flow of unsecured lending fell on the quarter, primarily reflecting a slowdown in credit card lending. In 2005 Q2, the three-month annualised growth rate of credit card lending fell by over 9 percentage points to 11% (Chart 1.9). That could indicate that consumers have become less willing to borrow to spend.

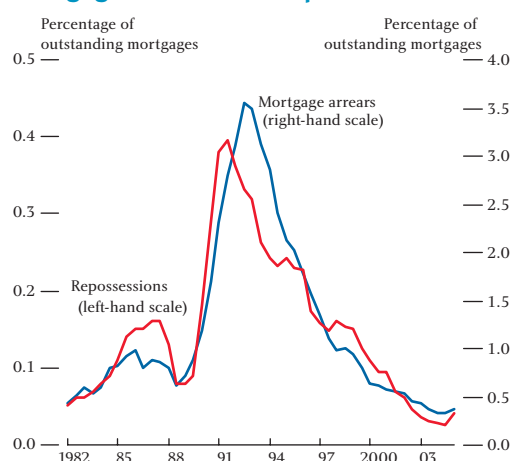
However, it is also possible that the slowdown in credit card borrowing reflects tighter credit conditions. Lenders may have limited the availability or attractiveness of special deals in recent months: balance transfer transactions (which occur when individuals transfer their credit card accounts to other lenders) have fallen compared with a year ago (Chart 1.10). And, during the past year, spreads on credit card lending have widened, in contrast with those on other unsecured lending (Chart 1.11). As mentioned in the *May Report*, some market contacts have indicated a selective tightening in credit conditions for groups of unsecured borrowers perceived to be high risk. That may reflect increased concern over rising rates of credit card write-offs and individual bankruptcy (see below).

Household finances and financial pressures

Household debt servicing has risen since the end of 2003, reflecting both the increased stock of debt and higher interest rates. Have household finances become more fragile as a result? In the case of secured borrowers (that is, households with mortgage debt), applications by the lenders for mortgage possessions have risen during the past year. But it is unlikely that all of these will result in actual repossessions. Data for 2005 H1 show that actual repossessions remained low (Chart 1.12). Similarly, the number of mortgage arrears, which edged higher in 2005 H1, was low by historical standards.

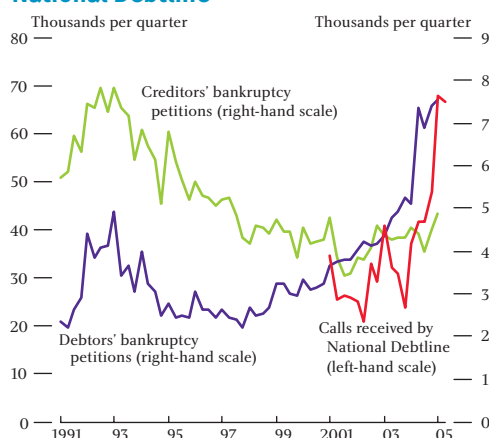
Some groups of unsecured borrowers — individuals who do not own a home, and borrow using credit cards, overdrafts or personal loans — appear to be facing difficulties. That is corroborated by information on debt write-offs. A write-off occurs when lenders decide to remove irretrievable (or bad) debt from the asset side of their balance sheet. In 2005 Q1, credit card write-offs rose by 13% on the quarter.

Personal insolvencies are another indicator of potential financial distress. These have risen sharply during the past few years. But unlike the previous peak in the early 1990s, the rise in insolvencies almost entirely reflects debtors' petitions. In other words, it is those experiencing difficulties who are applying for bankruptcy proceedings, rather than those who are owed the debt (Chart 1.13). That could partly reflect increased awareness of the options available to households with difficulties (for example, calls to the National Debtline

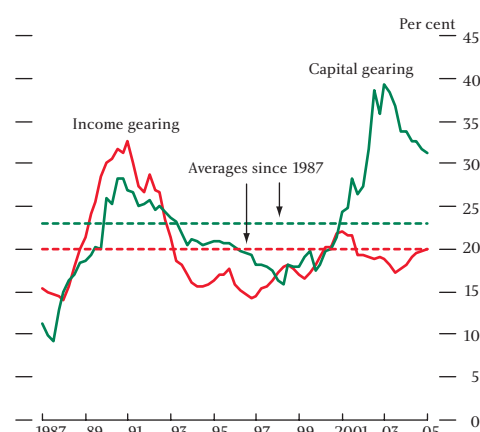
Chart 1.12**Mortgage arrears^(a) and repossessions^(b)**

Source: Council of Mortgage Lenders.

- (a) The number of mortgages in arrears for six months or more at the end of each half year.
 (b) The number of properties taken into possession by the lenders each half year.

Chart 1.13**Bankruptcy petitions and calls to the National Debtline**

Sources: Department for Constitutional Affairs and National Debtline.

Chart 1.14**PNFCs' capital^(a) and income^(b) gearing**

- (a) Private non-financial corporations' (PNFCs') net debt as a percentage of market valuation.
 (b) PNFCs' interest payments as percentage of gross operating surplus (excluding the alignment adjustment).

have increased).⁽¹⁾ And, as such, the rise may not accurately indicate the degree to which the overall level of financial distress has increased.

Company finances

Corporate capital gearing — the ratio of companies' indebtedness to the market value of their assets — has edged down recently (Chart 1.14). But it remains high, above the average level of the past 18 years. So it is possible that ongoing debt reduction explains why companies are apparently reluctant to invest (Section 2).

But that explanation — at least in aggregate — is hard to reconcile with the corporate borrowing data, which have been robust recently. Indeed in the year to 2005 Q2, sterling bank and building society lending to the private non-financial corporate (PNFC) sector grew by 14.5%, the highest since 2000 Q3. That is in contrast with the adjustment after the previous peak in capital gearing in 1990, when growth in bank lending slowed markedly.

One reason why high capital gearing has not diminished companies' appetite for borrowing is that income gearing (the degree to which interest payments bite into firms' profits) has not been excessive (Chart 1.14). Despite high levels of debt and rising interest rates, income gearing has remained close to its average during the past 18 years. That relatively benign picture in part reflects a less than full pass-through of repo rate rises to the effective borrowing rate faced by companies.

In addition to borrowing substantially, companies have simultaneously increased their accumulation of financial assets. Consequently, as noted in the May *Inflation Report*, they have registered rising financial surpluses: company saving has substantially outstripped investment. One candidate explanation is that businesses have built up funds in order to redistribute them to shareholders (for example, in response from increased shareholder pressure on company management). The data are consistent with that possibility. In the year to 2005 Q1, the level of gross share buybacks reached 6.7% of corporate profits, nearly double its value in the preceding year.

Overall, corporate financial conditions appear relatively benign. So from that perspective, companies appear well placed to finance future investment spending if it is warranted by demand conditions and profitability.

(1) See the box on page 19 of the June 2005 *Financial Stability Review*.

Both nominal and real GDP growth slowed in 2005 Q1. In real terms, final domestic demand growth weakened, reflecting a sharp deceleration in consumer spending. Official estimates also suggested that business investment growth was sluggish. UK exports fell in 2005 Q1, as world import growth slowed sharply. In 2005 Q2, real GDP growth remained below trend. The 2005 Blue Book revisions have changed the recent pattern of GDP growth. It is now estimated to have been generally stronger in 2002 and 2003. But since 2004 Q2, growth has slowed more sharply than previously estimated.

Chart 2.1
Nominal GDP

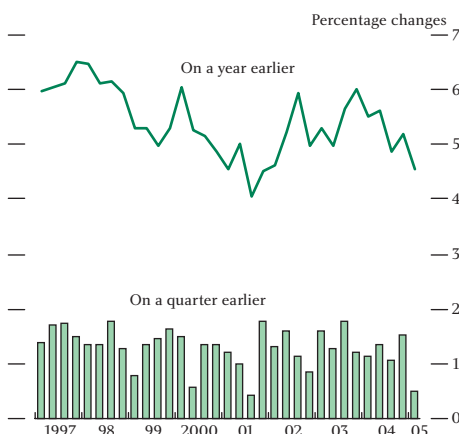


Table 2.A
Expenditure components of demand^(a)

Percentage changes on a quarter earlier

	2003 Average	2004 Average	Q2	Q3	Q4	2005 Q1	2005 Q2
Household consumption ^(b)	0.6	0.9	1.3	0.6	0.6	0.1	n.a.
Government consumption	1.5	0.3	0.3	0.2	0.4	0.7	n.a.
Investment	-0.2	0.9	1.5	1.5	-0.2	0.3	n.a.
of which, business	-0.7	0.6	0.8	2.0	-0.4	0.1	n.a.
Final domestic demand	0.7	0.8	1.0	0.6	0.4	0.2	n.a.
Change in inventories ^{(c)(d)}	0.1	-0.1	-0.1	0.1	-0.1	-0.1	n.a.
Alignment adjustment ^(d)	0.0	0.0	0.1	-0.1	0.4	0.1	n.a.
Domestic demand	0.8	0.7	1.0	0.6	0.8	0.2	n.a.
Exports	1.0	1.2	1.4	0.4	1.1	-0.9	n.a.
Imports	1.0	1.4	2.0	1.2	1.7	-1.2	n.a.
Net trade ^(d)	0.0	-0.1	-0.2	-0.3	-0.2	0.1	n.a.
Private final expenditure^(e)	0.5	1.0	1.3	0.6	0.6	-0.4	n.a.
GDP at market prices	0.8	0.7	0.8	0.4	0.6	0.4	0.4

(a) Chained volume measures.

(b) Excludes non-profit institutions serving households.

(c) Excludes the alignment adjustment.

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

(e) Household consumption excluding non-profit institutions serving households, private investment and exports.

2.1 Aggregate demand

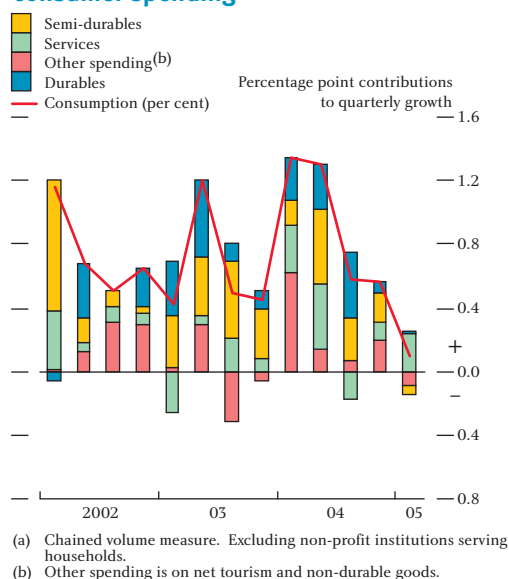
Monetary policy influences inflation through its effect on nominal expenditure. Annual nominal GDP growth averaged more than 5% between 2002 and 2004. But it slowed to 4.6% in 2005 Q1, the weakest rate of growth in over three years (Chart 2.1).

Real GDP grew by just 0.4% in 2005 Q1. Within that, final domestic demand growth slowed for the fifth consecutive quarter, reflecting weakness in household consumption (Table 2.A). A measure of private final expenditure — consisting of consumption, investment and exports — fell in Q1. According to the provisional ONS estimate, real GDP rose by 0.4% in 2005 Q2 (Section 3).

The 2005 *Blue Book* has revised the pattern of GDP growth in recent years. The main revisions are summarised in the box on pages 12–13 of this *Report*. Real GDP growth is now estimated to have been generally stronger in 2002 and 2003. But since 2004 Q2, growth has slowed more sharply than previously thought. There has also been some change in the composition of demand, with consumption revised higher and investment lower.

The terrorist attacks in London during July are not expected to have a sizable influence on economic activity. As discussed in Section 1, the impact on asset prices was generally short-lived. And so far there appears to have been little effect on business and consumer confidence. The rest of this section first examines the components of domestic demand in more detail. It then looks at recent developments in external demand.

Chart 2.2
Contributions to quarterly growth in consumer spending^(a)



2.2 Components of domestic demand

Household consumption

The profile of consumer spending in recent years was significantly revised in the latest National Accounts (see the box on pages 12–13). Consumer spending is estimated to have grown more quickly than previously thought in the first half of 2004. Growth in 2004 Q4 was revised up, but in 2005 Q1, household consumption rose by just 0.1%, the slowest rate in more than four years. That weakness was largely concentrated in retail goods, including vehicles; growth in consumer spending on services held up (Chart 2.2).

The latest revisions to consumer spending data go back a number of years. So it is possible that there will be future revisions and that the profile of consumption growth in 2004 will change again. Moreover, as low initial estimates of consumption growth tend to be revised upwards,⁽¹⁾ consumer spending growth in 2005 Q1 may ultimately prove to be higher than currently estimated. So while it is clear that consumer spending growth has slowed over the past year, the extent of that slowing remains uncertain.

This section examines the factors that are likely to have contributed to the weakening in consumer spending growth. It first considers whether the slowdown has been driven by increases in interest rates. It then examines whether households' income is an explanatory factor. The section looks finally at the possible role that the housing market has played in slowing consumer spending.

Interest rates

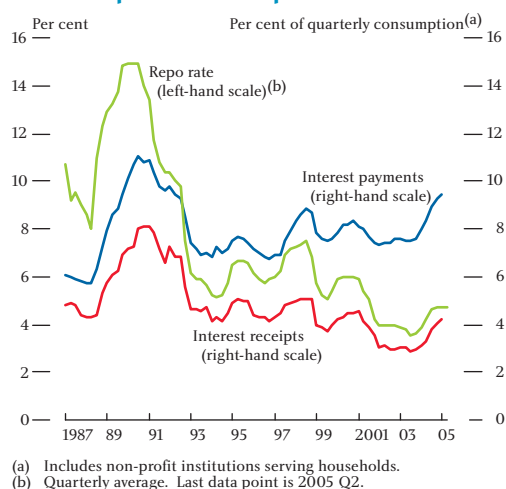
The slowdown in consumer spending growth has probably been driven in part by the cumulative impact of past interest rate rises. Higher interest rates encourage consumers to save rather than to spend. Between November 2003 and August 2004, the official interest rate was raised by 1.25 percentage points. This, in turn, led to around a 60 basis point rise in the effective interest rate facing households. These increases in interest rates are likely to have acted as a brake on spending.⁽²⁾

Higher interest rates also redistribute income across different households. When interest rates rise, interest payments increase, which makes debtors (borrowers) worse off. Interest receipts also rise, which makes creditors (savers) better off. So the impact of rate rises on consumer spending partly depends upon the balance between the impact on debtors and that on creditors.

(1) See page 15 of the August 2004 Report.

(2) See pages 10–11 of the February 2004 Report.

Chart 2.3
Households' quarterly interest payments and receipts and the repo rate

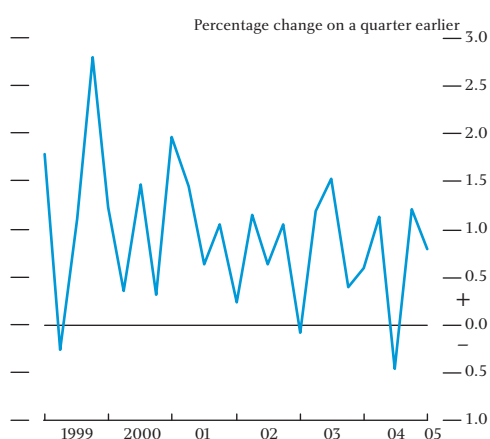


Between 2003 Q4 and 2005 Q1, interest payments increased by £4.0 billion and receipts by £2.6 billion (Chart 2.3). Some of that £1.4 billion gap between payments and receipts will eventually be returned to households given their position as shareholders of banks and other companies. But some of the £1.4 billion gap will have flowed overseas, and so reduced the money available to the UK household sector for spending. And even if payments and receipts were exactly matched, higher interest rates could still be associated with a weakening of spending growth because debtors tend to spend more of any extra disposable income than creditors.

The impact of rate rises may have been greater on this occasion than during previous episodes of rising borrowing costs because of the expansion in household balance sheets. For example, between September 1999 and February 2000, the MPC's official interest rate rose by 1.0 percentage points — similar to the increase seen between 2003 and 2004. But both assets and liabilities were lower then than during the recent past. As a result, interest payments and receipts rose by only £1.9 billion and £1.4 billion respectively between 1999 Q3 and 2000 Q4.

Incomes

Chart 2.4
Households' real post-tax labour income



Consumer spending growth is affected by changes both in current income and in expectations of future income. Real post-tax labour income is volatile — it fell in 2004 Q3 and then rose strongly in Q4 (Chart 2.4). Taking these two quarters together, average quarterly growth was just 0.4% in 2004 H2, compared with 0.9% in 2004 H1. So changes in income growth may explain some of the deceleration in consumption during 2004. But spending barely rose in 2005 Q1 even though real incomes grew by 0.8%. That suggests developments in current labour income cannot account for the recent weakness of consumption.

Households' expectations of future income from employment and assets also play a role in determining consumer spending. One possibility is that consumers became more optimistic about income prospects at the beginning of 2004. That is also consistent with the pickup in house price inflation during this period, as the demand for housing is related to households' expectations of their lifetime income. So the slowdown since the second half of 2004 might be linked with an easing in income expectations.

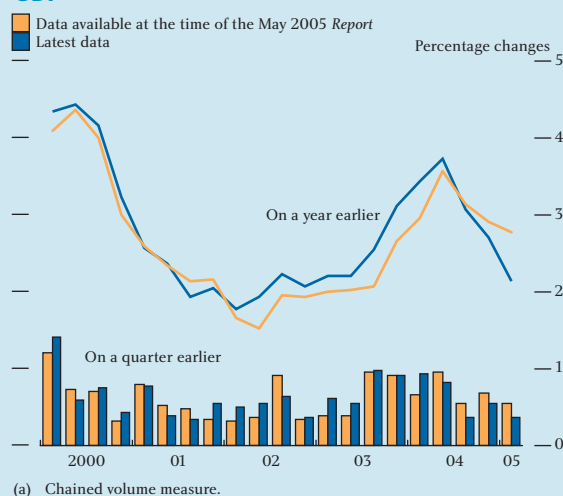
But the evidence for such a shift in income expectations in 2004 is not especially compelling. Income expectations are not directly observable. Consumers may base their income expectations in part on actual outturns for income. But although income growth eased in the second half of 2004,

Revisions to the National Accounts

The National Accounts published on 30 June included major revisions. Those revisions reflected the 2005 *Blue Book* process — an annual updating of GDP data by the Office for National Statistics.⁽¹⁾ This box outlines the revisions both to aggregate GDP and to GDP components.

The revised data suggest a different pattern of real GDP growth in the recent past compared with the data available at the time of the *May Report*. GDP growth between 2001 Q4 and 2004 Q1 was mostly revised higher. But quarterly growth from 2004 Q2 onwards has been revised down, and the latest data suggest that there was less momentum in the economy in the year to 2005 Q1 than previously thought (Chart A). Real GDP rose by 2.1% in 2005 Q1 compared with a year earlier. That compares with the previous estimate of 2.8%.

Chart A
GDP^(a)

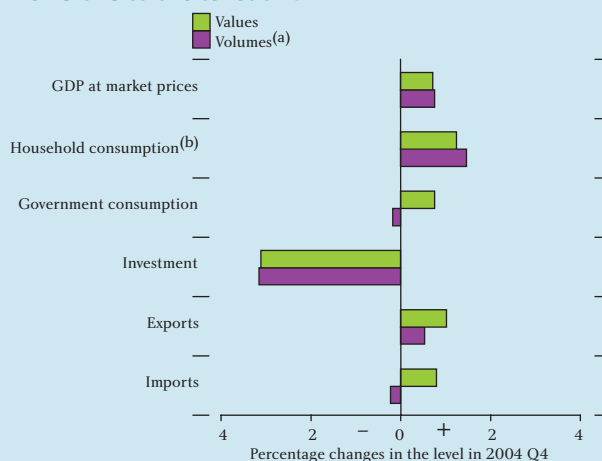


The level of GDP was estimated to have been over 1.0% higher between 2003 Q3 and 2004 Q2 than before the revisions. By 2004 Q4, the level of real GDP was 0.8% higher than had been estimated (Chart B).

