Inflation Report

February 1997

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Printed by Park Communications Ltd

ISBN 1 85730 140 4
ISSN 1353–6737

Summary

Over the past year, there has been a gradual pick-up in the pace of activity in the UK economy driven by domestic demand. Broad money has been growing at close to double-digit rates for well over a year and consumption probably grew by almost 4% during 1996. The growth of output was held back by stock adjustment in the first half of 1996, but GDP grew at an annualised rate of about 3% in the second half. Both demand and output are now growing at above-trend rates.

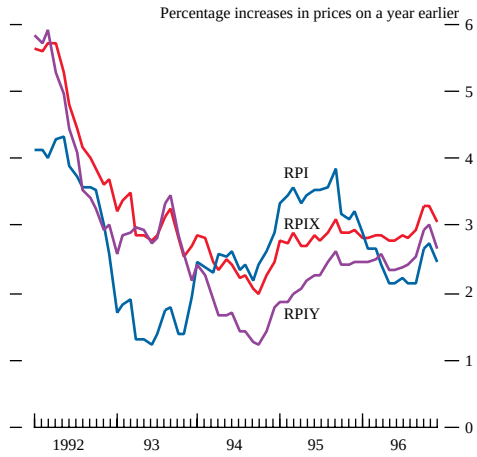
The picture has been complicated by the appreciation of sterling. In the short run, the rise in sterling will lead to a fall in inflation as import prices fall. But that is primarily a one-off impact on the domestic price level. The rise in sterling will also lead to a deterioration in net trade performance. The magnitude of that effect will depend critically on precisely why the exchange rate has risen, not least because that will determine whether the rise is sustained. The reduction in the contribution of net trade to output growth does reduce the impact of the strength of domestic demand on the speed at which the output gap is closed. To that extent, it does reduce inflationary pressure over the horizon of the forecast.

The Bank's central projection for inflation two years ahead is close to 3% and rising. In the near term, the rise in the exchange rate leads to a fall in the central projection because of lower import prices. But monetary policy must look beyond these short-term effects and ensure that underlying inflation is consistent with the target.

In the light of the central projection and the risks surrounding it, the Bank continues to see the need for a moderate tightening of policy. In recent months, there has been little sign of any further acceleration of demand. But the case for some tightening in policy does not depend upon a further acceleration. The growth rates of money and demand that have been seen for some time now cannot be sustained for long if the inflation target is to be met two years or so ahead.

Recent developments in inflation 1

Chart 1.1
Inflation(a)



RPIX = Retail price index excluding mortgage interest payments.
RPIY = RPIX excluding VAT, local authority taxes and excise duties.

(a) Adjusted by the Bank of England for ONS error in underrecording aggregate price indices between February and May 1995. Other charts and tables in this *Report* that include measures of retail price inflation are similarly adjusted.

Table 1.A
Headline inflation in the G7(a)

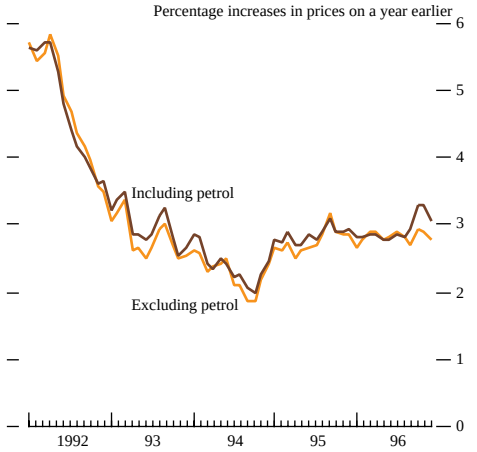
Geometric average annual percentage changes in prices over the period shown

	Canada	France	Germany (b)	Italy	Japan	United Kingdom (c)	United States
1970s	7.6	9.1	5.0	13.3	9.0	13.3	7.4
1980s	6.2	6.9	2.8	10.5	2.3	6.5	5.1
1990s (d)	2.4	2.2	3.0	4.8	1.4	4.2	3.3
1996	2.2	1.7	1.4	2.5	0.6	3.1	3.3

Sources: ONS and Bank for International Settlements.

(a) Group of seven largest industrialised economies.
(b) Pan-German prices used from 1991.
(c) RPIX.
(d) From January 1990 to December 1996.

Chart 1.2
RPIX inflation



Sources: ONS and Bank of England.

1.1 Retail price measures

The twelve-month change in RPIX—retail prices excluding mortgage interest payments—was 3.1% in December, down from 3.3% in the preceding two months, but up from 2.9% in September (see Chart 1.1). The Government's target is to achieve a twelve-month RPIX inflation rate of 2½% or less.

Inflation measured by RPIX has been higher than inflation measured by most other indices of retail prices. The twelve-month RPIY inflation rate, which excludes the effect of indirect tax changes as well as mortgage interest payments, was 2.7% in December, down from around 3% in the preceding two months, but up from 2.5% in September. And the twelve-month headline inflation rate (RPI), at 2.5% in December, was also lower than in the previous two months but higher than in September.

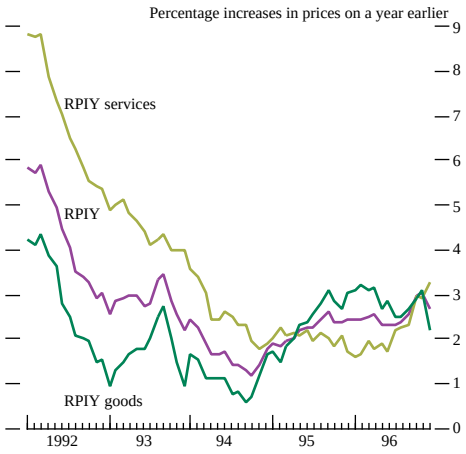
While the United Kingdom's inflation performance has been much better in the 1990s than in either of the previous two decades, inflation has also been low in most other major industrialised countries in recent years. As Table 1.A shows, inflation in the United Kingdom was higher last year than in any other member of the Group of seven largest industrialised economies (G7) apart from the United States.

Retail petrol prices, with a weight of 3.9% in the index, dominated movements in RPIX inflation since the November *Report*, as Chart 1.2 shows. In the year to December, the 9.6% increase in petrol prices added 0.4 percentage points to RPIX inflation. As noted in the November *Report*, petrol retailers may have been attempting to restore or improve profitability following price cutting during the early part of 1996, as well as responding to oil price rises: of the 12% increase in petrol prices since their trough in July 1996, the oil price rise is thought to have contributed around 2 percentage points and margins around 7 percentage points, with the balance attributable to excise duty changes. The index excluding petrol prices rose by 2.8% in the year to December. It was mainly influenced by two other

factors: sterling's appreciation and the pick-up in service sector inflation.

Some items in the retail price basket are more open to international competition than others. Exchange rate movements affect their prices directly, while domestic costs and demand conditions may be more important for the prices of other items. Around 20% of total consumers' expenditure is either directly or indirectly imported. Within that total, the import content of spending varies from around 3% for accountancy services, transport, and banking and finance, to over 80% of spending on cars, toys, and computer equipment. Broadly speaking, goods are more subject to international competition than services.

Chart 1.3
RPIY goods and services inflation(a)



Sources: ONS and Bank of England.

(a) Housing depreciation is included in services: the ONS excludes housing depreciation from their measure of service sector inflation.

Goods have a weight of around 60% in RPIY, with the remainder made up of services.(1) As Chart 1.3 shows, goods sector inflation picked up during the second half of 1996 before falling in December, in part because of the fall in petrol prices. There were few clear signs of the effects of sterling's appreciation. For example, the prices of household goods, many of which are imported, rose by 2.4% in 1996 Q4 on a year earlier. Retailers may have been taking advantage of higher demand to increase their margins (see Section 5); that may have dominated any appreciation effect. But there were unusual, albeit small, falls in the prices of toys and audio-visual equipment in December, both of which are mainly imported. And food prices fell by 1.3% in the final quarter, although reports from the Bank's Agents suggest that could reflect supply conditions, following a good harvest in 1996, rather than a higher exchange rate.

Service sector inflation was lower than goods sector inflation during the first half of 1996, but increased more quickly in the second half, rising above goods price inflation in December. The increase in service sector inflation was broadly based: inflation was unchanged or higher in the year to 1996 Q4 than in the year to 1996 Q3 for seven of the twelve service sector components. That was consistent with recent strength in service sector demand and output. In 1996 Q4, service sector output grew by 0.9% and service sector capacity utilisation, as reported by the BCC Survey, was at its highest level since the survey began in 1989 (see Section 3 for further discussion).

(1) The weight of goods in RPIY is larger than the weight of imports in consumers' expenditure because not all potentially tradable goods are traded. The treatment of services differs from that of the ONS, because housing depreciation is included in the Bank's service sector index as an element of the cost of housing services.

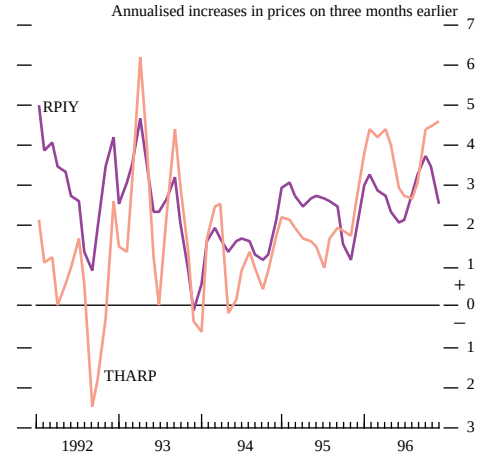
Table 1.B
Three-month measures of inflation[a]

	1996					
	Mar.	June	Sept.	Oct.	Nov.	Dec.
RPI	1.4	1.7	2.4	2.3	2.8	4.4
RPIX	2.8	2.3	2.9	3.1	3.1	4.4
RPIY	2.9	2.1	3.3	3.8	3.5	2.6
HARP	3.5	3.1	2.9	3.9	4.2	5.9
THARP	4.2	2.9	3.1	4.5	4.5	4.6

Sources: ONS and Bank calculations.

(a) RPIY, HARP and THARP are seasonally adjusted and annualised by the Bank. RPI and RPIX are obtained by multiplying the ratios of RPI to RPIY, and RPIX to RPIY by seasonally adjusted RPIY. That removes most seasonal effects, but not those induced by tax changes. RPI and RPIX are also annualised.

Chart 1.4
Short-run RPIY and THARP inflation[a]

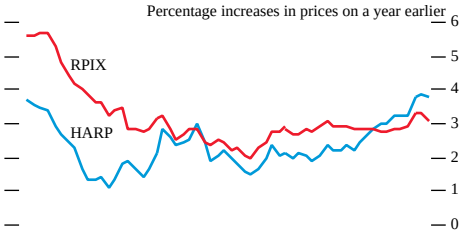


Sources: ONS and Bank calculations.

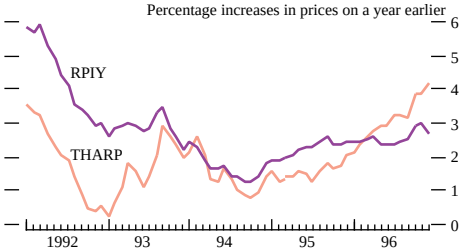
(a) Both series are seasonally adjusted and annualised by the Bank. Seasonally adjusted THARP is calculated by combining seasonally adjusted RPIY with the Bank's estimate of the user cost of housing.

Chart 1.5
Housing-adjusted inflation

HARP and RPIX



THARP and RPIY



Sources: ONS and Bank of England.

Measuring changes in price indices over less than twelve months gives a better indication of more recent developments in inflation, although such measures are more volatile. Table 1.B includes the Bank's versions of RPIX and RPIY which include a measure of owner-occupied housing costs: HARP and THARP respectively. On a seasonally adjusted, three-month annualised basis, both RPIX and HARP inflation rose steadily in the second half of 1996. As Chart 1.4 shows, three-month THARP inflation has been fairly stable in recent months and three-month RPIY inflation has fallen since October. The divergence between RPIX and RPIY (and HARP and THARP) largely reflects the increases in petrol and tobacco excise duties in the November 1996 Budget.

1.2 Other price indices

HARP and THARP inflation rates have been consistently above RPIX and RPIY inflation since early 1996, because the recovery in house prices has pushed up owner-occupied housing costs (see Chart 1.5).

Several prices that enter the RPI change relatively infrequently, but by large amounts when they do. Such movements may reflect cost increases that have built up over time. Although it is appropriate to include those increases in measures of the cost of living, they make price indices less useful as a means of measuring the underlying trend in inflation. So the Bank monitors two alternative indices, constructed to limit the effects of extreme price movements: the median and trimmed mean indices.(1)

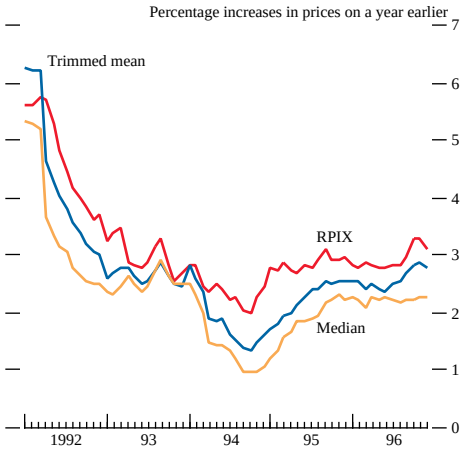
Those measures of underlying inflation tend to be less volatile than RPIX, as Chart 1.6 shows. And they are often lower, because the distribution of price changes is skewed, with more large increases than decreases. The twelve-month median inflation rate has been fairly stable but the twelve-month trimmed mean inflation rate picked up in the middle of 1996 before flattening off towards the end of the year.

1.3 Expenditure deflators

The GDP deflator and its components measure the price of domestic value added. In principle, therefore, they

(1) The monthly changes in all components of RPIX are weighted according to their importance in the expenditure of a 'typical' household and are then ranked by size. The median is the rate above which half of the resulting distribution lies. The trimmed mean removes the largest and smallest 15% of price changes.

Chart 1.6
Measures of underlying inflation



Sources: ONS and Bank of England.

Table 1.C
Changes in expenditure deflators (market prices)

Percentage changes on a year earlier

	Consumption	Investment	Government	Domestic demand (a)	Exports	Imports	GDP (b)
1994	2.5	2.2	2.5	2.5	0.8	2.9	1.6
1995	2.6	6.7	2.3	3.1	4.7	7.3	1.8
1996 Q1	2.8	6.6	2.1	3.1	3.3	4.4	2.4
Q2	3.1	2.1	2.2	2.6	1.6	1.8	2.3
Q3	2.8	1.4	1.9	2.5	1.2	-0.6	3.2
Seasonally adjusted quarterly percentage changes							
Q1 on Q4	0.8	0.4	0.6	0.8	0.2	-0.3	0.9
Q2 on Q1	0.7	-0.2	0.5	0.5	0.2	-0.1	0.7
Q3 on Q2	0.7	0.3	0.3	0.6	-0.1	-0.9	1.1

(a) Domestic demand also includes the value of the physical increase in stocks and work in progress, which does not appear separately in this table.
(b) At factor cost.

are a measure of domestically generated inflation. As Table 1.C shows, four-quarter inflation measured by the GDP deflator, at 3.2%, rose above RPIX inflation, at 2.9%, in the third quarter of 1996, for the first time since the end of 1993. That suggests imports have recently been restraining RPIX inflation.

However, the expenditure deflators are prone to revisions and are not particularly timely, so they are not always a reliable indicator of domestic inflationary pressures. At the time of the November *Report*, for example, the increase in the GDP deflator was estimated at 2.0% in 1996 Q1 and 1.7% in 1996 Q2; since then, the data have been revised to 2.4% and 2.3% respectively.

In the year to 1996 Q3, the export deflator rose by 1.2% while the import deflator fell by 0.6%. So the terms of trade moved in the United Kingdom's favour by 1.9% over the year to Q3, and by 0.4% in Q3. The change in the terms of trade may have been in part a temporary reaction to the appreciation of sterling.

1.4 Summary

Inflation outturns have been higher than expected over the past three months. There was a broadly based rise in service price inflation, in line with the strength of service sector demand. Petrol price increases also had a significant effect on RPIX inflation, as a result of oil price increases and retailers' attempts to restore their margins. There are few clear signs that sterling's appreciation had affected retail price inflation by the end of 1996.

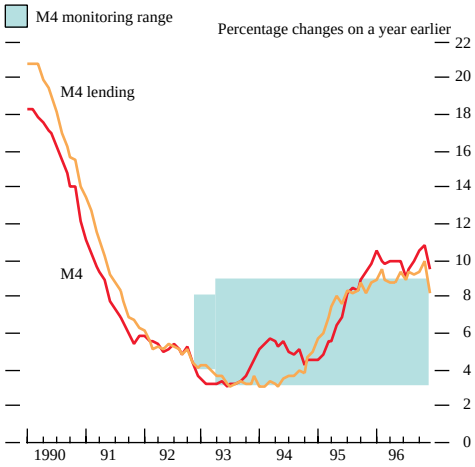
Money, interest rates and the exchange rate 2

Broad money growth remained high in the fourth quarter. It was above the Government's monitoring range, and its recent growth rate is unlikely to be compatible with the inflation target in the medium term. Official interest rates have remained unchanged since November. The exchange rate appreciated further—by 7% in effective terms—between 1 November and 7 February.

2.1 Money

The twelve-month growth rate of broad money was 9.5% in December, above the Government's monitoring range of 3%–9% (see Chart 2.1). M4 has grown at an average annualised rate of about 9½% for the past two years. If broad money growth remained above 9%, the velocity of money would have to fall by over 4% a year to be consistent with the inflation target. During the 1980s velocity did fall quickly, but that was a period of rapid financial liberalisation. Over the past five years, velocity has fallen by an average of around 1% a year. So the current growth rate of broad money is most unlikely to be compatible with the inflation target in the medium term.

Chart 2.1
Growth of M4 and M4 lending



Source: Bank of England.

Table 2.A
Growth rates of M4 and M4 lending(a)

Per cent

		1 month	3 months (b)	6 months (b)	12 months
M4	Sept.	0.9	10.4	9.5	10.0
	Oct.	1.1	12.7	10.6	10.6
	Nov.	1.1	13.0	11.1	10.8
	Dec.	-0.3	7.6	9.0	9.5
M4 lending	Sept.	0.5	8.0	8.2	9.2
	Oct.	0.9	9.0	8.9	9.4
	Nov.	0.9	9.7	9.1	9.9
	Dec.	-0.6	5.0	6.5	8.2

Source: Bank of England.

(a) Seasonally adjusted.
(b) Annualised.

The gilt repo market complicates interpretation of the broad money numbers. The demand for, and supply of, broad money were increased by about £6 billion when the market was introduced in January last year. M4 can be crudely adjusted for the structural change by deducting that figure for January and following months. In December, a £6 billion fall in gilt repo activity caused M4 to decrease (see Table 2.A). About £5 billion of that fall was reportedly related to end-year balance sheet adjustments by participants in the gilt repo market (they reduced their gilt reverse-repos by a similar amount), and appears to have been unwound in January this year. So adding back £5 billion to the M4 total for December gives a better idea of the underlying trend in M4. How should the increase in gilt repo activity between January and December 1996 be treated? Gilt repos were simply an alternative to other forms of deposit: the increase in gilt repos probably reflected banks' increased need for wholesale funds to finance higher demand for loans. That suggests such increases should not be stripped out

of the broad money statistics. Taking all of these factors together, the underlying growth of M4 is estimated to have been about 9½% in the twelve months to December.

Personal sector

Individuals' deposits and holdings of cash grew by 5.6% in 1996, slightly less than in the previous year. Despite that slowdown, nominal consumption accelerated last year, as shown in Table 2.B. Based on past relationships, personal sector broad money was higher than expected in 1995, given its main determinants—consumption, income, wealth and interest rates. By the end of 1996, however, money holdings were close to their expected level. The excess holdings in 1995 were not used to repay bank debt—lending to the personal sector did not slow down over the past two years. The excess holdings were reduced in 1996 as consumption accelerated and as wealth increased. Personal sector real money growth—after taking account of retail price inflation—of around 3% a year points to a robust outlook for consumption growth.

