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About the Office for National Statistics

The Office for National Statistics (ONS) is the
government agency responsible for compiling,
analysing and disseminating many of the
United Kingdom's economic, social and
demographic statistics, including the retail
prices index, trade figures and labour market
data, as well as the periodic census of the
population and health statistics. The Director
of ONS is also the National Statistician and
the Registrar General for England and Wales,
and the agency administers the registration
of births, marriages and deaths there.

A National Statistics Publication

National Statistics are produced to high
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No. 602, January 2004

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in brief

At a glance – economic summaries recently released on the National Statistics website.

GDP growth

Output of the production industries decreased by 0.1 per cent driven by a fall in oil production in the North Sea. This fall was partially offset by a rise in energy supply driven by increased gas and water supply.

Manufacturing output rose by 0.1 per cent in 2003 Q3, as increases in the manufacture of textiles, leather and clothing were largely offset by declines in the manufacture of transport equipment and coke, refined petroleum and nuclear fuels.

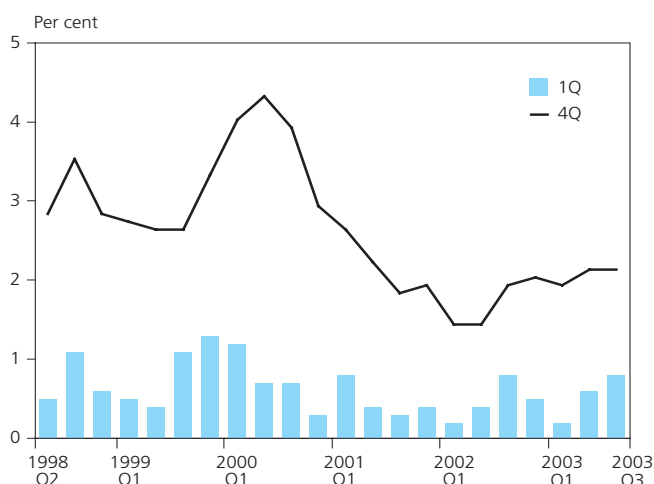
Services rose by 0.9 per cent over the quarter, compared to 0.2 per cent in 2003 Q2, with growth driven by business and financial services. Within this sector, growth was strongest in real estate, renting and business activities, which rose by 2.1 per cent.

The distribution, hotels and catering sector rose by 0.9 per cent with increases in motor trades and retail activities. The transport and communications sector rose by 0.4 per cent with growth in air and land transport and transport support. Elsewhere, government and other services rose by 0.7 per cent over the quarter as health and social work rose by 1.4 per cent.

Construction output rose by 2.0 per cent and is now 6.7 per cent above the level seen in 2002 Q3.

Household expenditure rose by 0.9 per cent with continuing strong growth in recreation and culture and restaurants and hotels.

Real GDP quarterly growth



The level of government expenditure increased by 0.1 per cent in the latest quarter. Business investment declined by 1.2 per cent over the quarter as investment in plant and machinery declined. The trade balance worsened slightly as imports rose by 0.5 per cent and exports rose by 0.4 per cent.

On the income side, compensation of employees rose by 1.3 per cent driven by an increase in average earnings, with little change in employment. Corporate incomes rose by 1.5 per cent in 2003 Q3

Released: 23 December 2003

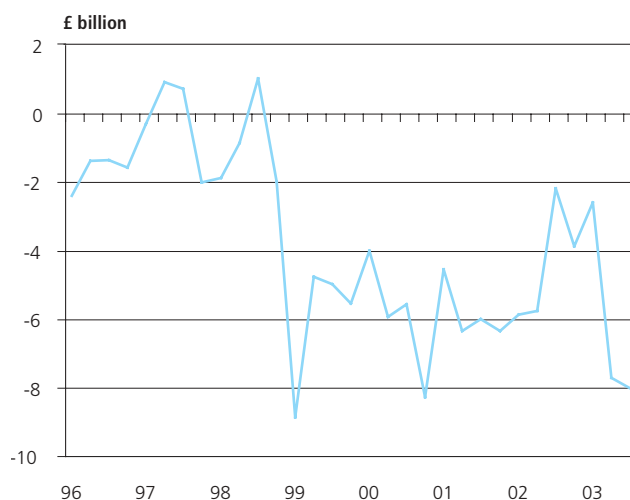
Balance of payments in quarter 3

The current account deficit increased to £8.1 billion (equivalent to 2.9 per cent of GDP) in the third quarter.

This compares with a revised deficit of £7.8 billion in the second quarter and is the highest deficit since the fourth quarter of 2000. The increased deficit was due to a fall in the surplus on investment income and a widening goods deficit.

The surplus on direct investment continues to fall, largely because foreign-owned companies in the UK are earning higher profits in 2003 than they reported in 2002. In the latest quarter, earnings of foreign-owned non-financial corporations increased to £4.9 billion - their highest level since the first quarter of 2001.

Current account balance



Released: 23 December 2003

Revisions

Minor revisions have been introduced from the first quarter of 1996 to ensure current transfers data are fully consistent with the data released in the 2003 edition of the ONS *Blue Book*.

Figures have been revised more substantially from the first quarter of 1999 as a result of corrected contributor information being submitted to the Bank of England. These increase the current account deficit, by £3.5 billion in 1999, £4.6 billion in 2000 and £5.5 billion in 2001. They would also increase the deficit in 2002, but are offset by annual survey results for direct investment in particular.

The current account deficit in the second quarter has been revised down by £0.8 billion since first published in September, largely due to late and corrected returns from the Foreign Direct Investment inquiries and later information on current transfers.

Released: 23 December 2003

Productivity in quarter 3

UK productivity growth in the third quarter was slightly down when compared with a year ago but was up on a quarterly basis.

In the third quarter of 2003, annual productivity growth for the whole economy was 1.5 per cent, down from growth of 1.6 per cent achieved in the previous quarter.

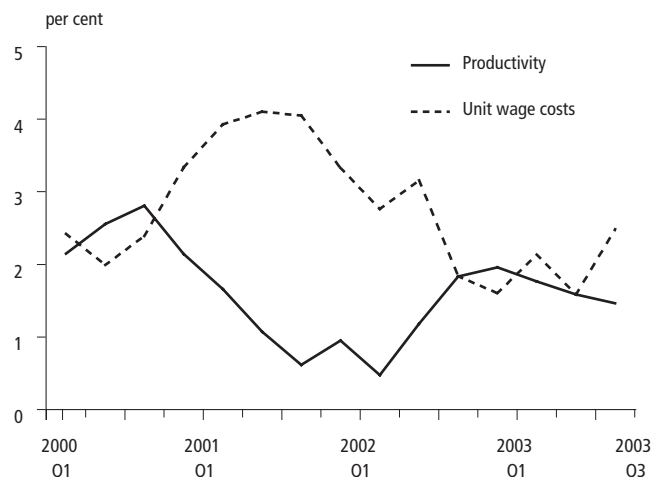
This small fall in annual productivity is explained by minor changes in the growth rate of both output and employment. Annual growth in output was 1.6 per cent, down on growth of 1.7 per cent in the previous quarter, while job growth edged up slightly.

Compared with the previous quarter, productivity growth was 0.6 per cent, up from 0.3 per cent in the previous quarter. This is explained by a pick up in output when compared with the second quarter.

Annual manufacturing productivity growth was 4.9 per cent, down from 6.0 per cent in the previous quarter. Care has to be taken when comparing figures with the third quarter of 2002. It is likely that activity at the time was impacted by a rebound following the Jubilee celebrations. Manufacturing output in the third quarter was down by 0.2 per cent when compared with a year ago, partly as a result of the very rapid rise in activity that took place in the third quarter of 2002.

Compared with the previous quarter, manufacturing productivity grew by 1.3 per cent in the third quarter of 2003, down from growth of 2.3 per cent in the previous quarter. This was due to a weaker quarterly growth rate for manufacturing output.

Whole economy productivity and unit wage costs annual growth



Unit wage costs for the whole economy grew by 2.5 per cent in the third quarter of 2003 compared to a year ago, up from 1.6 per cent in the previous quarter. This rise was primarily due to a pick up in wages and salaries growth.

Overall manufacturing unit wage costs showed an annual decline of 1.6 per cent, up from a decline of 2.9 per cent in the previous quarter.

Released: 23 December 2003

Business investment in quarter 3

The revised estimate of business investment for the third quarter of 2003 is 1.0 per cent lower than the same period of last year and 1.2 per cent lower than the previous quarter. This follows growth of 1.7 per cent in the previous quarter.

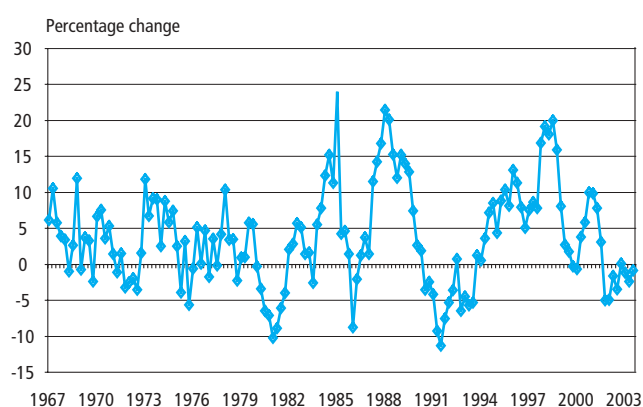
The investment profile for the period is similar to that published in the provisional results. The quarterly fall is due to reduced capital spending from manufacturing, other production and distribution service industries. These falls were slightly offset by increased investment from the other service and construction industries.

Private sector manufacturing investment is down 7.8 per cent on the quarter compared with a fall of 5.8 per cent published provisionally. By industry, the quarterly falls were most marked in the engineering and vehicles, food, drink and tobacco and other manufacturing industries. By asset there was a fall in investment within manufacturing in new building work, vehicles and other capital equipment.

Within other production there were quarterly falls from the electricity, gas and water, the agriculture and forestry, and the mining and quarrying industries.

Total manufacturing investment fell by 15.0 per cent, construction and other production fell by 0.5 per cent and services investment rose by 0.9 per cent compared with the same quarter a year ago.

Total business investment percentage change, quarter on corresponding quarter of previous year



Released: 22 December 2003

Economic update

January 2004

Rhys Herbert

Office for National Statistics

Overview

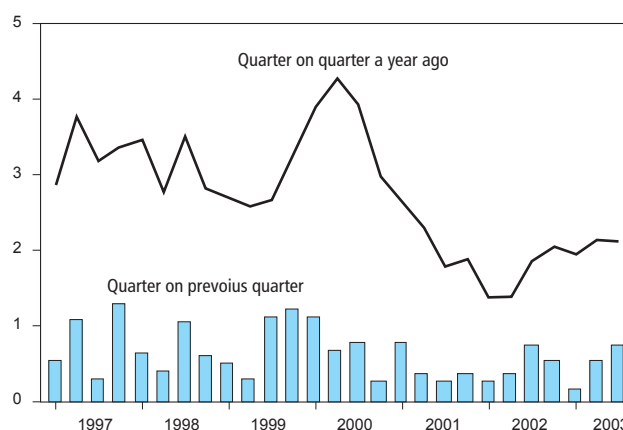
- Third quarter GDP growth was revised to 0.8 per cent, slightly above the previous estimate.
- Service sector output growth has picked up when compared with quarter two, while construction and manufacturing have slowed.
- Consumer spending in 2003 quarter three is 0.9 per cent, up marginally from quarter two.
- Fixed investment spending fell in the third quarter led by another decline in new machinery and equipment.
- Government spending is currently a positive contributor to economic growth but the public sector finances are falling further into deficit.
- Export growth was stagnant in quarter three despite signs of stronger international demand.
- Labour market aggregates remain largely stable, and private sector wage pressures are minimal.
- Producer prices have gone up slightly as the oil price has risen once again.
- The CPI measure of consumer prices is below target and the inflation rate fell again in November.

GDP activity – overview

Third quarter GDP growth has been revised up for the second time to 0.8 per cent compared with a provisional estimate of 0.6 per cent. The annual rate of growth in the third quarter, was also revised upward to 2.1 per cent, the same as in the previous quarter, although it should be remembered that both these annual rates have been distorted by the impact of last year's Jubilee celebrations (Figure 1). The upward revision was due to stronger service sector activity than was assumed in the original estimate and reflects the more complete information that is now available for the quarter. The initial estimate of quarterly GDP, undertaken only a few weeks after the end of the quarter to which it refers must by necessity be based on limited actual data with the gaps in knowledge fleshed out by estimates. As more information becomes available, the estimate is replaced by firmer information and as a result the preliminary growth figures often have to be revised. In the case of the third quarter number the impact on GDP from the upward revision to service sector output was partially offset by downward revisions to construction and industrial production.

Figure 1
GDP

Growth



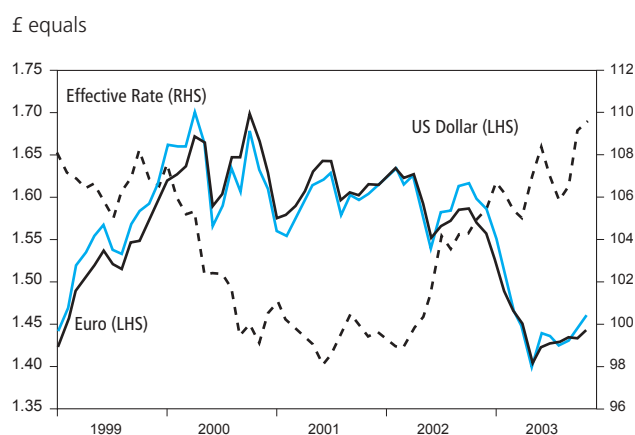
The international background has become slightly more supportive of economic growth of late, although the UK's largest export market, the EU, remains the area with the weakest growth in economic activity. The US experienced very robust growth in the third quarter growing by over 2 per cent during the quarter. Japanese economic growth also appears to have picked up during the quarter, and the three biggest EMU economies France, Germany and Italy showed some improvement. However, for these three European countries this acceleration has so far only moved them from a slight decline to a small positive growth rate. Moreover the bulk of the improvement in EU activity appears to have been accounted for by stronger exports rather than by rising domestic demand so, seems unlikely to be very favourable for UK exports.

Financial Market activity

Last year saw some optimism return to the stock market. After three years of negative movement the FTSE All Share Index ended 2003 up some 16 per cent. However, the recent gains still leave the FTSE All Share down by about 12 per cent compared to its level at the start of 2002.

2003 also saw some significant moves in sterling, although the biggest international currency movement of late has been the slide of the US dollar. In the early part 2003 the pound fell against the euro and strengthened against the US dollar, and as a result the effective exchange rate fell by 7.2 per cent between December 2002 and May 2003. From this low the pound's effective rate rose slightly over the rest of the year as sterling's effective rate continued to be buffeted between a strong euro and a weak dollar. For 2004 as a whole the effective index ended the year down about 5.0 per cent, as a fall of over 8 per cent in the bilateral rate versus the euro was partially offset by a rise of 10 per cent against the dollar

Figure 2
Exchange rates



Output

Gross domestic product (GDP) in the third quarter of 2003 showed quarterly growth of 0.8 per cent, up from 0.6 per cent in the previous quarter. Comparing the third quarter of 2003 with the same quarter a year ago shows an annual growth rate of 2.1 per cent the same as in the previous quarter. It was noted earlier that both these annual comparisons are

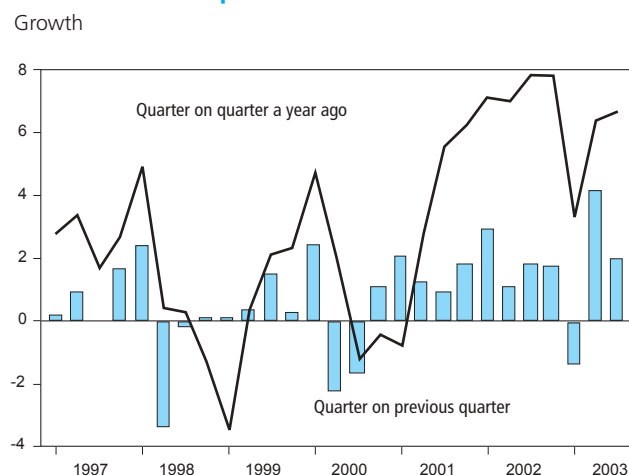
distorted by their base points being in last year's Jubilee celebrations. Year on year growth over the last year or so has gone from a high of 4.3 per cent in the second quarter of 2002 to a low of 1.4 per cent in the first quarter of 2002, before picking up back to the present level. This cycle is an extremely muted one when compared both with recent UK experience and with recent trends in most of the other major international economies.

For the last three years economic growth has been maintained by strength in construction and services while manufacturing and energy production declined. In contrast the first half of 2003 saw a less clear-cut picture. Construction activity showed a sizeable decline in quarter one and a big pick up in the second quarter. Meanwhile, service sector growth decelerated in the first half of the year, while industrial production was roughly flat due to a combination of an improvement in manufacturing and weak energy activity. The third quarter has again been different with growth being led by an accelerating service sector, continued sizeable growth in construction and flat activity in manufacturing.

These figures for third quarter growth represent slight and in some cases offsetting revisions to earlier published figures, and revisions reflect the incorporation of new information. However, in the case of some categories of output full data is still not available and the estimates may change again at a later date as this fuller data is taken on board.

Construction output was responsible for much of the variable pattern of in GDP in the first half of 2003. In the first quarter output it fell by 1.4 per cent, while in the second quarter it rebounded by 4.2 per cent. This accounted for a difference in the GDP growth rate of around 0.3 per cent between the two quarters. Third quarter growth has been more stable at 2.0 per cent, which leaves the annual growth rate at 6.7 per cent up from the first half of the year but still well below 2002's growth figures (Figure 3).

Figure 3
Construction output



Manufacturing output rose by 0.1 per cent in the third quarter, following a 0.7 per cent rise in quarter two and a 0.1 per cent rise in the first quarter. Prior to this the only quarter of positive growth in the previous two years was the third

quarter of 2002, due to the rebound following the Jubilee break. The year on year rate of manufacturing output growth turned positive in the second quarter having gradually risen from a low of -5 per cent in the first quarter of 2002 but dipped again to -0.2 per cent in quarter three. It appears that the manufacturing sector has ended what has been a deep recession but as of the end of the third quarter there was little sign of a more substantial pick up in activity (Figure 4). The monthly growth rate in October pointed to a quickening in activity, however monthly figures can be volatile and the three month on three month growth rate was more stable. Recent survey sector data has done little to question this growth pattern. External surveys of manufacturing have if anything been weaker than official data so far this year and in general they do not point to a pick up in activity in the third quarter. Both the CBI and BCC surveys have continued quite weak through the third quarter, although the CIPS survey has been significantly stronger recently (Figure 5). There have been some signs of improvement in the fourth quarter. The CBI industrial trends survey released in November turned out to be the strongest for some considerable time, consistent with October's stronger figure for manufacturing output.

Figure 4
Manufacturing output

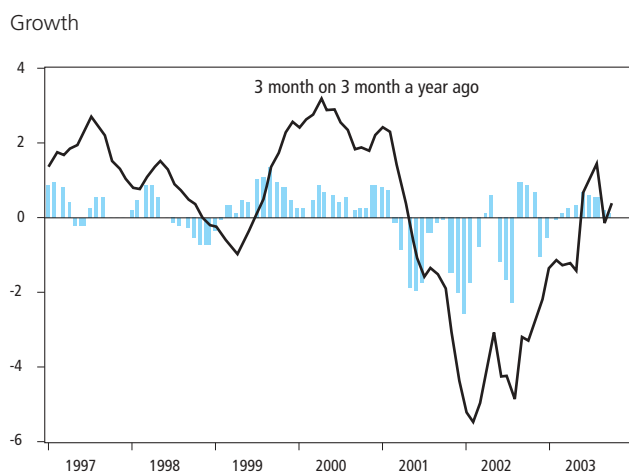
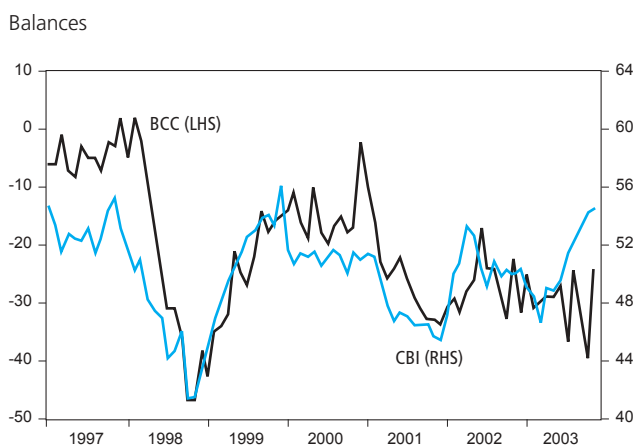


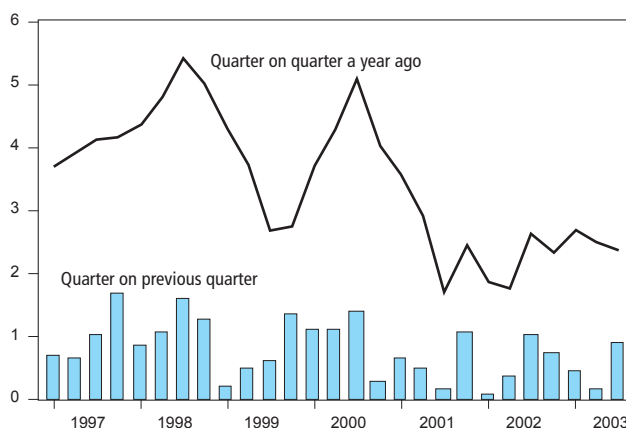
Figure 5
External manufacturing



The service sector accelerated in the third quarter after a run of three-quarters in which activity appeared to be moderating. Quarterly growth was 0.9 per cent in the third quarter of 2003, compared with 0.2 per cent in the second quarter, 0.5 per cent in the first and 0.8 per cent in the fourth quarter of last year. Compared with the same quarter a year ago, annual growth was 2.4 per cent, slightly down on the 2.5 per cent annual growth rate of the second quarter. The quarterly rebound seemed to be widespread. Most areas grew more quickly than in quarter two but a particularly marked acceleration took place in some aspects of business services (Figure 6). The acceleration seems to be largely confirmed by survey data. The CIPS survey of services, which has historically had a close correlation with official data, has risen sharply in recent months. Other surveys, by the BCC and the CBI also show some improvement in activity although less pronounced and less widespread than the rise in the CIPS data.

Figure 6
Services output

Growth



Household demand

Quarterly growth in household final consumption was 0.9 per cent in the third quarter of 2003, compared to the 0.8 per cent recorded in quarter two and the small fall of 0.2 per cent in the first quarter. Growth compared with the same quarter a year ago was 2.5 per cent a slight acceleration from 2.1 per cent for the previous quarter. Consumer spending remains one of the most robust sectors of the economy but annual growth is about 1 per cent below the annual average for last year.

The breakdown of consumer spending patterns shows growth spread across the sector. Spending on durable goods rose by 2.2 per cent in the third quarter down on its second quarter growth rate of 3.3 per cent. Purchases of both semi-durable and non-durable goods at 1.1 per cent and 0.5 per cent respectively were also slower than in the second quarter although in the case of the former category the slowdown was very minor. In contrast spending on services at 1.0 per cent was considerably quicker than that of the previous quarter (Figure 7).

There seem to be a number of reasons for this continued strength. Unemployment remains low and consumer confidence after dipping in the first few months of the year, possibly due to the Iraqi conflict, has subsequently rebounded. Income growth remains moderate although it has been somewhat eroded by the increase in National Insurance contributions this year. The increases in house prices are also leading some consumers to feel wealthier (Figure 8). Moreover, the signs are that at least some of these price gains are being turned into income via equity withdrawal and at least some of this gain will subsequently be spent.

Figure 7
Household demand

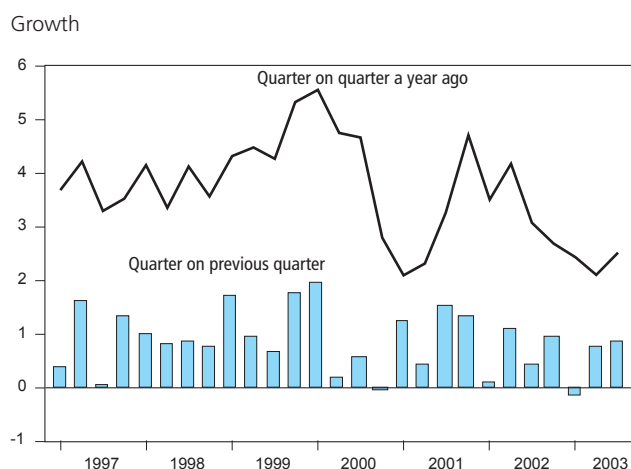
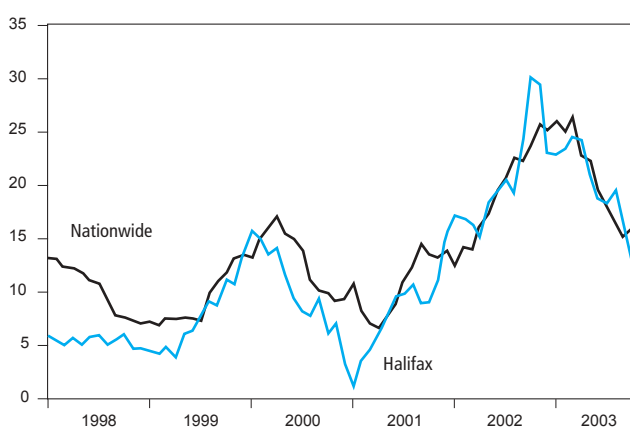


Figure 8
House prices

Growth, 3 months on previous 3 months

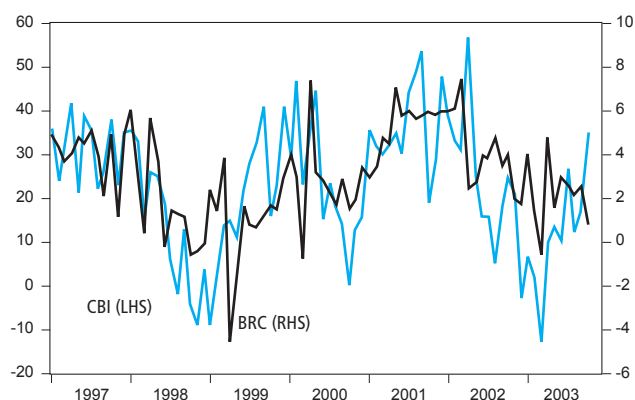


Official monthly retail sales figures provide a confirmation of this robust spending pattern. Retail sales in volume terms rose by 1.2 per cent in the third quarter after a gain of 1.5 per cent in the second and a fall of 0.7 per cent in the first quarter. The latest data currently available is for November and this showed a monthly rise of only 0.1 per cent, however most of the slowdown was in food sales while non-food sales remain quite robust. External figures provide a partial confirmation of this pattern of retail sales. Both the BRC and CBI retail

surveys have been volatile from month to month but on average they have suggested that spending was quite strong over the last six months. Sales on these estimates got off to a weak start in the third quarter but seemed to have picked up over the three months and continued this trend into the early part of the fourth quarter (Figure 9). In contrast some anecdotal reports from retailers note that the period since the early November interest rate increase by the Bank of England has seen much more subdued spending. This is yet to be confirmed by actual data.

Figure 9
External retailing

Growth

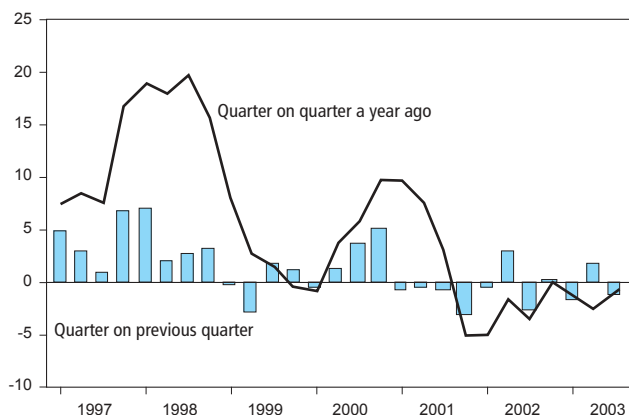


Business demand

In contrast to consumers, businesses appear to have been more reluctant to spend during the third quarter. Fixed investment for the economy as a whole fell by 0.5 per cent in the third quarter leaving it up by just over 1 per cent compared with year ago, a slight upward revision from the initial estimate. This fall was primarily due to business spending as investment in dwellings actually rose on the quarter, as did government investment. Much of the weakness in investment over the last few three years has been due to business investment, which fell sharply during 2001 before seeming to stabilise in 2002. The first quarter of 2003 saw business fixed investment down 1.8 per cent when compared with the last quarter of 2002, and by 1.3 per cent compared with the same quarter a year ago (Figure 10). Revised second quarter figures now show a rise in spending of 1.7 per cent. However, this was due to higher spending on buildings and structures, while investment spending on plant and equipment fell during the quarter. The third quarter figures showed a fall in business investment of 1.2 per cent with another big fall in machinery and equipment investment the biggest negative contributor. This last category has now fallen for five quarters in a row.

Figure 10
Business Investment

Growth, 3 months on previous months

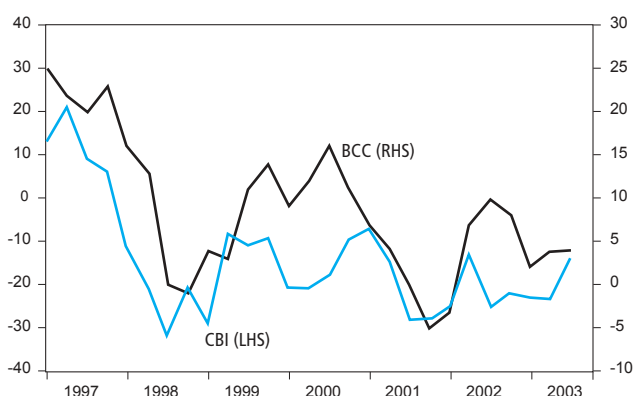


The environment remains a mixed one for investment. An increase in investment depends upon firms finding it both affordable and profitable to invest. The last few quarters have seen some improvement in profitability. Gross trading profits of Non-financial corporations were up significantly in the second quarter when compared with a year ago but by less in quarter three. Non-financial corporations have also been net lenders since the first quarter of 2001, a process that has allowed them to start to repair balance sheets. However, this process still has a long way to go. The financial balance sheet shows the sector having net liabilities of £1,199 billion in the second quarter of 2003, a slight rise when compared with the previous quarter.

It is also unclear whether firms perceive this as a favourable environment in which to boost investment. They generally continue to report a lack of pricing power, and very low capacity utilisation. This combination makes it difficult to see why investment should pick up significantly without a sustained increase in demand and surveys of investment intentions continue to show only limited plans to increase spending (Figure 11).

Figure 11
Investment plans

Balances

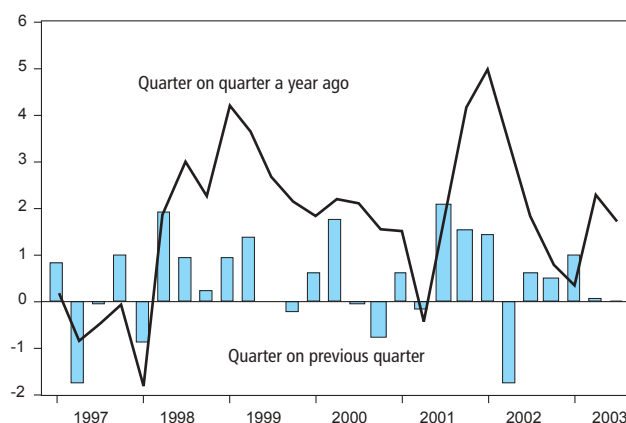


Government demand

Government final consumption expenditure in real terms grew by 0.2 per cent in the third quarter of 2003, a slower pace of growth than in the first half of the year when activity rose on average by 0.6 per cent. Some of this rise and subsequent fall back was accounted for by a one-off rise in defence spending linked to the Iraq conflict. However, some other areas of spending were also somewhat weaker. Growth compared with the same quarter a year ago was 2.4 per cent, indicating that the underlying rate of government expenditure growth is still quite rapid when compared to spending in much of the rest of the economy (Figure 12).

Figure 12
Government spending

Growth



The combination of faster government expenditure growth alongside weaker revenues reflecting the more subdued economic activity has led to deterioration in the public sector's finances. The public sector, a substantial net lender in the years 1998 to 2001 became a net borrower again in 2002. The net borrowing figure for 2002 was £16.5 billion, which compares with a net lending figure of £7.5 billion in the previous year. This trend continued into 2003 and the third quarter saw a net borrowing figure of £7.3 billion, compared with £7.4 billion for the second quarter and £7.7 billion for the first quarter.

Trade and the Balance of Payments

In volume terms both import and export activity was weak during the third quarter. Exports of goods and services rose by 0.4 per cent on the quarter, compared with the previous quarter's 2.9 per cent fall. This was largely due to a recovery in service exports after a fall in quarter two, but they remain relatively weak. Imports of goods and services also grew very slowly at 0.5 per cent, again up on the second quarter fall of 2.6 per cent but still quite subdued. To some extent the weakness in the trade numbers is misleading as it is still being distorted by the impact of MTIC fraud. The discovery of this resulted in the import data for a number of years prior to 2003 being revised upward, but the effect on 2003 has been to reduce growth rates for both export and import numbers because of the subsequent clampdown by customs. However,

even adjusted for MTIC fraud, third quarter exports of goods appear weak.

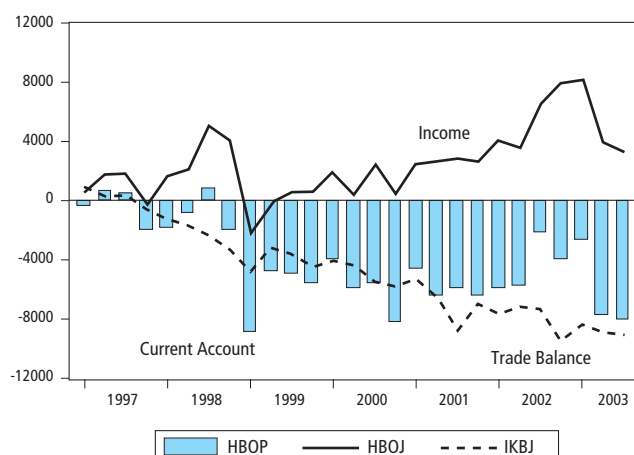
Breaking these down by area shows that exports to both the EU and the rest of the world were at best stagnant in the third quarter. At least some of the weakness in the former was due to sharp movements in oil and erratic items. The weakness in exports outside the EU looks to have been more widespread and might seem a little surprising given the pick up in international economic activity that has taken place. The underlying rate of import growth also looks low when compared to the growth rate of domestic demand but may reflect the fact that fixed investment spending, which can be particularly import intensive, has remained weak.

Both the CBI and BCC surveys seem to confirm that export performance has been subdued so far this year, although export orders did rise in the CBI survey for November holding out the hope of an improvement. Weak third quarter import numbers for at least some of the UK's main trading partners also provides some confirmation of the export picture. The latest data available at the time of writing is the October trade data. This showed that UK exports to outside the EU area picked up early in the fourth quarter but that exports to the EU continued to stagnate.

The UK current account was in substantial deficit in the third quarter of 2003 for the second quarter in a row, following a much smaller deficit in the first quarter. The third quarter current account deficit was £8.1 billion compared with £2.6 billion and £7.8 billion in the first and second respectively. The composition of the second and third quarter deficits was very similar, comprising large deficits on trade in goods and services, which were only partially offset by income flows. The rise in the deficit between the first and subsequent two quarters is primarily due to a fall in net investment income, both from direct and portfolio investment. A revision to historic numbers for other income has increased outflows in that area and has led to a significant rise in current account deficit numbers for some years prior to 2002 (Figure 13).

Figure 13
Balance of Payments

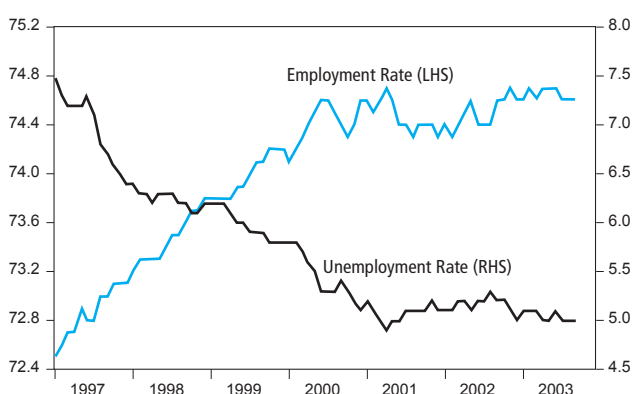
£ million



Labour Market

Headline labour market statistics continue to be remarkably stable. Employment is high, with the labour force survey (LFS) employment rate at 74.6 per cent in the three months to October, unchanged compared with a month ago. Meanwhile the LFS count of employment increased by 28,169 over the same period. The ILO unemployment rate was 5.0 per cent in the three months to October (Figure 14), down slightly when compared with the previous quarter and a year ago. The claimant count unemployment rate, at 3.0 per cent in November was unchanged on the month.

Figure 14
Labour Force Survey



Full-time employment has been falling over the last year or so as most job gains have been in part-time work. In the three months to October, the number of full-time workers fell by 4,000, while the number working part time was up by 42,000. However, comparing the numbers with the same period a year ago gives a somewhat different picture; then the number of full-time workers was up 155,000 and the number of part-time workers was only up 74,000.

Another recent trend has been for job gains to be in self-employment. The number of self-employed workers in the three months to October was up 3.1 per cent compared with the previous three months and 8.9 per cent compared with a year ago. In comparison the number in employment was slightly down on a three-month basis and on the year.

The average earnings index rose at a faster rate over the latest period, up by 3.6 per cent in the three months to October, unchanged from September. This is still well below the 4.5 per cent figure that the Bank of England considers broadly consistent with their inflation target. The gap between public and private sector earnings growth remains wide by recent standards, with public sector earnings growing more quickly.

Prices

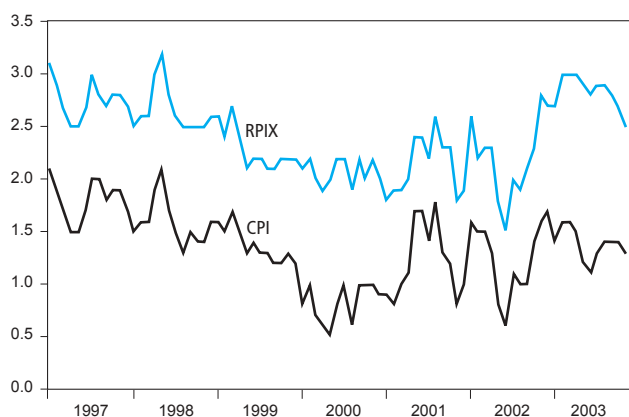
Producer output prices rose by 1.7 per cent annually in November, an acceleration of ? per cent from the October rate. After falling back in the second quarter, output prices now seem to have resumed the upward trend that appeared to be underway earlier in the year. Recent movements have

been affected by fluctuations in the oil price, but underlying inflation has also gone up. Output prices excluding food, beverages tobacco and petroleum products were up by 1.3 per cent in November, the same as the previous month. Input prices were volatile in 2003. In the first quarter they rose by 1.7 per cent, then fell back by 0.5 per cent in the second quarter as the oil price declined but have since climbed once again rising 3.8 per cent in November compared with a year ago.

Consumer price inflation (CPI) fell slightly in November. That was the first data release since the Chancellor announced a change in the inflation target. The new target for the Bank of England is to keep CPI inflation (the new term for the Harmonised Index of Consumer Prices) to 2.0. In October CPI inflation was 1.3 per cent, down 0.1 per cent compared with a month ago and well below target. The old target measure RPIX, also fell over the month, by 0.2 per cent to 2.5 per cent, exactly equal to the old target rate (Figure 15).

Figure 15
Prices

Growth, month on a year ago



Forecasts for the UK economy

A comparison of independent forecasts, December 2003

The tables below are extracted from HM Treasury's Forecasts for the UK Economy and summarise the average and range of independent forecasts for 2003 and 2004, updated monthly.

Independent forecasts for 2003

	Average	Lowest	Highest
GDP growth (per cent)	2.0	1.8	2.1
Inflation rate (Q4 per cent)			
RPI	2.7	2.2	3.5
RPI excluding MIPs	2.6	2.2	2.9
Unemployment (Q4, million)	0.93	0.91	1.00
Current account (£ billion)	-23.1	-39.3	-16.0
Public Sector-Net Borrowing (2003-04, £ billion)	34.9	29.0	40.0

Independent forecasts for 2004

	Average	Lowest	Highest
GDP growth (per cent)	2.6	0.9	3.5
Inflation rate (Q4 per cent)			
RPI	2.9	1.8	3.8
RPI excluding MIPs	2.4	1.7	3.3
Unemployment (Q4, million)	0.93	0.76	1.20
Current account (£ billion)	-23.9	-41.4	-5.0
Public Sector Net Borrowing (2004-05, £ billion)	36.0	28.0	49.0

NOTE Forecasts for the UK Economy gives more detailed forecasts, covering 27 variables and is published monthly by HM Treasury, available on annual subscription, price £75. Subscription enquiries should be addressed to Claire Coast-Smith, Public Enquiry Unit 2/52, HM Treasury, 1 Horse Guards Road, London, SW1A 2HQ (tel 020 7270 4558). It is also available at the Treasury's Internet site: <http://www.hm-treasury.gov.uk> under 'Economic Data and Tools'.

International economic indicators

January 2004

Nicola Mai

Office for National Statistics

Overview

- The first half of 2003 saw the non-EU major economies strengthening while the EU area was still struggling with low or negative output growth rates. The German, French and Italian economies all contracted in the second quarter, being struck by low or falling investment and negative contributions from net foreign trade. In contrast a pick up in investment and consumer spending helped Japan and the US, which showed signs of recovery.
- In the third quarter of 2003, however, there have been signs of a global recovery. The performance of the US was particularly robust with the American GDP growing at 2.0 per cent in the quarter, driven primarily by consumption and recovering investment. The major EU economies and Japan all showed positive growth in quarter three.
- Industrial production contracted in all major economic areas in quarter two. The IOP rebounded quite strongly in quarter three in the US, Japan and Italy whereas it remained negative in France and Germany. However, while the French IOP fell by only 0.1 per cent, the German IOP fell by 0.6 per cent in the quarter, confirming the weakness of the production sector in the largest European economy.
- The Italian unemployment rate seems to be declining, the German rate is broadly flat and the French rate has been increasing steadily since the beginning of the year according to monthly figures. Unemployment seems to be falling in the US and Japan.
- Inflationary pressures have been stable and fairly subdued. Deflation continues in Japan but is more moderate than before.

EU15

Table 1 European Union 15 is not available this month. We apologise for any inconvenience to our readers for this omission.

Germany

The German economy contracted for two consecutive quarters in 2003 with GDP falling by 0.2 per cent in each of the first two quarters. This followed on from two years of modest growth with overall GDP growing by 0.2 per cent in 2002 and 1.0 per cent in 2001. In 2003 quarter three GDP grew by 0.2 per cent. This figure is still fairly subdued but reversed the negative trend of the year. External surveys at the end of 2003 showed a pick up in business and consumer confidence and analysts expect official data to strengthen in 2003 quarter four and into 2004. Tax cuts and labour market reforms approved by the German government in December are also expected to contribute positively to growth.

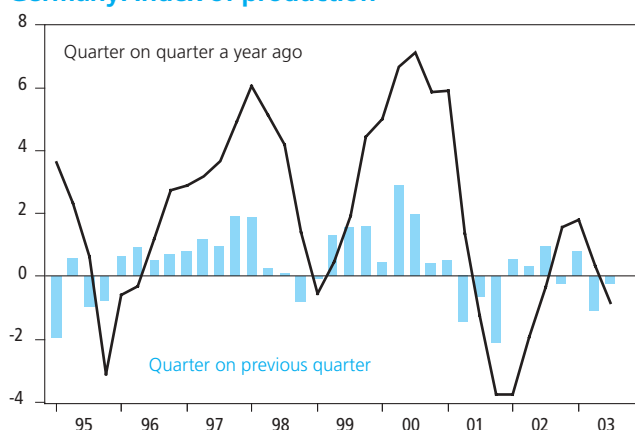
The major downward pressures to GDP in the first half of 2003 came from negative net exports and weak private sector domestic demand (household and investment) partially offset by a modest increase in government consumption and a substantial increase in stocks. More generally there has been a lack of any appreciable domestic momentum in the German economy. Household consumption made a negative contribution of 0.6 per cent in 2002 and investment expenditure has been in decline, showing contractions in annual growth in both 2001 and 2002. Government demand has made only small contributions in recent years. The positive impetus that came mainly from exports in 2002 quarters two and three slowed considerably in 2002 quarter four and in the first half of 2003 and this contributed substantially to the weaker performance of the economy.

GDP growth in 2003 quarter three was driven mainly by a pick up in net exports, which rebounded sharply from

its early sluggishness. Exports rose strongly contributing 1.2 per cent to GDP growth, while a sharp fall in imports contributed another 0.6 per cent. Strong foreign demand relative to domestic demand supported net exports, which at least in the short run were not adversely affected by the strong euro. On the other hand, domestic demand in the quarter remained weak with private consumption and fixed investment contributing negatively to growth, by -0.3 and -0.2 respectively. Inventories decreased sharply in the quarter contributing by -1.1 per cent to growth, but this series is hard to interpret since it contains alignment adjustments.

The IOP declined by 0.3 per cent in 2003 quarter three due to low production in August and September which offset a sharp increase in the index in July. In the first half of the year, industrial production had risen by 0.8 per cent in quarter one and declined by 1.1 per cent in quarter two. On the whole, growth in industrial production has been subdued since 2001, when it grew by only 0.5 per cent, compared to growth of 6.2 per cent in 2000. Overall in 2002, the index fell by 1.1 per cent. Figure 1 shows the pattern of the German IOP since 1995.

Figure 1
Germany: Index of production



The CPI shows consumer prices growing by 1.1 per cent in the year to October and by 1.0 per cent in quarter three on the same quarter a year earlier. German consumer price inflation has been well below the EU average and is the lowest among the large Euro economies. Figures for the PPI show prices at the factory gate increasing by 1.9 per cent in the year to September and by 2.0 per cent for quarter three on the same quarter a year ago. So far in 2003, the CPI has tended to grow more slowly than the PPI, possibly indicating deceleration of prices in the service industries and other items not included in the producer price index.

The unemployment rate in Germany has been high but stable recently. The rate was 9.3 per cent in October and has been oscillating between 9.3 and 9.4 per cent since March 2003, the highest levels recorded in Germany since May 1998. Prior to this, the unemployment rate had risen gradually from a trough of 7.6 per cent in 2000 quarter four and 2001 quarter one. Employment in the year to the first and second quarters of 2003 contracted by 1.7 and 1.8 per cent respectively and this employment series has now shown declines for seven consecutive quarters. On the other hand, the growth rate

of employment in quarter two on the previous quarter was positive - 0.6 per cent - although the quarterly pattern is fairly volatile.

Earnings growth hovered between 1.0 per cent and 1.1 per cent from 2001 quarter three to 2002 quarter two, down from a 2.0 per cent growth rate in the first half of 2001. In 2002 quarter three, earnings returned to a rate above 2 per cent growing by 2.1 and 2.4 per cent in the last two quarters of 2002. Earnings growth has been fairly stable in 2003 as well with annual growth rates in quarters one, two and three of 2.7, 2.8 and 2.1 per cent respectively being posted.

France

French GDP in 2003 quarter three grew by 0.4 per cent, the highest quarterly growth rate since the first half of 2002. This followed on from a contraction of 0.3 per cent in the second quarter and an expansion of 0.1 per cent in the first quarter. Overall in 2002, the economy grew by 1.2 per cent, the lowest growth rate since 1996 but still one of the highest amongst the major Euro economies that year.

Growth in the third quarter was aided by an increase in exports, rising after three consecutive quarters of falls and contributing 0.3 per cent to GDP growth. Consumption also contributed 0.3 per cent to growth whereas investment remained relatively weak contributing only 0.1 per cent to GDP growth. Government consumption also grew in the quarter and made a positive contribution of 0.2 per cent to growth whereas stocks decreased making a negative contribution of 0.4 per cent to growth. Recently, external indicators have shown signs of rising business confidence and analysts expect to see a pick up in activity in France for 2003 quarter four and into 2004.

It is worth pointing out that in spite of the weak performance over the last two years, in line with global trends, the French economy has generally outperformed the EU 15. France's performance in the recent past has been helped by tax cuts, which have underpinned growth in disposable income and consumer spending.

The French IOP followed a similar path to the German IOP in 2003. The index grew by 0.4 per cent in the first quarter of the year and declined by 1.5 and 0.1 per cent in the second and third quarters respectively. On a monthly basis, the index fell by 1.8 per cent in the year to September by 2.4 per cent in the year to August, indicating that industrial production is weak compared to a year ago. Industrial production has been very weak for the last couple of years, showing negative annual growth rates all the way since 2001 quarter four, with the single exception of the first quarter of 2003. The quarter on previous quarter growth rates have been more volatile but generally confirm this picture. On the positive side, external indexes of business confidence are rising, offering more optimistic prospects for the future.

Consumer price inflation rose quite strongly in the first quarter of 2003, jumping from 1.9 per cent in January to 2.6 per cent in February and March. In quarter two however inflation slowed down and the rate was 1.8 and 2.0 per cent in May and June. In quarter three, inflation was fairly stable and

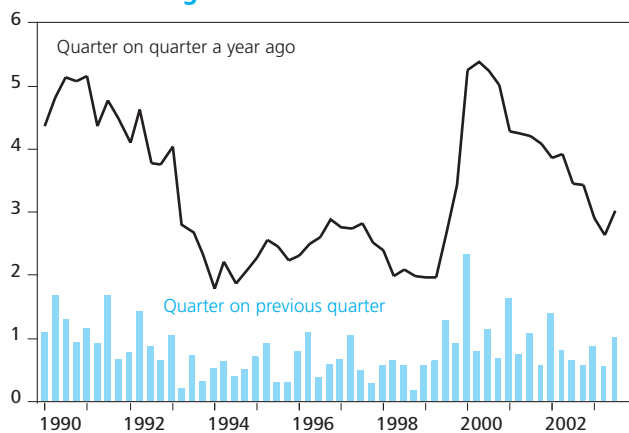
CPI growth was 2.1 in September up from 1.9 in July August. In October, CPI inflation increased slightly to 2.2 per cent.

Producer prices grew quite strongly in the first half of 2003 with growth rates of 0.6 per cent in the year to the first and second quarters. Producer price growth however stalled in the third quarter and remained near zero in October when the PPI grew by 0.1 per cent. In the long run, the index has roughly followed the movement of the CPI but has been much more volatile.

The French unemployment rate has been rising steadily over the past year. It has risen from 9.1 per cent in January 2003 to 9.6 per cent in October. This is the highest rate since July 2000. Employment growth has been showing a steady decline since the start of 2001 when computed as growth of a quarter on the same quarter a year earlier. When looking at quarter on previous quarter growth (this measure tends to be more volatile but is less linked to past events), however, there seems to have been a stabilisation of employment growth in 2002 through 2003 at around 0.1 per cent, with the exception of a slowdown in 2003 quarter one.

Annual earnings growth has been easing since 2000 and declined from 4.1 per cent in the year to the fourth quarter of 2001 to 2.6 per cent in the second quarter of 2003. In the third quarter, however, there was a pick up in earnings growth which jumped to 3.0 per cent. Figure 2 shows the pattern of earnings growth in France since 1990.

Figure 2
France: Earnings



Italy

In 2003 quarter three the Italian economy showed a fairly strong pick up with GDP growing at 0.5 per cent, the fastest rate among the major EU economies. The Italian economy had contracted by 0.2 per cent in the first two quarters of 2003 after positive modest growth in 2002 of 0.4 per cent and more substantial growth of 1.7 per cent in 2001. Since 2001 the Italian economy has tended to grow more quickly than that of Germany but generally has not been as strong as the French economy.

In the first two quarters of 2003, private consumption made a small but positive contribution to GDP growth. Inventories also made a strong positive contribution but not enough to

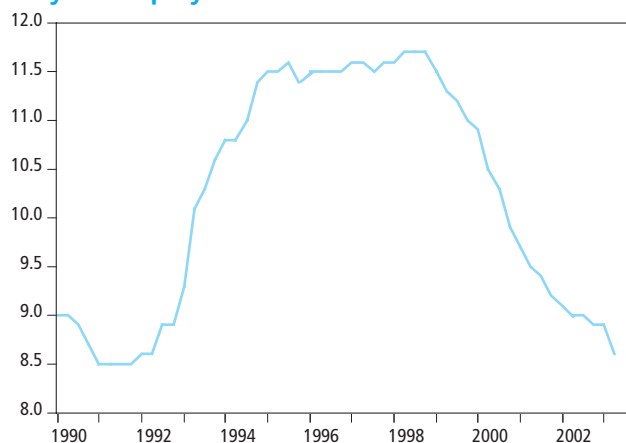
offset the impact of decreasing net exports and the decline in investment. Government expenditure has been roughly flat.

Industrial production has been very weak since the second quarter of 2001 showing negative annual growth until 2003 quarter two, with the exception of 2002 quarter four. The quarterly growth rates picked up in the first three quarters of 2002 but subsequently output declined. In 2003 quarter three industrial production picked up and was 1.4 per cent higher than in the previous quarter but still lower than production in the same quarter a year earlier.

Consumer price inflation in recent years has been consistently higher than the EU average (Figure 3). In 2003, inflation has been quite stable and ranged between 2.6 and 2.8 per cent. The October figure for inflation was 2.6 per cent. Producer price inflation on the other hand has been slowing through the year, going from 2.8 per cent in February to 0.6 per cent in October. The difference between the two might be an indication of accelerating service prices but it could also be the effect of other ticket items not included in the PPI.

The unemployment rate in Italy has been steadily declining since 1998 when the rate was as high as 11.7 per cent (Figure 3). The rate was broadly flat at 9.0 per cent in 2002 but declined steadily in 2003 going from 9.0 per cent in January to 8.5 per cent in July. Employment growth was 0.9 per cent in the year to the third quarter of 2003 down from growth of 1.3 per cent in the year to the second quarter of 2003 but nevertheless still positive.

Figure 3
Italy: Unemployment rate



Earnings figures are quite volatile. It is worth noticing however that earnings' growth rates in the year to July, in the year to August and in the year to September 2003 were 3.2 per cent, showing a pick up in momentum, which had been lost between February and June. The growth rate in the year to October was 2.7 per cent, slightly lower than the previous month but still higher than earlier in the year.

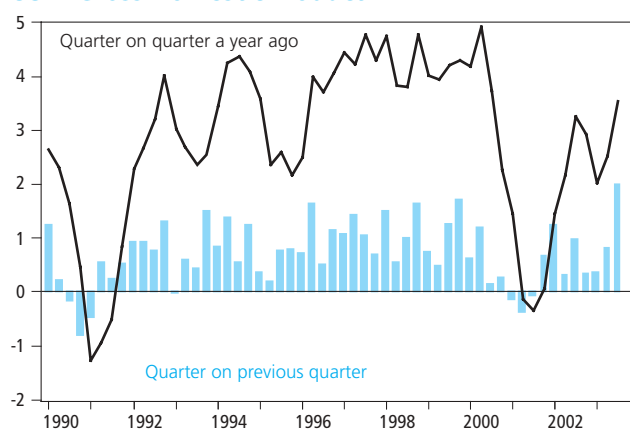
USA

The US economy has shown very strong signs of recovery in 2003 having grown by 0.4, 0.8 and 2.0 per cent in the first three quarters. The data clearly suggests that the American

economy is leading the global recovery. Figure 4 shows the pattern of American GDP growth since 1990.

Personal consumption, the main driver throughout 2002 and in the first two quarters of 2003 continued to lead growth in 2003 quarter three, contributing 1.1 percentage points to quarterly GDP growth. Investment made the second highest contribution to GDP growth, of 0.7 per cent, the most rapid rise since the technology boom in the 1990s. Investment has picked up in the US through the year, showing consistently positive growth in 2003 after almost two years of continual decline. Net exports also made a small positive contribution to growth, of 0.2 per cent, thanks to the weakness of the dollar. Finally, government consumption did not make any contribution to growth, which contrasts with the second quarter, which saw a surge in defence spending. In spite of the very positive results, it is perhaps still too early to say whether this astonishing third quarter growth rate is merely a blip or the start of a more prolonged strengthening in activity.

Figure 4
USA: Gross Domestic Product



The index of production has been fairly volatile. After a decline of 1.0 per cent in 2003 quarter two, the index picked up in the third quarter, growing by 1.0 per cent. Overall in 2002, the index contracted by 0.6 per cent but this is mainly due to the pronounced decline in activity in 2001 rather than too sluggish growth in 2002. Indeed, growth in 2002 was positive for all quarters except the last.

Inflation rates had been low until January 2003. After that point consumer price inflation started to increase and reached a peak in March when the rate hit 3.1 per cent. Much of this though could be explained by fluctuations in the oil price and since the peak, inflation has slowed stabilising at a rate slightly above 2 per cent. By October, consumer price inflation was 2.0 per cent. The change in the growth rate of producer prices has followed a similar pattern to consumer price growth but have been much more volatile. Producer prices fell from a peak of 4.5 per cent in March this year to 1.9 per cent in October.

The unemployment rate has been rising since 2000 when the rate was 4 per cent but may have turned around in the third quarter. From 4 per cent in 2000, the rate rose to 4.8 per cent in 2001 and 5.8 per cent in 2002. The unemployment rate reached a peak of 6.4 per cent in June 2003. The rates for the

months of July, August and September this year were 6.2, 6.1 and 6.1 per cent respectively, suggesting an improvement in the labour market. Unemployment fell further in October when it reached 6.0 per cent. Employment in the latest quarter also grew by 0.3 per cent on the previous quarter.

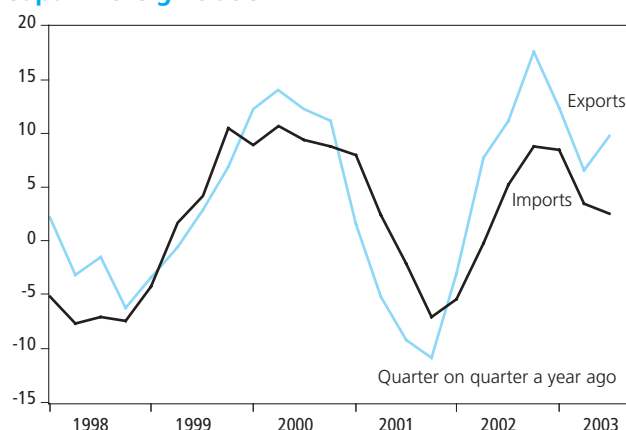
Earnings growth has been very stable over the year, hovering around 3.2 and 3.3 per cent and staying at very similar levels with both 2001 and 2002 when the growth rate was 3.3 per cent. Earnings growth fell in October to 2.4 per cent but this may just be a blip and should not yet be deemed as evidence of a change in trend.

Japan

The Japanese economy grew by 0.5 per cent in the first quarter of 2003, by 0.9 per cent in the second and by 0.5 in the third quarter. The Japanese economy has been growing more quickly than the Euro area economies but more slowly than the American economy.

Consumption has been growing modestly over the year while investment growth has also been fairly buoyant and contributed substantially to growth in the second and third quarter of 2003. Government consumption and inventories have both had little impact on growth over the year and made no contribution in the third quarter. Net exports in contrast have been fairly strong since 2002 (Figure 5) and contributed 0.2 per cent to growth in 2003 quarter three. More generally, the Japanese economy seems to have picked up some momentum since the second quarter of 2002. Growth in the later quarters of 2002 had been driven by a combination of stronger consumer demand and investment, substantial stock building and a fairly strong rebound in exports.

Figure 5
Japan: Foreign trade



As with all the other major economies outside the UK, the index of production contracted in 2003 quarter two by 0.8 per cent having grown by 0.4 per cent in the previous quarter. The index however saw a rebound in quarter three when it grew by 1.0 per cent. Looking at the monthly changes shows that the rise in the index in the third quarter is due mainly to a sharp rise in September when the index grew by 3.7 per cent on the previous month. Overall in 2002, the index declined by 1.1 per cent compared to a year earlier which, although negative, is a substantial improvement over the previous year's contraction

of 6.2 per cent. Indeed, the fall of the index in 2002 seems to be due to the negative growth in all quarters of 2001 - which brought the index level down substantially - rather than 2002 itself where the quarterly growth rates were all positive.

Consumer and producer prices continue the deflation that began in mid-1998, although price falls have slowed since late 2002. Figures for the year to September show the consumer prices index declining by 0.2 per cent and the producer prices by 0.8 per cent. The PPI declined by 0.9 per cent in the year to October.

The unemployment rate in October was 5.2 per cent, the same as the average rate of the previous quarter. These recent rates of unemployment are very high by Japanese historical standards (unprecedented in fact since 1960 when OECD records began). Employment had picked up towards the end of the second quarter but seems to revert back to declines since then, falling in August, September and October.

Despite the current weak labour market, earnings growth, which had been in decline until late 2002, started to pick up in 2002 quarter four and was 1.8 per cent in the third quarter of 2003. This is a significant improvement from the third quarter of 2002 when earnings were 2.2 per cent lower than in the same quarter of the previous year.

World Trade

Some data for world trade for OECD countries now extends to the first quarter of 2003 and generally shows a fall back in trade from the levels seen in the first half of 2002.

Manufacturing exports of OECD countries contracted by 0.4 per cent, following a contraction of 0.9 per cent in the previous quarter. Overall in 2002, exports of manufactures in OECD countries grew by 2.5 per cent, a significant improvement over the previous year's fall of 1.0 per cent but still well below the average of the 1990s. OECD imports also increased by 2.4 per cent in 2002, up from a growth rate of -0.6 per cent in 2001 but well below the average of the 1990s. Non-OECD exports of manufactures in 2002 grew by 8.1 per cent in the same period, improving substantially from 2001 where there was a fall of 2.1 per cent. No figure is available for non-OECD imports. Figure 6 plots exports of manufactures in OECD and non-OECD countries since 1990.

Imports of goods by OECD countries also contracted, by 0.2 per cent in the first quarter of 2003 having shown growth in all quarters of 2002. In 2002 as a whole, OECD goods' imports were up 2.7 per cent compared to a contraction in the previous year of 1.1 per cent.

World trade of goods and manufactures over the past couple of years rose strongly in 2000 and fell sharply in 2001, where the rates were negative in all quarters. In 2002 growth in world trade, however, seems to have picked up again.