The upward revision to the level of real GDP largely reflected a higher level of household consumption; all other components of real domestic demand were revised down (Chart B).

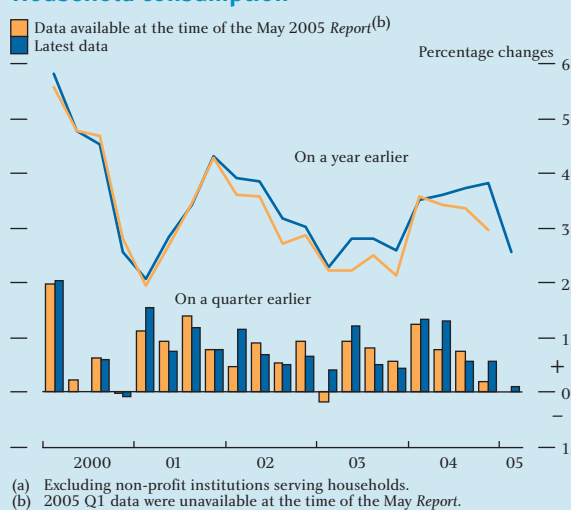
The latest data suggest that there has been less rebalancing in the pattern of spending than at the time of the *May Report*.

Chart B
Revisions to the level of GDP



The recent pattern of consumption growth has been revised substantially. Annual consumption growth was 0.3 percentage points higher in 2002, 2003 and 2004 than in the previous data release. Estimated consumer spending growth during the first half of 2004 was increased. Consumption growth in 2004 Q3 was lowered but growth in 2004 Q4 was revised upwards (Chart C).

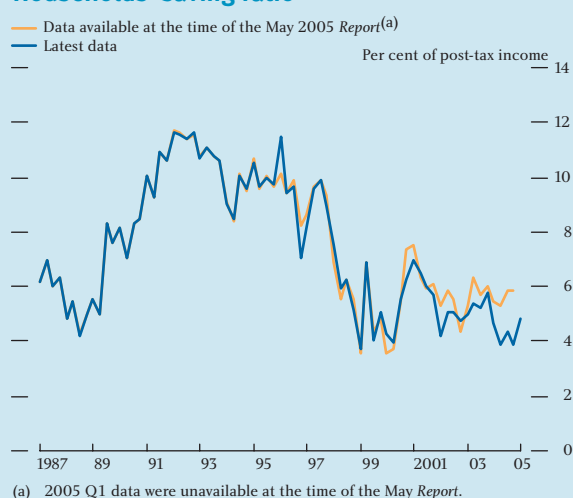
Chart C
Household consumption^(a)



(1) See *Quarterly National Accounts 1st quarter 2005* and *United Kingdom National Accounts — The Blue Book: 2005*, Office for National Statistics.

Households' real post-tax income was estimated to have been 0.6% lower in 2004 Q4 than in the previous data release. This partly reflected revisions to the treatment of pension contributions. Combined with the upward revision to the level of consumption, the saving ratio was 3.9% in 2004 Q4, compared with the previous estimate of 5.8% (Chart D). There were also large revisions to the data on households' net financial wealth such that the level was 3.4% lower in 2004 Q4 than previously thought.

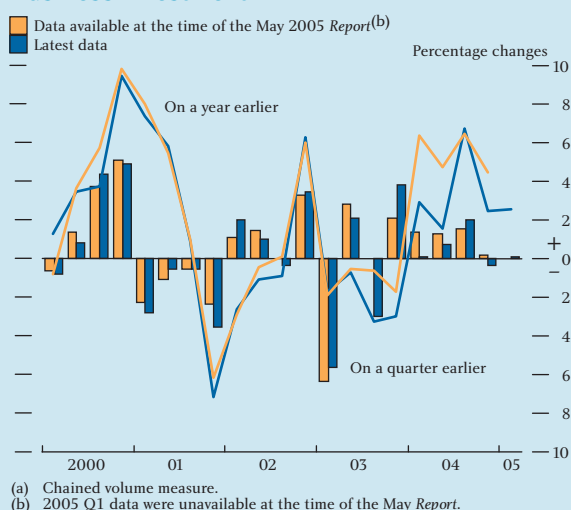
Chart D
Households' saving ratio



The level of investment was revised down significantly, reflecting both lower business investment and lower investment in dwellings. The latest official data suggest that the recent pattern of business investment has been much weaker than at the time of the May Report (Chart E). By contrast, the level of government investment was revised up substantially.

The *Blue Book* revisions included improved methods for the measurement of public sector output, reflecting recommendations in the *Atkinson Review* (2005).⁽²⁾ Real government consumption growth is now estimated to have been much stronger in 2002 and 2003 than previously estimated, but then to have weakened in 2004. Those revisions left the level of government

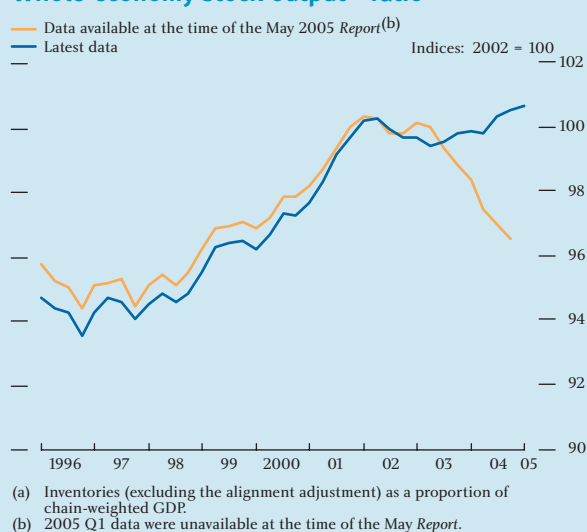
Chart E
Business investment^(a)



consumption broadly unchanged in volume terms in 2004 Q4.

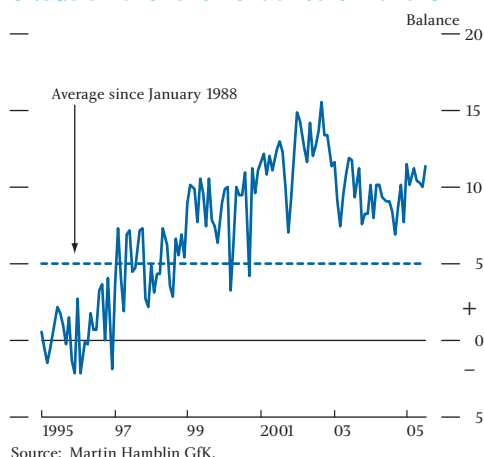
The data on stockbuilding were also revised significantly. Stockbuilding is now estimated to have contributed to growth in 2004, rather than to have subtracted from it as previously estimated. And the stock-output ratio of the whole economy now looks to have increased steadily since 2003, rather than to have declined as previous estimates had indicated (Chart F).

Chart F
Whole-economy stock-output^(a) ratio



(2) See *Atkinson Review: Final Report*, available at www.statistics.gov.uk/about/data/methodology/specific/PublicSector/atkinson/final_report.asp and *Improvements in the methodology for measuring government output*, available at www.statistics.gov.uk/articles/nojournal/ChangestoBlueBook2005.pdf.

Chart 2.5
GfK consumer confidence: households' financial situation over the next twelve months



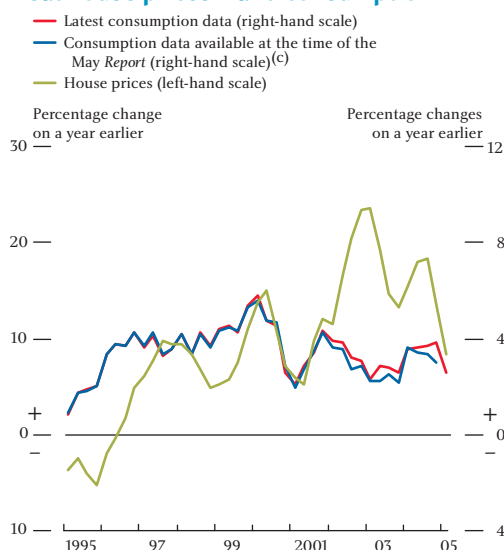
that is unlikely to have been sufficient to warrant a significant shift in expectations of lifetime income. Surveys of consumer confidence also provide a guide to households' perceptions. But in 2005 Q1, when consumer spending growth eased sharply, households' confidence in their financial prospects over the next twelve months appeared to improve (Chart 2.5).

Even though consumers have remained relatively optimistic about financial prospects in the short term, it is possible that some households have become concerned about their longer-term income prospects. The recent *Pensions Commission Report* highlighted a significant savings shortfall for retirement.⁽¹⁾ That report may have focused some people's attention on the inadequacy of their pensions. Concern over pensions is also consistent with the increase in labour force participation by older people.⁽²⁾ But that has been in train for some time, which suggests that such concerns are not new. So the recent slowing in consumer spending growth is unlikely to be directly attributable to heightened concerns over pensions, though it may weigh on household expenditure going forward.

Housing market

The slowing of house price inflation in the second half of 2004 may also have dampened consumer spending. But as noted in previous *Reports* and *Quarterly Bulletins*, the link between the housing market and consumer spending is not straightforward.⁽³⁾

Chart 2.6
Real house prices^(a) and consumption^(b)



- (a) Real house price measure, calculated as the nominal Nationwide series deflated by the consumption expenditure deflator.
 (b) Chained volume measure of consumption. Excluding non-profit institutions serving households.
 (c) 2005 Q1 data were unavailable at the time of the May Report.

Previous vintages of the National Accounts have suggested that the empirical association between house prices and consumer spending may have weakened in recent years.⁽⁴⁾ Have the National Accounts revisions changed that picture? As Chart 2.6 shows, consumer spending rose more quickly than first thought in the first half of 2004, before slowing sharply in 2005. That is broadly consistent with the pattern of house price inflation seen during that period. But the National Accounts data continue to imply that consumer spending was decelerating during 2002 and early 2003, a period when house prices were rising rapidly. If slowing house price inflation is to be a convincing explanation for the recent weakening of consumption growth, then it is important to be able to explain why house price inflation did not match movements in household spending more closely in 2002 and 2003.

The Committee's view remains that the impact of the house price slowdown on consumer spending is likely to have been

(1) Pensions Commission (2004), *Pensions: Challenges and Choices. The First Report of the Pensions Commission*.

(2) See page 23 of the November 2004 Report.

(3) See Aoki, K, Proudman, J and Vlieghe, G (2001), 'Why house prices matter', *Bank of England Quarterly Bulletin*, Winter, pages 460–68.

(4) See pages 12–13 of the November 2004 Report.

Table 2.B
Indicators of consumer spending

	2004			2005		
	Q2	Q3	Q4	Q1	Q2	July
<i>Percentage changes on a quarter earlier</i>						
Retail sales volumes	2.0	0.8	0.0	0.1	0.7	n.a.
Private vehicle registrations ^(a)	-8.2	-0.7	-1.2	-4.9	0.5	n.a.
<i>Percentage changes on a year earlier</i>						
BRC retail sales values (total)	5.5	4.0	2.6	3.9	1.2	n.a.
BRC retail sales values (like-for-like)	2.7	1.5	0.0	0.7	-2.5	n.a.
<i>Balance</i>						
CBI retail sales volumes ^{(b)(c)}	41.3	5.7	21.0	-3.3	-13.3	-14.7

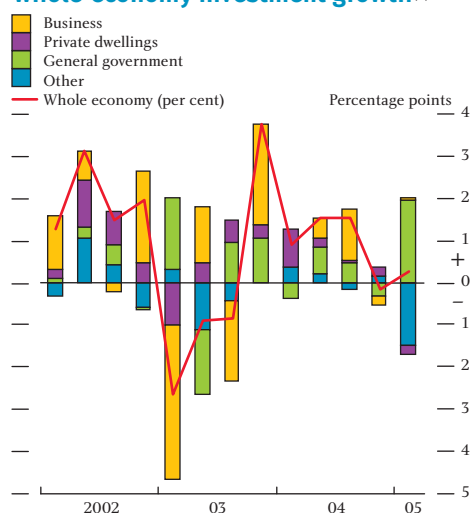
Sources: Bank of England, BRC, CBI, ONS and SMMT.

(a) Seasonally adjusted by the Bank of England.

(b) Balance of respondents in the *CBI Distributive Trades* survey reporting sales higher than a year earlier.

(c) July figure is a three-month moving average.

Chart 2.7
Sectoral contributions to quarterly whole-economy investment growth^(a)



(a) Chained volume measures.

more moderate than past empirical associations might suggest. But it is possible that other factors may have obscured the underlying link between house prices and consumer spending. So as highlighted in past *Reports*, there remains a risk that house prices have had a greater impact on consumer spending than the Committee currently judges.

Changes in the number of housing transactions can also affect consumption. A fall in housing transactions can reduce spending on goods and services directly associated with moving house. Housing transactions fell markedly during 2004. But recent Bank research has suggested that the direct impact of that fall on consumer spending was likely to have been modest.⁽¹⁾

Overall, a range of factors, including the rise in interest rates, probably lies behind the weakening of consumer spending growth. In Q2, although some indicators continued to be weak, the retail sales and vehicle registrations data suggest that there has been some rebound in consumer spending (Table 2.B). The Committee's view is that consumption growth in 2005 Q2 was likely to have been stronger than in Q1. However, it is unclear whether that recovery will continue into the second half of the year.

Investment

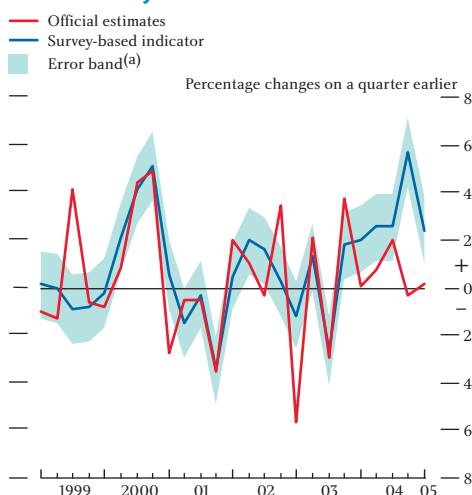
Official estimates suggest that whole-economy investment rose by just 0.3% in 2005 Q1 (Chart 2.7). Within this, business investment rose by 0.1%, following a decline of 0.4% in 2004 Q4. As described in the box on pages 12–13, the recent pattern of business investment is much weaker than implied by the data available at the time of the May *Report*.

Government investment rose strongly in 2005 Q1. By contrast, 'other' investment (whole-economy investment excluding government, business and dwellings investment) slowed sharply. This measure of investment represents only around 1% of GDP, but it subtracted 0.2 percentage points from GDP growth in 2005 Q1. 'Other' investment includes transactions associated with the sale and purchase of houses — for example estate agents' fees — and may therefore be related to the slowing housing market. Given signs that the housing market appears to be stabilising (Section 1), that weakness is not expected to persist.

As highlighted in previous *Reports*, initial estimates of business investment are highly uncertain and tend to be revised higher over time. An alternative way of gauging investment

(1) See Benito, A and Wood, R (2005), 'How important is housing market activity for durables spending?', *Bank of England Quarterly Bulletin*, Summer, pages 155–59.

Chart 2.8
Official estimates of business investment and a survey-based indicator



Sources: Bank of England, ONS and Ellis, C and Barnes, S (2005), 'Indicators of short-term movements in business investment', *Bank of England Quarterly Bulletin*, Spring, pages 30–38.

(a) Shaded area shows the survey-based indicator plus and minus its average absolute difference from official estimates between 1996 and 2002.

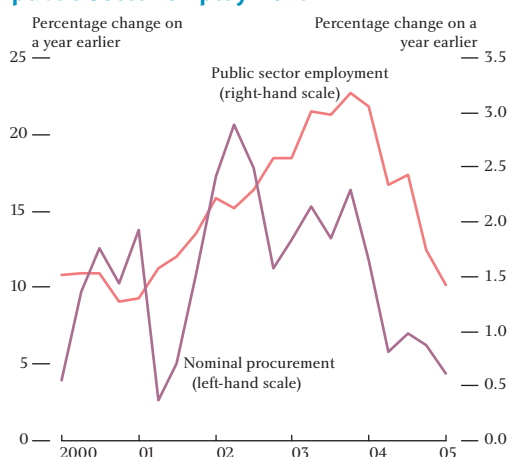
Table 2.C
Indicators of future investment^(a)

	Average since 1989	Average in 1997	2004		2005	
			Q3	Q4	Q1	Q2
<i>Surveys of investment intentions</i>						
BCC service sector	15	28	17	15	11	8
BCC manufacturing ^(b)	10	23	18	16	10	9
CBI manufacturing	-7	12	-17	-19	-16	-15
CBI distributive trades	-1	9	24	6	-18	-29
<i>Confidence in profitability^(c)</i>						
BCC service sector	34	46	35	41	38	29
BCC manufacturing ^(b)	29	37	24	35	34	34

Sources: BCC and CBI.

(a) Percentage balances of respondents.
(b) Includes agriculture, energy and construction.
(c) The question asks 'Do you believe that over the next twelve months profitability will improve/remains the same/worsen?'

Chart 2.9
Nominal government procurement and public sector employment



developments is to examine business surveys. A survey-based measure of investment spending, which incorporates indicators such as investment intentions, investment orders and business optimism, points to stronger growth than currently shown by official statistics (Chart 2.8).⁽¹⁾

Looking ahead, it is possible that investment growth may be subdued in the short term. Many indicators of investment intentions have moved down recently, and are below their averages since 1989 (Table 2.C). They are also significantly below their average levels in 1997, when the United Kingdom last experienced a significant pickup in business investment. In addition, there is some evidence that service sector companies have become less confident about their future profitability (Table 2.C), which may hold back investment in the short term.

There are a number of factors that may support investment growth in the medium term. As detailed in Section 1, corporate financial conditions appear favourable. The increase in the proportion of companies' capital stock accounted for by shorter-lived assets such as computers (Section 3) may also support investment, to the extent that faster depreciation rates mean higher levels of replacement investment.

Government spending

In the National Accounts, the measure of real government spending corresponds to the quantity of services supplied by the public sector. But that measure is not the most useful for determining the degree of inflationary pressure in the economy. Better indicators are provided by the quantity of private sector goods and services purchased by the government — government procurement — and the labour that the public sector employs. These give an indication of the quantity of resources that is absorbed by the public sector and, hence, the ability of the private sector to meet the demand for its goods and services.⁽²⁾ Both government procurement and employment have been rising rapidly in recent years, although growth has slowed during the past 18 months or so (Chart 2.9).

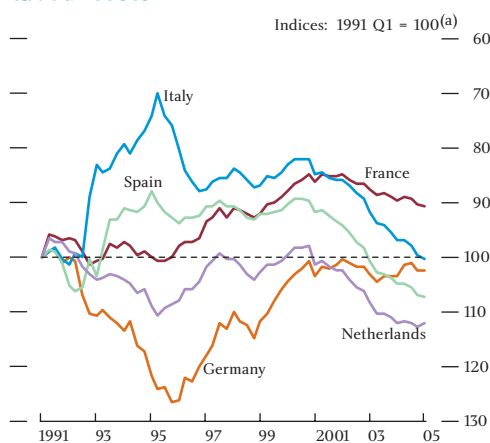
2.3 External demand and UK net trade

As expected at the time of the *May Report*, world growth maintained a solid pace in early 2005. By contrast, import growth in the United Kingdom's trading partners

(1) See Ellis, C and Barnes, S (2005), 'Indicators of short-term movements in business investment', *Bank of England Quarterly Bulletin*, Spring, pages 30–38.