Table 2.B
Growth of nominal consumption and personal sector M4[(a)]

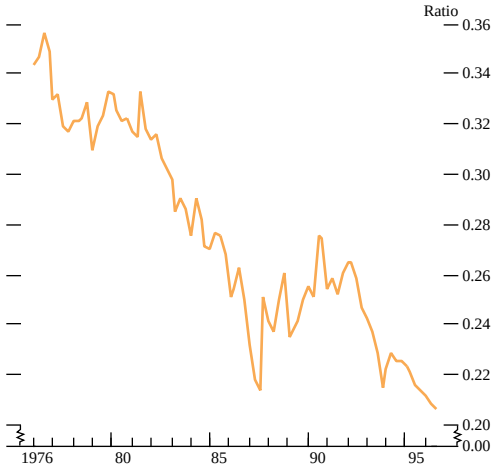
	1995		1996		
	H1	H2	H1	Q3	Q4
Nominal consumption	1.1	1.1	1.7	1.6	n.a.
Personal sector M4	1.8	1.8	1.5	1.3	1.6

Sources: ONS and Bank of England.

(a) Seasonally adjusted quarterly growth rates. Half yearly figures refer to the average quarterly rate for the half year.

Personal sector wealth has increased rapidly recently: in 1996 Q3, financial wealth was over 20% higher than at the start of 1995. The ratio of the personal sector's broad money to its total financial wealth has been on a long-run downward trend, as the proportion of individuals' wealth held in equities, either directly, or indirectly through unit trusts or pension funds, has increased. Chart 2.2 shows that during 1995 and 1996 the ratio fell as wealth increased strongly and money holdings grew less quickly. The increase in wealth, although it reduced 'excess' money holdings, in itself corroborates the outlook for consumption implied by fast money growth.

Chart 2.2
Ratio of personal sector's M4 to total financial assets



Sources: ONS and Bank of England.

Industrial and commercial companies (ICCs)

The deposits held by ICCs in 1996 Q4 were about 10% higher than a year earlier. The annual growth rate has increased sharply since the first half of 1995. Bank research has shown that changes in ICCs' deposits have tended to precede changes in investment.[(1)] In the year to 1996 Q3, nominal investment by ICCs—which accounts for around a half of total investment—increased by 11%. The strong increase in their holdings of broad money suggests ICCs' investment growth should remain high this year. The increase in money might be used for

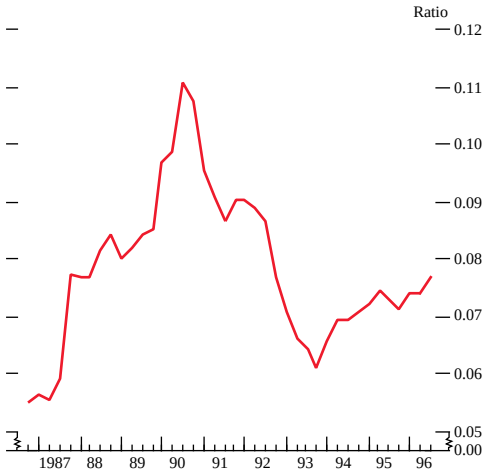
(1) See Astley, M S and Haldane, A G (1995), 'Money as an indicator', *Bank of England Working Paper*, No 35, July.

other purposes, for instance, to reduce debt: ICCs' capital gearing in the 1990s has been significantly higher than its average during the 1980s. But ICCs' borrowing from banks grew by nearly 30% in the two years to 1996 Q4, suggesting that they did not wish to reduce their debt.

Other financial institutions (OFIs)

OFIs' deposits growth slowed in the final quarter of last year because of the reduction in gilt repo activity in December. But their deposits were still nearly 50% higher than two years earlier, coinciding with a significant increase in the value of cash-financed merger and acquisition activity. Payouts to shareholders following a takeover might be expected to raise temporarily money balances of OFIs such as life assurance and pension funds. Institutional investment in UK company securities was relatively low in the first three quarters of 1996. But the value of their direct holdings of securities has risen rapidly since the beginning of 1995 because equity prices have risen. That was probably related, in part, to the large increases in OFIs' money holdings. In total, OFIs' financial assets rose by around 20% in the year to 1996 Q3, an increase similar to that in OFIs' money balances. In other words, despite a large rise, OFIs' deposits have been fairly constant as a proportion of OFIs' total wealth since the beginning of 1995, as Chart 2.3 shows.

Chart 2.3
Ratio of OFIs' M4 to total financial assets



Sources: ONS and Bank of England.

Divisia money

The Divisia index of money measures transactions balances. It is calculated assuming that assets with relatively low interest rates are more liquid, and therefore more likely to be held for transactions purposes. So Divisia money should be more closely related than other measures of money to nominal spending. Table 2.C shows that Divisia money grew rapidly in 1996, although it slowed a little in the second half of the year. Strong growth is consistent with the view that transactions—and nominal demand—will grow quickly over the next two years.

Table 2.C
Divisia money growth

Per cent

	1 quarter (a)	2 quarters (a)	4 quarters
1995 Q4	9.9	9.8	8.5
1996 Q1	10.8	10.3	9.5
Q2	9.0	9.9	9.8
Q3	7.3	8.2	9.2
Q4	8.5	7.9	8.9

Source: Bank of England.

(a) Seasonally adjusted, annualised growth rates.

Since money is held as a store of wealth as well as for transactions purposes, broad money movements which are not matched by movements in Divisia money should give information about money held as a store of wealth. Progress in payments technology has reduced the demand for narrow money. That has a higher weight in Divisia money than in broad money, so the latter rose relative to Divisia over the past 20 years.

But in 1996 Divisia grew at a similar rate to broad money.

Narrow money

Table 2.D shows that M0 grew by 7.4% in the twelve months to January. It has grown at rates above the Government's monitoring range of 0%–4% for around four years. High growth probably reflected, in part, less effort to economise on the use of cash in the 1990s—because inflation has been lower and less variable than earlier. M0 consists of notes and coin in circulation and bankers' balances. Although bankers' balances are less than 1% of total M0, their high volatility contributes disproportionately to M0's monthly variation. Notes and coin provide a better guide to the underlying increase in narrow money. The short-run growth rates of notes and coin, shown in Table 2.D, remained high at the beginning of this year, consistent with continued strong retail sales growth.

Table 2.D
Growth rates of narrow money(a)

Per cent

		1 month	3 months (b)	6 months (b)	12 months
Notes and coin	Oct.	0.4	6.3	7.6	7.4
	Nov.	0.6	5.8	7.7	7.4
	Dec.	0.4	5.7	6.4	7.2
	Jan.	0.8	7.4	6.9	7.3
M0	Oct.	0.7	7.2	7.3	7.5
	Nov.	0.6	6.4	8.1	7.4
	Dec.	0.5	7.9	6.8	7.0
	Jan.	0.7	7.6	7.4	7.4

Source: Bank of England.

(a) Seasonally adjusted.
(b) Annualised.

2.2 Credit

Bank and building society lending to the non-bank private sector (M4 lending) slowed in the last quarter of 1996, largely reflecting the decrease in reverse-repo activity at the end of the year.(1) The twelve-month growth rate adjusted for the effects of the gilt repo market was around 8% in December, broadly unchanged from the figure in September. The demand for credit will depend on the interest rate charged relative to other forms of borrowing, and on current and future expected activity. The supply of credit—the banks' willingness to lend—will depend, among other things, on the capital base of lenders. The interaction of the demand for, and supply of, credit will determine its price—the rate of interest charged—and the amount of credit extended. Table 2.E shows that between 1992 and 1995 a rise in profits after charges for bad and doubtful debts helped the major British banks to increase their capital. That probably continued last year. It looks as if banks used the increase in capital to expand their sterling balance sheets, boosting the growth of bank lending and reducing average bank spreads, which fell last year according to the CBI Financial Services Survey.

Table 2.E
Large British banks: profits and capital(a)

£ billions

	1992	1993	1994	1995
Operating profits before bad debts	10.1	11.3	10.5	11.5
Charge for domestic bad and doubtful debts	6.7	4.7	2.1	1.7
Operating profits after bad debts	3.4	6.6	8.4	9.8
Total net capital	40.9	45.0	49.0	51.1
Risk-asset ratio (b)	9.9	10.8	11.4	10.9

Source: Bank of England *Banking Act Report* for 1995/96.

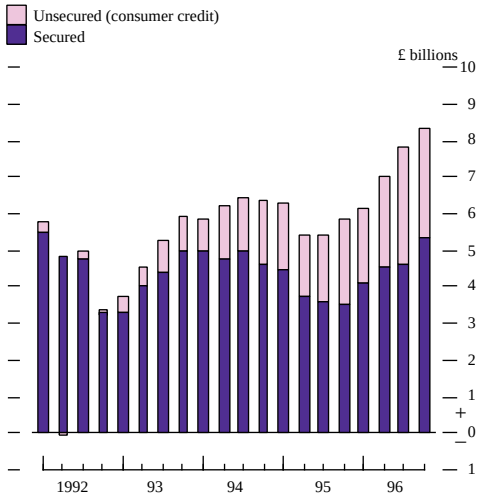
(a) Barclays, Lloyds, Midland, National Westminster, Abbey National, Bank of Scotland, The Royal Bank of Scotland, Standard Chartered and the TSB. All data for these banks are consolidated. Calendar end-year information except for Bank of Scotland (1995 data are based on interim figures) and the Royal Bank of Scotland (end-September). The TSB changed its financial year following the merger with Lloyds and the data for the merged group are for the twelve months ending in December 1995.
(b) Assets are weighted in broad categories according to their relative riskiness. The safest assets are weighted at 0% and the riskiest at 100%. The calculation follows international standards, laid down in the 1988 Basle Accord issued by the Bank for International Settlements and the EU's Solvency Ratio Directive 1990. Both these standards establish a risk-asset ratio of 8% as the minimum acceptable for an internationally active bank.

Personal sector

Total net lending to individuals, including lending by institutions other than banks and building societies, was

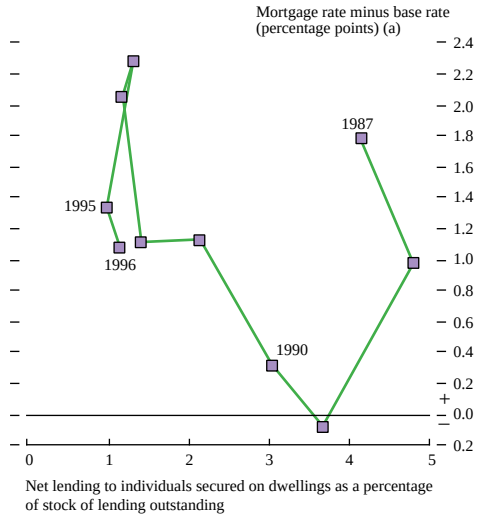
(1) A box in the May 1996 *Inflation Report* explained that gilt reverse repos by banks are a type of secured bank lending and therefore affect M4 lending, while gilt repos affect M4.

Chart 2.4
Net lending to individuals



Source: Bank of England.

Chart 2.5
Mortgage lending flows and spreads



Source: Bank of England.

(a) Average of major bank and building society mortgage rates.

Table 2.F
Sources of ICCs' financing(a)

£ billions; *percentages in italics*

	Percentage share of total in 1995	1994 Year	1995 Year	1996 Year	Q1	Q2	Q3	Q4
Undistributed income	*67*	16.7	15.5	n.a.	16.6	17.3	16.4	n.a.
Bank/building society borrowing	*19*	-0.4	4.4	4.6	6.1	4.9	3.7	3.8
Other (b)	*14*	3.5	3.3	2.8	3.8	2.5	2.8	2.2

Sources: ONS and Bank of England.

(a) Seasonally adjusted. Annual figures for 1994–96 are the averages of quarterly flows.
(b) Includes commercial paper, bonds and equities.

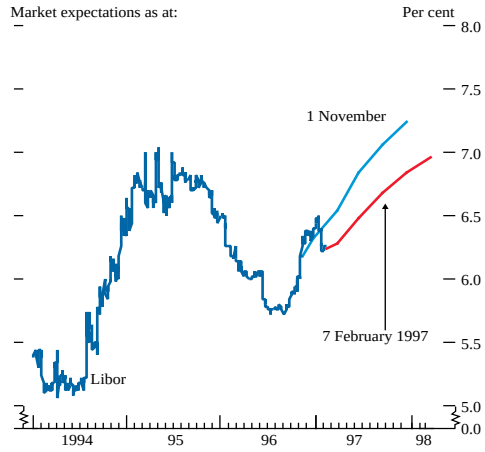
stronger in the second half of last year than in the first: it rose at an annualised rate of 7% in the six months to December, compared with an equivalent growth rate of 5.9% in June last year. Lending to individuals can be split between that which is secured on property and other lending—'consumer credit'. The amount of consumer credit outstanding is only 15% of total lending outstanding. Despite that, consumer credit was responsible for a third of the flow of lending to individuals in 1996—see Chart 2.4. That was in line with the strong rise in consumption in 1996. Mortgage lending can also be used to finance immediate consumption through equity withdrawal. But, over the past few years, most mortgage lending has been purely for house purchase—equity withdrawal has been low.

Mortgage lending accelerated in 1996: net lending was £18.6 billion last year compared with £15.3 billion in the previous year. Chart 2.5 shows the volume of lending relative to the spread of lending rates over official rates. Changes in those variables reflect the interaction of supply and demand: an increase or decrease in both indicates a shift in demand, while an increase in one accompanied by a decrease in the other indicates a shift in supply. Lending increased in 1996 and the spread of lending rates over official rates fell, consistent with an increase in the supply of mortgage lending for any given spread. So the rise in mortgage lending seems, at least in part, to have reflected an increased willingness of banks and building societies to lend. The rise in house prices and housing turnover over the past year will have led to an increase in demand for mortgage lending.

Industrial and commercial companies

ICCs' borrowing from banks and building societies rose significantly in 1995, and even further in 1996. But their retained earnings—their main source of finance—have been broadly flat over the past three years (Table 2.F). The increase in bank borrowing—nearly 30% higher in 1996 Q4 than two years earlier—was, in part, linked to the increase in mergers and acquisitions activity in 1995, which remained high last year. Average spreads over Libor paid by ICCs on loans from international bank syndicates narrowed slightly last year. That suggests that the rise in ICCs' bank borrowing could have reflected an increase in banks' willingness to lend as well as an upward shift in the demand for credit.

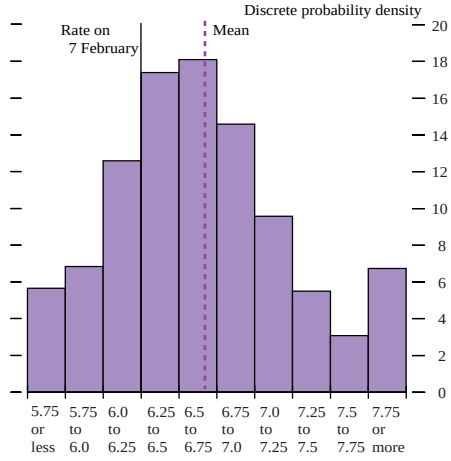
Chart 2.6
Sterling three-month interest rate expectations(a)



Sources: LIFFE and Bank of England.

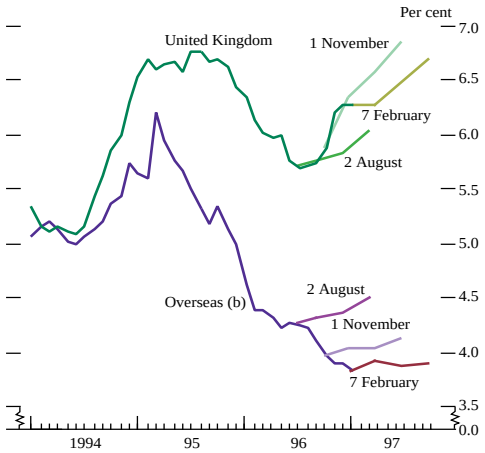
(a) Based on a combination of sterling interest rate futures.

Chart 2.7
Implied probability distribution for the three-month sterling interest rate in September 1997(a)



(a) Derived using LIFFE September 1997 options on the short sterling future, as at 7 February. The implied distribution implicitly assumes that investors are risk neutral. To the extent that investors are risk-averse and risk premia matter, there may be small differences between the estimated probabilities and the market's 'true' distribution of expectations of interest rates.

Chart 2.8
Sterling and overseas three-month interest rate expectations(a)



Sources: Bank of England, Bank for International Settlements, *Financial Times* and LIFFE.

(a) Based on a combination of interest rate futures contracts.
(b) Trade-weighted interest rates in the major six overseas economies.

Other financial institutions

OFIs' borrowing grew by 10.3% in the year to 1996 Q4, less quickly than in 1995. Lending to OFIs was boosted in the first quarter of last year by the introduction of the gilt repo market, but reduced by balance sheet adjustments in December. Part of the rise in OFIs' borrowing was linked to borrowing by leasing companies. The Finance and Leasing Association reported that gross lending by leasing companies to finance plant and machinery spending was 30% higher in the first three quarters of 1996 compared with the same period of the previous year. That was probably linked to increased demand for capital goods.

2.3 Interest rates and the exchange rate

In assessing the prospects for inflation, it is important to consider real interest rates, because they affect aggregate demand and output, which in turn affect inflation. Real interest rates are equal to nominal interest rates less expected inflation (ignoring risk premia), so increases in nominal rates can indicate either that real rates have gone up or that expected inflation has risen. Movements in interest rates here and abroad are related to changes in capital flows and the exchange rate. This section reviews recent movements in interest rates and the exchange rate.

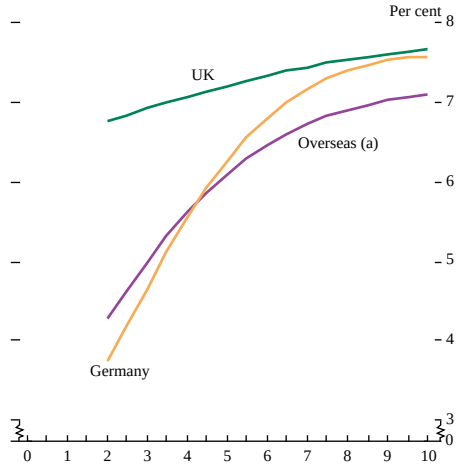
Short-term interest rates

Official short-term interest rates in the United Kingdom remained unchanged between the November *Report* and 7 February, when data for this *Report* were finalised. Chart 2.6 shows that the expected profile of three-month interest rates, derived from futures prices, has shifted downwards since the November *Report*. On 7 February, three-month rates were expected to rise by around 25 basis points between then and June this year. Option prices can be used to derive the market's view of the probability distribution for future three-month interest rates.(1) They show that, for September, the market assessment of probabilities is skewed upwards (see Chart 2.7).

Short-term interest rates in the United Kingdom have risen relative to the trade-weighted average of rates in the other G7 countries over the past six months. And Chart 2.8 shows that on 7 February the gap between

(1) See Bahra, B (1996), 'Probability distributions of future asset prices implied by option prices', *Bank of England Quarterly Bulletin*, August, pages 299–311.

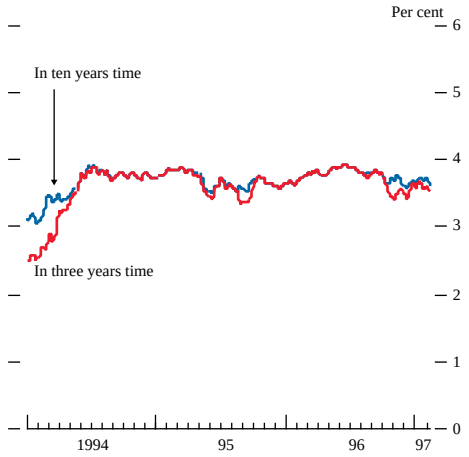
Chart 2.9
UK, German and overseas implied nominal forward interest rates on 7 February 1997



Source: Bank of England.

(a) Trade-weighted average of the G7 excluding the United Kingdom.