Notes

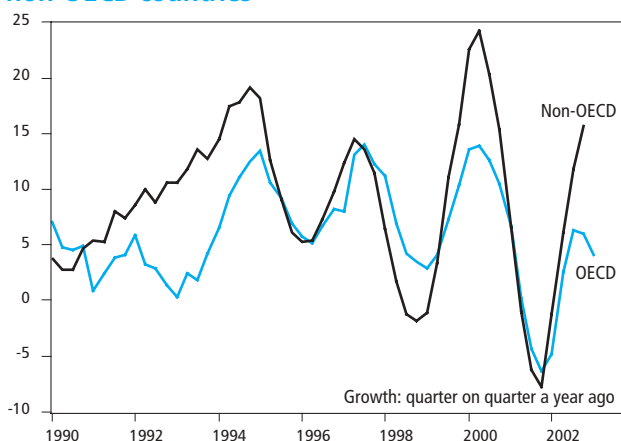
The series presented here are taken from the OECD's Main Economic Indicators and are shown for each of the G7 (except the UK) economies and for the European Union (EU15) countries in aggregate. The definitions and methodologies used conform to SNA 93.

Comparisons of indicators over the same period should be treated with caution, as the length and timing of the economic cycles varies across countries. For world trade, goods includes manufactures, along with food, beverages and tobacco, basic materials and fuels.

Data for EU15, France, Germany, Italy, the USA and Japan are all available on an SNA93 basis. Cross country comparisons are now more valid.

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Figure 6
World trade: Exports of manufactures in OECD and non-OECD countries



2 Germany

	Contribution to change in GDP													
	GDP	PFC	GFC	GFCF	ChgStk	Exports	Imports ^{less}	IoP	Sales	CPI	PPI	Earnings	Empl ¹	Unempl
Percentage change on a year earlier														
	ILFY	HUBW	HUBX	HUBY	HUBZ	HUCA	HUCB	ILGS	ILHM	HVLL	ILAF	ILAO	ILIG	GABD
1998	1.7	0.9	0.3	0.5	0.3	1.8	2.2	4.2	1.1	1.0	-0.4	1.8	1.5	9.1
1999	1.9	2.0	0.2	0.8	-0.4	1.5	2.3	1.5	0.4	0.6	-1.0	2.7	-0.1	8.4
2000	3.1	1.2	0.2	0.7	-0.2	4.4	3.2	6.2	1.4	1.5	3.4	2.6	0.6	7.8
2001	1.0	0.9	0.2	-0.9	-0.8	2.0	0.4	0.5	1.1	1.9	2.9	1.6	0.3	7.8
2002	0.2	-0.6	0.3	-1.4	0.1	1.2	-0.5	-1.1	-2.1	1.5	-0.4	1.6	-0.9	8.6
2000 Q2	4.5	2.1	0.3	0.9	-0.2	4.2	2.8	6.7	4.4	1.1	2.6	2.5	0.6	7.8
Q3	3.0	1.5	-	0.6	-	4.0	3.2	7.1	1.6	1.3	3.7	3.2	0.4	7.7
Q4	1.9	0.6	0.3	0.5	-	4.9	4.4	5.8	-0.1	1.8	4.5	2.3	0.8	7.6
2001 Q1	1.9	1.2	0.1	-0.2	-0.4	3.6	2.3	5.9	2.2	1.7	4.8	2.0	0.7	7.6
Q2	0.8	0.6	0.1	-0.7	-0.4	2.5	1.4	1.4	0.5	2.5	4.7	2.0	0.7	7.7
Q3	0.7	0.9	0.2	-1.3	-1.2	2.0	-0.1	-1.3	1.5	2.2	2.6	1.1	0.2	7.9
Q4	0.5	0.7	0.3	-1.4	-1.3	0.1	-2.1	-3.8	0.3	1.6	0.3	1.1	-0.3	8.1
2002 Q1	-0.1	-0.5	0.3	-1.4	-0.7	0.4	-1.9	-3.7	-4.2	1.9	-0.2	1.1	-0.5	8.3
Q2	0.1	-0.7	0.4	-1.7	0.2	1.0	-0.9	-1.9	-2.2	1.3	-0.9	1.0	-0.8	8.5
Q3	0.4	-0.7	0.6	-1.4	0.3	1.6	-	-0.3	-0.8	1.1	-1.0	2.1	-1.0	8.7
Q4	0.5	-0.4	-	-1.1	0.7	1.9	0.7	1.6	-1.3	1.2	0.5	2.4	-1.3	8.9
2003 Q1	0.1	0.4	-	-1.0	1.3	1.4	2.1	1.8	1.0	1.2	1.7	2.7	-1.7	9.2
Q2	-0.3	-	0.1	-0.4	0.7	-0.1	0.5	0.3	-0.1	0.8	1.4	2.8	-1.8	9.4
Q3	-0.2	-0.5	-	-0.6	0.1	0.3	-0.4	-0.9	-2.6	1.0	2.0	2.1	..	9.4
2002 Oct	..	..	..	..	..	..	..	0.8	1.4	1.3	0.3	..	..	8.8
Nov	..	..	..	..	..	..	..	3.8	-3.0	1.2	0.4	..	..	8.9
Dec	..	..	..	..	..	..	..	-	-2.3	1.2	0.9	..	..	8.9
2003 Jan	..	..	..	..	..	..	..	1.6	1.8	1.1	1.6	..	..	9.0
Feb	..	..	..	..	..	..	..	2.4	1.3	1.2	1.9	..	..	9.2
Mar	..	..	..	..	..	..	..	1.4	-0.3	1.2	1.7	..	..	9.3
Apr	..	..	..	..	..	..	..	0.9	-0.2	0.9	1.6	..	..	9.4
May	..	..	..	..	..	..	..	1.5	-1.3	0.6	1.3	..	..	9.4
Jun	..	..	..	..	..	..	..	-1.4	1.2	0.9	1.3	..	..	9.3
Jul	..	..	..	..	..	..	..	1.9	-2.0	0.9	1.9	..	..	9.3
Aug	..	..	..	..	..	..	..	-2.8	-3.0	1.1	2.1	..	..	9.4
Sep	..	..	..	..	..	..	..	-1.7	-2.9	1.0	1.9	..	..	9.4
Oct	..	..	..	..	..	..	..	-0.8	1.1	..	..	..	..	9.3
Percentage change on previous quarter														
	ILGI	HUCC	HUCD	HUCE	HUCF	HUCG	HUCH	ILHC	ILHW				ILIQ	
2000 Q2	1.1	0.8	-0.1	0.1	-	1.2	0.9	2.9	1.1				1.0	
Q3	-0.1	-0.1	-0.1	0.2	0.2	0.6	1.0	2.0	-1.5				0.7	
Q4	-	-0.2	0.3	-0.2	0.1	1.7	1.6	0.4	0.3				1.0	
2001 Q1	0.9	0.7	-	-0.4	-0.7	-	-1.1	0.5	2.3				-1.9	
Q2	-	0.3	-0.1	-0.4	-	0.1	-	-1.5	-0.6				1.0	
Q3	-0.2	0.1	-	-0.3	-0.6	0.1	-0.5	-0.7	-0.5				0.2	
Q4	-0.1	-0.4	0.4	-0.3	-	-0.2	-0.4	-2.1	-0.9				0.5	
2002 Q1	0.2	-0.5	-	-0.4	-0.1	0.3	-0.9	0.5	-2.3				-2.2	
Q2	0.2	0.1	0.1	-0.7	0.9	0.8	1.0	0.3	1.5				0.7	
Q3	0.1	0.1	0.1	-	-0.5	0.7	0.3	0.9	0.9				-	
Q4	-	-0.1	-0.1	-	0.4	-	0.3	-0.3	-1.4				0.2	
2003 Q1	-0.2	0.2	-	-0.3	0.5	-0.1	0.5	0.8	-				-2.6	
Q2	-0.2	-0.3	0.1	-0.1	0.4	-0.8	-0.6	-1.1	0.5				0.6	
Q3	0.2	-0.3	0.1	-0.2	-1.1	1.2	-0.6	-0.3	-1.6				..	
Percentage change on previous month														
								ILKC	ILKM					
2002 Oct								-0.2	-0.7					
Nov								1.5	-1.1					
Dec								-2.6	-1.4					
2003 Jan								2.0	1.6					
Feb								0.3	-0.1					
Mar								-0.5	-0.8					
Apr								-0.2	1.0					
May								-0.7	-0.8					
Jun								-0.8	1.7					
Jul								2.9	-2.4					
Aug								-3.5	-0.4					
Sep								0.2	0.5					
Oct								..	1.4					

GDP = Gross Domestic Product at constant market prices
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Exports = Exports of goods and services
Imports = Imports of goods and services
IoP = Industrial Production

Sales = Retail Sales volume
CPI = Consumer Prices measurement not uniform among countries
PPI = Producer Prices (manufacturing)
Earnings = Average Earnings (manufacturing), definitions of coverage and treatment vary among countries
Empl = Total Employment not seasonally adjusted
Unempl = Standardised Unemployment rates: percentage of total workforce
Source: OECD - SNA9:

1 Excludes members of armed forces

3 France

Contribution to change in GDP

	GDP	PFC	GFC	GFCF	ChgStk	Exports	Imports ^{less}	IoP	Sales	CPI	PPI ¹	Earnings	Empl ²	Unempl
Percentage change on a year earlier														
	ILFZ	HUBK	HUBL	HUBM	HUBN	HUBO	HUBP	ILGT	ILHN	HXAA	ILAG	ILAP	ILIH	GABC
1998	3.6	2.0	—	1.3	0.8	2.1	2.6	5.2	2.6	0.7	-0.9	2.2	1.9	11.4
1999	3.2	1.9	0.3	1.6	-0.2	1.1	1.5	1.9	2.4	0.5	-1.6	2.5	2.2	10.7
2000	4.2	1.6	0.7	1.7	0.5	3.6	3.8	3.6	0.5	1.7	2.0	5.2	2.8	9.3
2001	2.1	1.6	0.6	0.4	-0.7	0.6	0.4	1.2	-0.2	1.6	1.2	4.2	1.7	8.5
2002	1.2	0.8	0.9	-0.3	-0.3	0.4	0.2	-1.0	—	1.9	-0.2	3.6	0.5	8.8
2000 Q2	4.5	1.7	0.7	1.8	0.2	3.9	3.7	3.9	1.4	1.5	2.0	5.4	2.9	9.4
Q3	3.9	1.4	0.8	1.5	1.0	3.4	4.2	3.8	0.1	1.9	2.7	5.2	2.8	9.1
Q4	3.8	1.2	0.7	1.6	0.5	3.8	3.9	2.7	-1.3	1.9	2.4	5.0	2.7	8.8
2001 Q1	3.1	1.5	0.6	1.0	-0.3	2.7	2.4	3.1	1.1	1.2	2.4	4.3	2.3	8.6
Q2	2.2	1.5	0.6	0.5	-0.1	0.8	1.0	2.0	-0.4	2.0	1.7	4.2	1.9	8.5
Q3	2.3	1.7	0.8	0.4	-1.0	0.1	-0.3	1.6	-0.7	1.8	0.7	4.2	1.3	8.5
Q4	0.7	1.5	0.6	-0.2	-1.3	-1.4	-1.5	-1.8	-0.8	1.4	—	4.1	1.0	8.5
2002 Q1	0.8	0.9	0.9	-0.3	-0.4	-0.8	-0.6	-1.7	-1.6	2.2	-0.7	3.9	0.6	8.6
Q2	1.5	0.9	1.0	-0.1	-0.8	0.6	0.1	-0.6	-0.6	1.7	-0.5	3.9	0.5	8.7
Q3	1.3	0.7	0.9	-0.3	-0.1	0.7	0.5	-1.7	1.0	1.8	0.1	3.5	0.5	8.9
Q4	1.3	0.8	0.9	-0.4	-0.2	1.0	0.8	-0.1	1.0	2.1	0.2	3.4	0.3	9.0
2003 Q1	0.7	1.0	0.7	-0.4	-0.2	-0.1	0.4	0.3	-0.8	2.4	0.6	2.9	—	9.2
Q2	-0.3	0.8	0.4	-0.3	-0.1	-1.0	0.1	-2.0	..	1.9	0.6	2.6	-0.1	9.3
Q3	-0.2	0.8	0.4	-0.1	-0.7	-0.7	-0.1	-1.9	..	2.0	—	3.0	..	9.5
2002 Oct	..	..	..	..	..	..	..	-0.6	3.0	1.8	0.2	..	..	9.0
Nov	..	..	..	..	..	..	..	0.8	2.1	2.2	0.1	..	..	9.0
Dec	..	..	..	..	..	..	..	-0.3	-1.8	2.3	0.3	..	..	9.1
2003 Jan	..	..	..	..	..	..	..	0.3	3.0	1.9	0.4	..	..	9.1
Feb	..	..	..	..	..	..	..	1.1	-0.7	2.6	0.7	..	..	9.2
Mar	..	..	..	..	..	..	..	-0.5	-4.6	2.6	0.7	..	..	9.2
Apr	..	..	..	..	..	..	..	-1.5	1.8	2.0	0.8	..	..	9.3
May	..	..	..	..	..	..	..	-2.8	-2.0	1.8	0.6	..	..	9.3
Jun	..	..	..	..	..	..	..	-1.9	..	2.0	0.6	..	..	9.4
Jul	..	..	..	..	..	..	..	-1.5	..	1.9	—	..	..	9.4
Aug	..	..	..	..	..	..	..	-2.4	..	1.9	-0.1	..	..	9.5
Sep	..	..	..	..	..	..	..	-1.8	..	2.1	—	..	..	9.5
Oct	..	..	..	..	..	..	..	..	..	2.2	0.1	..	..	9.6
Percentage change on previous quarter														
	ILGJ	HUBQ	HUBR	HUBS	HUBT	HUBU	HUBV	ILHD	ILHX				ILIR	
2000 Q2	0.9	0.3	0.2	0.4	-0.1	1.2	1.0	0.8	-0.7				0.7	
Q3	0.4	0.2	0.1	0.1	0.3	0.6	1.0	1.2	—				0.6	
Q4	1.3	0.3	0.2	0.5	0.2	1.0	0.8	1.1	-0.4				0.6	
2001 Q1	0.5	0.7	0.1	0.1	-0.7	-0.1	-0.5	—	2.3				0.4	
Q2	—	0.3	0.1	-0.2	0.1	-0.7	-0.3	-0.3	-2.2				0.3	
Q3	0.4	0.4	0.3	—	-0.5	-0.1	-0.3	0.8	-0.3				0.1	
Q4	-0.3	—	0.1	-0.1	-0.1	-0.6	-0.4	-2.3	-0.5				0.3	
2002 Q1	0.7	0.1	0.3	—	0.2	0.5	0.4	0.1	1.4				—	
Q2	0.7	0.3	0.3	—	-0.3	0.7	0.3	0.8	-1.2				0.1	
Q3	0.2	0.2	0.1	-0.2	0.1	—	0.2	-0.3	1.3				0.1	
Q4	-0.3	0.1	0.1	-0.2	-0.2	-0.2	-0.1	-0.7	-0.5				0.1	
2003 Q1	0.1	0.4	0.1	—	0.1	-0.6	—	0.4	-0.4				-0.3	
Q2	-0.3	—	—	0.1	-0.2	-0.2	0.1	-1.5	..				—	
Q3	0.4	0.3	0.2	0.1	-0.4	0.3	—	-0.1	..				..
Percentage change on previous month														
								ILKD	ILKN					
2002 Oct								-0.9	2.8					
Nov								1.0	—					
Dec								-1.1	-2.7					
2003 Jan								0.8	4.1					
Feb								0.5	-1.9					
Mar								-0.7	-3.9					
Apr								-0.7	4.6					
May								-1.3	-2.3					
Jun								0.7	..					
Jul								0.2	..					
Aug								-0.6	..					
Sep								0.4	..					
Oct												

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CPI = Consumer Prices, measurement not uniform among countries
PPI = Producer Prices (manufacturing)
Earnings = Average Wage Earnings (manufacturing), definitions of coverage and treatment vary among countries
Empl = Total Employment not seasonally adjusted
Unempl = Standardised Unemployment rates: percentage of total workforce
IoP = Index of Production

1 Producer prices in manufactured goods
2 Excludes members of armed forces

Source: OECD - SNA93

4 Italy

Contribution to change in GDP

	GDP	PFC	GFC	GFCF	ChgStk	Exports	less Imports	IoP	Sales	CPI	PPI	Earnings	Empl	Unempl
Percentage change on a year earlier														
	ILGA	HUCI	HUCJ	HUCK	HUCL	HUCM	HUCN	ILGU	ILHO	HYAA	ILAH	ILAQ	ILII	GABE
1998	1.8	1.9	—	0.7	0.3	1.0	2.1	1.4	1.0	2.0	0.1	2.8	1.1	11.7
1999	1.7	1.6	0.2	0.9	0.3	—	1.4	-0.2	0.8	1.7	-0.3	2.3	1.2	11.3
2000	3.3	1.7	0.3	1.5	-1.1	3.3	2.4	4.2	-0.8	2.5	6.1	2.0	1.9	10.4
2001	1.7	0.7	0.6	0.5	-0.1	0.3	0.3	-1.1	-0.1	2.7	1.9	1.8	2.0	9.4
2002	0.4	0.3	0.3	0.1	0.4	-0.3	0.4	-1.4	-0.6	2.5	0.2	2.8	1.4	9.0
2000 Q2	3.3	1.7	0.2	1.6	-0.4	3.0	2.7	5.7	—	2.6	6.2	2.5	1.6	10.5
Q3	3.3	1.8	0.3	1.6	-1.2	3.6	2.8	3.5	1.3	2.6	6.7	2.0	2.1	10.3
Q4	3.0	1.7	0.3	1.0	-1.3	2.6	1.4	3.8	-2.5	2.6	6.6	1.9	2.8	9.9
2001 Q1	2.7	1.5	0.6	0.9	-0.4	1.6	1.4	2.9	1.6	2.9	4.7	1.8	3.2	9.7
Q2	2.1	0.9	0.6	0.6	-0.5	1.3	0.9	-0.4	-0.3	3.0	3.2	1.2	2.0	9.5
Q3	1.5	0.3	0.6	0.2	0.5	-0.7	-0.6	-1.9	-1.0	2.8	1.1	2.2	1.8	9.4
Q4	0.7	-0.1	0.7	0.3	0.1	-0.9	-0.7	-5.0	-0.6	2.5	-1.1	2.3	1.2	9.2
2002 Q1	-0.1	-0.5	0.4	-0.4	1.4	-2.8	-1.7	-3.8	-0.3	2.4	-1.0	2.4	1.7	9.1
Q2	0.3	-0.1	0.3	-0.3	0.7	-0.7	-0.3	-2.1	-1.0	2.2	-0.6	3.4	1.9	9.0
Q3	0.4	0.5	0.3	0.2	—	1.1	1.5	-0.3	-1.3	2.4	0.5	2.4	1.3	9.0
Q4	0.9	1.2	0.2	1.1	-0.5	1.2	2.3	0.9	—	2.7	1.7	2.8	0.9	8.9
2003 Q1	0.7	1.4	0.3	0.2	-0.6	0.3	0.9	-0.3	-0.6	2.7	2.6	2.5	0.8	8.9
Q2	0.2	1.2	0.2	-0.2	0.6	-0.8	0.7	-1.4	0.7	2.7	1.7	1.8	1.3	8.6
Q3	0.5	..	..	..	..	..	..	-0.3	-1.3	2.8	1.3	3.2	0.9	..
2002 Oct	..	..	..	..	..	..	..	0.1	—	2.7	1.6	2.9	..	8.9
Nov	..	..	..	..	..	..	..	1.9	—	2.8	1.5	2.8	..	8.9
Dec	..	..	..	..	..	..	..	0.5	—	2.8	2.0	2.8	..	9.0
2003 Jan	..	..	..	..	..	..	..	0.4	-1.0	2.8	2.4	2.9	..	9.0
Feb	..	..	..	..	..	..	..	-0.5	—	2.6	2.8	3.0	..	8.9
Mar	..	..	..	..	..	..	..	-0.8	-1.0	2.7	2.8	1.7	..	8.8
Apr	..	..	..	..	..	..	..	0.3	2.9	2.7	2.0	1.8	..	8.7
May	..	..	..	..	..	..	..	-2.9	1.0	2.7	1.5	1.8	..	8.6
Jun	..	..	..	..	..	..	..	-1.7	-1.9	2.7	1.4	1.6	..	8.6
Jul	..	..	..	..	..	..	..	-0.7	-1.0	2.7	1.3	3.2	..	8.5
Aug	..	..	..	..	..	..	..	0.7	-2.9	2.8	1.3	3.2	..	..
Sep	..	..	..	..	..	..	..	-0.8	—	2.8	1.0	3.2	..	..
Oct	..	..	..	..	..	..	..	..	..	2.6	0.6	2.7	..	..

Percentage change on previous quarter

	ILGK	HUCO	HUCP	HUCQ	HUCR	HUCS	HUCT	ILHE	ILHY				ILIS	
2000 Q2	0.5	0.5	0.1	0.3	0.3	-0.6	—	1.8	2.3				1.6	
Q3	0.6	0.4	0.1	0.2	-1.1	1.3	0.3	—	0.6				1.9	
Q4	0.7	0.2	0.1	-0.2	0.7	-0.1	—	1.7	-1.3				0.6	
2001 Q1	0.7	0.4	0.3	0.5	-0.2	1.0	1.1	-0.5	—				-0.8	
Q2	—	—	0.1	—	0.2	-0.8	-0.5	-1.5	0.3				0.4	
Q3	—	-0.3	0.1	-0.2	-0.1	-0.7	-1.2	-1.5	—				1.7	
Q4	-0.1	-0.2	0.2	-0.1	0.3	-0.3	-0.1	-1.6	-1.0				—	
2002 Q1	—	—	—	-0.2	1.1	-0.9	—	0.8	0.3				-0.4	
Q2	0.3	0.4	—	—	-0.6	1.4	1.0	0.3	-0.3				0.6	
Q3	0.2	0.3	—	0.4	-0.8	1.0	0.6	0.3	-0.3				1.1	
Q4	0.4	0.6	—	0.8	-0.2	-0.2	0.7	-0.5	0.3				-0.4	
2003 Q1	-0.2	0.1	0.2	-1.1	1.0	-1.8	-1.4	-0.4	-0.3				-0.5	
Q2	-0.2	0.2	—	-0.3	0.6	0.2	0.8	-0.9	1.0				1.0	
Q3	0.5	..	..	..	..	..	..	1.4	-2.3				0.7	

Percentage change on previous month

								ILKE	ILKO					
2002 Oct								-0.7	1.0					
Nov								0.5	—					
Dec								-0.5	—					
2003 Jan								-0.2	-1.0					
Feb								0.1	2.0					
Mar								-0.3	-1.9					
Apr								—	3.9					
May								-1.3	-1.9					
Jun								0.7	-2.9					
Jul								1.6	1.0					
Aug								0.1	-2.0					
Sep								-0.8	2.0					
Oct												

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IoP = Industrial Production

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CPI = Consumer Prices, measurement not uniform among countries
PPI = Producer Prices (manufacturing)
Earnings = Average Wage Earnings (manufacturing), definitions of coverage and treatment vary among countries
Empl = Total Employment not seasonally adjusted
Unempl = Standardised Unemployment not seasonally adjusted

Source: OECD - SNA93

5 USA

Contribution to change in GDP														
	GDP	PFC	GFC	GFCF	ChgStk	Exports	less Imports	IoP	Sales	CPI	PPI	Earnings	Empl ¹	Unempl
Percentage change on a year earlier														
	ILGC	HUDG	HUDH	HUDI	HUDJ	HUDK	HUDL	ILGW	ILHQ	ILAA	ILAJ	ILAS	ILIK	GADO
1998	4.3	3.2	0.2	2.0	0.2	0.3	1.6	6.0	7.1	1.6	-1.1	2.4	1.5	4.5
1999	4.1	3.3	0.4	1.6	-0.2	0.4	1.6	4.4	8.8	2.1	1.8	2.9	1.5	4.2
2000	3.8	2.9	0.4	1.2	-	1.1	2.0	4.4	5.5	3.4	4.1	3.4	2.5	4.0
2001	0.3	1.7	0.5	-0.6	-1.4	-0.7	-0.5	-3.4	4.8	2.8	0.7	3.3	-	4.8
2002	2.4	2.2	0.6	-0.4	0.7	-0.2	0.6	-0.6	5.3	1.5	-0.6	3.3	-0.3	5.8
2000 Q2	4.9	3.0	0.6	1.4	0.7	1.3	2.2	5.8	5.8	3.3	4.4	3.3	2.8	4.0
Q3	3.7	2.9	0.4	1.0	0.2	1.4	2.2	4.3	5.2	3.5	3.9	3.2	2.3	4.1
Q4	2.3	2.4	0.3	0.7	-0.4	0.9	1.7	2.3	3.5	3.4	3.3	3.2	2.3	3.9
2001 Q1	1.5	1.9	0.5	0.1	-0.8	0.4	0.8	-0.4	2.9	3.4	2.1	2.9	0.8	4.2
Q2	-0.1	1.6	0.4	-0.5	-1.6	-0.4	-0.2	-3.3	4.5	3.4	2.1	3.2	0.1	4.5
Q3	-0.4	1.2	0.5	-0.9	-1.4	-1.3	-1.2	-4.5	3.8	2.7	0.6	3.4	-	4.8
Q4	0.1	1.9	0.7	-1.0	-1.7	-1.4	-1.4	-5.3	7.9	1.8	-1.5	3.7	-0.8	5.6
2002 Q1	1.4	2.0	0.7	-0.9	-	-1.1	-0.7	-3.3	5.9	1.2	-1.8	3.7	-1.2	5.6
Q2	2.2	2.1	0.7	-0.6	0.7	-0.4	0.4	-1.0	5.5	1.3	-1.7	3.4	-0.5	5.8
Q3	3.3	2.6	0.6	-0.2	0.9	0.3	1.1	0.6	7.0	1.5	-0.6	3.0	0.1	5.8
Q4	2.9	1.9	0.6	0.2	1.3	0.4	1.6	1.4	3.0	2.2	1.6	3.3	0.3	5.9
2003 Q1	2.0	1.7	0.5	0.1	0.4	0.3	1.0	1.1	4.4	2.9	3.9	3.5	1.0	5.8
Q2	2.5	2.0	0.6	0.5	-0.2	-0.1	0.5	-1.0	6.0	2.1	1.9	3.3	0.9	6.2
Q3	3.5	2.4	0.5	1.3	-0.3	0.1	0.4	-0.3	7.2	2.2	2.1	3.2	0.5	6.1
2002 Oct	..	..	..	..	..	..	..	1.1	0.3	2.1	1.5	3.3	0.5	5.8
Nov	..	..	..	..	..	..	..	1.6	3.5	2.2	1.5	3.3	0.2	5.9
Dec	..	..	..	..	..	..	..	1.4	5.3	2.3	1.9	3.3	0.3	6.0
2003 Jan	..	..	..	..	..	..	..	1.3	5.5	2.6	3.0	3.3	1.3	5.7
Feb	..	..	..	..	..	..	..	1.5	2.6	3.0	4.2	4.1	0.7	5.8
Mar	..	..	..	..	..	..	..	0.4	5.2	3.1	4.5	3.3	0.9	5.8
Apr	..	..	..	..	..	..	..	-0.6	4.9	2.2	1.9	3.3	1.1	6.0
May	..	..	..	..	..	..	..	-0.9	6.9	2.0	1.7	3.3	0.7	6.1
Jun	..	..	..	..	..	..	..	-1.5	6.3	2.1	2.0	3.3	1.0	6.4
Jul	..	..	..	..	..	..	..	-0.6	6.6	2.1	2.2	3.3	0.7	6.2
Aug	..	..	..	..	..	..	..	-0.5	7.0	2.1	2.5	3.2	0.6	6.1
Sep	..	..	..	..	..	..	..	0.2	8.2	2.3	1.6	3.2	0.3	6.1
Oct	..	..	..	..	..	..	..	0.6	7.9	2.0	1.9	2.4	0.8	6.0
Percentage change on previous quarter														
	ILGM	HUDM	HUDN	HUDO	HUDP	HUDQ	HUDR	ILHG	ILIA				ILIU	
2000 Q2	1.2	0.5	0.3	0.2	0.5	0.4	0.7	1.6	-0.4				1.2	
Q3	0.1	0.6	-	-	-0.3	0.3	0.5	-0.2	1.3				0.1	
Q4	0.3	0.3	0.1	-0.1	-	-0.1	-0.1	-0.3	0.4				0.3	
2001 Q1	-0.2	0.4	0.2	-	-0.9	-0.2	-0.3	-1.5	1.6				-0.7	
Q2	-0.4	0.2	0.1	-0.4	-0.3	-0.4	-0.3	-1.3	1.2				0.5	
Q3	-0.1	0.2	0.1	-0.4	-	-0.6	-0.5	-1.4	0.5				-	
Q4	0.7	1.0	0.3	-0.2	-0.4	-0.3	-0.2	-1.1	4.3				-0.5	
2002 Q1	1.2	0.5	0.1	0.1	0.8	0.1	0.3	0.5	-0.2				-1.1	
Q2	0.3	0.3	0.1	-0.1	0.4	0.4	0.8	1.1	0.8				1.1	
Q3	1.0	0.7	0.1	-	0.1	0.1	0.1	0.2	2.0				0.6	
Q4	0.3	0.3	0.2	0.2	0.1	-0.2	0.3	-0.4	0.4				-0.4	
2003 Q1	0.4	0.3	-	-	-0.2	-	-0.3	0.2	1.1				-0.4	
Q2	0.8	0.7	0.3	0.3	-0.2	-	0.3	-1.0	2.4				1.0	
Q3	2.0	1.1	-	0.7	-	0.3	0.1	1.0	3.2				0.3	
Percentage change on previous month														
								ILKG	ILKQ				ILLA	
2002 Oct								-0.2	0.2				0.1	
Nov								0.1	0.8				-0.6	
Dec								-0.5	1.8				-	
2003 Jan								0.5	0.4				-0.5	
Feb								0.4	-2.1				0.4	
Mar								-0.7	2.2				0.3	
Apr								-0.6	0.5				0.5	
May								-0.1	1.2				0.1	
Jun								-	1.1				0.7	
Jul								0.7	1.7				-	
Aug								0.2	0.8				-0.3	
Sep								0.5	-0.4				-0.3	
Oct								0.2	-0.1				0.6	

GDP = Gross Domestic Product at constant market prices
PFC = Private Final Consumption at constant market prices
GFC = Government Final Consumption at constant market prices
GFCF = Gross Fixed Capital Formation at constant market prices
ChgStk = Change in Stocks at constant market prices
Exports = Exports of goods and services
Imports = Imports of goods and services
IoP = Industrial Production

Sales = Retail Sales volume
CPI = Consumer Prices, measurement not uniform among countries
PPI = Producer Prices (manufacturing)
Earnings = Average Earnings (manufacturing), definitions of coverage and treatment vary among countries
Empl = Total Employment not seasonally adjusted
Unempl = Standardised Unemployment rates: percentage of total workforce
Source: OECD - SNA93

1 Excludes members of armed forces

6 Japan

	Contribution to change in GDP													
	GDP	PFC	GFC	GFCF	ChgStk	Exports	less Imports	IoP ¹	Sales	CPI	PPI	Earnings ²	Empl	Unempl
Percentage change on a year earlier														
	ILGD	HUCU	HUCV	HUCW	HUCX	HUCY	HUCZ	ILGX	ILHR	ILAB	ILAK	ILAT	ILIL	GADP
1998	-1.2	—	0.3	-1.1	-0.6	-0.2	-0.6	-5.9	-6.0	0.7	-1.5	-0.9	-0.6	4.1
1999	0.2	0.1	0.7	-0.2	-0.3	0.1	0.2	0.6	-2.6	-0.3	-1.5	-0.7	-0.8	4.7
2000	2.7	0.5	0.7	0.7	0.3	1.3	0.7	5.1	-1.1	-0.7	0.1	1.7	-0.3	4.7
2001	0.4	1.0	0.4	-0.3	—	-0.7	—	-6.2	-1.2	-0.7	-2.3	—	-0.5	5.0
2002	0.2	0.7	0.4	-1.3	-0.4	0.9	0.2	-1.1	-3.1	-1.0	-2.0	-1.0	-1.3	5.4
2000 Q2	1.9	0.1	0.9	0.2	0.1	1.4	0.8	6.3	-1.5	-0.7	0.4	2.1	-0.4	4.7
Q3	2.8	0.1	0.8	0.9	0.5	1.3	0.8	5.4	-0.4	-0.6	—	1.7	-0.4	4.7
Q4	5.1	1.5	0.8	1.8	0.6	1.2	0.8	5.1	-0.4	-0.8	-0.7	1.1	0.2	4.7
2001 Q1	3.5	1.1	0.7	1.3	1.0	0.2	0.7	1.5	2.3	-0.5	-1.9	0.3	0.5	4.7
Q2	1.0	1.0	0.4	0.3	0.1	-0.6	0.2	-4.4	-1.1	-0.7	-2.0	0.5	-0.4	4.9
Q3	-0.6	0.9	0.3	-0.5	-0.4	-1.0	-0.2	-9.1	-2.6	-0.8	-2.5	-0.2	-0.8	5.1
Q4	-2.4	0.7	0.4	-2.3	-0.6	-1.2	-0.6	-12.3	-3.4	-1.0	-2.8	-0.6	-1.3	5.4
2002 Q1	-2.8	0.5	0.4	-2.3	-1.6	-0.3	-0.5	-9.1	-4.4	-1.4	-2.6	-1.5	-1.5	5.3
Q2	-0.5	0.4	0.4	-1.7	-0.5	0.8	—	-3.4	-2.6	-0.9	-2.2	-0.8	-1.6	5.4
Q3	1.5	1.2	0.5	-1.2	0.3	1.1	0.5	2.9	-2.7	-0.8	-2.2	-2.2	-1.0	5.4
Q4	2.5	0.8	0.2	0.2	0.3	1.8	0.7	6.0	-2.7	-0.5	-1.3	0.1	-1.1	5.4
2003 Q1	2.9	0.6	0.2	0.5	0.9	1.3	0.7	5.7	-1.2	-0.2	-0.9	1.8	-0.8	5.4
Q2	3.0	0.8	0.2	1.3	0.3	0.7	0.3	2.0	-2.3	-0.3	-1.1	2.6	0.1	5.4
Q3	2.3	0.1	0.1	1.5	-0.1	1.1	0.2	1.0	-2.0	-0.2	-0.8	1.8	-0.1	5.2
2002 Oct	..	..	..	..	..	..	..	5.4	-2.3	-0.9	-1.4	1.0	-0.8	5.5
Nov	..	..	..	..	..	..	..	6.9	-2.3	-0.4	-1.2	0.5	-1.3	5.3
Dec	..	..	..	..	..	..	..	5.5	-3.5	-0.3	-1.3	-1.3	-1.1	5.5
2003 Jan	..	..	..	..	..	..	..	8.2	-2.3	-0.4	-1.0	1.2	-1.0	5.5
Feb	..	..	..	..	..	..	..	4.6	—	-0.2	-0.9	1.7	-0.9	5.2
Mar	..	..	..	..	..	..	..	4.3	-1.2	-0.1	-0.8	2.5	-0.5	5.4
Apr	..	..	..	..	..	..	..	3.3	-3.5	-0.1	-1.0	1.5	-0.4	5.4
May	..	..	..	..	..	..	..	1.3	-2.3	-0.2	-1.1	2.2	0.1	5.4
Jun	..	..	..	..	..	..	..	1.3	-1.2	-0.4	-1.3	3.9	0.6	5.3
Jul	..	..	..	..	..	..	..	0.3	-2.4	-0.2	-0.9	3.6	0.1	5.3
Aug	..	..	..	..	..	..	..	-0.2	-2.3	-0.3	-0.7	0.7	-0.2	5.1
Sep	..	..	..	..	..	..	..	2.9	-1.2	-0.2	-0.8	1.2	-0.1	5.1
Oct	..	..	..	..	..	..	..	..	1.2	—	-0.9	..	-0.3	5.2
Percentage change on previous quarter														
	ILGN	HUDA	HUDB	HUDC	HUDD	HUDE	HUDF	ILHH	ILIB				ILIV	
2000 Q2	0.9	0.1	0.4	0.1	0.3	0.3	0.3	2.6	0.4				2.3	
Q3	0.7	0.1	0.2	0.4	0.1	0.1	0.2	0.7	0.8				—	
Q4	1.3	0.4	0.1	0.9	0.1	0.1	0.3	1.1	-0.7				—	
2001 Q1	0.6	0.5	—	-0.1	0.5	-0.4	-0.1	-2.9	1.9				-1.8	
Q2	-1.6	—	0.1	-0.8	-0.6	-0.4	-0.2	-3.3	-2.9				1.4	
Q3	-0.8	-0.1	0.1	-0.4	-0.4	-0.3	-0.2	-4.3	-0.8				-0.4	
Q4	-0.5	0.3	0.2	-1.0	-0.1	-0.1	-0.2	-2.5	-1.5				-0.5	
2002 Q1	0.1	0.3	0.1	-0.2	-0.5	0.5	0.1	0.6	0.8				-2.0	
Q2	0.7	-0.1	—	-0.2	0.5	0.8	0.3	2.9	-1.2				1.3	
Q3	1.2	0.7	0.2	0.2	0.4	—	0.2	2.0	-0.8				0.2	
Q4	0.4	-0.1	—	0.4	-0.2	0.5	0.1	0.4	-1.6				-0.6	
2003 Q1	0.5	0.1	0.1	0.1	0.1	0.1	0.1	0.4	2.4				-1.7	
Q2	0.9	0.1	—	0.6	-0.1	0.2	-0.1	-0.8	-2.3				2.3	
Q3	0.5	—	—	0.3	—	0.3	0.1	1.0	-0.4				—	
Percentage change on previous month														
								ILKH	ILKR				ILLB	
2002 Oct								0.1	-1.2				—	
Nov								-0.2	1.2				-0.1	
Dec								-0.2	-3.5				-0.9	
2003 Jan								1.9	3.7				-1.3	
Feb								-2.0	2.4				-0.2	
Mar								0.1	-2.3				1.1	
Apr								-1.2	-2.4				0.7	
May								2.1	1.2				0.8	
Jun								-1.1	—				0.8	
Jul								-0.2	-2.4				-0.5	
Aug								-0.1	2.4				-0.3	
Sep								3.7	—				-0.2	
Oct								..	1.2				-0.2	

GDP = Gross Domestic Product at constant market prices
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PPI = Producer Prices (manufacturing)
Earnings = Average Earnings (manufacturing), definitions of coverage and treatment vary among countries
Empl = Total Employment not seasonally adjusted
Unempl = Standardised Unemployment rates: percentage of total workforce
IoP = Index of Production

1 Not adjusted for unequal number of working days in a month
2 Figures monthly and seasonally adjusted

Source: OECD - SNA93

7 World Trade in goods¹

	Export of manufactures			Import of manufactures			Export of goods			Import of goods			Total trade	
	Total	OECD	Other	Total	OECD	Other	Total	OECD	Other	Total	OECD	Other	manufactures	goods
Percentage change on a year earlier														
	ILIZ	ILJA	ILJB	ILJC	ILJD	ILJE	ILJF	ILJG	ILJH	ILJI	ILJJ	ILJK	ILJL	
1992	4.3	3.3	9.4	5.6	4.2	8.7	4.5	3.6	6.3	5.3	4.2	9.8	5.0	
1993	3.7	2.1	12.1	3.8	0.8	11.0	4.1	2.2	8.1	3.3	0.7	12.8	4.0	
1994	10.3	9.9	17.3	11.9	10.9	10.7	11.4	9.3	12.9	10.9	12.2	11.3	11.7	
1995	9.4	10.0	11.4	10.8	9.1	12.4	10.3	9.4	9.2	10.0	10.3	12.0	10.5	
1996	6.8	6.4	6.9	8.0	7.2	6.6	6.6	6.5	7.6	7.1	8.0	7.9	7.3	
1997	11.2	11.9	12.9	11.7	9.7	11.9	12.1	11.0	11.7	10.3	11.3	12.8	11.9	
1998	4.8	6.4	1.3	6.2	8.2	-1.1	5.2	5.8	2.3	5.6	9.6	-2.4	5.7	
1999	5.6	6.1	7.2	7.9	9.0	-0.4	6.4	5.7	5.4	6.5	10.8	-0.2	7.2	
2000	12.6	12.6	20.6	14.8	12.2	13.9	14.4	12.1	13.9	12.6	14.0	17.3	14.6	
2001	-0.3	-1.0	-2.1	-0.1	-0.6	3.8	-1.3	-0.3	-0.1	0.5	-1.1	2.9	-0.6	
2002	..	2.5	8.1	..	2.4	..	3.8	2.4	..	..	2.7	..	..
1996 Q3	7.1	6.7	7.3	8.1	7.7	4.6	6.9	6.6	8.3	6.8	8.8	6.3	7.5	
Q4	9.2	8.2	9.7	9.0	8.5	7.8	8.5	8.9	9.9	8.3	8.9	9.4	8.8	
1997 Q1	8.8	8.0	12.3	9.3	7.3	10.8	9.0	7.6	11.7	8.3	8.2	12.2	9.2	
Q2	12.6	13.1	14.5	12.8	10.5	13.3	13.4	12.4	13.0	11.3	12.2	14.3	13.1	
Q3	12.6	14.0	13.6	12.9	10.5	13.3	13.9	12.9	11.9	11.3	12.4	14.0	13.4	
Q4	10.8	12.3	11.4	11.8	10.4	10.3	12.1	11.1	10.2	10.4	12.3	10.6	11.9	
1998 Q1	9.5	11.2	6.4	10.0	11.0	4.1	10.1	10.8	6.0	9.0	12.6	3.6	10.0	
Q2	5.2	6.9	1.7	6.7	8.2	0.1	5.7	6.2	2.4	6.0	9.7	-1.1	6.2	
Q3	2.5	4.2	-1.3	4.2	6.9	-3.5	2.9	3.3	0.4	4.0	8.0	-5.2	3.6	
Q4	2.0	3.4	-1.8	3.7	6.6	-5.2	2.2	2.7	0.2	3.3	8.0	-7.0	3.0	
1999 Q1	1.7	2.9	-1.2	3.9	6.2	-4.2	2.0	1.9	1.3	3.4	7.7	-6.3	3.0	
Q2	3.7	4.0	3.3	6.2	7.9	-2.5	3.9	3.7	3.7	5.2	9.6	-3.3	5.0	
Q3	7.2	7.2	11.0	9.1	9.7	0.4	8.0	7.1	7.3	7.3	11.6	1.9	8.6	
Q4	9.8	10.4	15.8	12.4	12.1	4.6	11.6	10.0	9.4	10.2	14.3	7.0	12.0	
2000 Q1	13.5	13.5	22.5	14.7	13.3	10.2	15.5	13.4	13.7	12.5	15.0	13.7	15.1	
Q2	13.8	13.9	24.2	15.7	13.2	14.0	16.2	13.1	15.7	13.4	15.1	17.8	16.0	
Q3	12.7	12.6	20.3	16.1	12.9	16.9	14.3	12.0	14.6	13.9	14.7	20.3	15.2	
Q4	10.5	10.4	15.3	12.6	9.5	14.7	11.5	10.1	11.6	10.8	11.1	17.4	12.1	
2001 Q1	6.2	6.6	6.6	7.3	5.7	9.5	6.6	6.3	5.9	6.7	6.2	10.8	7.0	
Q2	0.7	0.2	-1.0	1.0	0.2	4.9	-0.1	0.7	0.5	1.4	-0.1	4.2	0.5	
Q3	-3.0	-4.4	-6.3	-3.7	-3.6	1.0	-4.8	-3.0	-2.9	-2.5	-4.5	-1.2	-4.2	
Q4	-4.9	-6.3	-7.8	-5.0	-4.5	-0.4	-6.7	-5.2	-4.0	-3.4	-5.8	-2.3	-5.8	
2002 Q1	-2.8	-4.8	-1.3	-2.6	-3.2	1.9	-4.0	-3.9	0.4	-1.9	-3.8	1.0	-3.3	
Q2	3.3	2.6	6.1	2.8	1.9	4.6	3.4	2.4	5.7	2.6	2.1	5.0	3.1	
Q3	6.6	6.4	11.7	6.1	5.0	6.3	7.6	5.5	9.6	5.3	5.8	7.2	6.9	
Q4	..	6.0	15.7	..	6.0	..	8.3	5.5	..	..	6.6	..	..
2003 Q1	..	4.0	..	..	..	..	..	..	..	..	6.1	..	..
Percentage change on previous quarter														
	ILJN	ILJO	ILJP	ILJQ	ILJR	ILJS	ILJT	ILJU	ILJV	ILJW	ILJX	ILJY	ILJZ	
1996 Q3	2.6	2.3	3.4	2.7	2.5	2.1	2.5	2.3	3.4	2.4	2.8	2.3	2.6	
Q4	2.9	2.8	3.2	2.6	2.0	3.7	2.9	3.0	2.9	2.5	2.1	3.9	2.8	
1997 Q1	1.7	2.0	3.8	2.8	1.2	4.2	2.4	1.1	3.2	2.0	2.0	4.6	2.6	
Q2	4.8	5.4	3.5	4.1	4.5	2.7	4.9	5.5	3.0	4.0	4.7	2.7	4.5	
Q3	2.7	3.1	2.5	2.8	2.5	2.1	3.0	2.8	2.3	2.3	3.0	2.1	2.9	
Q4	1.3	1.3	1.2	1.7	2.0	0.9	1.3	1.3	1.3	1.7	2.0	0.8	1.5	
1998 Q1	0.4	1.0	-0.9	1.1	1.7	-1.6	0.6	0.9	-0.7	0.8	2.3	-2.0	0.9	
Q2	0.7	1.3	-1.1	1.0	1.9	-1.2	0.8	1.1	-0.5	1.1	2.0	-1.8	0.9	
Q3	0.1	0.5	-0.5	0.4	1.2	-1.6	0.3	-	0.3	0.4	1.4	-2.2	0.4	
Q4	0.8	0.6	0.6	1.2	1.7	-0.9	0.6	0.7	1.1	1.0	2.0	-1.2	0.9	
1999 Q1	0.2	0.5	-0.2	1.3	1.3	-0.6	0.4	0.1	0.4	0.8	2.1	-1.2	0.8	
Q2	2.7	2.4	3.4	3.2	3.6	0.5	2.6	3.0	1.8	2.8	3.8	1.3	2.9	
Q3	3.4	3.6	7.0	3.2	2.9	1.3	4.3	3.3	3.8	2.5	3.2	3.0	3.7	
Q4	3.3	3.5	4.9	4.3	3.9	3.3	3.8	3.3	3.1	3.7	4.4	3.8	4.1	
2000 Q1	3.5	3.4	5.6	3.3	2.4	4.7	3.9	3.2	4.3	2.9	2.8	5.0	3.6	
Q2	3.0	2.7	4.8	4.1	3.5	4.0	3.2	2.7	3.7	3.6	3.9	4.9	3.7	
Q3	2.4	2.4	3.7	3.4	2.6	3.9	2.7	2.2	2.7	2.9	2.9	5.2	3.1	
Q4	1.3	1.5	0.5	1.2	0.8	1.4	1.3	1.6	0.5	0.9	1.2	1.3	1.2	
2001 Q1	-0.5	-0.2	-2.4	-1.6	-1.2	-	-0.7	-0.3	-1.0	-0.9	-1.8	-0.9	-1.1	
Q2	-2.4	-3.5	-2.7	-2.0	-1.9	-0.4	-3.3	-2.7	-1.6	-1.5	-2.3	-1.3	-2.6	
Q3	-1.4	-2.3	-1.8	-1.3	-1.3	-	-2.2	-1.6	-0.8	-1.0	-1.7	-0.3	-1.7	
Q4	-0.7	-0.6	-1.1	-0.1	-0.1	-	-0.7	-0.7	-0.6	-0.1	-0.2	0.2	-0.4	
2002 Q1	1.7	1.5	4.5	0.9	0.1	2.3	2.2	1.0	3.4	0.7	0.3	2.5	1.5	
Q2	3.7	4.0	4.6	3.4	3.2	2.3	4.1	3.7	3.7	3.0	3.7	2.5	3.8	
Q3	1.8	1.3	3.4	1.9	1.7	1.6	1.8	1.3	2.9	1.7	1.9	1.8	1.8	
Q4	..	-0.9	2.4	..	0.9	..	-0.1	-0.7	..	..	0.6	..	..
2003 Q1	..	-0.4	..	..	..	..	..	..	..	..	-0.2	..	..

¹ Data used in the World and OECD aggregates refer to Germany after unification

Source: OECD -

The new inflation target: the statistical perspective

David Roe and David Fenwick
Office for National Statistics

This article¹ sets out the statistical background to the Chancellor of the Exchequer's Pre-Budget Report 2003 announcement that the UK inflation target has changed from one based on the Retail Prices Index excluding mortgage interest payments (RPIX) to one based on the Harmonised Index of Consumer Prices (HICP), now known in the UK as the Consumer Prices Index (CPI). The article describes the historical background to the development of the CPI and RPIX indices, the differences between them, and their relative merits as indicators of UK inflation.

Executive summary

This article sets out the statistical background to the Chancellor of the Exchequer's Pre-Budget Report 2003 announcement that the UK inflation target has changed from one based on the Retail Prices Index excluding mortgage interest payments (RPIX) to one based on the Harmonised Index of Consumer Prices (HICP).

Concurrent with the Chancellor's announcement and reflecting its new role as the main UK domestic measure of inflation for macroeconomic purposes, the National Statistician decided that the UK HICP would in future be known as the 'Consumer Prices Index' (CPI) in all National Statistics releases and publications. This should not be interpreted as implying that there is any intention to develop the CPI differently from the HICP. The CPI and the HICP will remain one and the same index.

The historical contexts of the all-items Retail Prices Index (RPI) and the CPI are very different. The RPI began life as a compensation index, developed as an aid to protect ordinary workers from price increases associated with the First World War, and it was only much later that it came to be used as the main domestic measure of inflation from a macroeconomic perspective. A government inflation target expressed in terms of the RPIX was first adopted in 1992, and the all-items RPI is used to adjust benefits, tax allowances and thresholds, and also index-linked gilts.

HICPs were developed in the European Union (EU) expressly from a macroeconomic perspective, and launched in 1997. Initially, HICPs were used to assess which EU Member States passed the inflation convergence criterion for membership of Economic and Monetary Union (EMU), and so cross-country comparability was a key issue in designing the HICP. Since EMU has been established, it has been used by the European Central Bank to assess price stability in the euro area.

Nevertheless, the basic approach to the measurement of inflation adopted by both the CPI and RPIX is the same. Both track the changing cost of a fixed basket of goods and services over time, and both are produced by combining together some 120,000 individual prices collected each month for about 650 representative items. The CPI and RPIX baskets are 'fixed' in the sense that the relative quantities purchased of the various items in the baskets are assumed to be constant from month to month, although the baskets are updated on an annual basis. This ensures that within-year changes in the indices reflect only changes in prices.

As fixed quantity indices, both the CPI and RPIX are likely to 'overstate' changes in the cost of living in that, faced with rising prices overall, consumers are likely to substitute purchases of items which become relatively expensive for those which become relatively cheaper. This will help to limit the increase in the cost of their own 'shopping basket'. A cost of living index, by contrast, would allow for substitution of this type as it takes place: so as the prices of individual items go up,

and at different rates, a cost of living index will always show a lower rate of change in prices overall than a fixed basket index. In practice, this potential problem is mitigated by annually updating the contents of the CPI and RPI baskets and the expenditure weights associated with them.

As well as adopting the same basic approach to the measurement of inflation, exactly the same underlying price data collected each month are used to compute both the CPI and RPIX indices in most cases. However, there are persistent and sometimes significant differences in the UK rate of inflation according to the two measures. Since January 1989, RPIX inflation has exceeded CPI inflation by an average of 0.7 percentage points and, at 1.3 percentage points in October 2003, the difference is currently quite wide.

These differences can be explained in terms of a series of detailed choices about how the two indices are constructed, for example:

- which particular consumers or households the index is designed to represent
- the range of goods and services that should be included and
- the way that their prices should be measured.

At a more technical level, but of great importance in practice, the CPI and RPIX also use different techniques to combine together the individual prices collected each month. This also affects their respective inflation rates and is called the formula effect. These differences between the CPI and RPIX measures are summarised in the box.

ONS publishes each month in summary form a numerical breakdown of the contribution of these factors to the difference between the annual rate of inflation according to the CPI and RPIX, although this is only available over the period since January 1997. It is important to note that this period is too short to view the resulting differences as the long-run deviation between the CPI and RPIX, or the longer-term contribution to that difference from any single factor. In particular, some housing costs that are excluded from the CPI have risen relatively rapidly over this period.

Bearing in mind these caveats, the analysis shows that, in practice, there are two main factors that serve to raise RPIX inflation relative to the CPI. First, the exclusion from the CPI of council tax and a range of owner-occupier housing costs included in RPIX has had the largest effect, on average lowering CPI inflation by 0.56 percentage points relative to RPIX since January 1997. Second, the formula effect has, on average, lowered CPI inflation relative to RPIX by 0.51 percentage points over the same period. The contribution from the housing components excluded from the CPI has varied markedly over this period, whereas the formula effect has been much more stable. On average, the impact of the other differences between the CPI and RPIX has been less important.

Box: Comparing the CPI and RPIX

In terms of **commodity coverage**, the CPI excludes a number of items that are included in RPIX, mainly related to housing:

- council tax
- owner-occupier housing costs such as house depreciation and buildings insurance
- house purchase costs such as estate agents' and conveyancing fees
- trade union subscriptions and vehicle excise duty.

Conversely, the CPI includes the following items that are not in RPIX:

- unit trust and stockbrokers fees
- university accommodation fees
- foreign students' university tuition fees
- foreign exchange commission for purchases of sterling by overseas visitors.

This partly reflects the differences in the **population base** for each index:

- RPIX is representative of private UK households excluding the highest income households and pensioner households mainly dependent on state benefits.
- The CPI covers all private households, institutional households and foreign visitors to the UK.

This also means that the weights for all the items in the CPI basket reflect the spending of the wider population.

There are also some specific differences in **price measurement** between the two indices:

- New car prices in RPIX are imputed from movements in second-hand car prices whereas the CPI uses a quality-adjusted index based on the published prices of new cars.
- The index for personal computers in the RPI currently uses the 'option cost' method for quality adjustment, whereas the CPI uses 'hedonic regression' techniques.
- The CPI classifies insurance spending net of claims receivable, whereas RPIX is based on gross premiums.

Finally, **individual prices are combined** in the CPI and RPIX within each detailed expenditure category according to different formulae:

- The CPI uses the geometric mean, which allows for consumer substitution from more expensive brands or varieties of each item towards cheaper alternatives when relative prices change.
- RPIX uses arithmetic means, which do not allow for substitution.

The formula effect arises because RPIX uses arithmetic means to combine individual prices in each detailed product group whereas the CPI uses the geometric mean (GM). For given price data, in practice the geometric mean always gives a lower estimate of price change. This is because within each detailed product group the use of the GM formula implicitly assumes that consumers switch purchases away from particular brands or varieties which become relatively more expensive, whereas arithmetic means do not. In addition, in producing a chain-linked index spanning several years, in some circumstances one of the arithmetic techniques used in RPIX can lead to a small upward bias known as 'price bounce'.

In terms of their basic usability as macroeconomic indicators, there is little to choose between the CPI and RPIX. Both are published monthly, to a common timescale, and are subject to minimal revisions (the RPI and RPIX, by convention, are never revised). Compared to RPIX, however, the CPI's later and explicit development as a macroeconomic indicator means that it has some distinct advantages over RPIX for this purpose.

In particular, the CPI benefits from greater coherence with other macroeconomic data, reflecting its foundation in National Accounts principles in determining index scope and population. The use of the GM averaging technique also has advantages, and is increasingly preferred in other countries. The GM formula is not susceptible to any bias due to price bounce and, in the context of cross-country comparisons, is much less influenced by detailed differences in index and sample design in individual countries.

Against this, the familiarity and credibility of RPI and RPIX based on their longer history is a key advantage. Inevitably, it will be some time before the CPI measure becomes as widely recognised. In addition, the CPI's exclusion of most elements of owner-occupier housing costs is an outstanding issue, and lessens its relevance for some users. However, this must be weighed against the significant difficulties encountered in measuring such costs appropriately, reflected in the absence of any international consensus in this area. The RPI's inclusion of owner-occupier housing costs partly reflects its use as a compensation index, but has necessitated some significant compromises in terms of the conceptual consistency of the index.

The ONS is currently taking part in a Eurostat pilot study assessing the possibility of including in the HICP an index of owner-occupier housing costs based on the net acquisitions approach. This would include household sector costs in acquiring new houses or existing houses from other sectors, bills for major repairs and renovations, and other house buying costs including estate agent and conveyancing fees. It is likely that the cost of major repairs and renovations would be measured by an index of construction costs. This has advantages over RPIX in that depreciation costs, which are measured via a smoothed house price index, are likely to be distorted through movements in land prices.

The pilot study is now close to completion and could be extended, subject to funding in 2004, to embrace all Member States. However, there are a number of difficult implementation issues to be addressed, and this means

that the longer-term outcome cannot be assessed with any certainty at this stage. Any extension of the HICP and therefore CPI to cover owner-occupier housing costs is not likely to take place before January 2006 at the earliest, and could take longer.

Introduction

On 10 December 2003, in his statement on the Pre-Budget Report, the Chancellor of the Exchequer confirmed that with immediate effect the UK inflation would change from one based on the Retail Prices Index excluding mortgage interest payments (RPIX) to one based on the Consumer Prices Index (CPI), previously published in the UK as the Harmonised Index of Consumer Prices (HICP). At the same time, the Chancellor confirmed that pensions, benefits and index-linked gilts will continue to be calculated on exactly the same basis as previously, that is with reference to the all-items Retail Prices Index (RPI) or its derivatives.

Reflecting its new role as the main UK domestic measure of inflation for macroeconomic purposes, the National Statistician decided that the UK Harmonised Index of Consumer Prices (HICP) would in future be known as the 'Consumer Prices Index' (CPI) in all National Statistics releases and publications. This should not be interpreted as implying that there is any intention to develop the CPI differently from the HICP. The CPI and the HICP will remain one and the same index.

The new name is simpler, emphasises the CPI's role as a UK index, and is consistent with the naming of other price indices. The term CPI is used throughout the text of this article instead of HICP, except where the discussion relates specifically to the index in the European Union (EU) context, for example in the summary of the institutional arrangements in Box 4 or EU plans for the extension of HICP coverage of owner-occupier housing costs in a later section.

The reasons for the change in the inflation target and implications for the conduct of UK monetary policy are set out by HM Treasury in the Pre-Budget Report 2003 and in the Appendix attached to the new remit for the Bank of England's Monetary Policy Committee. This article is intended to promote understanding of the new target measure from a statistical perspective, in the context of its publication in the UK as a key element in a range of inflation measures used in public policy.

The article is organised as follows. Firstly the historical background to the development of the RPI, RPIX and CPI indices is set out. This is followed by a description of how the indices measure inflation, focusing on the underlying similarities in approach. Differences in the annual rate of UK inflation according to RPIX and the CPI are then analysed in terms of a series of more detailed choices concerning index coverage and construction. Key differences between RPIX and the CPI, including the coverage of owner-occupier housing costs and the formula effect, are described in detail. This feeds into an overall evaluation of the statistical properties of the two indices as macroeconomic indicators of inflation. Finally, there is a discussion of the longer-term options for the extension of CPI coverage in the field of owner-occupier housing costs.

Historical context: the evolution of consumer price indices in the UK

The historical contexts of the RPI and the CPI are very different, and this helps to explain their different statistical properties as described later in this article. The RPI has its origins in an index originally developed as an aid to protect ordinary workers from what were initially expected to be the temporary economic consequences of the First World War. To begin with then, its primary purpose was as a compensation index rather than a macroeconomic indicator of inflation. It was only much later that it evolved into the all-purpose index it is today.

The modern RPI is now used for a very wide variety of purposes. Government uses of the RPI include the uprating of benefits, taxation allowances and thresholds, the indexation of index-linked gilts, and the regulation of privatised utilities. The RPI is also used in private sector contracts to specify benchmark price changes. More generally, it has been used as the main macroeconomic indicator of inflation by economic analysts and policy makers. This multi-purpose role has helped to shape its development over time; a brief history of the RPI is provided in Box 1.

The RPI excluding mortgage interest payments, later to be called RPIX, was introduced in 1975 when the rental equivalent approach to the measurement of owner-occupier housing costs in the RPI was replaced by the mortgage interest payments approach. The inclusion of mortgage interest payments means that changes in interest rates have a direct, and often substantial, effect on the all-items RPI. Moreover, from a monetary policy perspective, the short-term impact of interest rate changes on the RPI is perverse. For example, action taken to reduce inflation by increasing interest rates increases the RPI initially. This is because the direct impact of increased mortgage interest payments is felt immediately, dominating for a period the more gradual reduction in price pressures for other goods and services that usually follows an increase in interest rates.

The introduction of RPIX therefore reflected a specific requirement for an inflation measure unhindered by the direct effect of interest rate changes. As a simple transfer between sectors, exclusion of the mortgage interest also has the advantage of helping to focus RPIX on prices for consumer goods and services as traditionally defined. The adoption of an official inflation target defined in terms of RPIX was first announced in October 1992. In fact, RPIX is just one example of a range of indices that have been developed, based on the all-items RPI, in response to the widening range of user needs. Other examples include:

- RPIY was introduced in 1995, and is designed to measure movements in underlying prices by excluding price changes that are directly due to changes in indirect taxation as well as movements in mortgage interest rates. By necessity, RPIY assumes that indirect tax changes are immediately and fully reflected in retail prices at the moment they occur, although in practice retailers may choose to absorb the change in their profit margins, at least for a period.

Box 1: A brief history of the RPI

The RPI as it exists today is very different from the first official consumer price index produced in 1914 as an aid towards protecting ordinary workers from price rises associated with the First World War. The first index, designed as a compensation index for urban working class families, was influenced by highly subjective assessments of what constituted proper expenditure for a working class family. For example, beer was excluded entirely and the weight for tobacco in the index was much less than its share in actual spending. This index, with unchanged weights, was produced throughout the 1920s and 1930s.

In 1936 the then Ministry of Labour announced its intention to update the RPI weights using the results from a large-scale household expenditure survey carried out in 1937–38. However, this process was disrupted by the onset of the Second World War and so the results of the survey were not incorporated until the late 1940s when an ‘interim’ retail prices index was compiled. It was also from this point that the government convened a succession of RPI Advisory Committees to investigate and make recommendations on a number of measurement issues.