(2) See Hills, R, Thomas, R and Yates, T (2005), 'The impact of government spending on demand pressure', *Bank of England Quarterly Bulletin*, Summer, pages 140–52.

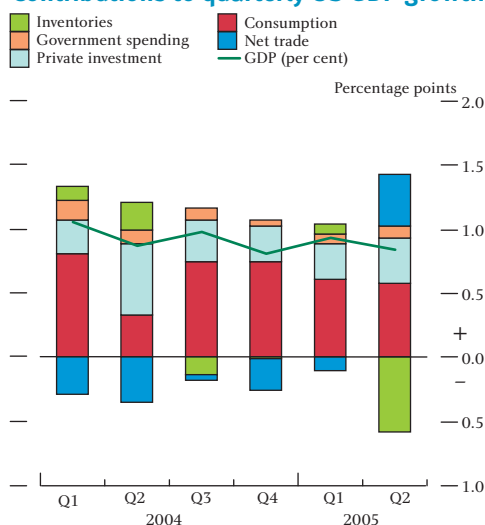
Chart 2.10
Euro-area competitiveness — real effective exchange rates based on relative unit labour costs



Source: Thomson Financial Datastream.

(a) Inverted scale. An increase in the index implies a fall in competitiveness.

Chart 2.11
Contributions to quarterly US GDP growth^(a)



Source: US Bureau of Economic Analysis.

(a) Chained volume measures.

slowed markedly in 2005 Q1. Euro-area imports were particularly weak, falling by 1.6%, the weakest growth rate in twelve years. But monthly data for 2005 Q2 so far suggest that the weakness in import growth is likely to prove temporary.

The oil price has risen further (Section 4). There remains a risk that the high oil price may act to dampen world growth by more than it has so far. But the importance of oil — and energy more generally — in production has declined in recent decades. There could also be offsetting effects on global demand if oil-producing countries choose to spend their increased oil receipts more rapidly than after the oil price hikes in the 1970s. Recent ECB research suggests that the euro area, in particular, has benefited from this increased demand.⁽¹⁾

The euro area

Euro-area GDP growth was 0.5% in 2005 Q1, slightly stronger than anticipated at the time of the *May Report*. Difficulties in adjusting for the number of working days in Germany around the turn of the year, however, suggested that the underlying picture there was probably a little weaker in 2005 Q1 and a little stronger in 2004 Q4. Adjusting for this, euro-area growth was probably broadly similar in 2004 Q4 and 2005 Q1, remaining moderately below trend.

Since 1999, Germany, Italy and the Netherlands — representing around a quarter of the United Kingdom's exports — have consistently underperformed relative to the rest of the euro area. In the case of Italy and the Netherlands, that underperformance may partly reflect a loss in competitiveness (Chart 2.10). By contrast, Germany has gained competitiveness, which has boosted export growth. Looking ahead, that could allow some scope for real wages in Germany to pick up, which may help to support domestic demand.⁽²⁾

Overall, the MPC expects that low long-term interest rates, past equity price rises, the high level of corporate profitability and an expansion in world demand will all help to support a moderate recovery in the euro area in the near term.

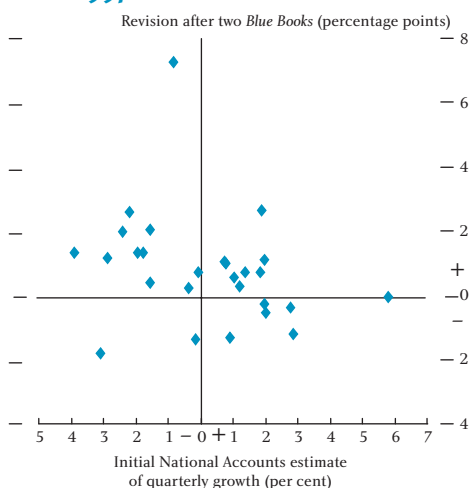
The United States

US GDP increased by 0.8% in 2005 Q2 (Chart 2.11), broadly as expected at the time of the *May Report*. Net trade picked up. But inventories fell sharply in 2005 Q2 and consumer spending growth slowed a little. The continued stimulus from

(1) See ECB (2005), 'Oil-bill recycling and its impact', Box 1, *Monthly Bulletin*, July.

(2) See pages 16–17 of the February 2005 *Report*.

Chart 2.12
Revisions to quarterly UK export growth
since 1997



monetary policy and the low level of long rates are likely to support US growth in the near term.

Asia

Japanese GDP expanded by 1.2% in 2005 Q1, considerably stronger than expected at the time of the *May Report*. That followed three quarters where growth averaged near zero. But that 2005 Q1 strength is likely to prove erratic, and growth is expected to slow back to around trend in the near term. In China, GDP grew by 9.5% in the year to 2005 Q2 and is expected to continue to expand rapidly.

UK trade

In 2005 Q1, UK export volumes fell by 0.9%. That is consistent with the weakness in world import growth highlighted above. But official estimates of quarterly growth are prone to revision. There is some tendency for initial estimates, particularly the weaker ones, to be revised upwards (Chart 2.12). Monthly data suggest that export growth picked up in 2005 Q2.

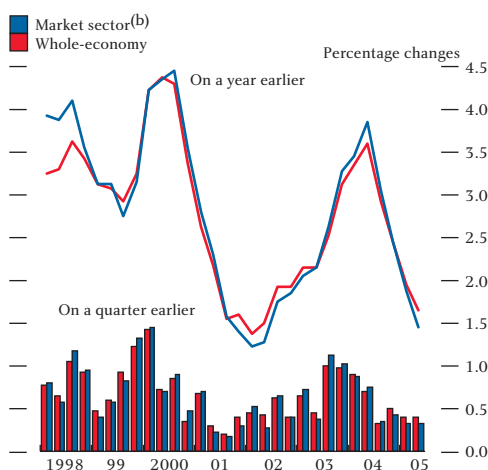
Import volumes fell by 1.2% in 2005 Q1, the weakest growth since 2003 Q2. Those data are broadly consistent with the sluggishness in total final expenditure, and with the demand slowdown being concentrated in import-intensive goods. Monthly data suggest that the weakness in import growth will also prove to be temporary.

Output and supply

3

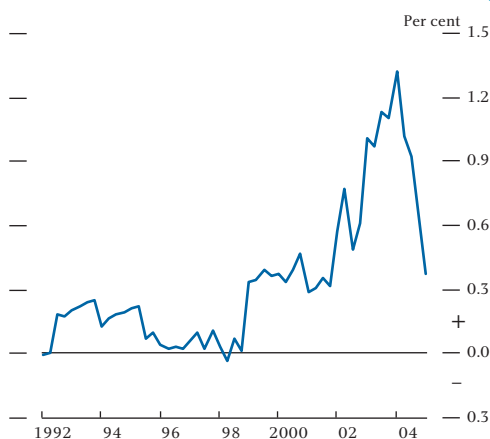
Output growth remained subdued in 2005 Q2, and revisions to earlier data point to less momentum in the economy than had appeared to be the case at the time of the May Report. Official estimates suggest that growth in private sector employment and productivity has also been muted. Survey indicators point to some reduction in the intensity at which companies have been working their existing capital and labour. Labour market tightness also appears to have eased.

Chart 3.1
Whole-economy and market sector output^(a)



(a) Chained volume measures at basic prices.
(b) The most up-to-date official estimates of the market sector output measure — introduced by the ONS in June — are for the period 2003 Q1 to 2005 Q1. Updated estimates, consistent with the latest *Blue Book*, will be published on 26 August. In the absence of official updated data, the chart uses a proxy measure which excludes public administration, defence and social security, education and health from the average measure of gross value added. The figure for 2005 Q2 was estimated using information in the preliminary GDP release.

Chart 3.2
Revisions to the level of market sector output^(a)



(a) Comparison of market sector output estimates pre and post-*Blue Book*. The market sector output measure is defined in Chart 3.1. The previous estimate of market sector output for 2005 Q1 was based on information in the preliminary GDP release available at the time of the *May Report*.

A key determinant of inflationary pressure is the degree of spare capacity in the economy. That reflects the amount that companies produce (Section 3.1) relative to the amount that they could potentially produce (Section 3.2). The balance between these two elements is discussed in Section 3.3.

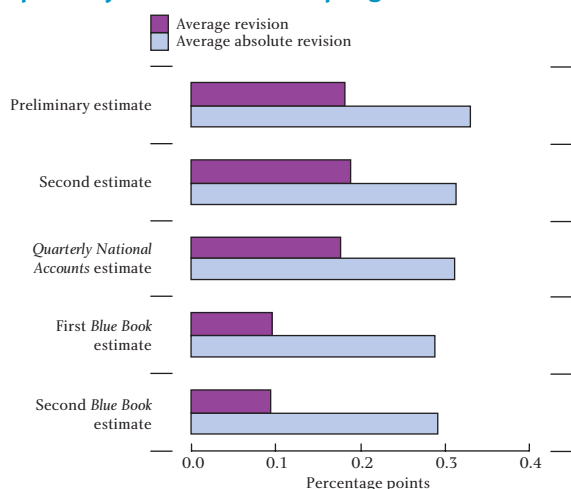
3.1 Output

Whole-economy output was provisionally estimated to have risen by 0.4% in 2005 Q2 (Chart 3.1). That was in line with the subdued pace of growth in the previous quarter.

The majority of prices in the CPI basket are set by companies in the private or market sector of the economy. So that sector's output should provide a better guide than whole-economy output to incipient pressures on CPI inflation. A measure of market sector output has slowed even more markedly than whole-economy output in recent quarters. And although the *Blue Book* revisions (see box on pages 12–13) were consistent with a higher level of market sector output than previously thought (Chart 3.2), they also implied less momentum in the economy over the past year. In large part, that weakness reflected sizable revisions to service sector output.

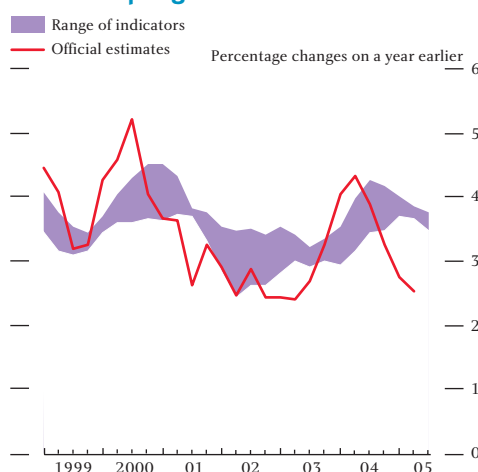
Such large revisions to official data are not uncommon. Early estimates of output growth are based on a relatively limited amount of information. As the ONS gathers more responses from its comprehensive surveys of households and companies, it incorporates that information into revised estimates of output growth. Those more 'mature' estimates should provide a better guide to actual activity.

Chart 3.3
Historical revisions to official estimates of quarterly service sector output growth^(a)



(a) Between 1993 and 2003. Revisions are defined as the latest official estimates less the estimates made at the different points in the data cycle shown on the y-axis; 'absolute revisions' indicate the magnitude of those revisions without regard to their direction.

Chart 3.4
Official estimates and indicators of service sector output growth^(a)



Sources: Bank of England, BCC, CBI, CIPS, ONS and Ashley, J, Driver, R, Hayes, S and Jeffery, C (2005), 'Dealing with data uncertainty', *Bank of England Quarterly Bulletin*, Spring, pages 23–29.

(a) Indicators are transformed from survey balances and the number of profit warnings by way of simple OLS regressions. These relate survey balances in the previous quarter, and profit warnings from two quarters ago, to mature ONS growth estimates (defined as estimates that have been through at least two sets of *Blue Book* revisions) for the current quarter. The CBI indicator — based on a weighted average of distribution, consumer services, business/professional services and financial services — commences in 1999 Q4.

But in the case of service sector output, the uncertainty surrounding early estimates of quarterly growth diminishes only gradually over time. Substantial revisions can occur long after the first official estimates are published. The average revision to data published a year or two later has been around 0.1 percentage points per quarter since the early 1990s (Chart 3.3). And the average absolute revision has been even greater, close to 0.3 percentage points per quarter.

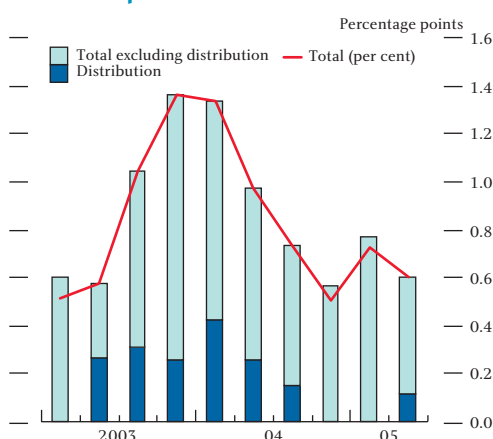
That points to an important role for other evidence. In particular, companies' responses to business surveys and their announcements of profit warnings provide a cross-check against the picture of slackening service sector output growth painted by the current vintage of official data. Such measures can be transformed into indicators of service sector output growth, based on their historical relationships with mature vintages of official data (see the footnote to Chart 3.4). As Chart 3.4 shows, a range of these indicators — derived separately from the BCC, CBI and CIPS surveys and companies' profit warnings — point to stronger growth around the turn of the year than suggested by the current vintage of ONS data.

What could lie behind this divergence? One possibility is that it reflects the limitations of individual indicators. For example, the CIPS survey does not cover the distribution sector, which official data suggest can account for most of the slowing in service sector output growth (Chart 3.5). It could also be the case that the divergence is related to the inherent limitations of business surveys, which are typically based on qualitative information and small samples of companies. Such factors might account for the recent strength of indicators, as well as previous disparities with the official data.

Nonetheless, all of the indicators have pointed to robust service sector growth over the past year. That picture is broadly confirmed by the Bank's regional Agents. And although the recent spate of profit warnings could point to weaker activity later in the year, the other indicators suggest further healthy growth in the near term.

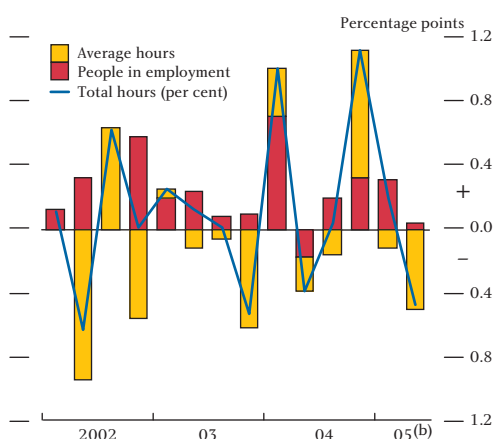
Business surveys also signal stronger manufacturing output growth in 2005 H1 than currently estimated by the ONS. The latest official data, released after the preliminary GDP estimate, indicate that manufacturing output declined by 0.3% in Q2. That followed a fall of 0.9% in Q1. Survey balances have been more positive than the official data, though they still point to subdued activity.

Chart 3.5
Contributions to quarterly growth in market sector output of services^(a)



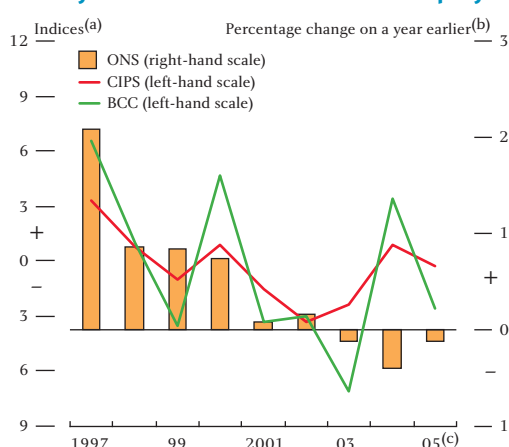
(a) Data for 2005 Q2 were estimated using information in the preliminary GDP release. Specifically, distribution was assumed to have grown at the same rate as the broader 'distribution, hotels and restaurants' category; and the market and non-market sector components of 'government and other services' were assumed to have grown at the same rate.

Chart 3.6
Contributions to quarterly growth in total hours worked^(a)



(a) LFS data. Average hours worked is defined as total hours worked divided by the number of people in employment.
(b) 2005 Q2 figures are for growth in March to May 2005 over the preceding three months.

Chart 3.7
Survey measures of market sector employment^(a)



Sources: BCC, CIPS and ONS.

(a) Difference of the BCC balance and CIPS index from their averages since 1996, where the BCC balance is a weighted average of sectoral balances (based on each sector's share in total employment). Scales have been chosen so that a zero value for a survey index corresponds approximately to average growth in the ONS measure between 1996 and 2002.
(b) Based on LFS microdata.
(c) 2005 figures refer to H1 for BCC and CIPS, and to Q1 for ONS data.

3.2 Supply

Potential supply depends on the size and quality of the workforce, the capital at its disposal, and the efficiency with which workers are able to employ that capital to produce goods and services.

Employment

Total hours worked have fallen markedly since the *May Report*, according to the household-based Labour Force Survey (LFS). Total hours fell by 0.5% in the three months to May, one of the largest falls in recent years. That reversed part, but not all, of the sharp rise in hours worked over the preceding six months.

Much of the recent changes in total hours have been driven by fluctuations in the average hours that people work (Chart 3.6). That could be erratic. Average hours are affected by the timing of holidays, for example. And respondents to the LFS intimate that changes to their usual working hours — which exclude absences — have been more modest.

It is also possible that some of the slowdown in hours worked is cyclical and related to the recent softening in demand growth (Section 2). If so, that should be reflected in overtime hours. Paid overtime fell sharply in early 2005.

Alternatively, it could be the case that employment, and hence total hours worked, has been greater than the official data suggest. The LFS employment measure is based on an estimate of the rate of employment, which is then scaled up using estimates of the population. The population over the past two years is not known, however. So the LFS employment measure is based, in part, on population projections by the Government Actuary's Department. These assume relatively modest population growth over the recent past: the net inflow of migrants is assumed to have fallen in 2003–04 and stabilised in 2004–05.

There is no single comprehensive measure of migration over the past two years. But the box on pages 22–23 suggests that migration may have risen over this period. And it could imply that employment growth has been rather stronger — and more in line with survey evidence (Chart 3.7) — than suggested by the latest official data. Nonetheless, official data, business surveys and reports from the Bank's Agents have all pointed to an easing in employment growth recently.

International migration data

Wage growth has been surprisingly weak given the low level of unemployment. Inward migration may be one explanation for this.⁽¹⁾ This box discusses three key sources of data on migration:⁽²⁾ data on the allocation of National Insurance numbers; official estimates of the net migrant inflow; and applications to work by nationals from the EU Accession countries.

One source of information on migrant inflows is applications for National Insurance (NI) numbers. These data cover overseas nationals who have found a job or made a claim for benefits. NI numbers were allocated to 272,000 foreign nationals who entered the United Kingdom in 2002–03 — an increase of 9,000 on the allocations in the previous two years.