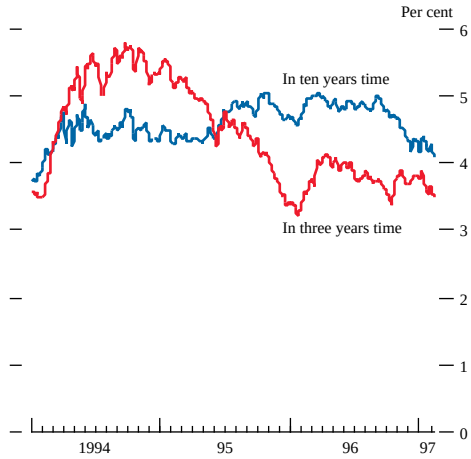
Chart 2.10
Real interest rate expectations(a)



Source: Bank of England.

(a) Five-day moving average. Final observation is 7 February.

Chart 2.11
Implied forward inflation rates(a)



Source: Bank of England.

(a) Five-day moving average of implied forward six-month annualised rate. Final observation is 7 February.

them was expected to widen further over the next few months. The difference in interest rates expected in June this year—260 basis points—was largely unchanged between this and the November *Reports*.

Long-term interest rates

The yield on ten-year gilts fell by around 60 basis points between the November and February *Reports*. The gap between UK bond yields and the trade-weighted average of overseas bond yields fell by around 20 basis points to about 175 basis points. At present, the yield gap largely reflects expectations of different paths for short-term interest rates over the next couple of years, due to different positions in the economic cycle. Chart 2.9 shows that in ten years time, short-term nominal interest rates in the United Kingdom and overseas are expected to be much closer than now.(1) The expected difference in UK and German nominal interest rates in ten years time was less than 10 basis points on 7 February, compared with a difference of over 300 basis points in current three-month interest rates.(2)

The expected path of short-term nominal interest rates can be used to derive the expected paths for real interest rates and for inflation where—as in the United Kingdom—there is a market for index-linked bonds.(3) Real short-term interest rates expected in ten years time are likely to be determined primarily by expected global saving and investment. But over a shorter time horizon, they are more likely to reflect country-specific cyclical factors, and the consequent reaction of monetary policy. Chart 2.10 shows that the real interest rate expected in three years time has risen since the previous *Report*.

Chart 2.11 shows implied forward inflation rates three and ten years ahead. New information about the current state of the economy can cause the inflation rate expected in three years time to change. But changes in the inflation rate expected ten years from now are likely to be free of such cyclical variations. The implied inflation rates expected in three and ten years have fallen recently, particularly since the middle of last year.

(1) By comparing average interest rates expected over the next three years to those expected over the next three and half years, it is possible to calculate a six-month annualised interest rate expected in three years' time. Similar calculations can be done for different points in the future, using the yield curve for bonds.
(2) See 'Recent yield curve behaviour—an analysis' by W A Allen in the *Quarterly Bulletin*, pages 43–8.
(3) The method used is explained in Breedon, F, 'Bond prices and market expectations of inflation', May 1995 *Quarterly Bulletin*; estimates of inflation expectations are biased if, among other reasons, risk premia exist in bond yields. That will also affect estimates of real interest rate expectations.

Uncovered interest parity

The uncovered interest parity condition (UIP) is based on the premise that market forces equilibrate the return investors expect to earn on assets denominated in different currencies. Such assets must have similar risk and liquidity characteristics, without which there would be a divergence of expected returns. Government bonds in different countries have broadly similar characteristics; so do short-term monetary assets. So, by comparing UK interest rates at different maturities to those overseas, it is possible to calculate the path the exchange rate must follow if expected returns are to be equalised.

Chart 2.14 shows that implied exchange rate path over the next ten years, derived using a combination of money-market interest rates and government bond yields. UK interest rates are higher than the trade-weighted average of those overseas, implying that sterling is expected to depreciate. What would happen under UIP if, relative to overseas interest rates, UK interest rates were unexpectedly raised, or if expectations of the future path for UK interest rates were raised? For expected returns to remain equal, sterling would have to depreciate at a faster rate: the slope of the curve in Chart 2.14 would become steeper.

UIP relates the expected change in the exchange rate to interest rates. It does not determine the level of the exchange rate. That is related to other factors, both monetary and real. For example, a shift in a country's terms of trade would be expected to affect the exchange rate now and in the future. The curve in Chart 2.14 would shift up or down in parallel to its previous position.

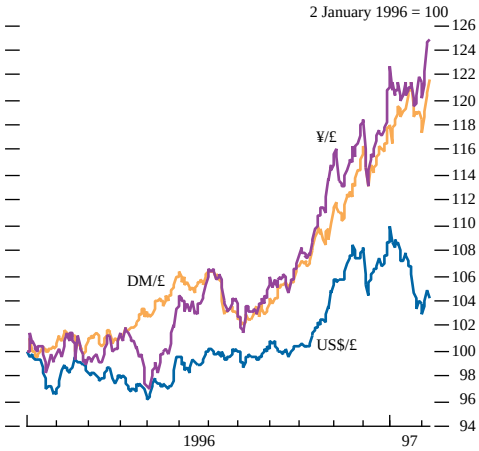
The exchange rate will react to 'news' about the real economy or monetary policy here and abroad. So the expected path for the exchange rate mapped out in Chart 2.14 is unlikely to materialise. But, by using UIP to compare expected paths for the exchange rate at different dates, it possible to distinguish changes in the spot exchange rate driven purely by interest rates from other influences.

Chart 2.12
Sterling effective exchange rate

Note: Daily data. Final observation is 7 February.

Source: Bank of England.

Chart 2.13
Sterling bilateral exchange rates



Note: Daily data. Final observation is 7 February.

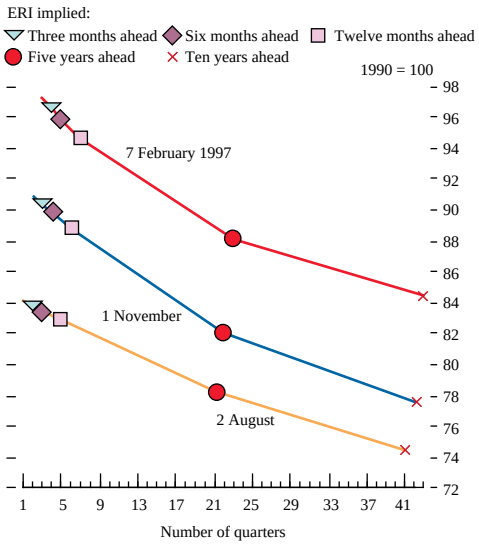
Source: Bank of England.

The exchange rate

The recent appreciation of sterling started at the beginning of August last year. On 7 February, when it closed at 97.2, it was 16% higher than at the beginning of August, and around 7% higher than on 1 November when data for the previous *Report* were finalised. Chart 2.12 shows that sterling, in effective terms, was higher in January this year than at any time since September 1992, before the United Kingdom left the ERM. Sterling's recent appreciation has been more pronounced against some currencies than others: between 2 August and 7 February, sterling appreciated by 5¼% against the US dollar, but by 19% and 22½% against the Deutsche Mark and Japanese yen respectively (see Chart 2.13).

There are many reasons why an exchange rate might rise sharply. Section 6 explores several of those relevant to the recent British episode. Chart 2.14 shows the path for sterling implied by uncovered interest parity (UIP), which is explained in the box above. The implied exchange rate expected in ten years time has risen since August by less than the spot exchange rate. Over the next five years, UK interest rates relative to overseas rates are expected to be higher than in August, implying the rate of depreciation of sterling expected over that period is now greater. But further out the implied rate of depreciation is unchanged. That suggests there has been no change in expectations about the relative stance of UK monetary policy in the long run.

Chart 2.14
UK effective exchange rate profiles(a)



Sources: Bank for International Settlements, Datastream and Bank of England.

(a) Assuming uncovered interest parity.

2.4 Summary

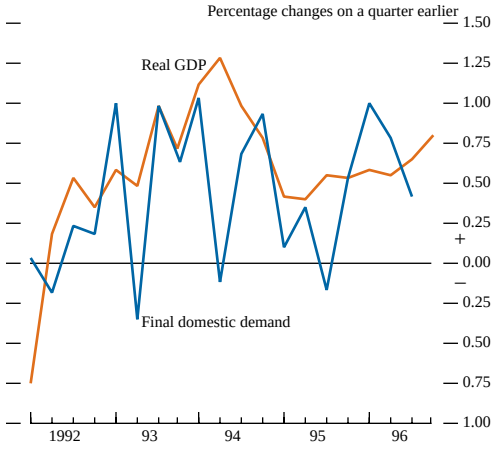
Broad money growth is high. It continues to signal fast nominal domestic demand growth over the next year or so, and is likely to prove incompatible with the inflation target in the medium term. The growth rates of individuals' and ICCs' broad money holdings suggest consumption and investment growth should be strong, and OFIs' money holdings have been associated with rising asset prices.

Official interest rates were unchanged between the November and February *Reports*. But the market continues to expect short-term interest rates to rise over the next twelve months. The exchange rate has appreciated further.

3 Demand and output

Real GDP accelerated last year; it is estimated to have risen by 0.8% in the final quarter of 1996, above the average growth rate of the past 40 years of 0.57%. Growth in real final domestic demand (that is, domestic demand excluding stockbuilding) was more volatile but also rose; its average quarterly growth rate over the first three quarters of 1996 was 0.7%, compared with an average rate of 0.2% over 1995 (see Chart 3.1). Consumption continued to grow above trend. The fall in stockbuilding since the beginning of the year—especially in the manufacturing sector—continued in Q3, and net external trade made a small negative contribution to GDP growth.

Chart 3.1
Quarterly growth in GDP and final domestic demand



It is likely that there will be upward revisions to some of the expenditure components of GDP: since mid-1995, large statistical adjustments have had to be made to the expenditure-based estimate of GDP to align it with the income and output-based estimates. And output-based estimates may themselves be revised upwards, if previous experience in upswings is repeated.

Nominal GDP growth picked up to an average annualised rate of just under 6¼% over the first three quarters of 1996 from just under 4½% in 1995. Such a rate of nominal increase—if continued—is unlikely to be compatible with the Government's inflation target of 2½% or less.

3.1 Domestic demand

Real final domestic demand rose by 0.4% in the third quarter. Table 3.A shows the contributions to GDP growth for the main expenditure components. The patterns of private and public spending growth differed over the year. Private final domestic demand slowed to a growth rate of 0.3% in Q3, from an average quarterly rate of 1.4% in the first half of the year. That reflected a fall in investment during Q3, after a large increase in spending on aircraft in Q2. In comparison, public final domestic demand rose by 0.8% in Q3, after falling at an average quarterly rate of 0.8% during the first half of the year. Stocks were run down in most industries during the third quarter.

Table 3.A
Contributions to GDP growth

Percentage point contribution

	1995	1996		
	Year	Q1	Q2	Q3
Private consumption	1.4	0.8	0.5	0.7
Public consumption	0.3	0.0	0.0	0.2
Investment	0.0	0.3	0.4	-0.4
Final domestic demand	1.7	1.1	0.9	0.5
Stockbuilding	0.1	-0.1	-0.8	0.1
(less alignment adjustment)	0.1	-0.1	-0.5	-0.1
Domestic demand	1.7	1.0	0.1	0.6
Net exports	1.1	-0.6	0.5	-0.1
Gross domestic product	**2.6**	**0.6**	**0.6**	**0.7**
Memo items:				
Statistical discrepancy	0.1	0.3	0.1	0.1
Alignment adjustment	0.0	0.0	-0.3	0.2

Chart 3.2
Divergence of the three measures of GDP

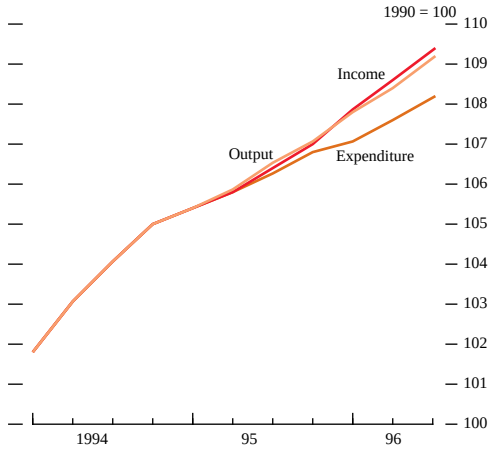
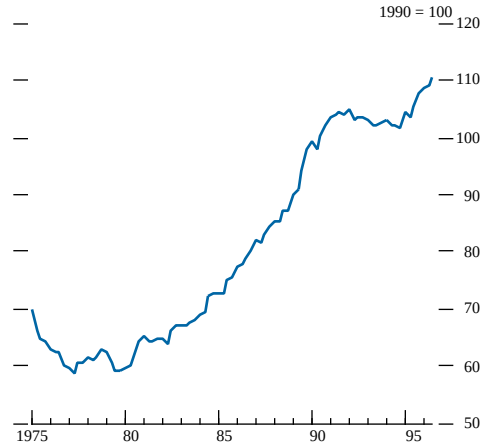


Chart 3.3
Real broad money relative to real domestic demand(a)



Sources: ONS and Bank of England.

(a) Real broad money is defined as M4 deflated by RPIX.

The three estimates of GDP—based on the expenditure, income and output accounts—have diverged since mid-1995. Expenditure-based GDP is currently estimated to have increased at an average quarterly rate of 0.4% since 1995 Q3, compared with 0.6% for output-based GDP and 0.7% for income-based GDP (see Chart 3.2). The differences will need to be reconciled in due course, and, as the income and output measures are broadly similar, it seems likely that there will be upward revisions to the expenditure components. That hypothesis is supported by survey evidence and the strength of labour market activity (see Section 4). In addition, revisions to estimates of GDP tend to be positive during a recovery. And the experience of the second half of the 1980s—when a similar divergence between the various measures of GDP was evident—suggests that further upward revisions to output-based GDP are possible. In the meantime, large and increasing statistical adjustments have had to be made to the expenditure estimate to make it tally with the average measure of GDP.(1) In the third quarter, the adjustments were equivalent to 0.7% of expenditure-based GDP. Estimates of fixed investment and stockbuilding are typically subject to the largest revisions.

Real broad money—M4 deflated by retail prices excluding mortgage interest payments—rose by 6.9% over the year to Q3. Real broad money has grown more quickly than real domestic demand for the past two years (see Chart 3.3). Strong growth in broad money relative to domestic demand during the early 1980s was due to financial deregulation, but it is hard to identify a comparable financial structural change now. The increase in real broad money is probably signalling a pick-up in demand growth over the next year or so.

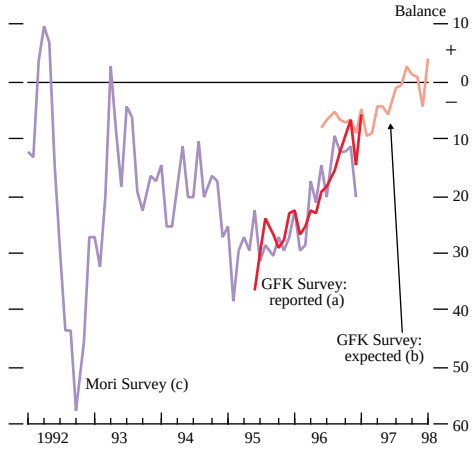
Personal sector demand

Real consumption rose by 1.0% in Q3. Over the first three quarters of 1996, consumption increased at an average quarterly rate of 0.9%, above its 40-year average rate of 0.6%. Spending on goods rose much faster than spending on services over that period, with average quarterly rates of 1.3% and 0.5% respectively. That contrasts with 1995, when much of the growth in consumption was accounted for by services.

The signs are that consumption continued to increase in Q4 at a rate above its long-run average. The volume of

(1) For a discussion of how the ONS estimates GDP, and the statistical adjustments made to align estimates derived from the three measures, see the May 1995 *Inflation Report*, page 24.

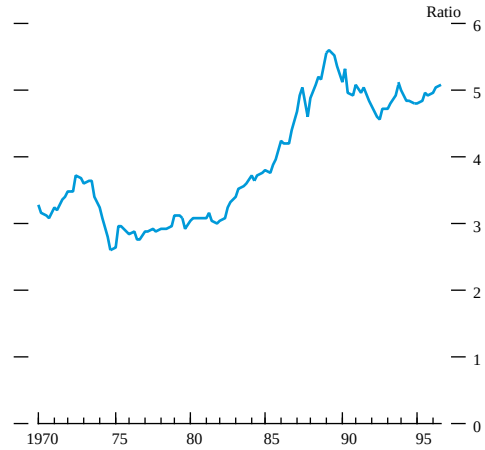
Chart 3.4
Consumer confidence: general economic situation



Sources: Mori and GFK Great Britain Ltd.

(a) The question asked was: How do you think the general economic situation in this country has changed over the past 12 months? The net balance is the difference between those reporting conditions are better and those reporting conditions are worse.
(b) The question asked was: How do you think the general economic situation in this country will develop over the next 12 months? Plotted in the month that the expectation refers to. The net balance is the difference between those expecting conditions to get better and those expecting conditions to get worse.
(c) The question asked was: Do do you think the general economic situation in this country will improve over the next 12 months? Survey balances normalised to equal reported GFK survey balance in January 1996.

Chart 3.5
Personal sector net wealth as a percentage of disposable income(a)



Sources: ONS and Bank of England.

(a) Personal sector net wealth is defined as financial assets and housing assets less financial liabilities. Personal sector disposable income is expressed at an annual rate.

retail sales—which accounts for just over 40% of total consumption—rose by 0.9%. Evidence from the British Chambers of Commerce (BCC) survey suggests that the demand for services—nearly half of total consumption—picked up further in Q4 (see Section 3.3), following an increase of 1.0% in Q3. And growth in service sector output, at 0.9%, remained high in Q4.

Over the next year or so, above-trend growth in consumption is likely to continue. Consumption decisions are typically influenced by current income, expectations of future income, net wealth and real interest rates. Each of these factors should be reflected in surveys of consumer confidence. Chart 3.4 shows that consumers' confidence about both the current economic situation and prospects over the coming year has been improving over the past 18 months. So, if consumers' expectations are realised, consumption growth should remain high this year.

Real personal disposable income rose by 0.8% in the third quarter, slightly above the average quarterly growth rate of 0.7% in the first half of the year. Its growth rate has risen fairly steadily since its trough in 1991, when it was zero, and has been above its 40-year average for the past two years. The income tax cuts announced in the 1996 Budget will increase disposable income by around $^{1}/_{2}$% during the next fiscal year. That is likely to result in higher consumption.

Over the past five years, the saving ratio has fluctuated between 10% and 12%, and averaged 11$^{3}/_{4}$% during the first three quarters of 1996, well above its long-run average of 9%. The high rate of saving may have reflected plans to build up stocks of liquid assets for precautionary purposes, following the large increases in debt and debt servicing, and the risk of job loss, in the early 1990s. Because household balance sheets have strengthened recently, precautionary saving is likely to lessen over the next year or two, boosting consumption. But in general, variations in the saving ratio tend to contain more information about changes in income than in consumption, because households tend to smooth consumption over time.

Net wealth is an important determinant of current and planned consumption. Consumers' net wealth has increased since 1990, because of an increase in asset holdings and a reduction in liabilities (see Chart 3.5). Part of the increase in wealth can be explained by higher asset prices: for example, UK share prices in 1996 were about 40% higher in real terms than in 1990. And large,

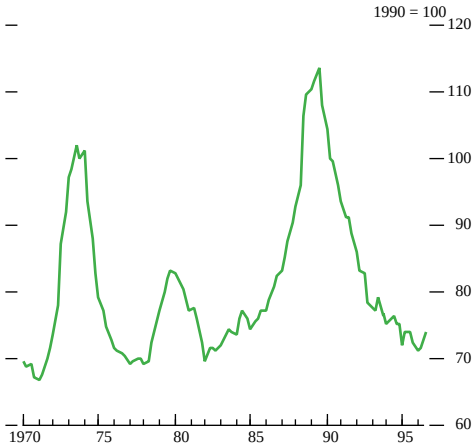
one-off 'windfall gains' from the demutualisation of various building societies and life insurance companies will continue to increase personal sector net wealth, or at least convert it into a more liquid form. The likely impact of those windfall gains on consumption during 1996 and 1997 is outlined in the box on page 22, which updates the Bank's submission to the Treasury Select Committee in light of new information.