By the mid-1950s, sufficient information from the Household Budget Inquiry was available to underpin a new index and the first official Retail Prices Index was introduced in 1956. This coincided with the expansion of household coverage from working class families to all wage earners except those on very high and low incomes (the modern RPI has similar coverage) and the first proper articulation of the definition of the index and its scope in terms of which goods and services should ideally be included.

Since then the RPI has continuously evolved to reflect changes in user needs, statistical methods and household spending patterns, based on the recommendations of successive RPI Advisory Committees. A number of statistical improvements have been made to the RPI over the past decade. These include the introduction of a component for foreign holidays from 1993 and UK holidays from 1994, implementation of random sampling of locations in 1995, and the introduction of explicit quality adjustments for the first time, with the inclusion of an index for personal computers in 1998.

Further historical background to the evolution of consumer price indices in the UK is provided in Appendix A. The main RPI Advisory Committee recommendations are given in Appendix B.

- The Tax and Prices Index (TPI), first produced in 1979, measures how much the average person’s gross income needs to change to purchase the RPI basket of goods, allowing for the average amount of income tax and national insurance paid on earnings. Note that the TPI calculation also makes a number of simplifying assumptions² and, more importantly, has no distributional dimension despite the fact that the net impact of changes in incomes, prices and taxes often varies widely across different income groups.

The CPI, by contrast, has a much shorter history. HICPs were developed in the EU for the sole purpose of assessing whether prospective members of European Monetary Union would pass the inflation convergence criterion and then of acting as the measure of inflation used by the European Central Bank to assess price stability in the euro area. The main requirement therefore was for a measure that could be used to make reliable comparisons of inflation rates across EU Member States. Such comparisons are not possible using national consumer price indices due to differences in index coverage and construction. As described later in this article, this comparability requirement has had an important bearing on the design and methodology adopted in constructing the HICP.

The Office for National Statistics (ONS) first published UK inflation rates on the CPI basis in February 1997 with back data for index levels to January 1996. Estimates extending further back to 1988 have also been made, along with indicative figures for the period 1975–1987. These estimates are described in O'Donoghue (1998), *Harmonised Index of Consumer Prices: historical estimates*, which is available on the National Statistics website.

RPIX and the CPI: what do they measure and to what extent are they similar?

Fixed basket price indices

Although there is no single definition of the word 'inflation', many consumers might think of it as an ongoing decline in the value of money driven by a more or less continuous increase in the price of goods and services that they purchase. One straightforward method of measuring inflation therefore is to calculate the amount of extra money required in some period to purchase the same basket of goods and services that could be purchased by a given sum of money in some earlier period. The amount of money needed to purchase a fixed basket of goods and services is known as the internal purchasing power of the currency. Both RPIX and the CPI measure inflation by estimating changes in this amount of money over time. The approach is formalised in the price index formulae shown in Box 2.

In principle, the cost of the basket should be calculated with reference to all consumer goods and services purchased by households, and the prices measured in every shop or outlet that supplies them. In practice, both the RPI and CPI are calculated by collecting a sample of prices for a sample of representative goods and services in a representative selection of retail outlets. They are currently produced by combining together some 120,000 individual prices collected each month for about 650 representative items.

Within each year then, both the RPIX and the CPI are described as fixed quantity or Laspeyres price indices.³ As prices change over time, they assume that the relative quantities of each product purchased remain constant. This deliberate design choice is critical in ensuring that within-year movements in the indices reflect only changes in prices. For this reason, RPIX and the CPI are sometimes called 'pure' price indices.⁴

Box 2: Fixed basket price index formulae

Fixed quantity price indices are calculated as the cost of a fixed basket of n goods and services in the current period (time t) relative to the cost of the same basket of goods and services at the base date (time 0). As the index formula below makes clear, the basket is 'fixed' in that the quantities of the goods or services bought in the two periods are assumed to be constant. This ensures that it is only changes in prices that are reflected in the index and not changes in purchasing patterns.

$$I_{t,0} = 100 \times \frac{\sum_{i=1}^n P_{it} Q_{i0}}{\sum_{i=1}^n P_{i0} Q_{i0}}$$

where $I_{t,0}$ = index for period t based on base date, time $t=0$

P_{it} = price for the i^{th} item at time t

P_{i0} = price for the i^{th} item at the base date, time $t=0$

Q_{i0} = quantity of the i^{th} item purchased in the base period

The formula can be re-written as follows:

$$I_{t,0} = 100 \times \sum_{i=1}^n (P_{it} / P_{i0}) w_i$$

where $w_i = P_{i0} Q_{i0} / \sum (P_{i0} Q_{i0})$

In this case, it is more easily seen that the index may be calculated as a weighted average of price relatives or price changes for the various items in the basket. For each item in a given period, a price relative is calculated as the ratio of the current price to the base price, and so measures the proportionate change in the price of the item. The relatives are weighted by the share of each item in total nominal expenditure in the base period.

Consumer substitution and the cost of living

From an alternative perspective, however, pure price indices are likely to 'overstate' changes in the cost of living to the extent that, in the face of the relative price changes that typically accompany a general increase in prices, consumers are likely to substitute purchases of relatively expensive items for similar goods that have become relatively cheaper. This will help to limit the rise in the cost of their own 'shopping basket' in the face of a general increase in the cost of goods and services overall.

Therefore the RPI and the CPI do not measure 'the cost of living'. Avoiding value judgements about what constitutes a reasonable or minimum acceptable standard of living, a cost of living index can be defined as the minimum expenditure (or income) a consumer faced by rising prices requires to achieve the same level of utility as in some earlier period, relative to their expenditure (or income) in the earlier period. In this case, there is no assumption that relative quantities of

goods and services purchased in the two periods are the same and so a cost of living index is conceptually quite different to fixed basket indices like the RPI and the CPI.

Box 3: Fixed basket price indices and cost of living indices compared

Suppose we have a single representative consumer who buys only two goods, say food and clothing, with quantities purchased and prices denoted F, C and P_f, P_c respectively. Further, assume that the utility or the satisfaction they derive from these purchases takes the general form:

$$\text{Utility, } U(F, C) = F^\alpha C^{1-\alpha} \quad (1)$$

where $0 < \alpha < 1$.

This particular form of consumer preferences, known as Cobb-Douglas, is used at this stage for illustrative purposes, and the conclusions that follow are not dependent on this functional form¹. However, this particular utility function is directly relevant to the later discussion of the aggregation formulae used at the detailed level in the CPI and RPIX.

The consumer is faced with the problem of choosing the quantities of food and clothing that they purchase in order to maximise utility subject to an overall budget constraint:

$$\text{Income, } Y = P_f F + P_c C \quad (2)$$

Given this constraint on total spending, any change in say the quantity of food purchased must involve an offsetting adjustment to the amount spent on clothing. One way of solving the problem therefore begins with the total differentiation of equation (1):

$$dU = (\partial U / \partial F) \cdot dF + (\partial U / \partial C) \cdot dC$$

$$\text{so } dU/dF = \partial U / \partial F + (\partial U / \partial C) \cdot (dC/dF) \quad (3)$$

where, from (1) and (2), $\partial U / \partial F = \alpha U / F$, $\partial U / \partial C = (1-\alpha)U / C$, and $dC/dF = -P_f / P_c$

By setting (3) equal to zero and substituting in the partial differentials of U with respect to F and C and also dC/dF , it can be shown that the optimal quantities of food and clothing purchased are:

$$F = \alpha \cdot Y / P_f \quad (4)$$

$$\text{and } C = (1-\alpha) \cdot Y / P_c \quad (5)$$

It is now clear that the shares of spending devoted to food ($P_f F / Y$) and clothing ($P_c C / Y$) are constant at α and $(1-\alpha)$ respectively, and so are invariant to changes in relative prices. That is, a proportionate increase in the relative price of either food or clothing leads to an equal and offsetting proportionate reduction in the relative quantity purchased, leaving its share in total spending unchanged. This means that elasticity of substitution² between the two goods is equal to 1.

¹ Note also that because consumer utility is not cardinally measurable, the apparent restriction implied by equation (1) that the exponents on F and C sum to one is not in practice significant.

These results are used in the table below to illustrate the impact on utility of an increase in prices. For illustrative purchases, it is assumed that income in the base period is £1,000 and the price of both food and clothing is £1 (see column 1 of the table). In this case, the consumer buys equal quantities of both commodities and, according to equation (1), maximises utility at 500.

Income, Y	1,000	1,000	1,414	1,500
Prices: P_f, P_c	1, 1	2, 1	2, 1	2, 1
Quantities: F, C	500, 500	250, 500	354, 707	375, 750
Utility ($\alpha = 1/2$)	500	354	500	530

Now suppose that the price of food increases to £2 in some subsequent period with the price of clothing unchanged (Column 2). Not surprisingly, the consumer now chooses to buy less food since it is now relatively more expensive. But with income still at £1,000, and higher prices overall, utility is lower. Column 3 shows that, at the new prices, income would need to increase to £1,414, or by just over 41 per cent, to achieve the same utility as in the base period. This is the cost of living adjustment.

Column 4 of the table meanwhile shows the situation where the consumer's income has been adjusted in line with the percentage increase shown by a fixed basket price index following the change in the price of food. Using the formula in Box 2, the increase in the total cost of the original basket is 50 per cent (that is, it costs 50 per cent more after the price change to purchase the original basket composed of equal quantities of food and clothing). However, since the consumer has substituted consumption away from food, which is relatively more expensive, he is able to raise utility above that achieved in the base period.

Where consumers have choice therefore, the percentage increase in the fixed basket price index overstates the increase in income or expenditure necessary to maintain living standards in the face of rising prices. Where relative price changes are large, the difference is also large. But for smaller price changes, a fixed basket price index is a reasonable approximation to a true cost of living index.

² For any good, the elasticity of substitution (σ) can be defined as the proportionate change in the relative quantity purchased divided by the proportionate change in its relative price. In the example above:

$$\sigma = d(C/F) / (C/F) / d(P_f/P_c) / (P_f/P_c) = d(C/F) / d(P_f/P_c) / (C/F) / (P_f/P_c)$$

$$\text{dividing (5) by (4) gives } C/F = (1-\alpha)/\alpha \cdot (P_f/P_c), \text{ so}$$

$$d(C/F) / d(P_f/P_c) = (C/F) / (P_f/P_c) = (1-\alpha)/\alpha \text{ and } \sigma = 1$$

Box 3 examines this issue in greater detail. It shows that a price index based on a fixed basket of goods and services overstates the extent to which consumers' expenditure or income must rise in order to maintain constant utility as prices rise. Although the point is illustrated with reference to a particular form of consumer preferences, the result always holds when there is consumer substitution between different products. That is, when prices rise, so long as consumers have a choice, they can always achieve a given standard of living at lower cost by varying the relative quantities of the goods they

purchase, compared to simply increasing overall spending on a fixed bundle of goods.⁵

The degree to which the fixed basket price indices like the RPI and the CPI may overstate changes in the cost of living depends on the scale of price changes. In practice, the potential problem is minimised by regularly updating the contents of the RPI and CPI baskets and the expenditure weights associated with them. In both cases, within-year price indices based on a fixed basket of items and constant expenditure weights are calculated for the period from January to the following January. These overlapping within-year indices are then chained together to form a single price index spanning several years. Annual updating of RPI and CPI baskets and weights ensures that the indices remain representative of consumer spending patterns over time.

The degree of consumer substitution between products in the face of relative price changes is an important concept. Later in this article it is shown that the various averaging techniques used to combine prices at a low level of detail in RPIX and the CPI embody different assumptions about the degree of substitutability between different varieties or brands of products. Not surprisingly, this has an important bearing on the measured rate of inflation according to the two indices.

What is the CPI?

Reflecting its new role as the main UK domestic measure of inflation for macroeconomic purposes, the CPI is the new name for the inflation measure previously published in the UK as the HICP.

The HICP was developed by Eurostat, the Statistical Office of the EU, and EU Member States. It is constructed in each EU country in accordance with a series of regulations and guidelines that followed from an initial regulation passed in October 1995. These regulations and guidelines are designed to ensure comparability of measured inflation rates across Member States, something which is not possible with national consumer price indices because of differences in coverage and construction.

Eurostat combines these figures into aggregate indices for the Monetary Union area and the whole of the EU. The weights are based on each country's share of household final consumption expenditure. The UK's weight in the aggregate EU index in 2003 is just under 17 per cent. The UK has the second largest weight after Germany (24 per cent), but not much different from France (16 per cent) and Italy (15 per cent). Eurostat publishes both the HICPs for individual countries and the aggregate indices on a monthly basis. They are also published in the individual countries; in the UK they are published monthly in the consumer price indices First Release.

Box 4 summarises the institutional arrangements for the production and development of the HICP across the EU. It should also be noted that the published HICP and UK CPI figures can in principle be revised, whereas by convention the RPI and RPIX are never revised. That said, past revisions to the previously published UK HICP figures have been minimal, with only one set of changes made since 1996.

Box 4: Institutional arrangements for the development of the HICP

The HICP is defined in a series of legally binding regulations. The Council Regulation (EC) No 2494/95 of 23 October 1995 'concerning harmonised indices of consumer prices' provides the legal basis of the HICPs and a series of subsequent Council and Commission regulations define its construction and coverage.

The aim of these regulations is to establish a set of minimum standards that ensure that the HICPs constructed in Member States are comparable. They aim to promote good statistical practice by defining a series of 'minimum standards' while recognising the principle of 'subsidiarity' to allow for national circumstances.

HICP regulations are drafted by the European Commission (Eurostat) in conjunction with Member States through the HICP Working Party. This work is overseen and approved by the Statistical Programme Committee (SPC) made up of Heads of EU National Statistical Institutes and the Head of Eurostat. Like other Member States, the UK can influence legislation but cannot dictate it. As the HICP is the measure of inflation used by the European Central Bank (ECB) for monitoring inflation in the euro area, the 'opinion' of the ECB is also sought on all regulations.

The HICP regulations are obligatory in every EU Member State. Eurostat, on behalf of the Commission, undertakes an ongoing compliance monitoring programme to evaluate compliance with the HICP regulations.

Member States' interests in the development of the HICP are represented at the HICP Working Party, which meets about three times a year. HICP regulations normally require a qualified majority vote before they are brought forward for legislation. In addition, there are also a number of guidelines, which have been agreed by Eurostat and Member States, as a practical and flexible way of taking forward development of the HICP. These guidelines do not have the force of law but often form the basis of subsequent regulations. Guidelines may also give practical examples and general advice on how the legal requirements of regulations should be implemented.

As noted earlier, the change in name of the HICP in the UK to the CPI should not be interpreted as implying that there is any intention to develop the CPI differently from the HICP. The CPI and the HICP will remain one and the same index.

Why and how does the CPI differ from RPIX?

We have already seen that both RPIX and the CPI adopt the same fundamental approach to the measurement of inflation. Both measures are based on the simple idea of tracking the changing cost of a fixed basket of goods and services over time. Indeed, for the vast majority of goods and services in the RPIX and CPI baskets, the same underlying price data is used to calculate the two indices.

There are, nevertheless, persistent and sometimes significant differences in the UK rate of inflation according to the two measures. Figure 1 compares the annual inflation rates for RPIX and the CPI each month since January 1989.⁶ For most of this period, the annual change in RPIX has exceeded that for the CPI. On average, the difference has been 0.7 percentage points over this period. It is also clear that the difference varies over time and, at 1.3 percentage points in October 2003, the difference is currently quite wide.

As discussed below, the inclusion of a range of housing costs in RPIX, but not in the CPI, has tended to result in larger increases in RPIX than the CPI because over this period housing costs have tended to increase by more than prices generally.⁷ The only period when the RPIX annual rate was lower than for the CPI was the 12 months from April 1991. This was mainly due to a 30 per cent cut in the community charge in April 1991 lowering RPIX inflation but not the CPI from which it is excluded.⁸ The discussion below also shows that increases in RPIX are usually larger than in the CPI because of the different methods adopted in the two indices to combine prices at the most basic level of detail, all other things being equal.

Coverage and methodology

More generally, compilation of fixed basket indices such as RPIX and the CPI involves a range of detailed choices concerning index coverage, construction and methodologies. Some of the more important choices concern:

- **Population base:** *which particular consumers or households is the index designed to cover?*

The CPI is based on the purchasing patterns of *all* private households. RPIX, by contrast, excludes the expenditure of the top 4 per cent of households by income and pensioner

households that derive at least three-quarters of their total income from state benefits (the latter accounting for around 10 per cent of UK households). Note that the exclusion of households with very low and very high incomes from the national consumer price index is not common in other countries. In addition, the CPI also includes the expenditure of people living in institutional households, such as nursing homes and student hostels, and of foreign visitors to the UK, all of which are excluded from RPIX.

- **Commodity coverage:** *in principle, which types of goods or services should be included in the index?*

The types of goods and services which in principle should be included in the index is known as the scope of the price index. The CPI largely follows National Accounts concepts of what constitutes household consumption in determining index scope, and mainly uses National Accounts data sources to weight together the items in the basket. The expenditure coverage of RPIX is similar but has evolved in a largely pragmatic way, drawing on evidence on UK consumer spending patterns provided by the Expenditure and Food Survey (EFS) as the basis for the selection and weighting of items in the basket.

However, as described later, there are a number of specific and important differences in commodity coverage between the two measures. These mainly relate to the treatment of owner-occupier housing costs, and also council tax, which are covered in detail in RPIX but largely excluded from the CPI.⁹

- **Price measurement:** *how should prices in the index be measured?*

Although the physical collection and measurement of prices may seem straightforward, some difficult issues do arise in a few specific areas. A particular challenge lies in ensuring that the price index is not affected by changes in the quality of goods and services purchased over time. This is particularly important for sectors where the rate of technological progress is high, and product specifications change frequently (for example, computers). A range of methodologies exist to adjust the prices of such goods for changes in quality, and the RPIX and CPI measures adopt different approaches in some cases.

- **Index methodology (the formula effect):** *how should prices be combined at the lowest level of detail?*

In practice, individual prices used in the RPI and CPI indices are collected and combined together to form sub-indices at a fine level of disaggregation. For many products, distinct sub-indices will be constructed for each region of the UK and may also be further subdivided by shop type. These elementary indices are then weighted together to form the overall price index.

Within each elementary index, however, expenditure weights are not available with which to combine the prices and so one of a number of simple averaging techniques

Figure 1
CPI and RPIX inflation

Per cent, month on a year ago

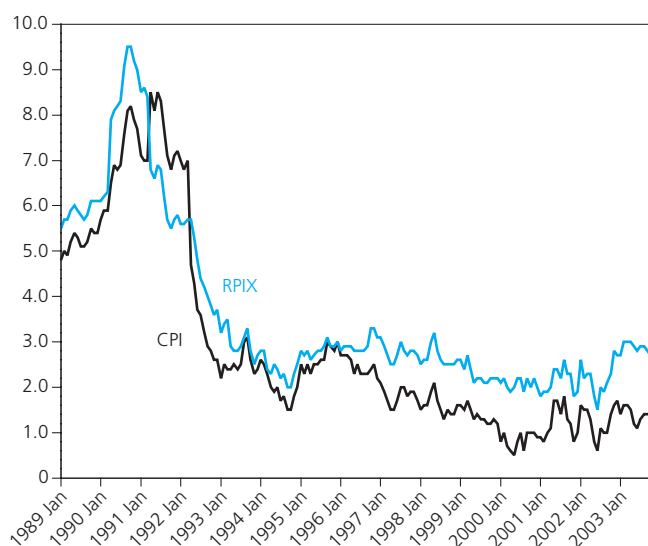
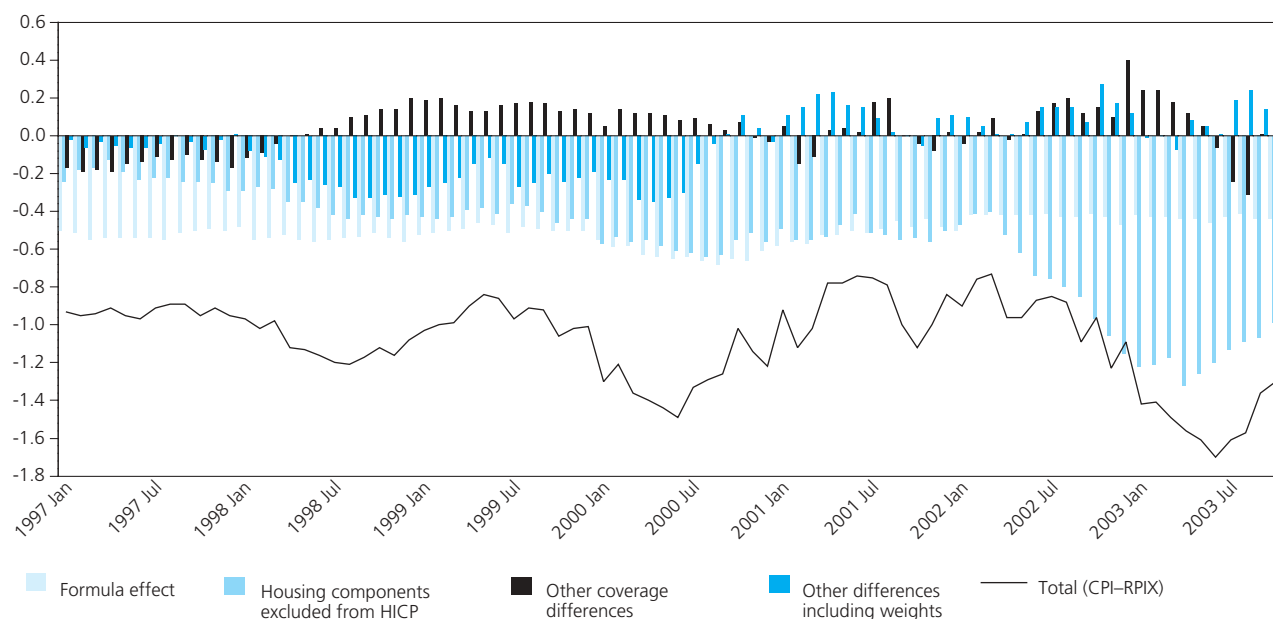


Figure 2

Contributions to the difference between CPI and RPIX inflation

Percentage points, month on a year ago



must be employed. The CPI generally uses the geometric mean to average prices at this basic level, whereas RPIX employs a mixture of arithmetic mean techniques. As described later in this article, this means that the CPI produces a lower estimate of the change in prices at this level than RPIX. This is known as the formula effect.

Reconciling the CPI and RPIX inflation rates

ONS publishes each month a detailed reconciliation of the differences in the annual rates of inflation according to the RPIX and CPI measures. This analysis is only available for the period since 1997, corresponding to the period for which official CPI figures have been published in the UK. It is important to note that this period is too short to view the resulting differences as the long-run deviation between the CPI and RPIX, or the longer-term contribution to that difference from any single factor. In particular, the housing components excluded from the CPI have risen relatively rapidly over this period.

Bearing in mind these caveats, estimated contributions to the difference in the annual rates of CPI and RPIX inflation since January 1997 are shown in Figure 2. The data are provided in Appendix C and are summarised in Table 1.

It is clear that, in practice, there are two main contributors to the difference between the CPI and RPIX annual inflation rates:

- The exclusion of council tax and most components of owner-occupier housing costs from the CPI has had the largest effect since January 1997, on average reducing CPI inflation by 0.56 percentage points relative to RPIX. While the exclusion of the housing components has consistently

Table 1:

Differences¹ in CPI and RPIX inflation rates since January 1997

	January 1997 to October 2003			
	average ²	minimum	maximum	standard deviation
Difference between annual rates:				
(CPI less RPIX):				
Rounded (published) figures	-1.1	-1.7	-0.7	0.2
Unrounded figures	-1.08	-1.70	-0.73	0.23
Breakdown of differences:				
Housing components excluded from				
CPI	-0.56	-1.32	-0.13	0.30
Other differences in coverage ³	+0.04	-0.31	+0.40	0.13
Formula effect	-0.51	-0.68	-0.41	0.07
Other differences including				
weights ⁴	-0.05	-0.35	+0.27	0.17

1. Negative figures indicate that CPI inflation is lower than RPIX or factors which lower CPI inflation relative to RPIX.

2. The period covered by the table is too short to consider these figures as the long-run deviation between the CPI and RPIX.

3. Includes differences in price measurement, as described later in this section.

4. Derived as a residual.

lowered CPI inflation relative to RPIX over the period under consideration, its impact has also been the most variable, ranging between -0.13 and -1.32 percentage points.

- The formula effect has, on average, lowered CPI inflation by 0.51 percentage points since January 1997. As with the housing effect, the formula effect has consistently lowered CPI inflation relative to RPIX over this period, but its impact has been much more stable, ranging from -0.41 to -0.68 percentage points.

Given their importance, these differences in commodity coverage and the formula effect are explained in greater detail in the sections that follow. The analysis also shows that:

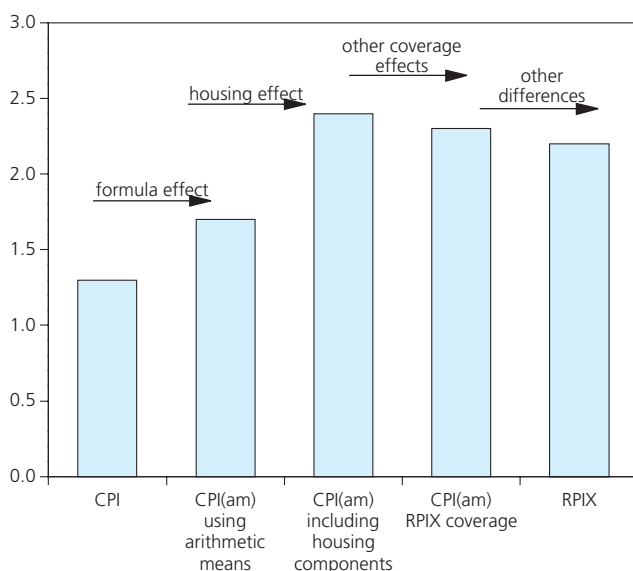
- Other differences in commodity coverage including price measurement effects described later have typically had a smaller impact on the difference between the CPI and RPIX inflation rates since January 1997. The average impact over this period has been just +0.04 percentage points, but has ranged from -0.31 to +0.40 percentage points in individual months. This variation reflects in part changes in the coverage of the CPI.
- A similar story can be told for the remaining differences between CPI and RPIX, including differences in weights stemming from different population coverage and sources of weights data. Their impact has ranged from -0.35 to +0.27 percentage points since January 1997, with an average of -0.05 percentage points over the full period.

Figure 3 summarises the relationship between the two measures. Moving from left to right, it sets out the key steps involved in moving from CPI inflation to RPIX inflation in 2002, the latest full year for which data are available:

- First, as in RPIX, prices at the lowest level of detail in the CPI must be combined according to arithmetic rather than geometric averaging techniques. This would raise the CPI measure of inflation by around 0.4 percentage points in 2002.

Figure 3
The relationship between CPI and RPIX inflation in 2002

Per cent



- Next, in adjusting the commodity coverage of the CPI basket to match RPIX, the addition of council tax and owner-occupiers housing costs has the most significant impact in 2002, increasing CPI inflation by 0.7 percentage points.
- Adjusting for other differences in coverage has a much smaller impact, lowering CPI inflation by just 0.1 percentage points in 2002.
- Finally, the impact of remaining differences, including the impact of the different weights that are attached to those items common to both indices, is downward but small overall.

Commodity coverage and price measurement effects

The range of goods and services covered by the CPI is generally quite similar to RPIX. The main differences are in the area of housing, and particularly owner-occupier housing costs, which are largely excluded from the CPI. This reflects the diverse treatment of such costs in national consumer price indices, and the difficulties in establishing an international consensus on how they should be measured.

Specifically, the following housing components are included in RPIX, with a total weight of 9.5 per cent in 2003, but are excluded from the CPI:

- Council tax. This is excluded from the CPI because it is treated as a direct tax in the National Accounts and so is not considered a part of household final consumption.
- House depreciation. This is designed to measure the ongoing costs homeowners face to maintain their properties at constant quality, and is imputed in the RPIX by a smoothed house price series.
- Buildings insurance and ground rent and
- House transaction costs: surveyors' valuation fees, home buyers survey costs, estate agents' fees and conveyancing fees.

The CPI also excludes mortgage interest payments, which are included in the all-items RPI but not of course in RPIX. The possible extension of the coverage of EU HICPs and the CPI to include these various components of owner-occupier housing costs is discussed later. Finally, the CPI also excludes trade union subscriptions and vehicle excise duty, again because these items are not counted as part of household final consumption.

Conversely, there are a number of items which are included in the CPI but not covered in RPIX, mainly due to differences in the population basis of the two measures. Specifically, because the CPI population also includes residents of institutional households, foreign visitors to the UK and those high-earning private households that are excluded from RPIX, it includes the following items:

- university accommodation fees
- foreign students' university tuition fees
- unit trust and stockbrokers' charges and

- foreign exchange commission on the purchase of sterling by overseas visitors.

It is important to note that the impact of the CPI's wider population base goes much further than the inclusion of these additional items that are not in RPIX. More important, it means that the weights for all items in the CPI basket take account of spending by all UK households, residents of institutional households and foreign visitors to the UK.

The coverage of the EU HICPs and therefore the UK CPI has been extended in stages since their official launch meaning that the differences between the CPI and RPIX have changed over time. For instance, there were extensions to CPI coverage in 2000 and 2001 bringing in components for health and education, which were already included in RPIX. By contrast, the extension of the CPI population basis in 2000 to include expenditure in the UK by foreign visitors and residents of institutional households means that it now includes a number of items that are not included in RPIX as described above.

In terms of price measurement, there are a few specific differences between the CPI and RPIX. These mainly relate to the methods used to quality adjust prices so that the price index is not affected by changes in product specifications over time:¹⁰

- In RPIX, new car prices are imputed on the basis of movements in second-hand car prices. Since HICP regulations do not permit the use of imputed prices, the CPI includes a specific index for new cars. This is based on the list prices of a sample of around 50 cars covering a range of manufacturers, and is quality adjusted using the option cost technique for any changes in specifications.
- Quality adjustment of personal computer prices in RPIX is currently based on the option cost methodology whereas the CPI uses hedonic regression techniques. However, under the National Statistics Protocol on Consultation with Ministers, the National Statistician has written to Treasury Ministers advising that he proposes to extend hedonic regression as the basis for quality adjusting personal computers to the RPI in 2004.¹¹
- In the RPI, all expenditure on insurance is considered to belong to the relevant insurance heading (for example, housing or motoring insurance premiums). By contrast, in the CPI, the amount paid out in claims is distributed among other spending categories according to the nature of the claim with only the residual (that is, the service charge) allocated to the relevant insurance heading. In practice, this affects only the weights of insurance in RPIX and the CPI; there is no practical means of measuring insurance *prices* net of claims paid out.

The formula effect

Both RPIX and the CPI are produced by weighting together some 120,000 individual prices collected each month for about 650 representative items. The indices are constructed 'bottom-up', with sub-indices at each stage weighted together by expenditure shares to give higher level indices and then finally the overall or aggregate price index.

At the lowest level of aggregation, prices are grouped into about 5,000 elementary aggregates representing further subdivisions of items, usually by the type of outlet and/or the region of the country where the prices were collected. So, for example, an elementary index might be calculated for best minced beef sold in independent shops in London. However, at this level of detail, there is no information on the expenditure shares (that is, weights) for the individual shops from which prices are collected. In this case, it is usual to take a simple unweighted average of the prices in computing the elementary index.

The RPI and RPIX use two different types of arithmetic means to compute indices for the elementary aggregates: the Ratio of Averages (RA) and the Average of Relatives (AR). RA compares the unweighted average of prices in the current period with the unweighted average of matching prices in the reference period. AR meanwhile calculates, for each pair of matching prices, the ratio of the price in the current period with the price in the reference period and then averages these ratios.

The RA method implicitly gives greatest weight to the highest priced products or brands in estimating price change overall. For this reason it is mainly used in RPIX for items that are fairly tightly defined, such as food, alcohol and tobacco. This helps to ensure that the various prices collected in any given period are quite similar, meaning that the estimate of price change should not be unduly dominated by any particular product within the aggregate. The AR method, by contrast, gives equal weight to each of the price relatives and is used for products such as clothing and furniture, where wider variations in prices resulting from broader item descriptions limits the application of the RA technique.

The CPI, by contrast, uses the geometric mean¹² (GM) to form the price indices for these elementary aggregates. Each low-level index is computed as the ratio of the simple unweighted geometric mean of prices in the current period relative to the unweighted geometric mean of the matching prices in the reference period. An identical result would be found by taking the unweighted geometric mean of the price relatives, and in this sense GM shares some similarities with both the RA and AR techniques.

However, these different methods of averaging prices within the elementary aggregates do produce different results. A number of mathematical properties of the various techniques are set out in Box 5. The key points are as follows:

- As a general mathematical result, the geometric mean of a given set of values is always lower than the corresponding arithmetic mean, except when those values are all equal (in this particular case there is no difference between the geometric and arithmetic mean).
- This means that, for a given set of price relatives, the GM averaging formula used in the CPI will always produce a lower estimate of price change for an elementary index than one based on the AR aggregation technique employed in RPIX.

- The scale of this difference depends on the dispersion of the price relatives; as the variance of the price relatives increases, so does the discrepancy between the GM and AR results.
- However, for a given set of matching prices in two periods, the estimate of price change for an elementary index based on the RA technique employed in RPIX can in theory lie above or below the corresponding result based on GM, depending on the variance of prices in the current and base periods.

Box 5: Arithmetic and geometric means, and elementary aggregation techniques

Denoting the arithmetic and geometric mean functions $a(x)$ and $g(x)$ respectively, in the case of 2 real values, x_1 and x_2 , the functions are defined as follows:

$$a(x) = (x_1 + x_2)/2 \text{ and } g(x) = \sqrt{x_1 \cdot x_2}$$

$$\text{so } a(x) = (\sqrt{x_1^2} + \sqrt{x_2^2} + 2\sqrt{x_1 \cdot x_2} - 2\sqrt{x_1 \cdot x_2}) / 2$$

$$a(x) = g(x) + (\sqrt{x_1} - \sqrt{x_2})^2 / 2$$

Since the final term on the right-hand side is always greater than or equal to zero, it follows that the arithmetic mean of two values is always greater than the geometric mean except where the two values are equal. This result holds for any higher number of observations of x .

Moreover, since the extent to which $a(x)$ exceeds $g(x)$ is proportional to the square of the difference between the square roots of x_1 and x_2 , this means that it must increase according to the variance of the x values.

Now let P_t denote a set of n prices collected in the current period, $\{P_{1,t}, P_{n,t}\}$, and P_0 denote the set of matching prices in the base period, $\{P_{1,0}, P_{n,0}\}$. The corresponding set of price relatives may be denoted, $R_t = \{R_{1,t}, R_{n,t}\}$ where $R_{it} = P_{it}/P_{i0}$. The various elementary aggregation methods are defined as:

Average of Relatives, $AR = a(R_t)$

Ratio of Averages, $RA = a(P_t)/a(P_0)$

Geometric mean, $GM = g(P_t)/g(P_0) = g(R_t)$

Comparing AR and GM:

$$AR - GM = a(R_t) - g(R_t)$$

Following from the earlier results, it is clear that the arithmetic mean of the price relatives is always greater than the geometric mean of the price relatives except where all price relatives are equal, and that the difference is increasing in the variance of the price relatives.

Now comparing RA and GM:

$$RA - GM = a(P_t)/a(P_0) - g(P_t)/g(P_0) = k(a(P_t)/g(P_t) - a(P_0)/g(P_0))$$

where $k = g(P_t)/a(P_0)$

The difference between RA and GM therefore is proportional to the difference in the ratio of the arithmetic and geometric means of prices in the current period compared to the same ratio in the base period. Since $a(x) \geq g(x)$, both of these ratios will be greater than or equal to 1. Moreover, because these ratios are increasing in the variance of prices in each period, it follows that:

If the variance of the base prices > variance of current prices then $GM > RA$

If the variance of the base prices < variance of current prices then $GM < RA$

If the variance of the base prices = variance of current prices then $GM = RA$

This use of arithmetic averaging techniques in RPIX, as opposed to GM in the CPI, does mean that the former shows a higher rate of change for given price data. This observation is directly related to the earlier discussion concerning consumer substitution between products when relative prices change. As described in Box 3 of this article, substitution helps to limit the increase in total spending consumers require to maintain living standards in the face of a general increase in prices. The GM formula implicitly assumes that consumers will switch to cheaper alternatives when relative prices change, whereas arithmetic means are consistent with an elasticity of substitution of zero.^{13,14} Focussing on within-year price changes then, the use of both RA and AR techniques contributes to the formula effect. To the extent that it is considered desirable to allow for these substitution effects, GM has advantages over both of the arithmetic techniques.

In practice, the bulk of the formula effect arises due to the use of the AR technique in RPIX rather than GM as in the CPI. There are two factors in particular which serve to raise the dispersion of price relatives within the elementary aggregates, so increasing the difference between the AR and GM estimates of price change:

- The use of January as the base month. Prices in January are somewhat atypical in that there is widespread and variable discounting for a range of products due to sales. Price relatives anchored on a January comparison period therefore tend to be more dispersed than they would be if the comparison period were some other month of the year.
- Price collection methods. Price collectors are given generic descriptions of items (for example, 'men's long sleeved shirt') rather than exact specifications (which could, for example, specify the brand of shirt, and its fabric composition, style and cut). This could raise the dispersion of the price relatives in that price changes for different types of shirts and other similar goods may vary widely, thus contributing to the formula effect. Note that generic price descriptions are cost effective in that they improve coverage by allowing prices to be collected for a broad range of products.

However, relative to GM and also RA, the use of AR in RPIX has further implications. As noted earlier, within-year indices for RPIX and the CPI (and their component indices) are chain linked together to form indices spanning several years. It can be shown that in certain circumstances, the use of the AR aggregation technique when combined with chain linking of the within-year indices introduces an upward bias in the overall price index. This phenomenon is called 'price bounce'.

Price bounce occurs when prices within an elementary aggregate change but then subsequently return to their original level over the period of the chain link. With January chain linking, this is indeed quite common in practice, since the prices of many goods fall in the New Year sales and recover in subsequent months. In these circumstances, it can be shown that an AR index does not return to its starting level of 100, but to a level slightly above this, introducing an upward bias in the index.¹⁵ The RA and GM aggregation methods, by contrast, are not affected by price bounce. Box 6 explains price bounce in greater detail and provides a simple example.

Box 6: Price bounce

Consider the construction of a simple price index, based on the collection of just two price quotes in each period for a particular item. Further, suppose that prices for this particular item tend to fall in January as a result of sales, returning exactly to their previous level in February. Illustrative price data for the period December to February is provided in the table below.

	price 1	price 2	arithmetic mean	geometric mean
December 2002	100p	100p	100p	100p
January 2003	60p	80p	70p	69.3p
Price relative	0.60	0.80		
January 2003	60p	80p	70p	69.3p
February 2003	100p	100p	100p	100p
Price relative	1.67	1.25		

Price indices can now be calculated according to the AR, RA and GM aggregation formula discussed earlier in this article for the sub-periods January 2003 (based on December 2002 = 100) and February 2003 (based on January 2003 = 100), as shown in the table below:

Price index:	AR	RA	GM
January 2003 (December 2002=100)	70.0	70.0	69.3
February 2003 (January 2003=100)	145.8	142.9	144.3

These indices can now be chained together to produce an index covering the full period based on December 2002=100 as shown below. Denoting an index for period t based on time 0 as $I_{t/0}$:

$$I_{\text{Feb03/Dec02}} = (I_{\text{Feb03/Jan03}} / 100) \times I_{\text{Jan03/Dec02}}$$

In the AR case this is equal to $(145.8/100) \times 70.0 = 102.1$

In other words, the AR aggregation method combined with chain linking suggests that the price of the item in February remains around 2 per cent above its December level, despite the fact that all the prices sampled have returned exactly to their December starting points. In the case of RA and GM approaches, by contrast, it is easily verified (ignoring rounding effects) that the corresponding chain-linked indices are both exactly 100.0 in February, and so are not affected by price bounce.

This bias in the AR method is a product of chain-linking and the behaviour of prices across the chain link. Specifically, price changes are negatively correlated across the chain link: in this example, price falls are followed by price increases. But if prices in February 2003 had been compared *directly* with December 2002, it is clear that the average of the two price relatives would be equal to 1, and so a direct AR index with no chaining would also show an index level of 100 in February.

Although the overall impact of price bounce on RPIX is much smaller than suggested by the contrived example set out in Box 6, it does make an important contribution to the overall size of the formula effect set out earlier in this article. Since RPIX is annually chain linked each January, and price movements for many items are negatively correlated across this link period due to New Year sales, the use of AR for certain products leads to a greater estimate of price change than the GM technique employed in the CPI.

It is now also clear that detailed index construction choices, such as the choice of base month or sampling procedures, when combined with the AR aggregation method, can have a significant impact on the measured rate of inflation. The GM approach, by contrast, is much more robust to such factors. This important point is considered further in the next section.

Evaluating RPIX and the CPI as macroeconomic indicators of inflation

The Government's monetary policy framework was introduced in 1997. The Monetary Policy Committee of the Bank of England now has full operational independence to set interest rates to meet the symmetrical inflation target set by the Government. Section 11 of the Bank of England Act states that the primary objective of monetary policy is to maintain price stability, and subject to that, the Bank is required to support the Government's objectives on growth and employment. These objectives and the policy framework are described in detail in Balls and O'Donnell (eds.) (2002) *Reforming Britain's Economic and Financial Policy*.

There are a number of criteria which are relevant in assessing the merits of alternative inflation measures from an economic policy perspective:

- The conceptual basis that is adopted to record transaction prices. There are three main approaches: acquisition, payments and user cost (or consumption).¹⁶
- The scope of the index, and in particular the extent to which the transactions covered by the index correspond with those which monetary policy is intended to influence. This will be determined by commodity coverage and the population basis of the index.
- The index should be unbiased in relation to what it is trying to measure. Bias can take a number of forms, including those arising from changes in quality of the products being priced, or differences due to the formulae used for aggregation purposes.
- In terms of its basic usability, a price index should be timely (that is, available sufficiently quickly after the period to which it relates), accurate, subject to minimal revisions, and published with sufficient frequency to be fit for purpose.

In terms of the basic usability criteria, both RPIX and the CPI are published to a common timescale, and likewise both are subject to the minimum of revision (in the case of RPIX, there are no revisions). This partly reflects the similarities in their basic approach to the measurement of inflation, the large degree of overlap in commodity coverage, and the fact

that the raw price data feeding into each index is the same in most cases. However, in comparing the statistical properties of RPIX and the CPI, this article has already presented a range of evidence that is relevant in assessing RPIX and the CPI according to the other criteria. The key points are reviewed below.

In the last decade, a global consensus has begun to emerge about the desirable form of consumer price indices appropriate for measuring inflation at a macroeconomic level. This consensus has helped to shape the CPI during its development, meaning that it has some distinct advantages over RPIX as a macroeconomic indicator of inflation, partly reflecting the fact that the latter was not developed specifically for this single purpose. From a statistical perspective, these advantages fall under two broad headings:

- coherence of CPI coverage with other macroeconomic data
- the use of the geometric mean aggregation technique.

Coherence of the CPI with other macroeconomic data stems from the fact that CPI commodity and population coverage largely follows National Accounts principles. Commodity coverage is rooted in the European System of Accounts 1995 (ESA95) definition of household final consumption and the population basis likewise matches that used in the National Accounts. CPI weights therefore are based on the final consumption expenditures of all individuals in the domestic territory, including spending by private households, institutional households (such as nursing and residential homes) and foreign visitors. Unlike RPIX, expenditures of high and low-income households are not excluded from the CPI. National Accounts principles have also influenced the classification of goods and services within the index whereas the RPI employs its own unique classification system.

Following from the previous section, it can be also be seen that use of the GM aggregation formula has some advantages in relation to the AR technique that is applied for some parts of RPIX. It has been shown that the use of AR can lead to a small upward bias in a price index depending on the behaviour of prices across the chain link. In addition, the use of GM in the CPI facilitates cross-country comparisons of inflation rates since it is more robust to detailed index construction choices, such as sample design and the coverage and definition of the elementary aggregates used to construct price indices. This was clearly a key requirement for HICPs in the EU context, but the use of GM is an advantage for international comparisons more generally.

The geometric mean is increasingly preferred in other countries. For instance, in recent years Canada, the USA, and Australia have switched to using the geometric mean in their national consumer price index. Among the UK's partners in the EU: six use the geometric mean (Sweden, Italy, Finland, Portugal, Luxembourg and Greece); four use the ratio of averages variant of the arithmetic mean (Spain, Belgium, Ireland and the Netherlands); and four use a mixture of the geometric mean and ratio of averages (France, Denmark, Germany and Austria). Internationally, very few countries use the AR technique.

Against this, at present one key advantage of the RPI and its derivatives such as RPIX is their familiarity and credibility built upon a long history. This impacts on public perception and so adds to their acceptability as measures of inflation. By definition, this type of credibility takes time to build, and it will inevitably be some period before the CPI becomes as widely recognised. It is intended that this article will help in this process.

In addition, the CPI's exclusion of most elements of owner-occupier housing costs is an outstanding issue, and lessens its relevance for some users. However, this must be weighed against the significant difficulties encountered in measuring such costs appropriately, reflected in the absence of any international consensus in this area. RPI's detailed treatment of owner-occupier housing costs mainly reflects its important history as a compensation index, and has necessitated significant compromises in conceptual consistency in this area. For most categories of expenditure, the RPI can be considered an acquisitions index but, in the area of owner-occupiers housing costs, the inclusion of mortgage interest payments and house depreciation reflects elements of the user cost approach. From the perspective of a macroeconomic indicator of inflation, the inclusion and appropriate treatment of owner-occupier housing costs in consumer price indices raises a number of difficult statistical challenges. These are described in the next section.

Owner-occupier housing costs

It is very difficult to establish an international or even national consensus concerning the treatment of owner-occupier housing costs in consumer price indices. This is reflected in the limited coverage of owner-occupier housing costs in the HICP, and the slower evolution of an EU-wide consensus, despite the strong arguments for their inclusion in consumer price indices as a matter of principle.

The various options for the treatment of owner-occupier costs in the RPI were last considered by an RPI Advisory Committee in 1992–94 (Cmd 2717). The Committee concluded that mortgage interest payments should continue to be included in the RPI and that a new component of shelter costs should be introduced to represent the cost of depreciation of owner-occupied dwellings. Depreciation was intended to represent the ongoing, though typically infrequent, major costs homeowners face in maintaining the standard of their properties¹⁷, and it was decided that depreciation costs should be measured via a smoothed house price index.

RPIX excludes mortgage interest payments but includes the depreciation component, as well as a range of other owner-occupier housing costs including buildings insurance and various house purchase costs including estate agents' and conveyancing fees. RPIX also includes council tax, primarily reflecting its importance in household budgets, and the fact that it might be viewed as expenditure for specific local services received. However, from a National Accounts perspective, council tax is treated as a direct tax rather than household final consumption, and so is not included in the HICP.

The current treatment of owner-occupier housing costs in the RPI can be seen as a compromise in terms of the conceptual consistency of the index. The inclusion of mortgage interest payments, as a key component of actual payments made by owner-occupier households, can be viewed as important from the perspective of the income-related uses of the RPI, even though the index can be seen as acquisitions-based in most other areas. The measurement of depreciation costs through house prices also causes problems in that the latter are strongly influenced by land prices in the UK, which is likely to distort estimates of depreciation costs for the dwellings. Moreover, inclusion of house prices means that the index is affected by changes in the price of a major household asset, and hence a wide range of factors that determine household investment portfolio decisions.

An alternative approach to measuring owner-occupier housing costs is one based on the net acquisitions concept. Under this approach owner-occupier housing costs would include total expenditure on acquiring newly built or converted dwellings or existing dwellings newly acquired by the household sector (for example, purchases of council houses from local authorities). It is argued that the land element should be excluded from house purchase costs in principle in that it is a non-produced asset, whereas the focus for a consumer price index should be the acquisition of produced goods and services only, in this case the dwellings.

As with the introduction of depreciation into the RPI in 1995, a key problem arises in that none of the house price indices currently available in the UK exclude the price of land, and this can exaggerate changes in the cost of the dwellings themselves. The impact will be significant if land represents a high proportion of overall house prices and its price moves differently from the house construction costs and construction companies' profits. Indeed, there is good evidence, for example at the regional level, that changes in the price of land have a strong impact on UK house prices.

Notwithstanding these conceptual arguments, treatment of land in national consumer price indices is diverse. Exclusion

of land prices is not regarded as essential in some other countries that include house prices in their national consumer price indices. Moreover, in countries where households often purchase plots of land separately (as distinct from a dwelling including land), it is in some cases considered important that the coverage of the national consumer price index should include land.

The ONS, along with the national statistical offices of Spain, Germany, Poland and Finland, is taking part in a preliminary Eurostat pilot study to assess the possibility of including in the HICP an index of owner-occupier housing costs based on the net acquisitions approach. Under this approach, costs would also include estate agents' fees, conveyancing fees, stamp duty, dwellings insurance and major repairs and renovations, which are currently excluded from the HICP, as well as the cost of the dwelling itself (excluding land).

The possible treatment of owner-occupier housing costs in the HICP, and their actual treatment in the RPIX, is summarised in Table 2. It is important to note that the figures in the table are indicative at this stage. While it is likely that the total weight of owner-occupier housing costs could be at least as large in an augmented HICP as in RPIX, the composition would be different. In particular, the weight of depreciation or major repairs and renovations would be lower in the HICP, possibly 2.5 per cent, compared with their current weight of 4.4 per cent. Since major repairs and renovations would probably be measured in an extended HICP through an index of construction costs, this is likely to mean that the weight of house prices would be lower than in RPIX.

The pilot study is now close to completion and could be extended, subject to funding in 2004, to embrace all Member States. However, there are a number of difficult implementation issues to be addressed, and this means that the longer-term outcome cannot be assessed with any certainty at this stage. Any extension of the HICP to cover owner-occupier housing costs is not likely to take place before January 2006 at the earliest, and could take longer.

Table 2:
Possible treatment of owner-occupier housing costs in the HICP compared with RPIX

	Treatment	RPIX weight (per cent, 2003)	Indicative HICP weight ¹ (per cent)
Major repairs and renovations	Represented in RPIX by house depreciation, and proxied by house prices. Represented by construction costs in HICP	4.4	2.5
Net acquisitions of dwellings	Excluded from RPIX. Represented by price of new houses and purchases from other sectors in HICP	Excluded	2.0-2.5
House transactions costs	RPIX includes conveyancing fees and estate agents' fees. In addition, the HICP would also include stamp duty	0.6	1.0-2.0
Dwellings insurance	Weight in RPIX based on cost of gross premiums. HICP weight based on net premiums (i.e. net of claims paid out)	0.7	0.1
Total		5.7	5.6-7.1

¹Based on the net acquisitions approach. Illustrative figures using best available data.

Notes

1. This article was originally published on the National Statistics website on 10 December 2003 to coincide with the Chancellor's Pre-Budget Report 2003 statement. The authors are grateful for a number of helpful comments received on the article and so this version contains some clarifications, although the key points and conclusions are unchanged. Significant input and advice from Jim O'Donoghue of the Office for National Statistics is likewise gratefully acknowledged.
2. For instance, the basic sample survey data on incomes and taxes paid is not up-to-date and so must be projected forward. In addition, it is assumed for simplicity that all changes in taxes and allowances announced in the annual Budget impact from the beginning of the financial year.
3. More accurately, the RPI and CPI are described as 'Laspeyres-type' indices. To be true Laspeyres indices, the base period used to calculate the quantities of the items in the basket must coincide with the base date for the measurement of prices (both in time and period). Since the RPI and CPI measure prices with reference to the previous January, matching weights data is not usually available, and would be unreliable over such a short period. In practice, data for the most recent available 12 months are used.
4. As described later in the article, the CPI does allow for substitution at a more detailed level, that is between different brands or varieties of particular products.
5. A Paasche index, the third major form for price indices, is calculated as the current cost of purchasing a basket of goods and services reflecting the current period's purchasing patterns relative to the cost of purchasing the same basket at some earlier period's prices. Denoting the Laspeyres index in period t based on period 0 as $L_{t,0}$ and the corresponding cost of living and Paasche indices as $COLI_{t,0}$ and $P_{t,0}$ respectively, it is always the case that $L_{t,0} \geq COLI_{t,0} \geq P_{t,0}$. The intuition is similar for both inequalities. Just as L typically exceeds the $COLI$ because there is a lower cost route to achieving the same level of utility associated with the previous period's basket through substitution, the $COLI$ generally exceeds P because the level of utility associated with the current period's purchases could likewise be achieved at lower cost in the earlier period by varying quantities purchased to suit the previous period's prices.
6. Official figures for the CPI are available from January 1996. CPI inflation rates for the period January 1989 to December 1996 are those estimated by O'Donoghue (1998).
7. It should be noted that housing depreciation costs have only been included in the RPI and RPIX from 1995, and so longer-run comparisons should be undertaken with caution.
8. The community charge was later replaced by the council tax which is likewise included in RPI and RPIX but excluded from the CPI.
9. The CPI does include regular maintenance and repair of the dwellings and also water and sewerage charges.
10. As measures of price change alone, both RPIX and the CPI are designed to track changes in the prices for goods and services of constant quality. When products in the RPI and CPI samples disappear or are replaced with new versions of a different quality or specification, it is important that prices are adjusted to ensure a 'like for like' comparison. Under the option cost method, these adjustments are based on the cost of the additional features contained in the new model when bought separately or as an additional option. The hedonic approach by contrast uses regression analysis to relate the price of various product models to their observable characteristics as the basis for valuing changes in quality. Ball and Andrew (2003), '*The introduction of hedonic regression techniques for the quality adjustment of computing equipment in the Producer Prices Index (PPI) and the Harmonised Index of Consumer Prices (HICP)*', available on the National Statistics website, provides further detail.
11. This proposal is for consideration under the terms of the National Statistics Code of Practice and, if adopted, would take effect from the indices for February 2004 which will be published in March 2004. Treasury ministers are seeking the opinion of the Bank of England for its view on the likely impact of these changes, as outlined in the relevant prospectuses for index-linked gilts.
12. The simple or unweighted geometric mean of a set of n values x_1, \dots, x_n is equal to the n^{th} root of the product of the n values. For example, the geometric mean of 2, 4 and 8 is equal to $\sqrt[3]{(2 \times 4 \times 8)} = \sqrt[3]{64} = 4$. Note that the corresponding arithmetic mean is larger, at $(2+4+8)/3 = 4.7$.
13. It is easily verified that the unweighted geometric mean of the price changes described in the illustrative scenario set out in Box 3 is exactly equal to the increase in income that was needed to maintain living standards at the new prices. Returning to the results set out in the box and equating utility in the two periods (denoted time 0 and 1), we have $U_0 = U_1$ or $F_0^\alpha C_0^{1-\alpha} = F_1^\alpha C_1^{1-\alpha}$. Substituting in expressions for F_0, C_0, F_1, C_1 from equations (4) and (5) it can be shown that:

$$Y_1/Y_0 = (P_{t,1}/P_{t,0})^\alpha \cdot (P_{c,1}/P_{c,0})^{1-\alpha}$$
 That is, the change in the cost of living is equal to the weighted geometric mean of the price relatives. If $\alpha=1/2$, as in the scenario set out in Box 3, this is also equal to the simple (unweighted) geometric mean of the price changes. Use of the *unweighted* GM formula to construct an elementary index therefore is consistent with consumer preferences where the elasticity of substitution between each specific element within the aggregate is equal to 1, with the further assumption that the utility derived, all other things being equal, from a given quantity purchased of any of the items is the same. In the case of elementary aggregates, in which the prices of various brands or varieties of a particular item collected

in a specific region of the UK are combined, this latter assumption seems plausible. By allowing for substitution at this low level, the CPI is closer to a cost of living index than a 'pure' price index such as RPIX.

14. In practice, the elasticity of substitution between particular products is likely to vary. For example, there is not likely to be much substitution in the case of adult replica football shirts, whereas brand loyalty for say washing powder is probably much lower.
15. Likewise if prices were to rise and then fall by the same amount over the chain link, the index would remain above 100. In other words, price bounce occurs whenever price changes are *negatively* correlated across the link month.
16. Under the *acquisition* approach the total value of all goods and services delivered during a given period, whether or not they were wholly paid for during the period, is taken into account. With *payments*, the total payments made for goods and services during a given period, whether or not they were delivered, is taken into account. Finally, *user cost (or consumption)* considers the total value of all goods and services consumed during a given period. The distinction between the three approaches is particularly important for purchases financed by some form of credit, notably major durable goods and housing, which are acquired at a certain point of time, used over a considerable number of years, and paid for, at least partly, some time after they were acquired, possibly in a series of instalments.
17. Depreciation might be thought of as the costs of major repairs and renovations, with minor maintenance and decorating costs covered elsewhere in the index.

Appendix A: Historical background to the development of the RPI

Cost of living index

Although there were occasional official comparisons of prices for food in the late 19th century and early 20th century, the Government first began a systematic, continuous check on the increase in the cost of living in 1914. From July of that year, the Board of Trade instituted a regular monthly inquiry into the retail prices of the principal items of working class family expenditure, publishing the percentage change each month in its *Gazette*. The published figures initially related only to food prices, but after June 1916 the index was expanded and calculated retrospectively to cover clothing, fuel and some other items.

The new index was accepted as a valuable aid towards protecting ordinary workers from what were initially expected to be temporary economic consequences of the First World War. The information used for weighting together the components of the index was crude in the extreme. Expenditure data obtained from a survey of urban working class households back in 1904 was constrained by highly subjective assessments of what constituted legitimate expenditure for a working class family. For example, beer was completely excluded and the weight used for tobacco was much less than the actual proportion of expenditure on tobacco.

Between the World Wars

This index, with unchanged weights, was produced throughout the 1920s and 1930s. Criticism mounted, especially towards its out-of-date weights (by the 1930s, candles and lamp oil were grossly over-weighted while electricity was completely excluded and ready made clothing was under-weighted). In 1936, the Ministry of Labour announced the institution of a large-scale household expenditure inquiry to update the weights; this was carried out in 1937–38. However, by the time the results became available, war had broken out and further action on the revisions was deferred.

After World War 2

In 1946, a new committee, the Cost of Living Advisory Committee, was set up. An interim report in 1947 advised that as a short-term measure, the results of the 1937–38 expenditure inquiry should be used to update the weights until a new inquiry, reflecting vastly different post-war spending patterns, could be carried out. It also recommended some fundamental changes in, for example, the selection and number of representative items for which prices should be collected. This new index, the Interim Index of Retail Prices, started in June 1947 and ran on (with some minor modifications and a re-basing in January 1952) to January 1956, and laid many of the foundations for the compilation of the modern RPI.

By the beginning of 1955, sufficient information from the Household Budget Inquiry became available for the committee to formulate a new index. This became the first official Retail Prices Index (RPI) and began from January 1956. Among the changes brought in at this stage were:

- expansion of scope of households included in the RPI from just working classes to all wage earners, excluding extremely high and low-earning households
- a firm definition of the RPI for the first time
- a definition of the scope of the index, which largely remains today
- a new structure that, by and large, continued to 1987
- the first serious attempt to measure owner-occupier housing costs.

The committee also recommended that the Household Budget Inquiry should become a continuous survey. This led to the creation of the regular Family Expenditure Survey (FES) from 1957. Once these data settled down, the weights could be revised annually and this process, which continues to the present day, was begun with a re-basing of the RPI in January 1962. A new Expenditure and Food Survey (EFS) was launched in April 2001 to replace the FES and the National Food Survey.

The 1960s and 1970s

Various changes occurred to the RPI through the 1960s and 1970s, including:

- abolition of the name ‘Cost of Living’ and the associations it implied
- introduction of a ‘meals out’ group (now called ‘catering’) from 1968
- construction of separate ‘pensioner’ indices from 1969
- several changes to the methods of calculating owner-occupier housing costs, including the introduction of a new method of calculating mortgage interest payments from 1975
- introduction of ‘seasonal’ weights for fresh fruit and vegetable items from 1975
- introduction of a new index, the Tax and Price Index (TPI) in 1979.

The 1980s

An advisory committee was convened in the early 1980s to review the RPI. It produced a wide-ranging report in 1986, which led to many changes to the RPI from January 1987, when it was again re-based. These recommendations largely form the basis of today’s RPI, including the definition, scope and coverage, treatment of subsidies and discounts and treatment of owner-occupier housing costs.

Recent developments

In 1989, responsibility for the production of the RPI moved from the Employment Department to the newly re-organised Central Statistical Office (CSO). There have been two Advisory Committees since then. A report of the earlier committee in 1990 recommended the development of a holidays index, which was further considered by the later committee, leading to the introduction of a component for foreign holidays from 1993 and UK holidays from 1994. The later Advisory Committee produced a report in 1994 which led to the introduction of a new element of owner-occupier housing costs, the 'depreciation costs' component, from January 1995. At the same time, the collection of prices was contracted out to a market research company. In 1996, the Central Statistical Office became part of the new Office for National Statistics.

Appendix B: Main RPI Advisory Committee recommendations

1947 Report (Cmd 7077)

Recommended that the old 'cost of living' index should be terminated and a new price index be constructed based on the 1937–38 expenditure enquiry. The new index started in June 1947.

1951 Report (Cmd 8328)

Recommended that only one official index of retail prices should be published each month, relating to all wage earners and moderate salary earners, and that a new expenditure enquiry should be undertaken as soon as possible to provide up-to-date weighting information.

1952 Report (Cmd 8481)

Recommended certain modifications, which could be introduced immediately, as temporary expedients, until such time as a new index could be produced on the basis of the forthcoming expenditure enquiry. These modifications included the use of improved weights derived from the estimated pattern of expenditure in 1950, and incorporation into the index of information about the rents of houses built since 1947. The re-weighted index was introduced in January 1952.

1956 Report (Cmd 9710)

Recommended that the interim index produced since 1947 should be replaced by a new index, based on the large scale Household Expenditure Enquiry of 1953. The new index was to be designed to cover all households except for those consisting of pensioners mainly dependent on state benefits and those whose head had a gross income of £20 a week or more in 1953. This committee also established the group and section structure of the index which, with some changes, is still in use. Finally, it recommended certain additions to the list of items for which prices were to be collected and some improvements to the methods of obtaining information, particularly as regards the housing group with the introduction of 'equivalent rents' as a measure of owner-occupier housing costs. The recommendations were implemented in January 1956.

1962 Report (Cmd 1657)

Recommended that the index weights should be revised every year, on the basis of information from a new continuous enquiry, the Family Expenditure Survey (FES), which was instituted at the beginning of 1957. This came into effect from the 1962 index. Some changes were proposed in the precision and frequency with which indices were published. This recommendation was implemented with effect from January 1963.