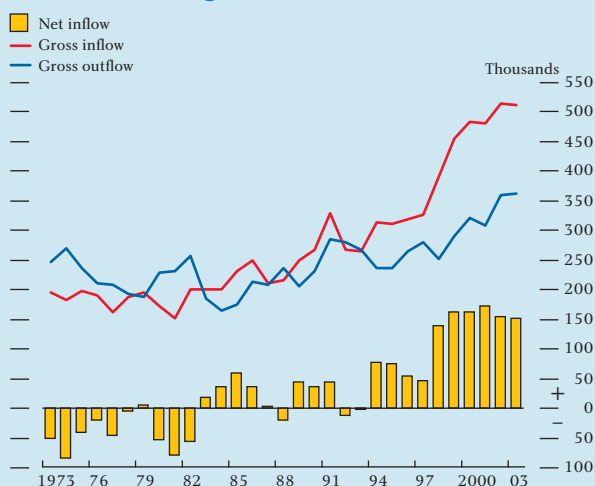
These NI data suffer from a variety of problems. They are not timely, and may not capture all migrants who are participating in the labour market — and potentially easing wage pressures. In addition, any assessment of migration needs to look at *net* flows — that is, needs to take into account not only flows of immigrants into the United Kingdom, but flows of emigrants out of the United Kingdom to other countries. The NI data can only provide an estimate of gross inflows, and so are not necessarily a reliable guide to net migration.

Official estimates of net migration are primarily based on the International Passenger Survey (IPS), a survey of individuals passing through the main UK air and sea ports and the Channel Tunnel.⁽³⁾ These official data suggest that the net migrant inflow has been broadly constant at around 150,000 per year since 1998 (Chart A). Before then, the net inflow of migrants was far smaller, largely reflecting lower levels of immigration. As recently as 1993, there was a net outflow of migrants from the United Kingdom.

But the IPS data also suffer from a number of problems. Because the IPS surveys only about one in every 500 individuals who enter and exit the country, the official estimates of the UK net migrant inflow are imprecise. The IPS is also a voluntary survey, which means that the estimated migrant flow may be biased if the individuals who are willing to be interviewed differ from those who are not. The fact that individuals are identified as migrants according to how long they intend to stay in the United Kingdom has raised further concerns over the quality of the data. In the past, intentions have not proved a reliable guide to the actual duration of stay. As a result, raw

IPS estimates of the net migrant inflow are now adjusted using a series of judgements on the intentions data.

Chart A
Official estimates^(a) of migration into and out of the United Kingdom



(a) Data before 1991 do not include flows between the United Kingdom and the Republic of Ireland, or flows of asylum seekers and their dependents, and have not been adjusted to account for inaccuracies in the IPS data on intended duration of stay. The IPS sampling methodology was also changed in 1999.

Finally, the definition of a migrant in the official data is probably not the right one to use when thinking about the impact of migration on the labour market. To qualify as a migrant in the official data, an individual has to change their country of usual residence for a year or more. So these data do not capture the large number of migrants who only stay in the United Kingdom for a matter of months, many of whom may have entered to work.

A third, and more timely, source of information on migration is data on applications to work by nationals of EU Accession countries. Following enlargement of the European Union on 1 May 2004, nationals from these countries have been free to work in the United Kingdom.

The majority⁽⁴⁾ have had to register under the Worker Registration Scheme (WRS) programme upon finding a job. Data from the WRS suggest that around 165,000 nationals from the Accession countries have had applications for work approved in the first eleven months since enlargement (Chart B). However, there are considerable uncertainties around these figures and their implications for labour supply.

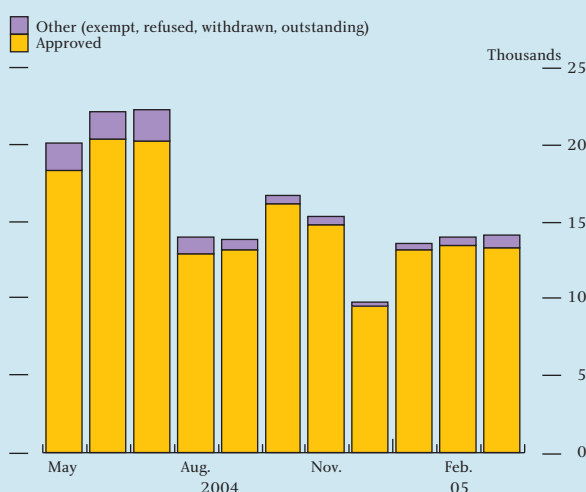
(1) See the recent speech by King, M (2005) at Salt Mills, Bradford on 13 June. The speech is available at www.bankofengland.co.uk/publications/speeches/2005/speech248.pdf.

(2) The definition of a migrant varies across these different data sources. In this box, the term migrant is used to refer to any individual who has changed the country in which they reside, unless stated otherwise.

(3) The IPS estimates are supplemented with administrative data on asylum seekers and their dependents, visitor switchers, as well as estimates of the migrant flow between the United Kingdom and the Irish Republic.

(4) The WRS scheme only covers nationals from eight of the Accession countries: the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia and Slovenia.

Chart B
Applications to work by nationals of the A8 countries^(a)



Source: 'Accession Monitoring Report May 2004–March 2005', a joint online report by the Home Office, the Department for Work and Pensions, HM Revenue and Customs and the Office for the Deputy Prime Minister, available at www.ind.homeoffice.gov.uk/ind/en/home/0/reports/accession_monitoring.Maincontent.0012.file.tmp/AM.pdf.

(a) The A8 countries are defined as the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia and Slovenia.

The WRS may overstate true migration if some of the individuals registering under the scheme were already resident in the country prior to 1 May. In addition, many of those who have registered to work may have already returned home, or may plan to do so in the near future. But the WRS may also understate the impact of enlargement on the net migrant inflow, and therefore the UK labour market. Migrants from the Accession countries who enter the United Kingdom either to study, or to accompany family members, will not be counted in the WRS data. And these classes of migrants may seek employment at some point, and so could potentially exert downward pressure on wages in the future. The WRS data also exclude the potentially large number of migrants from the Accession countries who are self-employed.

Given the uncertainties surrounding all three of these data sources, it is difficult to draw firm conclusions about the scale or economic impact of migration. In areas like these, where there is considerable data uncertainty, the MPC places some weight on intelligence gathered across the country by its regional Agents. And they report that inward migration has been an important factor in easing labour shortages, particularly since enlargement. That suggests that migration could help explain some of the recent relative weakness of wages.

Table 3.A
Labour productivity growth^(a)

	2003 H2 average	2004 H1 average	Q3	Q4	2005 Q1
<i>Percentage changes on a quarter earlier</i>					
Market sector output per head	1.3	0.9	0.4	0.2	0.1
Market sector output per hour	1.5	0.9	0.6	-0.6	0.1

(a) Output defined as in footnote to Chart 3.1. Hours and heads data were extracted from LFS microdata.

Productivity

Labour productivity growth in the private or market sector has weakened sharply in recent quarters. Output per head was broadly flat in 2005 Q1 (Table 3.A). And despite recent erratic movements in output per hour, it is clear that productivity growth has also fallen on this measure.

The recent weakness contrasts sharply with the rapid productivity gains of late 2003 and early 2004. That echoes the pattern of output growth over this period (Section 3.1), suggesting that most of the recent movement in productivity growth has probably been cyclical.

Marked improvements in trend labour productivity are less apparent. That is perhaps surprising. The sharp increase in ICT investment during the latter half of the 1990s should have increased the amount of capital available to workers. Indeed, Bank research suggests that computer capital per person increased to US levels over the period.⁽¹⁾ This 'capital deepening' should have enabled more goods and services to be produced for a given amount of effort.

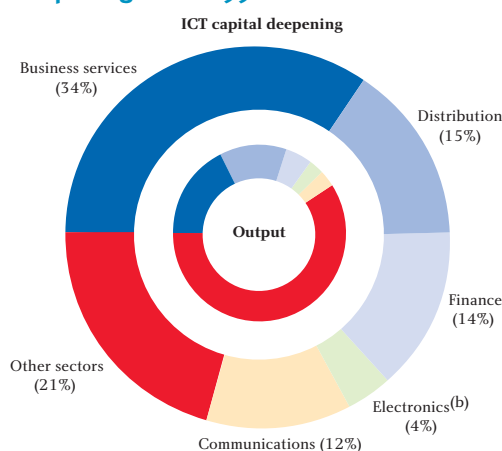
(1) Oulton, N and Srinivasan, S (2005), 'Productivity growth in UK industries, 1970–2000: structural change and the role of ICT', *Bank of England Working Paper* no. 259.

Table 3.B
Influences on trend productivity growth

	1998	2003
Business R&D expenditure (as a percentage of GDP)		
United Kingdom	1.2	1.2
United States	2.0	1.8
Product market regulation restrictiveness (scale of 0–6, increasing in degree of restrictiveness)		
United Kingdom	1.1	0.9
United States	1.3	1.0

Sources: DTI, OECD and ONS.

Chart 3.8
Sectoral shares of output and total ICT capital deepening in the 1990s^(a)

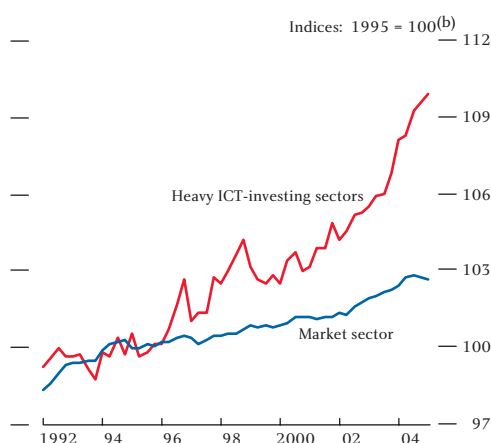


Source: Oulton, N and Srinivasan, S (2005), 'Productivity growth in UK industries, 1970–2000: structural change and the role of ICT', Bank of England Working Paper no. 259.

(a) Sectoral shares in whole-economy output are for 2000; ICT capital deepening shares are for the period 1990–2000 and are shown in parentheses.

(b) Electrical engineering and electronics.

Chart 3.9
Labour productivity of heavy ICT-investing sectors^(a)



(a) Bank calculations of gross value added per job, based on Workforce Jobs data. The 'heavy ICT-investing sectors' are defined as the three sectors with the greatest shares of total ICT capital deepening in Chart 3.8: distribution, business services and finance. Given data constraints, Chart 3.9 is based on a broader distribution sector ('distribution, hotels and restaurants') than Chart 3.8.

(b) Relative to whole economy.

There are a couple of possible explanations as to why that is not more apparent in the aggregate productivity data. One explanation is that structural factors have prevented past heavy ICT investments leading to a US-style pickup in trend productivity growth. For example, the United Kingdom invests a rather smaller proportion of GDP in research and development (R&D) than the United States (Table 3.B). This could be important if R&D not only stimulates innovation, but also helps companies to absorb the innovations of others.⁽¹⁾ Competitive pressures might matter too, as a catalyst for changes to companies' production processes. But according to the OECD, competitive pressures are strong in the United Kingdom, with regulations inhibiting competition to a lesser extent than in many other industrial countries.

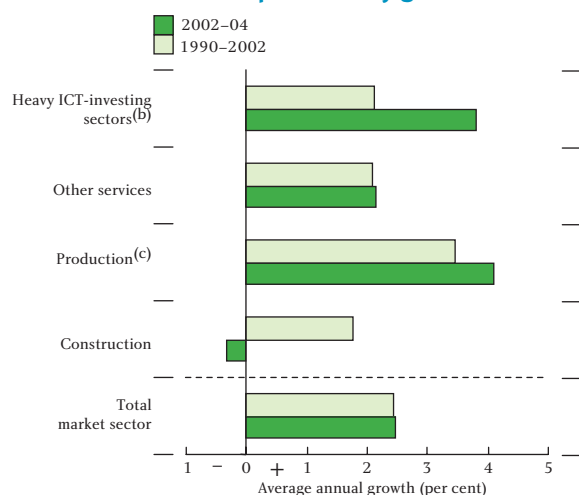
A second explanation is that it may take time for companies to reap the return from their past ICT investments. That could require substantial retraining of staff and restructuring of production processes, as discussed in the *May Report*. In the short run, this would depress measured productivity. But, in time, productivity should rise.

There is some evidence at the sectoral level that this may have occurred. Bank estimates suggest that business services, distribution and finance — which together account for around one third of aggregate output — were responsible for almost two thirds of all ICT capital deepening in the 1990s (Chart 3.8). Although output per worker rose relatively rapidly in these sectors over the course of the 1990s, productivity gains have been most marked in the past couple of years (Chart 3.9). This does not appear to be entirely cyclical: employment growth has remained relatively subdued in these sectors as productivity growth has increased, in contrast with previous upturns. And that could indicate that past heavy investment in ICT has had an impact, albeit partially delayed, on trend productivity. But as the performance of heavy ICT-investing sectors has apparently improved, the impact on aggregate productivity growth has been mitigated by declines in other areas of the economy, such as construction (Chart 3.10).

Overall, past ICT investment may have had a significant impact on trend labour productivity in some sectors. But the precise magnitude of such gains is unclear, not least given the inevitable uncertainty surrounding companies' production and employment behaviour in the recent past. And evidence of increased trend productivity growth in the economy as a whole remains difficult to discern.

(1) See, for example, Griffith, R, Redding, S and Van Reenen, J (2000), 'Mapping the two faces of R&D: productivity growth in a panel of OECD industries', Institute for Fiscal Studies Working Papers W00/02.

Chart 3.10
Market sector labour productivity growth^(a)



- (a) Geometric average growth rates.
 (b) Defined in footnote to Chart 3.9.
 (c) Includes agriculture, forestry and fishing.

3.3 Balance between output and potential supply

Factor utilisation

In the short run, imbalances between actual output and potential supply are likely to be reflected in the intensity at which companies work their existing capital and labour. But there is no simple way of measuring this ‘factor utilisation’.

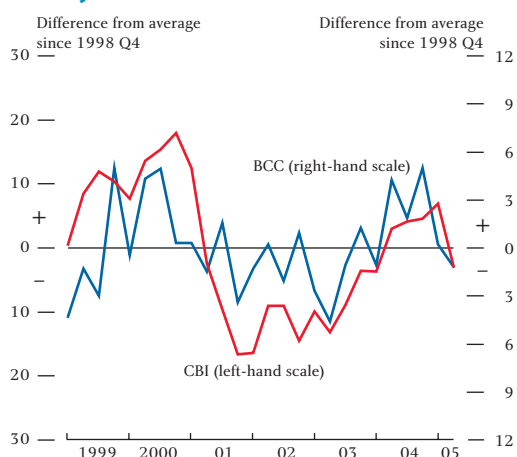
One approach is based on the idea that companies’ potential output can be gauged from estimates of the capital and labour at their disposal (see the box on pages 24 and 25 of the *February Report*). Estimates of those inputs have changed little since the time of the *May Report*, in contrast with the upward revisions to actual output discussed in Section 3.1. In principle, that could point to greater pressures on capacity than previously thought.

A large part of the output revisions dated back several years, however. Their full effect on inflation should already have been felt. Yet inflation was unrevised and still thought to have been relatively well contained. So the bulk of those revisions do not seem to point to higher capacity pressures than previously judged. Instead, it seems likely that not only was output higher than thought at the time of the *May Report*, but so was potential output — perhaps because the rate at which companies made efficiency improvements had increased.

Revisions to the more recent output data could affect the implied balance between output and potential supply, however. For example, market sector output appears to have risen more rapidly in 2003 and the first half of 2004 than initially thought. If capacity pressures had been correspondingly greater than judged at the time of the *May Report*, that could perhaps explain more of the broad-based pickup in inflation over the recent past (Section 4). And the downward revisions to growth over the past year would be consistent with a more rapid easing of those pressures.

Further evidence on factor utilisation is provided by business surveys. The BCC survey, for example, asks companies whether or not they are operating at full capacity. But what matters for inflationary pressure is the degree to which companies are using capital and labour above or below normal levels. And it is not always clear what survey balance corresponds to a ‘normal’ level of utilisation. Although historical averages can be used as a guide, averages over different time periods can give different indications as to what is normal.

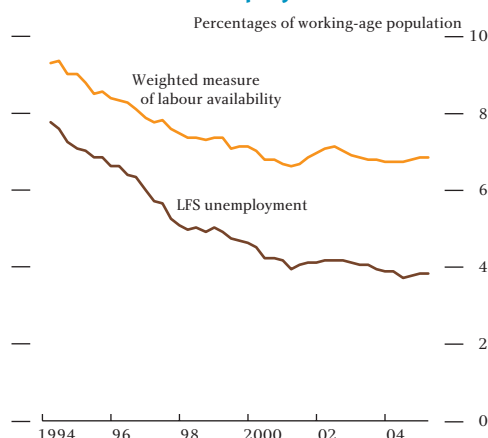
Chart 3.11
Survey indicators of factor utilisation^(a)



Sources: Bank of England, BCC and CBI.

(a) Differences in manufacturing and services balances from their averages since 1998 Q4, weighted by each sector's share in aggregate output. Averages date from 1998 Q4 because that is when some of the CBI services surveys began. For CBI, the manufacturing series indicates the percentage balance of firms working at full capacity, whereas the service sector shows utilisation relative to normal (based on a weighted average of balances from surveys of consumer services, business/professional services and financial services, and seasonally adjusted by Bank staff). For BCC, manufacturing (including agriculture, energy and construction) and service sector series indicate the percentage balance of firms working at full capacity.

Chart 3.12
Measures of non-employment^(a)



(a) Data are shown for calendar quarters. For further details of the weighted availability measure, see Chart 3.10 on page 25 of the February Report.

Table 3.C
Survey evidence on labour market tightness

	Long-run average ^(a)	2004 Average	2005 Q1	2005 Q2	July
Availability of agency staff^(b)					
REC: Permanent	48.5	40.8	42.8	46.0	47.9
REC: Temporary	49.0	43.8	46.4	49.1	50.3
Recruitment difficulties^(c)					
BCC: Manufacturing ^(d)	58.0	60	58	44	n.a.
BCC: Services	52.9	60	64	63	n.a.
Factors likely to limit output^(e)					
CBI: Skilled labour	13.3	13	11	11	n.a.
CBI: Other labour	3.3	4	3	3	n.a.

Sources: BCC, CBI and REC.

(a) Averages since 1997 for REC, 1989 for BCC and 1972 for CBI.
 (b) Indices, for which 50 represents no change.
 (c) Percentage balance of firms.
 (d) Includes agriculture, energy and construction.
 (e) Percentages (weighted by respondents).

Surveys may be more fruitfully employed when considering changes in utilisation rates. Over the course of 2003 and 2004, BCC and CBI survey balances increased markedly. That was broadly in line with other evidence that companies were increasingly working inputs at, or above, normal rates (see the February Report). But since then, both survey measures have declined (Chart 3.11). Together with the decline in output growth over the past year, that appears consistent with an easing in factor utilisation.

Labour market tightness

Over time, companies are able to adjust capacity, for example by changing the size of their workforce. So the amount of spare capacity in the economy depends not only on current utilisation rates, but also on the balance between supply and demand in the labour market.

One way of gauging the tightness of the labour market is to examine the pool of available labour. For example, unemployment was broadly stable in 2004, at its lowest level in almost 30 years. But this year, the claimant count measure of those unemployed has edged up for five consecutive months. That suggests a modest easing in labour market tightness.

The unemployed are not the only source of available labour, however. In recent years, there have been larger flows into employment from the inactive population — those who say that they are not currently seeking or available for work — than from the pool of unemployed. Chart 3.12 shows a measure that takes this into account and weights different categories of the non-employed according to how likely they are to find work. This measure has declined much less rapidly than unemployment over the past few years, although it too has inched up more recently.