Debt burdens have fallen during the recovery; personal sector liabilities fell to 108% of annual disposable income in the first three quarters of 1996 from 118% in 1990. Debt burdens still remain much higher than before the financial liberalisation of the 1980s. Income gearing also fell; interest paid on debt fell to 7.8% of annual disposable income in the first three quarters of 1996 from 14.8% in 1990, because of both the reduction in debt and the fall in nominal interest rates.

The Halifax house price index rose by 8.4% during 1996, compared with a fall of 1.4% during 1995. In the long run, house prices tend to increase in line with earnings, but at the moment the house price-to-earnings ratio is very low (see Chart 3.6). There is scope for house price inflation to exceed earnings growth for a while without the inflation target being under threat. If, however, the equilibrium house price-to-earnings ratio has shifted downwards—perhaps because lower inflation expectations have reduced the attractiveness of housing as a hedge against inflation—then a sustained rise in house prices would be of more concern.

The rise in house prices in 1996 suggests robust demand for housing services. In addition, there will be some direct stimulus to consumption from the increased turnover in the housing market, which raises expenditure on, for example, new furnishings and home improvements.

Chart 3.6
House price-to-earnings ratio(a)



Sources: Department of the Environment and ONS.

(a) This measure of affordability is constructed by dividing DoE house prices by ONS average earnings.

Table 3.B
Growth in real investment

Percentage change on previous period

	Share of investment (1995)	1994 Year	1995 Year	1996 Q1	1996 Q2	1996 Q3
By industry (a)						
Manufacturing	12.6	6.8	4.4	-4.0	-7.5	-1.6
Mining, quarrying and utilities	9.0	-17.9	-7.3	4.5	-11.4	1.2
Services and other industries	54.4	6.5	0.9	2.3	6.4	-3.5
By asset						
Vehicles, ships and aircraft	9.1	10.5	-6.6	-1.4	35.7	-24.8
Plant and machinery	34.9	6.0	3.0	4.9	-5.2	1.6
Non-dwelling construction	35.8	-1.6	-1.1	0.3	0.8	0.6
Dwellings	20.2	3.1	-1.0	-0.1	2.5	0.9
By sector						
Business	61.4	2.6	1.1	4.0	3.9	-3.4
Private	81.5	3.2	1.4	5.4	1.7	-2.6
Public corporations	4.8	-2.4	-6.9	21.5	-14.4	-12.8
General government	13.6	3.3	-6.8	-26.0	12.6	6.9
Total		**2.9**	**-0.2**	**1.7**	**2.0**	**-2.0**

(a) This breakdown excludes transfer costs and dwellings investment, so shares do not sum to 100.

Investment demand

Fixed investment fell by 2.0% in 1996 Q3, after having risen at an average quarterly rate of 1.8% during the first half of the year (see Table 3.B). However, the Q2 figure included heavy spending on aircraft: spending on vehicles, ships and aircraft rose by over 35% in Q2, the largest quarterly growth rate on record. Excluding expenditure on vehicles, ships and aircraft, investment rose by 1.0% in Q3. Over the year to Q3, fixed investment was up by 3.3%, largely reflecting strong growth in investment by service sector firms. Fixed investment has been growing at a slower rate than total

‘Windfall gains’ and consumption

This box updates the Bank’s submission to the Treasury Select Committee,(1) *following new information on the valuation of various building society payouts.*

In 1996, consumers are estimated to have received around £3½ billion in special payments, often referred to as ‘windfall gains’ (see the table). A further £21 billion is expected in 1997. These payments will boost personal sector wealth, or at least convert existing assets into a more liquid form. The Bank’s central projection is that these factors will boost consumption by 0.4–0.5 percentage points in 1997 and 0.1 percentage points in 1998.

An increase in an individual’s wealth is not likely to lead immediately to a proportionate increase in consumption. Instead, each individual will tend to spread the additional possible consumption over their entire life-time, implying only a modest initial increase in consumption. But the immediate increase in consumption may be more pronounced if consumers’ ability to borrow is restricted and they are unable fully to smooth their consumption over time.

During 1996 and 1997, there are three categories of ‘windfall gains’ that have to be considered: mergers and conversions of building societies, payouts from insurance companies and payment of electricity rebates.

The payouts resulting from the *merger and conversion of building societies* are estimated at around £21 billion during 1996 and 1997. Although that estimate is based on recent figures contained in the transfer documents and in the Press, the final figure will depend on stock market valuations. The Bank’s assessment of the likely impact of ‘windfall gains’ on consumption is based partly on the experience of previous episodes, such as the Abbey National and TSB conversions. Those suggest that consumers initially spend a relatively small proportion of ‘windfall gains’. That view is supported by a survey undertaken in 1995 by the Harris Research Centre, which found that only 36% of individuals who expected a building society payout planned to spend all or most of it.(2)

That conclusion is consistent with the fact that the transfer of existing building society assets to tradable shares does not strictly represent an increase in individual members’ total wealth. It merely converts their claim on the assets of the building society into a more liquid form.

But there are two reasons why such conversions may lead to additional consumption. First, the increased liquidity of the new asset may have allowed previously credit-constrained individuals to increase their consumption. Second, individuals may not have been aware of the true value of their building society assets prior to the conversion.

The Bank’s central projection is that 5%–10% of the £21 billion in building society ‘windfall gains’ expected in 1997 will be spent in the first year, or about 0.35%–0.45% of total consumer spending. Those estimates are close to the annuity value of the payouts. The annuity value depends on the expected lifetime of the consumers receiving the payout and the real interest rate expected over that period. Averaging across different age cohorts and using a real interest rate of 4% implies a real annuity value of some 5%–10% of any windfall gain.

The payouts arising from *demutualisation of insurance companies*, totalling around £2 billion, are likely to have less of an impact on consumption. That is because some of the financial assets will pass to institutions rather than individual policyholders and shareholders in such institutions may not be immediately aware of any change in their financial wealth. The Bank’s central projection is that 2%–5% of the insurance company payouts will be spent during 1997, increasing consumption by 0.01–0.05 percentage points.

Regional electricity companies made a payment of around £50 to all their customers in early 1996. The Bank’s central projection was that around three quarters of these payouts were spent by consumers, adding 0.1–0.2 percentage points to consumption in 1996.

The maturing of TESSA accounts in early 1996 is different from the other special factors. The payout of accrued interest and return of principal should have been fully expected by TESSA holders and so should only have had a small effect on consumption in 1996.

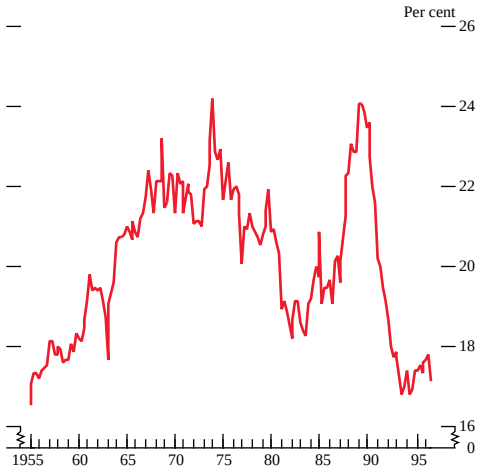
Extent of proposed special payments

Effective date	Event	Estimated size, £ billions
1996 H1	Electricity rebate	1.1
1996 H1	Lloyds merger with TSB	1.0
1996 H2	Abbey National takeover of N&P	1.4
Total 1996		**3.5**
1997 H1	Halifax/Leeds merger and conversion to PLC	10.4–12
1997 H1	Alliance & Leicester conversion to PLC	2.3–2.6
1997 H1	Northern Rock conversion to PLC	1.5
1997 H1	Colonial Mutual shares become tradable	0.3
1997 H2	Bank of Ireland takeover of Bristol and West	0.6
1997 H2	Norwich Union conversion to PLC	1.5–2.0
1997 H2	Woolwich conversion to PLC	3–3.4
Total 1997		**19.6–22.4**

Sources: For the Halifax, Alliance & Leicester and Woolwich building societies, these figures are based on market valuations published in transfer documents. The remaining figures are Press estimates.

(1) 1996/97 Budget, Treasury Committee, Vol II, memorandum submitted by the Bank of England, ‘The impact of special factors on consumption in 1996 and 1997’.
(2) Harris Research Centre (15 November 1995) ‘Consumer Demand and Building Society Pay-outs’, Nikko Europe plc.

Chart 3.7
Fixed investment as a percentage of GDP (at current prices)



output during this recovery: the share of fixed investment in GDP (at current prices) fell to 17.2% in 1996 Q3, from 18.7% in 1992 Q1, the trough in output (see Chart 3.7). That weakness is best explained by examining investment by sector.

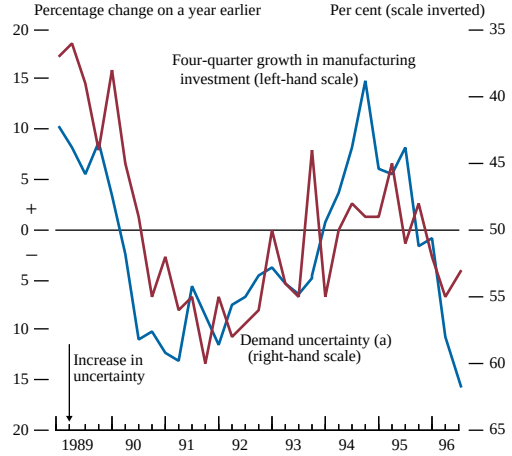
General government investment (14% of total investment in 1995) has fallen at an average annual rate of 1.0% since 1992 Q1. Growth has been limited by both tighter controls on public spending and by the transfer of some investment to the private sector through the Private Financial Initiative (PFI). So far, spending arising from the PFI has been lower than anticipated.

Private dwelling investment (17% of the total in 1995) has increased at an average annual rate of 2.3% since 1992 Q1, compared with an average annual rate of 3.7% over the same phase of the previous cycle. The difference may be explained partly by the extent of negative equity, which inhibited affected households from re-entering the housing market during this recovery. Also, real house prices have remained relatively low during this recovery, acting as a disincentive to build new homes.

Business fixed investment(1) (61% of the total in 1995) has also been slow to pick up during this recovery. It has increased at an average annual rate of 0.6% since the trough in output, compared with growth of 4.6% at the same stage of the previous cycle. That can perhaps be explained by three factors. First, commercial construction has been weak: it has fallen at an average annual rate of 0.8% since 1992 Q1. In part, that reflects the investment boom during the late 1980s, which created an overhang of commercial property—especially in the finance and business service industries. Second, growth in companies' gross trading profits slowed during 1995, which lowered the net rate of return on capital. And undistributed income fell by 7.2% in 1995: firms have typically relied heavily on internal funds to finance investment. Finally, manufacturing investment fell by 16% over the year to 1996 Q3 (reducing annual growth in total fixed investment by 2 percentage points), after having risen at an annual rate of 2.8% between 1992 Q1 and 1995 Q3. That fall took place despite the apparent intentions of manufacturing firms to invest more: according to the CBI Quarterly Industrial Trends

(1) Business fixed investment covers investment by the private sector and public corporations in plant and machinery, new building work and vehicles, ships and aircraft. Public corporations are included to remove the problem of industries shifting from the public to private sector post-privatisation.

Chart 3.8
Manufacturing investment growth and demand expectations



Sources: ONS and CBI *Quarterly Industrial Trends Survey*.

(a) Defined as the proportion of manufacturers reporting that uncertainty about demand over the next twelve months has limited capital expenditure authorisation.

Table 3.C
Housing market activity

Percentage change on previous period

	1995	1996				
	Year	Year	Q1	Q2	Q3	Q4
Private sector starts (a)	-17.9	5.8	-0.6	7.7	12.6	9.6
Turnover (b)	-12.3	8.3	4.9	4.7	6.2	12.3
Loan approvals (c)	-10.5	19.9	5.1	6.5	7.2	2.5

Sources: Bank of England, Department of the Environment and Inland Revenue.

(a) Including housing associations.
(b) Particulars delivered.
(c) Number of loan approvals.

Survey, an average balance of 13% of manufacturers expected to authorise new capital expenditure on plant and machinery during 1995 and 1996, well above the average long-run balance of 3%. Survey evidence suggests that manufacturers postponed planned investment because their uncertainty about prospects for demand increased at during this period (see Chart 3.8).

More recently, business fixed investment has picked up: it increased at an average annual rate of nearly 6% over the first three quarters of 1996. The acceleration is likely to continue in 1997, as conditions to invest still appear favourable. The market valuation of capital continues to exceed its replacement cost, implying that firms could increase shareholder wealth by investing more. Profitability has also recovered, after slowing in 1995: as a share of GDP, corporate gross trading profits had risen to 15.7% in Q3, their highest level during this recovery, and above the long-run average of 14.6%. Investment goods remain relatively cheap: since the beginning of 1990, the fixed investment deflator has fallen by 13% relative to the GDP deflator. And an increasing proportion of firms are operating at full capacity, suggesting the need for higher investment (see Section 3.3). That outlook is supported by evidence from the CBI Surveys of Industrial Trends and Distributive Trades and the BCC Survey, which suggest that investment intentions of both manufacturing and service firms are relatively high.

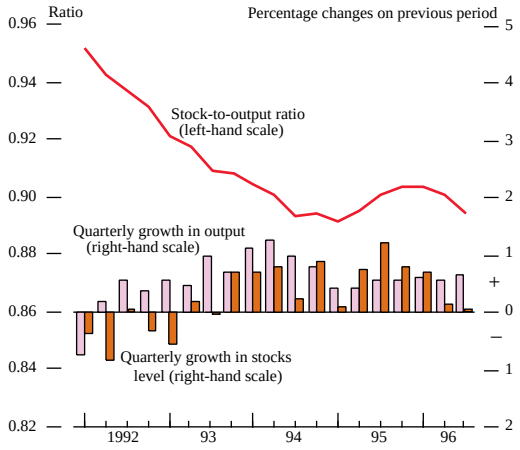
The housing market continues to recover (see Table 3.C). Housing turnover increased by 31% in the year to Q4, following a rise of 13% in the year to Q3. Turnover is likely to continue to accelerate: loan approvals, which tend to lead turnover by around three months, increased strongly in the second half of 1996. As noted in the previous *Report*, increasing turnover usually coincides with increases in private dwelling investment. Over the year to Q3, private dwelling investment increased by 5.3%. The improvement in the housing market may reflect the strengthening of household balance sheets. That, coupled with rising real house prices since the end of 1995, means that the incentive to invest in new dwellings and in improvements is greater.

Stockbuilding(1)

The rate of stock accumulation has slowed since the second half of 1995: in 1990 prices, stocks (excluding

(1) Previous *Reports* have argued that it was best to analyse stocks data excluding the alignment adjustment. See the November 1996 *Inflation Report*, page 22.

Chart 3.9
Output and stocks(a)



(a) Excluding alignment adjustment.

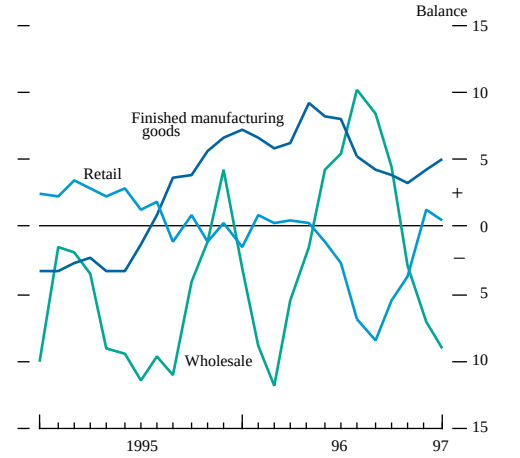
Table 3.D
Changes in stocks, by industry(a)

£ millions

	1995		1996		
	Q3	Q4	Q1	Q2	Q3
Manufacturing	895	562	188	-215	-228
Wholesale	156	29	252	206	-362
Retail	218	208	352	20	-141
Total (excluding alignment adjustment)	1,382	938	779	169	31

(a) 1990 market prices.

Chart 3.10
Firms' desired stock positions: survey data



Note: A zero balance indicates that firms perceive stocks to be adequate relative to expected sales. Balances are three-month moving averages, normalised on long-run averages.

Sources: CBI *Monthly Industrial Trends Survey* and CBI *Distributive Trades Survey*.

Table 3.E
Comparison of successive budget projections

£ millions

	1996 Budget	*Summer Economic Forecast*	1995 Budget
PSBR			
1996/97	26.4	26.9	22.4
1997/98	19.2	23.1	15
1998/99	12	n.a.	5
General government deficit			
1996/97	30.4	29.5	26.1
1997/98	20.3	22.8	17
1998/99	12	n.a.	6

Sources: HM Treasury *Financial Statement* and *Budget Reports* 1995 and 1996 and HM Treasury's *Summer Economic Forecast* 1996.

the alignment adjustment) rose by £31 million in 1996 Q3 compared with a rise of £1,382 million in 1995 Q3. The slowing in stockbuilding over that period lowered GDP growth by 1.1 percentage points. Over the past two quarters, output has increased at a faster rate than stocks, causing the stock-to-output ratio to fall (Chart 3.9). The ratio is now back to the levels seen during the first half of 1995.

Stocks fell across all industries in the third quarter, except in the category 'other industries', which largely consists of agricultural, construction and motor vehicle stocks. In previous *Reports*, it was suggested that involuntary stock accumulation—particularly in the manufacturing sector—would act as a short-term constraint on output growth. Progress had been made in adjusting stocks in the manufacturing sector by the end of Q3 (see Table 3.D and Chart 3.10), and stocks may have fallen further in Q4: according to the Chartered Institute of Purchasing and Supply (CIPS) Survey, the balance of manufacturers reducing stocks in December was at it highest level in four years. In comparison, the CBI Distributive Trades Survey suggests that retail stocks were around desired levels and that wholesale stocks were increasingly inadequate.

Public sector demand

Public final demand rose by 0.8% in Q3, after falling at an average quarterly rate of 0.8% in the first half of the year. The rise reflected a pick-up in both consumption and investment by the general government sector. Since the trough in output (1992 Q1), public final demand has grown at an average annual rate of 0.4%—slower than private final demand, which has increased at an average annual rate of 2.2%. Accordingly, public sector demand has fallen as a share of GDP, to 26.3% in 1996 Q3 from 28.9% in 1992 Q1.

In the 1996 Budget, the Public Sector Borrowing Requirement (PSBR) was projected to be £19.2 billion in 1997/98, some £4 billion lower than expected at the time of the *Summer Economic Forecast* (see Table 3.E). But changes in the PSBR may not be a good indicator of the fiscal stance, since they are in cash terms and do not necessarily measure changes in the demand for real resources. For example, the 1996 Budget treated the sale of the student loan book and the Ministry of Defence's married quarters as negative spending, but those measures will not affect real activity directly. After accounting for such measures, it appears that the

1996 Budget left the fiscal stance in 1997/98 broadly unchanged from that projected in the *Summer Economic Forecast*. Nevertheless, fiscal policy is still planned to tighten over the period to 2001/02, with reductions in the deficit of around 1% of GDP each year, largely to be achieved through tight control of spending.

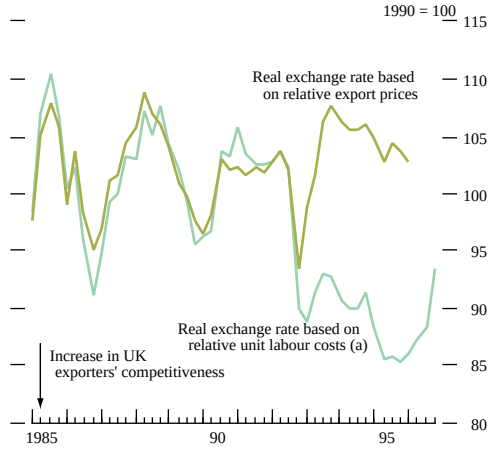
3.2 Net external demand

Net trade is estimated to have fallen slightly in Q3, reducing GDP growth by 0.1 percentage points. That reflected growth of 0.6% in exports and 0.9% in imports. The external current account was £0.4 billion in deficit in Q3, following a surplus of £0.3 billion in Q2. A fall in net investment income from abroad in Q3 was offset partly by lower transfers to EU institutions. The deficit on trade in goods and services in Q3 was largely unchanged from the previous quarter.