1968 Report (Cmd 3677)

Recommended that: 'meals outside the home' should be included in the index as a separate group from February 1968; that special indices should be compiled and published back to 1962 for the pensioner households excluded from the coverage of the index; that certain changes should be made in the published level of detail. The Committee also recommended that there should be a study of the technical problems that would be involved in comparing price levels in different regions or areas. A technical committee was appointed to carry out the study envisaged.

1971 Report (Cmd 4749)

Endorsed a Technical Committee recommendation that the compilation of regional price indices would be feasible although costly, but were not unanimous as to whether their publication would be desirable. The then Department of Employment did not proceed with compilation.

1974 Report (Cmd 5905)

Recommended that owner-occupier housing costs should be represented in the index by mortgage interest payments, instead of the equivalent rents formerly used. This came into effect in 1975. The Committee also recommended that the RPI weights should in general be based on FES results for the latest twelve months rather than the latest three years, and that variable monthly weights should be introduced for fruit and vegetables. The recommendations were implemented almost immediately.

1977 Report (*Employment Gazette*, February 1978 article)

Recommended that certain component indices should be published in more detail and that when combining price quotations, there should be stratification by region and shop type.

1986 Report (Cmd 9848)

This report covered a wide range of issues and consolidated much of the general documentation on the compilation of the RPI. Recommendations included: changing the reference date for the RPI to January 1987=100; updating the group and section structure of the RPI; the production of indices for holidays as soon as possible subject to resolution of technical problems; to publish indices for more services; that the income limits used to define index households should relate to the household as a whole rather than the head of a household; that component indices with a weighting of more than five parts per 1000 should be published; that no allowances should be made for subsidies and discounts provided on a selective basis and funded by a third party; further recommendations on the construction of indices for owner-occupier housing costs; further modifications on the

weighting and definition of seasonal foods; recommendations on the treatment of quality changes. Most of these recommendations were implemented with effect from 1987.

1989 Report (Cmd 644)

Recommended that the community charge be included in the RPI, subject to the principles on the treatment of discounts and subsidies established by the previous Committee. This Committee, like many before it, also defined the exact price indicator to be used for the new item. Although the Committee was asked to look at other issues, due to the urgency of the community charge issue, they decided to make their recommendations for this in this report and then to deal with the other points in a subsequent report, which became the 1990 report. The community charge was introduced in April 1989 in Scotland and the following year in England and Wales.

1990 Report (Cmd 1156)

Recommended the compilation of 'pilot' indices for holidays in both the UK and abroad with a view to including them in the RPI at a later date, subject to the resolution of certain technical problems. The committee also made several recommendations on the coverage of financial services in the index and reviewed the progress on some of the long-term improvements suggested by the 1986 Committee.

1993 Reports (Cmd 2142 and 2153)

When the community charge was replaced by the council tax, another committee was set up to review the treatment of local taxation in the index. It recommended that the council tax be included from its introduction in April 1992, and made several recommendations on the measurement of the price indicator. The Committee's Terms of Reference were then extended to look at the inclusion of a holidays index and the treatment in the RPI of new cars and owner-occupier housing costs. The committee also recommended the introduction of a holidays index. The foreign holidays index was introduced in 1993 and the UK holidays index in the following year. The Committee continued to look into the other issues, which led to a further set of reports.

1994 Reports (Cmd 2716 and 2717)

The first of these command papers recommended that direct measurement of new car prices could not yet be brought into the RPI but that the Department should continue technical investigations. Meanwhile, it recommended certain small changes to the way that used car prices were measured and that these should be used as a proxy for new car prices. The second paper looked at the treatment of owner-occupier housing costs and recommended the introduction of a second component to go alongside mortgage interest payments, a 'depreciation costs' component, of which the price indicator should be a house price index. The depreciation component was introduced into the RPI with effect from February 1995.

Appendix C: Analysis of differences in CPI and RPIX annual rates

	Difference between annual rates CPI – RPIX (per cent)		Breakdown of differences (unrounded figures) ¹ (percentage points)			
	rounded figures	unrounded figures	Housing components excluded from CPI	Other differences in commodity coverage ^{2,3,4}	Formula effect ⁵	Other differences ⁶
1997 Jan	-1.0	-0.93	-0.24	-0.17	-0.50	-0.02
1997 Feb	-0.9	-0.95	-0.18	-0.19	-0.51	-0.06
1997 Mar	-1.0	-0.94	-0.17	-0.18	-0.55	-0.03
1997 Apr	-1.0	-0.91	-0.13	-0.19	-0.54	-0.05
1997 May	-0.9	-0.95	-0.19	-0.15	-0.54	-0.06
1997 Jun	-1.0	-0.97	-0.23	-0.14	-0.54	-0.06
1997 Jul	-1.0	-0.91	-0.22	-0.11	-0.54	-0.04
1997 Aug	-0.8	-0.89	-0.22	-0.13	-0.55	0.00
1997 Sep	-0.9	-0.89	-0.24	-0.10	-0.51	-0.03
1997 Oct	-0.8	-0.95	-0.24	-0.13	-0.50	-0.07
1997 Nov	-0.9	-0.91	-0.25	-0.14	-0.49	-0.02
1997 Dec	-0.9	-0.95	-0.29	-0.17	-0.50	0.01
1998 Jan	-1.0	-0.97	-0.29	-0.12	-0.48	-0.08
1998 Feb	-1.1	-1.02	-0.27	-0.09	-0.55	-0.11
1998 Mar	-1.0	-0.98	-0.28	-0.04	-0.54	-0.13
1998 Apr	-1.1	-1.12	-0.35	0.00	-0.52	-0.25
1998 May	-1.2	-1.13	-0.35	0.01	-0.55	-0.23
1998 Jun	-1.1	-1.16	-0.38	0.04	-0.56	-0.26
1998 Jul	-1.1	-1.20	-0.42	0.04	-0.55	-0.27
1998 Aug	-1.2	-1.21	-0.44	0.10	-0.54	-0.33
1998 Sep	-1.0	-1.17	-0.42	0.11	-0.53	-0.33
1998 Oct	-1.2	-1.12	-0.43	0.14	-0.51	-0.31
1998 Nov	-1.1	-1.16	-0.44	0.14	-0.54	-0.32
1998 Dec	-1.1	-1.08	-0.42	0.20	-0.56	-0.31
1999 Jan	-1.0	-1.03	-0.43	0.19	-0.52	-0.27
1999 Feb	-0.9	-1.00	-0.44	0.20	-0.51	-0.25
1999 Mar	-1.0	-0.99	-0.43	0.16	-0.50	-0.22
1999 Apr	-0.9	-0.90	-0.39	0.13	-0.49	-0.15
1999 May	-0.8	-0.84	-0.38	0.13	-0.46	-0.12
1999 Jun	-0.8	-0.86	-0.41	0.16	-0.47	-0.15
1999 Jul	-0.9	-0.97	-0.36	0.17	-0.51	-0.27
1999 Aug	-0.8	-0.91	-0.37	0.18	-0.48	-0.25
1999 Sep	-0.9	-0.92	-0.40	0.17	-0.49	-0.20
1999 Oct	-1.0	-1.06	-0.46	0.13	-0.50	-0.24
1999 Nov	-0.9	-1.02	-0.44	0.14	-0.50	-0.22
1999 Dec	-1.0	-1.01	-0.44	0.12	-0.50	-0.19
2000 Jan	-1.3	-1.30	-0.57	0.05	-0.55	-0.23
2000 Feb	-1.2	-1.21	-0.53	0.14	-0.59	-0.23
2000 Mar	-1.3	-1.36	-0.56	0.12	-0.58	-0.34
2000 Apr	-1.3	-1.40	-0.55	0.12	-0.63	-0.35
2000 May	-1.5	-1.44	-0.58	0.11	-0.64	-0.33
2000 Jun	-1.4	-1.49	-0.61	0.08	-0.65	-0.30

	Difference between annual rates CPI – RPIX (per cent)		Breakdown of differences (unrounded figures) ¹ (percentage points)			
	rounded figures	unrounded figures	Housing components excluded from CPI	Other differences in commodity coverage ^{2,3,4}	Formula effect ⁵	Other differences ⁶
2000 Jul	-1.2	-1.33	-0.62	0.09	-0.64	-0.15
2000 Aug	-1.3	-1.29	-0.64	0.06	-0.66	-0.04
2000 Sep	-1.2	-1.26	-0.63	0.03	-0.68	0.01
2000 Oct	-1.0	-1.02	-0.55	0.07	-0.65	0.11
2000 Nov	-1.2	-1.14	-0.51	-0.01	-0.66	0.04
2000 Dec	-1.1	-1.22	-0.56	-0.03	-0.61	-0.03
2001 Jan	-0.9	-0.92	-0.49	0.05	-0.58	0.11
2001 Feb	-1.1	-1.12	-0.55	-0.15	-0.56	0.15
2001 Mar	-0.9	-1.02	-0.55	-0.11	-0.57	0.22
2001 Apr	-0.9	-0.78	-0.53	0.03	-0.52	0.23
2001 May	-0.7	-0.78	-0.47	0.04	-0.52	0.16
2001 Jun	-0.7	-0.74	-0.41	0.02	-0.50	0.15
2001 Jul	-0.8	-0.75	-0.51	0.18	-0.51	0.09
2001 Aug	-0.8	-0.79	-0.52	0.20	-0.49	0.02
2001 Sep	-1.0	-1.00	-0.55	0.00	-0.45	0.00
2001 Oct	-1.1	-1.12	-0.54	-0.04	-0.48	-0.05
2001 Nov	-1.0	-1.00	-0.56	-0.08	-0.44	0.09
2001 Dec	-0.9	-0.84	-0.50	0.02	-0.48	0.11
2002 Jan	-1.0	-0.90	-0.47	-0.04	-0.50	0.10
2002 Feb	-0.7	-0.76	-0.41	0.02	-0.42	0.05
2002 Mar	-0.8	-0.73	-0.40	0.09	-0.42	0.01
2002 Apr	-1.0	-0.96	-0.52	-0.02	-0.42	0.01
2002 May	-1.0	-0.96	-0.62	0.01	-0.42	0.07
2002 Jun	-0.9	-0.87	-0.74	0.13	-0.42	0.15
2002 Jul	-0.9	-0.85	-0.76	0.17	-0.41	0.15
2002 Aug	-0.9	-0.88	-0.80	0.20	-0.43	0.15
2002 Sep	-1.1	-1.09	-0.85	0.12	-0.43	0.07
2002 Oct	-0.9	-0.96	-0.97	0.15	-0.41	0.27
2002 Nov	-1.2	-1.23	-1.06	0.10	-0.43	0.17
2002 Dec	-1.0	-1.09	-1.15	0.40	-0.47	0.12
2003 Jan	-1.3	-1.42	-1.22	0.24	-0.42	-0.01
2003 Feb	-1.4	-1.41	-1.21	0.24	-0.43	0.00
2003 Mar	-1.4	-1.49	-1.17	0.18	-0.43	-0.07
2003 Apr	-1.5	-1.56	-1.32	0.12	-0.44	0.08
2003 May	-1.7	-1.61	-1.26	0.05	-0.44	0.05
2003 Jun	-1.7	-1.70	-1.20	-0.06	-0.46	0.01
2003 Jul	-1.6	-1.61	-1.13	-0.24	-0.43	0.19
2003 Aug	-1.5	-1.57	-1.09	-0.31	-0.41	0.24
2003 Sep	-1.4	-1.36	-1.07	0.01	-0.44	0.14
2003 Oct	-1.3	-1.30	-0.99	0.04	-0.44	0.10

1. Estimates of the contributions from the individual factors are calculated independently and are not strictly additive.

2. From January 2000, CPI coverage was extended to include some health, education, insurance and social protection services (such as child minding). The population basis for the CPI weights was broadened at the same time to include expenditure by foreign visitors and residents of institutional households in addition to private households. These changes impact on the estimates in this column. See also notes 3 and 4.

3. From January 2001, CPI coverage was extended to include some hospital services, nursing and retirement homes.

4. From January 2002, CPI coverage of financial services was extended to include services charged as a proportion of the transaction value, such as foreign exchange commission, unit trust and stockbroking fees.

5. Difference due to the use of different formulae to aggregate prices at the most basic level.

6. Derived as a residual. Includes differences due to the different weights attached to items in the CPI and RPIX booklets.

Reviewing the methods and approaches of the UK National Accounts

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The Office for National Statistics has initiated a re-engineering project with the aims of reducing processing risks and improving the quality of the UK's National Accounts.

A review of the methods used to compile the UK's National Accounts was commissioned from David Caplan, the head of National Accounts co-ordination at the ONS. He carried out an evaluation of different methods and approaches to compiling the National Accounts, with reference to documented methods and informal discussions with other National Statistical Institutes. This led to a series of recommendations for UK National Accounts methods.

The recommendations have implications for further methods development, revisions management and the effective communication of changes to National Accounts users. This article summarises the review and recommendations before outlining the implications of these recommendations from the perspective of a National Accounts user.

Background to the review

The UK National Accounts will be subject to a major re-engineering project over the next few years. The main aims of the project are to reduce processing risks and improve quality. The project presents an opportunity to review the methods and approaches used in UK and to build on the strengths of the UK National Accounts. It will also furnish the opportunity to compare our accounts with international best practice and to identify improvements to existing methods and approaches to produce a blueprint for the future UK National Accounts with a clear focus on user needs.

The UK National Accounts provide the basis for analysing the economic performance of the country. The key National Accounts users, particularly within Government and the Bank of England, use the accounts as major inputs to decisions on fiscal and monetary policy. Large parts of the accounts have a legal basis in the European Union. Most importantly Gross National Product (Income) is used as the tax base for contributions to the EU budget. There are also many users in the business and research communities, education, media and general public.

The UK was at the centre of the development of National Accounts. The first official accounts were developed during the Second World War under the leadership of Nobel laureates James Meade and Richard Stone. The scope and content of the UK accounts has developed considerably since those early days, as quarterly accounts were introduced in the 1950s. Financial accounts and balance sheets were added later. Three relatively recent developments are worth noting. Firstly, during the late 1980s, there were major concerns about the reliability of UK economic statistics and the subsequent Pickford Report led to a number of changes, including the centralisation of National Accounts compilation within the Central Statistical Office (CSO) and then the introduction of supply and use tables. Secondly, in 1998, the ONS modified its accounts to adopt the conventions of the European System of Accounts, 1995 (ESA95), leading to changes in compilation methods, and changes to the presentation and description of economic series. Most recently, in September 2003 ONS adopted the annual chain-linking method for estimating economic growth, in line with international guidelines.

Overview of the existing UK National Accounts methods and approaches

Introduction

ONS produces a comprehensive set of National Accounts. The main components are quarterly and annual GDP estimates, quarterly and annual sector and financial accounts, financial and non-financial balance sheets. Trade statistics, the balance of payments, the public sector and some short-term indicators of economic activity are all integrated within the system of National Accounts.

Gross domestic product (GDP)

GDP is estimated in the UK using the three theoretical approaches (production, expenditure and income) with a single estimate then being derived and emphasised (see SNA93 and *Concepts, Sources and Methods* for terminology). There are different approaches to annual and quarterly estimation with subsequent integration. Two key principles drive GDP estimation in the UK:

Principle 1 – the level of GDP is best estimated using a supply and use framework.

Principle 2 – short-term growth is best estimated using the production measure of GDP.

A production measure at current prices is estimated using data mainly from the Annual Business Inquiry and this is placed alongside expenditure and income measures. Consistency and coherency for current price estimates are achieved through a 123-products-by-123-industries integrated supply and use framework. Almost all the reconciliation is done manually, although there is some automatic balancing in the final stages of the process. For the latest annual totals (years in which the supply and use approach cannot be applied), GDP is calculated as the average of the three approaches. The discrepancies between the expenditure and income measures and the average are published. An implied deflator is derived from the expenditure measure and this is used to deflate the income measure in current prices to give an income measure as chained volume measures (CVM). It is also used to reflate the production measure as CVM to give a production measure in current prices (see Tuke and Beadle explanation of CVM).

The production measure is the main method for estimating quarterly change in GDP. Quarterly GDP is also estimated using expenditure and income measures. The quarterly growth rates produced by the three measures of GDP are compared in an informal and judgmental process and almost all adjustments are made to income and expenditure components. Full reconciliation (subject to annual constraints) is achieved by making automatic adjustments to the gross operating surplus of non-financial corporations (a component of the income measure) and change in inventories (a component of the expenditure measure). The three measures cannot therefore be described as balanced; rather that expenditure and income measures are adjusted, formally and informally, to produce the same growth as the production measure.

Sector and financial accounts including the balance of payments

Sector and financial accounts are compiled for five institutional sectors:

- non-financial corporations (including public corporations)
- financial corporations
- general government
- households (including non-profit institutions serving households)
- the rest of the world (see SNA93).

The production and generation of income accounts are derived as part of the compilation of annual supply and use tables. These accounts are available only at the annual frequency and over a year in arrears. Other accounts and financial balance sheets are derived quarterly with the same method being used for annual and quarterly data.

The Dividends and Interest Matrix (DIM) is a key input into sector and financial accounts. The DIM provides estimates of gross payments/receipts of dividends and interest for each sector across a number of different financial instruments. Some cells within the DIM can be estimated by residual, making use of the fact that the sum of transfers across sectors must equal zero. For other cells, estimates are derived from a range of sources, primarily survey data. Government data are used for most 'other transfers'. Financial transactions are estimated quarterly using a range of data. Estimation is within a matrix format to ensure that instrument totals net to zero. For example, household bank borrowing is counterpart to bank lending to households and they should therefore be identical.

The balancing process for sector and financial accounts is carried out by committee drawing on the experience of those involved in the process, and is not mechanised in any way. The balance of payments accounts are fully integrated with the domestic sectors and so are consistent with the 'rest of the world' accounts.

Monthly indicators of economic activity and government data

Short-term indicators include:

- Index of Industrial Production (IoP)
- Index of Distribution (IoD)
- Retail Sales Index (RSI)
- experimental Index of Services (IoS).

The IoP is a monthly indicator incorporated in the quarterly production-based estimate of GDP whereas the IoD and IoS are currently constrained to be consistent with previously published production-based GDP estimates. These three indices are conceptually consistent with the National Accounts. The RSI is a data input to the National Accounts

but, unlike the IoP, is not presented as a National Accounts component and does not share methods with the rest of the accounts.

Estimates of imports and exports of goods and services are also produced monthly on a balance of payments basis.

Fiscal indicators for government are compiled on a National Accounts basis and are consistent with published National Accounts.

Strengths and weaknesses of the UK National Accounts methods and approaches

The UK National Accounts methods and approaches have a strong reputation internationally. This is based primarily on:

- completeness (including sector and financial accounts and a range of monthly indicators)
- high level of integration
- timeliness of some estimates (particularly early estimates of GDP)
- strong emphasis on data for short-term indicators.

There are, however, some perceived weaknesses in the UK National Accounts methods and approaches. The issues, which were identified by ONS personnel and external users, include:

Completeness	Absence of some accounts, in particular quarterly production and generation of income.
Accuracy	Suggestion of bias in early estimates.
Coherence	Imbalances in sector and financial accounts.
Clarity	Lack of transparency and documentation for some methods and the subjective nature of some approaches, including annual balancing.
Data efficiency	A perception that the quarterly process does not make full use of data, or that data sources are not strong enough for the purposes for which they are used.
Reliability	Revisions to historical data.

The review's recommendations seek both to preserve the strengths of the UK National Accounts methods and address perceived weaknesses.

Recommendations for the UK National Accounts methods and approaches

Methods and approaches in the UK National Accounts which should continue

The scope of the UK National Accounts should be maintained

They should continue to include GDP and supply and use tables, the sector and financial accounts including the balance of payments and monthly indicators together with government financial indicators and trade statistics.

All of the products included in the UK National Accounts should continue to follow the same conceptual basis and classifications.

In the main, this will be the full European System of Accounts (1995 version) and its associated classifications.

National Accounts estimates should continue to be based on data, normally derived from statistical surveys and administrative records.

This is preferable to more extensive use of econometric modelling. It is inevitable that there will be some variables for which there will not be survey or administrative data available, and when this occurs, explicit, documented estimation methods should be used.

Annual National Accounts estimates data are the most robust and should continue to be used to provide benchmarks and structures for shorter period estimates.

This does not imply that annual estimates are more important than those based on quarterly or monthly data but that they can be more reliably compiled. Quarterly and monthly data will be improved by the use of reliable annual benchmarks.

Expenditure information and income totals should continue to supplement the production-based measure of quarterly GDP.

Expenditure information should be compiled from survey and administrative data and cover all categories of expenditure.

The sector and financial accounts should continue to be estimated within a matrix framework and transactions should sum across sectors.

For each institutional sector, the total financial transactions and the estimate for net lending and borrowing from the capital account should be equal.

Balance of payments statistics and their estimation should continue to be fully integrated with estimation of the domestic sectors in the sector and financial accounts.

Monthly indicators should be compiled where they satisfy a legitimate user-need to provide early indicators of economic activity for monetary and fiscal policy decision-making.

Recommendations for general changes to the UK National Accounts

New data should be included in the National Accounts as quickly as practicable, subject to the constraints of the production processes.

Revisions to data are inevitable, as additional survey and administrative sources become available. A clear National Accounts revisions policy will be needed which is consistent with the National Statistics Protocol on Revisions and is driven by user needs.

Data aggregation should be clearly separated from the core National Accounts activities of balancing and data confrontation.

Data aggregation means the process by which National Accounts data are prepared. It includes:

- take-on of survey and administrative data
- conversion to National Accounts concepts
- presentation in the form required for National Accounts balancing and confrontation.

Separating out aggregation allows control of the data entering the balancing process and gives transparency and the possibility of accurately monitoring the impact of balancing.

A suite of additional analytical checks and tools should be integrated with the National Accounts compilation methods.

Such a suite should include but not be limited to:

- comparisons with labour market statistics
- input-output analytical tables
- revisions analyses
- analysis of quality and balancing adjustments
- analyses of imbalances in the accounts for institutional sectors.

Recommendations for changes to annual GDP

Annual GDP should be compiled at current prices and the prices of the previous year using an integrated supply and use framework.

The supply and use framework integrates the estimates of GDP from the production, expenditure and income side using an industry/product structure and this enables balancing to take place at a detailed level and for reasonable industrial structures to be preserved. Balancing at current and previous years' prices also enables information on deflators to be used in the balancing and provides a tool for ensuring that the deflation of production and expenditure is consistent.

Balancing through the supply and use framework should be mechanised as far as possible.

This would allow the latest data to be balanced more efficiently, balancing assumptions clearly stated and all adjustments easily recorded.

Any expansion of the dimensions of the supply and use tables should focus on service industries.

For balancing, there may be some justification for expanding the number of products to improve balancing if the basic data can justify the expansion and any expansion should focus on service industries.

There should be consistent deflation across the National Accounts, integrated within the supply and use framework.

The deflators used to estimate supply and demand should be consistent with each other and the most useful framework to ensure this consistency is the supply and use framework.

Recommendations for changes to quarterly GDP

A production-based measure of quarterly GDP should be produced at current and previous years' prices as the primary measure of output.

The production measure of GDP should be produced by use of surveys or administrative data where possible. Survey data on gross output should be available but where information on intermediate consumption is not available, it will have to be estimated using historical structures.

Quarterly GDP should be estimated within a supply and use framework with automatic balancing.

Production, income and expenditure estimates should be reconciled through supply and use tables although possibly at a higher level of aggregation than the annual supply and use tables.

Recommendations for changes to sector and financial accounts and balance of payments

Fundamental research should be carried out to improve balances in sector and financial accounts.

Any imbalance should be seen as identification of problems with data. In the past, the imbalances in current UK raw data have proved too large for successful automatic balancing.

In the event that a full balance for sector and financial accounts cannot be achieved, a mechanical balance should be produced.

The method for automatic balancing of sector and financial accounts should follow Meade and Stone (1944) but should not allow modifications to estimates of GDP components, which will be better estimated in the supply and use framework.

Recommendations for changes to monthly indicators

Monthly indicators should follow as closely as possible the concepts and classifications of the National Accounts but should not necessarily be bound by the same revisions policy as the rest of the National Accounts.

Although they can be expected to be broadly consistent with the later accounts, monthly indicators may not be an integral part of the accounts.

A monthly estimate of GDP based on a proxy production measure should be produced as close as possible to the end of the month and this should be retrospectively constrained to estimates of GDP produced quarterly.

Such an indicator will inevitably be based on less data than later estimates.

Implications of the recommendations

The recommended methods for the UK National Accounts contain some significant differences from the current methods and will require the resolution of technical and practical issues before system specifications can be developed. A methods development team has been set up with the objective of co-ordinating, managing and testing the development of new methods. The main requirements from development work are:

- a method for producing unbalanced supply and use tables at current and previous years' prices which establishes the size of the tables to be balanced for annual GDP
- a method for simultaneous balancing of tables in current and previous years' prices
- a specification for computer-aided balancing to implement the balancing approach
- a method for estimating a quarterly production measure of GDP
- a supply and use framework for quarterly GDP estimation
- methods for populating cells in the unbalanced quarterly supply and use table, either data-based or using methods consistent with corporate standards
- a method for assessing weaknesses in the sector and financial accounts
- a method for producing a production proxy approach to producing monthly estimates of GDP
- specification of analytical checks and feedback mechanisms (including analysis of revisions, adjustments and other data comparisons).

The recommended methods for the UK National Accounts will also require changes in operational policy and to publications. The main requirements from development work include reviewing and recommending changes to:

- the existing publication schedule
- the level of detail of data published
- the form/format of publication
- the existing revisions policy.

Managing revisions arising from the review

Potential causes for revisions

The review of National Accounts methods and approaches will potentially have an impact on both National Accounts outputs and other products that depend on National Accounts outputs. The most significant areas of change are likely to derive from:

- balancing supply and use tables at current and previous years' prices (Box 1)
- reviewing deflators and price indices to be used in the new supply and use framework

- using supply and use tables to balance quarterly GDP estimates
- automatic balancing techniques (Box 2)
- reviewing methods in the UK National Accounts not covered by the above changes.

Scale and scope of potential revisions

It is not yet clear what the effect of changes on, for example, levels of GDP or growth rates will be. In addition, no decision has yet been taken on which time periods will be affected. Many factors will limit the application of new methods in the National Accounts. For example, the major annual source for the annual GDP estimates, the Annual Business Inquiry, only dates from 1998. The existing supply and use tables link to data for earlier periods by a set of link factors. Also:

- the existing supply and use framework dates back to 1992, although there are tables for 1989 to 1991
- the current approach of using alignment adjustments to bring the three measures of GDP in line only exists back to 1983
- data underlying the short-term output indicators are only available back to 1994
- a full set of sector accounts is available only from 1987 onward
- financial accounts and balance sheets are only fully available only from 1987

There are also a number of discontinuities in banking data in the late 1980s as a result of deregulation.

It is possible that new methods could be instituted only after a certain time period. It is important that this can be managed in a way that will not produce data discontinuities.

Principles for managing revisions

In order that revisions are managed through an efficient and transparent process, a clear set of principles will be needed as guidance and to ensure users understand the process. Some of these will be critical in dealing with changes that emerge from reviewing methods. All of the principles will be relevant in handling a long-term revisions policy.

The context for these principles will be:

- the National Statistics Protocol on revisions
- the needs of key users – user preference will contribute to determining how conflicts should be resolved. For example, the timeliness of taking on revisions and the stability of time series
- the need to publish regular analyses of revisions and thorough briefing on revisions
- the need to balance the introduction of improvement with managing stability. This may mean cumulating changes so that several are made at once rather than making them individually.

Future communication plans

This article represents the start of communicating methods developments following the review. We aim to continue the process of informing users on developments by:

- publishing a series of *Economic Trends* articles throughout the re-engineering project and the development of methods
- regular updates to an existing list of National Accounts users (please contact the authors to ensure you are included)
- publishing updates on methods developments on the National Statistics website
- hosting seminars and consultations with National Accounts users as key issues emerge.

The authors welcome feedback on additional approaches that could be taken to communication.

Box 1

When compiling Supply and Use Tables (SUTs) in current and previous years' prices two approaches are possible:

Sequential approach	First, the SUT is compiled and balanced at either current or previous years' prices and then deflated or reflat. The second SUT in the sequence is then balanced.
Simultaneous approach	The current and previous year's tables are compiled and balanced at the same time. This is the recommended approach in the review of National Accounts methods.

There are several advantages in using the simultaneous approach.

Firstly, it allows the possibility of analysing value, price and volume indices in relation to each other. All three indicators must give a plausible picture hence improving the quality of the balancing process.

Secondly, it offers the opportunity at the earlier stage of compilation to check the data by comparing price and volume indices before they are entered in the SUTs. This will allow the double-checking of data consistency because even if the results in current prices look plausible, analysis of the volume and price data may still highlight issues.

Thirdly, in the relationship:

intermediate consumption + value added = output

the simultaneous approach allows an early check of the value added to output ratios to give a clear view on the reliability of the data on value added and/or on intermediate consumption by industry. At present, in calculating the annual and quarterly production measures of GDP, we make the assumption that the value added to output ratio is stable over time.

Box 2

Automatic balancing of Supply and Use tables (SUTs)

There are several automatic balancing techniques. Currently, the UK SUTs at current prices are mostly balanced manually but a 'rAs' iterative procedure is used near to the end of the balancing process to ensure total supply equals total use for each product. The term 'rAs' refers to an iterative mathematical process, where 'A' is the coefficient form of the intermediate section of the 'Combined Use' matrix. 'A' is pre-multiplied by a diagonal matrix, with the vector 'r' of replacement factors forming the diagonal, and post-multiplied by a diagonal matrix with the substitution vector 's' forming the diagonal. A single iteration applies the above process for each row and then for each column. After each iteration the replacement factors are changed appropriately and repeated until a desired balance has been achieved. The end result of this process is that supply equals demand for each product. The process is used in the UK as the very final step in the compilation of the annual supply and use tables after a near balance has been achieved.

In developing new automatic balancing procedures for the simultaneous balancing of SUT at current and previous years prices, the focus will be on the use of the least square balancing technique, also called the Stone method. More than sixty years ago, Stone, Champernowne and Meade (1942) made a first attempt at developing an application of the least squares methods that could be used to balance National Accounts. This method redistributes the discrepancy on the basis of information on the degree of relative reliability of the aggregates.

Since then, the method has been revised and improved by several researchers, among them Stone, but, although it has been tested with National Accounts data by researchers and statisticians, it has not found extensive application in National Statistical Institutes (NSIs). One of the main reasons behind the lack of application of the Stone method in NSIs has been the complexity of the accounting equations involved in this method which results in highly demanding computational requirements.

ISTAT, the Italian statistics institute, which has a long tradition of applying the Stone method in balancing input-output tables, has recently introduced in its automatic balancing process a new algorithm developed by Vittorio Nicolardi (2000). This algorithm uses the conjugate gradient method, which can handle accounting structures of tens of thousands of equations. The main feature of this balancing technique is the use of a variance matrix that allows the redistribution of accounting residuals on the basis of the relative reliability of the individual aggregates. ONS is investigating the feasibility of developing this approach to automatic balancing. One of the main objectives of future work will be to develop a mechanised procedure for balancing SUTs at current and previous years' prices, which will perform the least square balancing calculations using the conjugate gradient algorithm.

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Appendix Evaluating options for methods and approaches for National Accounts

Evaluation process

Criteria were identified in order to assess ways of evaluating competing methods and approaches to the compilation of:

- annual GDP
- quarterly GDP
- sector and financial accounts and balance of payments
- monthly indicators.

The evaluation criteria are listed below and the evaluation process is shown in detail for the possible methods and approaches for annual GDP. A similar process was carried out for evaluating possible methods and approaches for quarterly GDP, sector and financial accounts and monthly indicators.

Evaluation criteria

Relevance and completeness

National Accounts methods must deliver statistics that are required by users. It is essential to produce data that are required by key customers (currently the Bank of England, HM Treasury and Eurostat) and desirable to meet all reasonable user requirements.

Coherence

In the context of National Accounts, there are two types of coherence. Coherence can be either internal or external to the framework. Internal to the framework, accounting identities should hold and produce a single estimate of economic growth. Annual, quarterly and monthly data should give the same economic message and any differences between the economic story told by National Accounts and statistics outside the framework of National Accounts should be explicable.

Accuracy

National Accounts methods must deliver statistics with innate quality and reliability and ideally this would be measurable using statistical techniques. In reality, direct measures of the quality of data produced cannot yet be produced but reliability proxy measures such as revisions, bias and process measures are achievable.

Timeliness and punctuality

It is essential for National Accounts methods to allow the production of key statistics in a timely way to be useful in key areas of economic decision making.

Accessibility, clarity and transparency

The National Accounts methods and approaches should be transparent to meet the key requirement for statistical integrity. It is essential to have methods that can be fully documented, so that they are replicable, with all data handling, quality adjustment or balancing decisions explained and recorded.

Comparability

It is essential that the UK National Accounts methods comply with relevant international requirements and are consistent with international guidance allowing comparisons to be made across space and over time.

Data efficiency

There is a finite amount of resource available for the collection and management of National Accounts data. It is essential to make use of all the data collected specifically for National Accounts, to produce each estimate only once and not to 'stretch' data beyond the limits of their quality. Ideally, there should not be significant requirement for new input data.

Flexibility

It is essential to have methods that can be delivered by a processing system with structural and functional flexibility.

Evaluating the methods and approaches for annual GDP

Methods and approaches evaluated for annual GDP

Holistic approach

Supply and use tables could be compiled at previous years' prices. This approach could be extended to include a regional dimension and full social accounting matrices to allow information on labour inputs to be included.

One- or two-measure approach

GDP can be measured using production, income and expenditure measure estimates. Some countries use an approach based on one or two measures. The US uses an approach based on expenditure and income estimates.

Three-measure approach

In this approach, all three measures of GDP would be calculated. A single GDP estimate can be produced, for example, as the arithmetic average of the individual averages. Discrepancies between the total and the individual measures can either be allocated to components within the individual measures or shown as a statistical discrepancy.

Current price supply and use

Supply and use tables confront supply and demand estimates across products and confront estimates of inputs and outputs within industries. In a balanced table, supply for a product equals demand and the inputs into an industry equal its outputs. This provides a framework for reconciling information of production, income and expenditure and hence producing estimates of GDP. Some countries only produce tables at current prices.

Current price and previous years' price supply and use

Some countries, for example the Netherlands and Denmark, compile supply and use tables in both current and previous years' prices. This compilation can be carried out sequentially or simultaneously (Box 1).

Regional breakdown

In Canada, the national totals are derived from adding up provincial accounts. The provincial accounts are themselves built up using a supply and use table approach. It may also be possible to combine a regional with national process in different ways although no country uses such a hybrid approach.

A summary of the evaluation of options for annual GDP is shown in Table A. Annual GDP estimates should be the most reliable part of a National Accounts system. They are produced from extensive surveys and with time being less 'of the essence' than quarterly data. A holistic approach would be most desirable but this is likely to be extremely slow and expensive in terms of data. The benefits of such an approach are unlikely to outweigh the costs – particularly given the inherent unreliability in some aspects of the accounts for institutional sectors. It would, however, be sensible to incorporate some ideas from this approach and ensure that some analytical use is made of sector and financial accounts where they have the strength to inform GDP estimates. Other comparisons and analyses, including labour market comparisons, would also strengthen the reliability of estimates.

The supply and use approach meets or can meet all the criteria. It is also the optimal approach recommended in international guidance. In terms of essential criteria there is little to choose between a current price and a sequential or simultaneous current and previous years' price approach. They both have the benefit of balancing in a systematic framework. Intuitively, this approach should improve the estimation of key aggregates and Weale and Sefton (1995) show this to be the case in an empirical study of UK data. The simultaneous approach is, however, to be preferred because it allows the integration of data on prices for supply and demand (Box 1). The reconciliation of deflation between supply and demand should be superior to deflation based solely on demand categories.

There are however some serious difficulties with the supply and use approach. Experience in the UK and other countries suggests that there is a tendency for balancing to be a manual and opaque process. The solution for this is to have a clearly defined balancing process whose rules can be explicitly stated. Further, any process must allow a separation of compilation of tables and their balancing so that the impact of balancing can be clearly identified. There are also issues of timeliness. Simultaneous balancing could take a very long time and be technically difficult. Some countries, notably Denmark and Italy, have experience of mechanical balancing which could hugely reduce the time taken to balance. For example, provisional Danish tables are available six months after the end of the year. It would follow that such an approach could be developed for the UK with considerable benefits.

This implies that the optimal annual GDP estimation approach is to balance supply and use tables at current and previous years' prices. However, to ensure transparency and speed, a rule-based balancing approach is required together with the use of a mechanised approach.

Table A

Summary of the evaluation of options for annual GDP methods.

Criteria considered of essential importance	Holistic approach	1- or 2- approach	3- measure approach	Current price supply and use	Simultaneous current price and previous years' price supply and use	Regional break-down
Relevance and completeness	Meets	Meets	Meets	Meets	Meets	Fails
Coherence	Meets	Fails	Could meet	Could meet	Meets	Fails
Accuracy	Meets	Could meet	Could meet	Could meet	Could meet	Fails
Timeliness and punctuality	Fails	Meets	Meets	Could meet	Could meet	Fails
Accessibility, clarity and transparency	Could meet	Fails	Meets	Could meet	Could meet	Could meet
Comparability	Meets	Fails	Partially meets	Meets	Meets	Fails
Data efficiency	Meets	Fails	Meets	Meets	Meets	Fails
Robustness	Could meet	Meets	Meets	Meets	Meets	Fails

Unpaid household production in the United Kingdom, 1995–2000

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This article on the Household Satellite Account (HHSA) first considers unpaid household production at current prices and in volume terms. The availability of volume information has facilitated the production of a chain-linked volume index of unpaid household production. Secondly, we look at changes in the four largest accounts and compare them against equivalents in the paid economy. Finally, we consider the methodology used to compile the childcare and transport accounts.

Introduction

The Household Satellite Account (HHSA) measures and values unpaid household production in the UK. This provides a means by which the influence of changing patterns of unpaid work on the economy can be measured. The information will also be of use to policy makers who need to take significant amounts of unpaid work into account.

This work falls outside the scope of the UK National Accounts because the inclusion of all activity which is productive in the economic sense but which does not have a monetary value, would swamp the monetary flows, obscure what is happening in the markets, and reduce the usefulness of National Accounts data for analysis. HHSA is therefore separate from, but conceptually consistent with the UK National Accounts. National Accounts data can be tracked because it is recorded somewhere as a monetary transaction. Household production has to be measured in other ways. The two possibilities are to measure inputs or outputs.

Measuring inputs relies principally on time-use data. This usually takes the form of a diary, which the survey respondent is asked to complete, giving information about their principal activities throughout a 24-hour period. The length of the time slot may vary – 10 to 15 minutes is usual – and some diaries will record additional information about secondary activities. Some surveys may ask the respondent to remember what they did on one or two days in the previous week, while others may leave a diary to be completed over one or two days or a whole week.

The alternative is to attempt to measure outputs, for example the number of children cared for or the number of meals prepared. This is important because it is often easier to value outputs than inputs, particularly when there is a market equivalent to the service being produced. Output measurement is also more consistent with the way the rest of the National Accounts are constructed and reflects household productivity. It may be possible to construct a historical series using this approach, even in the absence of time-use data. Outputs can be estimated through surveys that specifically request this type of information.

An estimate of gross unpaid production is obtainable by multiplying the volume of output by an appropriate market value or price. This in itself is problematic due to the difficulties in applying a market price or wage rate to outputs without any information on the variation in quality between households. Goldschmidt-Clermont suggests that ‘in order to ensure compatibility with National Accounts procedures, non-SNA output (her term for household production) should be valued at the market price of equivalent market products’. The problem then becomes to identify the nearest market equivalent. This implies that the output data must be sufficiently disaggregated to make sensible comparisons. For example, meals are not a homogeneous category. The cost of a breakfast in a transport café

will be very different from the cost of a five-course meal in a five-star hotel. In most cases, the key must be to differentiate sufficiently between the various types of output, in order to facilitate a meaningful comparison between market and household provision.

ONS has constructed a set of initial experimental estimates on the output basis using a combination of pre-existing administrative and survey data. Estimates of unpaid goods and services produced by households in the UK for 2000 were published in April 2002 as the *Household Satellite Account (Experimental)* on the National Statistics website: <http://www.statistics.gov.uk/hhsa/hhsa/index.html>.

Population estimates in this article are consistent with the data published on the HHSA website in April 2002 and are therefore not Census-2001 consistent. All National Accounts data are consistent with *UK National Accounts: the Blue Book 2003*.

The HHSA is made up of eight components that comprise the output of household production:

- housing
- transport
- nutrition
- clothing
- laundry
- childcare
- adult care
- voluntary activity

plus a further three components which allow the calculation of gross and net value-added and the hourly effective return to labour:

- intermediate consumption
- capital consumption
- time use.

For each of these accounts there are one or more sources for the volume estimate and a single source for the price estimate.

Estimates of unpaid household production, 1995–2000

Table 1 shows that unpaid household production in the UK, valued at current prices, increased by 40 per cent from £629 billion in 1995 to £877 billion in 2000. This increase stems from a combination of both price and volume changes. The highest increase is in childcare which rose over 80 per cent from £122 billion in 1995 to £221 billion in 2000, largely due to an increase in the market rate – the cost of childcare provided by nannies – used to calculate the value. Housing, transport and nutrition also showed considerable rises in the value of household production. The childcare and transport account are discussed in more detail later in this article. The clothing account showed no change in value between 1995 and 2000, remaining at £1.4 billion. The only account to show a fall in value was the voluntary activity account that fell £4.5 billion or just over 25 per cent. The main driver behind the fall was a 33 per cent reduction in the number of hours spent doing voluntary activities.

Estimates for 1995 are generally based on the same methodology used to compile the estimates for 2000. Data for the intervening years were available for childcare, adult care, owner-occupied housing and transport. Straight-line interpolation was used for the 1996 to 1999 estimates of gross output for tenant services, laundry and voluntary activity. These three accounts are relatively small, collectively contributing just 16 per cent of the overall total for 2000. No alternative data sources were available. For nutrition, prices information was available for 1996 to 1999 from the *Eating Out* section of the *National Food Survey* (NFS) but the volume data were also interpolated. Information on meal composition in 2000 was based on market research data by *Taylor Nelson*. It has been assumed that eating patterns had not changed that significantly between 1995 and 2000 so a straight-line interpolation was once again used.

Table 1
Gross unpaid household production, 1995–2000 (current price)

United Kingdom

£ billion

	1995	1996	1997	1998	1999	2000	Change 1995–2000 (per cent)
Housing –Owner-occupied	157.6	160.8	172.8	185.2	194.2	211.8	34.4
Housing –Tenant	37.0	37.6	40.7	43.9	46.3	50.9	37.4
Transport	112.6	122.0	128.5	136.8	145.4	156.1	38.6
Nutrition	126.1	136.0	150.0	158.7	164.1	163.6	29.9
Clothing	1.4	1.3	1.3	1.1	1.4	1.4	0.0
Laundry	44.0	45.6	45.1	44.7	44.3	46.0	4.5
Childcare	121.9	173.8	179.1	182.5	225.3	220.5	80.8
Adult care	10.6	11.6	11.4	12.5	14.0	13.9	31.0
Voluntary activity	17.7	17.7	17.3	16.7	16.0	13.2	-25.6
Total unpaid production	629.1	705.9	745.6	781.3	850.3	877.3	39.5

Source: HHSA estimates

Totals may differ due to rounding

Unpaid household production volumes

Table 2 shows the variety of volume information available for the accounts.

The following are definitions of the components in HHSA, along with more detailed explanations of the measures used to value the components.

Housing

The amount of accommodation provided, including utilities, furniture, insurance and maintenance. It also includes the services provided by tenants relating to furnishings and maintenance.

Owner-occupier housing services

The number of rooms provided by owner-occupiers is based on some of the inputs to the UK National Accounts' calculation of imputed rent – dwellings data from Office of the Deputy Prime Minister's *Survey of English Housing* and average number of rooms data from the then *Family Expenditure Survey*, which became the *Expenditure and Food Survey* in April 2001.

Tenant housing services

The number of hours spent by tenants on housing services is taken from the ONS *Time Use Survey* for 1995 and 2000. The intervening years have been estimated using straight-line interpolation.

Transport

The volume of unpaid transport services provided by households is measured in miles travelled by parties of individuals as recorded in the *National Travel Survey* (NTS) carried out annually by the Department for Transport.

Nutrition

The number of meals estimate is based on *Taylor Nelson Sofres' Family Food Panel* market research data for 1995

and 2000. The intervening years have been estimated using straight-line interpolation.

Clothing

ONS has not located a source of information on numbers of garments produced at home and so there is only a value estimate for the output of clothing.

Laundry

The volume of laundry is based on information from the *UK Laundry Market Report* (Lever-Faberge, 1999/00), which reports the average number of wash-loads per household per week. An assumption was made that on average 10 per cent of the washing is ironed.

Childcare

The volume of childcare is measured in hours of childcare required. This is calculated by subtracting hours spent in formal childcare from the total number of hours for which care is needed. Child numbers are based on the ONS mid-year population estimates and a mixture of administrative and survey data. Information on formal childcare places in England is sourced from the Department for Education and Skills and the Department of Health. Information on formal childcare places in Scotland, Wales and Northern Ireland comes from the Scottish Executive, National Assembly of Wales and the Department for Education NI/Department of Health Social Services and Public Spending NI respectively.

Adult care

The volume of adult care output is measured in numbers of adults receiving continuous care, and hours of non-continuous care received, differentiated by the type of help. The source of information for this estimate is the *Family Resources Survey* (FRS), which asks whether any household members receive care, how frequently they receive it and what type of help is given.

Table 2
Volumes of unpaid household production, 1995–2000

United Kingdom		Millions of units					
		1995	1996	1997	1998	1999	2000
Housing –Owner-occupied	No. of rooms (Thousands)	75,604	74,287	75,244	79,417	79,978	80,678
Housing –Tenant	Hours labour	3,900	3,940	3,981	4,021	4,061	4,101
Transport	Km	141,751	144,479	148,085	148,781	149,825	152,427
Nutrition	No. of meals	127,252	127,015	126,778	126,541	126,305	126,054
Clothing	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Laundry	No. of loads	9,801	9,793	9,785	9,777	9,770	9,762
Childcare	Informal Hours	88,361	88,231	88,250	88,143	88,027	87,495
Adult care	Hours	5,902	6,032	5,675	5,984	6,673	6,467
Voluntary activity	Hours	2,337	2,181	2,025	1,870	1,714	1,558

Source: HHSA estimates

Table 3
Indices of volume of unpaid household production, 1995–2000

United Kingdom

2000=100

Index numbers	1995	1996	1997	1998	1999	2000	Weights 2000
Housing –Owner-occupied	93.7	92.1	93.3	98.4	99.1	100.0	241
Housing –Tenant	95.1	96.1	97.1	98.0	99.0	100.0	58
Transport	93.0	94.8	97.2	97.6	98.3	100.0	178
Nutrition	101.0	100.8	100.6	100.4	100.2	100.0	186
Clothing	100.1	88.3	93.1	75.2	96.2	100.0	2
Laundry	100.4	100.3	100.2	100.2	100.1	100.0	53
Childcare	101.0	100.8	100.9	100.7	100.6	100.0	251
Adult care	91.3	93.3	87.7	92.5	101.6	100.0	16
Voluntary activity	150.0	140.0	130.0	120.0	110.0	100.0	15
Total	98.1	97.9	98.3	99.5	99.8	100.0	1,000

Source: HHSA estimates

Totals may differ due to rounding

Voluntary activity

Voluntary activity is measured in hours spent volunteering. The estimate is based on a module of questions placed on the *National Statistics Omnibus Survey* in January and March 2001. This survey gives the number of volunteers formally working for or on behalf of an organisation and the hours volunteered in the previous four weeks, as well as the type of voluntary activity undertaken.

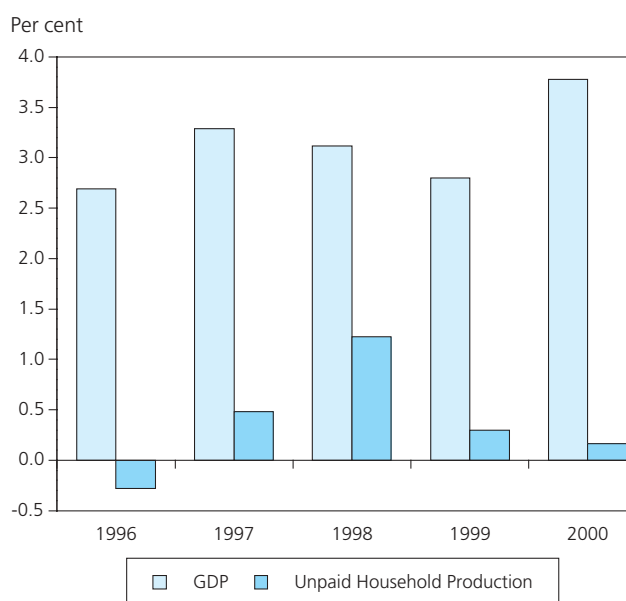
Table 3 shows that the volume of adult care has risen by 10 per cent from 1995 to 2000. Housing and transport show an increase in volume terms of seven per cent and eight per cent respectively over the same period. There is no change in volume terms between 1995 and 2000 for the laundry and clothing accounts. The voluntary activity account shows a 33 per cent fall in the number of hours spent doing voluntary activities. The nutrition account shows that the volume of meals prepared in the home dropped by one per cent from 1995 to 2000. The volume of childcare activity provided by households decreased between 1995 and 2000 by one per cent.

Figure 1 shows the growth rates in the volume of unpaid household production compared against the growth in the chain-linked measure of Gross Domestic Product. The figure shows that the chained measure of GDP has grown faster in every year. The Index of Unpaid Household Production is dominated by four accounts; owner-occupier household services, transport, nutrition and childcare account for 86 per cent of the volume. The decrease in volume of unpaid production in 1996 is driven by the decline in the number of owner-occupied rooms. The increased volume in the subsequent years reflects an increase in the number of owner-occupied rooms, and an increase in the transportation mileage. There is a downward effect caused by fewer meals being produced at home and falls in childcare because of the increase in availability of formal childcare. The methodologies used to compile the transport and the childcare accounts are explained in greater detail in the subsequent pages.

Figure 1

Comparison of unpaid household production with GDP growth

United Kingdom



Source: HHSA estimates/UK National Accounts

Comparison of paid and unpaid household production, 1995–2000

The four largest accounts in the Household Satellite Accounts are housing, transport, nutrition and childcare. In this section, the unpaid production is compared to that produced in the market economy, indicating the extent of movement to and from the market economy.

Housing

The largest housing item recorded in the UK National Accounts is the imputed rent of owner-occupied dwellings. Other significant items are expenditure by households on the maintenance and repair of dwellings, which has increased by 40 per cent over the period, and expenditure on domestic and

household services, including cleaners and gardeners, which has increased by 30 per cent. This is very much in line with the estimated increases in owner-occupied and tenant production of housing services. Table 4 gives the detailed figures.

Transport

Table 5 below shows that the volume of household production of transport services as measured by distance travelled is dominated by motorised (car, van and motorcycle) trips, which have increased by roughly 1.4 per cent a year between

Table 4

UK National Accounts expenditure on housing services (current price)

United Kingdom

	1995	2000	Change (per cent)
Numbers of households (thousands)			
–private furnished	14,203	20,923	47.3
–private unfurnished	20,531	19,160	-6.7
Household final consumption expenditure –actual rents paid by tenants			
Actual rents paid by tenants (£m)	17,906	23,595	31.8
Volume change			2.0
Price change			29.2
Maintenance and repair of dwellings (£m)	2,465	3,442	39.6
Volume change			-0.2
Price change			39.9
Domestic and household services (£m)	1,967	2,557	30.0
Volume change			1.1
Price change			28.6

Source: HHSA estimates/UK National Accounts

Table 5

Volume of household production of transport services

United Kingdom

Driver/cyclist/pedestrian billion miles

Household production	1995	1996	1997	1998	1999	2000
Motorised –London	20.4	20.6	21.6	23	23.5	24.1
Motorised –rest of UK	258.5	263.2	269.1	269.7	271.4	276.2
Total motorised	279	283.8	290.8	292.8	294.9	300.3
Volume change on 1995 (per cent)		1.7	4.2	4.9	5.7	7.6
Non-motorised –London	1.7	1.7	1.6	1.7	1.6	1.7
Non-motorised –rest of UK	10	9.8	9.8	9.6	9.3	9.2
Total non-motorised	11.6	11.5	11.4	11.3	10.9	10.8
Volume change on 1995 (per cent)		-1.2	-1.9	-2.8	-5.9	-6.7
Total mileage	290.6	295.3	302.2	304.1	305.9	311.1
Volume change on 1995 (per cent)		1.6	4.0	4.6	5.3	7.1
Paid economy estimates						
Distance travelled by minicab/taxi (NTS respondents –miles)	1,497	1,908	1,396	1,561	1,957	2,185
Change on 1995 (per cent)		27.5	-6.8	4.2	30.7	46.0
UK National Accounts household final consumption						
Expenditure on taxis and minicabs						
Volume change on 1995 (per cent)		14.3	27.1	35.2	32.6	36.4
Stage bus passenger miles –not available						
UK National Accounts household final consumption						
Expenditure on bus fares						
Volume change on 1995 (per cent)		1.7	0.6	0.5	2.1	4.3

Source: HHSA estimates/DTLR/UK National Accounts

Totals may differ due to rounding

1995 to 2000. Travel by non-motorised modes (foot and bicycle) is estimated to have decreased by seven per cent over the period. In contrast, the NTS data suggests that taxi and minicab travel has increased by 46 per cent over the period. The UK National Accounts household final consumption figures suggest a volume increase of 36 per cent.

Nutrition

In volume terms (Table 6), there is some evidence of a decline in household production of meals and a corresponding increase in the paid economy. Although the number of main meals has gone up by two per cent, the overall total of meal

servings has gone down by one per cent. Data from the consumer information company Mintel on the frequency of eating out suggests that the number of meals eaten out has gone up by 29 per cent between 1995 and 2000. The UK National Accounts household final consumption figures suggest a volume increase of 16 per cent.

Childcare

Table 7 shows that the volume of unpaid childcare activity provided by households decreased slightly between 1995 and 2000, by 870 million hours or one per cent. A decrease in the child population accounted for 270 million hours, and an

Table 6

Number of meals servings prepared in UK households

United Kingdom

Million meals

	1995	2000	Change (per cent)
Household production			
Meals (including potatoes and/or rice and/or pasta and/or vegetables)	15,239	15,570	2.2
Sandwiches	10,410	10,367	-0.4
Salads	327	341	4.2
Other Ingredients	13,566	13,737	1.3
Starters	12,335	12,415	0.6
Desserts	19,593	20,374	4.0
Drinks	55,782	53,252	-4.5
Total	127,252	126,054	-0.9
Paid economy estimates			
UK National Accounts household final consumption expenditure			
Volume change in expenditure in canteens			15.7
Volume change in expenditure in cafes and restaurants			15.7
Overall volume change in expenditure on eating out			15.7

Source: HHS estimates/TNS Family Food Panel/UK National Accounts

Table 7

Number of hours of formal (paid) and informal (unpaid) care provided to children

United Kingdom

Million hours

	1995	1996	1997	1998	1999	2000
Total hours of children under 16	106,047	105,981	106,041	106,110	106,106	105,789
Formal or paid care	12,586	12,685	12,745	12,870	12,916	13,018
Change in formal care from 1995 (per cent)		0.8	1.3	2.3	2.6	3.4
<i>of which</i> , care in nursery schools/classes	249	255	259	278	280	288
Care in day nurseries	225	250	283	318	349	370
Care by childminders	497	503	493	500	462	447
Change in childminder care from 1995 (per cent)		1.2	-0.7	0.5	-6.9	-10.1
Household final consumption expenditure on child care						
Volume change on 1995 (per cent)		1.8	0.7	1.7	-1.2	-4.0
Estimated unsupervised time	5,100	5,064	5,047	5,097	5,164	5,276
Informal or unpaid care	88,361	88,231	88,250	88,143	88,027	87,495
Change in informal care from 1995 (per cent)		-0.1	-0.1	-0.2	-0.4	-1.0
<i>of which</i> , active (non-sleeping) care	43,839	43,784	43,792	43,751	43,665	43,422
Passive (sleeping) care	44,522	44,447	44,458	44,392	44,362	44,073

Source: HHS estimates/UK National Accounts

increasing proportion of older children, with more assumed unsupervised time, accounted for a further 180 million hours. The remaining difference is largely accounted for by an increase in the use of nurseries. Care by childminders decreased by 10 per cent, and this is reflected in the UK National Accounts, which show a volume decrease of four per cent in expenditure on childcare over the same period.

Methodology

Methodology used to compile the childcare account

The main driver of the increase in unpaid household production has been the childcare account. The HHSA definition of unpaid care of children is called informal childcare. This is the total amount of childcare required (total number of children in the population multiplied by 24 hours a day) less any formal childcare either at school or paid childminder and less the assumed number of unsupervised hours. Full details of the data sources and assumptions can be found in the HHSA Methodology article on the National Statistics website <http://www.statistics.gov.uk/hhsa/hhsa/downloads.html>

Table 8 shows that total formal childcare hours increased by 3.4 per cent between 1995 and 2000. This is predominately driven by the increase in formal childcare hours for children aged under 10.

The total informal childcare hours has changed very little between 1995 and 1999. However, total informal hours decreased by 1.0 per cent over the period 1995 to 2000. Informal hours have decreased 7.4 per cent for the under-fives due to a decline in this population. At the same time informal hours for 11–15 year olds have increased, due to a decrease in formal childcare hours (fewer children in children's homes and boarding schools), combined with an increase in the population.

To obtain a value for childcare output, the number of hours of childcare required (informal hours) is multiplied by the wage rate of a live-in nanny. The source of this information is the *Professional Nanny/Nannytax Annual Survey*. The wage rates have been adjusted to take into account payment in kind (for accommodation and food) and to obtain a rate per child.

Table 8
Informal childcare, 1995–2000

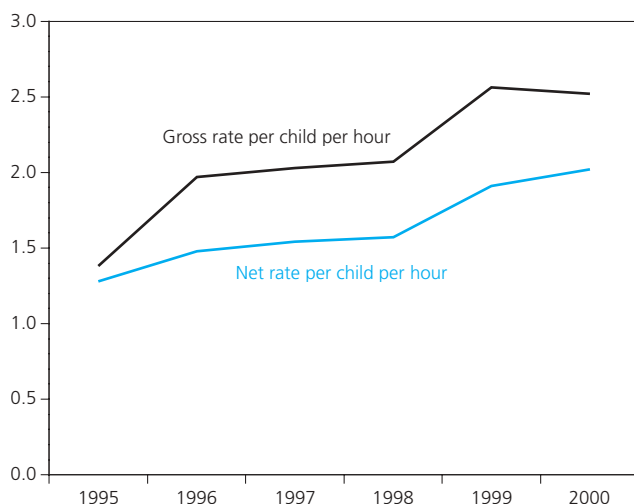
United Kingdom

	1995	1996	1997	1998	1999	2000	% change 1995-2000
Estimated UK formal childcare hours (millions)							
Aged under 5	2,043	2,072	2,083	2,123	2,078	2,109	3.2
Aged 5 to 10	5,671	5,762	5,826	5,903	5,948	5,936	4.7
Aged 11 to 15	4,872	4,851	4,836	4,844	4,890	4,973	2.1
Total	12,586	12,685	12,745	12,870	12,916	13,018	3.4
Estimated UK informal childcare hours (millions)							
Aged under 5	31,557	30,896	30,448	30,046	29,673	29,210	-7.4
Aged 5 to 10	34,723	35,083	35,342	35,303	35,099	34,766	0.1
Aged 11 to 15	22,082	22,252	22,460	22,794	23,254	23,519	6.5
Total	88,361	88,231	88,250	88,143	88,027	87,495	-1.0
Average weekly net wages –live-in nanny (£)							
Net hourly rate per child	1.28	1.48	1.54	1.57	1.91	2.02	57.8
Gross hourly rate per child	1.38	1.97	2.03	2.07	2.56	2.52	82.6
Estimated value of UK informal childcare (based on gross hourly rate per child) £ million							
Aged under 5	43,548	60,865	61,809	62,195	75,963	73,609	69.0
Aged 5 to 10	47,917	69,114	71,744	73,078	89,854	87,610	82.8
Aged 11 to 15	30,473	43,836	45,594	47,184	59,531	59,269	94.5
Total	121,939	173,816	179,147	182,457	225,348	220,488	80.8
Estimated value of UK informal childcare (based on net hourly rate per child) £ million							
Aged under 5	40,393	45,726	46,890	47,172	56,675	59,004	46.1
Aged 5 to 10	44,445	51,923	54,426	55,426	67,040	70,227	58.0
Aged 11 to 15	28,265	32,933	34,589	35,787	44,416	47,509	68.1
Total	113,102	130,582	135,905	138,385	168,131	176,740	56.3

Source: HHSA estimates (hours), PN/Nannytax Annual Survey of Nannies' Wages 1999, Nanny Tax Payroll services

Figure 2
Hourly nanny rate, 1995–2000

£ per hour



Source: *PN/Nannytax Annual Survey of Nannies' Wages 1999, Nanny Tax Payroll services*

Figure 2 shows that there have been sharp increases in hourly rates between 1995 and 1996 and between 1998 and 1999. The latter increase is influenced by the introduction of the National Minimum Wage in April 1999 and due to a shortage of nannies.

The value of informal childcare using both the gross and net rate per child hour is shown in Table 8. The value of informal childcare increased between 1995 and 2000, both in total and for each age group. Any fluctuation in informal hours has been outweighed by the increase in the underlying nanny wage rate. The wages of a live-in nanny are adjusted for hours worked, number of children looked after and payment in kind.

Methodology used to compile the transport account

The transport account is another significant driver in the increase in unpaid household production. This includes all modes of transport provided by the household such as car, van, motorcycle, bicycle and walking and for all purposes where the cost is not already included in the UK National Accounts. Where the travel is an end in itself, for example, walking for exercise or pleasure, it is not included. Full details of the data sources and assumptions can be found in the HHSA Methodology article on the website.

In order to value the output of transport provided by the household, the nearest market equivalent has been identified. As the objective is to value a journey from one particular point to another, in other words 'door to door', a private hire vehicle (PHV) is the closest equivalent. A PHV is a taxi booked in advance that collects you from wherever you specify. We assume that if people travel together they would also share a PHV. The total distance travelled by all people in the UK therefore needs to be adjusted by the average number of people travelling together.

Table 9 shows the total mileage travelled by all people in the UK split between motorised and non-motorised modes. Motorised modes make up approximately 96 per cent of distance travelled. Non-motorised modes are usually used for short journeys, and account for approximately 30 per cent of total trips.