But even accurate indicators of domestic labour availability could provide a misleading guide to labour market imbalances. As discussed in the box on pages 22–23, there is some evidence that overseas workers have become an increasingly important source of labour in recent years. So historically low levels of unemployment or non-employment could overstate the degree of tightness in the labour market.

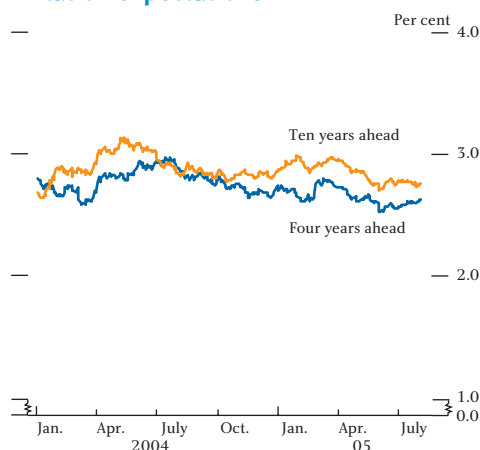
A different perspective is provided by surveys (see the box on pages 28 and 29 of the May Report). These provide mixed signals on the state of the labour market (Table 3.C). But contacts of the Bank's regional Agents indicate that recruitment difficulties have lessened. On balance, taking all the information together, it appears that labour market tightness may have eased modestly in recent months.

There is little evidence that inflation expectations have increased over the past year, despite the rise in CPI inflation and the substantial increase in the price of oil. Wage settlements have edged up since the May Report, but average earnings growth has slowed. Oil prices hit a record high, and UK import prices rose in Q1. Manufacturing output price inflation slowed and, further along the supply chain, consumer goods price inflation remained subdued, despite rising costs in the distribution sector. CPI inflation has edged up to the 2% target.

The outlook for CPI inflation is strongly influenced by the balance between the demand for private sector output and the available supply (Section 3). That balance partly reflects the degree of spare capacity in the labour market, which dictates the prospects for labour costs (Section 4.2). But it also reflects the extent to which companies are operating above or below normal capacity levels, which will affect production costs. These costs, together with import prices (Section 4.3), will influence the prices that companies charge along the supply chain (Section 4.4). And these developments in costs and prices throughout the economy will gradually filter into the prices of consumer goods and services (Section 4.5).

Prices and wages tend to be adjusted infrequently. So when people set wages and prices they will be concerned about what will happen to other prices in the economy over the period during which their own price or wage is fixed. As a result, inflation expectations are also a key determinant of the outlook for CPI inflation (Section 4.1).

Chart 4.1
Inflation expectations^(a)



(a) Defined as the rate of RPI inflation which would leave investors indifferent between the real return offered by index-linked government bonds (gilts) and the nominal return offered by conventional gilts.

4.1 Inflation expectations

Over the recent past there has been a number of developments which could have affected expectations of future inflation: CPI inflation has increased by almost 1 percentage point and the price of oil has increased by more than a quarter since September 2004. But is there any evidence that these developments have had a material impact on expectations?

Data from financial markets do not suggest that there has been any significant increase in inflation expectations. The difference between the yield on conventional and index-linked

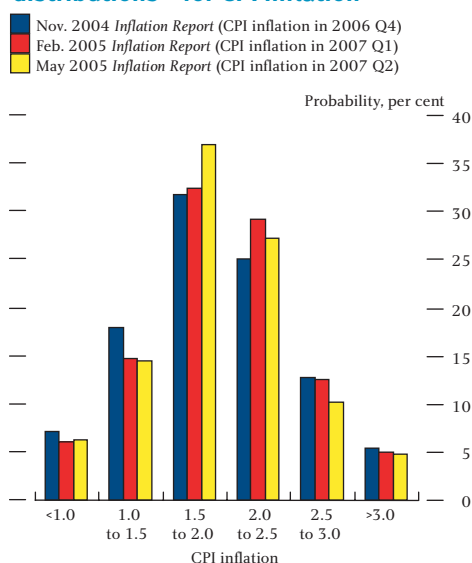
Table 4.A
Survey data on inflation expectations

	<u>2004</u> <u>Q4</u>	<u>2005</u> <u>Q1</u>	<u>Q2</u>	
<i>CBI Distributive Trades</i>				
Net balance expecting an increase in selling price	-9	-4	-8	
	<u>2004</u> <u>Nov.</u>	<u>2005</u> <u>Feb.</u>	<u>May</u>	
<i>Bank of England/NOP survey of general public</i>				
Expectations over next twelve months(a)	2.4	2.2	2.0	
	<u>2004</u> <u>Oct.</u>	<u>2005</u> <u>Jan.</u>	<u>Apr.</u>	<u>July</u>
<i>GfK survey of general public</i>				
Net balance expecting inflation to increase	-34	-47	-40	-39
<i>HM Treasury survey of independent forecasters</i>				
Mean CPI inflation expectations				
2005 Q4	1.8	n.a.	n.a.	n.a.
2006 Q4	n.a.	n.a.	1.9	2.0

Sources: Bank of England/NOP, CBI, Martin Hamblin GfK and HM Treasury.

(a) The question asked in the survey is: 'How much would you expect prices in the shops generally to change over the next twelve months?'

Chart 4.2
Other forecasters' expected probability distributions(a) for CPI inflation



Sources: Projections of outside forecasters as of 29 October 2004, 31 January 2005 and 5 May 2005.

(a) For more details on each of these probability distributions see the boxes on pages 46–47, 45–46 and 48 of the November 2004, February 2005 and May 2005 *Inflation Reports* respectively.

government bonds should reflect financial market expectations of inflation.⁽¹⁾ But that difference will also reflect other factors, such as the premium investors are willing to pay to guarantee a certain real return. So bond market data can only provide an approximation to the true inflation expectations of market participants. Nevertheless, there is little compelling evidence of increased market expectations of inflation (Chart 4.1).

There are a number of surveys which can provide information on inflation expectations. Broadly speaking, these surveys also suggest that expectations have been little changed over the recent past (Table 4.A). A net balance of retailers continues to expect the prices of their goods to fall over the very near term, according to the CBI survey. And surveys which ask about the prospects for retail or consumer price inflation over the next year have also been broadly stable — regardless of whether the survey sample includes the general public or economists and other professionals.

Even if people have not changed their view of the most likely outcome for inflation, they may have revised their view of the risks around that outcome. In other words, people may believe that there is a greater chance of a rapid increase in inflation than there was nine months ago, at the time of the November *Report*. But there is little evidence of any material shift in the balance of the risks in the data that the Bank collects from a sample of external forecasters each quarter. Each forecaster is asked to describe the probability that CPI inflation will lie in one of six ranges in two years' time. As Chart 4.2 indicates, these outside forecasters have reduced the probability that they attach to CPI inflation being at or above 2.5% in two years' time. And the latest data from outside forecasters (see the box on page 47) indicate that they continue to attach a small probability to CPI inflation being 2.5% or higher in two years' time.

So why have inflation expectations not risen in response to the pickup in CPI inflation and the increase in the oil price? It could be that mounting evidence of a slowdown in consumer spending has led people to revise down their view of the prospects for activity, and therefore inflation. The stability of inflation expectations could also reflect the impact of the current monetary policy framework. As there is an explicit target for inflation, the public are likely to expect deviations of inflation from that target to be temporary. And that in turn will help to anchor inflation expectations, thus stabilising actual inflation.⁽²⁾

(1) For more details see Scholtes, C (2002), 'On market-based measures of inflation expectations', *Bank of England Quarterly Bulletin*, Spring, pages 67–77.

(2) See the recent speech by King, M (2005), delivered at the Mansion House on 22 June. Available at: www.bankofengland.co.uk/publications/speeches/2005/speech250.pdf.

Table 4.B
Private sector wage costs

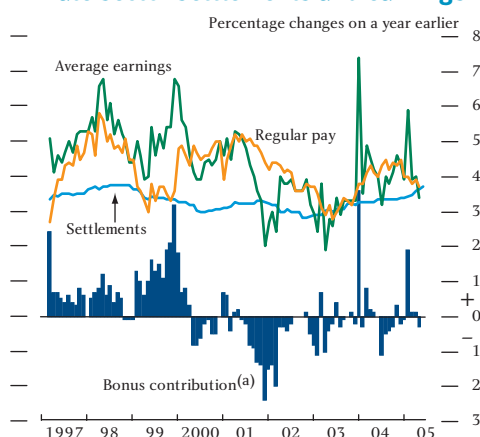
Percentage changes on a year earlier

	Average ^(a)	2005					
		Jan.	Feb.	Mar.	Apr.	May	June
Private sector							
(1) Pay settlements	3.3	3.4	3.4	3.5	3.6	3.6	3.7
(2) Regular pay	4.2	4.0	4.0	3.8	3.9	3.7	n.a.
(2)–(1) Pay drift ^(b)	1.0	0.6	0.6	0.3	0.3	0.1	n.a.
(3) Average earnings	4.3	3.9	5.9	3.9	4.0	3.4	n.a.
(3)–(2) Bonus contribution ^(b)	0.1	-0.1	1.9	0.1	0.1	-0.3	n.a.

Sources: Bank of England wage settlements database (which draws on information from the Bank's regional Agents, Incomes Data Services, Industrial Relations Services and the Labour Research Department) and ONS.

(a) Averages calculated between 1998 and 2004.
(b) Percentage points.

Chart 4.3
Private sector settlements and earnings



Sources: Bank of England wage settlements database (which draws on information from the Bank's regional Agents, Incomes Data Services, Industrial Relations Services and the Labour Research Department) and ONS.

(a) Percentage points.

Table 4.C
AEI and AWE^(a) data on private sector wage costs

Percentage changes on a year earlier

	2004				2005		
	Q1	Q2	Q3	Q4	Q1	Apr.	May
Average earnings index (AEI)							
(1) Regular pay	3.9	4.2	4.3	4.5	3.9	3.9	3.5
(2) Average earnings	5.6	4.5	3.7	4.5	4.8	3.9	3.1
(2)–(1) Bonus contribution ^(b)	1.7	0.1	-0.7	-0.2	0.9	0.0	-0.5
Experimental average weekly earnings (AWE) measure							
(1) Regular pay	2.9	3.2	3.7	3.7	4.1	4.0	3.7
(2) Average earnings	5.2	3.9	3.9	3.8	5.0	4.0	3.4
(2)–(1) Bonus contribution ^(b)	2.2	0.8	0.2	0.1	0.9	-0.1	-0.3
Difference between AEI and AWE estimate of							
(1) Regular pay	1.0	1.1	0.6	0.8	-0.2	-0.1	-0.2
(2) Average earnings	0.4	0.4	-0.2	0.5	-0.2	0.0	-0.3
(2)–(1) Bonus contribution ^(b)	-0.6	-0.7	-0.9	-0.3	0.0	0.1	-0.1

(a) Not seasonally adjusted.
(b) Percentage points.

4.2 Labour costs

The average earnings index (AEI) suggests that private sector earnings rose by 3.4% in the year to May 2005, below the average rate of growth in recent years (Table 4.B and Chart 4.3).

Average earnings growth can be divided into the contributions from regular pay and from bonus payments. Regular pay growth has slowed since the *May Report*, particularly within the distribution sector, which has been heavily affected by the recent slowdown (Chart 3.5). In the economy as a whole, the bonus contribution has turned from positive to negative. Weak growth in bonus payments over the year to May depressed average earnings growth by 0.3 percentage points (Table 4.B).

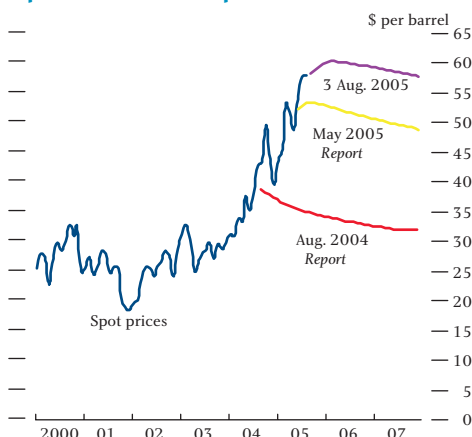
The ONS has also published a new experimental measure of average earnings since the *May Report*: the average weekly earnings (AWE) measure.⁽¹⁾ In principle, the design of the AWE should ensure that it provides a more reliable guide to the pace of average earnings growth than the established AEI. Over the recent past, the AWE has painted a broadly similar picture of private sector headline average earnings growth to the comparable AEI measure. Until recently, the two measures suggested different profiles for the growth in regular pay. However, in the latest data, both the AWE and the AEI reported similar rates of growth and indicated that regular pay growth had eased (Table 4.C).

Despite the slowdown in overall earnings growth since the *May Report*, there has been a modest pickup in pay settlements, as recorded in the Bank's database. Settlements can be informative about inflationary pressure in the labour market. But there is a limit to how much weight one should put on these settlements data. The Bank's settlements database only covers around a quarter of the private sector workforce, so may not be representative of pay growth across the private sector as a whole. The data are also subject to revision, partly because the Bank receives information on new settlements with a lag.

What matters to companies when setting prices is the cost of labour compared with the amount of output that labour produces — that is, unit labour costs. In other words, it is the balance between growth in labour costs and labour productivity that gives rise to inflationary pressure. In Q1, rapid growth in private sector earnings (Table 4.B) and weak growth in productivity (Section 3) led to strong growth in companies' unit labour costs.

(1) For more details on the AWE see ONS (2005), 'The new experimental measure of Average Weekly Earnings', available at: www.statistics.gov.uk/articles/labour_market_trends/AWE_Aug05.pdf

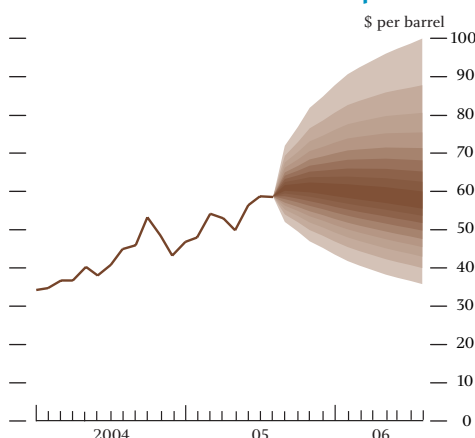
Chart 4.4
Spot and futures^(a) prices of Brent oil



Sources: Bank of England, Bloomberg and Thomson Financial Datastream.

(a) Average during the fifteen working days to up to the time at which the MPC finalised its projections.

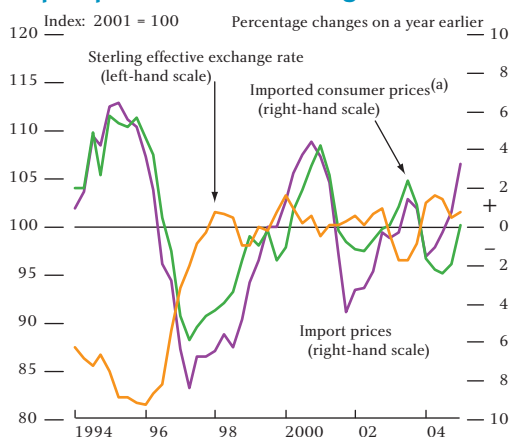
Chart 4.5
Market beliefs about future oil prices^(a)



Sources: Bank of England, Bloomberg and Thomson Financial Datastream.

(a) Data refer to the price of West Texas Intermediate (WTI). Historical data are monthly averages except for August, which is the average of the fifteen working days to 3 August. The fan chart depicts the probability of various outcomes for oil prices in the future, based on data from option prices. The darkest band of the fan chart includes the most likely outcome for the oil price. The chart is constructed so that there is a one in ten chance that the price of oil will lie in the darkest central band or each pair of lighter bands at each point in the future.

Chart 4.6
Import prices and the exchange rate



Sources: Bank of England estimates and ONS.

(a) Defined on page 233 of Harrison, R, Nikolov, K, Quinn, M, Ramsay, G, Scott, A and Thomas, R (2005), *The Bank of England Quarterly Model*, Bank of England.

4.3 Global costs and prices

The price of oil

The price of Brent crude oil has reached a record high since the *May Report*, rising above \$60 a barrel in August and averaging \$58 in the fifteen working days to 3 August (Chart 4.4). That compares with around \$40 in the equivalent period a year ago.

The futures curve suggests that the price of oil will remain around its current level for the next few years (Chart 4.4).⁽¹⁾ But the probability that oil prices will follow the exact path suggested by the futures curve is very small. Options traded in financial markets provide a gauge of participants' views about the prospects for oil prices. And those data suggest that financial markets believe that there is a greater chance of a large rise in the price of oil than a large fall (Chart 4.5). Currently, market participants judge that there is roughly a one in twenty chance that oil prices will be \$100 or higher in August 2006.⁽²⁾

Imports of goods and services

UK import prices were 3.3% higher than a year earlier in 2005 Q1, the highest rate of annual increase in import prices for four years. That largely reflected the continued recovery in import prices after their fall in late 2003 and early 2004 (Chart 4.6).

Around a quarter of UK spending on imports is accounted for by imported consumer goods and services. Over the late 1990s, these goods and services fell in price by around 10% following the substantial appreciation of sterling in the mid-1990s. During the past five years, they have fallen relative to the price of domestically produced consumer goods and services. The relative weakness of import prices partly reflects the impact of increased sourcing of goods from low-cost countries and trade liberalisation, as discussed in the *May Report*.

4.4 Sectoral costs and prices

Supply chain pressures in the manufacturing sector

Manufacturers' input prices, which include the price of fuels and raw materials consumed by this sector, rose by 12.1% in the year to June, up 4 percentage points on the rate in May (Table 4.D). That was the fastest rate of growth in more than

(1) See the box on pages 28–29 of the November 2004 *Report* for a discussion of the oil futures market.

(2) This calculation assumes 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.

Table 4.D
Manufacturers' costs

	2005 Jan.	Feb.	Mar.	Apr.	May	June
CIPS input prices ^(a)	69.6	64.7	61.9	59.5	53.1	50.5
<i>Percentage changes on a year earlier</i>						
Unit wage costs	-0.4	-0.4	2.1	2.2	0.3	n.a.
Earnings	3.1	3.7	3.3	3.6	1.9	n.a.
Productivity	3.6	4.1	1.2	1.4	1.6	n.a.
Input prices ^(b)	9.8	11.2	11.2	10.5	8.1	12.1
of which:						
Fuel ^{(b)(c)}	22.1	25.2	28.3	31.0	32.0	32.2
Crude oil ^(c)	40.2	45.3	48.7	47.1	22.4	51.3
Domestically produced material ^(c)	-6.8	-6.9	-7.1	-7.5	-5.3	-2.9
Imported materials ^(c)	7.7	8.7	8.0	6.7	5.5	8.2
Metals ^(c)	15.2	14.1	9.1	7.1	7.4	10.5

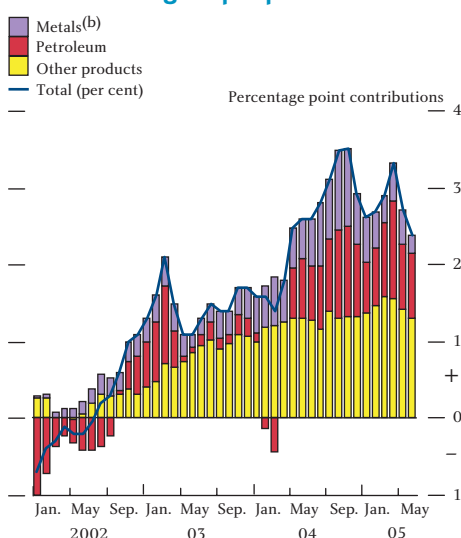
Sources: CIPS and ONS.