The nominal effective exchange rate appreciated by 16% between 2 August and 7 February. The impact of sterling's appreciation on trade and output volumes will, over the medium term, depend on the source of the exchange rate change. But as long as the appreciation of sterling does not solely reflect a permanent improvement in the terms of trade or higher inflation overseas, it is likely to worsen the trade balance and reduce real demand for UK output over the short term. That is consistent with recent survey data. The net balance of manufacturers reporting improved export orders has fallen since mid-1996, according to the CBI Quarterly Industrial Trends Survey and the CIPS Survey. But both surveys report that there was some improvement in sentiment in January. Sterling's appreciation may have begun to affect export volumes in November: excluding oil and erratics, export volumes fell by 2.4%. And in December, export volumes to non-EU countries (excluding oil and erratics) fell by 9%, although monthly export data are volatile. Prospects for the service sector appear more robust. According to the BCC Survey, the balance of service sector firms reporting higher growth in export deliveries and orders continued to increase in Q4: a balance of 31% of service sector firms reported growth in export deliveries, up from 25% in Q2 (that is, before the appreciation began).

The ability of UK exporters to reduce margins and the improved prospects for world demand in 1997 may help lessen the impact of sterling's appreciation on real activity. Export profitability appears to be relatively high. UK exporters used the depreciations of 1992 and

Chart 3.11
Measures of the real exchange rate



Source: International Monetary Fund *International Financial Statistics.*

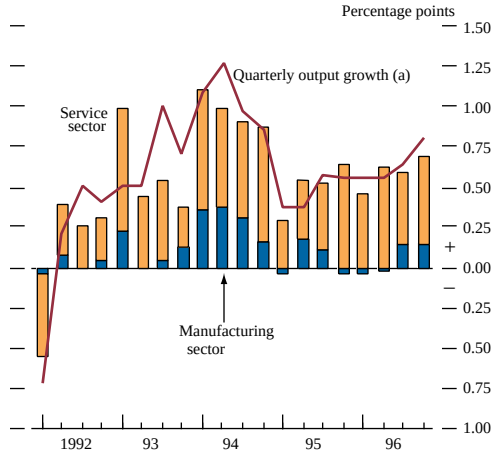
(a) Figure for 1996 Q4 is the average of the first two months of the quarter.

1995 to raise margins: over this period, exporters' cost competitiveness improved significantly while the foreign currency price of UK exports rose relative to world export prices, so that the real exchange rate based on labour costs fell relative to the estimate based on export prices (see Chart 3.11). Hence exporters may be able to absorb some of the appreciation by reducing export prices in sterling terms (therefore lowering margins), at least in the short run. There is some evidence to suggest that this has occurred: export prices of goods (excluding oil and erratics) fell by 2.4% between August and November. And, according to the CBI Quarterly Industrial Trends Survey in January, a relatively high proportion of manufacturers have lowered export prices since mid-1996.

During the first half of 1996, UK exports won an increasing share of world trade, despite relatively subdued growth in some of the United Kingdom's major trading partners. Even if the increase in UK market share does not continue during 1997, export demand should benefit from higher demand growth overseas. The OECD and IMF forecast that domestic demand in industrial countries will increase by between 2¼% and 2½% in 1997. That is consistent with the pick-up of the growth in real broad money overseas: during the first three quarters of 1996, real broad money in the G10 (excluding the United Kingdom) increased at an average annualised rate of 1.6%, after falling by 0.1% in 1995. Changes in the pace of real broad money growth often precede changes in real domestic demand growth. Growth in the United Kingdom's major European trading partners during 1997 is expected gradually to shift from net trade and become more broadly based, narrowing the difference between relative domestic demand growth in the United Kingdom and in Europe. On the downside, there still remains a risk from more restrictive fiscal policy during 1997 as EU countries attempt to meet the Maastricht convergence criteria. Beyond 1997, the OECD expects growth among member countries to converge, and growth in the developing and transitional economies to be relatively strong.

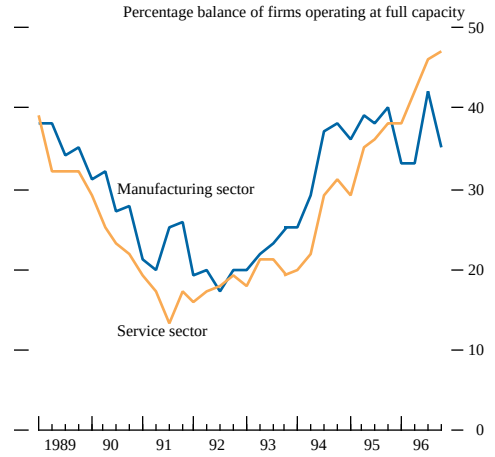
The appreciation of sterling is likely to increase import demand, at least in the short run, if the lower prices of imported goods and services are passed on to producers and consumers. That is because lower import prices will lower relative prices and increase real incomes. Non-oil import prices fell by 3.6% between August and November. But there is little evidence that import demand has picked up as a result. Import volumes rose

Chart 3.12
Contributions to quarterly output growth by industry sector



(a) Includes contributions to growth from the construction, utilities and agricultural industries, not shown here.

Chart 3.13
Proportion of firms at full capacity



Source: British Chambers of Commerce.

Table 3.F
Output growth by industry

Percentage changes on previous period

	Percentage share of output in 1990	1995 Year	1996 Q1	Q2	Q3	Q4	Long-run growth rates (a)
Agriculture	1.9	0.0	6.3	-6.9	6.7	n.a.	0.5
Industrial production	27.8	2.6	0.1	0.3	0.3	0.9	0.3
of which:							
Manufacturing	*23.2*	*2.2*	*-0.2*	*-0.1*	*0.6*	*0.6*	*0.4*
Construction	7.2	-1.0	0.0	0.1	0.4	n.a.	0.4
Services	63.1	3.0	0.7	1.0	0.7	0.9	0.6

(a) Average quarterly growth rate since 1955.

at an annualised rate of 9.8% in the three months to November, similar to growth during the first half of 1996.

3.3 Output

Real GDP grew above its long-run average in the fourth quarter, increasing by 0.8%. Much of the growth has been based in the service sector, which accounts for around two thirds of GDP (see Chart 3.12). Service sector output rose by 0.9% in Q4, and has been growing at an average quarterly rate of 0.8% during this recovery, above its long-run average quarterly growth rate of around 0.6%. Manufacturing output—which accounts for just over 20% of GDP—increased by 0.6% in Q4. It has been growing at an average quarterly rate of 0.5% during this recovery, slightly above its long-run average.

The evidence in Section 3.2 suggests that growth in domestic demand will be relatively robust during 1997. Typically, firms respond to an increase in demand by raising either output or prices, or both. Their decisions will be influenced by the degree of spare capacity available. The BCC Survey asks firms whether they are operating at full capacity (Chart 3.13). The proportion of service sector firms at full capacity has risen strongly over this recovery, to 47% in Q4, the highest since the survey began in 1989. The proportion of manufacturers at full capacity has changed little since mid-1994, reflecting the slowing in demand for manufactures over 1995. Nevertheless, it remains high, at 35% in Q4. The CBI Quarterly Industrial Trends Survey also reports that the proportion of manufacturers operating at full capacity in January was above the long-run average.

There has been a pick-up in construction activity over the past year. Construction output rose by 1.1% over the year to Q3, after falling by 2.7% between 1994 Q4 and 1995 Q3. Much of the growth in output reflects increased construction of private dwellings: private housing starts were 25% higher in Q4 than a year earlier.

Output growth in most sectors was above their long-run averages in the second half of 1996 (see Table 3.F). Unless there has been a structural improvement in productivity growth, the output gap will have narrowed further. That is consistent with the tightening of the labour market during 1996, as discussed in Section 4.

3.4 Summary

It is likely that final domestic demand will grow well above trend in the next year or so, reflecting robust growth in consumption and a pick-up in investment expenditure. There is a risk that consumption will be stronger than expected, if a higher-than-anticipated proportion of the windfall gains is spent. And investment spending may return to growth rates more typical of periods of above-average output growth. On the downside, it is possible that the relative weakness in investment expenditure will continue.

Demand is likely to continue to shift from the external to the domestic sector over 1997. The appreciation of sterling is likely to reduce net external demand. That will be offset to the extent that exporters reduce margins. Import growth is expected to continue to outpace domestic demand growth.

Growth in the service sector is expected to remain strong, but prospects for the manufacturing sector have been weakened by the exchange rate appreciation.

4 The labour market

The labour market has continued to tighten. The rise in employment in autumn 1996 was the largest since the current recovery began and, according to the Labour Force Survey, was entirely accounted for by full-time jobs. Claimant unemployment fell more rapidly in the fourth quarter of 1996 and the number of hours worked increased.

Although underlying nominal earnings growth per worker was stable at 4% in the year to November, as in the previous four months, nominal earnings growth rose over 1996 as a whole. Earnings growth in the service sector has been catching up with manufacturing since around the middle of 1995, despite subdued public service sector earnings growth.

4.1 Demand for labour

Employment rose by 200,000 in 1996 Q3, the largest quarterly increase since 1989 Q1, according to the Workforce in Employment (WIE) data (see Table 4.A). The Labour Force Survey (LFS) also showed an increase in employment of 130,000 in the autumn, following a rise of 70,000 in the summer. The rise in autumn was entirely in full-time employment, according to the LFS; part-time employment fell slightly.

As Table 4.B shows, the British Chambers of Commerce (BCC) Quarterly Survey reported that demand for labour increased more slowly in the fourth quarter than in the previous quarter, in both manufacturing and the service sector. The latest Manpower Survey of employment prospects showed a balance of 6% intending to take on staff in 1997 Q1, compared with 17% in the final quarter of 1996. The Confederation of British Industry (CBI) Quarterly Industrial Trends Survey reported that manufacturers continued to shed jobs in 1996 Q4.

There has been an increase in part-time employment and flexible working over the current recovery, so the number of hours worked is a better measure of labour demand than the number of employed workers. Hours worked rose by 0.6% in autumn 1996, according to the LFS; they have risen by 4.5% since the recovery began in 1992.

Table 4.A
Changes in the demand for labour

Thousands

	1996 Q1	Q2	Q3	Q4
Unemployment				
Claimant count (a)	-39	-52	-114	
LFS (b) unemployment	11	-50	-32	
Employment				
WIE measure	-62	12	200	
LFS (b) measure	-34	70	130	
ONS manufacturing	-12	-31	14	
Hours worked per week (c)				
New ONS measure	-1.0	0.5	0.8	
LFS (b) measure	0.1	0.8	0.6	
Vacancies	7	24	35	14

(a) Quarters defined as for the Labour Force Survey.
(b) The Labour Force Survey is conducted in Great Britain on a seasonal basis. For example, Q3 data cover the autumn period, defined as September, October and November.
(c) Percentage changes.

Table 4.B
Job surveys

Percentage balance of employers planning to recruit staff

		1996 Q1	Q2	Q3	Q4	1997 Q1
BCC (a)	Services	17	18	22	16	
	Manufacturing	13	11	19	6	
CBI (b)	Manufacturing	-10	-17	-13	-12	
Manpower (a)	Total	3	9	15	17	6

Sources: British Chambers of Commerce, CBI and Manpower.

(a) Next three months.
(b) Next four months.

Glossary of labour market terms

Labour Force Survey employment
Estimated from the Labour Force Survey (a quarterly survey of households), comprising employees, self-employed, participants in government employment and training programmes and unpaid family workers, all from the same source.

Workforce in Employment
Comprises employees in employment (estimated from employer-based surveys); the self-employed (estimated mainly from the Labour Force Survey); HM Forces (Ministry of Defence data); and participants in work-related government training programmes.

Jobseeker's Allowance
A single benefit which replaced contributory Unemployment Benefit and unemployment-related Income Support on 7 October 1996. The JSA reduces the period of eligibility for contribution-based benefit to six months from twelve months under the previous benefit system.

Claimant unemployed
People in receipt of benefit, ie Jobseeker's Allowance (contributory-based or means-tested) or National Insurance credits, at Unemployment Benefit Offices on the day of the monthly count, who say on that day they are unemployed and that they satisfy the conditions for claiming benefit. (Students claiming benefit during a vacation and who intend to return to full-time education are excluded.)

LFS unemployed
People who have responded to Labour Force Survey questions that they do not have a paid job in the reference week, who were available to start work in the next fortnight and who either looked for work at some time in the past four weeks or who were waiting to start a job already obtained.

Economically active
People aged 16 and over who are in employment (as employees, self-employed, on government-supported employment and training programmes or, from 1992, as unpaid family workers), together with those who are LFS unemployed.

Economically inactive
People aged 16 and over who are neither in employment nor LFS unemployed. That group includes people who are, for example, retired or looking after their home or family.

Discouraged workers
A sub-group of the economically inactive population, defined as those neither in employment nor unemployed (on the LFS measure) who say they would like a job and whose main reason for not seeking work was because they believed there were no jobs available.

Vacancy
A job opportunity notified by an employer to a Jobcentre or Careers Office (including 'self-employed' opportunities created by employers) which remained unfilled on the day of the count.

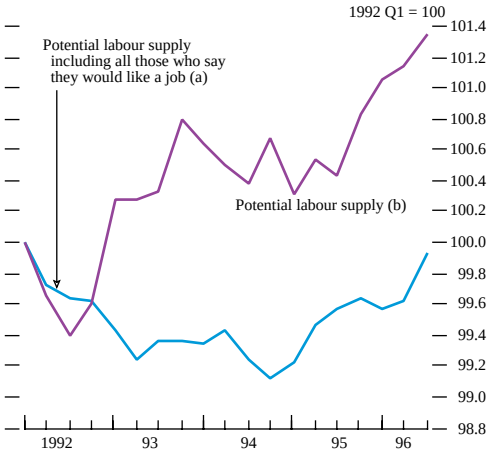
Tax and price index
Measures the increase in gross taxable income needed to compensate taxpayers for any increase in retail prices, taking account of changes to direct taxes (including employees' National Insurance contributions).

4.2 Supply of labour

It is difficult to identify how much labour is on offer at any given wage. Responses to surveys, such as the LFS, give some indication of labour supply at prevailing wage and unemployment rates. The supply of labour includes not only the employed and the unemployed seeking work, but also part-time workers who would prefer to work longer hours. As with labour demand, therefore, the total potential supply of *hours* is more relevant than the number of workers available. In Chart 4.1, actual hours supplied are added to estimates of the additional hours part-timers would like to work and the hours which those who are actively seeking work would be willing to work, to derive an estimate of the potential supply of hours.(1) According to that measure, the number of hours on offer dipped in the first quarter of 1996, before rising again in the second and third quarters.

A broader definition of the potential supply of hours is also shown in Chart 4.1. It includes people who are not actively seeking work but who would like a job. The LFS provides estimates of the number who fall into that category, including some of those in full-time education, those who are not available to start work immediately and others who are discouraged by the state of the labour market. It may therefore be a more appropriate measure of labour supply in the medium or long term, when supply is likely to be more elastic: for example, young people may decide to work rather than continue in education and others may delay retirement to stay in the workforce. That broader measure was fairly stable between 1993 and 1995, but has risen consistently since then, and at a faster rate than the narrower measure.

Chart 4.1
Potential supply of hours



Source: LFS and Bank of England.

(a) Estimated potential hours on offer, also including hours of people who would like to work but have not looked for a job in the past four weeks or are not available to start in the next two weeks.
(b) Estimated potential hours on offer, defined as hours worked plus additional hours part-timers would like to work and the hours those who are actively seeking work would be willing to work.

4.3 Measures of labour market tightness

An indication of labour market tightness is given by the excess of labour supply over labour demand at prevailing wage rates. But its measurement is complicated by several factors. First, estimates of labour supply derived from surveys or administrative counts may not reflect respondents' real willingness to work at current wage rates. Second, labour supply may differ in the long run from the short run. Third, estimates of labour demand ought in principle to take account of vacancies, but the

(1) It is reasonable to assume that part-timers who say they want to work longer hours are willing to work at prevailing pay rates. That is less clear for the unemployed, particularly those who are not actively seeking work.

data about the latter are unreliable. Fourth, it is difficult to estimate the long-run equilibrium—or natural—rate of unemployment. If the natural rate did not change, a reduction in measured excess supply would indicate increased wage pressures. But, measured excess supply could fall without increasing wage pressures if the natural rate itself were to fall.

There are several indicators of labour market tightness, including unemployment (of which there are two main measures, claimant and the LFS), skill shortages and the stock of vacancies at Jobcentres. Those indicators have shown greater tightness since the November *Report*.

Claimant unemployment fell by an average of 62,000 a month in the three months to December, compared with an average monthly fall over the past year of 29,000. That included a fall of 95,400 in November, the largest monthly decline in claimant unemployment on record. The introduction of the Jobseeker's Allowance (JSA) in October explained some of the recent fall. The JSA introduced means testing at six rather than twelve months and reduced the number of postal claimants. According to the ONS, the immediate effect of those changes was to remove around 35,000 people from the claimant count over a six-month period. In the longer term, more people may be removed from the count if the new system improves their incentive to look for work. There were also short-term delays in registering claims during the conversion to a new computer system. At the same time, however, inflows of ex-incapacity benefit claimants added to the unemployment claimant count. As Table 4.C shows, the known effects of benefit changes do not account for the whole of the decline in the jobless total over the last three months of 1996.

Table 4.C
Estimated effects of benefit changes on claimant count

	October	November	December
Change in claimant count (thousands)	-45.6	-95.4	-45.1
of which:			
Procedural problems (a)	-8.5	-6.5	8
Administrative JSA effects			
of which:			
Increased means testing	0	-5	-2
Reduced postal claims	**?**	**?**	**?**
Extra week (b)	0	-5	0
Ex-incapacity benefits	5.8	7.8	6.2
'Incentive' JSA effects	**?**	**?**	**?**
Change in claimant count not explained by benefit changes	42.9-?	86.7-?	57.3-?

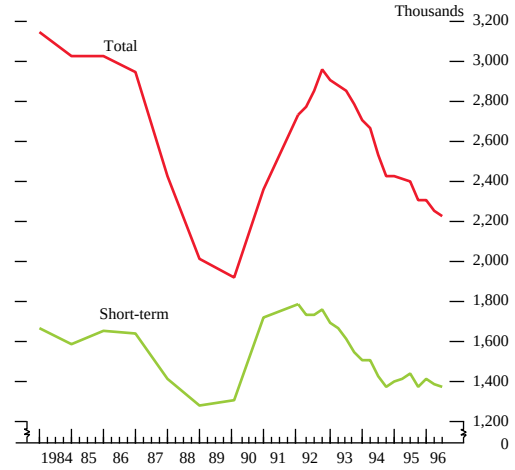
? = effect unknown.

Source: ONS Press Releases.

(a) The new computer system resulted in a backlog in the processing of claims. That began to unwind in December, with 8,000 of the previous month's overhang flowing back onto the count.
(b) November was a five-week month.

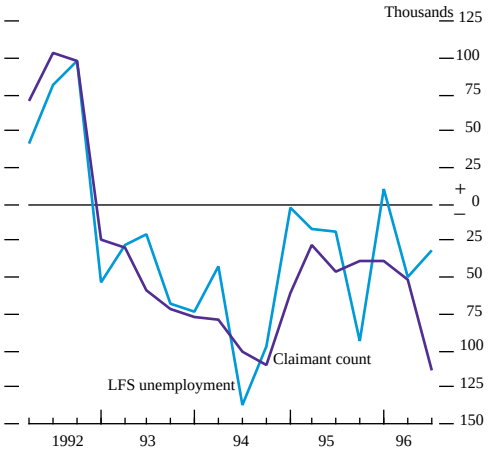
The LFS provides an alternative measure of unemployment, based on an international standardised definition. The LFS measures unemployment by asking individuals directly whether they have been looking for a job in the past four weeks and are able to start in the next two weeks. It is unaffected by administrative changes, at least in the short run. But it is less timely than the administrative claimant count measure, is published only quarterly and, because it is based on a survey, is subject to sampling error. In the longer term, if changes such as the introduction of the JSA increase the effectiveness with which the unemployed search for work, they would affect the LFS measure of unemployment ('incentive' JSA effects in Table 4.C).