In total, motorised travel has increased steadily from 1995 to 2000, while non-motorised travel has remained fairly constant at about seven billion miles per year. Shopping and education travel form a much larger proportion of the total for non-motorised than for motorised modes.

Table 9
Total distance travelled by all individuals in the UK (3 year rolling average)

United Kingdom

Million miles

	1995	1996	1997	1998	1999	2000
Total distance travelled by all individuals in the UK						
Motorised	278,953	283,770	290,770	292,760	294,904	300,292
Non-motorised	11,628	11,483	11,403	11,301	10,947	10,845
Total	290,581	295,253	302,173	304,061	305,851	311,137
Total distance travelled by parties in the UK						
Motorised	134,653	137,425	141,064	141,814	143,090	145,713
Non-motorised	7,098	7,054	7,021	6,967	6,735	6,714
Total	141,751	144,479	148,085	148,781	149,825	152,427
Private hire vehicle prices –£ per mile						
London	1.22	1.27	1.32	1.37	1.43	1.52
Rest of the UK	0.76	0.81	0.83	0.88	0.93	0.98

Travel by non-motorised modes of transport accounted for just over four per cent of the total distance travelled in 2000. Between 1995 and 2000 the total distance travelled by parties in cars and so on rose, while for journeys on foot and by bike, it fell. The largest changes were in the total distance travelled for shopping trips by both motorised and non-motorised modes of transport. Between 1995 and 2000 the distance travelled fell for trips on foot or by bike and rose for trips by car.

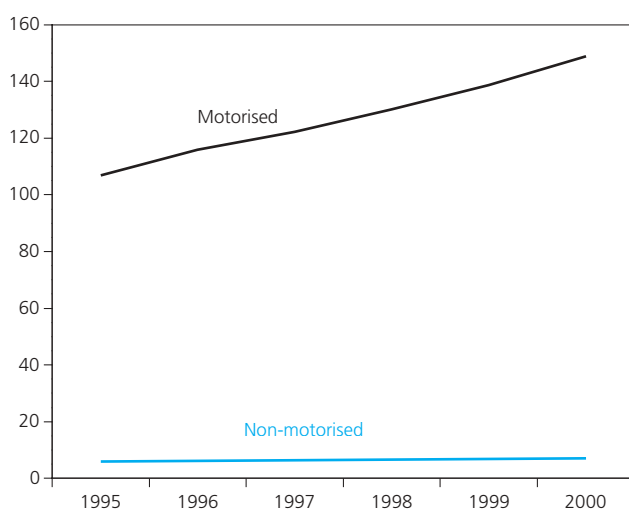
To obtain the value of transport output, the miles travelled by parties of individuals are multiplied by the average cost per mile of a PHV. The average cost per mile is obtained from the National Travel Survey. An average of three years' data was used, centred on 1997, and a time-series created using the RPI. The value was calculated separately for London and the rest of the UK.

The price of hiring a PHV in London has increased by 25 per cent between 1995 and 2000, while prices in the rest of the UK increased by 29 per cent over the same period.

Figure 3
Unpaid household transport services, current price

United Kingdom

£ billion



Source: HHSA estimates/DTLR

Figure 3 shows that the value of household transport has increased steadily over time. The value of household travel has increased by 39 per cent from 1995 to 2000. This growth is largely a reflection of the increase in the price of travel but also due to increases in the amount of travel per person.

Future Development

The HHSA will be updated annually with a view to another major publication in about three to four years time when the 2005 *Time Use Survey* becomes available.

The Childcare account is the main driver of increases in value of unpaid household production. Several areas in this account could be reviewed. These include examining the pricing of passive care and the care rate for older children.

Other development work includes considering some of the recently published Census information for the Transport account, a look at the alternatives for deriving the estimates for nutrition and housing and investigating the use of the 2001 *Home Office Citizenship Survey* data.

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http://www.tnssofres.com/uk/industryexpertise/consumer/family_food_panel.cfm?country=uk

ONS Family Resources Survey

<http://www.statistics.gov.uk/statbase/source.asp?vlnk=227&More=Y#general>

ONS Labour Force Survey

<http://www.statistics.gov.uk/statbase/source.asp?vlnk=358>

ONS National Food Survey

<http://www.statistics.gov.uk/statbase/Product.asp?vlnk=632>

Department for Transport's National Travel Survey

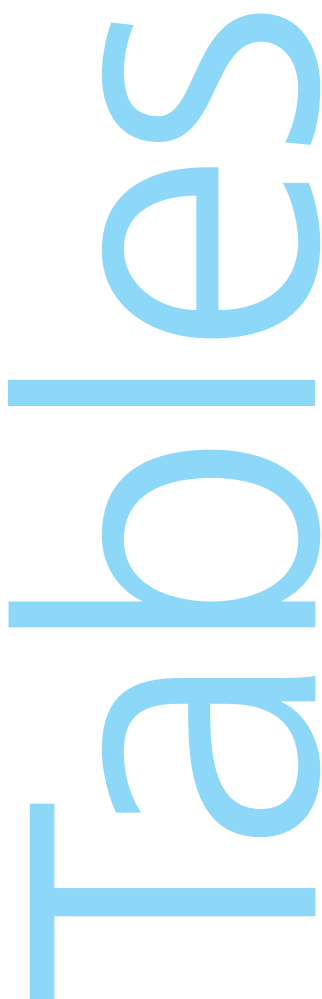
<http://www.statistics.gov.uk/statbase/Product.asp?vlnk=3756>

Mintel

<http://reports.mintel.com/sinatra/mintel/about/>

National Minimum Wage

<http://www.lowpayunit.org.uk/minwage/index.shtml>



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Notes to tables

Identification codes

The four-letter identification code at the top of each data column is the ONS reference for this series of data on our database. Please quote the relevant code if you contact us requiring any further information about the data.

Currency of data

All data in the tables and accompanying charts are current, as far as possible, to 9 January 2004.

Some data, particularly for the latest time period, are provisional and may be subject to revision in later editions.

Geographic coverage

Statistics relate mainly to the United Kingdom. Where figures are for Great Britain only, this is shown on the table.

Seasonal adjustments

Almost all quarterly data are seasonally adjusted; those not seasonally adjusted are indicated by the abbreviation NSA.

Money

There is no single correct definition of money. The most widely used measures are:

M0

This is the narrowest measure and consists of notes and coins in circulation outside the Bank of England and bankers' operational deposits at the Bank.

M4

This comprises notes and coin in circulation with the public, together with all sterling deposits (including certificates of deposit) held with UK banks and building societies by the rest of the private sector.

The Bank of England also publish data for liquid assets outside M4.

Conventions

Rounding may lead to inconsistencies between the constituent parts and the total in some tables.

A horizontal line between two consecutive figures indicates that the figures above and below the line have been compiled on different bases and are not strictly comparable. Footnotes explain the differences.

Billion denotes one thousand million.

Symbols used

- .. not available
- nil or less than half the final digit shown
- + a series for which measures of variability are given on page 147
- † data have been revised since the last edition; the period marked is the earliest in the table to have been revised
- average (or total) of five weeks

National Statistics Online

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Users can download time series, cross-sectional data and metadata from across the Government Statistical Service (GSS), using the site search and index functions from the homepage. Many datasets can be downloaded, in whole or in part, and directory information for all GSS statistical resources can be consulted, including censuses, surveys, journals and enquiry services. Information is posted as PDF electronic documents, or in XLS and CSV formats, compatible with most spreadsheet packages.

Time Series Data

The time series data facility on the website provide access to around 40,000 time series, of primarily macro-economic data, drawn from the main tables in our major economic and labour market publications. Users can download complete releases or view and download customised selections of individual time series.

Complete copies of *Economic Trends* can be downloaded from the following webpage:

www.statistics.gov.uk/statbase/product.asp?vlnk=308

1.1 Selected monthly indicators

seasonally adjusted unless otherwise stated

		2001	2002	2002	2003	2003	2003	2003	2003	2003	2003	2003	2003	% Change Latest 3 months avg over previous 3 months
				Q4	Q1	Q2	Q3	Sep	Oct	Nov				
Output -chained volume measures (CVM) (2000 = 100 unless otherwise stated)														
Gross value added at basic prices	CGCE	101.9	103.2	104.0	104.1	104.5	105.2	..	..	..				0.7
Industrial production	CKYW	98.4	95.7	95.2	95.0	95.3	95.1	95.0	95.9	..				-0.3
Oil and gas extraction	CKZO	94.4	93.4	92.9	92.3	89.1	86.9	84.9	86.4	..				-3.9
Manufacturing	CKYY	98.7	95.1	94.5	94.6	95.2	95.4	95.2	96.2	..				0.1
Construction	GDQB	103.4	111.2	114.0	112.4	117.1	119.5	..	..	..				2.0
Car production (thousands)	FFAO	124.4	135.7	127.9	130.2	137.9	143.0	142.7	134.2	135.6				-2.8
GB housing completions (thousands)	CTPA	162.0	170.4	45.0	43.3	..	..	..	..	..				-3.3
Domestic demand														
Retail sales volume (2000 = 100)	EAPS	106.1	112.7	115.4	114.6	116.4	117.7	118.4	119.1	119.2				1.4
GB new registrations of cars ('000s) ¹	BCGT	2 577.5	2 682.0	528.7	737.6	642.7	742.8	447.5	186.6	175.7				50.2
Manufacturing: change in inventories (£m, CVM, reference year 2000)	DHBM	-496	-1 967	-489	-171	-234	501	..	..	..	
Prices (12 monthly % change) and earnings (headline rate)														
Consumer prices index	CJYR	1.2	1.3	1.6	1.5	1.3	1.4	1.4	1.4	1.3				
Retail prices index ¹	CZBH	1.8	1.7	2.5	3.0	3.0	2.9	2.8	2.6	2.5				
Retail prices index ¹ (less MIPS) ²	CDKQ	2.1	2.2	2.6	2.9	2.9	2.8	2.8	2.7	2.5				
Producer output prices (less FBTP) ³	EUAA	-0.6	-0.1	0.4	1.2	1.2	1.2	1.4	1.2	1.3				
Producer input prices ⁴	EUAB	-1.2	-4.5	-0.2	1.6	-0.5	1.3	0.8	1.9	4.0				
GB average earnings -whole economy ⁵	LNNC	..	..	3.8	3.5	3.0	3.6	3.6	3.6	..				
Foreign trade⁶ (2000 = 100 volumes unless otherwise stated)														
UK balance on trade in goods (£ million)	BOKI	-40 620	-46 630	-13 277	-11 101	-11 156	-11 655	-4 673	-4 449	..				
Non EU balance on trade in goods (£ million)	ENRX	-28 945	-25 935	-7 443	-5 498	-5 563	-5 980	-2 566	-2 323	..				
Non EU exports of goods (excl oil & erratics)	ENUA	102.1	96.2	91.8	102.1	102.2	102.9	100.9	107.5	..				5.1
Non EU imports of goods (excl oil & erratics)	ENTS	100.2	98.5	98.8	101.2	102.9	103.2	106.1	110.6	..				2.7
Non EU import & price index (excl oil) ⁷	ENXR	..	-5.8	-4.7	-6.4	-4.6	-0.7	-0.1	-1.2	..				
Non EU export & price index (excl oil) ⁷	ENXS	0.1	0.2	0.2	-4.0	-3.2	-0.1	0.4	-0.6	..				
Labour market and productivity (2000 = 100 unless otherwise stated)														
UK claimant unemployment (thousands)	BCJD	970.1	946.8	938.6	936.5	946.5	933.2	930.2	925.7	917.8				-1.6
UK employees in manufacturing (thousands)	YEJA	3 808	3 628	3 561	3 536	3 503	3 475	3 475	3 468	..				-0.8
Whole economy productivity ⁸	LNNN	101.1	102.5	103.4	103.4	103.7	104.3	..	..	..				0.6
Manufacturing productivity ⁸	LNNX	103.3	104.8	106.0	107.2	109.7	111.1	111.3	112.7	..				1.1
Unit wage costs - whole economy	LNNK	103.8	106.3	106.7	107.7	108.3	108.9	..	..	..				0.6
Unit wage costs - manufacturing	LNNQ	101.0	103.0	103.3	103.8	101.1	100.8	101.0	100.1	..				-0.2
Financial markets¹														
Sterling ERI (1990=100)	AGBG	105.8	106.0	106.0	102.3	99.1	99.2	99.2	99.8	100.4				0.5
Average exchange rate /US \$	AUSS	1.44	1.50	1.57	1.60	1.62	1.61	1.61	1.68	1.69				2.0
Average exchange rate /Euro ⁹	THAP	1.61	1.59	1.57	1.49	1.43	1.43	1.43	1.43	1.44				0.5
3 month inter-bank rate ¹⁰	HSJA	4.03	3.94	3.94	3.57	3.55	3.66	3.66	3.86	3.90				
3 month interest on US Treasury bills ¹¹	LUST	1.71	1.20	1.20	1.12	0.89	0.94	0.94	0.94	0.92				
Monetary conditions/government finances														
M0 (year on year percentage growth)	VQMX	7.1	7.9	7.0	6.0	7.8	8.0	7.8	7.3	8.2				
M4 (year on year percentage growth)	VQJW	8.0	6.0	6.4	6.8	8.1	7.0	6.8	6.6	7.0				
Public sector net borrowing (£ million) ^{1,12}	ANNX	-760	-22 829	-8 772	-368	-15 047	-6 268	-2 401	-1 606	-5 521				
Net lending to consumers (£ million)(broader)	RLMH	17 517	20 900	5 092	4 943	5 278	4 846	1 807	1 395	1 617				-6.4

		2002	2002	2003	2003	2003	2003	2003	2003	2003	2003	2003	2003	2003
		Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
Activity and expectations														
CBI output expectations balance ¹	ETCU	2	-1	2	-1	-5	-10	-3	-6	-4	-3	-3	-4	-2
CBI optimism balance ¹	ETBV	..	..	-19	..	..	-27	..	..	-13	..	..	-7	..
CBI price expectations balance	ETDQ	-10	-12	-14	-15	-17	-8	-13	-14	-14	-9	-9	-10	..
GB housing starts (thousands)	CTOZ	15.1	15.8	16.1	17.5	15.8	..	..	..	..	..	..	..	..
New engineering orders (2000 = 100)	JIQH	71.1	82.0	78.8	80.3	75.8	93.8	76.6	76.8	84.8	79.3	79.8	84.7	..

1 Not seasonally adjusted

2 MIPS: mortgage interest payments

3 FBTP: food, beverages, tobacco and petroleum

4 See footnote 2 on Table 3.1.

5 See footnote 2 on Table 4.6

6 All Non EU figures exclude Austria, Finland & Sweden

7 12 monthly percentage change

8 Output per filled job.

9 Prior to January 1999, a synthetic Euro has been calculated by geometrically averaging the bilateral exchange rate of the 11 Euro-area countries using "internal weights" based on each country's share of the extra Euro-area trade

10 Last Friday of the period

11 Last working day

12 Annual figures are for the financial years 2001/2002 and 2002/2003

2.1 National accounts aggregates

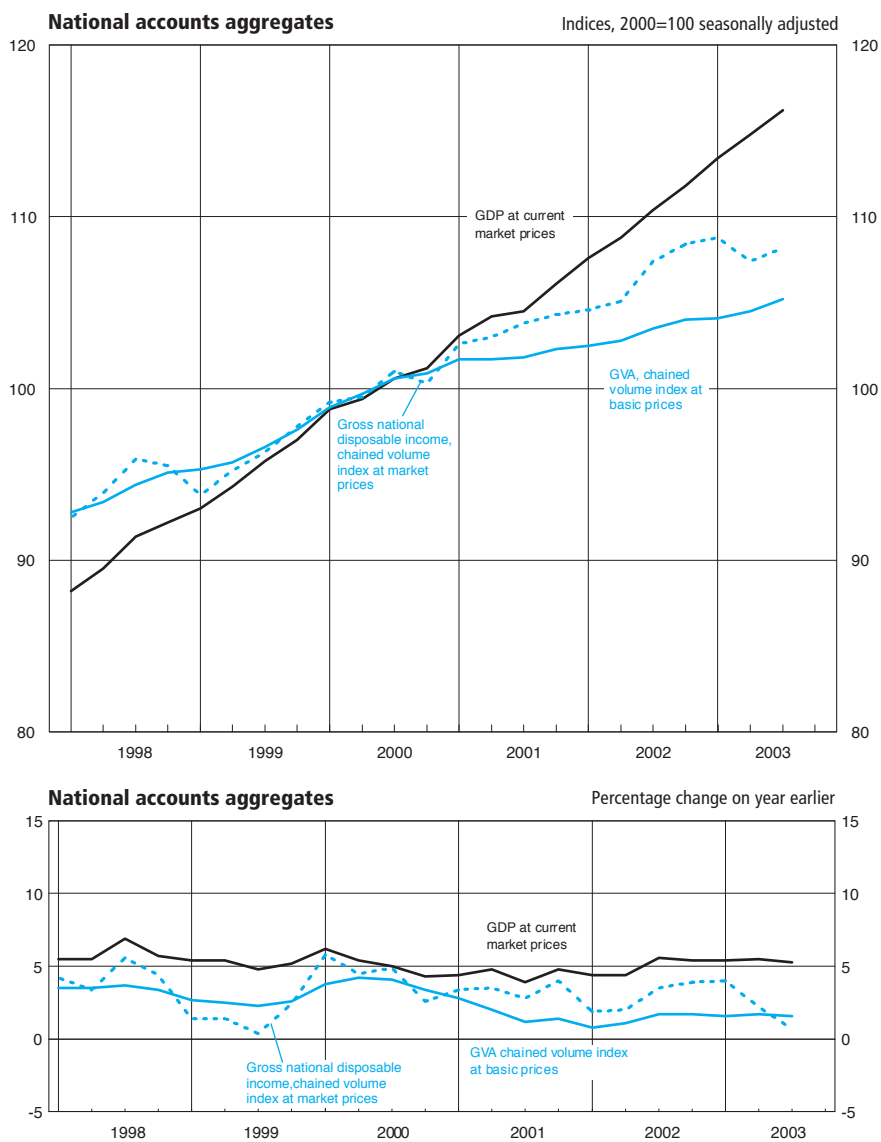
	£ million		Indices (2000 = 100)						
	At current prices		Value indices at current prices		Chained volume indices (2000=100)			Implied deflators ²	
	Gross domestic product at market prices	Gross value added (GVA) at basic prices	Gross domestic product at market prices ¹	Gross value added (GVA) at basic prices	Gross national disposable income at market prices	Gross domestic product at market prices	Gross value added (GVA) at basic prices+	GDP at market prices	GVA at basic prices
Annual									
	YBHA	ABML	YBEU	YBEX	YBFP	YBEZ	CGCE	YBGB	CGBV
1998	859 436	762 359	90.3	90.8	94.5	93.7	93.9	96.4	96.7
1999	903 865	797 814	95.0	95.1	95.8 [†]	96.4	96.3	98.6	98.7
2000	951 265	839 194	100.0	100.0	100.0	100.0	100.0	100.0	100.0
2001	994 037	880 904	104.5	105.0	103.4	102.1	101.9	102.3	103.0
2002	1 042 908 [†]	924 745 [†]	109.6 [†]	110.2 [†]	106.4	103.9	103.2 [†]	105.6	106.8
Quarterly									
1998 Q1	209 840	186 227	88.2	88.8	92.5	92.8	92.8	95.1	95.6
Q2	212 891	189 021	89.5	90.1	93.9	93.2	93.4	96.1	96.5
Q3	217 418	192 771	91.4	91.9	95.9	94.2	94.4	97.0	97.4
Q4	219 287	194 340	92.2	92.6	95.5	94.8	95.1	97.3	97.4
1999 Q1	221 178	195 352	93.0	93.1	93.8 [†]	95.3	95.3	97.6	97.7
Q2	224 190	198 440	94.3	94.6	95.2	95.6	95.7	98.6	98.8
Q3	227 870	201 045	95.8	95.8	96.3	96.7	96.6	99.1	99.2
Q4	230 627	202 977	97.0	96.7	97.8	97.9	97.6	99.1	99.1
2000 Q1	235 050	207 339	98.8	98.8	99.2	99.0	98.9	99.8	99.9
Q2	236 352	208 160	99.4	99.2	99.5	99.7	99.7	99.7	99.6
Q3	239 182	211 135	100.6	100.6	101.0	100.5	100.6	100.1	100.1
Q4	240 681	212 560	101.2	101.3	100.3	100.8	100.9	100.4	100.5
2001 Q1	245 227	217 171	103.1	103.5	102.6	101.6	101.7	101.5	101.8
Q2	247 908	219 657	104.2	104.7	103.0	102.0	101.7	102.2	102.9
Q3	248 578	220 099	104.5	104.9	103.8	102.3	101.8	102.2	103.1
Q4	252 324	223 977	106.1	106.8	104.3	102.7	102.3	103.3	104.4
2002 Q1	255 864 [†]	226 863 [†]	107.6 [†]	108.1 [†]	104.6	103.0	102.5	104.5 [†]	105.5 [†]
Q2	258 634	229 239	108.8	109.3	105.1	103.4 [†]	102.8 [†]	105.2	106.3
Q3	262 476	232 769	110.4	110.9	107.4	104.2	103.5	105.9	107.1
Q4	265 934	235 874	111.8	112.4	108.4	104.8	104.0	106.7	108.1
2003 Q1	269 638	239 634	113.4	114.2	108.8	105.0	104.1	108.0	109.7
Q2	273 004	242 536	114.8	115.6	107.4	105.6	104.5	108.7	110.7
Q3	276 440	245 240	116.2	116.9	108.2	106.4	105.2	109.2	111.1
Percentage change, quarter on corresponding quarter of previous year ³									
Quarterly									
1998 Q1	5.6	4.9	5.6	4.9	4.2	3.5	3.5	2.1	1.4
Q2	5.6	5.5	5.6	5.5	3.4	2.8	3.5	2.8	1.9
Q3	6.9	6.9	6.9	6.9	5.6	3.5	3.8	3.2	3.1
Q4	5.8	5.9	5.8	5.9	4.4	2.8	3.4	3.0	2.5
1999 Q1	5.4	4.9	5.4	4.9	1.4 [†]	2.7	2.7	2.6	2.2
Q2	5.3	5.0	5.3	5.0	1.4	2.6	2.5	2.6	2.4
Q3	4.8	4.3	4.8	4.3	0.4	2.7	2.3	2.2	1.8
Q4	5.2	4.4	5.2	4.4	2.4	3.3	2.6	1.8	1.7
2000 Q1	6.3	6.1	6.3	6.1	5.8	3.9	3.8	2.3	2.3
Q2	5.4	4.9	5.4	4.9	4.5	4.3	4.1	1.1	0.8
Q3	5.0	5.0	5.0	5.0	4.9	3.9	4.1	1.0	0.9
Q4	4.4	4.7	4.4	4.7	2.6	3.0	3.3	1.3	1.4
2001 Q1	4.3	4.7	4.3	4.7	3.4	2.6	2.8	1.7	1.9
Q2	4.9	5.5	4.9	5.5	3.5	2.3	2.1	2.5	3.3
Q3	3.9	4.2	3.9	4.2	2.8	1.8	1.2	2.1	3.0
Q4	4.8	5.4	4.8	5.4	4.0	1.9	1.4	2.9	3.9
2002 Q1	4.3 [†]	4.5 [†]	4.3 [†]	4.5 [†]	1.9	1.4	0.8	3.0 [†]	3.6 [†]
Q2	4.3	4.4	4.3	4.4	2.0	1.4 [†]	1.0 [†]	2.9	3.3
Q3	5.6	5.8	5.6	5.8	3.5	1.9	1.7	3.6	3.9
Q4	5.4	5.3	5.4	5.3	3.9	2.0	1.7	3.3	3.5
2003 Q1	5.4	5.6	5.4	5.6	4.0	1.9	1.5	3.3	4.0
Q2	5.6	5.8	5.6	5.8	2.2	2.1	1.6	3.3	4.1
Q3	5.3	5.4	5.3	5.4	0.7	2.1	1.6	3.1	3.7

1 "Money GDP."

2 Based on chained volume measures and current price estimates of expenditure components of GDP.

3 These estimates of change are based in some cases on less rounded figures than in the table.

Source: Office for National Statistics; Enquiries 020 7533 6031



2.2 Gross domestic product : by category of expenditure

Chained volume measures

Reference year 2000, £ million

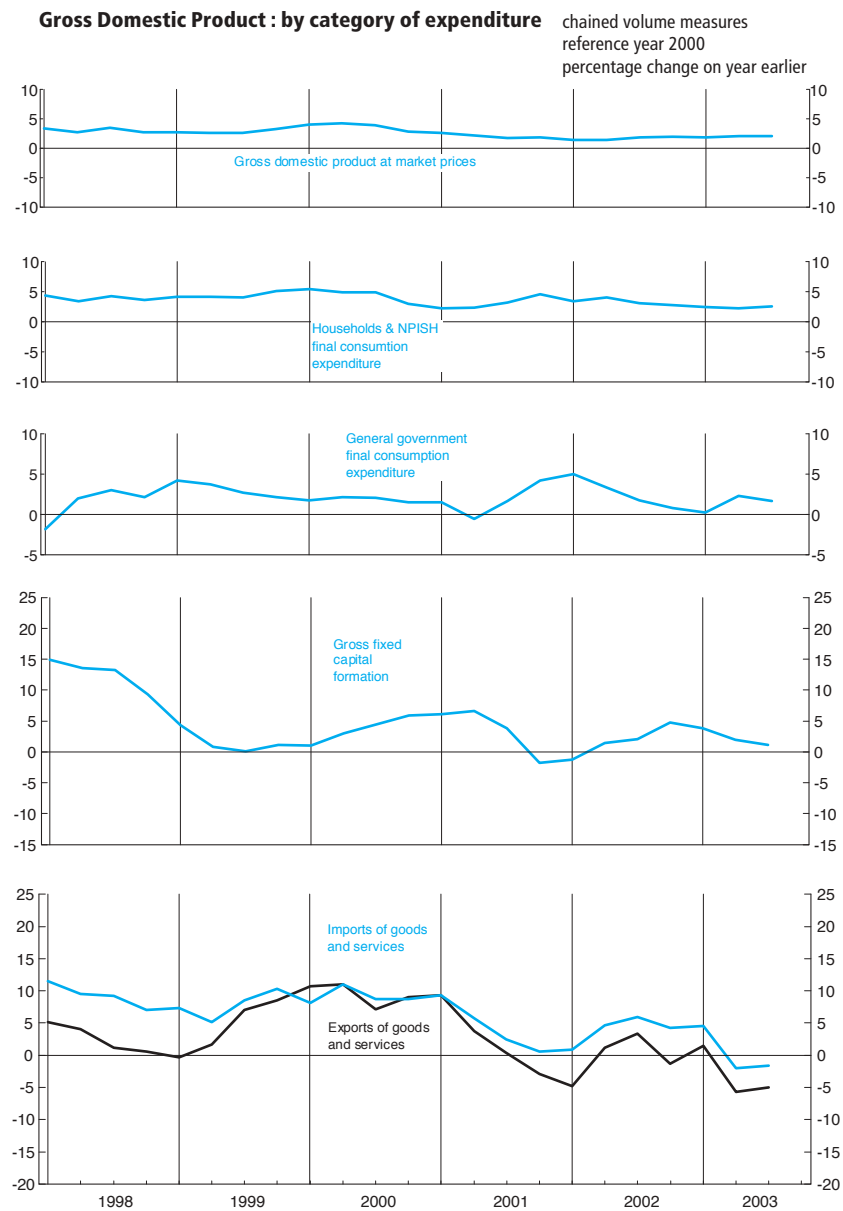
Domestic expenditure on goods and services at market prices												
	Final consumption expenditure			Gross capital formation				Exports of goods and services+	Gross final expenditure	Imports of goods and services+ less	Statistical discrepancy (expenditure)	Gross domestic product at market prices
	Households	Non-profit institutions ²	General government	Gross fixed capital formation+	Changes in inventories ³	Acquisitions less disposals of valuables	Total					
Annual	ABJR	HAYO	NMRY	NPQT	CAFU	NPJR	YBIM	IKBK	ABMG	IKBL	GIXS	ABMI
1998	552 186	21 713	169 085	153 148	4 913	57	901 069	233 982	1 135 080	243 400	–	891 684
1999	577 665	21 543	174 445	155 576	6 426	28	935 377	243 985	1 179 410	262 601	–	916 639
2000	603 349	23 188	177 794	161 210	5 271	3	970 815	267 007	1 237 822	286 557	–	951 265
2001	622 136	23 845	180 875	167 032	2 938	362	997 188	273 724	1 270 912	299 347	–	971 565
2002	643 107 [†]	24 548 [†]	185 799 [†]	170 004 [†]	1 496	195 [†]	1 025 149 [†]	272 605 [†]	1 297 754 [†]	311 211 [†]	1 389 [†]	987 932 [†]
Quarterly												
1998 Q1	136 298	5 368	41 431	37 275	427	31	221 423	58 221	279 669	59 146	–	220 584
Q2	137 464	5 433	42 245	38 029	230	7	223 461	58 967	282 474	60 854	–	221 598
Q3	138 653	5 476	42 646	38 621	1 990	9	227 037	58 413	285 441	61 377	–	224 047
Q4	139 771	5 436	42 763	39 223	2 266	10	229 148	58 381	287 496	62 023	–	225 455
1999 Q1	142 213	5 415	43 184	38 907	2 742	5	232 122	58 044	290 132	63 516	–	226 585
Q2	143 625	5 336	43 789	38 331	476	24	231 457	59 973	291 433	64 024	–	227 382
Q3	144 613	5 358	43 787	38 674	1 677	–15	233 974	62 579	296 598	66 678	–	229 864
Q4	147 214	5 434	43 685	39 664	1 531	14	237 824	63 389	301 247	68 383	–	232 808
2000 Q1	150 128	5 666	43 969	39 298	819	1	239 970	64 272	304 263	68 664	–	235 554
Q2	150 469	5 766	44 748	39 471	1 262	–	241 682	66 551	308 235	71 071	–	237 160
Q3	151 397	5 858	44 716	40 417	1 941	–3	244 269	67 103	311 366	72 467	–	238 914
Q4	151 355	5 898	44 361	42 024	1 249	5	244 894	69 081	313 958	74 355	–	239 637
2001 Q1	153 291	6 005	44 635	41 707	795	–34	246 399	70 235	316 634	75 053	–	241 581
Q2	153 965	5 964	44 541	42 069	1 806	251	248 596	69 074	317 670	75 211	–	242 459
Q3	156 368	5 945	45 489	41 974	355	33	250 164	67 340	317 504	74 287	–	243 218
Q4	158 512	5 931	46 210	41 282	–18	112	252 029	67 075	319 104	74 796	–	244 307
2002 Q1	158 674 [†]	6 064 [†]	46 878 [†]	41 206 [†]	736 [†]	59	253 617 [†]	66 875 [†]	320 492 [†]	75 740 [†]	137 [†]	244 888 [†]
Q2	160 450	6 087	46 029	42 702	–778	50	254 540	69 887	324 427	78 720	255	245 962
Q3	161 201	6 166	46 318	42 837	10	77 [†]	256 609	69 616	326 225	78 717	407	247 916
Q4	162 782	6 231	46 574	43 259	1 528	9	260 383	66 227	326 610	78 034	590	249 166
2003 Q1	162 534	6 347	47 040	42 765	1 206	–1	259 890	67 902	327 792	79 210	1 021	249 603
Q2	163 812	6 385	47 087	43 560	139	96	261 079	65 915	326 994	77 117	1 189	251 065
Q3	165 261	6 475	47 111	43 359	973	–62	263 117	66 170	329 287	77 489	1 307	253 104
Percentage change, latest quarter on corresponding quarter of previous year												
1998 Q1	4.2	11.4	–1.8	14.9			5.2	5.2	5.2	11.5		3.4
Q2	3.4	5.2	2.0	13.6			4.3	4.1	4.3	9.5		2.8
Q3	4.2	8.1	3.0	13.3			5.8	1.2	4.8	9.2		3.5
Q4	3.6	3.8	2.2	9.3			4.6	0.6	3.7	7.0		2.8
1999 Q1	4.3	0.9	4.2	4.4			4.8	–0.3	3.7	7.4		2.7
Q2	4.5	–1.8	3.7	0.8			3.6	1.7	3.2	5.2		2.6
Q3	4.3	–2.2	2.7	0.1			3.1	7.1	3.9	8.6		2.6
Q4	5.3	0.0	2.2	1.1			3.8	8.6	4.8	10.3		3.3
2000 Q1	5.6	4.6	1.8	1.0			3.4	10.7	4.9	8.1		4.0
Q2	4.8	8.1	2.2	3.0			4.4	11.0	5.8	11.0		4.3
Q3	4.7	9.3	2.1	4.5			4.4	7.2	5.0	8.7		3.9
Q4	2.8	8.5	1.5	5.9			3.0	9.0	4.2	8.7		2.9
2001 Q1	2.1	6.0	1.5	6.1			2.7	9.3	4.1	9.3		2.6
Q2	2.3	3.4	–0.5	6.6			2.9	3.8	3.1	5.8		2.2
Q3	3.3	1.5	1.7	3.9			2.4	0.4	2.0	2.5		1.8
Q4	4.7	0.6	4.2	–1.8			2.9	–2.9	1.6	0.6		1.9
2002 Q1	3.5 [†]	1.0	5.0 [†]	–1.2 [†]			2.9 [†]	–4.8 [†]	1.2	0.9 [†]		1.4 [†]
Q2	4.2	2.1	3.3	1.5			2.4	1.2	2.1	4.7		1.4
Q3	3.1	3.7	1.8	2.1			2.6	3.4	2.7 [†]	6.0		1.9
Q4	2.7	5.1	0.8	4.8			3.3	–1.3	2.4	4.3		2.0
2003 Q1	2.4	4.7 [†]	0.3	3.8			2.5	1.5	2.3	4.6		1.9
Q2	2.1	4.9	2.3	2.0			2.6	–5.7	0.8	–2.0		2.1
Q3	2.5	5.0	1.7	1.2			2.5	–5.0	0.9	–1.6		2.1

1 Estimates given to nearest million but cannot be regarded as accurate to the degree.

2 Non-profit making institutions serving households (NPISH).

3 Quarterly alignment adjustment included in this series.

Source: Office for National Statistics; Enquiries 020 7533 6031



2.3 Gross domestic product and shares of income and expenditure

	Percentage share of gross final expenditure						Percentage share of GDP by category of income				
	Gross domestic product at market prices	Gross final expenditure	Final consumption expenditure		Gross capital formation	Exports of goods and services	Gross operating surplus		Compensation of employees	Mixed income	Taxes on production and imports
			Household and NPISH	General government			Corporations ¹	Other ²			
Annual	YBHA	ABMF	IHXI	IHXJ	IHXK	IHXL	IHXM	IHXO	IHXP	IHXQ	IHXR
1999	903 865	1 158 576	51.2	14.4	13.9	20.6	22.5	3.3	54.8	6.0	13.4
2000	951 265	1 237 822	50.6	14.4	13.4	21.5	21.9	2.6	56.0	6.0	13.5
2001	994 037	1 293 365	51.1	14.8	13.2	21.0	21.2	2.8	56.8	6.1	13.1
2002	1 042 908 [†]	1 346 155 [†]	51.3 [†]	15.6 [†]	12.8	20.3	21.5 [†]	3.0 [†]	56.3	6.1	13.1
Quarterly											
1999 Q1	221 178	282 661	51.4	14.3	14.3	20.1	21.4	4.3	55.0	5.9	13.4
Q2	224 190	285 936	51.4	14.6	13.5	20.5	22.8	3.2	54.8	6.0	13.2
Q3	227 870	292 622	50.8	14.4	13.9	20.9	22.9	2.7	54.9	6.0	13.5
Q4	230 627	297 357	51.0	14.2	13.8	20.9	22.7	3.0	54.6	6.0	13.7
2000 Q1	235 050	302 357	51.3	14.2	13.6	20.9	23.1	2.6	54.9	6.0	13.5
Q2	236 352	306 817	50.8	14.4	13.2	21.5	22.4	2.4	55.7	5.9	13.6
Q3	239 182	312 187	50.4	14.5	13.5	21.7	21.5	2.7	56.3	6.1	13.4
Q4	240 681	316 461	50.0	14.4	13.5	22.1	20.7	2.8	57.1	6.0	13.4
2001 Q1	245 227	321 527	50.2	14.4	13.4	22.1	21.2	2.7	56.9	6.0	13.1
Q2	247 908	324 212	50.4	14.5	13.6	21.5	21.0	3.4	56.5	6.1	13.1
Q3	248 578	322 409	51.7	14.9	13.2	20.2	21.3	2.5	56.8	6.2	13.2
Q4	252 324	325 217	52.0	15.3	12.5	20.3	21.3	2.8	56.8	6.2	12.9
2002 Q1	255 864 [†]	330 341 [†]	51.6 [†]	15.5	12.6 [†]	20.3	21.3 [†]	2.9 [†]	56.6 [†]	6.2	13.1
Q2	258 634	335 826	51.2	15.5 [†]	12.4	20.9	20.9	3.4	56.5	6.1	13.1 [†]
Q3	262 476	338 896	51.1	15.6	12.8	20.5 [†]	21.7	2.9	56.3	6.1	13.0
Q4	265 934	341 092	51.5	15.7	13.3	19.5	22.2	2.8	56.0	6.1	13.0
2003 Q1	269 638	345 725	51.1	16.2	12.8	19.9	22.5	2.7	55.9	6.1	12.9
Q2	273 004	347 464	51.3	16.6	12.8	19.2	22.3	2.8	56.0	6.1	12.9
Q3	276 440	351 425	51.4	16.5	12.9	19.2	22.4	2.7	56.0	6.1	13.0

1 Non-financial and financial corporations

2 Gross operating surplus of General government, and Households and NPISH plus the adjustment for financial services.

Source: Office for National Statistics; Enquiries 020 7533 6031

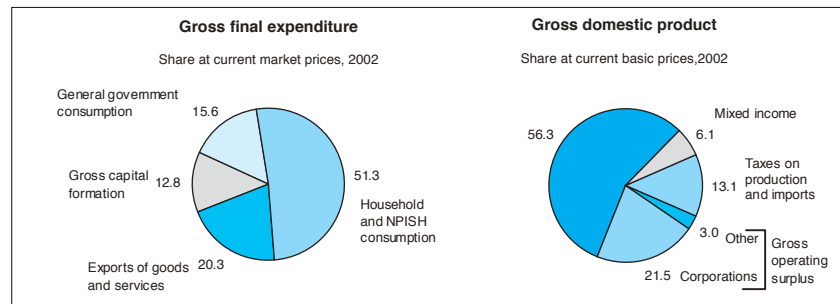
2.4 Income, product and spending per head

£

	At current prices				Chained volume measures (reference year 2000)		
	Gross national income at market prices	Gross domestic product at market prices	Household and NPISH final consumption expenditure	Households' gross disposable income	Gross domestic product at market prices	Household and NPISH final consumption expenditure	Real households' disposable income
Annual	IHXS	IHXT	IHXU	IHXV	IHXW	IHXX	IHXZ
2000	16 327	16 221	10 684	11 162	16 221	10 684	11 163
2001	17 059	16 839	11 188	11 867	16 459 [†]	10 943	11 609
2002	17 954 [†]	17 614 [†]	11 678 [†]	12 179 [†]	16 686 [†]	11 277 [†]	11 760 [†]
Quarterly							
2000 Q1	4 048	4 014	2 649	2 726	4 023	2 661	2 739
Q2	4 050	4 034	2 661	2 771	4 048	2 666	2 777
Q3	4 120	4 077	2 682	2 821	4 073	2 681	2 819
Q4	4 109	4 096	2 692	2 844	4 077	2 676	2 828
2001 Q1	4 217	4 165	2 740	2 925	4 103	2 705	2 889
Q2	4 253	4 202	2 771	2 923	4 110	2 711	2 860
Q3	4 272	4 207	2 820	2 974	4 116	2 747	2 897
Q4	4 317	4 265	2 857	3 045	4 130	2 780	2 963
2002 Q1	4 375 [†]	4 322 [†]	2 877 [†]	2 987 [†]	4 137 [†]	2 783 [†]	2 890 [†]
Q2	4 415	4 368	2 905	3 055	4 154	2 813	2 957
Q3	4 548	4 433	2 927	3 060	4 187	2 827	2 955
Q4	4 616	4 491	2 969	3 077	4 208	2 854	2 958
2003 Q1	4 670	4 541	2 974	3 082	4 204	2 844	2 948
Q2	4 655	4 598	3 002	3 141	4 229	2 867	2 999
Q3	4 704	4 656	3 039	3 183	4 263	2 892	3 029

Source: Office for National Statistics; Enquiries 020 7533 6031

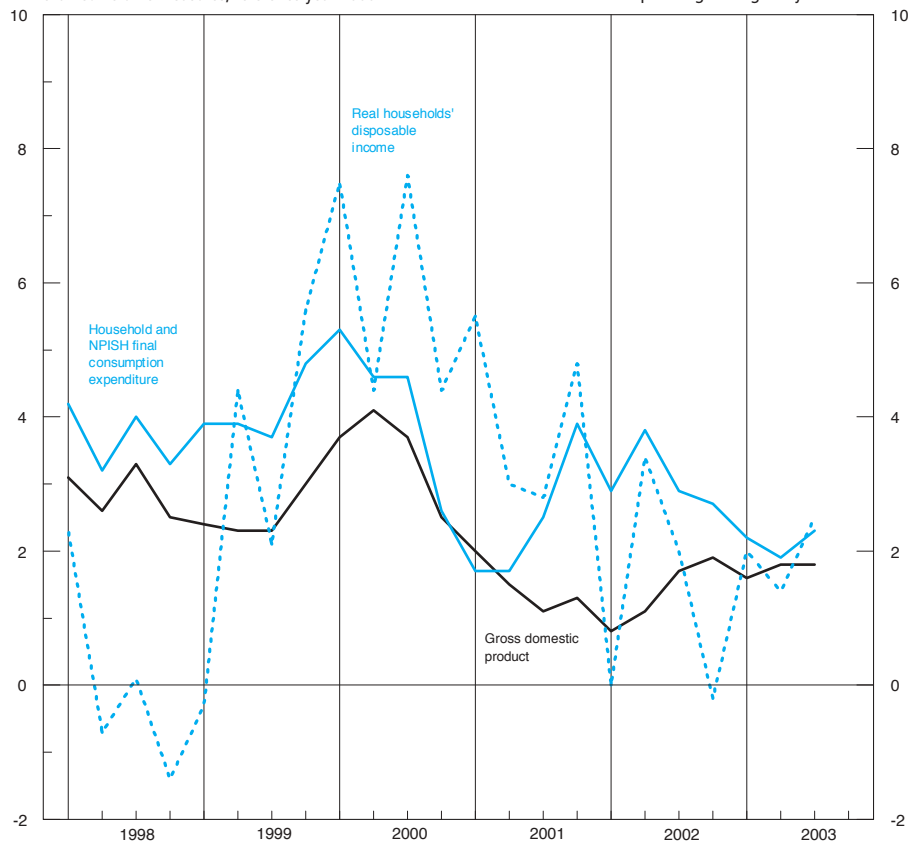
Shares of income and expenditure



Income, product and spending per capita

chained volume measures, reference year 2000

percentage change on year earlier



2.5 Households¹ disposable income and consumption

	£ million, current prices					£ million, chained volume measures, reference year 2000				
	Households' income before tax		Gross households' disposable income ²	Adjustment for the change in net equity of households in pension funds	Households' Total resources	Households' final consumption expenditure	Households' saving ratio ³ (percentage)+	Real households' disposable income+ ⁴	Household final consumption expenditure+	Real households' disposable income (index 2000=100)
	Total	of which: Wages and salaries								
Annual	RPHP	ROYJ	RPHQ	RPQJ	RPQK	RPQM	NRJS	NRJR	NPSP	OSXS
2000	958 450	457 473	654 649	8 620	663 269	626 537	5.5	654 649	626 537	100.0
2001	1 011 310	484 906 [†]	700 538 [†]	7 453 [†]	707 991 [†]	660 380 [†]	6.7 [†]	685 263 [†]	645 981 [†]	104.6 [†]
2002	1 045 374 [†]	502 962 [†]	721 044 [†]	10 201 [†]	731 245 [†]	691 457 [†]	5.4 [†]	696 224 [†]	667 655 [†]	106.3
Quarterly										
2000 Q1	230 454 [†]	111 597	159 378 [†]	2 296	161 674 [†]	155 089	4.1 [†]	160 106 [†]	155 791	97.8 [†]
Q2	237 963	113 150	162 435	1 022	163 457	155 917	4.6	162 773	156 235	99.5
Q3	242 703	115 371	165 558	2 120	167 678	157 366	6.1	165 450	157 257	101.1
Q4	247 330	117 355	167 278	3 182	170 460	158 165	7.2	166 320	157 254	101.6
2001 Q1	250 508	119 480	171 835	2 583	174 418	161 306	7.5	169 693	159 296	103.7
Q2	249 718	120 487	172 532	1 628	174 160	163 458	6.1	168 806	159 929	103.1
Q3	252 088	121 788	175 818	1 550	177 368	166 625	6.1	171 267	162 313	104.6
Q4	258 996	123 151	180 353	1 692	182 045	168 991	7.2	175 497	164 443	107.2
2002 Q1	256 999	124 025 [†]	176 825	3 038 [†]	179 863	170 302 [†]	5.3	171 046	164 738 [†]	104.5
Q2	261 223	125 623	180 860	1 880	182 740	172 025	5.9	175 088	166 537	107.0
Q3	263 082	126 043	181 170	2 488	183 658	173 303	5.6	174 963	167 367	106.9
Q4	264 070	127 271	182 189	2 795	184 984	175 827	5.0	175 127	169 013	107.0
2003 Q1	267 229	128 408	183 014	3 459	186 473	176 575	5.3	175 039	168 881	107.0
Q2	271 501	129 474	186 493	1 771	188 264	178 229	5.3	178 089	170 197	108.8
Q3	276 368	131 058	188 973	2 843	191 816	180 457	5.9	179 840	171 736	109.9

1 All households series include also Non-Profit Institutions Serving Households (NPISH).

2 Total household income less payments of income tax and other taxes, social contributions and other current transfers.

3 Households saving as a percentage of Total resources; this is the sum

of Gross household disposable income and the Adjustment for the change in net equity of households in pension funds (D.8).

4 Gross household disposable income revalued by the implied Household and NPISH final consumption expenditure deflator (2000 = 100).

Sources: Office for National Statistics; Enquiries Column 1 020 7533 6005; Columns 2-5, 7, 8, 10 020 7533 6027; Columns 6, 9 020 7533 5999

2.6 Household final consumption expenditure^{1,2}

Chained volume measures

Reference year 2000, £ million

	UK National ⁴														
	UK Domestic ⁵														
	Total	Net tourism	Total	Food & drink	Alcohol & tobacco	Clothing & footwear	Housing	House- hold goods & services	Health	Trans- port	Communi- cation	Recreat- ion & culture	Educ- ation	Restaur- ants & hotels	Miscell- aneous
COICOP ³	-	-	0	01	02	03	04	05	06	07	08	09	10	11	12
Annual	ABJR	ABTH	ZAKW	ZWUN	ZAKY	ZALA	ZAVO	ZAVW	ZAWC	ZAWM	ZAWW	ZAXA	ZWUT	ZAXS	ZAYG
2000	603 349	6 941	596 408	58 563	24 617	35 479	105 654	35 667	8 987	89 656	13 356	72 217	9 634	68 424	74 154
2001	622 136	9 317	612 819	57 919	24 588	38 103	107 220	38 524	8 961	92 791	15 195	76 835	8 607	68 694	75 382
2002	643 107 [†]	10 491 [†]	632 616 [†]	58 395 [†]	25 198 [†]	41 506 [†]	108 652 [†]	42 581 [†]	9 381 [†]	95 782 [†]	15 805 [†]	80 329 [†]	7 522 [†]	70 449 [†]	77 016 [†]
Quarters															
2000 Q1	150 128	1 538	148 571	14 637	6 220	8 590	26 315	8 897	2 224	22 077	3 195	18 212	2 535	17 093	18 591
Q2	150 469	1 641	148 825	14 607	6 155	8 840	26 431	8 947	2 253	22 104	3 305	17 952	2 439	17 036	18 766
Q3	151 397	1 770	149 639	14 717	6 131	9 064	26 393	9 000	2 257	22 541	3 368	18 200	2 363	17 095	18 490
Q4	151 355	1 992	149 373	14 602	6 111	8 985	26 515	8 823	2 253	22 934	3 488	17 853	2 297	17 200	18 307
2001 Q1	153 291	1 944	151 347	14 612	6 059	9 119	26 691	9 297	2 337	22 840	3 712	18 605	2 274	17 162	18 639
Q2	153 965	2 391	151 574	14 146	6 137	9 379	26 757	9 439	2 226	22 840	3 784	19 072	2 209	17 003	18 582
Q3	156 368	2 484	153 884	14 328	6 193	9 675	26 868	9 725	2 188	23 453	3 802	19 393	2 128	17 310	18 821
Q4	158 512	2 498	156 014	14 833	6 199	9 930	26 904	10 063	2 210	23 658	3 897	19 765	1 996	17 219	19 340
2002 Q1	158 674 [†]	2 676 [†]	155 998 [†]	14 384 [†]	6 228 [†]	10 162 [†]	26 986 [†]	10 323 [†]	2 228 [†]	23 576 [†]	3 869 [†]	19 902 [†]	1 965 [†]	17 554 [†]	18 821 [†]
Q2	160 450	2 621	157 829	14 430	6 300	10 282	27 093	10 472	2 295	24 219	3 957	19 937	1 891	17 755	19 198
Q3	161 201	2 654	158 547	14 690	6 301	10 444	27 253	10 795	2 387	23 974	3 992	20 075	1 862	17 520	19 254
Q4	162 782	2 540	160 242	14 891	6 369	10 618	27 320	10 991	2 471	24 013	3 987	20 415	1 804	17 620	19 743
2003 Q1	162 534	3 107	159 427	14 830	6 350	10 683	27 369	10 498	2 508	24 264	3 989	20 558	1 839	17 410	19 129
Q2	163 812	2 751	161 061	15 141	6 344	10 950	27 317	10 801	2 520	24 395	4 032	21 019	1 883	17 445	19 214
Q3	165 261	2 467	162 794	15 175	6 410	10 999	27 371	10 766	2 526	24 633	4 073	21 673	1 943	17 795	19 430

1 Estimates are given to the nearest £million but cannot be regarded as accurate to this degree.

2 More detailed estimates of Household Final Consumption Expenditure, expressed in both current prices and chained volume measures

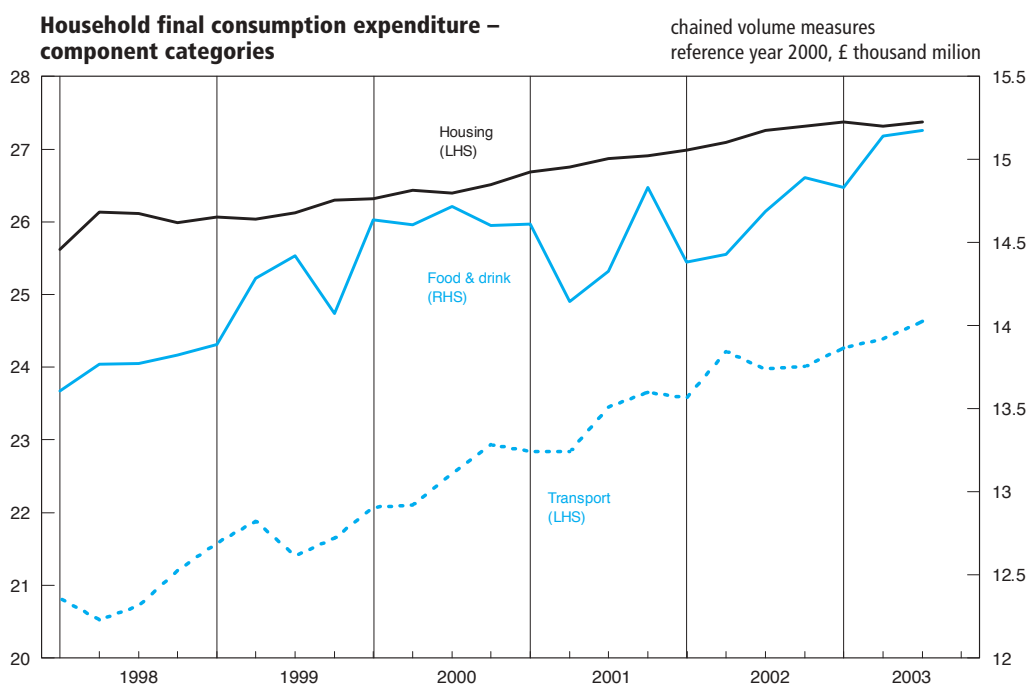
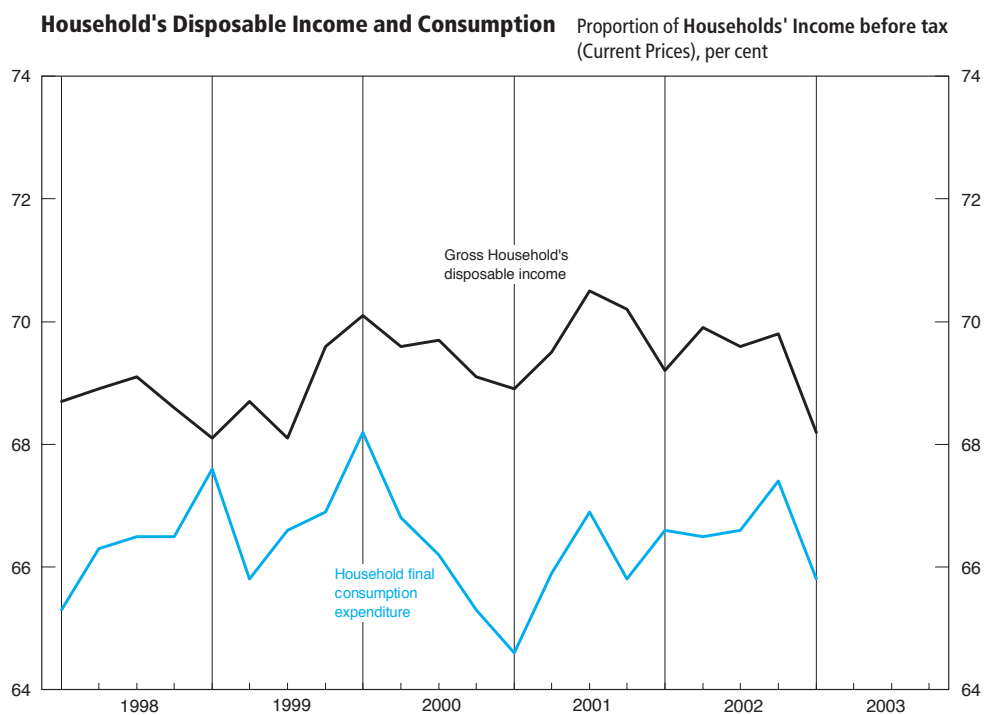
and both unadjusted and seasonally adjusted appear in the ONS publication *Consumer Trends*.