(a) A reading above/below 50 indicates rising/falling costs.

(b) Including Climate Change Levy.

(c) Not seasonally adjusted.

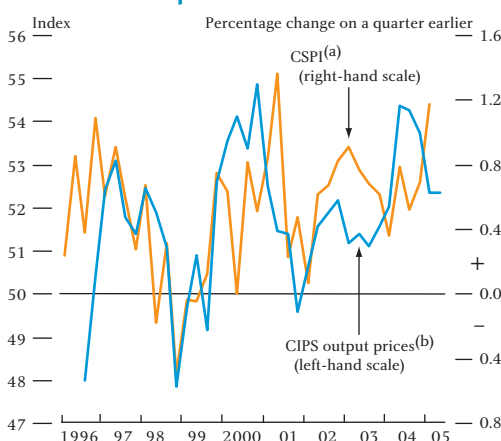
Chart 4.7
Manufacturing output price^(a) inflation



(a) Not seasonally adjusted.

(b) Including recovered secondary raw materials.

Chart 4.8
Service sector prices



Sources: Bank of England calculations, CIPS and ONS.

(a) Corporate services price index. These data have been seasonally adjusted by Bank staff.

(b) A reading above/below 50 indicates rising/falling prices.

25 years. Both the recent high rates of input price inflation, and the latest pickup on the month, can be largely accounted for by the increase in the price of oil. Manufacturing unit wage costs have also risen since the *May Report* as productivity growth in this sector has slowed.

The price of the goods that manufacturers sell to other sectors of the economy (manufacturers' output prices) rose by 2.4% in the year to June. That was the slowest rate of increase in over a year, down almost a percentage point on the rate in April. The profile of output price inflation over the past year can largely be accounted for by changes in the contribution from two particular products — petroleum and metals-based goods (Chart 4.7). The prices of the inputs used to produce those goods — crude oil and metals — rose sharply in June (Table 4.D). That might imply some upward pressure on manufacturers' output price inflation at a later date, though business surveys generally point to an easing of inflationary pressure in this sector.

Supply chain pressures in the service sector

The recent behaviour of costs and prices in the service sector has been mixed. Labour costs, which are the largest component of service sector costs, have risen sharply. In 2005 Q1, service sector unit wage costs increased by 3%, the largest quarter-on-quarter increase in more than a decade. However, more timely AEI data on service sector earnings suggest that unit wage costs are likely to ease in Q2. CIPS survey data, which have a broader coverage of service sector costs, point to easing cost pressures. The net balance of companies reporting rising costs fell for the fourth month in succession in July.

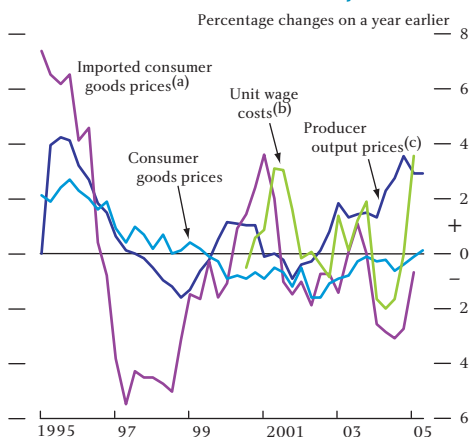
The ONS experimental corporate services price index (CSPI) — which measures business-to-business service prices — rose by 1.2%⁽¹⁾ in 2005 Q1 (Chart 4.8). That was the fastest seasonally adjusted quarter-on-quarter increase in the CSPI in almost four years. But the net balance of companies reporting rising prices has fallen back since the *May Report*, according to CIPS survey data.

Supply chain pressures in the distribution sector

Developments in distribution sector costs can provide an early indication of movements in consumer prices. A key determinant of distributors' costs is the prices that they pay producers for finished goods. So the pickup in manufacturers' output price inflation over the past year will probably have led to an increase in costs for distributors. Unit wage costs in the distribution sector also rose sharply in Q1, reflecting the

(1) This figure is based on a version of the CSPI which has been seasonally adjusted by Bank of England staff.

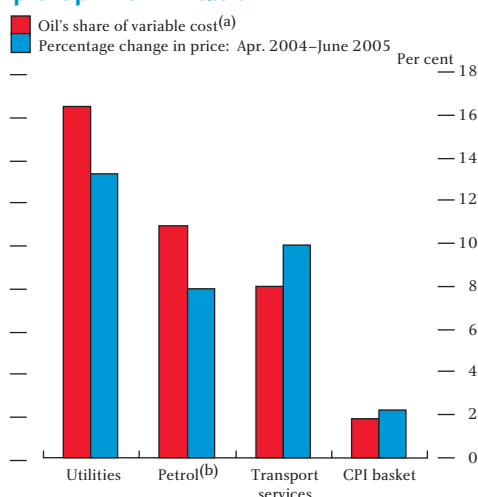
Chart 4.9
Distribution sector costs and prices



Sources: Bank of England calculations and ONS.

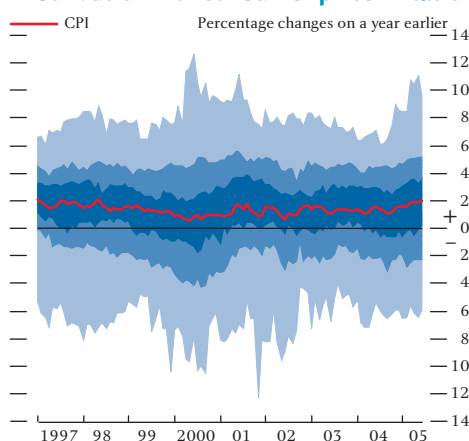
- (a) As defined in Chart 4.6 but excluding the price of consumer services.
 (b) Defined as the level of average earnings in the wholesale and retail sectors divided by the level of output in the distribution sector per employee job.
 (c) Excludes excise duties.

Chart 4.10
Oil-intensive items in the CPI basket and the pickup in CPI inflation



- (a) Weighted by consumption. These figures are estimated using data from the 2002 Input Output tables.
 (b) The share of oil in the variable costs for petrol is adjusted to take account of the duty on petrol.

Chart 4.11
Distribution^(a) of consumer price inflation rates



- (a) The darkest band of the distribution includes the median inflation rate of all the items in the CPI basket. The limits of that band are defined by the 35th and 65th percentiles of that distribution. Successive pairs of lighter bands include a further 30% of items in the basket, so that the entire coloured region includes only nine tenths of the items in the basket.

slowdown in productivity growth. Despite this rapid increase in costs, consumer goods prices have remained broadly flat over the past year (Chart 4.9). That could reflect the fact that distributors have been able to source goods from abroad, as previous *Reports* have discussed. But while the price of imported consumer goods continued to fall in Q1, data for April and May suggest they have stopped falling since then.

It may be the case that distributors have reduced the margin they charge over costs, perhaps as a result of increased competition. A compression of profit margins cannot persist indefinitely, so it is possible that upward pressure on costs could feed through to consumer goods prices at some point.

4.5 Consumer prices

CPI inflation edged up to 2.0% in June. Inflation averaged 1.9% in Q2 as a whole, a little below the MPC's central projection in the *May Report*. Although CPI inflation has been stable and close to the target since the *May Report*, inflation has been as low as 1.1% as recently as September 2004 and was only 1.3% for 2004 for a whole.

One factor which could explain this recent increase in CPI inflation is the underlying pressure of demand on supply. Upward revisions to official estimates of output suggest that capacity pressures may have been acute in late 2003 and early 2004 (Section 3). So that could explain a broad-based pickup in inflation over the recent past.

Another explanation may lie in the continued increase in the price of oil. In April 2004, when CPI inflation was 1.2%, the price of Brent crude was below \$34. Since then, the price of oil has almost doubled. Oil accounts for a significant share of production costs for a small number of goods and services in the CPI basket (Chart 4.10). A large and permanent increase in the oil price is likely to lead to a rise in the price of these oil-intensive goods, and that may cause a temporary pickup in CPI inflation. In addition, oil price increases can raise the costs of producing a wider range of goods and services, also potentially contributing to a temporary increase in inflation. Higher oil prices can have more long-lasting effects on CPI inflation if they raise inflation expectations. But there is little evidence that inflation expectations have shifted (Section 4.1).

The relevance of both explanations can be seen by examining the distribution of inflation rates across the goods and services in the CPI basket (Chart 4.11). Greater pressure of demand on supply should affect a large proportion of consumer prices, and that should be reflected in a shift in the

Table 4.E
Oil-intensive items in the CPI basket

	Weight ^(a)	2004 Apr. Percentile rank ^(b)	Inflation rate	2005 June Percentile rank ^(b)	Inflation rate
Utilities					
Electricity	1.4	84.5	5.2	95.2	9.7
Gas	1.2	96.4	6.9	97.6	13.1
Liquid fuels	0.1	100.0	16.7	100.0	41.9
Solid fuels	0.1	67.8	3.0	96.4	11.3
Petrol					
Spare parts and accessories	0.6	51.1	1.8	52.3	1.7
Fuels and lubricants	2.7	29.7	-0.6	78.5	5.1
Maintenance and repairs	2.4	92.8	6.7	88.0	7.0
Other services	0.6	63.0	2.9	64.2	3.2
Transport services					
Rail	0.8	82.1	4.8	63.0	3.4
Road	1.4	79.7	4.6	82.1	5.4
Air	0.8	1.1	-19.5	94.0	9.3
Sea/waterway	0.2	2.3	-12.7	1.1	-17.5

(a) Percentage of current CPI basket.

(b) Position in the distribution described in Chart 4.11.

position of the distribution. But a large and persistent increase in the price of oil should lead the price of the oil-intensive goods to rise at a faster rate than other items in the CPI basket, reflected in a change in the shape of the distribution.

There is some evidence of a shift in the position of the distribution of consumer price inflation rates since April 2004. But there is also evidence that the increase in inflation rates has been most pronounced in the upper tail of the distribution, where many of the oil-intensive goods are located (Table 4.E). So there is evidence that the pickup in CPI inflation has been driven in part by increases in the price of oil, and in part by the pressures of demand on supply.

What is less clear is how much of the increase in the price of oil since April 2004 has already been passed on into the price of these oil-intensive items. Increases in the oil price tend to be passed rapidly into higher petrol prices. But the prices of regulated industries, like gas and electricity bills, tend to be adjusted infrequently. The price of these services was set for many households at the turn of the year, so the current level of utility prices is only likely to reflect movements in the oil price up to the end of 2004. Increases in the price of oil since the beginning of 2005 may therefore continue to push up consumer prices over the short term.

This section summarises the monetary policy decisions taken by the MPC since the May Report.⁽¹⁾ The Bank's repo rate was maintained at 4.75% in June and July, and in August it was reduced by 0.25 percentage points to 4.5%.

The MPC's central projection in the *May Report*, under the assumption that official interest rates followed a path implied by the market yield curve, was for GDP to grow at close to trend during the next three years. CPI inflation was projected to move above the 2% target in the near term before easing back and then staying close to the target for the rest of the forecast period.

At the time of the Committee's meeting on 8–9 June, UK short-term market interest rates had fallen by about 30 basis points since the previous meeting. The markets now appeared to be pricing in a reduction in the official repo rate in the second half of the year. Prospects for the euro area looked a little weaker than expected in May, although growth in the United States remained stable. UK GDP growth in Q1 had been revised down to 0.5%, broadly as expected.

A succession of weaker surveys suggested that, on balance, the risks to the near-term *Inflation Report* output projection were perhaps slightly more to the downside. Final domestic demand growth had slowed for five successive quarters, and was 0.3% in Q1. Consumption growth of 0.3% in Q1 had been only a little weaker than expected in May. The latest data and surveys had highlighted the risk that investment and export growth might not fill the gap left by slower consumption growth. But more evidence was needed and the *Quarterly National Accounts* and annual *Blue Book* would be published shortly. CPI inflation remained close to target.

For most members, the evidence warranted no change in official interest rates. Although recent indicators pointed to slightly weaker growth in the near term, the inflation outlook had not changed sufficiently to justify a change in interest rates. For some other members, the evidence over the past month was enough to warrant a reduction in rates. For those members, a small reduction in rates now might obviate the

(1) The *Minutes* of the May, June and July meetings (which set out the full discussion) are reproduced under a separate cover, published alongside this *Report*.

need for a larger reduction later. Seven Committee members voted to maintain the repo rate at 4.75%. Two members preferred a reduction in the repo rate of 25 basis points.

At the time of the MPC meeting on 6–7 July, short-term market interest rates had declined by a further 20 basis points and were now around 50 basis points lower than in May. Long-term government bond rates had fallen since May, the sterling ERI was around 2% lower and the FTSE All-Share index of equity prices was 6% higher. There had been little news on the international economy in the past month, though there had been a further rise in both spot and futures oil prices.

The latest release of the UK National Accounts suggested that GDP growth had been stronger than initially thought in 2003 and 2004 H1. That might help to explain the pickup in CPI inflation from the autumn of 2004. But the subsequent slowdown in growth had been sharper than first estimated. There had been substantial revisions to consumer spending and business investment. The implications of those data for the likely pressures of demand and supply were not clear-cut. The forthcoming August *Inflation Report* would provide an opportunity to study the implications for the outlook for growth and inflation in greater depth.

Indicators for Q2 suggested that the momentum of economic activity was unlikely to soften further in the near term. Recent outturns for CPI inflation had surprised slightly on the upside.

For some members, the evidence warranted no change in official interest rates. The recent increases in asset prices were likely to add to inflationary pressures; it was unclear how deep and persistent the consumer slowdown would be; and there was no indication that economic growth was set to weaken materially in the near term. Overall, there seemed to be no great risk in waiting for more evidence. For other members, the evidence warranted an immediate reduction of 25 basis points. Output growth may have slowed more sharply recently than first estimated, which implied a softer outlook going forward. High levels of household debt had increased the risk that the consumer slowdown could be protracted, and the recovery of business investment seemed more likely to disappoint. Overall, the risks that inflation would be below target in the medium term appeared to have risen.

Five members of the Committee voted to maintain the repo rate at 4.75%. Four members preferred a reduction of 25 basis points.

At its meeting on 3–4 August, the Committee voted to reduce the repo rate to 4.5%.

In the MPC's central projection, assuming that official interest rates follow a path implied by market yields, the four-quarter growth rate of GDP remains a little below trend in the near term. But the low level assumed by the market for official interest rates, and recent changes in other asset prices, provide a boost to spending further ahead. As a result, GDP growth regains momentum during the forecast period. Compared with the May projection, the profile is weaker in the first year, but stronger further out. The central projection for CPI inflation rises above the 2% target in the near term and then eases back. But as demand pressures build, inflation rises above the target again by the end of the second year. The profile for inflation is a little higher in the near term and also somewhat higher in the final year of the projection compared with May. The main risks around the central projection relate to: consumer spending; the sources of the recent pickup in inflation; and the outlook for oil prices. The risks to growth and inflation are weighted slightly to the downside. Under the assumption that official interest rates remain constant at 4.5%, the central projection for CPI inflation is close to the 2% target at the two-year horizon.

6.1 World economy

World economic growth has maintained a solid pace, despite the sharp rise in the oil price. The MPC believes that firm growth in the United States is in prospect during the next three years at close to rates seen in recent quarters. There is likely to be a mild recovery in the euro area.

The euro area

Euro-area GDP growth picked up to 0.5% in 2005 Q1. But that probably reflected an exaggerated bounceback from the weak previous quarter and is unlikely to be a reliable guide to the economy's present underlying strength. Looking ahead, the current high level of corporate profitability together with low long-term interest rates and past equity price rises will probably support a limited upturn in investment. This, combined with the projected expansion in world demand, is likely to support employment growth and hence consumer spending. The MPC believes that GDP growth at around trend rates is in prospect for most of the forecast period.

The United States

The US economy has continued to grow robustly. Official interest rates have been raised, but monetary policy remains stimulative. Long-term interest rates are also low and are expected to help to sustain domestic spending. Overall, the

outlook is for steady GDP growth at around its trend rate during the next three years, though there are uncertainties associated with the continuation of large current account deficits.

Asia

Japanese growth in 2005 Q1 was particularly strong; a more moderate pace around trend rates is likely during the next three years. The Chinese economy has continued to expand rapidly, though growth may slow a little over the forecast period. The momentum in Chinese demand should support a vigorous rate of growth in the emerging economies of Asia during the forecast period.

World trade and the oil market

World trade growth, weighted to reflect the importance of different economies for UK exports, stalled in the first quarter of 2005, following strong growth in the previous year. In the first quarter, import volumes fell in the rest of Europe — the United Kingdom's largest export market — and import growth eased in some Asian countries. The MPC believes that part of the weakness in world trade is likely to prove erratic and early indications are that some countries' imports revived in the second quarter. The outlook for international trade is for steady growth during the forecast period at a faster rate than the average of the previous three years, though slower than in 2004.

The price of Brent crude averaged \$58 per barrel in the fifteen business days to 3 August, 14% higher than the equivalent period before the *May Report*. Oil futures prices have risen by a similar amount. The MPC assumes that oil prices follow the path of the futures curve when constructing its projections. That curve is broadly flat during the forecast period.

Over the past year, strong global activity and sharply rising oil prices have pushed up the export prices of the United Kingdom's trading partners, and hence also UK import prices. Further increases in these export prices are likely, supported by firm world demand growth and the impact of recent oil price hikes passing down the supply chain.

6.2 Asset prices

The projections for the UK economy described below are based on assumed paths for different asset prices. There have been substantial moves in asset prices during the past three months. Those movements have raised significantly the MPC's projections for demand and inflation.

Table 6.A
Expectations of the Bank's official interest rate
implied by market yields^(a)

Per cent

August

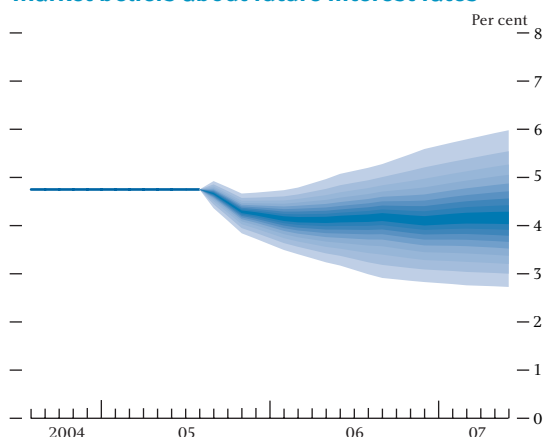
2005		2006				2007				2008		
Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
4.6	4.3	4.1	4.1	4.1	4.2	4.2	4.3	4.3	4.3	4.4	4.4	4.4

May

2005		2006				2007				2008	
Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
4.8	4.7	4.7	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.7

(a) The data are fifteen-day averages to 3 August 2005 and 6 May 2005 respectively. The rates used for the August and May projections have been derived from instruments that settle on the London interbank offered rate. That includes the market rates on futures, swaps, interbank loans and forward rate agreements, adjusted for credit risk. The MPC may change the way it estimates these expectations from time to time, as shifting market conditions can alter the relative advantages of using different methods.

Chart 6.1
Market beliefs about future interest rates



The mean of the fan chart is the market rate profile for the fifteen-day average ending 3 August, consistent with the measure of interest rates shown in Table 6.A. The distribution is derived using the prices of options on three-month Libor futures contracts traded on LIFFE. It is constructed by averaging the daily distributions around a common mean for each of the fifteen days. The average is calculated for each probability band at each quarter. The fan chart depicts the probability of outcomes for interest rates in the future. It has a similar interpretation to the fan charts in the Overview and in this section of the *Report*. The chart is only indicative of market expectations because it is based on different, though related, instruments to the Bank's repo contracts, and is estimated on the assumption that investors are risk-neutral.