Chart 4.2
Short-term and total LFS unemployment



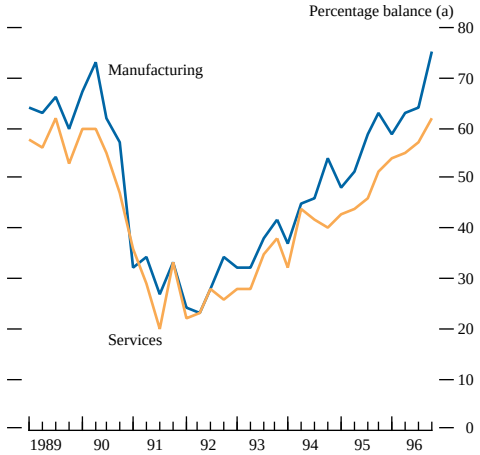
Sources: LFS and Bank of England.

Chart 4.3
Change in LFS and claimant count unemployment(a)



(a) Quarterly claimant unemployment constructed to align with Labour Force Survey periods, ie Q1 = December, January, February.

Chart 4.4
British Chambers of Commerce recruitment difficulties



Source: British Chambers of Commerce.

(a) Percentage of respondents answering 'yes' when asked whether they have experienced recruitment difficulties.

Short-term unemployment—people unemployed for less than a year—may be a better indicator of labour market conditions than total unemployment, which includes the long-term unemployed. The long-term unemployed, with declining or outdated skills, may be less attractive to employers, and their influence on wages may be relatively small. As Chart 4.2 shows, short-term LFS unemployment was around 1.4 million in autumn 1996, around 99,000 above its trough in spring 1989.(1) That is a significant decline from its peak of 1.8 million in spring 1992; but short-term unemployment has been fairly stable since autumn 1994. So the recent decline in total unemployment has been among the long-term unemployed.

LFS unemployment fell by 32,000 in autumn 1996, compared with a fall in the claimant count of 114,000 over the same period.(2) As Chart 4.3 shows, the difference between the two measures of unemployment in autumn 1996 was a relatively large one. That is consistent with a JSA effect on the claimant count, with former claimants being ineligible for unemployment-related benefits under the new system, but describing themselves as searching for work and therefore counted as unemployed under the LFS definition. It implies that the labour market did not tighten as quickly in autumn 1996 as the fall in the administrative claimant count indicates. The difference between the fall in LFS unemployment and claimant unemployment is also consistent with previously inactive people searching for work, in response to the pick-up in the labour market, without claiming benefits.(3) The number of economically inactive people fell by 59,000 in autumn 1996, according to the LFS. That was the biggest fall in economic inactivity since the current recovery began in 1992.

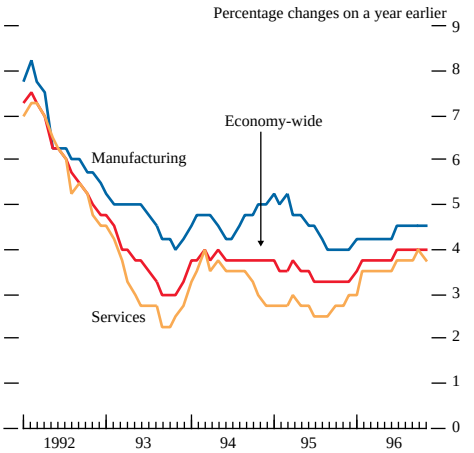
Problems in recruiting workers have intensified in recent years in both the service and manufacturing sectors, as Chart 4.4 shows. The balance of respondents to the British Chambers of Commerce (BCC) Survey reporting recruitment difficulties in manufacturing rose from 24% in 1992 Q1 to 75% in 1996 Q4, while the services balance rose from 22% in 1992 Q1 to 62% in 1996 Q4. The latest CBI Quarterly Industrial Trends Survey

(1) Seasonally adjusted short-term unemployment is calculated by taking long-term unemployment, assumed to be non-seasonal, from seasonally adjusted total LFS unemployment.
(2) The administrative claimant count is calculated on the basis of the numbers unemployed on the day the count is made each month; that is converted to an LFS-equivalent measure by taking a three-month average for the period September to November.
(3) Either because they are not eligible, or because they believe they will find a job quickly.

suggests that skill shortages are less severe in the manufacturing sector: a balance of 10% of manufacturers reported shortages of skilled labour in 1996 Q1, compared with a balance of 4% in 1992 Q1.

The number of vacancies advertised at Jobcentres rose by an average of 4,600 a month in the three months to December, compared with an average fall of 1,600 in the same three months the previous year. So the vacancies data are consistent with labour market tightening. But vacancies numbers have been increasing for some time. Only a relatively small (and fluctuating) number of total vacancies are advertised at Jobcentres. And the estimate has been inflated since the beginning of 1996 by the introduction into Jobcentres of the Labour Market Software system, designed to deal with the Jobseeker's Allowance. That depressed the number of people placed in jobs during 1996 and left the stock of vacancies relatively high. The ONS believe the effect has begun to reverse and the number of job placings is returning to normal levels. Recorded vacancies fell in December by 1,200, and may fall further over the next few months, irrespective of labour market developments.

Chart 4.5
'Underlying' earnings growth(a)(b)



(a) Underlying earnings growth for Great Britain makes allowances for temporary influences such as arrears, variations in the timing of settlements, industrial disputes and the influence of public holidays in relation to the survey period.
(b) For full-time employees.

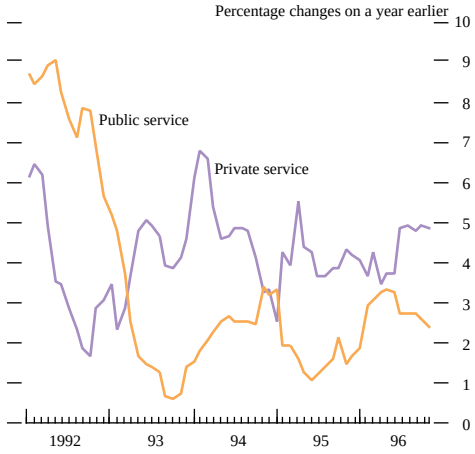
4.4 Nominal earnings

There was some increase in earnings growth during 1996, but no sign of an acceleration of earnings in the autumn, despite labour market tightening in the second half of 1996. As Chart 4.5 shows, the underlying annual increase in nominal earnings was 4% in November, unchanged from the previous four months but an increase from 3½% at the beginning of the year.

Underlying manufacturing sector earnings growth was 4½% in the year to November, unchanged from the previous four months but slightly up from 4¼% in January. Service sector earnings growth was 3¾% in the year to November, down slightly from 4% in October but up from 3% at the beginning of the year. Service sector earnings growth has been catching up with manufacturing since around the middle of 1995.

Proxies for private and public service sector earnings can be constructed by weighting together public administration and education, health and social work to create the public service sector series from total services. The proxy is not ideal because it makes no allowance for private health and education, but those are not large sectors. Underlying earnings growth in private services has been higher than in services as a whole for much of

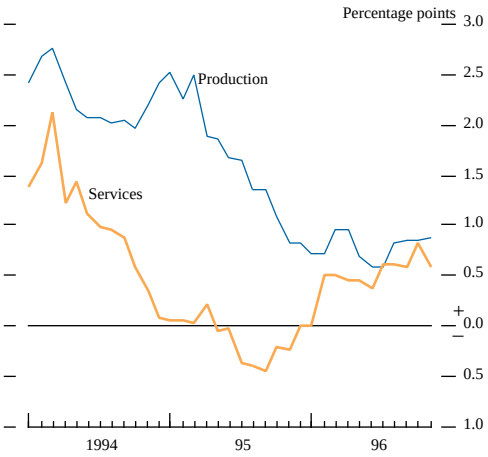
Chart 4.6
Underlying average public and private service sector earnings growth(a)



Sources: ONS, New Earnings Survey and Bank of England.

(a) Per full-time employee.

Chart 4.7
Wage drift(a)



Source: Bank measure based on data from the CBI, Industrial Relations Services and Incomes Data Services.

(a) Annual growth in average underlying average earnings less the twelve-month mean settlement.

the period since 1993 because, as Chart 4.6 shows, public service sector earnings growth has been subdued.

Two factors influence earnings growth: wage settlements and wage drift. Wage settlements have fallen slightly since the November *Report*, but were higher than at the beginning of 1996. The Bank's three-month employment-weighted mean settlement—which includes data from the CBI, Industrial Relations Services and Incomes Data Services—was 3.5% in December, down from 3.6% in September but up from 3.1% at the beginning of 1996. Settlements were higher on average in the private sector than in the public sector, at 3.6% and 3.4% respectively.

Wage drift—the difference between earnings growth and pay settlements—is usually positive. Earnings increase more quickly than pay settlements because elements of pay such as overtime, bonuses and grading increments rise faster. As Chart 4.7 shows, wage drift in services was negative for most of 1995, in part reflecting lower bonuses in the financial sector. But service sector wage drift became positive again in 1996: stronger financial market performance the previous year led to larger bonuses. And the performance of financial markets in 1996 suggests that bonuses—and wage drift—may also be relatively large in 1997.

The August *Report* suggested that one factor pushing up bonus payments—and wage drift—over the longer term might have been the rapid increase in profit-related pay (PRP) over the past few years. In his November 1996 Budget, the Chancellor announced the phasing out of tax relief on PRP schemes registered with the Inland Revenue, with relief to be withdrawn completely by 1 January 2000. That could reduce the impact of wage drift on earnings in future, and increase the significance of settlements.

Although aggregate earnings growth per worker has not risen in recent months, it is still close to the level consistent with the inflation target. If productivity growth (per person in work, not per hour) were to continue at its average of the past 40 years—just over 2% per year—nominal earnings growth of over 4½% would be unlikely to be consistent with the inflation target.

The outlook for nominal earnings growth can be assessed by considering the outlook for the determinants of real earnings growth.

4.5 Real earnings

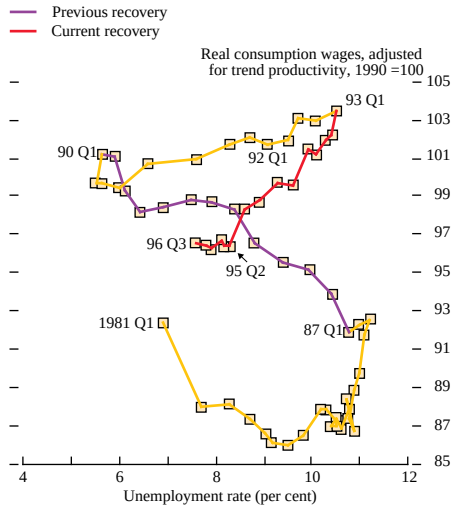
There are four main determinants of real earnings growth. First, if the labour market were in equilibrium, real earnings would be expected to grow in line with productivity. Second, the extent of slack—degree of disequilibrium—in the labour market will influence real earnings growth relative to productivity. Employees are more likely to push for large pay increases if the prospects for alternative employment improve; for a given natural rate of unemployment, a reduction in measured excess labour supply will push up real wages. Third, the natural rate itself can change. For example, the natural rate is affected by unemployment benefit levels relative to earnings (replacement ratios); a fall in replacement ratios will reduce the natural rate of unemployment, putting downward pressure on real earnings growth. Fourth, there are factors such as direct and indirect taxes and the terms of trade which affect the real consumption wage but not necessarily labour costs.

The trend in labour productivity explains the long-run trend increase in real earnings. Chart 4.8 plots real consumption wages per worker, adjusted for productivity,(1) against unemployment. The real consumption wage is a measure of employees' take-home pay: it excludes employers' social security contributions and is deflated by the tax and price index. The real consumption wage rose in the recovery in the 1980s, by around 15% between 1985 and 1990, while unemployment fell (with the line in Chart 4.8 running broadly from south-east to north-west). In the current recovery, however, while the unemployment rate fell from around 10% at the beginning of 1993 to just under 8% three years later, the real consumption wage per worker fell by around 8%, before stabilising in the middle of 1995 (with the line in Chart 4.8 running broadly from north-east to south-west).

The real product wage is the relevant measure of earnings for employers. It compares the cost of labour to employers with the price paid for their products; that is why the aggregate product wage includes employers' social security contributions and is deflated by the GDP deflator, an index of economy-wide prices. Chart 4.9 shows that the aggregate real product wage per worker, adjusted for trend productivity, has also fallen in the current recovery (with the line in Chart 4.9 running from north-east to south-west), after rising in the previous recovery (with the line in Chart 4.9 running

(1) As estimated by the Hodrick-Prescott filter, a statistical procedure.

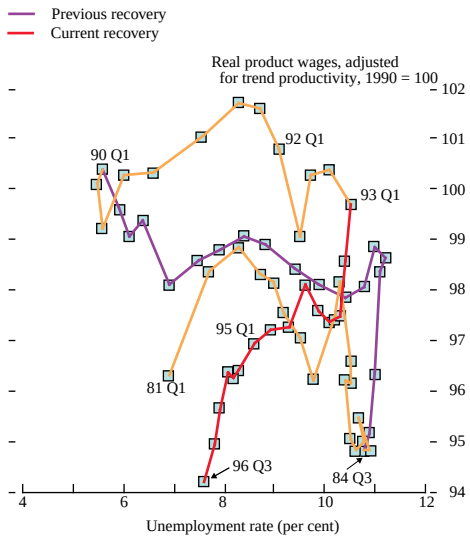
Chart 4.8
Real consumption wages (adjusted for trend productivity)(a) and unemployment



Source: ONS and Bank of England.

(a) Real consumption wages adjusted for trend productivity; trend productivity estimated using Hodrick-Prescott filter.

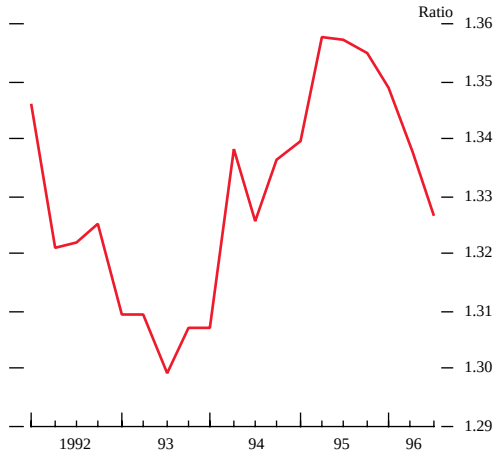
Chart 4.9
Real product wages (adjusted for trend productivity)(a) and unemployment



Source: ONS and Bank of England.

(a) Real product wages adjusted for trend productivity; trend productivity estimated using Hodrick-Prescott filter.

Chart 4.10
The ratio of the real product wage to the real consumption wage per worker(a)



Sources: ONS and Bank of England.

(a) The real product wage is defined as income from employment plus employers' contributions divided by the GDP deflator at factor cost. That is then divided by UK employees in employment plus HM forces. The real consumption wage is defined as income from employment deflated by the tax and prices index. This is then divided by total employees in employment.

from south-east to north-west). Unlike the real consumption wage, however, it continued to fall in 1995 and 1996.

Chart 4.10 shows that the real product wage has been falling relative to the real consumption wage since 1995 Q3, after rising from the end of 1993. The recent fall would have tended to increase labour demand for a given real consumption wage.

The main reason for the rise in the ratio from the end of 1993 was the increase in taxes. The more recent fall in the ratio reflects a fall in the impact of direct taxes. But the real consumption wage still has not increased relative to trend productivity despite the reduction in the excess supply of labour and the favourable impact of taxes. That may in part have been because the attractiveness of work relative to unemployment has increased.

One explanation of that might be a fall in replacement ratios. According to the Department for Social Security, the proportion of the working population whose replacement ratio was above 0.7 fell from around 15% in 1985 to less than 5% in 1996. By reducing the income available outside the labour market, a fall in replacement ratios is likely to increase the number of people prepared to work at a given real wage.

Nominal earnings depend on the inflation rates expected by employers and employees, as well as the real earnings bargained over by them. Inflation expectations are not easily measured, although surveys provide some information. The latest Barclays Basix Survey found that the inflation expectations of the general public rose slightly over the second half of 1996, both at the one and two-year horizons. If employees adapt their expectations in response to new information on past inflation, then the tax and price index may also provide an indication of inflation expectations. Inflation measured by the tax and price index was slightly higher in the year to 1996 Q4 than in the year to 1996 Q3, at 1.2% and 0.7% respectively.

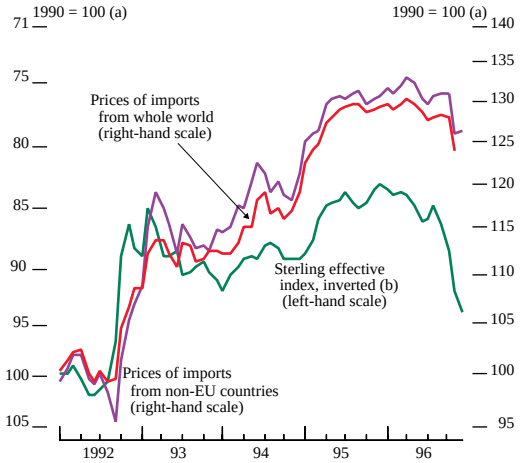
4.6 Summary

Although recent benefit changes affected the unemployment claimant count, all the indicators suggest that the labour market tightened further over the past few months. There were no signs of further acceleration in earnings beyond their level in mid-1996. And aggregate

earnings growth is already close to the maximum likely to be consistent with the current inflation target.

5 Pricing behaviour

Chart 5.1
Import prices and the exchange rate

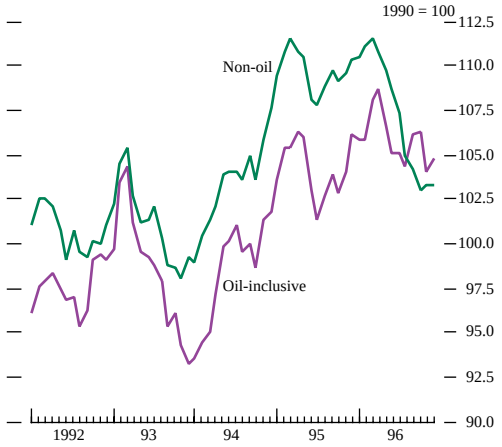


Note: The ERI is measured against 20 other industrialised countries. The import price index for the whole world covers imports from all countries.

Sources: ONS and the Bank of England.

(a) Both scales are logarithmic.
(b) Monthly average of daily rates. A rise in the line reflects a depreciation.

Chart 5.2
Bank sterling commodity price index(a)



Source: Bank of England.

(a) Monthly average of prices of primary commodities, weighted by their importance in UK demand.

Import and input price inflation rates have fallen, partly because of the continued rise in the effective exchange rate (16% between 2 August and 7 February). But other costs, such as labour, which account for nearly two thirds of value added in the economy, have accelerated.

5.1 Import prices and the exchange rate

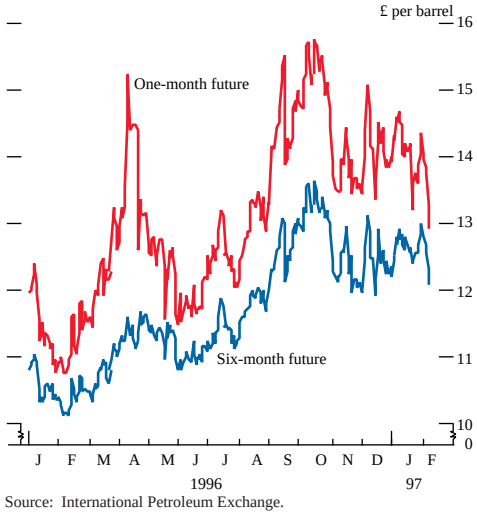
Non-oil import prices fell by 1.3% in the third quarter and were 2.0% lower than a year earlier (Chart 5.1). The decline continued into Q4: the prices of non-oil imports fell by 2.9% in November. The sterling effective exchange rate has continued to appreciate since the November *Report*, rising from 90.9 on 1 November to 97.2 on 7 February. The pass-through of exchange rate changes to import prices is rapid, so import prices are likely to have fallen further since November.