3 ESA 95 Classification of Individual Consumption by Purpose

4 Final consumption expenditure by UK households in the UK & abroad

5 Final consumption expenditure in the UK by UK & foreign households

Source: Office for National Statistics; Enquiries 020 7533 5999



2.7 Gross fixed capital formation

Chained volume measures

Reference year 2000, £ million

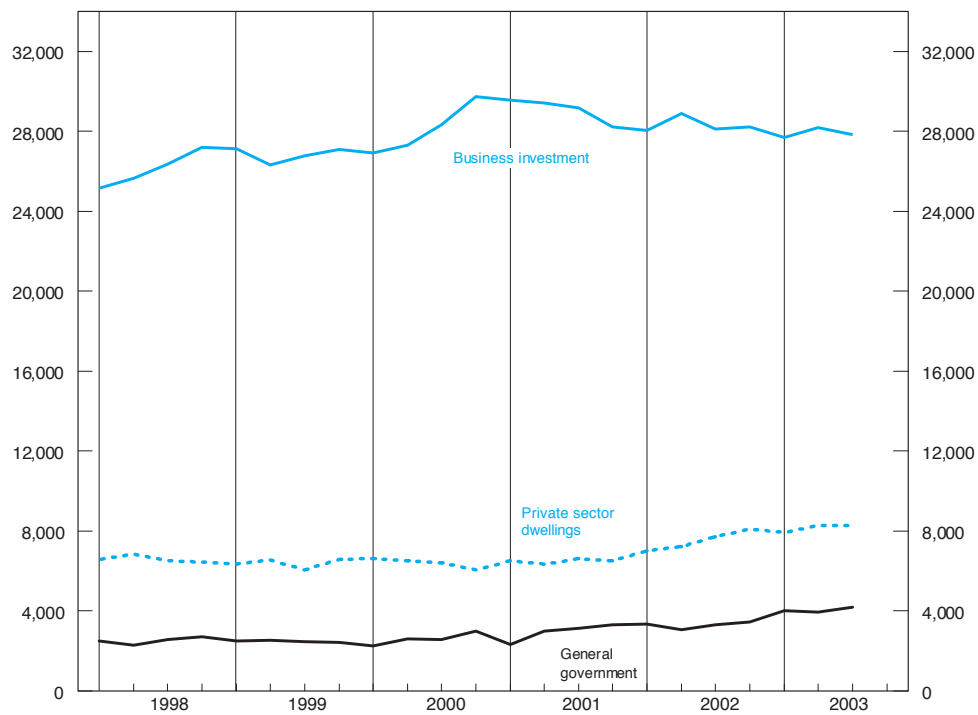
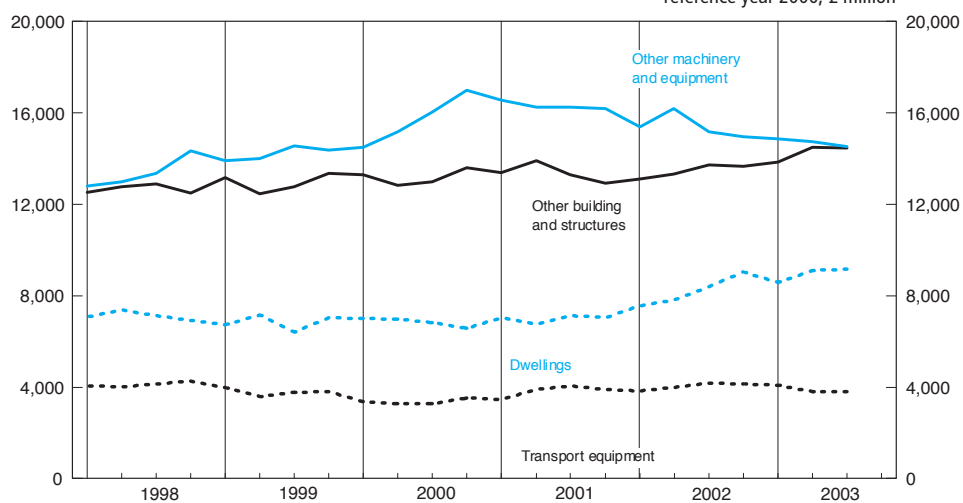
	Analysis by sector							Analysis by asset				
	Public corporations ²				Private sector							
	Business investment ¹	General government	NHS trusts	Transfer costs of non-produced assets	Dwellings	Transfer costs of non-produced assets	Total+	Transport equipment	Other machinery and equipment	Dwellings	Other building and structures ³	Intangible fixed assets
Annual												
	NPEL	DLWF	DFTI	DLWH	DFEA	DLWI	NPQT	DLWL	DLWO	DFEG	DLWT	EQDO
1998	104 385	10 086	1 522	-278	26 377	10 510	153 148	16 455	53 491	28 490	50 677	4 782
1999	107 359	9 935	1 441	4	25 508	11 485	155 576	15 128	56 849	27 372	51 760	4 758
2000	112 302	10 412	1 680	6	25 604	11 206	161 210	13 444	62 698	27 394	52 708	4 966
2001	116 337	11 744	1 862	-55	25 937	11 207	167 032	15 296	65 290	27 999	53 524	4 923
2002	113 296 [†]	13 135 [†]	1 557	-14	30 026 [†]	12 004 [†]	170 004 [†]	16 183 [†]	61 739 [†]	32 825 [†]	53 858 [†]	5 399 [†]
Quarterly												
1998 Q1	25 149	2 501	413	-78	6 574	2 448	37 275	4 036	12 808	7 085	12 517	1 103
Q2	25 667	2 291	385	-82	6 824	2 955	38 029	4 017	12 987	7 374	12 780	1 178
Q3	26 360	2 576	354	-76	6 532	2 772	38 621	4 137	13 352	7 125	12 886	1 264
Q4	27 209	2 718	370	-42	6 447	2 335	39 223	4 265	14 344	6 906	12 494	1 237
1999 Q1	27 146	2 512	363	-10	6 345	2 481	38 907	3 986	13 909	6 735	13 162	1 152
Q2	26 336	2 516	322	2	6 536	2 662	38 331	3 592	13 991	7 181	12 477	1 183
Q3	26 785	2 467	379	5	6 053	3 019	38 674	3 763	14 558	6 423	12 763	1 196
Q4	27 092	2 440	377	7	6 574	3 323	39 664	3 787	14 391	7 033	13 358	1 227
2000 Q1	26 931	2 243	457	6	6 638	3 126	39 298	3 364	14 508	7 016	13 301	1 203
Q2	27 299	2 607	366	2	6 511	2 684	39 471	3 276	15 163	6 970	12 826	1 253
Q3	28 317	2 555	409	-1	6 389	2 722	40 417	3 290	16 038	6 819	12 985	1 246
Q4	29 755	3 007	448	-1	6 066	2 674	42 024	3 514	16 989	6 589	13 596	1 264
2001 Q1	29 551	2 321	482	15	6 499	2 839	41 707	3 463	16 565	7 044	13 403	1 232
Q2	29 407	2 989	545	-13	6 327	2 814	42 069	3 911	16 257	6 769	13 910	1 222
Q3	29 156	3 129	414	-25	6 617	2 683	41 974	4 037	16 268	7 142	13 293	1 234
Q4	28 223	3 305	421	-32	6 494	2 871	41 282	3 885	16 200	7 044	12 918	1 235
2002 Q1	28 064 [†]	3 346 [†]	186 [†]	13	7 007 [†]	2 590 [†]	41 206 [†]	3 841 [†]	15 409 [†]	7 572 [†]	13 127 [†]	1 257 [†]
Q2	28 904	3 042	419	16	7 211	3 110	42 702	4 001	16 211	7 812	13 326	1 352
Q3	28 118	3 313	486	-20	7 697	3 243	42 837	4 188	15 164	8 401	13 721	1 363
Q4	28 210	3 434	466	-23	8 111	3 061	43 259	4 153	14 955	9 040	13 684	1 427
2003 Q1	27 706	3 999	372	-26	7 916	2 798	42 765	4 068	14 865	8 590	13 848	1 394
Q2	28 182	3 957	434	-29 [†]	8 273	2 743	43 560	3 800	14 744	9 100	14 508	1 408
Q3	27 840	4 180	419	-71	8 282	2 709	43 359	3 821	14 518	9 152	14 460	1 408
Percentage change, latest quarter on corresponding quarter of previous year												
1998 Q1	19.0	6.8	29.1		-0.2	3.2	14.9	16.2	28.0	-2.6	11.7	-5.4
Q2	18.0	21.5	11.9		10.4	-30.9	13.6	25.7	16.0	9.8	11.0	-6.1
Q3	19.9	4.1	-6.6		0.7	-8.9	13.3	22.9	22.6	1.9	5.4	7.4
Q4	15.8	10.0	3.9		-5.6	-16.3	9.3	25.7	24.3	-5.3	-4.8	7.2
1999 Q1	7.9	0.4	-12.1		-3.5	1.3	4.4	-1.2	8.6	-4.9	5.2	4.4
Q2	2.6	9.8	-16.4		-4.2	-9.9	0.8	-10.6	7.7	-2.6	-2.4	0.4
Q3	1.6	-4.2	7.1		-7.3	8.9	0.1	-9.0	9.0	-9.9	-1.0	-5.4
Q4	-0.4	-10.2	1.9		2.0	42.3	1.1	-11.2	0.3	1.8	6.9	-0.8
2000 Q1	-0.8	-10.7	25.9		4.6	26.0	1.0	-15.6	4.3	4.2	1.1	4.4
Q2	3.7	3.6	13.7		-0.4	0.8	3.0	-8.8	8.4	-2.9	2.8	5.9
Q3	5.7	3.6	7.9		5.6	-9.8	4.5	-12.6	10.2	6.2	1.7	4.2
Q4	9.8	23.2	18.8		-7.7	-19.5	5.9	-7.2	18.1	-6.3	1.8	3.0
2001 Q1	9.7	3.5	5.5		-2.1	-9.2	6.1	2.9	14.2	0.4	0.8	2.4
Q2	7.7	14.7	48.9		-2.8	4.8	6.6	19.4	7.2	-2.9	8.5	-2.5
Q3	3.0	22.5	1.2		3.6	-1.4	3.9	22.7	1.4	4.7	2.4	-1.0
Q4	-5.1	9.9	-6.0		7.1	7.4	-1.8	10.6	-4.6	6.9	-5.0	-2.3
2002 Q1	-5.0 [†]	44.2 [†]	-61.4 [†]		7.8 [†]	-8.8 [†]	-1.2 [†]	10.9 [†]	-7.0 [†]	7.5 [†]	-2.1 [†]	2.0 [†]
Q2	-1.7	1.8	-23.1		14.0	10.5	1.5	2.3	-0.3	15.4	-4.2	10.6
Q3	-3.6	5.9	17.4		16.3	20.9	2.1	3.7	-6.8	17.6	3.2	10.5
Q4	0.0	3.9	10.7		24.9	6.6	4.8	6.9	-7.7	28.3	5.9	15.5
2003 Q1	-1.3	19.5	+		13.0	8.0	3.8	5.9	-3.5	13.4	5.5	10.9
Q2	-2.5	30.1	3.6		14.7	-11.8	2.0	-5.0	-9.0	16.5	8.9	4.1
Q3	-1.0	26.2	-13.8		7.6	-16.5	1.2	-8.8	-4.3	8.9	5.4	3.3

1 Not including dwellings and costs associated with the transfer of ownership of non-produced assets.

2 Remaining investment by public non-financial corporations is included within business investment.

3 Including costs associated with transfer of ownership of non-produced assets.

Source: Office for National Statistics; Enquiries 020 7533 6010

Gross fixed capital formation-by sectorChained volume measures,
reference year 2000, £ million**Gross fixed capital formation-by asset**Chained volume measures,
reference year 2000, £ million

2.8 Gross value added, chained volume indices at basic prices, by category of output^{1,3}

2000 = 100

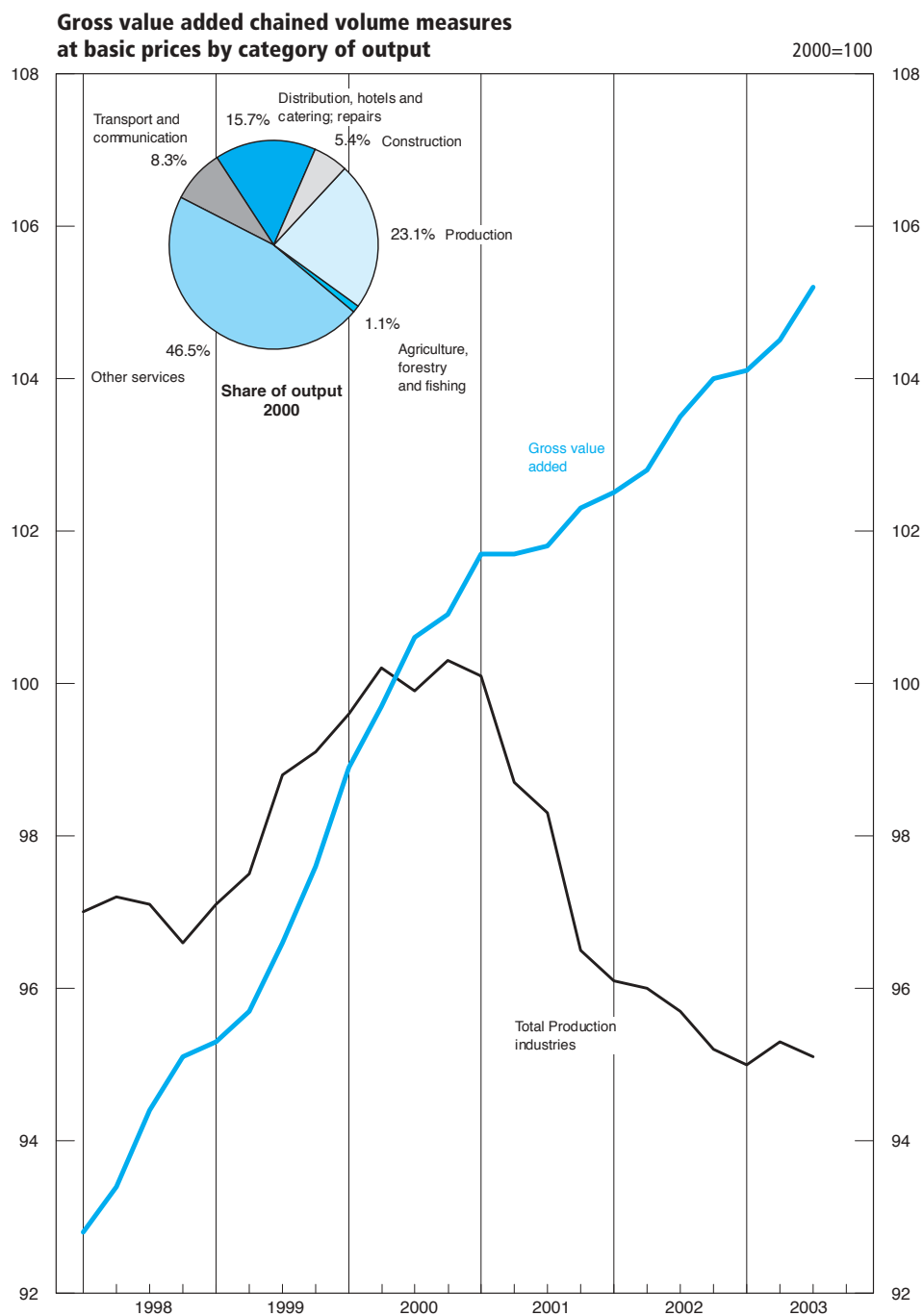
	Production						Service industries						Gross value added at basic prices	Gross value added excluding oil
	Agriculture, forestry, and fishing	Mining and quarrying including oil and gas extraction	Manufacturing	Electricity gas and water supply	Total	Construction	Distribution hotels and catering; repairs	Transport storage and communication	Business services and finance	Government and other services	Total			
2000 Weights ²	11	30	181	19	231	54	157	83	239	226	705	1000	973	
	GDQA	CKYX	CKYY	CKYZ	CKYW	GDQB	GDQE	GDQH	GDQN	GDQU	GDQS	CGCE	JUNT	
1998	97.4	99.1	96.9	95.3	97.0	98.4	94.4	85.6	92.2	95.1	92.8	93.9	93.8	
1999	100.6	103.3	97.6	97.9	98.1	98.7	97.3	91.2	95.6	97.1	95.9	96.3	96.2	
2000	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
2001	89.9	94.5	98.7	102.4	98.4	103.4	101.8	104.0	103.9	101.4	102.6	101.9	102.1	
2002	99.1 [†]	94.4 [†]	95.1 [†]	104.0 [†]	95.7 [†]	111.2	106.2 [†]	105.0 [†]	105.5 [†]	103.1	104.8 [†]	103.2 [†]	103.5	
Quarterly														
1998 Q1	96.7	97.9	97.3	93.6	97.0	101.1	93.3	82.6	89.7	94.2	91.0	92.8	92.7	
Q2	98.7	98.9	97.2	95.2	97.2	97.6	93.6	84.5	91.0	94.8	92.0	93.4	93.3	
Q3	97.2	99.2	97.0	95.8	97.1	97.4	94.7	86.7	93.1	95.7	93.5	94.4	94.3	
Q4	96.8	100.4	96.2	96.6	96.6	97.5	96.0	88.7	95.1	95.8	94.7	95.1	95.0	
1999 Q1	101.2	102.2	96.6	96.9	97.1	97.6	96.3	89.1	94.9	96.2	94.9	95.3	95.2	
Q2	100.2	103.3	96.9	97.1	97.5	98.0	96.8	90.5	95.0	96.7	95.4	95.7	95.6	
Q3	100.0	104.5	98.3	98.4	98.8	99.5	97.6	91.3	95.3	97.6	96.0	96.6	96.4	
Q4	101.1	103.0	98.7	99.1	99.1	99.8	98.3	93.9	97.3	98.0	97.3	97.6	97.5	
2000 Q1	100.7	103.8	99.2	98.7	99.6	102.3	99.0	97.0	98.0	99.0	98.4	98.9	98.8	
Q2	100.1	102.4	99.8	101.0	100.2	100.0	99.6	99.2	99.2	99.8	99.5	99.7	99.6	
Q3	101.4	98.9	100.0	99.9	99.9	98.3	100.9	101.4	100.9	100.7	100.9	100.6	100.6	
Q4	97.8	94.9	100.9	100.3	100.3	99.4	100.5	102.4	101.9	100.5	101.2	100.9	101.0	
2001 Q1	90.4	93.3	100.8	104.5	100.1	101.5	101.2	104.1	102.9	100.7	101.9	101.7	101.9	
Q2	88.7	96.3	98.7	102.8	98.7	102.8	101.4	104.6	103.5	101.0	102.4	101.7	101.9	
Q3	89.0	95.0	98.6	101.0	98.3	103.8	101.7	103.9	104.0	101.2	102.6	101.8	102.0	
Q4	91.4	93.4	96.6	101.2	96.5	105.7	103.2	103.6	105.2	102.4	103.7	102.3	102.5	
2002 Q1	98.4 [†]	94.2 [†]	95.8	101.5 [†]	96.1 [†]	108.8	104.5 [†]	104.3 [†]	104.3 [†]	102.7	103.8 [†]	102.5	102.8	
Q2	98.7	99.1	94.6	104.6	96.0	110.0	105.6	103.9	104.8	102.8 [†]	104.2	102.8 [†]	102.9	
Q3	99.9	90.2	95.5 [†]	106.2	95.7	112.0	106.9	105.3	106.2	103.1	105.3	103.5	104.0	
Q4	99.4	94.0	94.5	103.6	95.2	114.0 [†]	107.9	106.6	106.7	104.0	106.1	104.0	104.3	
2003 Q1	97.4	93.1	94.6	101.7	95.0	112.4	107.8	106.0	107.7	104.8	106.6	104.1	104.4	
Q2	98.3	90.3	95.2	103.3	95.3	117.1	109.2	106.1	106.7	105.4	106.8	104.5	104.9	
Q3	98.2	88.0	95.4	104.3	95.1	119.5	110.2	106.5	108.2	106.1	107.8	105.2	105.7	
Percentage change, latest quarter on corresponding quarter of last year														
1998 Q1	3.2	0.3	1.1	3.9	1.3	5.0	4.9	5.4	6.2	1.9	4.4	3.5		
Q2	4.2	2.2	1.2	2.5	1.5	0.4	3.8	8.5	6.3	2.3	4.8	3.5		
Q3	1.9	1.3	0.5	2.6	0.8	0.3	3.8	9.2	7.3	3.2	5.4	3.7		
Q4	2.0	4.4	-0.3	3.9	0.5	-1.2	3.3	8.4	6.7	3.1	5.0	3.4		
1999 Q1	4.7	4.4	-0.7	3.5	0.1	-3.5	3.2	7.9	5.8	2.1	4.3	2.7		
Q2	1.5	4.4	-0.3	2.0	0.3	0.4	3.4	7.1	4.4	2.0	3.7	2.5		
Q3	2.9	5.3	1.3	2.7	1.8	2.2	3.1	5.3	2.4	2.0	2.7	2.3		
Q4	4.4	2.6	2.6	2.6	2.6	2.4	2.4	5.9	2.3	2.3	2.7	2.6		
2000 Q1	-0.5	1.6	2.7	1.9	2.6	4.8	2.8	8.9	3.3	2.9	3.7	3.8		
Q2	-0.1	-0.9	3.0	4.0	2.8	2.0	2.9	9.6	4.4	3.2	4.3	4.2		
Q3	1.4	-5.4	1.7	1.5	1.1	-1.2	3.4	11.1	5.9	3.2	5.1	4.1		
Q4	-3.3	-7.9	2.2	1.2	1.2	-0.4	2.2	9.1	4.7	2.6	4.0	3.4		
2001 Q1	-10.2	-10.1	1.6	5.9	0.5	-0.8	2.2	7.3	5.0	1.7	3.6	2.8		
Q2	-11.4	-6.0	-1.1	1.8	-1.5	2.8	1.8	5.4	4.3	1.2	2.9	2.0		
Q3	-12.2	-3.9	-1.4	1.1	-1.6	5.6	0.8	2.5	3.1	0.5	1.7	1.2		
Q4	-6.5	-1.6	-4.3	0.9	-3.8	6.3	2.7	1.2	3.2	1.9	2.5	1.4		
2002 Q1	8.8 [†]	1.0 [†]	-5.0	-2.9 [†]	-4.0 [†]	7.2	3.3 [†]	0.2 [†]	1.4 [†]	2.0	1.9 [†]	0.8		
Q2	11.3	2.9	-4.2	1.8	-2.7	7.0	4.1	-0.7	1.3	1.8 [†]	1.8	1.1 [†]		
Q3	12.2	-5.1	-3.1 [†]	5.1	-2.6	7.9	5.1	1.3	2.1	1.9	2.6	1.7		
Q4	8.8	0.6	-2.2	2.4	-1.3	7.9 [†]	4.6	2.9	1.4	1.6	2.3	1.7		
2003 Q1	-1.0	-1.2	-1.3	0.2	-1.1	3.3	3.2	1.6	3.3	2.0	2.7	1.6		
Q2	-0.4	-8.9	0.6	-1.2	-0.7	6.5	3.4	2.1	1.8	2.5	2.5	1.7		
Q3	-1.7	-2.4	-0.1	-1.8	-0.6	6.7	3.1	1.1	1.9	2.9	2.4	1.6		

1 Estimates cannot be regarded as accurate to the last digit shown.

2 Weights may not sum to the totals due to rounding. The weights shown are in proportion to total gross value added (GVA) in 2000, and are used to combine the industry output indices to calculate the totals for 2001 and 2002. For 2000 and earlier, totals are calculated using the equivalent weights for the previous year (e.g. totals for 2000 use 1999 weights).

3 Components of output are valued at basic prices, which excludes taxes and subsidies on production

Sources: Office for National Statistics;
Enquiries Columns 1-11 020 7533 5969;
Column 12 020 7533 6031



2.9 Gross value added chained volume indices at basic prices, by category of output: Service industries

2000 = 100

	Distribution hotels and catering; repairs		Transport, storage and communication		Business services and finance			Government and other services					
	Motor trades; wholesale and retail trade; repairs	Hotels and restaurants	Transport and storage	Post and telecommunication	Financial intermediation ³	Real estate, renting and business activities	Lettings of dwellings	PAD ¹	Education	Health and social work	Other services ²	Adjustment for financial services ⁴	Total services
2000 weights	123	33	51	32	55	154	75	56	57	62	51	-45	705
Annual	GDQC	GDQD	GDQF	GDQG	GDQI	GDQK	GDQL	GDQO	GDQP	GDQQ	GDQR	GDQJ	GDQS
1999	96.9	98.7	93.8	87.1	95.0	92.9	100.6	97.7	98.4	96.1	96.3	92.9	95.9
2000	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
2001	102.3	100.2	101.6	107.9	105.2	104.5	102.3	100.5	99.5	103.3	102.0	104.8	102.6
2002	107.1 [†]	102.9 [†]	103.1 [†]	108.0 [†]	104.8 [†]	107.6 [†]	103.7 [†]	102.3 [†]	99.7 [†]	107.7 [†]	102.3 [†]	108.9 [†]	104.8 [†]
Quarterly													
1999 Q1	96.2	96.9	93.5	82.4	93.1	92.0	101.0	97.1	97.3	95.8	94.6	91.8	94.9
Q2	96.5	98.2	93.1	86.4	95.4	91.4	101.5	97.5	98.3	95.4	95.6	93.3	95.4
Q3	97.2	99.3	93.3	88.1	94.4	92.7	100.6	98.1	99.4	96.1	96.9	93.6	96.0
Q4	97.8	100.2	95.5	91.4	97.0	95.4	99.2	98.0	98.6	97.1	98.2	93.1	97.3
2000 Q1	98.3	101.6	98.1	95.1	98.7	96.8	99.2	99.3	99.3	98.2	99.2	96.3	98.4
Q2	99.6	99.6	100.2	97.6	99.8	99.4	98.8	99.9	100.2	99.5	99.5	100.2	99.5
Q3	101.0	100.3	101.6	101.2	100.3	101.4	100.2	100.5	100.6	101.1	100.7	100.5	100.9
Q4	101.1	98.5	100.1	106.1	101.2	102.4	101.8	100.4	100.0	101.2	100.5	103.0	101.2
2001 Q1	101.5	99.8	101.2	108.5	104.1	103.6	101.8	100.1	99.7	101.7	101.3	105.3	101.9
Q2	101.7	100.0	101.7	109.0	104.3	103.9	102.1	100.2	99.1	102.8	101.9	103.5	102.4
Q3	102.0	100.5	101.8	107.4	105.1	104.5	102.5	100.4	99.2	103.4	101.8	104.7	102.6
Q4	104.0	100.4	101.7	106.5	107.3	105.7	103.0	101.2	100.1	105.2	103.1	105.8	103.7
2002 Q1	105.5 [†]	101.1 [†]	102.6 [†]	106.8 [†]	103.0 [†]	105.2 [†]	103.4 [†]	101.6 [†]	99.8 [†]	105.5 [†]	103.8 [†]	104.6 [†]	103.8 [†]
Q2	106.5	101.9	102.5	106.2	103.2	106.9	103.3	102.0	99.6	107.3	101.6	108.0	104.2
Q3	107.8	103.6	103.4	108.3	105.2	108.7	103.9	102.3	99.5	108.2	101.8	109.7	105.3
Q4	108.6	105.2	104.0	110.7	107.9	109.4	104.2	103.4	100.0	109.7	102.0	113.4	106.1
2003 Q1	108.2	106.0	102.4	111.8	106.4	111.9	104.4	103.7	100.6	112.2	101.6	115.1	106.6
Q2	109.5	107.8	101.7	112.9	107.7	111.4	104.7	104.3	100.9	112.6	102.9	120.6	106.8
Q3	110.9	107.6	102.6	112.6	110.1	113.7	105.1	104.9	101.1	114.2	103.3	124.1	107.8
Percentage change, quarter on corresponding quarter of previous year													
Quarterly													
1999 Q1	3.6	1.9	2.6	17.5	1.7	7.6	5.4	0.2	3.6	2.1	2.9	5.5	4.3
Q2	3.2	4.2	0.6	18.5	4.0	4.3	4.9	-0.2	4.1	1.8	2.4	4.1	3.7
Q3	2.4	6.0	-1.0	16.4	1.6	2.2	2.4	-0.2	4.0	2.0	2.0	0.3	2.7
Q4	2.0	3.8	0.7	14.7	6.4	1.8	-0.9	0.4	2.1	3.3	3.0	0.4	2.7
2000 Q1	2.2	4.9	4.9	15.4	6.0	5.2	-1.8	2.3	2.1	2.5	4.9	4.9	3.7
Q2	3.2	1.4	7.6	13.0	4.6	8.8	-2.7	2.5	1.9	4.3	4.1	7.4	4.3
Q3	3.9	1.0	8.9	14.9	6.3	9.4	-0.4	2.4	1.2	5.2	3.9	7.4	5.1
Q4	3.4	-1.7	4.8	16.1	4.3	7.3	2.6	2.4	1.4	4.2	2.3	10.6	4.0
2001 Q1	3.3	-1.8	3.2	14.1	5.5	7.0	2.6	0.8	0.4	3.6	2.1	9.3	3.6
Q2	2.1	0.4	1.5	11.7	4.5	4.5	3.3	0.3	-1.1	3.3	2.4	3.3	2.9
Q3	1.0	0.2	0.2	6.1	4.8	3.1	2.3	-0.1	-1.4	2.3	1.1	4.2	1.7
Q4	2.9	1.9	1.6	0.4	6.0	3.2	1.2	0.8	0.1	4.0	2.6	2.7	2.5
2002 Q1	3.9 [†]	1.3 [†]	1.4 [†]	-1.6 [†]	-1.1 [†]	1.5 [†]	1.6 [†]	1.5 [†]	0.1 [†]	3.7 [†]	2.5 [†]	-0.7 [†]	1.9 [†]
Q2	4.7	1.9	0.8	-2.6	-1.1	2.9	1.2	1.8	0.5	4.4	-0.3	4.3	1.8
Q3	5.7	3.1	1.6	0.8	0.1	4.0	1.4	1.9	0.3	4.6	0.0	4.8	2.6
Q4	4.4	4.8	2.3	3.9	0.6	3.5	1.2	2.2	-0.1	4.3	-1.1	7.2	2.3
2003 Q1	2.6	4.8	-0.2	4.7	3.3	6.4	1.0	2.1	0.8	6.4	-2.1	10.0	2.7
Q2	2.8	5.8	-0.8	6.3	4.4	4.2	1.4	2.3	1.3	4.9	1.3	11.7	2.5
Q3	2.9	3.9	-0.8	4.0	4.7	4.6	1.2	2.5	1.6	5.5	1.5	13.1	2.4

1 Public administration and national defence; compulsory social security.

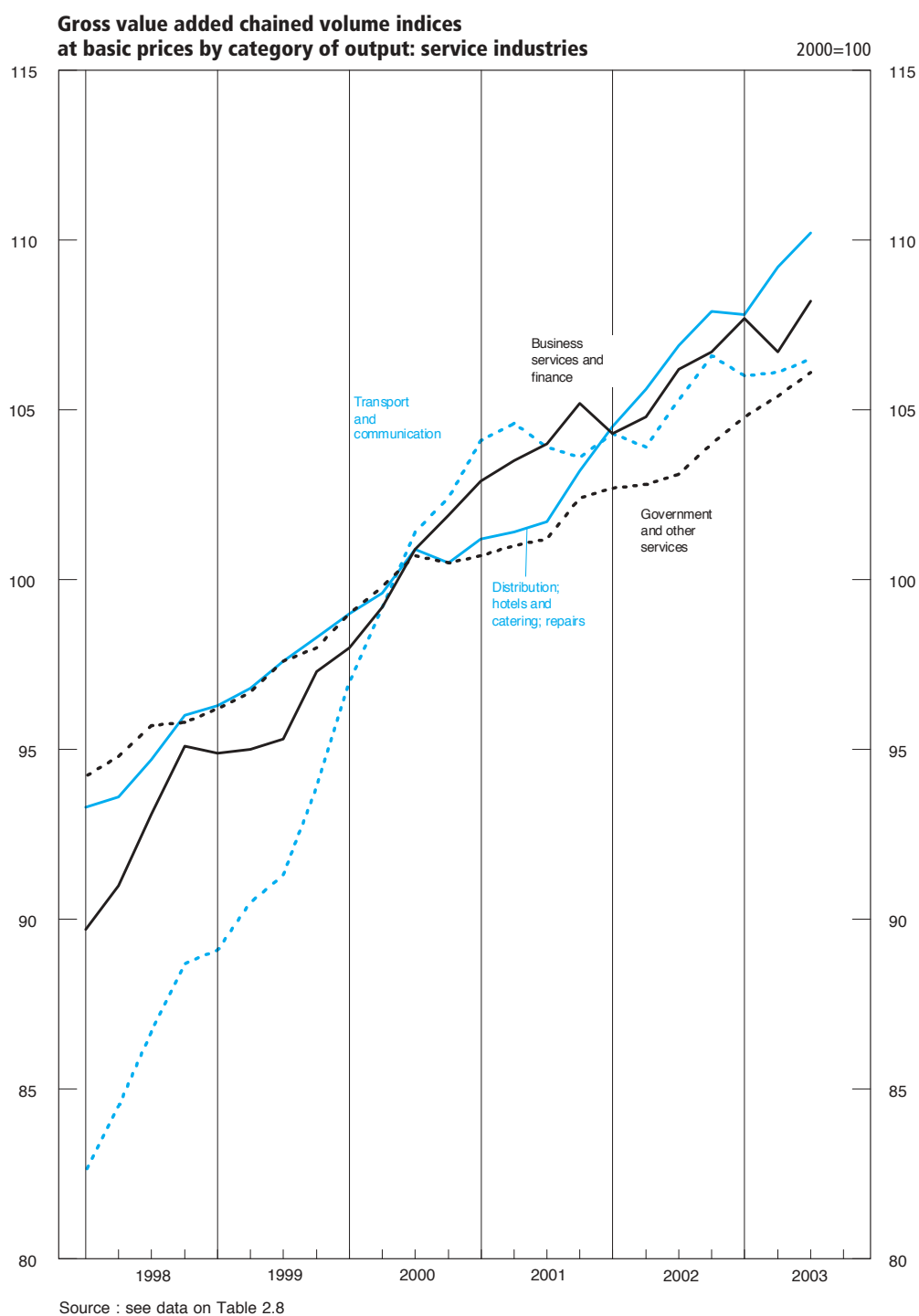
2 Comprising sections O, and P of the SIC(92).

3 Comprises section J of the SIC(92). This covers activities of institutions such as banks, building societies, securities dealers, insurance companies and pension funds. It also covers institutions whose activities are closely related to financial intermediation : for example fund managers and insurance brokers.

4 The weight and proxy series for financial intermediation are calculated before the deduction of interest receipts and payments to provide a better indication of the underlying activity for this section (see note 3). However, this overstates the contribution to GDP because interest flows should be treated as transfer payments rather than final consumption. The financial services adjustment, which has a negative weight, corrects for this.

5 See footnote 2 on Table 2.8

Source: Office for National Statistics; Enquiries 020 7533 5969



2.10

Summary capital accounts and net lending/net borrowing

£ million

	Non-financial corporations				Financial corporations				General Government			
	Gross saving ¹	Capital transfers (net receipts)	Gross capital formation ²	Net acquisition of non-financial assets	Gross saving ¹	Capital transfers (net receipts)	Gross capital formation ²	Net acquisition of non-financial assets	Gross saving ¹	Capital transfers (net receipts)	Gross capital formation ²	Net acquisition of non-financial assets
Annual	RPJV	GZQW	RQBZ	RQAX	RPPS	GZQE	RPYP	RPYO	RPQC	GZQU	RPZF	RPZE
1999	89 423	2 415	99 913	1 051	-8 863 [†]	—	8 073	-37	23 013	-4 014	9 867	-888
2000	95 286	1 638	101 766	856	-16 356	—	10 739	-37	26 728	-2 204	10 284	-776
2001	90 384	3 304	101 935	1 139	-15 068	—	7 255	25	23 652	-4 791	11 659	-915
2002	105 840 [†]	3 280 [†]	97 110 [†]	1 431 [†]	8 596	—	7 092 [†]	-36	1 788 [†]	-5 018 [†]	13 133 [†]	-1 087
Quarterly												
1999 Q1	26 492 [†]	685	25 503	284	-5 673 [†]	—	1 080	-2	4 253 [†]	-1 312	2 675	-256
Q2	18 715	483	23 343	299	-794	—	2 613	-8	4 554	-708	2 546	-224
Q3	20 956	676	25 692	233	982	—	2 265	-13	6 667	-1 005	2 368	-202
Q4	23 260	571	25 375	235	-3 378	—	2 115	-14	7 539	-989	2 278	-206
2000 Q1	22 912	588	25 326	208	275	—	2 151	-16	7 258	-922	2 161	-185
Q2	24 145	324	24 673	185	-4 631	—	2 416	-13	7 534	-139	2 554	-189
Q3	23 686	359	25 644	185	-4 071	—	3 170	-7	6 510	-575	2 563	-196
Q4	24 543	367	26 123	278	-7 929	—	3 002	-1	5 426	-568	3 006	-206
2001 Q1	23 178	599	26 317	253	-5 567	—	2 342	5	7 611	-776	2 251	-218
Q2	22 843	627	26 810	285	-2 431	—	2 232	8	6 442	-1 276	2 969	-220
Q3	21 791	719	25 159	314	-2 685	—	1 240	8	6 760	-1 142	3 112	-236
Q4	22 572	1 359	23 649	287	-4 385	—	1 441	4	2 839	-1 597	3 327	-241
2002 Q1	23 185	752 [†]	24 501 [†]	369 [†]	1 968	—	954 [†]	-3	1 353	-1 270 [†]	3 421 [†]	-282 [†]
Q2	24 370	635	23 322	330	140	—	1 252	-9	928	-972	3 079	-234
Q3	27 452	814	23 817	361	2 386	—	3 055	-12	1 442	-1 348	3 280	-238
Q4	30 833	1 079	25 470	371	4 102	—	1 831	-12	-1 935	-1 428	3 353	-333
2003 Q1	29 764	1 342	24 413	362	5 186	—	2 112	-8	-1 794	-2 319	3 895	-198
Q2	27 813	1 630	24 765	406	2 517	—	917	-3	-1 984	-2 090	4 092	-250
Q3	28 003	956	24 791	455	1 484	—	1 035	1	-1 707	-1 454	4 371	-252
	Households & NPISH				Net lending(+)/net borrowing(-) ³							
	Gross saving ¹	Capital transfers (net receipts)	Gross capital formation ²	Net acquisition of non-financial assets	Non-financial corporations	Financial corporations	General government	Households & NPISH	Rest of the world ⁴	Statistical Discrepancy		
Annual	RPQL	GZQI	RPZV	RPZU	RQAW	RPYN	RPZD	RPZT	RQCH	RVFE		
1999	32 947	2 383	38 740	-138	-13 492	-16 899 [†]	10 020	-3 272	23 643 [†]	—		
2000	36 732	2 300	39 249	-67	-10 375	-27 058	15 016	-150	22 567	—		
2001	47 611	3 295	43 755	-152	-15 164	-22 348	8 117	7 303	22 092	—		
2002	39 788 [†]	3 200 [†]	49 783 [†]	-176	5 460 [†]	1 540	-15 276 [†]	-6 619 [†]	16 941	-2 046 [†]		
Quarterly												
1999 Q1	6 387 [†]	604	9 920	-27	176 [†]	-6 751 [†]	522 [†]	-2 902 [†]	8 955 [†]	-3 998		
Q2	11 297	499	9 112	-36	-5 440	-3 399	1 524	2 720	4 595	-138		
Q3	7 133	575	9 343	-40	-5 414	-1 270	3 496	-1 595	4 783	1 348		
Q4	8 130	705	10 365	-35	-2 814	-5 479	4 478	-1 495	5 310	2 788		
2000 Q1	6 585	553	10 410	-24	-3 089	-1 860	4 360	-3 248	3 837	-1 988		
Q2	7 540	473	9 842	-16	-1 574	-7 034	5 030	-1 813	5 391	-2 588		
Q3	10 312	616	9 585	-12	-2 982	-7 234	3 568	1 355	5 293	1 811		
Q4	12 295	658	9 412	-15	-2 730	-10 930	2 058	3 556	8 046	2 765		
2001 Q1	13 112	331	10 556	-25	-4 333	-7 914	4 802	2 912	4 533	-6 553		
Q2	10 702	1 363	10 502	-36	-5 160	-4 671	2 417	1 599	5 815	-1 517		
Q3	10 743	891	11 937	-44	-4 264	-3 933	2 742	-259	5 714	2 830		
Q4	13 054	710	10 760	-47	-1 407	-5 830	-1 844	3 051	6 030	5 240		
2002 Q1	9 561	682 [†]	11 834 [†]	-47	-2 046	1 017	-3 056	-1 544	5 862	-6 218 [†]		
Q2	10 715	646	12 686	-45	21	-1 103	-2 889	-1 280	5 645	-4 246		
Q3	10 355	948	11 929	-43	2 788	-657	-2 948	-583	1 992	6 874		
Q4	9 157	924	13 334	-41	4 697	2 283	-6 383	-3 212	3 442	1 544		
2003 Q1	9 898	1 230	13 068	-46	5 401	3 082	-7 810	-1 894	2 573	-2 484		
Q2	10 035	835	13 509	-49	2 888	1 603	-7 916	-2 590	7 584	-3 858		
Q3	11 359	1 147	14 052	-55	2 385	448	-7 280	-1 491	7 663	1 729		

1 Before providing for depreciation, inventory holding gains.

2 Comprises gross fixed capital formation and changes in inventories and acquisitions less disposals of valuables.

3 This balance is equal to gross saving plus capital transfers less gross fixed capital formation, less Net acquisition of non-financial assets, less changes in inventories.

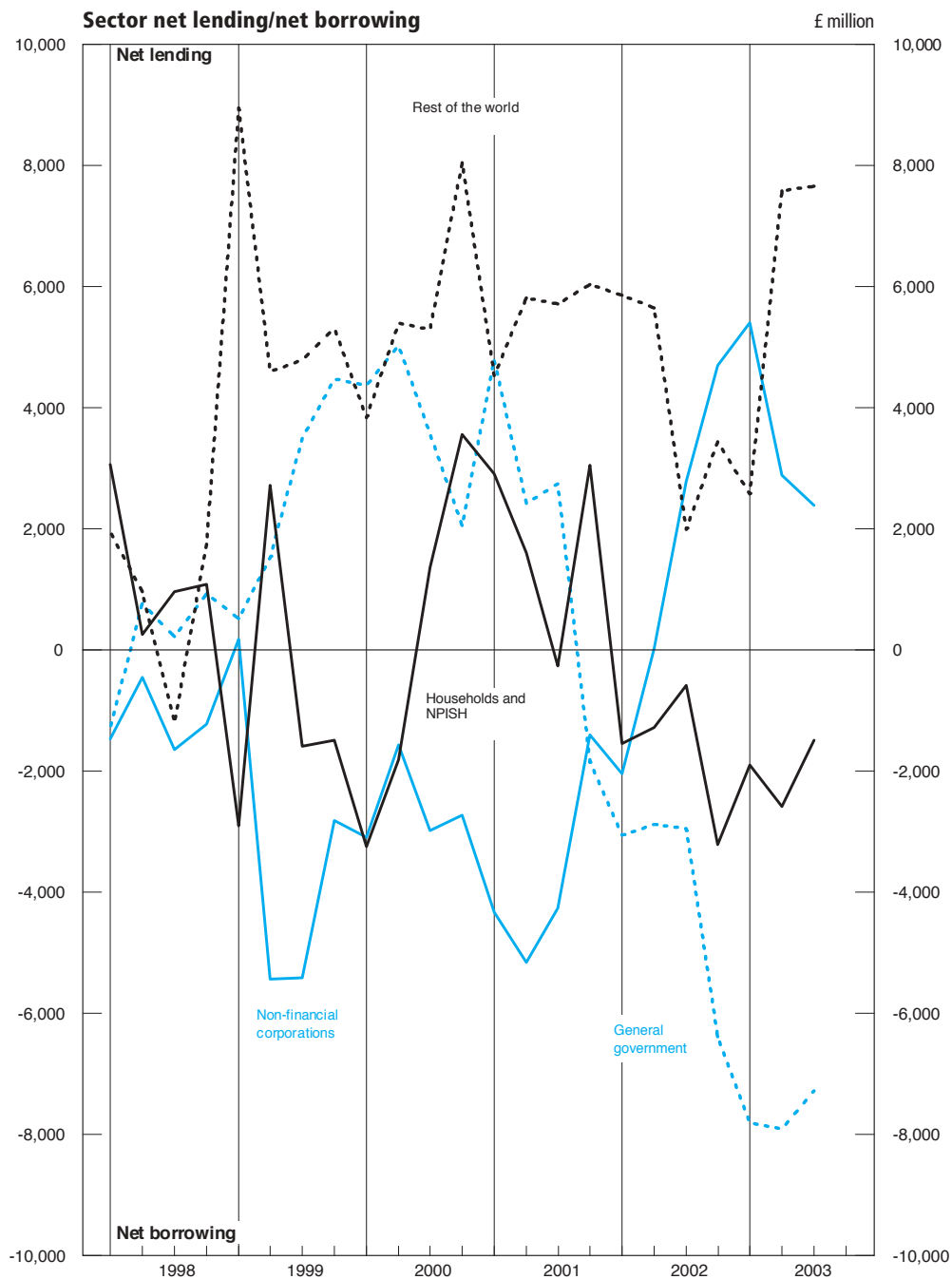
4 Equals, the current balance of payments accounts, plus capital transfers.

Sources: Office for National Statistics;

Enquiries Part 1 (Upper) Columns 1,3-5,7-9,11,12 020 7533 6031;

Columns 2,6,10 020 7533 5985;

Part2 (Lower) Columns 1, 3-10 020 7533 6031; Column 2 020 7533 5985



2.11 Private Non-Financial Corporations : Allocation of Primary Income Account

£ million

	Resources							Uses					
	Gross operating surplus							Property income payments					
	Gross trading profits												
	Continental shelf companies	Others ¹	Rental of buildings	less Inventory holding gains	Gross operating surplus ¹	Property income receipts	Total resources ^{1,2}	Total payments	of which Dividends	of which Interest	Gross balance of primary incomes ¹	Share of gross national income ¹ (%)	
Annual													
	CAGD	CAED	FCBW	-DLRA	CAER	RPBM	RPBN	RPBP	RVFT	ROCG	RPBO	NRJL	
1993	9 375	100 167	9 132	-2 392	116 282	29 773	146 055	72 847	32 250	21 755	73 208	11.4	
1994	10 776	117 450	8 641	-3 830	133 037	36 090	169 127	80 872	36 365	21 057	88 255	12.9	
1995	12 124	125 151	9 379	-4 489	142 165	42 948	185 113	95 631	46 218	24 098	89 482	12.5	
1996	15 702	133 508	9 493	-958	157 745	45 695	203 440	101 125	51 609	23 490	102 315	13.4	
1997	13 978	145 693	9 561	-361	168 871	47 954	216 825	107 623	56 253	25 822	109 202	13.4	
1998	11 696	150 975	10 837	753	174 261	49 713	223 974	107 266	51 578	30 659	116 708	13.4	
1999	13 864	153 954	11 435	-1 801	177 452	48 118	225 570	115 547	61 104	30 673	110 023	12.3 [†]	
2000	21 333	153 142	12 271	-2 941	183 805	60 554	244 359	125 694	55 846	37 355	118 665	12.5	
2001	19 822	153 445	12 999	-1 555	184 711	73 575	258 286	145 661	75 867	39 578	112 625	11.3	
2002	18 742	160 241 [†]	13 318 [†]	-3 114	189 187 [†]	67 347 [†]	256 534 [†]	129 498 [†]	62 606 [†]	36 210 [†]	127 036 [†]	11.9	
Quarterly													
1993 Q1	2 171	25 292	2 259	-974	28 748	7 297	36 045	17 848	7 439	5 758	18 197	11.7	
Q2	2 116	23 632	2 300	-359	27 689	7 190	34 879	18 617	9 185	5 385	16 262	10.3	
Q3	2 456	25 593	2 305	-561	29 793	7 086	36 879	17 820	7 431	5 388	19 059	11.8	
Q4	2 632	25 650	2 268	-498	30 052	8 200	38 252	18 562	8 195	5 224	19 690	12.0	
1994 Q1	2 292	27 870	2 201	-443	31 920	9 245	41 165	19 053	8 537	5 276	22 112	13.2	
Q2	3 050	29 556	2 148	-919	33 835	8 772	42 607	20 021	8 228	5 302	22 586	13.4	
Q3	2 701	29 269	2 132	-1 109	32 993	8 423	41 416	21 013	9 459	5 163	20 403	11.9	
Q4	2 733	30 755	2 160	-1 359	34 289	9 650	43 939	20 785	10 141	5 316	23 154	13.2	
1995 Q1	2 966	31 234	2 264	-1 738	34 726	9 371	44 097	22 405	9 966	5 663	21 692	12.3	
Q2	3 113	30 812	2 336	-1 588	34 673	9 963	44 636	22 201	9 264	6 057	22 435	12.7	
Q3	2 934	31 531	2 379	-1 181	35 663	11 011	46 674	25 045	12 656	6 062	21 629	12.0	
Q4	3 111	31 574	2 400	18	37 103	12 603	49 706	25 980	14 332	6 316	23 726	12.9	
1996 Q1	3 523	32 645	2 386	-800	37 754	11 196	48 950	25 790	13 234	5 952	23 160	12.4	
Q2	3 929	33 047	2 366	-102	39 240	12 391	51 631	23 978	12 135	5 759	27 653	14.5	
Q3	4 081	33 895	2 362	-208	40 130	10 633	50 763	25 201	12 624	5 881	25 562	13.3	
Q4	4 169	33 921	2 379	152	40 621	11 475	52 096	26 156	13 616	5 898	25 940	13.4	
1997 Q1	3 885	36 710	2 337	-23	42 909	10 999	53 908	24 839	12 414	5 966	29 069	14.7	
Q2	3 288	36 897	2 381	239	42 805	11 864	54 669	27 598	15 386	6 396	27 071	13.3	
Q3	3 448	36 127	2 414	-506	41 483	14 105	55 588	27 741	15 588	6 497	27 847	13.6	
Q4	3 357	35 959	2 429	-71	41 674	10 986	52 660	27 445	12 865	6 963	25 215	12.2	
1998 Q1	3 160	36 913	2 629	107	42 809	13 933	56 742	29 295	15 180	7 405	27 447	13.1	
Q2	3 103	36 759	2 670	53	42 585	11 731	54 316	25 942	11 931	7 517	28 734	13.2	
Q3	2 779	39 114	2 727	315	44 935	11 776	56 711	26 104	11 712	7 916	30 607	13.8	
Q4	2 654	38 189	2 811	278	43 932	12 273	56 205	25 925	12 755	7 821	30 280	13.6	
1999 Q1	2 519	37 823	2 819	-302	42 859	8 254 [†]	51 113 [†]	19 597 [†]	8 789 [†]	7 482 [†]	31 516 [†]	14.5 [†]	
Q2	3 293	39 464	2 832	-440	45 149	13 940	59 089	36 119	23 269	7 317	22 970	10.3	
Q3	4 056	37 706	2 865	-645	43 982	11 367	55 349	29 019	14 358	7 712	26 330	11.6	
Q4	3 996	38 961	2 919	-414	45 462	14 557	60 019	30 812	14 688	8 162	29 207	12.7	
2000 Q1	4 695	39 079	2 914	-702	45 986	14 657	60 643	31 477	15 037	8 701	29 166	12.4	
Q2	5 252	38 226	3 015	-830	45 663	13 987	59 650	29 757	12 305	9 297	29 893	12.7	
Q3	5 580	37 789	3 135	-799	45 705	15 262	60 967	31 208	12 857	9 494	29 759	12.4	
Q4	5 806	38 048	3 207	-610	46 451	16 648	63 099	33 252	15 647	9 863	29 847	12.4	
2001 Q1	5 446	38 175	3 234	-1 070	45 785	19 062	64 847	36 104	16 558	10 277	28 743	11.6	
Q2	5 407	38 252	3 250	-486	46 423	17 992	64 415	35 681	18 170	10 037	28 734	11.5	
Q3	4 816	38 277	3 261	-97	46 257	21 374	67 631	40 629	23 666	10 078	27 002	10.8	
Q4	4 153	38 741	3 254	98	46 246	15 147	61 393	33 247	17 473	9 186	28 146	11.1	
2002 Q1	4 298 [†]	39 150 [†]	3 275 [†]	-669	46 054 [†]	18 402	64 456	36 377	19 536	9 084	28 079	10.8	
Q2	4 663	39 811	3 301	-713	47 062	15 821	62 883	32 829	15 954	9 033	30 054	11.5	
Q3	4 635	40 349	3 348	-800	47 532	16 386	63 918	31 032	14 949	8 991	32 886	12.2	
Q4	5 146	40 931	3 394	-932	48 539	16 738	65 277	29 260	12 167	9 102	36 017	13.2	
2003 Q1	5 237	41 744	3 446	-581	49 846	18 368	68 214	33 308	16 904	9 024	34 906	12.6	
Q2	4 100	42 555	3 474	292	50 421	16 237	66 658	34 002	17 279	9 164	32 656	11.8	
Q3	4 646	43 205	3 483	249	51 583	18 130	69 713	36 420	19 173	9 161	33 293	11.9	

1 Quarterly alignment adjustment included in this series.

2 Total resources equals total uses.

Source: Office for National Statistics; Enquiries 020 7533 6014



2.12 Private Non-financial Corporations : Secondary Distribution of Income Account and Capital Account

£ million

	Secondary Distribution of Income Account						Capital Account					
	Resources			Uses			Changes in liabilities & net worth		Changes in assets			
	Gross balance of primary incomes ¹	Other resources ²	Total ^{1,3}	Taxes on income	Other uses ⁴	Gross disposable income ^{1,5}	Net capital transfer receipts	Total ¹	Gross fixed capital formation	Changes in inventories ¹	Other changes in assets ⁶	Net lending (+) or borrowing (-) ^{1,7}
Annual												
	RPBO	NROQ	RPKY	RPLA	NROO	RPKZ	NROP	RPIXH	ROAW	DLQY	NRON	RQBV
1993	73 208	8 749	81 957	13 150	9 056	59 751	224	59 975	54 931	238	521	4 285
1994	88 255	6 553	94 808	15 085	6 917	72 806	409	73 215	55 867	3 904	530	12 914
1995	89 482	7 704	97 186	18 953	8 104	70 129	433	70 562	64 444	4 542	388	1 188
1996	102 315	8 420	110 735	23 080	9 938	77 717	428	78 145	72 854	1 672	263	3 356
1997	109 202	7 097	116 299	28 558	7 576	80 165	671	80 836	81 317	3 949	401	-4 831
1998	116 708	8 390	125 098	26 877	8 834	89 387	1 081	90 468	89 848	4 533	1 287	-5 200
1999	110 023	7 875	117 898	22 608	8 444	86 846	958	87 804	93 756	6 174	1 036	-13 162
2000	118 665	9 990	128 655	26 188	10 403	92 064	405	92 469	96 329	5 512	768	-10 140
2001	112 625	10 218	122 843	25 367	10 629	86 847	1 633	88 480	99 045	2 890	1 069	-14 524
2002	127 036 [†]	12 866 [†]	139 902 [†]	23 697 [†]	13 288 [†]	102 917 [†]	2 095 [†]	105 012 [†]	95 594 [†]	1 559	1 212 [†]	6 647 [†]
Quarterly												
1993 Q1	18 197	2 300	20 497	3 577	2 376	14 544	71	14 615	13 622	-308	118	1 183
Q2	16 262	2 203	18 465	3 159	2 280	13 026	82	13 108	13 481	76	134	-583
Q3	19 059	2 102	21 161	3 366	2 179	15 616	74	15 690	13 510	388	139	1 653
Q4	19 690	2 144	21 834	3 048	2 221	16 565	-3	16 562	14 318	82	130	2 032
1994 Q1	22 112	1 673	23 785	3 206	1 759	18 820	82	18 902	13 699	160	136	4 907
Q2	22 586	1 686	24 272	3 887	1 778	18 607	96	18 703	13 120	2 024	119	3 440
Q3	20 403	1 498	21 901	4 076	1 591	16 234	120	16 354	14 130	193	124	1 907
Q4	23 154	1 696	24 850	3 916	1 789	19 145	111	19 256	14 918	1 527	151	2 660
1995 Q1	21 692	1 825	23 517	4 252	1 922	17 343	127	17 470	14 794	-496	121	3 051
Q2	22 435	1 936	24 371	5 420	2 032	16 919	98	17 017	16 117	2 111	125	-1 336
Q3	21 629	1 953	23 582	4 368	2 049	17 165	102	17 267	16 460	1 714	87	-994
Q4	23 726	1 990	25 716	4 913	2 101	18 702	106	18 808	17 073	1 213	55	467
1996 Q1	23 160	2 238	25 398	5 419	3 336	16 643	125	16 768	17 261	1 095	63	-1 651
Q2	27 653	2 219	29 872	5 148	2 369	22 355	102	22 457	17 599	837	71	3 950
Q3	25 562	1 994	27 556	6 334	2 124	19 098	96	19 194	18 566	127	57	444
Q4	25 940	1 969	27 909	6 179	2 109	19 621	105	19 726	19 428	-387	72	613
1997 Q1	29 069	1 771	30 840	6 642	1 888	22 310	233	22 543	19 359	1 357	64	1 763
Q2	27 071	1 757	28 828	7 363	1 901	19 564	164	19 728	20 439	1 046	94	-1 851
Q3	27 847	1 739	29 586	7 240	1 848	20 498	131	20 629	20 133	952	103	-559
Q4	25 215	1 830	27 045	7 313	1 939	17 793	143	17 936	21 386	594	140	-4 184
1998 Q1	27 447	2 225	29 672	6 607	2 336	20 729	343	21 072	22 016	468	256	-1 668
Q2	28 374	2 166	30 540	6 715	2 277	21 548	220	21 768	22 319	-187	380	-744
Q3	30 607	1 959	32 566	6 847	2 070	23 649	248	23 897	23 218	1 985	379	-1 685
Q4	30 280	2 040	32 320	6 708	2 151	23 461	270	23 731	22 295	2 267	272	-1 103
1999 Q1	31 516 [†]	2 037	33 553 [†]	5 484	2 264	25 805 [†]	344	26 149 [†]	23 139	2 370	301	339 [†]
Q2	22 970	1 925	24 895	4 846	2 038	18 011	199	18 210	22 928	403	314	-5 435
Q3	26 330	1 608	27 938	5 938	1 722	20 278	216	20 494	23 882	1 842	191	-5 421
Q4	29 207	2 305	31 512	6 340	2 420	22 752	199	22 951	23 807	1 559	230	-2 645
2000 Q1	29 166	2 472	31 638	6 998	2 589	22 051	315	22 366	23 685	1 646	193	-3 158
Q2	29 893	2 429	32 322	6 508	2 526	23 288	20	23 308	23 494	1 202	158	-1 546
Q3	29 759	2 735	32 494	6 572	2 834	23 088	34	23 122	24 044	1 629	156	-2 707
Q4	29 847	2 354	32 201	6 110	2 454	23 637	36	23 673	25 106	1 035	261	-2 729
2001 Q1	28 743	2 436	31 179	6 399	2 537	22 243	200	22 443	25 188	1 157	220	-4 122
Q2	28 734	2 529	31 263	6 560	2 632	22 071	443	22 514	24 969	1 807	306	-4 568
Q3	27 002	2 518	29 520	5 983	2 621	20 916	489	21 405	24 982	189	280	-4 046
Q4	28 146	2 735	30 881	6 425	2 839	21 617	501	22 118	23 906	-263	263	-1 788
2002 Q1	28 079	3 038 [†]	31 117	5 670 [†]	3 142 [†]	22 305	573 [†]	22 878	23 739 [†]	770 [†]	326 [†]	-1 957
Q2	30 054	3 068	33 122	6 294	3 173	23 655	436	24 091	24 247	-918	282	480
Q3	32 886	3 342	36 228	5 951	3 448	26 829	495	27 324	23 630	192	309	3 193
Q4	36 017	3 418	39 435	5 782	3 525	30 128	591	30 719	23 978	1 515	295	4 931
2003 Q1	34 906	3 124	38 030	5 737	3 231	29 062	871	29 933	23 032	1 404	278	5 219
Q2	32 656	3 425	36 081	5 513	3 532	27 036	787	27 823	24 412	353	338	2 720
Q3	33 293	3 619	36 912	6 087	3 727	27 098	782	27 880	23 744	1 084	344	2 708

1 Quarterly alignment adjustment included in this series.

2 Social contributions and other current transfers.

3 Total resources equals total uses.

4 Social benefits and other current transfers.

5 Also known as gross saving.

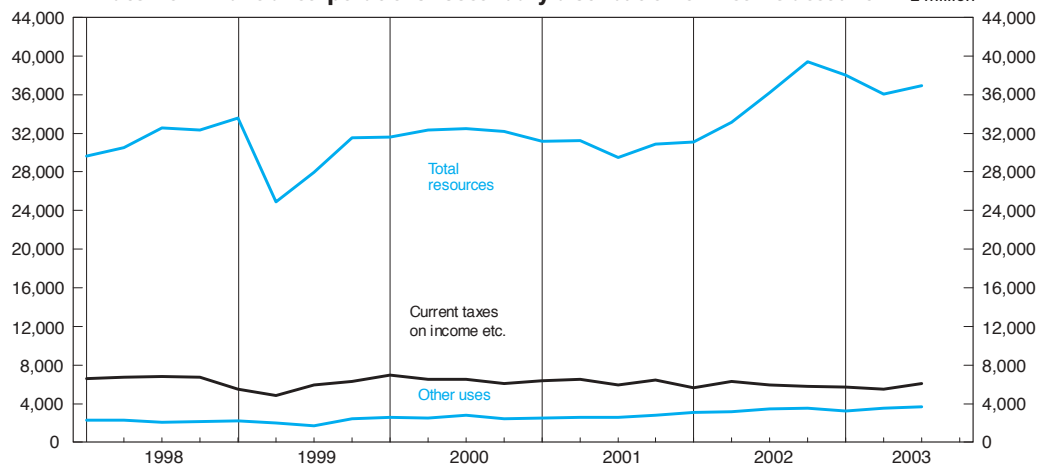
6 Acquisitions less disposals of valuables and non-produced non-financial assets.

7 Gross of fixed capital consumption.

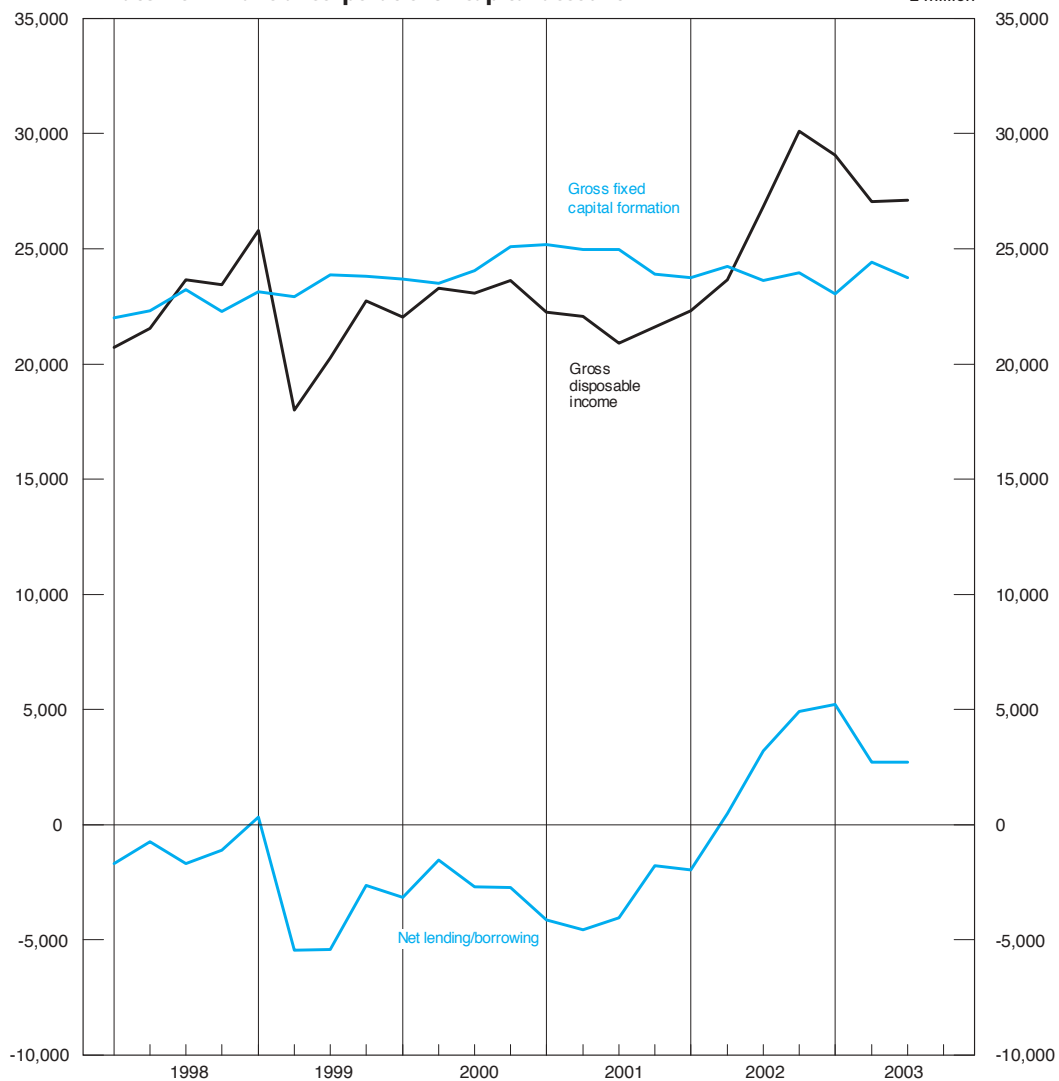
Source: Office for National Statistics; Enquiries 020 7533 6014

Private Non-financial corporations : secondary distribution of income account

£ million

**Private Non-financial corporations : capital account**

£ million



2.13

Balance of payments: current account

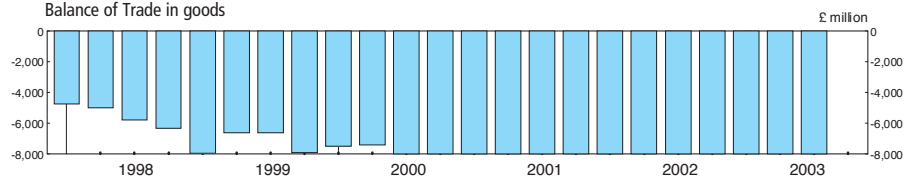
£ million

	Trade in goods and services						Income balance	Current transfers balance	Current balance
	Exports of goods+	Imports of goods+	Balance of trade in goods	Exports of services	Imports of services	Services balance			
Annual	BOKG	BOKH	BOKI	IKBB	IKBC	IKBD	HBOJ	IKBP	HBOP
1999	166 166	195 217	-29 051	72 628	59 494	13 134	-1 116 [†]	-7 383	-24 416
2000	187 936	220 912	-32 976	79 071	65 645	13 426	5 208	-9 752	-24 094
2001	190 050	230 670	-40 620	81 658	68 658	13 000	10 723	-6 606	-23 503
2002	186 517 [†]	233 147 [†]	-46 630 [†]	86 753 [†]	71 572 [†]	15 181 [†]	22 152	-8 674 [†]	-17 971
Quarterly									
1999 Q1	38 959	46 893	-7 934	17 769	14 590	3 179	-2 256 [†]	-1 916 [†]	-8 927
Q2	40 378	46 976	-6 598	18 229	14 770	3 459	-155	-1 538	-4 832
Q3	43 582	50 180	-6 598	17 586	14 572	3 014	626	-2 087	-5 045
Q4	43 247	51 168	-7 921	19 044	15 562	3 482	669	-1 842	-5 612
2000 Q1	44 374	51 854	-7 480	18 914	15 453	3 461	1 983	-2 049	-4 085
Q2	46 851	54 256	-7 405	19 257	16 209	3 048	370	-2 020	-6 007
Q3	47 445	56 289	-8 844	20 166	16 716	3 450	2 410	-2 662	-5 646
Q4	49 266	58 513	-9 247	20 734	17 267	3 467	445	-3 021	-8 356
2001 Q1	49 554	58 824	-9 270	21 453	17 476	3 977	2 554	-1 875	-4 614
Q2	48 256	58 890	-10 634	21 497	17 414	4 083	2 653	-2 519	-6 417
Q3	46 539	56 715	-10 176	18 488	17 116	1 372	2 860	-119	-6 063
Q4	45 701	56 241	-10 540	20 220	16 652	3 568	2 656	-2 093	-6 409
2002 Q1	45 800 [†]	57 051 [†]	-11 251 [†]	21 209 [†]	17 569 [†]	3 640 [†]	4 116	-2 439	-5 934
Q2	49 380	59 657	-10 277	20 925	17 803	3 122	3 627	-2 311	-5 839
Q3	46 816	58 641	-11 825	22 761	18 210	4 551	6 497	-1 483	-2 260
Q4	44 521	57 798	-13 277	21 858	17 990	3 868	7 912	-2 441	-3 938
2003 Q1	47 562	58 663	-11 101	21 214	18 527	2 687	8 162	-2 411	-2 663
Q2	46 330	57 486	-11 156	20 528	18 267	2 261	3 882	-2 769	-7 782
Q3	46 265	57 920	-11 655	21 133	18 493	2 640	3 350	-2 418	-8 083
Monthly									
2001 Jan	16 507	19 563	-3 056	7 010	5 751	1 259	..	..	..
Feb	16 819	19 722	-2 903	7 104	5 768	1 336	..	..	..
Mar	16 228	19 539	-3 311	7 339	5 957	1 382	..	..	..
Apr	15 880	19 468	-3 588	7 316	5 842	1 474	..	..	..
May	16 193	19 610	-3 417	7 197	5 832	1 365	..	..	..
Jun	16 183	19 812	-3 629	6 984	5 740	1 244	..	..	..
Jul	15 676	18 998	-3 322	6 992	5 726	1 266	..	..	..
Aug	15 403	19 353	-3 950	6 867	5 820	1 047	..	..	..
Sep	15 460	18 364	-2 904	4 629	5 570	-941	..	..	..
Oct	15 832	18 934	-3 102	6 278	5 514	764	..	..	..
Nov	15 208	18 620	-3 412	6 844	5 595	1 249	..	..	..
Dec	14 661	18 687	-4 026	7 098	5 543	1 555	..	..	..
2002 Jan	15 346 [†]	19 020 [†]	-3 674 [†]	7 229	5 734	1 495	..	..	..
Feb	15 259	18 974	-3 715	7 225	5 998	1 227	..	..	..
Mar	15 195	19 057	-3 862	6 973	5 891	1 082	..	..	..
Apr	16 319	20 110	-3 791	6 922	5 939	983	..	..	..
May	17 346	20 279	-2 933	6 840	5 820	1 020	..	..	..
Jun	15 715	19 268	-3 553	7 084	5 975	1 109	..	..	..
Jul	16 319	20 361	-4 042	7 333	6 016	1 317	..	..	..
Aug	14 871	19 025	-4 154	7 477	6 113	1 364	..	..	..
Sep	15 626	19 255	-3 629	7 559	6 064	1 495	..	..	..
Oct	15 121	19 517	-4 396	7 383	5 994	1 389	..	..	..
Nov	14 455	19 577	-5 122	7 203	5 740	1 463	..	..	..
Dec	14 945	18 704	-3 759	7 242	6 020	1 222	..	..	..
2003 Jan	15 887	19 782	-3 895	7 026	6 122	904	..	..	..
Feb	16 054	19 285	-3 231	7 023	6 176	847	..	..	..
Mar	15 621	19 596	-3 975	7 002	6 135	867	..	..	..
Apr	16 495	19 009	-2 514	6 835	5 998	837	..	..	..
May	15 299	19 353	-4 054	6 896	6 032	864	..	..	..
Jun	14 536	19 124	-4 588	6 829	5 941	888	..	..	..
Jul	15 748	19 218	-3 470	6 880 [†]	6 109 [†]	771 [†]
Aug	15 370	18 882	-3 512	6 995	6 100	895	..	..	..
Sep	15 147	19 820	-4 673	7 018	5 994	1 024	..	..	..
Oct	15 625	20 074	-4 449	7 028	6 044	984	..	..	..