In constructing its projections, the MPC assumes that official interest rates follow a path implied by market yields (Table 6.A).⁽¹⁾ On average, in the fifteen days leading up to the MPC's decision, the market yield curve implied that financial market participants expected official interest rates to fall to around 4% during the next twelve months. That was markedly different from the broadly flat profile at around 4.75% expected in May. Chart 6.1 uses information from options prices to provide an approximate indication of market participants' uncertainty, ahead of the MPC's decision on 4 August, about the future path of interest rates.

The starting point for the sterling exchange rate index (ERI) in the MPC's projection is 98.6, the average for the fifteen working days to 3 August. That was more than 3% below the starting point for the May forecast. Under the MPC's usual convention,⁽²⁾ the exchange rate is assumed to depreciate to 96.9 by 2007 Q3, and is lower throughout the forecast period than assumed in May.

Equity prices have risen around 8% since the May *Inflation Report*. They are assumed to be higher throughout the forecast period than projected in May.

6.3 UK output and expenditure

Household consumption

Recent ONS revisions have substantially changed the profile of consumers' expenditure during the past couple of years. Growth is now estimated to have picked up more sharply at the beginning of 2004 than previously thought, but then to have slowed to a standstill in 2005 Q1. Further revisions are likely that could alter that pattern again, and the MPC remains uncertain about the exact extent of the consumer slowdown. There are a number of candidate explanations for that weakening.

Rising interest rates have probably contributed to the slowdown in consumption. Higher interest rates encourage consumers to save rather than to spend. They also redistribute income to creditors and away from debtors. Since creditors tend to spend less of any extra income than debtors, such a redistribution would tend to reduce consumption. Its impact would have been more substantial last year than in previous periods of similar monetary tightening because of the much higher levels of household debt.

(1) See the box 'The interest rate assumptions in the projections', on pages 42–43 of the August 2004 *Report*.

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

House prices can have an indirect effect on consumption by changing the amount of collateral that can be used to guarantee secured loans at cheaper rates of interest. For most of the past forty years, there has been a strong empirical association between movements in house prices and consumer spending. But this relationship has been weaker in recent years. The MPC places some weight on the fall in house price inflation as an explanation for the consumption slowdown, but not as much as the longer-term historical association would imply.

Changes in the number of housing transactions can also affect consumption. Moving house is often associated with extra spending on goods such as carpets and furniture. Turnover in the housing market did fall markedly during 2004. But recent Bank research suggests that the direct impact of that fall on consumer spending was likely to have been modest.

Official retail sales data and vehicle registrations point to some rebound in consumer spending growth in the second quarter. Equity prices have risen by around 8% during the past three months, which has boosted household wealth. Furthermore, the MPC's central projection is based on the assumption that official interest rates fall in line with market expectations to around 4.0% during the next twelve months, and then edge up only slightly. These movements in asset prices stimulate consumer spending growth over the forecast period. After a pickup in 2005 Q2, the MPC projects consumer spending growth to edge up towards its historical trend rate during the next few years.

Investment

Business investment growth came to a standstill around the turn of the year according to the ONS. Alternative indicators from business surveys, together with the history of revisions to ONS early estimates, suggest that future vintages of these data may not look as weak. Investment intentions have eased recently. Business investment growth may be subdued in the short term. But looking further ahead, company finances seem well placed to support growth in business investment. And the cost of raising finance is relatively cheap: equity prices have been rising and long-term interest rates have stayed low. Other components of demand are likely to pick up. So a mild acceleration in business investment seems likely in the medium term.

Government spending

In forming its projections, the MPC assumed that nominal government final demand will increase in line with the plans

The MPC's forecasting record

This box reports a comparison of the MPC's fan charts with the outturns for inflation and GDP growth, following on from a similar exercise in the August 2004 *Report*.

The fan charts depict the MPC's judgement of the probability of future outturns falling within particular ranges (see the footnote to Chart 6.2). One test of the fan charts is to ask how accurately they described the actual dispersion of outturns. But there are limitations to such tests. First, the sample of forecasts that can be tested — 22 at the two-year horizon — is too small to be able to draw firm conclusions about the MPC's forecasting ability. Second, fan charts overlap: one fan chart largely covers the same forecast period as the preceding fan chart. So if events push outturns away from the central projection for one fan chart, that would also be likely to be true of subsequent fan charts, and successive forecast errors would be positively correlated. This means that the effective sample of independent forecasts is even smaller. Finally, the MPC's projections are conditioned on various assumptions, including a path for interest rates. Forecast performance is likely to be affected if those assumptions are not realised.

Chart A provides an informal assessment of the fan charts published between February 1998 and May 2005 (conditioned on the assumption of market interest rates). Each dot marks an outturn for either growth or inflation relative to the fan chart probability bands. If a dot is close to the 50 percentile line, then the outturn was close to the MPC's median projection. If a dot is above 95, or below 5, the outturn was a long way from the median, and is likely to have fallen outside the visible 90% probability fans. If the MPC's fan charts

had accurately depicted the true probabilities, and the samples were sufficiently large, we would expect the dots to be evenly scattered vertically across all probability percentiles, for each forecast horizon.

Chart A shows that GDP outturns were reasonably evenly scattered across probability bands at most forecast horizons. This suggests that, on the whole, the MPC's fan charts have given a good guide to the prospects for GDP. But there were exceptions.

Short-term projections for GDP growth

For projections that look one quarter ahead, just under half of the outturns lay above 95, when that should only have occurred about 5% of the time. There is also some clustering of dots above 95 at other short horizons. This suggests that at short forecast horizons, the central projections of output growth were too low, and the fans were too narrow. This aspect of the GDP fan charts can be explained by revisions to GDP data. One source of uncertainty about future prospects is not knowing with any great precision what has happened in the recent past. That was particularly true of the period 1998 to 2000. Initial estimates of GDP growth have subsequently been revised up sharply, as the ONS received more data and made changes in the way it calculated GDP. A large proportion of the outliers in Chart A were from forecasts made between 1998 and 2000.

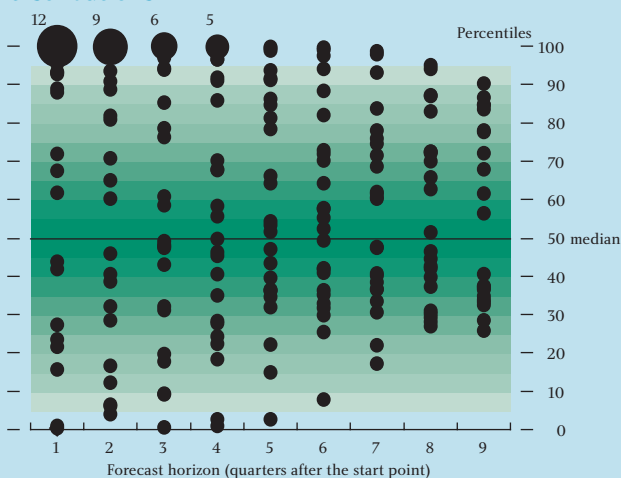
As a result of this analysis of its forecasting performance, the MPC has decided to alter the width of its GDP fan charts in the near term to reflect better its judgements about uncertainty. In previous *Reports*, the width of the chart as it builds up to the one year ahead point was chosen to ensure that the fan charts fanned out gradually from the beginning of the forecast. It did not take account of the possibility that the data could be revised. Chart 6.2 in this *Report* on page 42 has been drawn to reflect more accurately the MPC's uncertainty about already published official data.

In Chart 6.2, the first quarter of the fan indicates the MPC's uncertainty about that prospective growth rate, based on evidence about the difference between past forecasts and outturns. As in previous *Reports*, the MPC's judgement about its uncertainty at one and two years ahead is based on past forecasting performance. The chart has been drawn to fan out gradually between those three points.

Longer-term projections for GDP growth

For GDP projections at long horizons — six or more quarters ahead — the outturns appear bunched towards the median. That indicates that outturns were less dispersed than implied by the width of the GDP fan

Chart A
GDP outturns relative to fan chart probability distributions^(a)



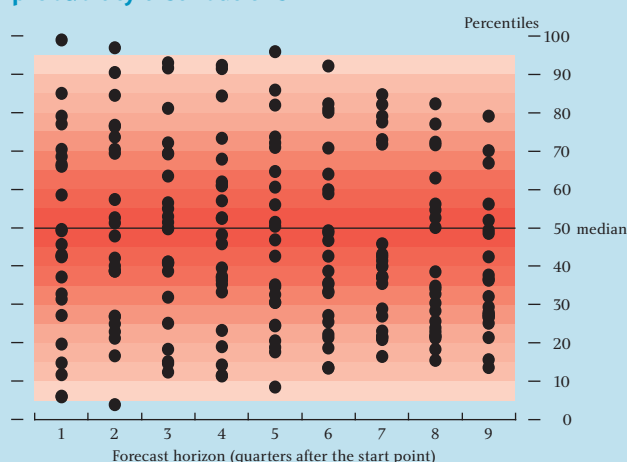
(a) For outturns at 1 to 4 quarters ahead, there are at least five outturns clustered above the 98th percentile in each case. These are shown by the larger dots in the chart; the numbers next to the dots indicate how many outturns there are.

charts. Furthermore, at long horizons there have been more outturns in the high percentiles than the low percentiles, implying that on average, growth has been above the median projection.

Projections for inflation

Chart B repeats this analysis for the RPIX inflation fan charts published between February 1998 and November 2003. At most horizons, outturns have been evenly dispersed across all probability bands, suggesting that the RPIX fan charts gave an accurate account of the prospects for inflation. Unlike for GDP, there is no evidence of clustering at high or low probability values for short horizon forecasts of inflation. However, for eight and nine quarter ahead projections, there is some evidence of outturns bunching close to the median line. For example, at nine quarters ahead, none of the 22 outturns fell above 80 or below 10. If the fan charts had accurately described the probabilities we would expect 30% of outturns to fall in those probability bands.

Chart B
RPIX inflation outturns relative to fan chart probability distributions



Does the bunching of output and inflation outturns close to the central projections at long forecast horizons imply that the fan charts were too wide? As a starting point, the width of the fan chart is based on the actual dispersion of outturns around the Bank of England/MPC forecasts over the preceding ten years. But ultimately, the MPC makes a judgement on whether uncertainty looking forward is greater or less than that past experience, and modifies the width of the fan charts accordingly.

Economic stability and the fan charts

There is growing evidence that the UK economy became more stable from around 1992 when

inflation targeting began.⁽¹⁾ But the width of the MPC's early fan charts reflected forecast performance before 1992, when economic volatility was higher. So it may not be surprising that, in retrospect, the early fan charts now look too wide. But over time, as the evidence of greater stability has mounted, the MPC fan charts have narrowed. Indeed, the inflation fan chart has almost halved in width since 1998. Because the most recent fan charts reflect forecast performance since 1994, it is not clear that they overstate uncertainty.

Should the MPC have learned about the more stable economic environment more quickly, and narrowed the fan charts accordingly? The sample of fan charts that can be tested against outturns, spanning just six years, seems too small to justify drawing such strong conclusions. Furthermore, since its inauguration the MPC has discussed many risks to its central projections, and the fan charts have been calibrated to reflect those discussions. Some of those risks have materialised, and some have not. But just because an identified risk did not crystallise, it does not mean it should not have been incorporated in the fan charts.

In addition, differences between the conditioning path of interest rates and the actual path of rates will affect the MPC's forecast performance. In particular, the MPC will set interest rates to hit the inflation target; but rates will not necessarily follow the conditioning path implicit in the fan charts, for example if inflation turns out to be higher than projected. So deviations of rates from their conditioning path should result in inflation outturns being more centred on the target than implied by the fan charts.

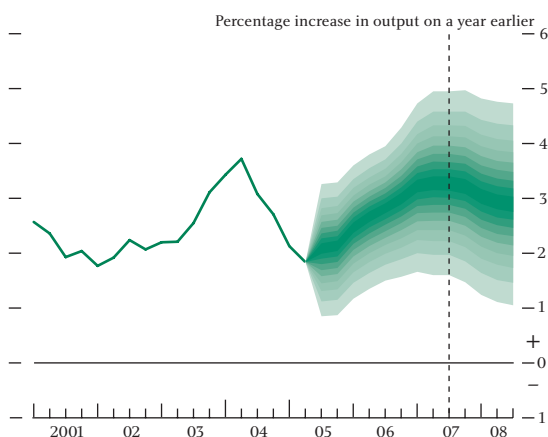
Conclusions

Analysis of past forecast performance is an important ingredient in improving the MPC's understanding of the economy. The Committee routinely adapts its view of future prospects in the light of unexpected developments. In broad terms, the analysis presented here suggests that the fan charts have given a reasonable guide to the actual prospects and risks faced by the MPC. There are many other tests one could make of the MPC's fan charts, though they are beyond the scope of this box.⁽²⁾ But in general those tests reach broadly similar conclusions. Nevertheless, there is one area where the fan charts could be improved. The GDP fan charts at early horizons have not adequately reflected the possibility of past data being revised. The MPC has therefore amended the GDP fan chart (Chart 6.2 on page 42) to take account of this risk.

(1) See for example Benati, L (2005), 'The inflation-targeting framework from an historical perspective', *Bank of England Quarterly Bulletin*, Summer, pages 160–68.

(2) Statistics on forecast errors are regularly updated on the Bank of England website, www.bankofengland.co.uk/publications/inflationreport/irprobab.htm.

Chart 6.2
Current GDP projection based on market
interest rate expectations



The fan chart depicts the probability of various outcomes for 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 GDP growth over the subsequent three years would lie within the darkest central band on only 10 of those occasions. The fan chart is constructed so that outturns of GDP growth 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 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.

outlined in the March 2005 Budget. Those plans imply that nominal government spending will grow strongly over the forecast period, albeit less quickly than over the previous three years.

Net trade

Exports fell in the first quarter. But world trade is likely to grow at a faster rate during the forecast period than the average of the previous three years. Along with the recent depreciation of sterling, that should underpin a pickup in export growth.

Imports also fell in the first quarter of 2005, partly reflecting the weakness of domestic spending. But as UK private sector demand recovers, import growth is likely to resume. Imports are expected to rise at a slightly faster rate than private domestic demand during the next three years. The net contribution of exports and imports to GDP — net trade — over the forecast period is likely to be broadly neutral.

The outlook for GDP

GDP growth has softened in the past twelve months. Business surveys are consistent with a firmer picture over the most recent past and, in constructing its forecast, the MPC has placed some weight on the probability that the official data will be revised. Chart 6.2 shows the projection for four-quarter GDP growth on the conditioning assumption that official interest rates follow a path implied by market expectations. The central projection is for the four-quarter growth rate of GDP to remain a little below trend in the near term. But the low level assumed for official interest rates and recent changes in other asset prices provide a boost to spending. As a result, GDP growth regains momentum during the forecast period. Compared with the May projection, the profile is weaker in the near term, but stronger further out.

6.4 The outlook for inflation

CPI inflation is influenced by the balance between the demand for private sector output and the resources available to supply it. That balance reflects the degree of spare capacity within the private sector and conditions in the labour market. CPI inflation was 2.0% in June compared with 1.3% in 2004 as a whole. It is impossible to isolate precisely how much of that rise reflects the pressures of demand on supply within the United Kingdom and how much reflects the higher level of oil prices. Analysis in recent *Inflation Reports* suggested that there was little spare capacity in private sector businesses during 2003 and 2004. The revisions to the GDP data made by the ONS in June this year are consistent with there having been

even more pressure on supply in late 2003 and early 2004 than previously thought. It seems likely that part of the recent increase in inflation could be explained by those earlier demand pressures.

Output growth has weakened during the past twelve months, so those pressures on supply have probably eased somewhat. Private sector output growth is likely to remain muted in the near term, and demand pressures will probably continue to ease, until private sector output growth picks up further out.

Employment growth has weakened recently. In the central projection, employment growth recovers as the economy regains momentum. Wage growth reflects this pattern of the demand for labour. Over the first year it is likely to be broadly flat, but it then rises gradually.

In addition to demand and supply within the United Kingdom, world market conditions can influence UK inflation through their impact on commodity and import prices.

Oil prices have almost doubled since the spring of 2004. Higher oil prices influence UK CPI inflation in a number of ways. They have a direct and quite rapid impact on petrol prices. They also have a slower and less direct impact on the costs of producing other goods and services. Neither of these effects will have a persistent influence on CPI inflation unless they raise inflation expectations in the medium term. There is little evidence that oil price increases during the past two years have had any effect on medium-term inflation expectations. In constructing its forecast, the MPC assumed that oil prices follow the futures curve, which is broadly flat over the forecast period. Oil prices push up CPI inflation in the near term. As past increases continue to feed along the supply chain, oil prices are also likely to make a positive contribution to twelve-month CPI inflation further out. But that effect subsides during the forecast period.

During the past few years, falling import prices have reduced CPI inflation. But they have picked up recently. The continued rise in other countries' export prices, together with the recent depreciation of sterling, result in import prices in the central projection increasing over the forecast period at a faster rate than the average of the past four years.

The Committee's central projection for CPI inflation, assuming that official interest rates follow a path implied by market yields, is shown in Chart 6.3. Inflation rises initially above 2% and then dips back beneath the target. The initial increase and decline partly reflects the impact of oil prices on CPI inflation. Easing demand pressures over the recent past and in the near term also slow the rate of CPI inflation. But economic

Chart 6.3
Current CPI inflation projection based
on market interest rate expectations

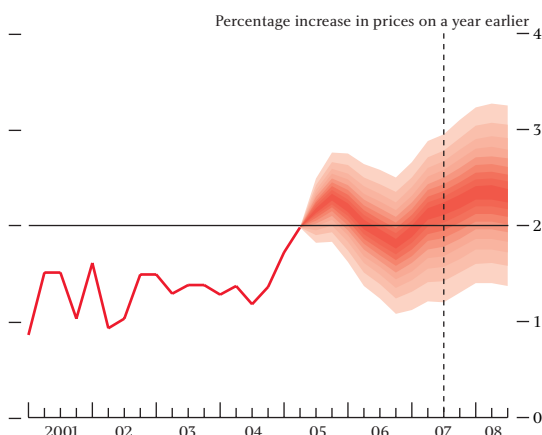
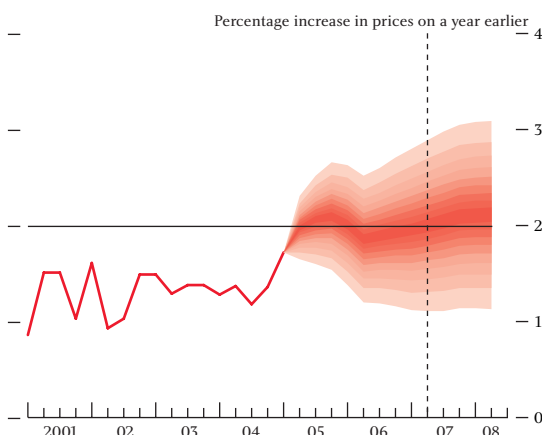


Chart 6.4
CPI inflation projection in May based
on market interest rate expectations



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 outturns of inflation are also expected to lie within each pair of the lighter red areas on 10 occasions. Consequently, inflation is expected to lie somewhere within the entire fan 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.

activity is projected to accelerate and those pressures begin to build again. As a result, CPI inflation rises above the 2% CPI target by the end of the second year and continues to increase thereafter. The central projection for inflation is a little higher in the near term and somewhat higher in the final year of the projection, compared with the *May Report*. That reflects the stronger outlook for activity, the lower sterling exchange rate and the higher oil price.