5.2 Raw material and commodity prices

The Bank's demand-weighted sterling commodity price index rose by 0.6% in December to 1.3% below the level of a year earlier (Chart 5.2). December's rise was due to the oil price: the monthly average of the one-month future sterling oil price during the month was 3.3% higher than in November (Chart 5.3). The Bank's non-oil index was unchanged in December, having fallen or remained constant in seven out of the previous eight months; it was 6.4% below the level of a year earlier.

In the fourth quarter as a whole, the rise in dollar oil prices was offset by the strength of sterling. Between 1 October and 31 December, the one-month future dollar oil price rose by 3.2%, but the pound appreciated against the dollar by 9.5%, so that the sterling oil price fell by 5.7%. In January the dollar oil price fell by 7.0%, but sterling fell back against the dollar such that the sterling oil price fell by only 1.9%. Dollar oil prices are not expected to fall much further in the short term because world stocks are low. But in the longer term, sales of oil by Iraq, following the partial lifting of the UN embargo on Iraqi oil at the end of November, should help to prevent further sharp price increases. The spread between one-month and six-month future oil prices fell in January from its high level in late 1996. That implies

Chart 5.3
Price of Brent crude(a)



Source: International Petroleum Exchange.

(a) Daily prices.

that expectations of future oil price falls over the next six months were smaller in January than the equivalent expectations in late 1996.

There was a 5.4% revaluation of the 'green' exchange rate on 21 January, the largest ever revaluation of the 'green' pound. That will reduce the sterling support prices for agricultural products. But, partly because the range of products covered by support prices is limited, that is not expected significantly to affect retail prices.

5.3 Pricing by service industries

Although the service sector produces about two thirds of total output, data on costs and pricing within it are sparse. The ONS is developing a new index of producer prices for services, covering the prices of services sold by firms to other firms and to the public sector. But so far data for only a limited number of services have been released, and those appear too volatile to draw firm conclusions about the wholesale prices of services.

But other data suggest that cost pressures have been increasing in the service sector. Service sector earnings growth has been rising towards that in the goods-producing sector, with private service sector earnings growing particularly quickly (see Section 4). Data for service sector unit wage costs are not available directly. But manufacturers' unit wage costs rose by 4.7% in the year to Q3, while those in the whole economy rose by only 1.7%, implying that unit wage costs in the services sector were subdued. If service sector employment continues to rise, unit wage costs in the service sector will probably also increase. Evidence from the British Chambers of Commerce (see Section 3) suggests that capacity pressures in the service sector are probably greater now than those in the manufacturing sector. And evidence from the Bank's Agents confirms that continued above-trend service sector growth—particularly in travel, hotels and financial services—is putting upward pressure on costs and prices.

5.4 Pricing by production industries

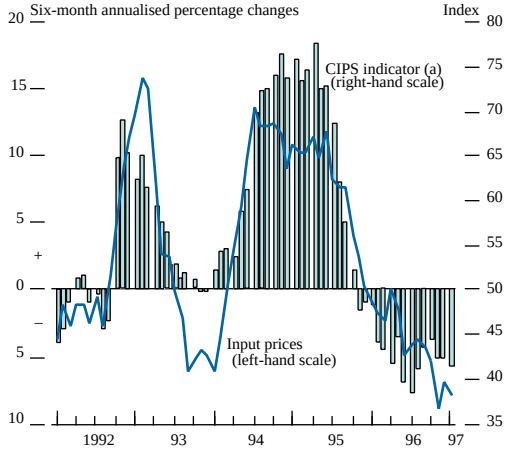
Manufacturers' input prices have continued to decline since the November *Report* (Table 5.A). The prices of imported goods used as inputs fell in the twelve months to January as, to a lesser extent, did most domestic input prices. The short-term relationship between movements in the exchange rate and the prices of imported inputs is hard to determine because the latter are volatile. But it

Table 5.A
Short-run measures of producer price inflation

	1996 Oct.	Nov.	Dec.	1997 Jan.
Three-month annualised percentage changes (a)				
Input prices	0.0	-11.2	-12.5	-15.0
- excluding FDTP (b)	1.1	-7.9	-10.4	-13.7
Output prices (c)	3.3	3.0	3.3	1.6
- excluding FDTP (b)	0.7	1.3	1.3	0.7
- excluding excise duties (PPIY)	3.0	2.3	0.7	-0.7
Twelve-month percentage changes				
Input prices	-2.3	-5.3	-6.1	-6.3
- excluding FDTP (b)	-5.2	-7.1	-8.1	-7.8
Output prices	2.3	2.1	1.7	1.5
- excluding FDTP (b)	0.9	0.8	0.8	0.6
- excluding excise duties (PPIY)	1.8	1.6	1.2	1.0

(a) Seasonally adjusted by the ONS, except where noted.
(b) FDTP are food, drink, tobacco and petroleum.
(c) The ONS does not publish a seasonally adjusted headline output price series. To retain excise duty effects, these data are based on the seasonally adjusted tax-exclusive output price series multiplied by the ratio of unadjusted tax-inclusive to tax-exclusive prices.

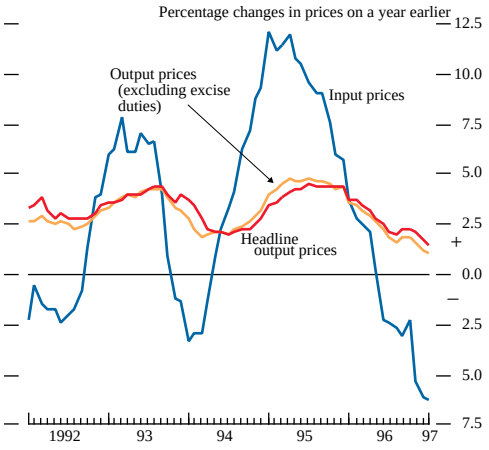
Chart 5.4
Input price inflation and the CIPS purchase price indicator



Sources: Chartered Institute of Purchasing and Supply and ONS.

(a) Respondents are asked to compare the prices of purchases in the current month with those in the previous month. A figure above 50 indicates rising prices.

Chart 5.5
Producer price inflation



seems very likely that sterling's appreciation since August has been causing input prices to fall. The latest CIPS Survey provided further evidence of input price weakness: the balance of purchasing managers reporting prices rising on the month fell from 42.5% in November to 42.3% in December and 41.6% in January (Chart 5.4). In the three months to October, the balance had risen.

Manufacturing output price inflation is low. After rising in December because of excise duty changes introduced in the November Budget, the three-month annualised change of output prices fell in January (see Table 5.A). The three-month annualised change of output prices *excluding* excise duties fell sharply in December and was negative in January. However, the CBI Quarterly Industrial Trends Survey reported expectations of future output price rises: the seasonally adjusted balance of manufacturers expecting to increase prices was slightly lower in January, at +8%, than in October (+9%) but well up on July (+1%).

Falling manufacturing input prices will help to restrain output price inflation, but they are much more volatile (see Chart 5.5): even when input prices showed twelve-month falls of more than 20% in the mid-1980s, output prices continued to rise. And physical inputs (raw materials and imports of finished manufactured goods) are only about a third of manufacturers' costs. Labour costs have a larger weight in manufacturers' total costs, and they rose throughout 1996.

Unit costs in manufacturing

The costs of manufacturers comprise labour costs, raw materials (including fuels), imports of finished manufactures and bought-in services. An index of unit costs can be derived using the relative shares of those four inputs in a base year and assuming no substitution between inputs (Table 5.B). That index can then be compared with changes in the prices of manufactured goods for domestic sale to infer movements in manufacturers' domestic goods margins. The cost index suggests that rising unit labour costs and service costs were partly offset by falling costs of materials and fuels, and of imports of finished manufactures, over the twelve months to November 1996—the latest month for which these data are available. And output prices of goods for domestic sale rose by slightly more than costs over that period. So manufacturers' domestic margins probably widened in 1996, in contrast to the narrowing in 1995.

Table 5.B
Rates of change of manufacturers' costs and prices

Percentage changes over the period shown, except where noted

	1994 Year	1995 Year	1996 Q2	1996 Q3	November (percentage change on Nov. 1995)
Unit costs					
Unit labour costs	0.4	3.0	0.8	0.8	4.1
of which: (a)					
Average earnings	4.7	4.5	0.9	1.2	4.6
Productivity	4.7	1.3	0.2	0.3	0.5
Materials and fuels (including semi-finished manufactured imports)	3.8	10.8	-1.6	-2.5	-7.0
Imports of finished manufactures	4.0	8.6	-1.2	-0.1	-3.3
Services	3.4	1.7	0.4	0.9	2.8
Weighted costs	**2.1**	**5.1**	**-0.1**	**0.0**	**0.5**
Output prices (b)	**2.3**	**4.5**	**0.2**	**0.0**	**0.8**

Sources: ONS and Bank of England.

(a) Unit labour costs also include employers' National Insurance Contributions. Those do not appear separately in the table.
(b) Domestic sales.

Manufacturers' export margins probably fell in 1996—assuming exporters' unit costs rose at the same rate as the costs of those producing for the home market—as export prices fell in response to the appreciation of sterling. But manufacturers' export margins have been high in recent years relative both to domestic goods margins and to their own long-run average, so manufacturers can probably absorb the recent declines.

5.5 Pricing by retailers

Retail goods price inflation in 1996 might in principle have reflected either cost inflation or higher margins. Retailers' costs can be estimated using various proxies including implied service sector unit labour costs, and price series for goods and services purchased by the retailing sector. Estimates based on those proxies suggest that unit costs in the retail sector were unchanged or fell slightly during the first three quarters of 1996, while retail goods prices rose. That divergence between costs and prices suggests that retail margins rose during the first three quarters of 1996. The estimated widening of retail margins represents some reversal of the apparent narrowing in 1994 and 1995. But retail competition remains intense, so the recent rise in margins is unlikely to continue for long enough to restore the average levels seen in the previous decade.

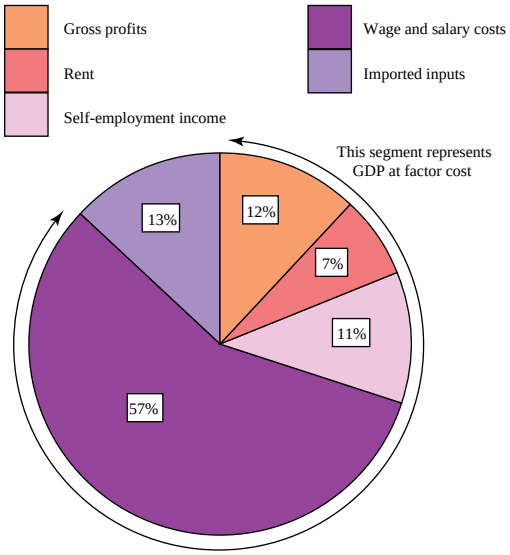
The estimated widening of retail margins also reflects the fact that retail goods prices are less volatile than manufacturing output prices. The fall in output price inflation will moderate retailers' costs, because about a third of retailers' costs are domestic physical inputs. But retailers tend to absorb in margins changes in output price inflation which they do not think will be sustained. If costs accelerate, margins may well be squeezed.

5.6 Summary

The sustained appreciation of sterling has reduced the manufacturing sector's input costs and the downward pressure on import prices is likely to continue for some time. But the service and retail sectors show more signs of inflationary pressure.

6 Prospects for inflation

Chart 6.1A
Breakdown of the value of output into costs and profits(a)

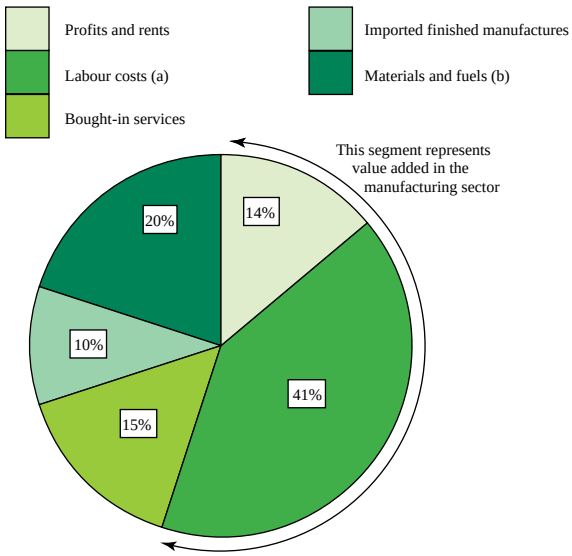


Note: Based on 1990 National Accounts and input-output tables.

Sources: ONS and Bank of England.

(a) Excluding imports directly satisfying final demand and imputed charge for consumption of non-trading capital.

Chart 6.1B
Breakdown of the value of manufacturers' output into costs and profits



Note: Based on 1990 National Accounts and input-output tables.

Sources: ONS and Bank of England.

(a) Income from self-employment is divided between 'profit and rents' and 'labour costs' sections.
(b) Including semi-finished manufactured imports.

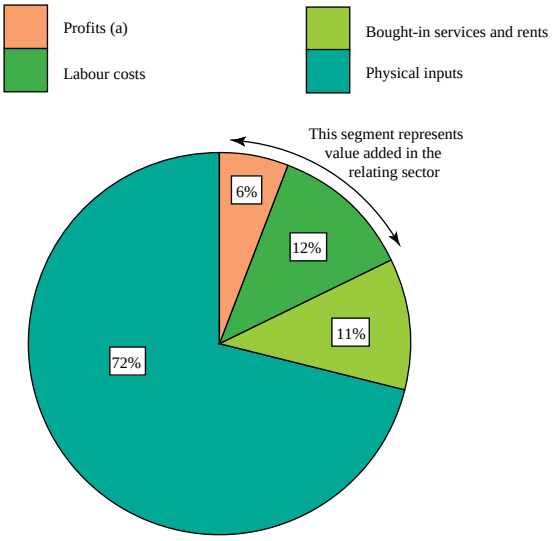
6.1 Developments in prices, aggregate demand and supply

Twelve-month RPIX inflation rose above 3% in the final three months of 1996, after twelve months at or just below that level. It increased despite benign price developments at earlier stages in the production chain—in non-oil commodity prices, producer input costs, and producer output prices, for which the latest recorded twelve-month rates of change are -6.4%, -6.3% and 1.5% respectively. The divergence was due to the more rapid rise in oil prices and to wider domestic profit margins. Charts 6.1A-C illustrate the relative importance of different costs in UK gross output, manufacturing and retailing. They show that purchased inputs account for less than one third of the value of manufacturers' output—and that in turn accounts for less than a quarter of the value of total output. Input costs are much more important in retailing, but even there labour costs are a significant factor. At the level of the economy as a whole, wage and salary costs are by far the most important element of costs, while imported inputs account for only 13%.

The outlook for inflation in two years or so depends not on current costs, but on the prospects for, and recent developments in, nominal demand. Broad money has continued to grow at rates close to 10% a year (after allowing for the effects of the introduction of the gilt repo market), and it is likely that nominal demand growth will be higher than is compatible with the Government's RPIX inflation target of 2½% or less.

Output has accelerated gradually since the first half of 1995. Domestic demand (excluding stockbuilding) has been more volatile, but it too has speeded up. The recent growth of domestic demand—discussed in Section 3—has been dominated by rapid growth of private consumption, at an annualised rate of nearly 4% over the first three quarters of 1996. Retail sales data suggest that this rate of expansion continued in the fourth quarter. Both output and final domestic demand now appear to be growing at above their long-run average rates. The relative weakness of investment and stockbuilding—with recorded falls in Q3 last year—may well reflect the large

Chart 6.1C
Breakdown of the value of retailers' output into costs and profits



Note: Based on 1994 Retail Business Monitor.

Sources: ONS and Bank of England.

(a) Includes income from self-employment.

shortfall of the expenditure-based measure of GDP below the output and income-based measures. Moreover, even the current output data may be underestimating growth, if the experience of the upswing in the second half of the 1980s is any guide.

The acceleration of consumption last year partly reflected faster growth of real disposable income. Consumers' net wealth—both real and financial—has also increased, by 9½% between 1995 Q3 and 1996 Q3. The incidence of 'negative equity' has been reduced further, and, since 1995, consumer confidence has been rising to levels above its long-run average. Personal sector holdings of broad money grew less rapidly last year than the year before, but growth—at an annual rate around 6%—is still high. Lending to households, especially consumer credit, accelerated in the second half of 1996. Spending on goods, particularly durable goods, picked up faster than spending on services last year. That is consistent with consumers wishing to hold some of their increased wealth in the form of consumer durables. Payouts from building society take-overs and the regional electricity companies provided extra liquidity to finance such purchases, and will do so on a larger scale this year.

Fixed investment spending—particularly in manufacturing and utilities—has been low during this recovery. The legacy of the building boom of the late 1980s and the recent reduction in infrastructure spending by the utilities are both probably partly responsible. But the factors favouring higher investment cited in previous *Reports* are still present: profits of industrial and commercial companies have risen as a proportion of GDP since 1992, corporate borrowing and broad money holdings are expanding quickly, investment goods are relatively cheap. Surveys reveal more capacity constraints in service industries, real house prices have risen, offering a greater incentive to housebuilders, and the valuation ratio suggests that issuing equity (or borrowing) to expand the capital stock would be profitable.

The contribution to total growth from net external trade fell in the first half of 1996 and was negative in Q3. Export demand from outside the EU fell off sharply towards the end of the year. The shift from external to domestic demand partly reflects the relative cyclical positions of the United Kingdom and its European trading partners. However, the most recent developments suggest that there may already have been

an adverse impact from the appreciation of sterling since the middle of 1996.

The demand for labour increased more strongly in the second half of 1996. The labour market has continued to tighten, although administrative counts of claimant unemployment and vacancies probably exaggerated the extent. Consistent with the gradual tightening, nominal earnings growth edged up during 1996. The recent increase in labour demand has not yet led to an acceleration in nominal earnings. According to the latest data, average earnings were already 4% higher in November than a year earlier, and probably by more in the private sector. There is not much headroom before the rate of increase is higher than would be consistent with hitting the inflation target in the medium term.

The outlook presented in *Reports* over the past year or so was that the growth rates of consumption and investment would rise first, to be followed by output growth after a delay caused by reduced stockbuilding. A switch from external to domestic demand was foreseen. The downside risks identified were that a renewed downturn could be triggered by destocking, and that external demand might weaken more than expected. Neither materialised in 1996: destocking simply slowed output growth, and UK trade performance in the first half of last year was stronger than expected, given relative prices and demand. The upside risk of much faster domestic demand growth did not materialise either.

6.2 The appreciation of sterling

The effective exchange rate of sterling appreciated by 16% between the trough at the beginning of August 1996 and 7 February this year. That complicates the outlook for inflation, particularly in the short run. The exchange rate is volatile, fluctuating in response to moment-to-moment shifts in the supply of, and demand for, sterling. But sustained changes over longer periods reflect more fundamental economic developments. Identifying those developments is important for understanding not only the broad movements in the exchange rate but also the changes in prices and economic activity that result from them.

The appreciation of sterling since August last year is likely to have a direct effect on the price level—and hence, temporarily, measured inflation—by reducing the price of imports. It is also likely to affect the price level indirectly through its impact on net external trade and on

output, reducing the speed at which the output gap is closed. But the size and persistence of the impact on inflation will depend on the precise nature of the shock to the exchange rate. There are several possible explanations for sterling's appreciation last year, falling into two broad categories: first, explanations relating to changing views about policies, both monetary and fiscal, and, second, other real factors.