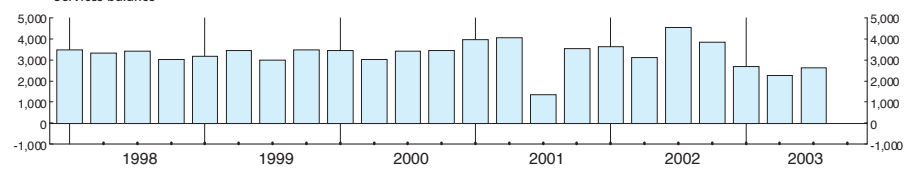
Sources: Office for National Statistics;
 Enquiries Columns 1-3 020 7533 6064; Columns 4-6 & 8 020 7533 6090;
 Columns 7 & 9 020 7533 6078.

Balance of Payments : Current account

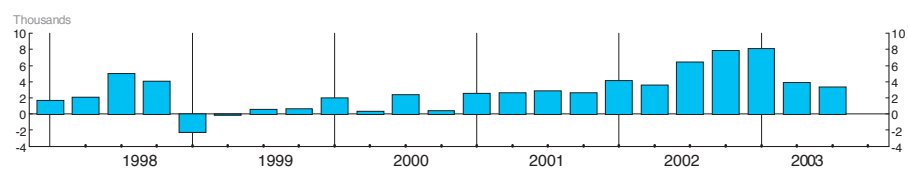
Balance of Trade in goods



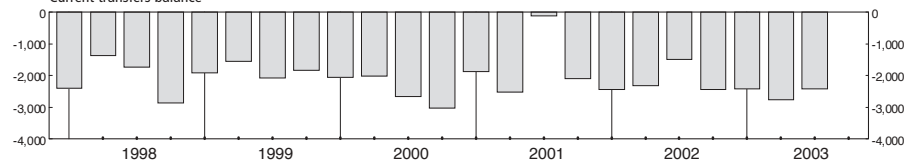
Services balance



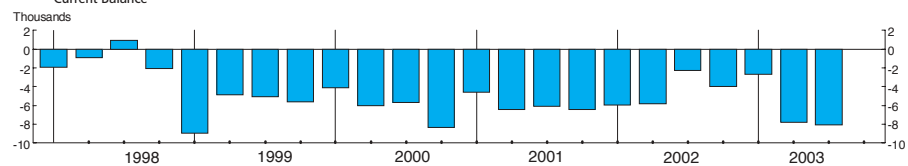
Income balance



Current transfers balance



Current Balance



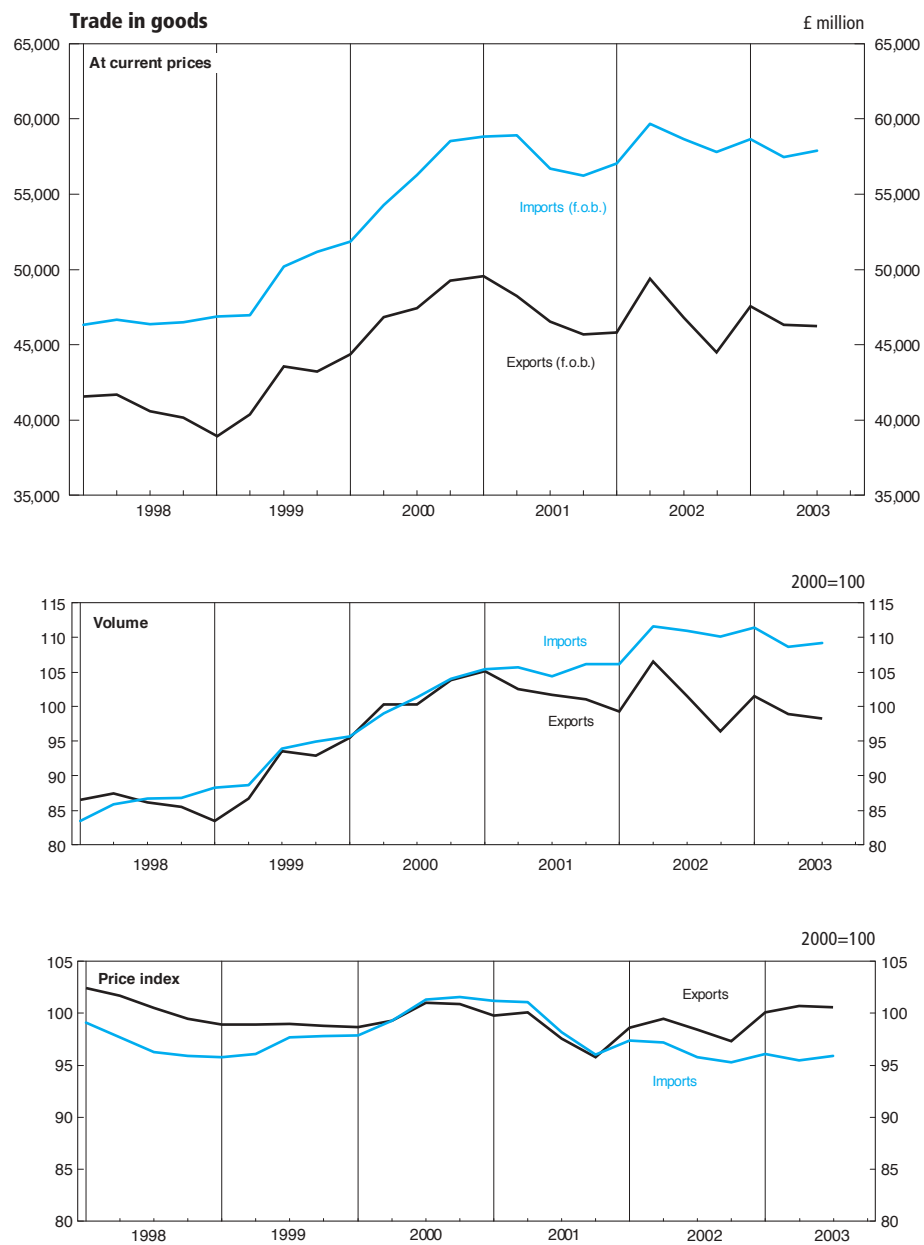
2.14 Trade in goods (on a balance of payments basis)

2000 = 100

	Volume indices (SA)		Price indices (NSA)		
	Exports	Imports	Exports	Imports	Terms of trade ¹
Annual	BQKU	BQKV	BQKR	BQKS	BQKT
1999	89.2	91.5	98.9	96.8	102.2
2000	100.0	100.0	100.0	100.0	100.0
2001	102.7	105.4	98.3	99.1	99.2
2002	100.9 [†]	109.7 [†]	98.4 [†]	96.4	102.1 [†]
Quarterly					
1999 Q1	83.5	88.3	98.9	95.8	103.2
Q2	86.7	88.7	98.9	96.1	102.9
Q3	93.6	93.9	99.0	97.7	101.3
Q4	92.9	95.0	98.8	97.8	101.0
2000 Q1	95.5	95.7	98.7	97.9	100.8
Q2	100.3	99.0	99.3	99.3	100.0
Q3	100.3	101.3	101.0	101.3	99.7
Q4	103.9	104.0	100.9	101.6	99.3
2001 Q1	105.1	105.4	99.8	101.2	98.6
Q2	102.6	105.7	100.1	101.1	99.0
Q3	101.7	104.4	97.6	98.2	99.4
Q4	101.1	106.2	95.8	96.0	99.8
2002 Q1	99.3	106.2 [†]	98.6 [†]	97.4	101.2 [†]
Q2	106.5 [†]	111.6	99.5	97.2	102.4
Q3	101.5	111.0	98.4	95.8	102.7
Q4	96.4	110.1	97.3	95.3	102.1
2003 Q1	101.5	111.4	100.1	96.1 [†]	104.2
Q2	98.9	108.7	100.7	95.5	105.4
Q3	98.3	109.2	100.6	95.9	104.9
Monthly					
2001 Jan	104.9	105.1	99.9	100.8	99.1
Feb	106.4	105.6	100.3	101.6	98.7
Mar	104.0	105.4	99.3	101.2	98.1
Apr	101.6	105.0	99.7	101.0	98.7
May	102.7	105.2	100.1	101.1	99.0
Jun	103.6	107.0	100.4	101.2	99.2
Jul	101.6	104.1	98.5	99.3	99.2
Aug	101.2	107.0	97.8	98.1	99.7
Sep	102.4	102.1	96.4	97.3	99.1
Oct	105.8	107.2	95.5	96.3	99.2
Nov	101.5	105.4	95.1	96.3	98.8
Dec	96.1	106.0	96.9	95.5	101.5
2002 Jan	99.6 [†]	105.9 [†]	97.5 [†]	97.1	100.4 [†]
Feb	99.7	106.3	98.4	97.1	101.3
Mar	98.5	106.3	99.9	97.9	102.0
Apr	105.0	112.8	100.2	97.5	102.8
May	112.7	114.0	99.2	97.0	102.3
Jun	101.8	108.0	99.0	97.1	102.0
Jul	106.2	116.3	98.6	95.7	103.0
Aug	95.9	107.3	98.8	95.9	103.0
Sep	102.3	109.3	97.7	95.8	102.0
Oct	98.2	111.1	97.4	95.6	101.9
Nov	94.3	112.4	96.8	95.0	101.9
Dec	96.8	106.7	97.8	95.2	102.7
2003 Jan	103.0	112.9	98.7	95.3 [†]	103.6
Feb	102.9	110.5	99.8	95.8	104.2
Mar	98.7	110.7	101.7	97.1	104.7
Apr	105.6	107.3	100.5	96.1	104.6
May	97.4	109.7	101.4	95.6	106.1
Jun	93.8	109.1	100.2	94.9	105.6
Jul	100.7	108.9	100.3	95.5	105.0
Aug	97.8	106.5	101.1	96.2	105.1
Sep	96.5	112.3	100.4	96.1	104.5
Oct	100.1	113.3	100.1	95.8	104.5

¹ Price index for exports expressed as a percentage of price index for imports.

Source: Office for National Statistics; Enquiries 020 7533 6064



2.15 Measures of UK competitiveness in trade in manufactures

1995 = 100

	Summary measures						Export unit value index ^{1,6}				
	Relative export prices ⁶	Relative wholesale prices ⁵ (1990=100)	IMF index of relative unit labour costs ⁶		Import price competitiveness ^{2,4}	Relative profitability of exports ^{2,4}	United Kingdom	United States	Japan	France	Germany ³
			Actual	Normalised							
	CTPC	CTPD	CTPE	CTPF	BBKM	BBKN	CTPI	CTPJ	CTPK	CTPL	CTPM
1997	111.4	114.7	130.4	123.6	105.9	97.4	98.7	101.2	83.8	86.0	80.3
1998	111.4	..	141.2	131.5	109.2	95.8	97.7	101.2	78.1	86.0	80.5
1999	114.2	..	141.7	133.9	109.7	94.4	97.4	101.1	82.7	81.4	76.7
2000	118.2	..	147.8	141.6	106.9	93.7	94.9	102.3	86.5	71.3	66.7
2001	117.0	..	143.9	141.4	105.6	95.8	90.7	102.3	78.3	69.5	64.7
2002	..	..	..	..	109.0	96.0	..	..	..	..	..
2000 Q1	119.4	..	149.4	142.1	108.7	92.0	99.3	102.1	86.2	76.0	71.5
Q2	118.2	..	148.9	141.2	108.6	93.2	95.8	102.5	86.2	72.1	67.5
Q3	116.7	..	146.2	140.2	107.0	94.6	93.0	102.6	87.2	70.1	65.4
Q4	117.9	..	146.8	142.7	105.4	94.9	91.4	102.3	86.5	67.6	62.8
2001 Q1	115.5	..	142.2	138.8	105.0	95.3	92.6	102.0	84.4	72.2	66.7
Q2	117.4	..	144.3	141.9	104.8	95.5	90.7	101.9	82.4	68.5	63.0
Q3	117.6	..	144.2	142.1	107.1	95.6	92.3	101.8	84.2	70.1	64.2
Q4	117.7	..	144.8	142.7	108.0	94.8	92.9	101.7	84.2	70.8	64.7
2002 Q1	..	..	..	..	109.2	95.9	..	..	..	..	..
Q2	..	..	..	..	109.4	96.8	..	..	..	..	..
Q3	..	..	..	..	108.0	95.7	..	..	..	..	..
Q4	..	..	..	..	109.3	94.6	..	..	..	..	..
2003 Q1	..	..	..	..	109.4	96.7	..	..	..	..	..
Percentage change, quarter on corresponding quarter of previous year											
2001 Q2	-0.7	..	-3.1	0.5	-3.5	2.5	-5.3	-0.6	-4.4	-5.0	-6.7
Q3	0.8	..	-1.4	1.4	0.1	1.1	-0.8	-0.8	-3.4	0.0	-1.8
Q4	-0.2	..	-1.4	0.0	2.5	-0.1	1.6	-0.6	-2.7	4.7	3.0
2002 Q1	..	..	..	..	4.0	0.6	..	..	..	..	..
Q2	..	..	..	..	4.4	1.4	..	..	..	..	..
Q3	..	..	..	..	0.8	0.1	..	..	..	..	..
Q4	..	..	..	..	1.2	-0.2	..	..	..	..	..
2003 Q1	..	..	..	..	0.2	0.8	..	..	..	..	..
Wholesale price index ¹ (1990=100)											
	United Kingdom	United States	Japan	France	Germany ³	Unit labour costs index ^{1,6}					
	CTPN	CTPO	CTPP	CTPQ	CTPR	United Kingdom	United States	Japan	France	Germany ³	
	CTPS	CTPT	CTPU	CTPV	CTPW						
1998	116.5	106.8	102.7	..	..	118.6	95.6	70.5	82.8	77.1	
1999	115.1	108.4	114.1	..	..	116.2	95.1	77.9	79.3	73.7	
2000	..	..	..	..	..	108.0	94.9	77.5	68.2	61.6	
2001	..	..	..	..	..	103.3	100.8	71.1	66.4	59.5	
1999 Q4	116.8	109.7	123.4	..	..	116.8	94.6	82.2	77.1	70.5	
2000 Q1	..	..	..	..	..	115.6	94.0	81.3	73.1	67.2	
Q2	..	..	..	..	..	109.8	94.1	78.8	69.0	62.9	
Q3	..	..	..	..	..	104.6	94.9	76.1	66.8	59.5	
Q4	..	..	..	..	..	102.2	96.5	74.0	64.3	57.5	
2001 Q1	..	..	..	..	..	104.3	99.2	72.5	68.5	61.5	
Q2	..	..	..	..	..	101.6	100.8	70.7	64.8	58.0	
Q3	..	..	..	..	..	103.2	101.4	71.3	66.1	59.1	
Q4	..	..	..	..	..	104.2	101.7	70.1	66.4	59.5	
Percentage change, quarter on corresponding quarter of previous year											
1999 Q4	-0.6	2.7	12.2	..	..	-3.6	-1.0	5.8	-12.0	-15.3	
2000 Q1	..	..	..	..	..	-2.3	-1.1	3.4	-12.6	-14.8	
Q2	..	..	..	..	..	-5.3	-1.3	5.8	-12.3	-17.2	
Q3	..	..	..	..	..	-8.3	-0.7	-0.8	-14.4	-16.8	
Q4	..	..	..	..	..	-12.5	2.0	-10.0	-16.6	-18.4	
2001 Q1	..	..	..	..	..	-9.8	5.5	-10.8	-6.3	-8.5	
Q2	..	..	..	..	..	-7.5	7.1	-10.3	-6.1	-7.8	
Q3	..	..	..	..	..	-1.3	6.8	-6.3	-1.0	-0.7	
Q4	..	..	..	..	..	2.0	5.4	-5.3	3.3	3.5	

1 All the indices are based on data expressed in US dollars.

2 Excludes erratics (ships, North sea installations, aircraft, precious stones and silver bullion).

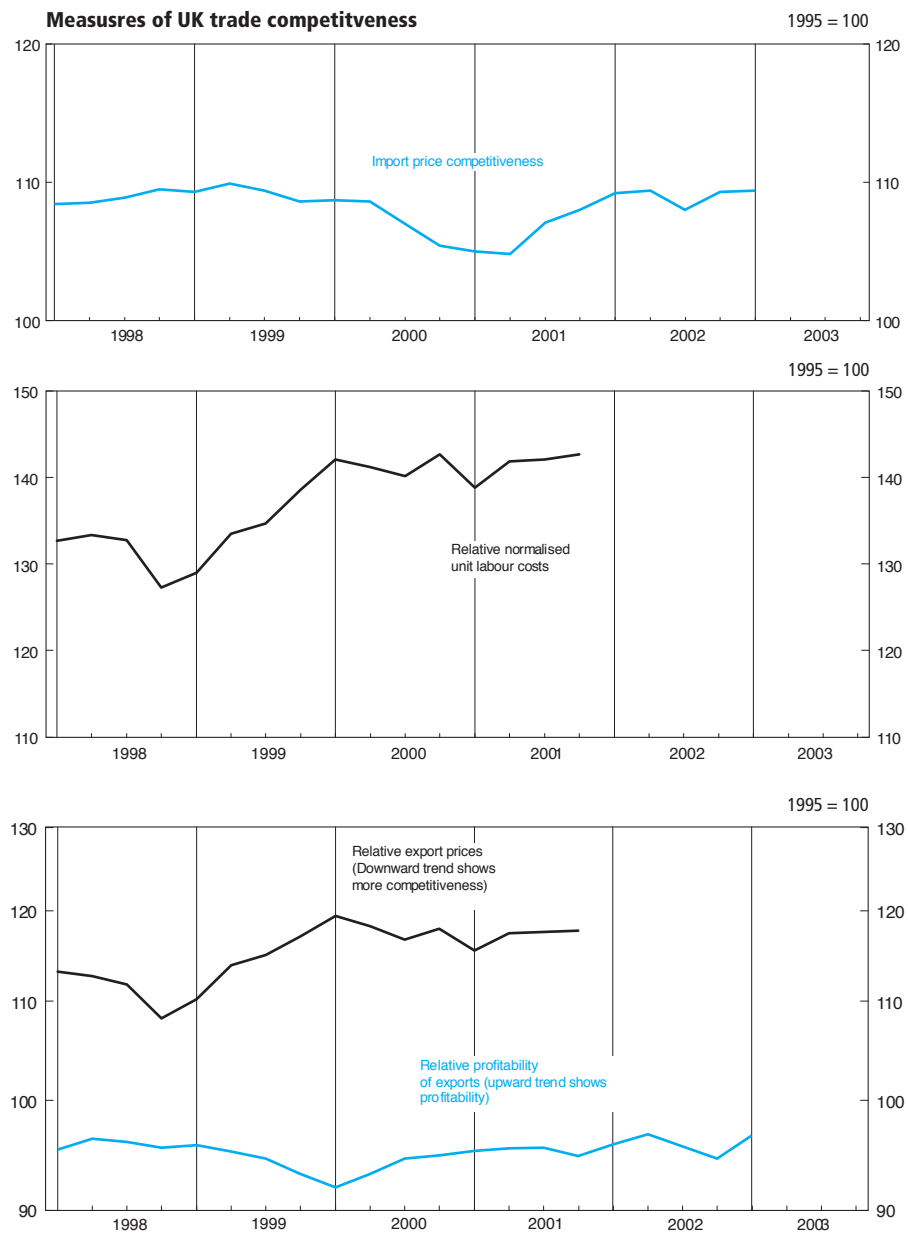
3 Includes the former German Democratic Republic as from 1991 Q1.

4 These series are on a SIC 92 basis.

5 This series is calculated using UK producer prices. All other country indices are wholesale price indices.

6 Quarterly data have been obtained by interpolating the annuals.

Sources: International Monetary Fund;
Office for National Statistics; Enquiries 020 7533 5914



3.1 Prices

Not seasonally adjusted except series RNPE

	Producer price index (2000=100)		Consumer prices index ^{3,4} (1996=100)		Retail prices index (January 13, 1987=100)						Pensioner price index ⁶ (January 13, 1987=100)		
	Materials and fuel purchased by manu- facturing industry (SA) ^{1,2}	Output: all manufact- ured products: home sales	All items		All items (RPI)		All items excluding mortgage interest payments (RPIX)		All items excluding mortgage interest payments & indirect taxes (RPIY) ⁵		1-person household	2-person household	Purchasing power of the pound ⁷ (1985=100)
			Index	Percentage change on a year earlier	Index	Percentage change on a year earlier	Index	Percentage change on a year earlier	Index	Percentage change on a year earlier			
Annual	RNPE	PLLU	CHVJ	CJYR	CHAW	CZBH	CHMK	CDKQ	CBZW	CBZX	CZIF	CZIU	FJAK
1999	93.1	98.5	104.8	1.3	165.4	1.5	164.3	2.3	157.1	1.7	149.6	154.2	57
2000	100.0	100.0	105.6	0.8	170.3	3.0	167.7	2.1	159.9	1.8	150.8	156.1	56
2001	98.8	99.7	106.9	1.2	173.3	1.8	171.3	2.1	163.7	2.4	152.7	158.5	55
2002	94.4	99.8	108.3	1.3	176.2	1.7	175.1	2.2	167.5	2.3	155.3	160.9	54
Quarterly													
1999 Q1	91.1	97.8	104.0	1.6	163.7	2.2	162.4	2.5	155.6	1.8	148.9	153.3	57
Q2	91.7	98.7	105.1	1.4	165.5	1.4	164.6	2.3	157.2	1.6	149.9	154.5	57
Q3	94.2	98.6	104.8	1.2	165.6	1.2	164.6	2.2	157.2	1.4	149.5	154.2	57
Q4	95.5	98.9	105.3	1.2	166.8	1.5	165.6	2.2	158.3	1.7	150.1	154.9	57
2000 Q1	97.1	99.2	104.8	0.8	167.5	2.3	165.8	2.1	158.6	1.9	150.0	154.9	57
Q2	97.9	100.1	105.7	0.6	170.6	3.1	168.0	2.1	159.9	1.7	151.0	156.2	55
Q3	101.9	100.3	105.7	0.8	170.9	3.2	168.1	2.1	160.1	1.8	151.1	156.5	56
Q4	103.2	100.4	106.3	0.9	172.0	3.1	169.1	2.1	161.1	1.8	151.2	156.9	55
2001 Q1	100.8	99.7	105.7	0.9	171.8	2.6	168.9	1.9	161.1	1.6	150.6	156.5	55
Q2	101.6	100.1	107.3	1.5	173.9	1.9	171.8	2.3	164.1	2.6	153.3	159.3	54
Q3	98.3	99.8	107.3	1.5	174.0	1.8	172.1	2.4	164.6	2.8	153.0	158.9	54
Q4	94.4	99.3	107.4	1.0	173.8	1.0	172.4	2.0	165.0	2.4	153.9	159.3	55
2002 Q1	94.1	99.2	107.4	1.5	173.9	1.2	172.9	2.4	165.5	2.7	154.7	160.1	54
Q2	94.8	99.8	108.3	0.9	176.0	1.2	175.0	1.9	167.1	1.8	155.3	161.0	54
Q3	94.4	99.9	108.4	1.1	176.6	1.5	175.5	2.0	167.8	1.9	155.0	160.7	54
Q4	94.2	100.1	109.0	1.6	178.2	2.5	176.9	2.6	169.5	2.7	156.1	161.7	53
2003 Q1	95.6	100.9	109.0	1.5	179.2	3.0	177.9	2.9	170.6	3.1	156.7	162.6	53
Q2	94.3	101.1	109.7	1.3	181.3	3.0	180.1	2.9	171.8	2.8	157.9	163.7	52
Q3	95.6 [†]	101.3	109.9	1.4	181.8	2.9	180.5	2.8	172.3	2.7	158.3	164.0	52
Monthly													
2002 Jan	93.9	99.2	107.1	1.6	173.3	1.3	172.4	2.6	165.0	3.0	..	..	55
Feb	93.5	99.2	107.3	1.5	173.8	1.0	172.8	2.2	165.4	2.7	..	..	54
Mar	94.8	99.3	107.7	1.5	174.5	1.3	173.5	2.3	166.1	2.5	..	..	54
Apr	95.6	99.7	108.1	1.3	175.7	1.5	174.7	2.3	166.9	2.5	..	..	54
May	94.6	99.9	108.4	0.8	176.2	1.1	175.2	1.8	167.3	1.8	..	..	54
Jun	94.2	99.9	108.4	0.6	176.2	1.0	175.1	1.5	167.2	1.4	..	..	54
Jul	94.4	99.9	108.1	1.1	175.9	1.5	174.8	2.0	167.0	1.9	..	..	54
Aug	94.5	99.9	108.4	1.0	176.4	1.4	175.3	1.9	167.6	1.8	..	..	54
Sep	94.4	100.0	108.7	1.0	177.6	1.7	176.4	2.1	168.7	2.0	..	..	53
Oct	94.9	100.1	108.9	1.4	177.9	2.1	176.6	2.3	169.1	2.4	..	..	53
Nov	93.0	100.0	108.9	1.6	178.2	2.6	177.0	2.8	169.6	2.9	..	..	53
Dec	94.8	100.1	109.3	1.7	178.5	2.9	177.2	2.7	169.8	2.9	..	..	53
2003 Jan	95.5	100.5	108.6	1.4	178.4	2.9	177.1	2.7	169.8	2.9	..	..	53
Feb	95.8	100.7	109.0	1.6	179.3	3.2	177.9	3.0	170.6	3.1	..	..	53
Mar	95.6	101.4	109.4	1.6	179.9	3.1	178.7	3.0	171.4	3.2	..	..	53
Apr	94.6	101.3	109.7	1.5	181.2	3.1	180.0	3.0	171.8	2.9	..	..	52
May	94.1	101.0	109.7	1.2	181.5	3.0	180.2	2.9	171.9	2.7	..	..	52
Jun	94.2	101.0	109.6	1.1	181.3	2.9	180.0	2.8	171.7	2.7	..	..	52
Jul	95.3	101.2	109.5	1.3	181.3	3.1	179.9	2.9	171.6	2.8	..	..	52
Aug	96.2	101.4	109.9	1.4	181.6	2.9	180.4	2.9	172.2	2.7	..	..	52
Sep	95.2 [†]	101.4	110.2	1.4	182.5	2.8	181.3	2.8	173.2	2.7	..	..	52
Oct	96.7p	101.6p	110.4	1.4	182.6	2.6	181.3	2.7	173.1	2.4	..	..	52
Nov	96.7p	101.7p	110.3	1.3	182.7	2.5	181.4	2.5	173.1	2.1	..	..	52

Note: Figures marked with a 'p' are provisional.

1 Minor revisions have been made to seasonally adjusted figures previously published. These reflect the routine updating of the seasonal adjustment factor.

2 Data now include the Climate Change Levy introduced in April 2001 and the Aggregates Levy introduced in April 2002.

3 Inflation rates prior to 1997 and index levels prior to 1996 are estimated. Further details are given in *Economic Trends* No.541 December 1998.

4 Prior to 10 December 2003, the consumer prices index (CPI) was published in the UK as the harmonised index of consumer prices (HICP).

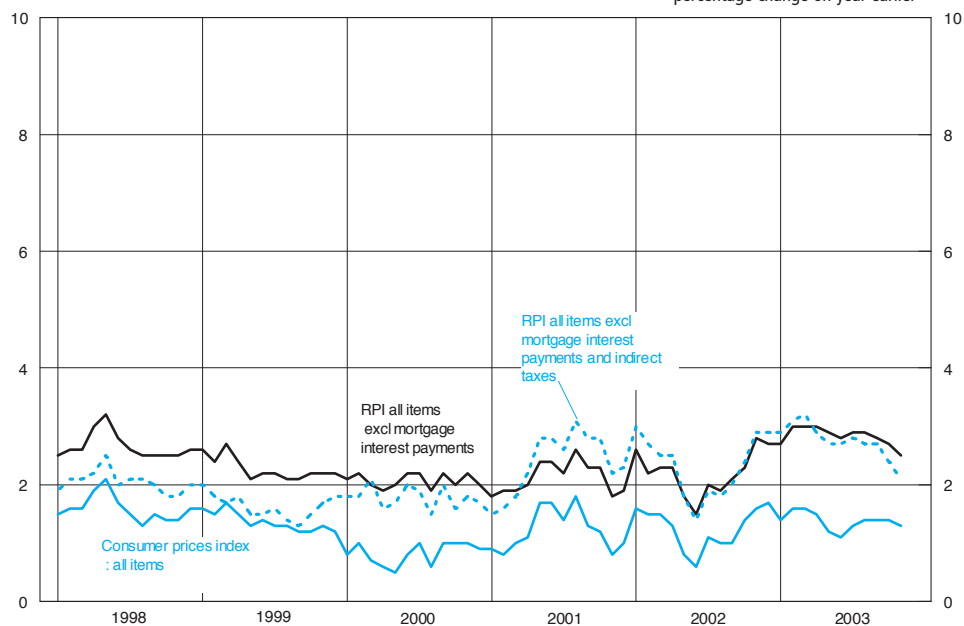
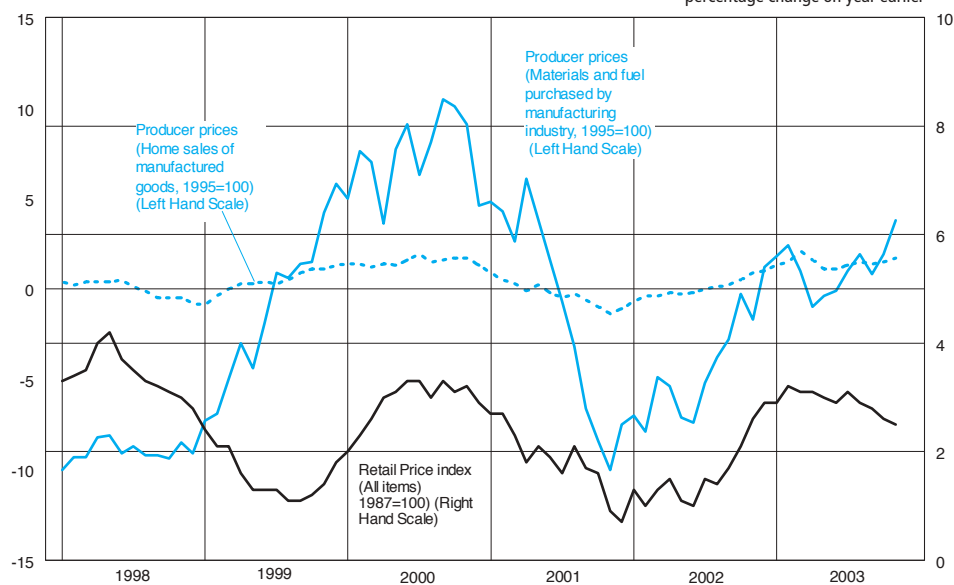
5 The taxes excluded are council tax, VAT, duties, car purchase tax and vehicle excise duty, insurance tax and airport tax.

6 Pensioner price indices exclude housing costs, as these are often atypical for a pensioner household, based on RPI.

7 Movements in the purchasing power of the pound are based on movements in the retail prices index.

Sources: Office for National Statistics;
Enquiries Columns 1-2 01633 812106; Columns 3-13 020 7533 5853.

Prices

1987 = 100 Not seasonally adjusted
percentage change on year earlierNot seasonally adjusted
percentage change on year earlier

4.1 Labour Market Activity^{1,2}

United Kingdom

Thousands, seasonally adjusted³

	Employment categories					Unemployment	Total economically active	Economically inactive	Total aged 16 and over	Employment rate: age 16-59/64 ⁴
	Employees	Self-employed	Unpaid family workers	Government training and employment programmes	Total employment					
TOTAL										
	MGRN	MGRQ	MGRRT	MGRW	MGRZ	MGSC	MGSF	MGSI	MGSL	MGSU
2001 Q1	24 244	3 104	98	147	27 592	1 475	29 067	17 231	46 298	74.5
Q2	24 346	3 097	95	141	27 679	1 463	29 142	17 235	46 377	74.6
Q3	24 313	3 129	95	121	27 658	1 489	29 147	17 304	46 451	74.3
Q4	24 392	3 117	104	119	27 732	1 518	29 249	17 268	46 517	74.4
2002 Q1	24 427	3 114	97	111	27 750	1 498	29 249	17 335	46 584	74.3
Q2	24 531	3 146	97	100	27 875	1 505	29 380	17 270	46 650	74.6
Q3	24 481	3 171	92	99	27 842	1 550	29 392	17 325	46 717	74.4
Q4	24 632	3 181	92	95	28 000	1 515	29 514	17 273	46 787	74.7
2003 Q1	24 629	3 245	87	91	28 052	1 510	29 562	17 295	46 857	74.7
Q2	24 583	3 366	88	86	28 122	1 468	29 591	17 336	46 927	74.7
Q3	24 490	3 453	103	105	28 151	1 481	29 631	17 365	46 997	74.6
Percentage change on quarter										
2003q2 to 2003q3	-0.4	2.6	17.7	22.1	0.1	0.8	0.1	0.2	0.1	
Percentage change on year										
2002q3 to 2003q3	0.0	8.9	12.4	6.2	1.1	-4.5	0.8	0.2	0.6	
MALE										
	MGRO	MGRR	MGRU	MGRX	MGSA	MGSD	MGSG	MGSJ	MGSM	MGSV
2001 Q1	12 581	2 279	35	95	14 991	891	15 882	6 441	22 323	79.5
Q2	12 599	2 267	33	93	14 992	879	15 871	6 499	22 370	79.3
Q3	12 611	2 300	30	79	15 020	899	15 919	6 494	22 414	79.3
Q4	12 631	2 302	33	74	15 040	907	15 947	6 503	22 450	79.2
2002 Q1	12 600	2 298	30	69	14 998	916	15 914	6 572	22 487	78.9
Q2	12 659	2 307	31	58	15 055	905	15 960	6 563	22 523	79.1
Q3	12 612	2 327	35	59	15 034	936	15 970	6 590	22 560	78.9
Q4	12 762	2 323	32	61	15 179	892	16 071	6 527	22 598	79.5
2003 Q1	12 721	2 357	28	54	15 160	917	16 077	6 558	22 636	79.2
Q2	12 705	2 463	32	50	15 250	888	16 138	6 536	22 674	79.5
Q3	12 621	2 527	38	59	15 245	880	16 126	6 586	22 711	79.4
Percentage change on quarter										
2003q2 to 2003q3	-0.7	2.6	20.1	18.1	0.0	-0.8	-0.1	0.8	0.2	
Percentage change on year										
2002q3 to 2003q3	0.1	8.6	7.8	0.2	1.4	-5.9	1.0	-0.1	0.7	
FEMALE										
	MGRP	MGRS	MGRV	MGRY	MGSB	MGSE	MGSB	MGSK	MGSN	MGSW
2001 Q1	11 662	824	62	52	12 601	584	13 185	10 790	23 975	69.3
Q2	11 747	830	62	48	12 687	584	13 271	10 736	24 007	69.6
Q3	11 702	829	65	42	12 638	590	13 227	10 810	24 038	69.1
Q4	11 761	815	71	45	12 692	610	13 302	10 765	24 067	69.2
2002 Q1	11 827	816	68	42	12 752	582	13 334	10 763	24 097	69.4
Q2	11 872	839	67	43	12 820	600	13 420	10 707	24 126	69.7
Q3	11 868	844	56	39	12 808	615	13 422	10 734	24 157	69.6
Q4	11 870	857	60	34	12 821	622	13 443	10 746	24 189	69.6
2003 Q1	11 908	888	59	37	12 892	593	13 485	10 736	24 221	69.9
Q2	11 878	903	56	36	12 872	581	13 453	10 800	24 253	69.6
Q3	11 869	925	65	45	12 905	600	13 506	10 779	24 285	69.6
Percentage change on quarter										
2003q2 to 2003q3	-0.1	2.4	16.3	27.8	0.3	3.4	0.4	-0.2	0.1	
Percentage change on year										
2002q3 to 2003q3	0.0	9.7	15.2	15.3	0.8	-2.4	0.6	0.4	0.5	

1 The data in this table have been adjusted to reflect the 2001 Census population data.

2 Data are from the Labour Force Survey which uses the definitions recommended by the International Labour Organisation (ILO), an agency of the United Nations. For details see the *Guide to Labour Market Statistics Releases*.

3 Seasonally adjusted estimates are revised in April each year.

4 The employment rate equals those in employment aged 16-64 (male) and 16-59 (female), as a percentage of all in these age groups. The underlying data are available on request.

Source: Office for National Statistics; Enquiries 020 7533 6094

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4.2 Labour Market Activity^{1,2}

United Kingdom

Thousands, not seasonally adjusted

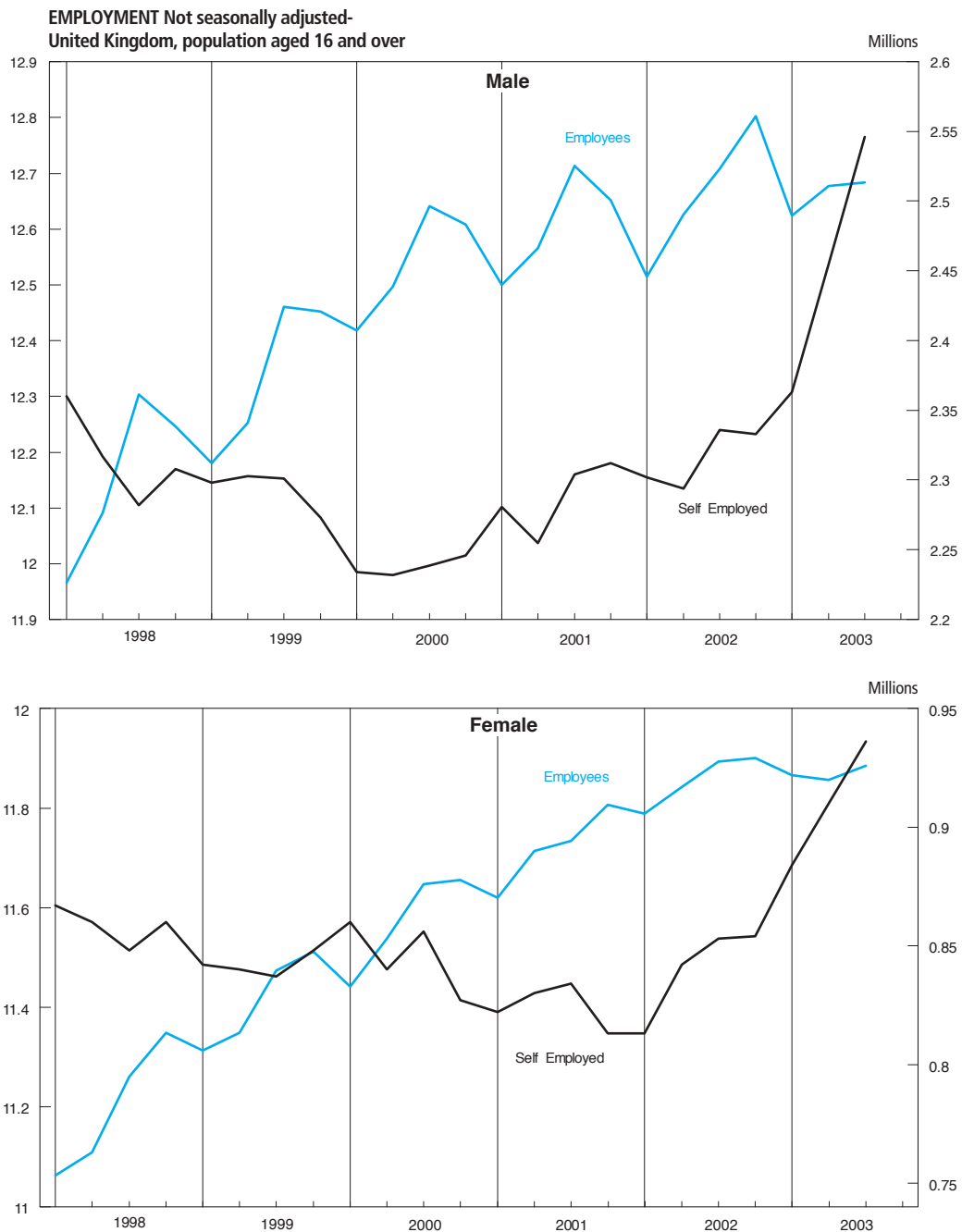
	Employment categories					Unemployment	Total economically active	Economically inactive	Total aged 16 and over	Employment rate: age 16-59/64 ³
	Employees	Self-employed	Unpaid family workers	Government training and employment programmes	Total employment					
TOTAL										
	MGTA	MGTD	MGTG	MGTJ	MGTM	MGTP	MGTS	MGTV	MGSL	MGUH
2001 Q1	24 121	3 103	95	150	27 468	1 488	28 957	17 341	46 298	74.2
Q2	24 280	3 085	93	144	27 601	1 419	29 021	17 356	46 377	74.4
Q3	24 449	3 138	100	112	27 799	1 559	29 358	17 093	46 451	74.7
Q4	24 459	3 125	105	121	27 810	1 476	29 285	17 232	46 517	74.6
2002 Q1	24 304	3 116	94	115	27 628	1 512	29 140	17 444	46 584	74.0
Q2	24 469	3 137	95	104	27 804	1 464	29 268	17 381	46 650	74.4
Q3	24 601	3 189	95	89	27 974	1 629	29 604	17 113	46 717	74.7
Q4	24 702	3 188	94	97	28 081	1 473	29 554	17 233	46 787	74.9
2003 Q1	24 490	3 247	83	97	27 916	1 520	29 436	17 421	46 857	74.3
Q2	24 534	3 365	86	89	28 074	1 411	29 485	17 442	46 927	74.6
Q3	24 569	3 481	109	99	28 259	1 567	29 826	17 171	46 997	74.9
Percentage change on year 2002q3 to 2003q3	-0.1	9.2	14.7	11.2	1.0	-3.8	0.7	0.3	0.6	
MALE										
	MGTB	MGTE	MGTH	MGTK	MGTN	MGTO	MGTT	MGTV	MGSM	MGUI
2001 Q1	12 500	2 281	36	97	14 914	904	15 817	6 506	22 323	79.1
Q2	12 566	2 255	32	95	14 949	859	15 808	6 562	22 370	79.1
Q3	12 714	2 304	29	75	15 123	927	16 050	6 363	22 414	79.8
Q4	12 652	2 312	34	73	15 071	883	15 955	6 496	22 450	79.4
2002 Q1	12 515	2 302	30	72	14 918	930	15 849	6 638	22 487	78.5
Q2	12 626	2 294	30	59	15 009	886	15 895	6 629	22 523	78.8
Q3	12 708	2 336	36	56	15 135	968	16 102	6 458	22 560	79.4
Q4	12 803	2 333	33	61	15 230	865	16 095	6 503	22 598	79.7
2003 Q1	12 624	2 363	27	58	15 072	935	16 007	6 629	22 636	78.7
Q2	12 677	2 455	31	51	15 213	860	16 073	6 601	22 674	79.3
Q3	12 684	2 546	40	57	15 326	916	16 242	6 469	22 711	79.8
Percentage change on year 2002q3 to 2003q3	-0.2	9.0	11.1	1.8	1.3	-5.4	0.9	0.2	0.7	
FEMALE										
	MGTC	MGTF	MGTI	MGTL	MGTO	MGTR	MGTU	MGTX	MGSN	MGUJ
2001 Q1	11 620	822	59	54	12 555	585	13 139	10 836	23 975	69.0
Q2	11 714	830	61	49	12 653	560	13 213	10 794	24 007	69.4
Q3	11 735	834	70	37	12 676	631	13 308	10 730	24 038	69.3
Q4	11 807	813	71	48	12 738	592	13 330	10 737	24 067	69.5
2002 Q1	11 789	813	64	43	12 710	581	13 291	10 806	24 097	69.2
Q2	11 843	842	65	45	12 795	578	13 374	10 753	24 126	69.6
Q3	11 893	853	60	33	12 840	662	13 501	10 655	24 157	69.8
Q4	11 900	854	61	36	12 851	607	13 459	10 730	24 189	69.8
2003 Q1	11 866	884	56	39	12 844	585	13 429	10 792	24 221	69.6
Q2	11 857	910	55	39	12 861	551	13 412	10 841	24 253	69.6
Q3	11 885	936	69	42	12 933	651	13 583	10 702	24 285	69.7
Percentage change on year 2002q3 to 2003q3	-0.1	9.7	15.0	27.3	0.7	-1.7	0.6	0.4	0.5	

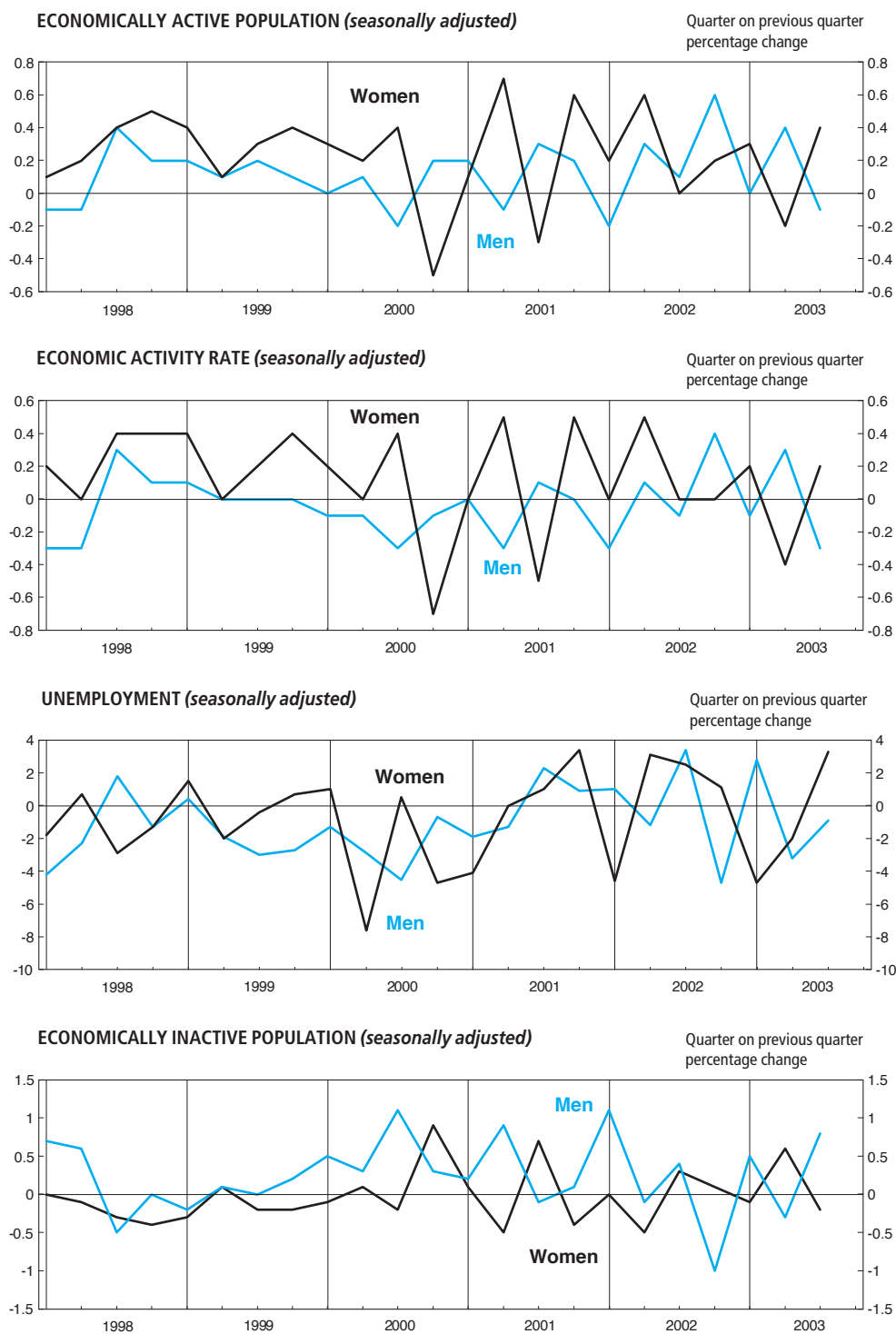
1 The data in this table have been adjusted to reflect the 2001 Census population data.

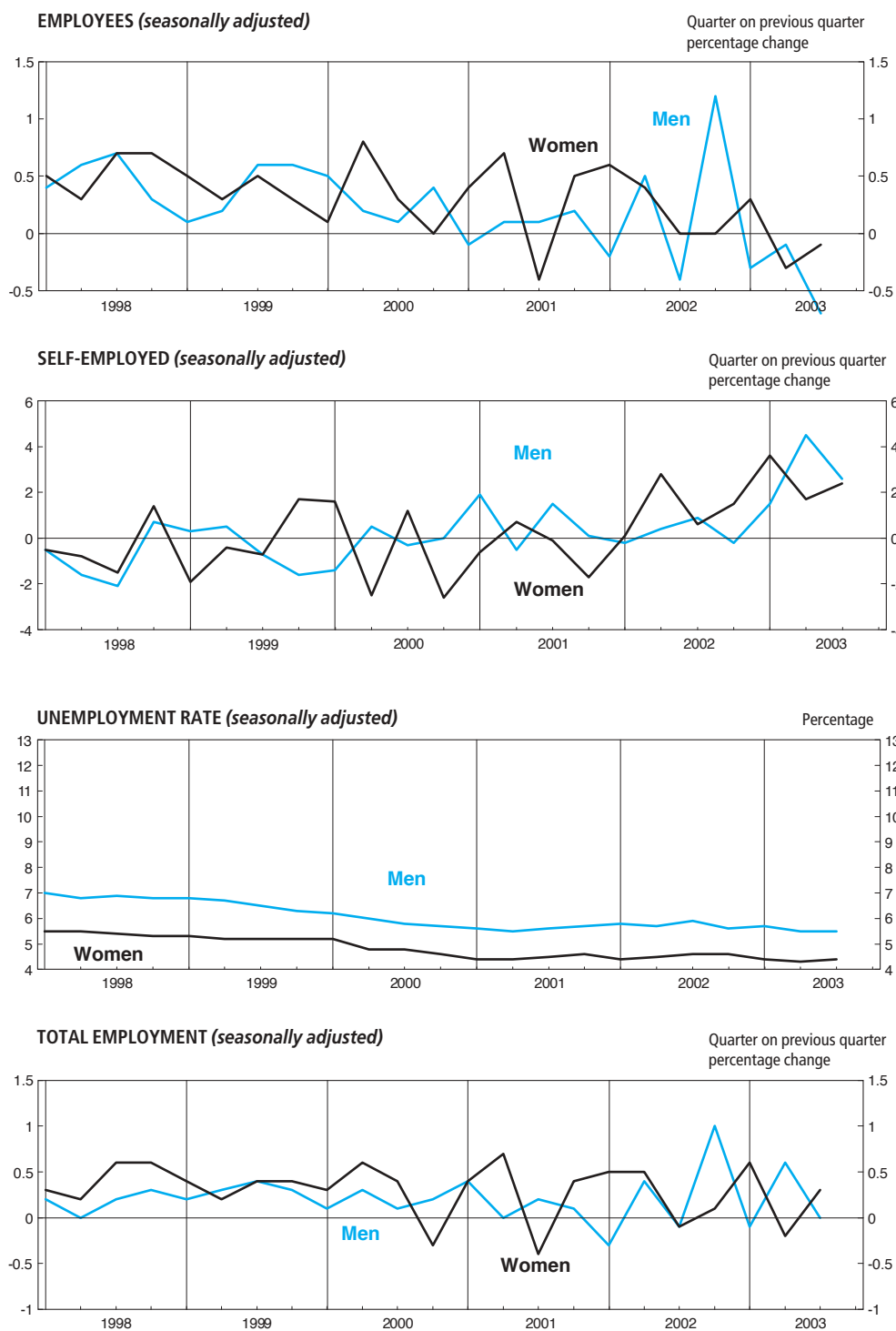
2 Data are from the Labour Force Survey which uses the definitions recommended by the International Labour Organisation (ILO), an agency of the United Nations. For details see the *Guide to Labour market Statistics Releases*.

3 The employment rate equals those in employment aged 16-64 (male) and 16-59 (female), as a percentage of all in these age groups. The underlying data are available on request.

Source: Office for National Statistics; Enquiries 020 7533 6094







4.3 Labour Market Activity by age^{1,2}

United Kingdom

Thousands, seasonally adjusted³

	Total aged 16 and over			Age groups ⁴							
				16 - 24		25 - 49		50 - 59/64		60/65 and over	
	Total	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
In employment											
	MGRZ	MGSA	MGSB	MGUR	MGUS	MGUU	MGUV	MGUX	MGUY	MGVA	MGVB
2001 Q3	27 658	15 020	12 638	2 055	1 884	9 141	7 772	3 540	2 401	284	581
Q4	27 732	15 040	12 692	2 076	1 921	9 111	7 752	3 555	2 429	297	590
2002 Q1	27 750	14 998	12 752	2 063	1 923	9 105	7 798	3 543	2 434	287	597
Q2	27 875	15 055	12 820	2 077	1 940	9 123	7 824	3 560	2 462	295	594
Q3	27 842	15 034	12 808	2 045	1 943	9 109	7 787	3 582	2 484	299	593
Q4	28 000	15 179	12 821	2 101	1 952	9 135	7 792	3 633	2 491	310	586
2003 Q1	28 052	15 160	12 892	2 084	1 949	9 099	7 831	3 649	2 516	329	595
Q2	28 122	15 250	12 872	2 089	1 927	9 118	7 808	3 710	2 538	334	600
Q3	28 151	15 245	12 905	2 096	1 930	9 124	7 788	3 689	2 558	336	629
Unemployed											
	MGSC	MGSD	MGSE	MGVG	MGVH	MGVJ	MGVK	MGVM	MGVN	MGVP	MGVQ
2001 Q3	1 489	899	590	324	220	414	299	155	63	..	..
Q4	1 518	907	610	334	232	428	308	138	63	..	..
2002 Q1	1 498	916	582	338	222	431	288	138	65	..	..
Q2	1 505	905	600	327	215	419	304	150	69	..	12
Q3	1 550	936	615	335	225	430	309	161	68	10	13
Q4	1 515	892	622	338	224	396	313	152	72	..	13
2003 Q1	1 510	917	593	349	230	399	287	162	66	..	..
Q2	1 468	888	581	339	235	393	270	147	66	..	..
Q3	1 481	880	600	339	241	396	283	137	70	..	..
Economically inactive											
	MGSI	MGSJ	MGSK	MGVV	MGVW	MGVY	MGVZ	MGWB	MGWC	MGWE	MGWF
2001 Q3	17 304	6 494	10 810	806	1 074	806	2 482	1 351	1 261	3 531	5 993
Q4	17 268	6 503	10 765	794	1 040	815	2 493	1 364	1 246	3 530	5 986
2002 Q1	17 335	6 572	10 763	822	1 062	811	2 464	1 388	1 252	3 552	5 984
Q2	17 270	6 563	10 707	837	1 066	798	2 421	1 372	1 233	3 556	5 987
Q3	17 325	6 590	10 734	880	1 067	795	2 452	1 351	1 223	3 564	5 992
Q4	17 273	6 527	10 746	840	1 075	796	2 442	1 321	1 218	3 570	6 010
2003 Q1	17 295	6 558	10 736	866	1 087	821	2 428	1 307	1 206	3 565	6 016
Q2	17 336	6 536	10 800	890	1 121	801	2 467	1 272	1 190	3 572	6 022
Q3	17 365	6 586	10 779	901	1 127	786	2 474	1 314	1 172	3 584	6 007
Economic activity rate (per cent)⁵											
	MGWG	MGWH	MGWI	MGWK	MGWL	MGWN	MGWO	MGWQ	MGWR	MGWT	MGWU
2001 Q3	62.7	71.0	55.0	74.7	66.2	92.2	76.5	73.2	66.2	7.6	8.9
Q4	62.9	71.0	55.3	75.2	67.4	92.1	76.4	73.0	66.7	7.9	9.1
2002 Q1	62.8	70.8	55.3	74.5	66.9	92.2	76.6	72.6	66.6	7.7	9.2
Q2	63.0	70.9	55.6	74.2	66.9	92.3	77.1	73.0	67.2	7.9	9.2
Q3	62.9	70.8	55.6	73.0	67.0	92.3	76.8	73.5	67.6	8.0	9.2
Q4	63.1	71.1	55.6	74.4	66.9	92.3	76.8	74.1	67.8	8.2	9.1
2003 Q1	63.1	71.0	55.7	73.7	66.7	92.0	77.0	74.5	68.2	8.6	9.1
Q2	63.1	71.2	55.5	73.2	65.9	92.2	76.6	75.2	68.6	8.7	9.2
Q3	63.1	71.0	55.6	73.0	65.8	92.4	76.5	74.4	69.2	8.8	9.6
Unemployment rate (per cent)⁶											
	MGSX	MGSY	MGSZ	MGWZ	MGXA	MGXC	MGXD	MGXF	MGXG	MGXI	MGXJ
2001 Q3	5.1	5.6	4.5	13.6	10.5	4.3	3.7	4.2	2.6	..	..
Q4	5.2	5.7	4.6	13.9	10.8	4.5	3.8	3.7	2.5	..	..
2002 Q1	5.1	5.8	4.4	14.1	10.3	4.5	3.6	3.8	2.6	..	..
Q2	5.1	5.7	4.5	13.6	10.0	4.4	3.7	4.0	2.7	..	2.0
Q3	5.3	5.9	4.6	14.1	10.4	4.5	3.8	4.3	2.7	3.2	2.1
Q4	5.1	5.6	4.6	13.9	10.3	4.2	3.9	4.0	2.8	..	2.2
2003 Q1	5.1	5.7	4.4	14.3	10.6	4.2	3.5	4.2	2.6	..	..
Q2	5.0	5.5	4.3	14.0	10.9	4.1	3.3	3.8	2.6	..	..
Q3	5.0	5.5	4.4	13.9	11.1	4.2	3.5	3.6	2.6	..	..

1 The data in this table have been adjusted to reflect the 2001 Census population data.

2 Data are from the Labour Force Survey which uses the definitions recommended by the International Labour Organisation (ILO), an agency of the United Nations. For details see the *Guide to Labour Market Statistics Releases*.