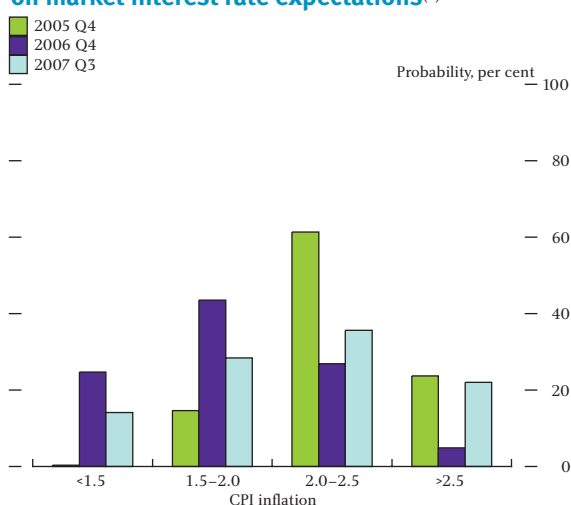
6.5 Risks around the central projection

The prospects for output growth and inflation are, as always, uncertain. The central projection described above is only one of many possible outcomes, and the likelihood of it being realised is small. The width of the fan charts indicates the extent of the Committee's uncertainty about the future. The GDP fan chart has been widened over the very near term to reflect the uncertainty that is always associated with revisions to the official data (see the box on pages 40–41). The change ensures that the GDP fan chart reflects more accurately the MPC's uncertainty about the near-term outlook for growth. Otherwise the level of the MPC's uncertainty about the outlook for GDP growth and inflation, as represented in the fan charts, is little different from May.

The main risks around the central projection relate to: consumer spending; the sources of the recent pickup in inflation; and the outlook for oil prices.

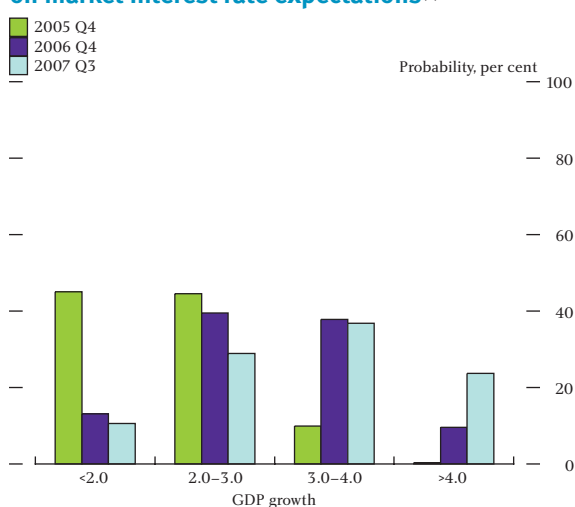
There is some doubt about the underlying momentum in consumer spending and it is possible that consumption growth in the near term may be somewhat weaker than in the

Chart 6.5
The MPC's expectations for CPI inflation based on market interest rate expectations^(a)



(a) These figures are derived from the same distribution as Chart 6.3. They represent the probabilities that the MPC assigns to CPI inflation lying within a particular range at a specified time in the future.

Chart 6.6
The MPC's expectations for GDP growth based on market interest rate expectations^(a)



(a) These figures are derived from the same distribution as Chart 6.2. They represent the probabilities that the MPC assigns to GDP growth lying within a particular range at a specified time in the future.

central projection. That downside risk to consumption diminishes further out as the Committee believes that household spending would be unlikely to remain weak given the change in asset prices since May, and continued steady growth in employment and incomes.

The MPC judges that some of the recent rise in inflation is due to the pressures of demand on supply. But it also attributes some of that rise to the impact of one-off price increases, partly related to the higher oil price, whose effect on the twelve-month inflation rate will dissipate during the forecast. It is possible that the MPC has misjudged the balance between these two effects. There is a risk that the Committee has attributed too much of the rise to demand effects and consequently overestimated incipient inflationary pressures. That misjudgement would pose a downside risk to the central view for inflation. But the Committee considers it equally possible that it has overstated the importance of the oil price and other temporary influences in explaining the pickup in inflation. That would pose an upside risk to inflation as it would imply greater pressure of demand on supply than assumed in the central case.

There are also risks to the outlook for UK output and inflation from oil prices themselves. Oil prices have confounded market expectations by continuing to rise. For this projection, the MPC has assumed, as in the past, that oil prices will follow the path implied by the futures curve over the forecast period. The MPC believes that with world demand growth likely to be firm and a limited short-term supply response from oil producers, there is a risk that oil prices will continue to rise for a while. If that risk materialised it would tend to push up inflation and depress activity by more than in the MPC's central case. But equally the current oil price may be overvalued if the market has exaggerated the likely prospects for energy demand or underestimated the potential for short-term supply.

The best collective judgement of the Committee is that the risks to GDP, relative to the central projection, are on the downside in the near term reflecting doubts about the momentum in consumer spending. Consequently, CPI inflation is judged more likely to be below the central projection than above at the two-year point. Otherwise the risks are broadly balanced. The probabilities of various outcomes for CPI inflation and GDP growth under the market interest rate assumption are set out in Charts 6.5 and 6.6. The overall balance of risks to the inflation outlook at the two-year point is shown in Chart 6.7, alongside the corresponding balance in May. Though this reflects the best collective judgement, there is a range of views among individual MPC members.

Chart 6.7
Current projection for CPI inflation in 2007 Q3^(a)
based on market interest rate expectations

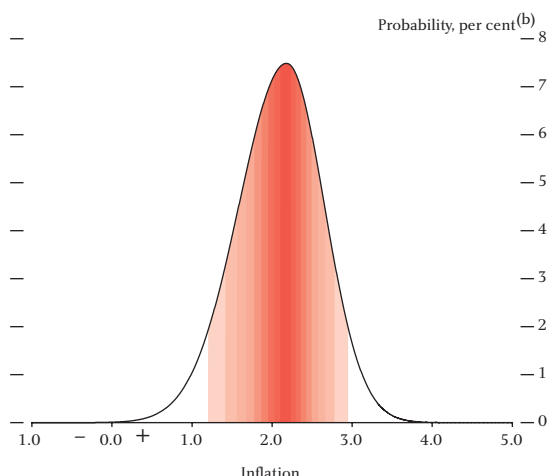
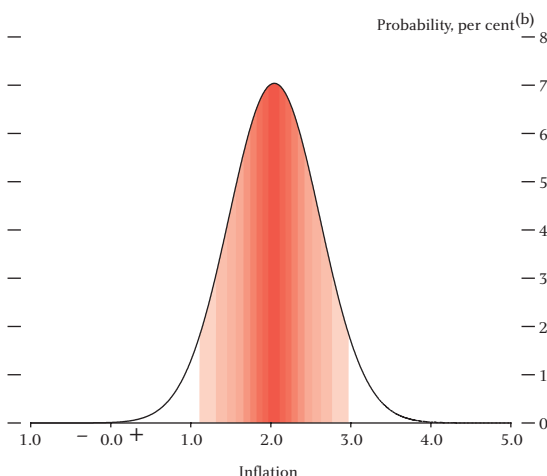
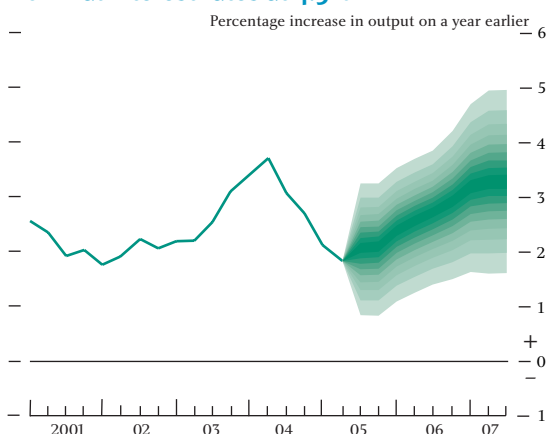


Chart 6.8
May projection for CPI inflation in 2007 Q3^(a)
based on market interest rate expectations



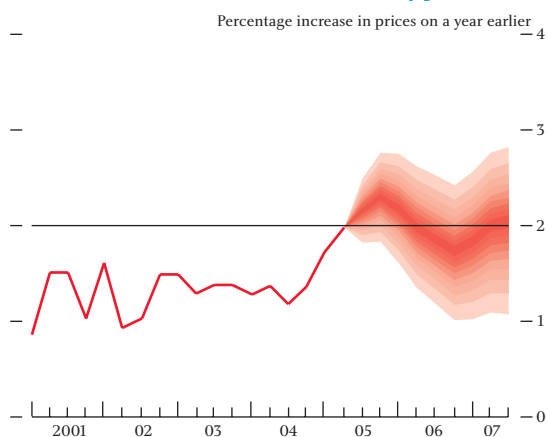
- (a) These charts represent a cross-section of the respective fan charts in 2007 Q3 for the market interest rate projections. The coloured bands have a similar interpretation to those on the fan charts. The fan chart widens as the time horizon is extended. 2007 Q3 is nearer to the starting point in the current projection than it was in May so, for a given degree of uncertainty and balance of risks, the spread of possible outcomes in that quarter would tend to be narrower in Chart 6.7 than in Chart 6.8.
- (b) Probability of inflation being within ± 0.05 percentage points of any given inflation rate, specified to one decimal place. For example, the probability of inflation being 2.0% (between 1.95% and 2.05%) in the current projection is around 7%.

Chart 6.9
Current GDP projection based on constant
nominal interest rates at 4.5%



See footnote to Chart 6.2.

Chart 6.10
Current CPI inflation projection based on
constant nominal interest rates at 4.5%



See footnote to Charts 6.3 and 6.4.

6.6 Projection based on constant interest rates

The Committee's projections for GDP growth and CPI inflation conditioned on a constant interest rate at 4.5% are shown in Charts 6.9 and 6.10 respectively. These charts show projections only up to a two-year forecast horizon.⁽¹⁾ The projection for GDP is slightly weaker than the one based on market interest rates, reflecting the higher level of official interest rates than implied by the market yield curve. Inflation is correspondingly lower and is close to the 2% target at the two-year horizon.

6.7 The policy decision

At its August meeting, the Committee noted that under the central projection conditioned on market interest rates, annual output growth remained subdued in the near term but grew briskly thereafter, with inflation rising to, and then above, the target two or so years ahead. The Committee also noted that under the central projection conditioned on a constant interest rate of 4.5%, growth was projected to be a little weaker, with inflation close to the target at the two-year horizon. In the light of this outlook, and bearing in mind the balance of risks, the Committee judged that a reduction of 0.25 percentage points in the repo rate to 4.5% was necessary to keep inflation on track to meet the target in the medium term.

(1) The box on pages 42–43 of the August 2004 *Report* explains why the projections based on constant interest rates are only shown up to two years ahead.

Other forecasters' expectations of CPI inflation and GDP growth

In July, the Bank asked a sample of external forecasters for their latest projections of CPI inflation, output growth, interest rates and the sterling ERI. Since the *May Report*, external forecasters have revised down expectations for interest rates, the exchange rate and for GDP growth in the short term (Table 1). Their views on inflation were broadly unchanged.

Table 1
Average of other forecasters' projections of CPI inflation, GDP growth, interest rates and the ERI^(a)

	2005 Q2 ^(b)	2005 Q4	2006 Q4	2007 Q3
CPI inflation ^(c)	1.9	2.0	1.9	1.9
GDP growth ^(c)	1.7	1.9	2.4	2.6
Repo rate (per cent)	4.8	4.4	4.3	4.5
Sterling ERI ^(d)	101.7	98.7	97.2	96.9

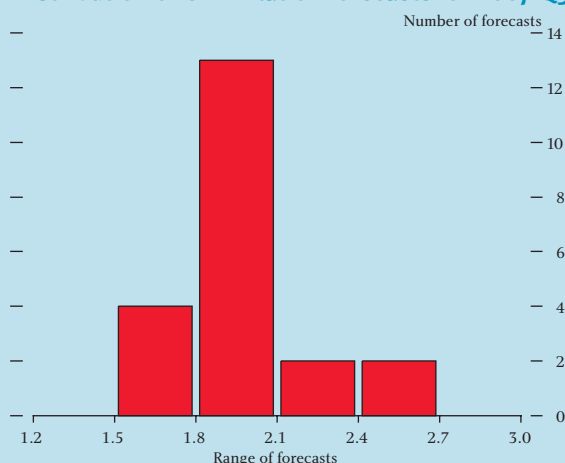
(New index: January 2005 = 100)

Sources: Bank of England, ONS and central projections of outside forecasters as of 1 August 2005.

- (a) For 2005 Q4 and 2006 Q4, 25 forecasters provided the Bank with forecasts for CPI inflation, GDP growth and the repo rate, and 24 gave ERI forecasts. For 2007 Q3, there were 21 forecasts for CPI inflation, GDP growth and the repo rate, and 19 for the ERI.
 (b) Outturns. GDP is the preliminary ONS estimate for chained volume GDP at market prices. The repo rate and sterling ERI are averages of daily values.
 (c) Percentage changes on a year earlier.
 (d) Where necessary, responses were adjusted to take account of the difference between the old and new ERI measures.

The average forecast for CPI inflation was just below the 2.0% target at the two-year horizon. Thirteen of the 21 forecasters expected inflation to be between 1.8% and 2.1% (Chart A). And, on average, the external forecasters saw a 55% probability of CPI inflation being at or below 2.0% in two years' time (Table 2).

Chart A
Distribution of CPI inflation forecasts for 2007 Q3



Source: Central projections of 21 outside forecasters as of 1 August 2005.

The forecasters' average central projection was for four-quarter GDP growth to pick up modestly from the preliminary outturn of 1.7% in 2005 Q2 to

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

CPI inflation

Probability, per cent ^(b)	Range:					
	Less than 1.0%	1.0% to 1.5%	1.5% to 2.0%	2.0% to 2.5%	2.5% to 3.0%	More than 3.0%
2005 Q4	1	9	40	41	7	2
2006 Q4	4	13	39	32	9	3
2007 Q3 ^(c)	5	13	37	30	10	4

GDP growth

Probability, per cent ^(b)	Range:			
	Less than 1%	1% to 2%	2% to 3%	More than 3%
2005 Q4	7	50	37	6
2006 Q4	8	31	47	14
2007 Q3 ^(c)	8	27	47	18

Source: Projections of outside forecasters as of 1 August 2005.

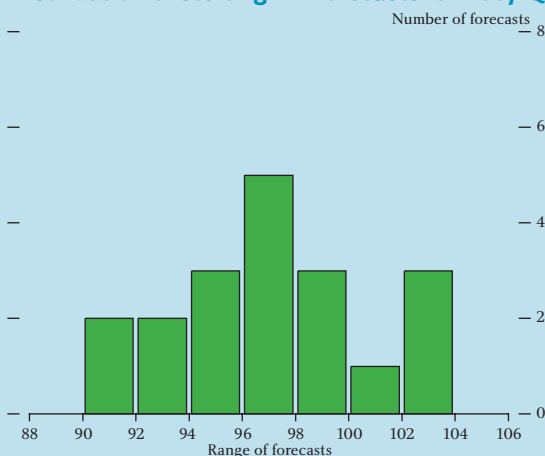
- (a) 25 forecasters provided the Bank with their assessment of the likelihood of expected twelve-month CPI inflation and four-quarter output growth falling in the ranges shown above. For example, on average, forecasters assigned a probability of 12% to CPI inflation turning out to be more than 2.5% in 2006 Q4.
 (b) Figures may not sum to 100 due to rounding.
 (c) 21 forecasters.

around 1.9% in 2005 Q4, and towards its long-run average further ahead (Table 1). In their view, there was a greater chance that GDP growth would be below 2.0% than above 3.0% over the next two years, especially in 2005 Q4 (Table 2).

The average forecast was for the official interest rate to fall modestly over the next two years (Table 1).

The external forecasters also expected the sterling ERI to fall over the next two years, reaching 96.9 on average by 2007 Q3 (Table 1). That is a touch higher than the profile assumed by the MPC in its central projection. But Chart B shows that the range of views is diverse.

Chart B
Distribution of sterling ERI forecasts for 2007 Q3^(a)



Source: Central projections of 19 outside forecasters as of 1 August 2005.

- (a) Where forecasts were provided for the old ERI measure, they have been adjusted to correspond to the new index.

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Text of Bank of England press notice of 9 June 2005

Bank of England maintains interest rates at 4.75%

The Bank of England's Monetary Policy Committee today voted to maintain the Bank's repo rate at 4.75%.

The minutes of the meeting will be published at 9.30 am on Wednesday 22 June.

Text of Bank of England press notice of 7 July 2005

Bank of England maintains interest rates at 4.75%

The Bank of England's Monetary Policy Committee today voted to maintain the Bank's repo rate at 4.75%.

The minutes of the meeting will be published at 9.30 am on Wednesday 20 July.

Text of Bank of England press notice of 4 August 2005

Bank of England reduces interest rates by 0.25 percentage points to 4.5%

The Monetary Policy Committee today voted to reduce the Bank's repo rate by 0.25 percentage points to 4.5%.

In the first half of the year, output growth in the United Kingdom was subdued. Household spending and business investment growth have slowed. Although there are some signs of a pickup in consumer spending, downside risks remain in the near term. Looking further ahead, however, the rise in equity prices and the recent fall in the exchange rate should boost activity.

CPI inflation was 2.0% in June. Higher oil prices may raise inflation further in the short term. But, in the Committee's view, the slackening in the pressure of demand on supply capacity should lead to some moderation in inflation. Against that background, the Committee judged that a decrease of 0.25 percentage points in the repo rate to 4.5% was necessary to keep CPI inflation on track to meet the 2% target in the medium term.

The Committee's latest inflation and output projections will appear in the *Inflation Report* to be published on Wednesday 10 August.

The minutes of the meeting will be published at 9.30 am on Wednesday 17 August.

Glossary and other information

Glossary of selected data

AEI: average earnings index.

AWE: average weekly earnings.

CPI inflation: inflation measured by the consumer prices index.

CSPI: corporate services price index.

ERI: exchange rate index.

GDP: gross domestic product.

LFS: Labour Force Survey.

Libor: London interbank offered rate.

LIFFE: London International Financial Futures and Options Exchange.

M0: notes and coin in circulation outside the Bank of England and bankers' operational deposits at the Bank.

M4: UK non-bank, non building society private sector's holdings of sterling notes and coin, plus all sterling deposits (including certificates of deposit) held at UK banks and building societies by the non-bank, non building society private sector.

RPI inflation: inflation measured by the retail prices index.

RPIX inflation: inflation measured by the RPI excluding mortgage interest payments.

Abbreviations

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

BCC: British Chambers of Commerce.

BRC: British Retail Consortium.

CBI: Confederation of British Industry.

CIPS: Chartered Institute of Purchasing and Supply.

DTI: Department of Trade and Industry.

ECB: European Central Bank.

EU: European Union.

FTSE: Financial Times Stock Exchange.

GfK: Gesellschaft für Konsumforschung, Great Britain Ltd.

HBF: House Builders Federation.

HMT: Her Majesty's Treasury.

ICT: information, communications and technology.

IPS: International Passenger Survey.

MPC: Monetary Policy Committee.

NI: National Insurance.

ONS: Office for National Statistics.

OLS: ordinary least squares.

PNFCs: private non-financial corporations.

R&D: research and development.

REC: Recruitment and Employment Confederation.

RICS: Royal Institution of Chartered Surveyors.

S&P: Standard & Poor's.

SMMT: Society of Motor Manufacturers and Traders.

WRS: Worker Registration Scheme.

WTI: West Texas Intermediate.

Symbols and conventions

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

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.