Consider first the monetary policy explanations. The almost parallel shift in the path expected for sterling from five years out, shown in Chart 2.14, suggests that there has been hardly any change of view about relative inflation rates in the United Kingdom and abroad in the longer term. If there had been, the paths would diverge. However, the rise in market interest rates in the United Kingdom relative to other countries (the United States as well as those in continental Europe), and the increase in that gap expected over the next year, are consistent with markets anticipating a temporary tightening of monetary policy in the United Kingdom, and a temporary loosening overseas. That would imply a fall in the UK price level relative to that abroad, and hence explain a rise in the nominal exchange rate. So changes in assessments of monetary policy may form part of the explanation of the exchange rate appreciation.

What are the implications of that effect for the inflation outlook? The Bank's inflation projections are always based on the assumption of unchanged nominal interest rates; if the expected temporary tightening of UK monetary policy were not to materialise, then some of the exchange rate appreciation would be reversed. Meanwhile, there would be a temporary adverse effect on net external demand (the result of a temporary loss of competitiveness). A temporary loosening of monetary policies overseas would lead to higher import prices in the future, so once again the adverse effect on net external demand would not persist.

Actual and expected changes in fiscal policy, too, can lead to changes in exchange rates. A reduction in planned fiscal deficits abroad—such as that taking place on the Continent to meet the Maastricht convergence criteria—would tend to reduce interest rates there, both because lower deficits raise national saving and because fiscal consolidation may reduce aggregate demand in the short run. The exchange rates of the countries undertaking fiscal consolidation would depreciate as financial capital sought higher returns elsewhere (unless the fiscal consolidation reduced the risk premium

attached to their assets enough to compensate). Thus the impact of a fiscal tightening would be similar to that of a monetary expansion, lowering the exchange rates of those countries carrying out fiscal consolidation and hence raising the exchange rate of their trading partners.

How does that help explain recent developments in sterling? The paths of expected short-term rates have fallen in those European countries which have tightened fiscal policy so as to meet the Maastricht criteria for budget deficits. That would help to explain why sterling appreciated more against the Deutsche Mark and the French franc than against the dollar.

Changes in expected monetary and fiscal policies are, however, insufficient to explain the whole of the sterling appreciation. The changes in the actual and expected paths of interest rates account for only about one quarter of the rise.

What other factors could have led to the rise in sterling? There are four main possibilities: changes in the allocation of financial portfolios, the oil-price rise, a shift in the demand for UK output of tradable goods, and higher productivity in the production of tradable goods and services.

First, there could have been a shift in portfolio investment demand away from currencies of countries most likely to participate in EMU and hence most affected by uncertainties about it. That would have increased the price of sterling assets relative to other European currency assets. The higher level of sterling—and hence the adverse competitiveness effect—would persist for as long as portfolios were being rebalanced towards a higher weighting of sterling assets. That is likely to be a temporary effect. UK equity prices have risen relative to their German and French equivalents since the summer, if measured in a common currency. UK relative bond prices, too, have risen since the beginning of this year.

Second, the six-month future price of Brent crude, measured in dollars, rose by around 20% between 2 August 1996 and 7 February 1997. That increase will have affected sterling. A 20% rise in the oil price, if permanent, would improve the UK current account by around 0.1%–0.2% of GDP each year, at a given real exchange rate. Hence there would be upward pressure on the exchange rate. As a result, the demand for other (non-oil) internationally tradable goods and services

would fall and, because oil extraction employs relatively little labour, the demand for labour in the economy as a whole would fall. That would reduce inflation beyond the initial impact of lower import prices. Because a rise in the oil price increases both the profits of oil companies and tax revenues, the overall impact would depend on how those developments affected spending. Other net oil exporting countries, like Canada and Norway, have also experienced exchange rate appreciations over the same period (albeit to a lesser extent than has the United Kingdom), whereas Japan, and continental European countries which are net oil importers, have experienced depreciations.

Third, there may have been a shift in the demand for UK tradable goods and services, perhaps reflecting a perception that their quality has improved. Such an increase would be consistent with the recent upward revisions to private sector forecasts of the UK current account, shown in Table 6.A, not all of which can be attributed to higher oil prices, and with the continued large inflows of direct investment to the United Kingdom. Net exports were surprisingly strong through most of last year. Insofar as the rise in sterling was caused by a perception of that kind, there would be no effect on UK net export volumes, and therefore no effect on inflation beyond the first round.

Table 6.A
Market forecasts for the UK current account in 1996 and 1997(a)

	1996 H1	July	Aug.	Sept.	Oct.	Nov.	Dec.
1996	-6.2	-5.5	-5.5	-5.3	-3.0	-2.1	-1.5
1997	-7.6	-7.5	-7.8	-7.9	-6.6	-5.4	-4.7

Source: Consensus Economics.

(a) Mean of around 30 private sector forecasts published monthly by Consensus Economics.

Fourth, an actual or expected productivity improvement in those parts of the economy producing internationally tradable goods and services would tend to lead to exchange rate appreciation (assuming a high degree of substitutability between British and other countries' tradables). It would also lead to a rise in the price of domestic non-tradables relative to tradables—which has happened recently (see Section 1). There is little additional evidence to corroborate the hypothesis of a productivity improvement: measured manufacturing productivity growth has been relatively low recently.

Which of the above factors contributed to the appreciation in sterling, and by how much, is uncertain. In the Bank's inflation projection, it is assumed that each hypothesis explains some of the rise in sterling, with roughly equal weight being given to the monetary and fiscal explanations on the one hand and the oil price rise on the other, and less weight being given to the others. The implication is that the appreciation will be followed by a reduction in the price level (relative to previous projections) and a temporary loss of competitiveness that

reduces net external trade over the period of the projection. It is, however, assumed that a small part of the appreciation is purely erratic and likely to be reversed more quickly than current interest-rate differentials would imply.

6.3 The Bank's medium-term inflation projection

The improvement in the terms of trade and the prospects for growth in employment, disposable income and wealth imply that consumer spending will continue to grow at above its long-run average rate. Compared with last year, much larger payouts are expected this year from 'demutualisation' of building societies and other mutual institutions. There is an upside risk to the central projection for consumption over the next year to 18 months because recipients of windfall gains may spend more than the 'annuity value' of those windfalls (see the box on page 22, Section 3).

The prospects for other elements of domestic demand are less clear. The incentives to invest have increased recently: a high and rising fraction of service sector firms are hitting capacity constraints, the pick-up in house prices (relative to input costs) has increased the incentive to build new homes, and the Private Finance Initiative may now be starting to generate higher private sector investment growth. It is likely that fixed investment will accelerate somewhat; the fact that the value of investment has been unusually low in relation to GDP suggests that the risks in the future are more on the upside. On the other hand, stockbuilding is unlikely to contribute significantly to economic growth; the aggregate stock-to-sales ratio resumed its fall in 1996 Q1, but it is still above the downward trend of the 1990s as a whole, so further falls are likely. Public consumption and investment are projected by HM Treasury to grow more slowly than the rest of the economy over the foreseeable future.

Turning to output, the outlook for manufacturing—less than a quarter of GDP—has been affected more by the exchange rate appreciation than the economy as a whole. But services—about two thirds of GDP—are buoyant. It is important that that is not overlooked, simply because of the scarcity of relevant frequent and timely data for services.

Output is likely to grow at above its trend rate over the next couple of years. And the shift in the composition of

Chart 6.2
Current RPIX inflation projection

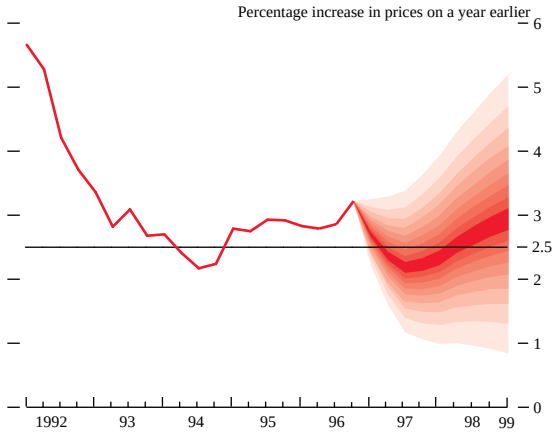
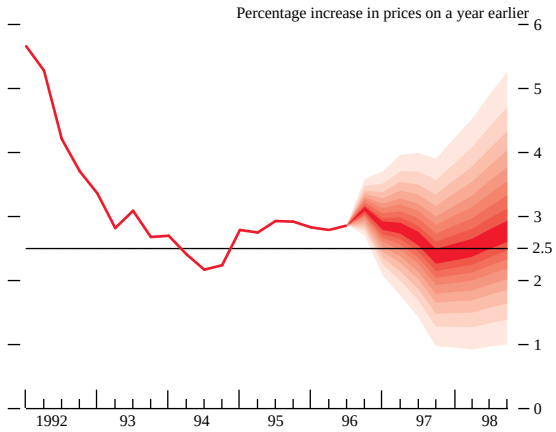


Chart 6.3
RPIX inflation projection in November



The chart shows the relative likelihood of possible outcomes. The central band, coloured deep red, includes the central projection: there is judged to be about a 10% chance that inflation will be within that central band at any date. The next deepest shade, on both sides of the central band, takes the distribution out to 20%; and so on, in steps of ten percentage points. Of course, it is impossible to assess the probabilities with any precision, but this represents the Bank's best estimate. The more uncertainty there is about the inflation outcome at any particular time horizon, the wider the bands, and the more gradually the colour fades. And, if the risks are more on one side than the other, then the remaining bands will be wider on that side of the central band.

demand towards domestic consumption and fixed investment is likely to continue. The risks to activity are skewed upwards, because of the possibility of considerably higher-than-expected consumption.

The Bank's medium-term projection for twelve-month RPIX inflation is shown in Chart 6.2, next to November's projection, shown in Chart 6.3. Both projections are based on the assumption of unchanged official interest rates at 6% over the next two years. The effective sterling exchange rate is, in large part, projected to evolve according to differences between nominal interest rates overseas and unchanged UK rates. Real public spending and effective tax rates are assumed to follow the paths set out in the November Budget Statement.

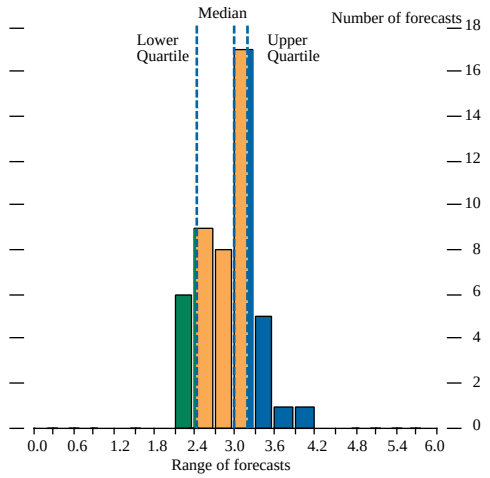
Charts 6.2 shows that, in the Bank's judgment, twelve-month RPIX inflation will probably fall this year, reaching a trough some time in the second half of 1997. Then it is likely to start rising, so that, two years ahead, the central projection is above the target, at around 3%.

The short-term profile is heavily influenced by the fall in the relative price of imports associated with the appreciation of sterling during the second half of 1996. That fall is expected to affect the aggregate price level quite quickly. And it continues to affect measured twelve-month inflation rates for a year, after which the price level effect drops out and inflation starts to rise. Towards the end of the forecasting horizon, the main influences on inflation are the growth rates of money and nominal demand.

The central projection is similar to that presented in the November *Report*. A sharper decline in inflation is expected this year as a result of the further exchange rate appreciation since November. It is now more likely that twelve-month RPIX inflation will fall below 2½% some time this year. The central projection for inflation in two years time is close to that made in November: the adverse effect of lower net external demand is balanced by slightly higher domestic demand and the reversal of some of the earlier falls in import prices.

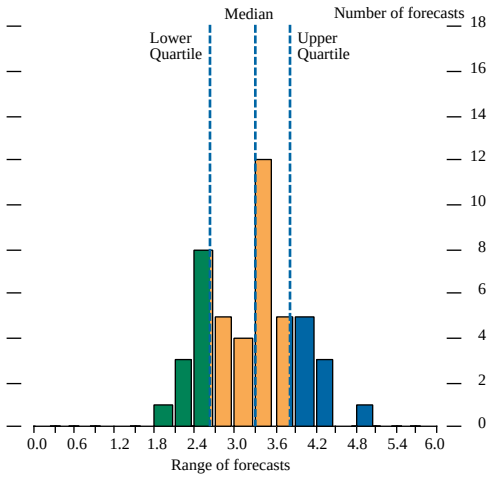
The uncertainty surrounding the central projection is slightly greater than that in November. The risks are a little skewed towards the upside. That reflects the risks around the outlook for final domestic demand—the chances of consumption and investment growing more rapidly than in the central case are higher than the chances of slower growth. The uncertainty about the speed of pass-through from the exchange rate to retail prices has increased the risks in the near term in particular, simply because the change in the exchange rate since last summer is larger.

Chart 6.4
Distribution of RPIX inflation forecasts for 1997 Q4



Source: Forecasts of 47 outside forecasters as of January 1997.

Chart 6.5
Distribution of RPIX inflation forecasts for 1998 Q4



Source: Forecasts of 47 outside forecasters as of January 1997.

6.4 Other inflation projections

Among the economic forecasts surveyed by the Bank, the median projection for twelve-month RPIX inflation in 1997 Q4 was 2.9% as of January 1997, unchanged from October 1996. But, as Chart 6.4 shows, the distribution of forecasts is now bimodal. The Bank's central projection lies below the lower quartile of the distribution. Chart 6.5 shows that there is also a bimodal distribution of forecasts of inflation in 1998 Q4. The median rate is 3.3%, well above the Government's target, although a substantial group think the target is likely to be achieved. Again, the Bank's central projection is lower than most.

Thirty-two forecasters have also provided the Bank with their assessments of the probabilities to be attached to

Table 6.B
Expected RPIX inflation[a]

Range:	Less than 1.0%	1.0% to 2.5%	2.5% to 4.0%	4.0% to 5.5%	More than 5.5%
1997 Q4	3	31	52	11	2
1998 Q4	3	24	47	20	5

(a) 32 outside forecasters provided the Bank with their assessments of the likelihood, at two time horizons, of expected twelve-month RPIX inflation falling in the ranges shown above. This table presents the means of the responses for each range; for example; on average, forecasters assign a probability of 3% to inflation turning out to be less than 1% in 1997 Q4. Rows may not sum to 100, because of rounding.

Table 6.C
Barclays Basix Survey of inflation expectations

Percentage increases in prices

Twelve-month RPI inflation one year ahead

	Sept. 1996	Dec. 1996
General public	3.8	3.9
Business economists	3.0	3.2
Finance directors	3.2	3.3
Investment analysts	3.2	3.5
Academic economists	3.0	3.1
Trade unions	3.6	3.7

Twelve-month RPI inflation two years ahead

	Sept. 1996	Dec. 1996
General public	4.5	4.8
Business economists	3.6	3.5
Finance directors	4.0	4.0
Investment analysts	4.1	4.3
Academic economists	3.6	3.6
Trade unions	4.8	4.8

Source: Barclays Bank.

Table 6.D
Merrill Lynch—Gallup Survey of UK fund managers' inflation expectations

Percentage increases in prices

Twelve-month RPI inflation in	Month of survey 1996 Oct.	Nov.	Dec.	1997 Jan.	Feb.
December-1996	2.6	2.7	2.8		
December-1997	3.2	3.4	3.4	3.3	3.2
December-1998				3.5	3.5

Note: The RPI outturn for end-1996 was 2.5%.

Source: Merrill Lynch-Gallup.

various possible inflation outcomes (see Table 6.B). For 1997 Q4, on average, the probability of inflation being 2½% or less is judged to be 34% now, compared with 27% three months ago and 33% six months ago. The probability of inflation being 2½% or less in 1998 Q4 is judged to be lower, at 27%. On average, there is a 25% probability attached to inflation being 4% or more.

The Barclays Basix and Merrill-Lynch Gallup Surveys of inflation expectations broadly agree with the outside forecasts discussed above, that inflation is likely to rise between the end of this year and the end of next (see Tables 6.C and 6.D). The expected level of inflation about a year ahead is also higher than it was, despite the further appreciation of sterling.

Longer-term inflation expectations, derived by comparing conventional and index-linked prices, have fallen further at the ten-year horizon (see Chart 2.11).

6.5 Conclusions

Over the past year, there has been a gradual pick-up in the pace of activity in the UK economy, driven by domestic demand. Broad money has been growing at close to double-digit rates for well over a year. And real broad money has been growing at an annual rate of more than 5%. During 1996, consumption probably grew by almost 4%. The growth of total output was held back by stock adjustment in the first half of 1996, but GDP grew at an annualised rate of about 3% in the second half. Both demand and output are now growing at above-trend rates. There will be a need to moderate demand pressures if the inflation target is to be met.

The picture has been complicated by the appreciation of sterling. That may create a growing imbalance between those firms or sectors particularly involved in the production of tradable goods and services, and those directed towards more sheltered domestic sectors. In the short run, the rise in sterling will lead to a fall in inflation as import prices fall. But that is primarily a one-off impact on the domestic price level, rather than a continuing reduction in the underlying rate of inflation. The rise in sterling will also lead to a deterioration in net trade performance. The magnitude of that effect will depend critically on precisely why the exchange rate has risen, not least because that will determine whether the rise is sustained. The reduction in the contribution of net trade to output growth does reduce the impact of the strength of domestic demand on the speed at which the

output gap is closed. To that extent, it does reduce inflationary pressure over the horizon of the forecast.

The outcome for inflation two years ahead depends on the relative impacts of the continuing strength of domestic demand on the one hand, and the deterioration in net trade performance on the other. The Bank's central projection for inflation two years ahead (which is lower than the median of other forecasts) is close to 3% and rising. In the near term, the rise in the exchange rate leads to a fall in the central projection because of lower import prices. But monetary policy must look beyond these short-term effects, and ensure that underlying inflation is consistent with the target. Once the short-term effects have worked their way through, the strength of domestic demand will put upward pressure on inflation. The yield curve at the short end has already moved up, anticipating a rise in official interest rates and helping to moderate the expansion of demand. If official rates do not rise, the yield curve will fall back, further stimulating the growth of domestic demand.

In the light of the central projection and the risks surrounding it, the Bank continues to see the need for a moderate tightening of policy. In recent months, there has been little sign of any further acceleration of demand. But the case for some tightening in policy does not depend upon a further acceleration. The growth rates of money and demand that have been seen for some time now cannot be sustained for long if the inflation target is to be met two years or so ahead.

Glossary and other information

Glossary of selected terms

RPI inflation: inflation measured by the retail price index.
RPIX inflation: inflation measured by the RPI excluding mortgage interest payments.
RPIY inflation: inflation measured by the RPI excluding mortgage interest payments and the following indirect taxes: council tax, VAT, duties, car purchase tax and vehicle excise duty, insurance tax and airport tax.
HARP index: a price index which replaces the mortgage interest payments component of the RPI with a Bank estimate of the user-cost of housing.
THARP index: the HARP index excluding indirect taxes.

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 notes and coin, together with all sterling deposits (including certificates of deposit) held with UK banks and building societies by the non-bank, non-building society private sector.
Divisia money: a measure of the money stock in which each component is weighted according to an estimate of how useful are the transaction services it provides.

BCC: British Chambers of Commerce.
BSE: bovine spongiform encephalopathy.
CBI: Confederation of British Industry.
CIPS: Chartered Institute of Purchasing and Supply.
ICCs: industrial and commercial companies.
LFS: Labour Force Survey.
OFIs: other financial institutions.
TESSA: tax-exempt special savings account.
WIE: Workforce in Employment.

Three-month annualised: the percentage change in a series between one period and that three months earlier, expressed as an annual rate.

Symbols and conventions

Except where otherwise stated, the source for the data used in charts and tables is the Office for National Statistics (ONS).
The measures of inflation included in this *Report* have been adjusted by the Bank for a ONS error in underrecording RPI and RPIX inflation between February and May 1995.
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.

Other information

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