3 Seasonally adjusted estimates are revised in April each year.

4 Data for more detailed age groups are published in *Labour Market Trends*.

5 The activity rate is the percentage of people in each age group who are economically active.

6 Unemployment rate is the percentage of economically active people who are unemployed on the ILO measure.

Source: Office for National Statistics; Enquiries 020 7533 6094

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4.4 Jobs and claimant count

United Kingdom

Thousands

	Jobs ¹					Claimant count ^{5,6,9}			
	Employee jobs ^{3,4}					Total	Percentage of workforce jobs and claimant count ⁷	Total Not seasonally adjusted	Job Centre vacancies ^{8,10}
	Workforce jobs ^{2,3,4}	All industries	Manufacturing industry	Production industry	Service industries				
Annual	DYDC	BCAJ	YEJA	YEJF	YEJC	BCJD	BCJE	BCJA	DPCB
2000	29 271	25 626	3 960	4 159	19 962	1 088.4	3.6	1 102.3	358.3
2001	29 495	25 882	3 808	4 017	20 420	970.1	3.2	983.0	..
2002	29 491 [†]	25 829	3 628	3 836	20 613 [†]	946.8	3.1	958.8	..
2003	29 716	25 837 [†]	3 503 [†]	3 706	20 753	..	..	..	..
Quarterly									
2000 Q1	29 104	25 453	3 990	4 187	19 784	1 153.0	3.8	1 219.2	342.2
Q2	29 271	25 626	3 960	4 159	19 962	1 103.9	3.6	1 109.2	355.7
Q3	29 314	25 692	3 918	4 119	20 105	1 060.0	3.5	1 073.6	363.4
Q4	29 390	25 774	3 889	4 096	20 230	1 036.7	3.4	1 007.1	371.8
2001 Q1	29 429	25 816	3 860	4 068	20 321	998.5	3.3	1 064.1	394.1
Q2	29 495	25 882	3 808	4 017	20 420	971.5	3.2	978.4	..
Q3	29 459	25 864	3 755	3 965	20 456	949.9	3.1	958.5	..
Q4	29 509	25 897 [†]	3 705	3 914	20 537	960.4	3.2	931.0	..
2002 Q1	29 524 [†]	25 918	3 666	3 876	20 612 [†]	951.0	3.1	1 014.6	..
Q2	29 491	25 829	3 628	3 836	20 613	952.3	3.1	958.1	..
Q3	29 517	25 806	3 593	3 797	20 657	945.3	3.1	951.8	..
Q4	29 564	25 825	3 561	3 765	20 698	938.6	3.1	910.6	..
2003 Q1	29 646	25 815	3 536	3 738	20 708	936.5	3.1	1 001.1	..
Q2	29 716	25 837	3 503 [†]	3 706	20 753	946.5	3.1	954.3	..
Q3	29 779	25 809	3 475	3 677 [†]	20 726	933.2	3.1	939.0	..
Monthly									
2002 Jan	..	..	3 693	3 903	..	955.2	3.1	1 021.5	..
Feb	..	..	3 679	3 889	..	950.1	3.1	1 024.0	..
Mar	..	25 918 [†]	3 666	3 876	20 612 [†]	947.6	3.1	998.2	..
Apr	..	..	3 655	3 864	..	954.7	3.1	982.7	..
May	..	..	3 640	3 848	..	950.5	3.1	954.5	..
Jun	..	25 829	3 628	3 836	20 613	951.8	3.1	937.0	..
Jul	..	..	3 616	3 823	..	948.5	3.1	956.4	..
Aug	..	..	3 605	3 810	..	942.7	3.1	962.7	..
Sep	..	25 806	3 593	3 797	20 657	944.6	3.1	936.2	..
Oct	..	..	3 584	3 789	..	942.2	3.1	907.2	..
Nov	..	..	3 574	3 778	..	938.6	3.1	905.6	..
Dec	..	25 825	3 561	3 765	20 698	935.1	3.1	919.1	..
2003 Jan	..	..	3 554	3 756	..	932.4	3.1	998.0	..
Feb	..	..	3 546	3 748	..	938.1	3.1	1 012.8	..
Mar	..	25 815	3 536	3 738	20 708	939.0	3.1	992.3	..
Apr	..	..	3 523	3 725	..	941.1	3.1	966.1	..
May	..	..	3 515	3 717	..	950.3	3.1	957.8	..
Jun	..	25 837	3 503 [†]	3 706	20 753	948.0	3.1	939.2	..
Jul	..	..	3 488	3 691 [†]	..	937.7	3.1	946.3	..
Aug	..	..	3 479	3 682	..	931.7	3.1	948.6	..
Sep	..	25 809	3 475	3 677	20 726	930.2	3.1	922.1	..
Oct	..	..	3 468	3 669	..	925.7 [†]	3.0	893.2	..
Nov	..	..	..	..	..	917.8	3.0	884.6	..

1 Estimates of employee jobs and workforce jobs for Great Britain now use the Annual Business Inquiry as a benchmark on which quarterly movements are based. For further information see Labour Market Statistics First Release, April 2001 which is held on the National Statistics website www.statistics.gov.uk. The Northern Ireland component of workforce jobs and employee jobs has not changed.

2 Workforce jobs comprise employee jobs, self-employed jobs, HM Forces and participants in work-related government supported training, which includes the Project Work Plan.

3 For all dates, individuals with two jobs as employees of different employers are counted twice.

4 Annual estimates relate to mid-year. Figures for the four quarters relate to March, June, September and December. For claimant count, unlike employment and workforce figures, the annual figure is an annual average.

5 Unadjusted claimant count figures have been affected by changes in the coverage. The seasonally adjusted figures however, as given in this table are estimated on the current basis, allowing for the discontinuities, except for the effect of the Jobseeker's Allowance introduced in October 1996 (see also below).

The seasonally adjusted figures now relate only to claimants aged 18 or over in order to maintain the consistent series, available back to 1971 (1974 for the regions), allowing for the effect of the change in benefit regulations for under 18 year olds from September 1988. (See pages 398 - 400 of November 1995 *Labour Market Trends*.)

6 Claimant count figures do not include students claiming benefit during a vacation who intend to return to full-time education.

7 The denominator used to calculate claimant count unemployment rates is comprised of the workforce jobs plus the claimant count.

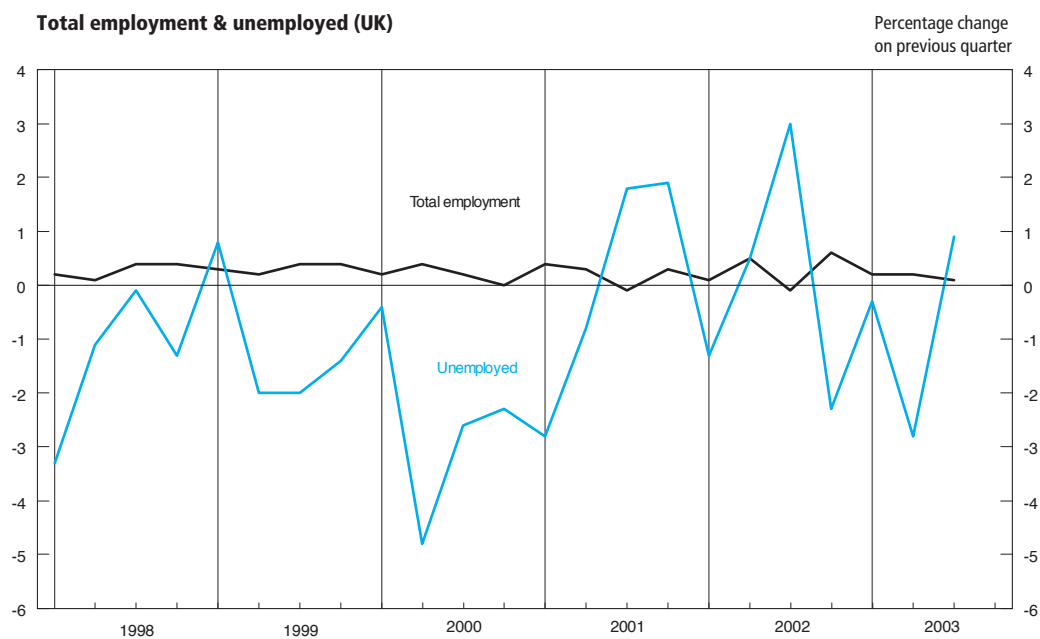
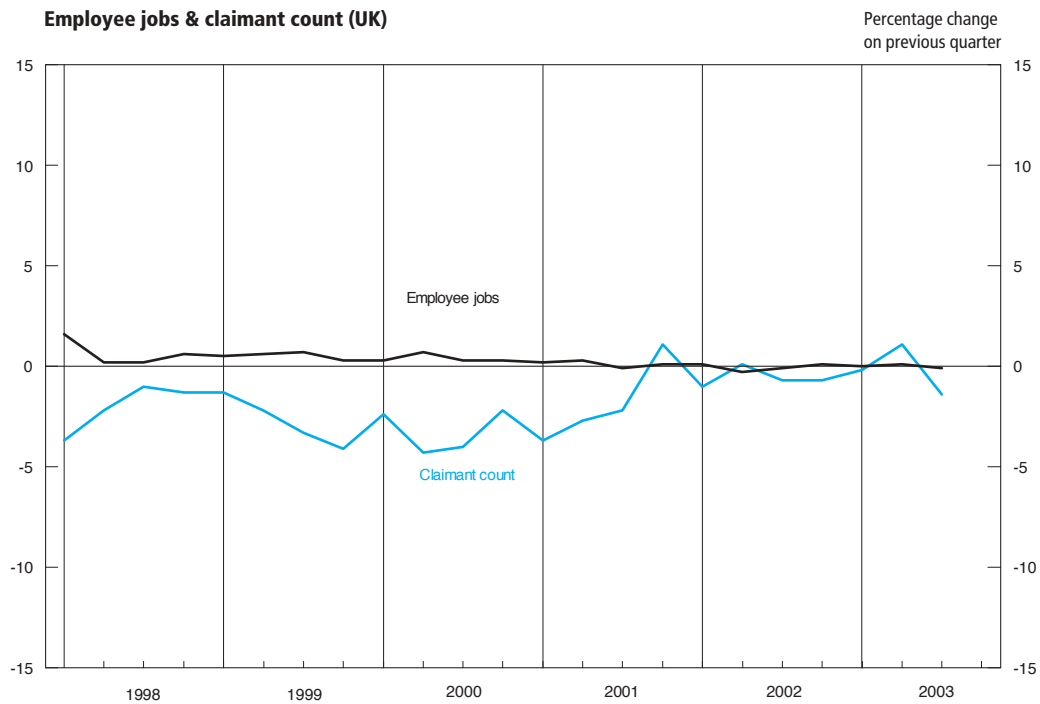
8 Vacancies notified to Jobcentres and remaining unfilled. Jobcentre vacancies only account for approximately one third of all vacancies in the economy. Note: Quarter figures relate to the average for the three months in the quarter.

9 Quarterly and annual values are now the mean of the monthly and quarterly data respectively.

10 Publication of the job centre vacancy statistics has been deferred. Figures from May 2001 are affected by the introduction of Employer Direct. This major change involves transferring the vacancy taking process from job centres to regional Customer Service Centres, as part of Modernising the Employment Service. ONS and the Employment Service will continue to monitor and review the data with the aim of publishing the series fairly soon, as it is possible to produce a consistent measure.

Sources: Office for National Statistics;

Enquiries Columns 1-5 01633 812079; Columns 6,9 020 7533 6094; also 24 hour recorded headline service on 020 7533 6176



4.5 Regional claimant count rates^{1,2} by Government Office Region

Percentages

	North East	North West ³	Yorkshire and the Humber	East Midlands	West Midlands	East	London	South East
Quarterly								
	DPDM	IBWC	DPBI	DPBJ	DPBN	DPDP	DPDQ	DPDR
1998 Q1	7.3	5.2	5.5	4.0	4.6	3.4	5.3	2.7
Q2	7.0	5.1	5.4	3.9	4.5	3.3	5.2	2.7
Q3	7.0	5.1	5.4	3.9	4.5	3.2	5.1	2.6
Q4	7.0	5.0	5.3	3.9	4.5	3.2	5.0	2.5
1999 Q1	7.4	4.8	5.3	3.8	4.6	3.0	4.7	2.4
Q2	7.3	4.7	5.1	3.7	4.6	3.0	4.6	2.3
Q3	7.1	4.6	5.0	3.6	4.5	2.9	4.5	2.2
Q4	6.7	4.4	4.8	3.5	4.3	2.7	4.3	2.1
2000 Q1	6.6	4.4	4.7	3.5	4.2	2.6	4.0	2.0
Q2	6.4	4.2	4.4	3.4	4.1	2.5	3.8	1.9
Q3	6.1	4.0	4.2	3.3	4.0	2.3	3.6	1.8
Q4	6.0	3.9	4.1	3.3	4.0	2.3	3.5	1.7
2001 Q1	5.9	3.8	4.1	3.2	3.9	2.1	3.3	1.6
Q2	5.7	3.8	4.0	3.2	3.8	2.1	3.2	1.5
Q3	5.5	3.7	3.9	3.0	3.7	2.0	3.2	1.5
Q4	5.6	3.7	3.8	3.0	3.6	2.1	3.4	1.6
2002 Q1	5.4	3.6	3.7	2.9	3.6	2.1	3.5	1.6
Q2	5.3	3.6	3.7	2.9	3.5	2.1	3.6	1.7
Q3	5.2	3.5	3.7	2.9	3.5	2.1	3.6	1.7
Q4	5.0	3.5	3.6	2.9	3.5	2.1	3.6	1.7
2003 Q1	4.9	3.5	3.6	2.8	3.6	2.1	3.6	1.7
Q2	4.8	3.4	3.5	2.9	3.6	2.2	3.7	1.8
Q3	4.7	3.4	3.4	2.9	3.6	2.2	3.7	1.8
	South West	England	Wales	Scotland	Great Britain	Northern Ireland	United Kingdom	
Quarterly								
	DPBM	VASQ	DPBP	DPBQ	DPAJ	DPBR	BCJE	
1998 Q1	3.5	4.4	5.6	5.5	4.6	7.6	4.7	
Q2	3.4	4.3	5.5	5.4	4.5	7.4	4.6	
Q3	3.4	4.3	5.4	5.5	4.4	7.3	4.5	
Q4	3.3	4.2	5.4	5.4	4.4	7.2	4.5	
1999 Q1	3.3	4.1	5.3	5.2	4.3	7.0	4.3	
Q2	3.2	4.0	5.2	5.2	4.2	6.7	4.2	
Q3	3.0	3.9	4.9	5.0	4.0	6.2	4.1	
Q4	2.8	3.7	4.7	4.8	3.9	5.8	3.9	
2000 Q1	2.7	3.6	4.5	4.8	3.8	5.5	3.8	
Q2	2.6	3.5	4.4	4.6	3.6	5.3	3.6	
Q3	2.4	3.3	4.4	4.4	3.5	5.2	3.5	
Q4	2.3	3.2	4.3	4.3	3.4	5.3	3.4	
2001 Q1	2.1	3.1	4.2	4.1	3.2	5.1	3.3	
Q2	2.1	3.0	4.0	4.0	3.1	5.0	3.2	
Q3	2.1	3.0	3.9	3.9	3.1	4.9	3.1	
Q4	2.0	3.0	3.8	4.0	3.1	4.8	3.2	
2002 Q1	2.0	3.0	3.7	3.9	3.1	4.7	3.1	
Q2	2.0	3.0	3.7	3.9	3.1	4.6	3.1	
Q3	2.0	3.0	3.6	3.8	3.1	4.4	3.1	
Q4	1.9	2.9	3.6	3.8	3.0	4.4	3.1	
2003 Q1	1.9	2.9	3.5	3.8	3.0	4.3	3.1	
Q2	1.9	3.0	3.5	3.8	3.1	4.3	3.1	
Q3	1.9	2.9	3.4	3.8	3.0	4.3	3.1	

Note: Quarterly claimant count figures relate to the average of the three months in each quarter.

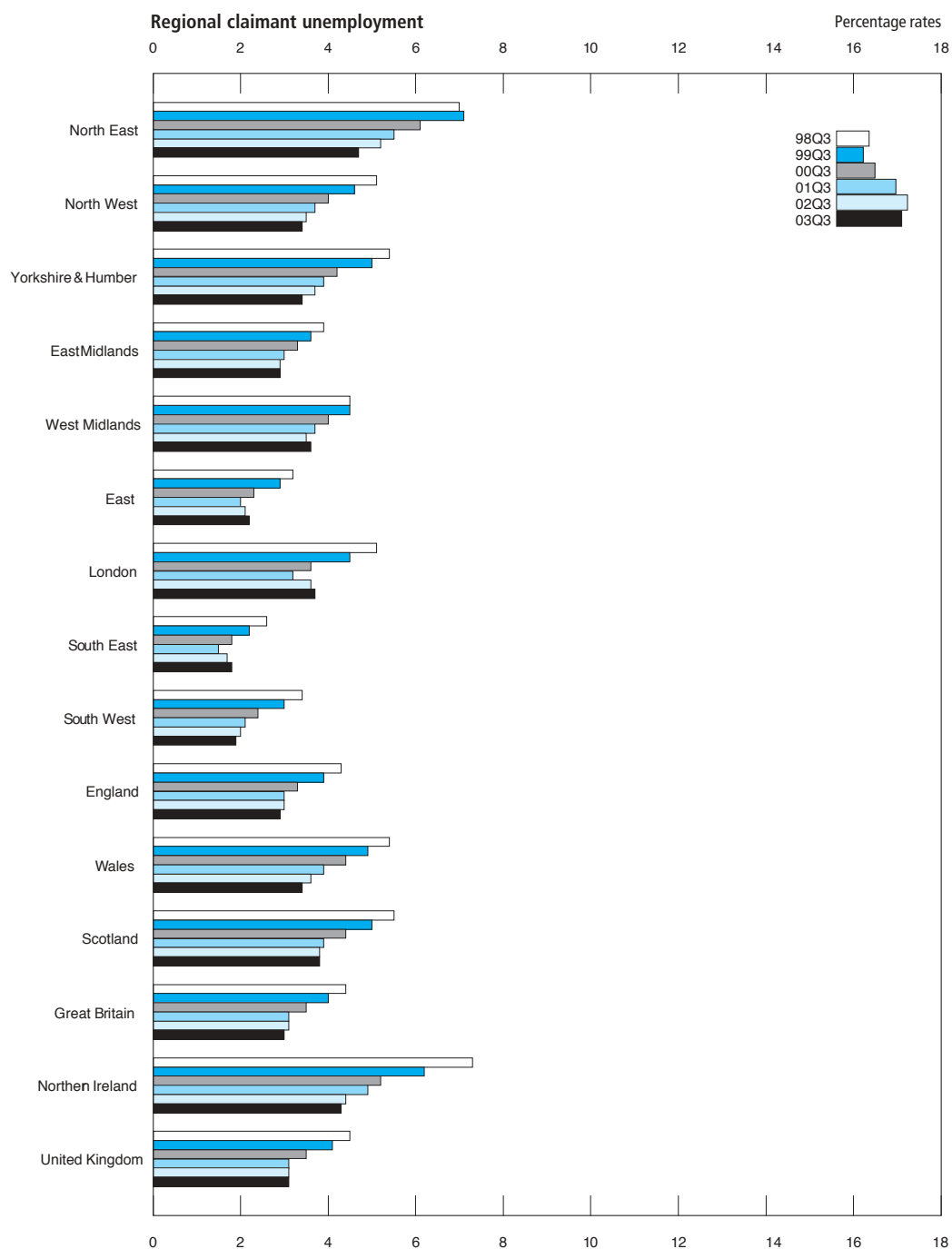
1 Government Office Regions came into effect in April 1994. It was decided that from May 1997 sub-national data should be published for these areas rather than standard statistical regions (SSRs). Data by standard statistical regions are available on request.

2 The seasonally adjusted figures now relate only to claimants aged 18 or over in order to maintain the consistent series, available back to 1971 for Great Britain, Northern Ireland and the United Kingdom (1974 for Wales and Scotland; 1986 for the Government Office Regions), allowing for

the effect of the change in benefit regulations for under 18 year olds from September 1988. (See pages 398 - 400 of the November 1995 *Labour Market Trends*.) The denominators used to calculate claimant count rates are the sum of the appropriate mid-year estimates of employee jobs, the self-employed, Government-supported trainees, HM Forces and claimants of unemployment-related benefits. The 2001 and 2002 rates are based on mid-2001 estimates and earlier years are based on the corresponding mid-year estimates.

3 Includes Merseyside.

Source: Office for National Statistics; Enquiries 020 7533 6094



4.5A

Unemployment rates^{1,2} By Government Office Region

Percentages, seasonally adjusted⁴

	North East	North West ³	Yorkshire and the Humber	East Midlands	West Midlands	East	London	South East
Quarterly								
	YCNC	YCND	YCNE	YCNF	YCNG	YCNH	YCNI	YCNJ
1997 Q1	9.8	7.0	7.9	6.1	7.1	6.1	10.2	5.2
Q2	9.8	7.1	7.5	5.9	6.8	6.3	9.2	5.3
Q3	8.7	7.2	7.3	5.1	7.2	5.5	9.1	4.8
Q4	8.4	6.9	7.1	5.3	6.5	5.3	9.1	4.5
1998 Q1	8.4	6.7	7.1	5.2	6.2	5.4	8.1	4.4
Q2	8.2	6.9	7.3	4.9	5.9	4.9	8.4	4.4
Q3	8.3	6.7	7.1	5.4	6.1	4.5	7.7	4.5
Q4	9.7	7.0	7.0	4.9	6.5	4.3	7.5	3.9
1999 Q1	9.5	6.7	6.7	5.1	7.0	4.2	7.7	3.9
Q2	9.5	6.3	6.3	5.3	6.9	4.3	7.4	4.0
Q3	9.6	6.3	6.0	5.6	6.5	3.9	7.3	3.9
Q4	8.5	6.0	6.0	5.5	6.7	4.2	6.9	4.0
2000 Q1	8.9	6.1	6.4	5.1	6.1	3.9	7.5	3.5
Q2	8.8	5.4	6.1	4.8	6.1	3.6	7.3	3.3
Q3	8.8	5.4	5.9	4.8	5.8	3.7	6.9	3.1
Q4	7.9	5.3	6.1	4.7	5.9	3.6	6.7	3.4
2001 Q1	7.7	5.3	5.3	4.7	5.6	3.6	6.4	3.3
Q2	7.3	5.4	5.4	5.0	5.4	3.5	6.1	3.2
Q3	6.9	5.2	5.4	4.6	5.5	4.0	6.5	3.4
Q4	7.3	5.3	5.1	4.6	5.5	3.9	7.2	3.3
2002 Q1	7.3	5.4	5.0	4.7	5.6	3.7	6.8	3.5
Q2	6.3	5.6	5.2	4.5	5.5	3.7	6.7	3.8
Q3	6.2	5.5	5.5	4.6	6.0	3.8	7.0	4.0
Q4	7.5	5.0	5.1	4.8	5.6	3.9	6.5	4.0
2003 Q1	6.4	5.0	5.1	4.1	6.0	4.6	6.8	3.9
Q2	6.0	4.9	5.1	4.3	5.6	4.0	7.1	3.9
Q3	6.7	4.8	4.8	4.5	6.0	3.9	7.1	3.9
	South West	England	Wales	Scotland	Great Britain	Northern Ireland	United Kingdom	
Quarterly								
	YCNK	YCNL	YCNM	YCNN	YCNO	ZSFB	MG SX	
1997 Q1	5.7	7.1	7.8	8.5	7.3	8.7	7.3	
Q2	5.8	6.9	8.3	8.6	7.1	8.0	7.2	
Q3	5.1	6.6	7.4	8.1	6.8	8.4	6.8	
Q4	5.1	6.4	6.9	7.4	6.5	8.8	6.5	
1998 Q1	4.6	6.1	7.2	7.6	6.3	8.5	6.3	
Q2	4.7	6.1	7.1	7.4	6.2	6.8	6.3	
Q3	4.9	6.0	7.4	7.6	6.2	7.9	6.2	
Q4	4.5	5.9	7.1	7.7	6.1	6.9	6.1	
1999 Q1	4.8	5.9	7.2	7.4	6.1	7.1	6.2	
Q2	4.5	5.8	7.5	7.1	6.0	7.5	6.0	
Q3	4.4	5.7	7.2	6.9	5.8	7.1	5.9	
Q4	4.2	5.5	7.2	7.1	5.8	6.8	5.8	
2000 Q1	4.2	5.5	6.7	7.6	5.7	6.5	5.8	
Q2	4.3	5.3	6.1	7.0	5.5	6.6	5.5	
Q3	4.0	5.1	6.6	6.7	5.3	5.6	5.3	
Q4	3.9	5.1	5.8	6.3	5.2	6.2	5.2	
2001 Q1	3.9	4.9	6.1	6.0	5.0	6.1	5.1	
Q2	3.6	4.8	6.1	6.2	5.0	5.9	5.0	
Q3	3.6	4.9	5.5	6.7	5.1	6.1	5.1	
Q4	3.6	5.0	5.9	6.8	5.2	6.0	5.2	
2002 Q1	3.4	4.9	5.7	6.6	5.1	6.0	5.1	
Q2	3.7	5.0	5.7	6.4	5.1	5.4	5.1	
Q3	3.9	5.1	5.2	6.4	5.3	6.3	5.3	
Q4	4.0	5.0	5.3	6.2	5.1	5.6	5.1	
2003 Q1	3.8	5.0	4.8	5.9	5.1	5.1	5.1	
Q2	3.5	4.9	4.6	5.5	5.0	5.2	5.0	
Q3	3.2	4.9	4.7	5.8	5.0	5.6	5.0	

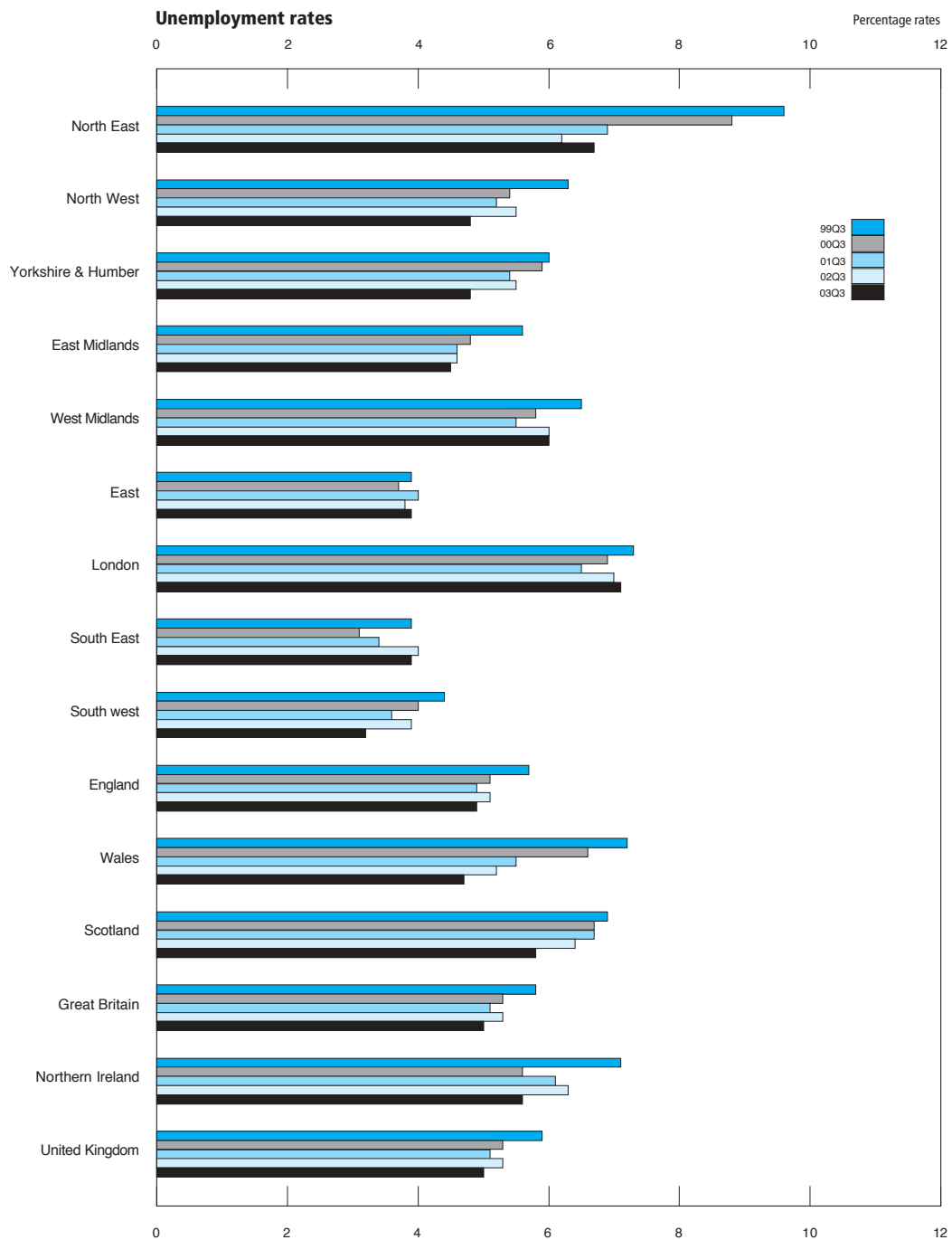
1 The data in this table have been adjusted to reflect the 2001 Census population data.

2 Data are from the Labour Force Survey. Unemployment rate is the percentage of economically active people who are unemployed on the ILO measure.

3 Includes Merseyside.

4 Seasonally adjusted estimates are revised in April each year.

Source: Office for National Statistics; Enquiries 020 7533 6094



4.6 Average earnings (including bonuses)

Great Britain

2000 = 100

	Whole economy+	headline rate ²	Private sector	headline rate ²	Public sector	headline rate ²	Manufact- uring industri- es ³	headline rate ^{2,3}	Product- ion industri- es	headline rate ²	Service industri- es	headline rate ²	Private sector services	headline rate ²
Annual	LNMQ		LNKY		LNNJ		LNMR		LNMS		LNMT		JJGH	
1999	95.7		95.5		96.4		95.6		95.9		95.7		95.4	
2000	100.0		100.0		100.0		100.0		100.0		100.0		100.0	
2001	104.4		104.3		105.0		104.3		104.2		104.4		104.2	
2002	108.2		107.9		109.3		108.0		107.9		108.1		107.7	
Monthly		LNNC		LNNB		LNNB		LNNB		LNNF		LNNH		JJGJ
1999 Jan	93.1	4.4	92.7	4.6	94.6	3.7	93.7	3.5	94.1	3.5	92.9	4.5	92.3	4.8
Feb	93.7	4.4	93.5	4.6	95.2	3.9	93.8	3.5	94.2	3.4	93.7	4.6	93.4	4.9
Mar	94.1	4.5	93.8	4.7	95.4	4.2	94.2	3.6	94.6	3.5	94.1	4.7	93.7	4.9
Apr	94.4	4.5	94.2	4.5	95.2	4.4	94.5	3.5	95.0	3.4	94.2	4.6	93.9	4.7
May	95.0	4.2	94.7	4.2	96.1	4.5	94.7	3.5	95.1	3.4	95.3	4.3	95.0	4.3
Jun	95.5	4.5	95.3	4.5	96.6	4.7	95.2	3.5	95.4	3.4	95.7	4.8	95.5	4.8
Jul	95.8	4.6	95.6	4.7	96.5	4.5	95.7	3.5	95.9	3.4	95.9	5.1	95.7	5.3
Aug	96.2	4.9	96.1	5.1	96.8	4.2	96.2	3.7	96.5	3.5	96.2	5.4	96.0	5.8
Sep	96.6	4.7	96.4	4.9	97.2	3.9	96.5	4.0	96.7	3.8	96.7	5.1	96.4	5.4
Oct	97.3	4.9	97.2	5.2	97.4	3.9	97.1	4.3	97.3	4.0	97.3	5.2	97.1	5.6
Nov	97.6	5.0	97.5	5.2	97.6	3.9	97.5	4.5	97.6	4.2	97.7	5.2	97.6	5.6
Dec	98.6	5.5	98.8	5.9	97.6	3.8	98.0	5.0	98.1	4.7	98.6	5.7	98.8	6.3
2000 Jan	98.8	5.8	98.8	6.3	98.9	4.0	98.9	5.4	99.2	5.1	98.9	6.1	99.0	6.7
Feb	98.7	5.9	98.7	6.3	99.5	4.3	98.2	5.3	98.5	5.1	98.9	6.1	98.9	6.8
Mar	98.9	5.5	98.9	5.9	98.9	4.2	98.4	4.9	98.4	4.7	98.9	5.7	99.0	6.3
Apr	98.7	5.0	98.5	5.2	99.2	4.1	98.7	4.5	98.6	4.1	98.6	5.1	98.4	5.4
May	98.8	4.5	98.6	4.7	99.2	3.7	99.5	4.6	99.5	4.2	98.6	4.4	98.4	4.7
Jun	99.2	4.1	99.0	4.2	100.0	3.6	99.3	4.6	99.3	4.2	99.0	3.9	98.8	4.0
Jul	99.5	3.9	99.4	4.0	99.8	3.4	99.9	4.6	99.8	4.3	99.4	3.5	99.2	3.6
Aug	100.3	4.0	100.3	4.1	100.1	3.4	100.1	4.3	100.1	4.0	100.4	3.8	100.4	3.9
Sep	100.7	4.1	100.8	4.3	100.4	3.4	100.9	4.3	100.8	4.0	100.7	4.0	100.7	4.3
Oct	101.3	4.2	101.4	4.4	100.8	3.4	101.3	4.3	101.2	4.0	101.4	4.2	101.4	4.5
Nov	101.9	4.3	101.9	4.4	101.4	3.6	102.2	4.6	102.1	4.3	101.9	4.2	101.9	4.4
Dec	103.3	4.5	103.7	4.6	101.7	3.9	102.7	4.7	102.6	4.4	103.4	4.5	103.9	4.7
2001 Jan	103.2	4.6	103.4	4.7	102.2	3.8	102.7	4.5	102.7	4.2	103.3	4.6	103.6	4.7
Feb	103.6	4.8	103.7	4.9	102.6	3.6	103.4	4.7	103.7	4.5	103.8	4.8	104.0	5.0
Mar	103.7	4.8	103.7	4.8	103.3	3.6	103.5	4.8	103.3	4.6	103.8	4.8	103.8	4.9
Apr	103.9	5.1	103.9	5.1	104.6	4.3	103.9	5.2	103.7	5.1	103.9	5.1	103.8	5.1
May	104.0	5.2	103.8	5.2	105.0	5.2	104.1	5.0	104.0	4.9	103.9	5.2	103.6	5.2
Jun	104.3	5.3	104.1	5.3	105.3	5.5	104.3	5.0	104.1	4.8	104.2	5.3	103.9	5.3
Jul	104.4	5.1	104.2	5.1	105.6	5.6	104.4	4.7	104.3	4.6	104.3	5.2	103.9	5.1
Aug	104.8	4.9	104.6	4.8	106.0	5.6	104.8	4.7	104.6	4.6	104.8	4.9	104.4	4.6
Sep	105.0	4.6	104.8	4.4	106.0	5.7	105.2	4.5	105.0	4.4	104.9	4.5	104.5	4.2
Oct	105.1	4.2	104.9	3.9	106.4	5.7	105.2	4.3	105.1	4.2	105.0	4.1	104.7	3.6
Nov	105.2	3.8	105.0	3.5	106.4	5.4	105.2	3.7	105.0	3.6	105.1	3.7	104.7	3.2
Dec	105.8	3.1	105.6	2.8	106.8	5.2	105.4	3.1	105.2	3.1	105.7	3.0	105.3	2.4
2002 Jan	106.3	2.9	106.1	2.5	107.0	4.9	105.9	2.9	105.8	2.8	106.3	2.7	106.0	2.1
Feb	106.9	2.8	106.7	2.4	107.2	4.7	106.0	2.8	106.0	2.6	107.1	2.8	107.0	2.2
Mar	106.7	3.0	106.4	2.7	107.9	4.5	106.4	2.8	106.5	2.8	106.6	2.9	105.9	2.4
Apr	108.0	3.3	108.1	3.2	108.3	4.1	107.4	2.9	107.2	2.9	108.0	3.3	108.1	3.0
May	107.9	3.5	107.8	3.5	108.7	3.8	107.7	3.2	107.6	3.3	107.9	3.5	107.7	3.4
Jun	108.2	3.8	108.0	3.9	109.0	3.5	108.1	3.5	108.0	3.5	108.2	3.9	108.0	4.0
Jul	108.4	3.8	108.2	3.8	109.6	3.6	108.3	3.6	108.2	3.7	108.3	3.9	108.0	3.9
Aug	108.6	3.7	108.5 [†]	3.8 [†]	109.1 [†]	3.4	108.8	3.7	108.7	3.8	108.5 [†]	3.7	108.2	3.8
Sep	108.8	3.7	108.5	3.7	110.1	3.6	108.8 [†]	3.6	108.7	3.7	108.7 [†]	3.7	108.3	3.7
Oct	109.1	3.7	108.7	3.6	111.0	3.7	109.3	3.7	109.2	3.8	109.0	3.7	108.4 [†]	3.6
Nov	109.5	3.8	109.1	3.7	111.6	4.3	109.5	3.8 [†]	109.4	3.9	109.5	3.9	108.8	3.7
Dec	109.4	3.8	108.7	3.5	112.1	4.7	109.9	4.1	109.8	4.1	108.9	3.7	107.8	3.3
2003 Jan	109.8	3.6	109.2	3.3	112.4	5.0	109.9	4.0	109.8	4.1	109.6	3.4	108.6	2.9
Feb	109.9	3.2	109.3	2.8	112.8	5.1	110.7	4.1	110.6	4.1	109.8	2.9	108.7	2.2
Mar	111.4	3.5	110.8	3.2	113.4	5.1	113.3	4.9	113.1	4.8	110.9	3.2	109.8	2.6
Apr	110.8	3.3	110.2	2.8	113.9	5.1	110.2	4.5	110.2	4.5	110.9	3.1	110.0	2.3
May	111.3	3.4	110.7	3.0	113.7	4.9	111.1	4.1	111.0	4.1	111.5	3.3	110.7	2.7
Jun	111.6	3.0	110.9	2.4	114.8	5.1	111.3	2.9	111.3	3.0	111.8	3.1	110.8	2.4
Jul	112.3	3.3	111.7	2.9	115.4	5.1	111.8	3.1	111.6	3.1	112.5	3.5	111.6	2.9
Aug	112.4 [†]	3.4	111.5	2.9	115.6	5.6	111.9	3.0	111.8 [†]	3.0	112.6	3.7	111.5	3.0
Sep	112.8	3.6	112.1	3.1	116.1	5.6	112.5	3.2	112.3	3.1 [†]	113.0	3.9 [†]	111.9	3.2 [†]
Oct ¹	113.2	3.6	112.4	3.2	116.1	5.4	112.8	3.2	112.6	3.1	113.2	3.8	112.1	3.2

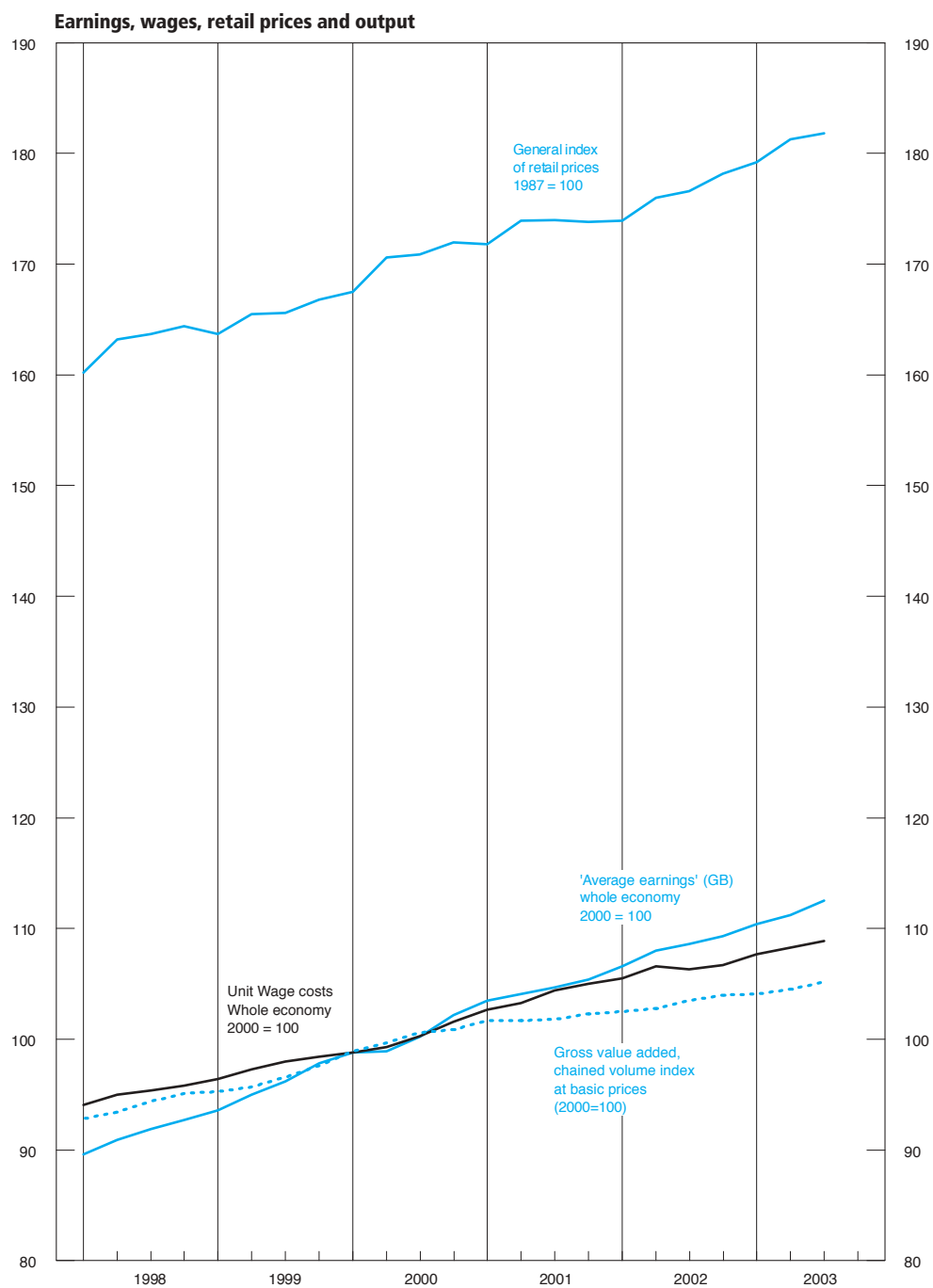
1 Provisional.

2 The headline rate is the change in the average seasonally adjusted index values for the last 3 months compared with the same period a year ago.

Previously, the headline rate was centred on the middle month of the three under consideration. The new presentation aligns the average with the last month of the three.

3 ONS regrets that the series have been withdrawn for the period 1963-1982, owing to an irregularity.

Source: Office for National Statistics; Enquiries 01633 816024



4.7 Productivity and Unit Wage costs¹

United Kingdom

2000 = 100

	Productivity jobs			Output per filled job ²			Output per hour worked ³			Unit wage costs	
	Whole economy	Total production industries	Manufacturing industries	Whole economy	Total production industries	Manufacturing industries	Whole economy	Total production industries	Manufacturing industries	Whole economy	Manufacturing industries
Annual	LNNM	LNOJ	LNOK	LNNN	LNNW	LNNX	LZVB	LZVK	LZVF	LNNK	LNNQ
2000	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
2001	100.8	96.0	95.5	101.1	102.5	103.3	100.9	103.1	103.7	103.8	101.0
2002	100.7	91.6	90.7	102.5	104.5	104.8 [†]	102.5 [†]	104.8	104.6 [†]	106.3 [†]	103.0
Quarterly											
2000 Q1	99.4	101.3	101.5	99.4	98.3	97.8	99.9	98.1	97.5	98.8	100.7
Q2	99.9	100.5	100.5	99.8	99.6	99.3	99.6	99.2	98.9	99.3	99.8
Q3	100.2	99.6	99.5	100.3	100.4	100.5	100.5	100.2	100.4	100.3	99.8
Q4	100.4	98.6	98.5	100.4	101.7	102.4	100.1	102.5	103.2	101.6	99.7
2001 Q1	100.6	97.6	97.3	101.1	102.5	103.5	100.8	103.2	104.1	102.7	99.7
Q2	100.8	96.6	96.2	100.8	102.2	102.6	100.4	102.2	102.5	103.3	101.5
Q3	100.8	95.3	94.8	101.0	103.1	104.0	100.8	102.8	103.4	104.4	100.7
Q4	100.9	94.4	93.8	101.4	102.2	102.9	101.8	104.4	104.7	105.0	102.3
2002 Q1	100.9	93.2	92.3	101.6	103.0	103.8	101.5	103.2	103.4	105.5	102.2
Q2	100.7	92.2	91.4	102.0 [†]	104.1	103.5	102.5 [†]	105.4 [†]	104.3	106.6 [†]	104.1
Q3	100.7 [†]	91.1 [†]	90.1	102.8	105.0 [†]	106.0 [†]	102.8	105.9	106.1	106.3	102.5
Q4	100.6	90.1	89.1	103.4	105.7	106.0	103.4	104.7	104.6 [†]	106.7	103.3
2003 Q1	100.7	89.2	88.2	103.4	106.5	107.2	103.1	105.5	105.6	107.7	103.8
Q2	100.8	88.0	86.8	103.7	108.2	109.7	103.5	109.0	109.5	108.3	101.1
Q3	100.8	86.8	85.8	104.3	109.6	111.1	103.2	107.8	108.8	108.9	100.8
Monthly											
2002 Jan	..	..	92.6	..	..	102.9 [†]	102.9
Feb	..	..	92.3	..	..	104.0	..	..	..	..	102.0
Mar	..	..	91.9	..	..	104.5	..	..	..	..	101.8
Apr	..	..	91.7	..	..	104.5	..	..	..	..	102.7
May	..	..	91.4	..	..	105.9	..	..	..	..	101.7
Jun	..	..	90.9	..	..	100.1	..	..	..	..	108.0
Jul	..	..	90.6 [†]	105.0	..	..	..	..	103.1
Aug	..	..	90.1	..	..	106.5	..	..	..	..	102.1
Sep	..	..	89.6	..	..	106.4	..	..	..	..	102.2
Oct	..	..	89.3	..	..	105.2	..	..	..	..	103.9
Nov	..	..	89.1	..	..	106.3	..	..	..	..	103.0
Dec	..	..	88.9	..	..	106.6	..	..	..	..	103.1
2003 Jan	..	..	88.6	..	..	106.5	..	..	..	..	103.2
Feb	..	..	88.2	..	..	107.5	..	..	..	..	103.0
Mar	..	..	87.9	..	..	107.5	..	..	..	..	105.3
Apr	..	..	87.3	..	..	109.0	..	..	..	..	101.1
May	..	..	86.8	..	..	109.6	..	..	..	..	101.3
Jun	..	..	86.4	..	..	110.4	..	..	..	..	100.8
Jul	..	..	86.1	..	..	111.1	..	..	..	..	100.6
Aug	..	..	85.8	..	..	110.9	..	..	..	..	100.9
Sep	..	..	85.5	..	..	111.3	..	..	..	..	101.0
Oct	..	..	85.3	..	..	112.7	..	..	..	..	100.1

Percentage change, quarter on corresponding quarter of previous year

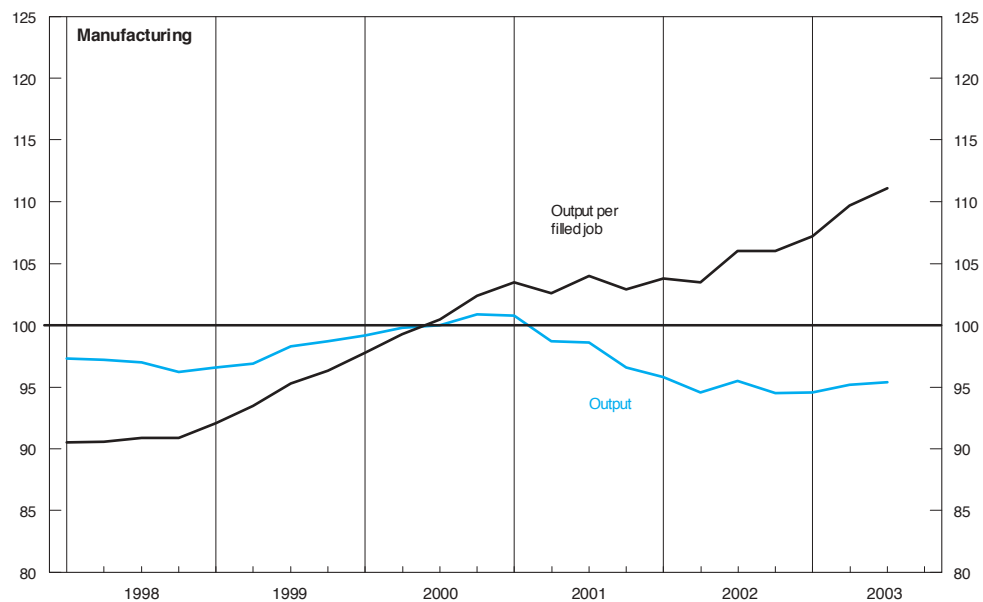
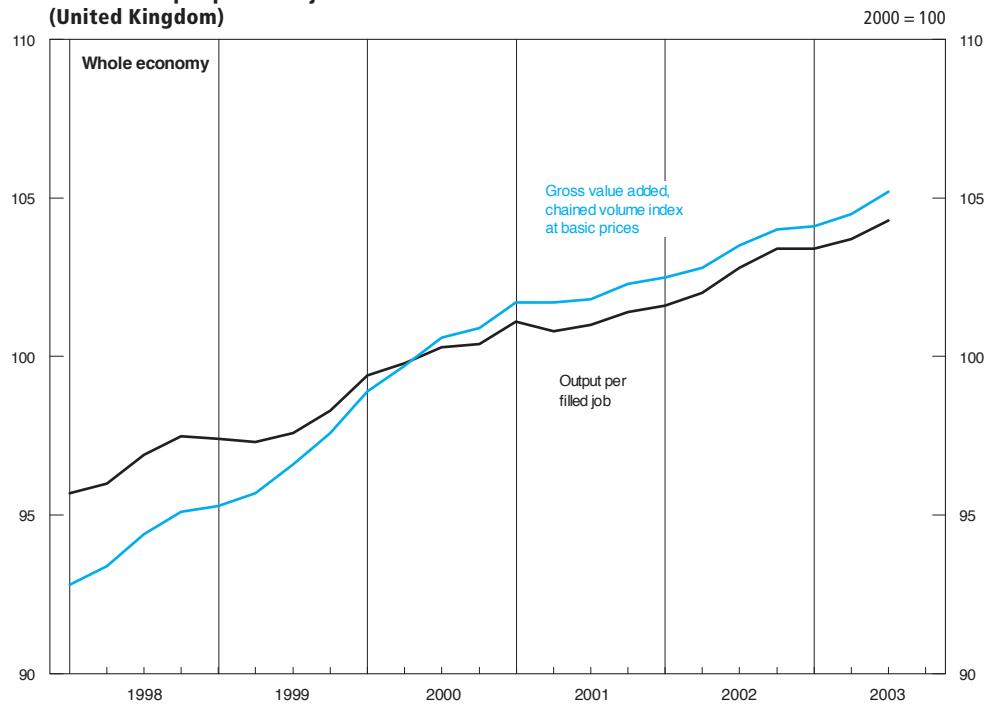
Quarterly	LNNQ	LNNR	LNNNS	LNNP	LNNNT	LNNNU	LZVD	LZVM	LZVH	LOJE	LOJF
2001 Q1	1.2	-3.6	-4.1	1.7	4.3	5.9	0.9	5.2	6.7	3.9	-1.1
Q2	0.9	-3.9	-4.2	1.1	2.6	3.3	0.9	3.0	3.7	4.1	1.6
Q3	0.6	-4.3	-4.8	0.6	2.8	3.5	0.3	2.6	2.9	4.0	1.0
Q4	0.4	-4.2	-4.8	1.0	0.5	0.5	1.7	1.8	1.5	3.3	2.6
2002 Q1	0.3	-4.5	-5.2	0.5	0.5 [†]	0.3 [†]	0.8	-	-0.6	2.8	2.6
Q2	-0.1	-4.6	-5.1	1.2 [†]	1.9	0.9	2.1 [†]	3.1 [†]	1.8	3.2 [†]	2.6
Q3	-0.2 [†]	-4.4 [†]	-4.9 [†]	1.8	1.9	1.9	2.0	3.0	2.7	1.8	1.7
Q4	-0.3	-4.6	-5.0	2.0	3.3	3.0	1.6	0.4	-0.1 [†]	1.6	1.0
2003 Q1	-0.2	-4.3	-4.4	1.8	3.3	3.3	1.5	2.2	2.1	2.1	1.6
Q2	0.1	-4.5	-5.0	1.6	3.9	6.0	0.9	3.5	5.0	1.6	-2.9
Q3	0.2	-4.7	-4.8	1.5	4.3	4.9	0.4	1.8	2.5	2.5	-1.6

1 The full productivity and unit wage costs data sets with associated articles can be found on the National Statistics web site at www.statistics.gov.uk/productivity
Contact the Labour Market Statistics helpline (020 7533 6094) for further information.

2 Output per filled job is the ratio of Gross value added at basic prices to productivity jobs.
3 Output per hour worked is the ratio of Gross value added at basic prices to productivity hours.

Source: Office for National Statistics; Enquiries 01633 812766

**Index of Output per filled job
(United Kingdom)**



5.1 Output of production industries¹

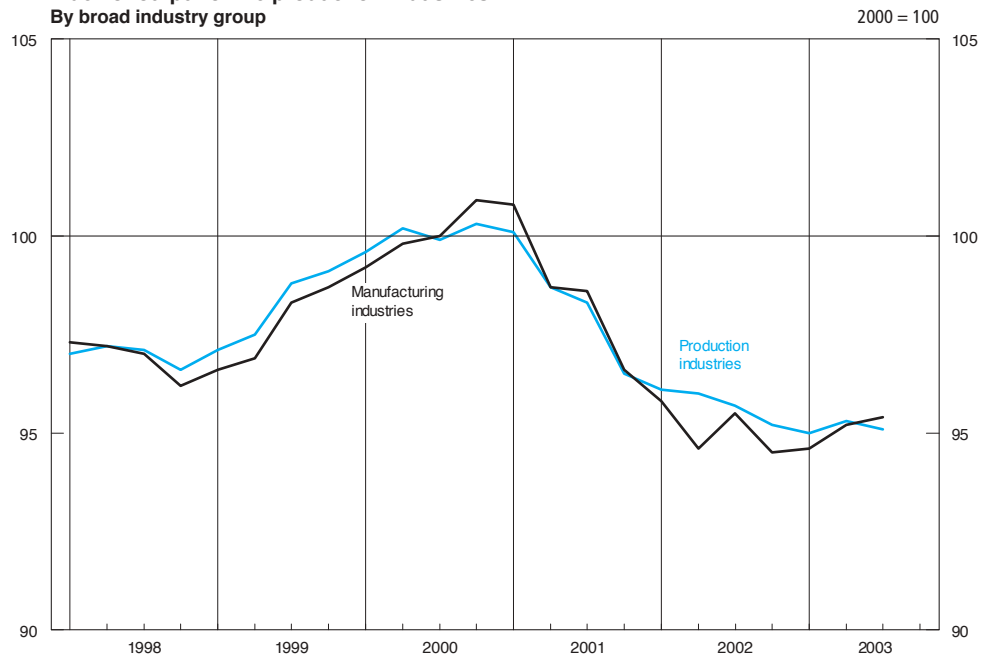
2000 = 100

	Broad industry groups				By main industrial groupings			
	Total production industries+	Mining and quarrying	Electricity, gas and water supply	Total manufacturing industries+	Consumer durables	Consumer non-durables	Capital goods	Intermediate goods and energy
<i>2000 weights</i>	<i>1 000</i>	<i>130</i>	<i>83</i>	<i>786</i>	<i>37</i>	<i>258</i>	<i>221</i>	<i>485</i>
Annual	CKYW	CKYX	CKYZ	CKYY	UFIU	UFJS	UFIL	JMOH
1998	97.0	99.1	95.3	96.9	95.4	100.3	91.6	98.2
1999	98.1	103.3	97.9	97.6	98.4	99.6	96.5	98.2
2000	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
2001	98.4	94.5	102.4	98.7	102.5	101.2	98.4	96.6 [†]
2002	95.7 [†]	94.4 [†]	104.0 [†]	95.1 [†]	103.8	100.8 [†]	90.0 [†]	95.0
Quarterly								
1998 Q1	97.0	97.9	93.6	97.3	93.6	100.6	90.9	98.5
Q2	97.2	98.9	95.2	97.2	95.2	101.0	91.1	98.6
Q3	97.1	99.2	95.8	97.0	96.6	100.3	92.0	98.1
Q4	96.6	100.4	96.6	96.2	96.5	99.4	92.3	97.4
1999 Q1	97.1	102.2	96.9	96.6	96.3	98.5	94.7	97.7
Q2	97.5	103.3	97.1	96.9	97.3	99.4	95.4	97.6
Q3	98.8	104.5	98.4	98.3	99.5	100.2	97.6	98.6
Q4	99.1	103.0	99.1	98.7	100.4	100.3	98.3	98.8
2000 Q1	99.6	103.8	98.7	99.2	100.3	100.3	98.2	99.9
Q2	100.2	102.4	101.0	99.8	99.9	100.4	99.5	100.4
Q3	99.9	98.9	99.9	100.0	99.8	99.8	100.1	100.0
Q4	100.3	94.9	100.3	100.9	100.0	99.5	102.2	99.8
2001 Q1	100.1	93.3	104.5	100.8	102.8	101.2	103.2	97.9
Q2	98.7	96.3	102.8	98.7	101.9	100.8	98.5	97.5
Q3	98.3	95.0	101.0	98.6	102.3	101.4	98.1	96.5
Q4	96.5	93.4	101.2	96.6	103.2	101.4	93.8	94.7
2002 Q1	96.1 [†]	94.2 [†]	101.5 [†]	95.8	105.1 [†]	101.4	90.5	95.1 [†]
Q2	96.0	99.1	104.6	94.6	103.2	101.0 [†]	89.3 [†]	95.9
Q3	95.7	90.2	106.2	95.5 [†]	102.9	101.3	90.6	94.5
Q4	95.2	94.0	103.6	94.5	104.1	99.5	89.5	94.8
2003 Q1	95.0	93.1	101.7	94.6	99.7	99.8	90.6	94.1
Q2	95.3	90.3	103.3	95.2	101.5	99.9	93.0	93.3
Q3	95.1	88.0	104.3	95.4	103.5	100.5	92.6	92.8
Monthly								
2001 Jul	97.9	95.4	99.8	98.2	102.7	100.7	97.5	96.4
Aug	98.8	95.0	99.4	99.4	102.2	102.5	99.5	96.3
Sep	98.2	94.7	103.7	98.2	101.9	101.1	97.3	96.7
Oct	96.9	92.8	98.1	97.5	104.4	101.9	95.4	94.4
Nov	96.4	93.0	102.2	96.4	103.6	101.5	93.5	94.6
Dec	96.2	94.3	103.2	95.8	101.6	101.0	92.5	95.0
2002 Jan	96.0	96.1 [†]	102.3	95.3 [†]	104.3 [†]	100.2 [†]	90.5 [†]	95.6 [†]
Feb	95.9 [†]	92.8	99.8 [†]	95.9	104.7	102.4	90.0	94.4
Mar	96.3	93.8	102.4	96.1	106.3	101.5	91.1	95.2
Apr	96.5	96.0	102.8	95.9	106.1	102.3	90.0	95.7
May	98.2	101.0	106.3	96.8	105.8	102.1	92.9	97.9
Jun	93.4	100.3	104.6	91.0	97.7	98.6	85.1	94.0
Jul	95.3	87.6	109.2	95.1	101.0	101.4	89.7	94.2
Aug	96.0	88.0	108.0	96.0	104.0	101.4	92.1	94.2
Sep	95.8	95.1	101.5	95.4	103.9	101.3	90.1	94.9
Oct	95.0	95.8	104.1	94.0	103.2	99.5	88.3	95.1
Nov	95.1	93.0	102.1	94.7	104.4	99.7	89.6	94.5
Dec	95.4	93.2	104.7	94.7	104.5	99.2	90.6	94.7
2003 Jan	94.5	92.6	99.4	94.3	101.4	99.3	90.1	93.5
Feb	95.4	93.3	103.8	94.8	99.8	99.8	91.1	94.6
Mar	95.0	93.2	102.0	94.6	97.9	100.1	90.7	94.0
Apr	95.0	90.4	101.0	95.1	100.8	99.2	93.7	92.9
May	95.0	90.2	101.6	95.1	100.7	100.7	92.0	92.9
Jun	95.8	90.3	107.5	95.4	103.0	99.9	93.4	94.1
Jul	95.6	90.8	102.9	95.7	104.2	100.5	93.1	93.5
Aug	94.8	87.2	103.1	95.2	101.9	100.4	91.7	92.7
Sep	95.0	85.9	106.7	95.2	104.5	100.4	93.0	92.2
Oct	95.9	87.4	106.4	96.2	105.0	101.4	94.1	93.1

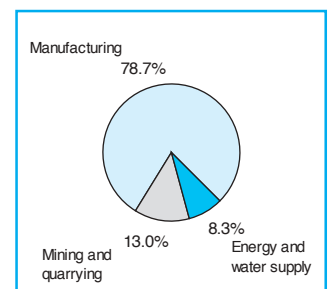
¹ The figures contain, where appropriate, an adjustment for stock changes.

Source: Office for National Statistics; Enquiries 01633 812786

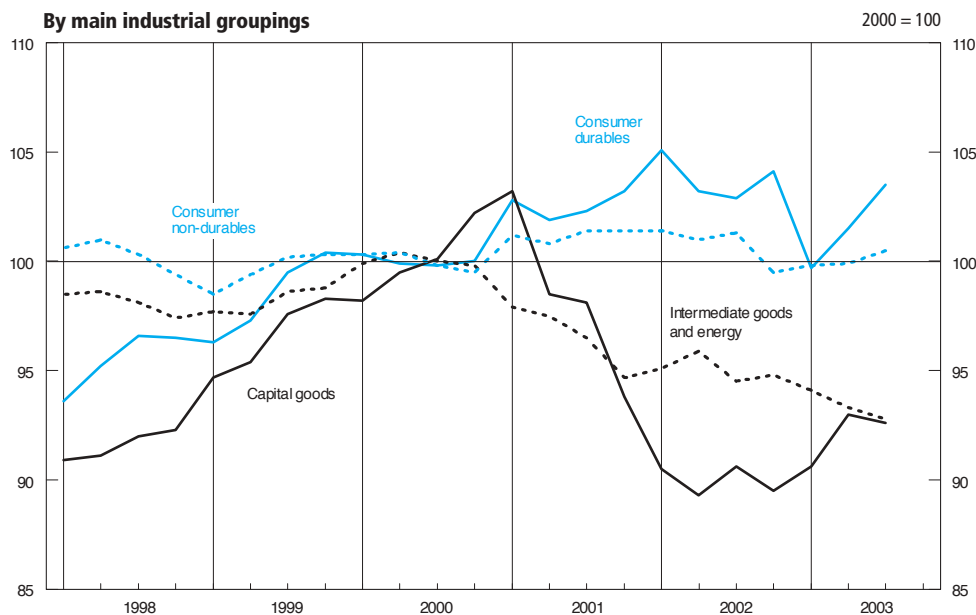
Index of output of the production industries
By broad industry group



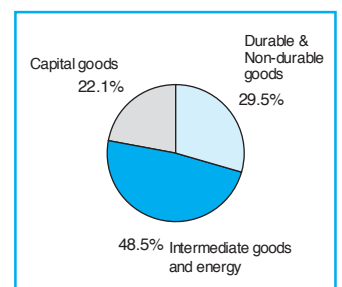
Share of output in 2000



By main industrial groupings



Share of output in 2000



5.2 Engineering and construction : output and orders

Seasonally adjusted Index numbers at constant prices¹

	Engineering (2000 =100)									Construction (GB)(2000=100)	
	Total			Home			Export			Gross output+ ⁴	Orders received
	Orders ² on Hand	New ³ Orders	Turnover	Orders ² on Hand	New ³ Orders	Turnover	Orders ² on Hand	New ³ Orders	Turnover		
Annual											
	JIQI	JIQH	JIQJ	JIQC	JIQB	JIQD	JIQF	JIQE	JIQG	FEAQ [†]	FEAZ [†]
1998	81.9	84.2	87.8	79.1	82.5	88.3	86.7	86.4	87.3	94.8 [†]	108.5 [†]
1999	92.0	91.8	91.9	92.8	94.2	93.5	90.8	88.6	89.9	96.2	98.5
2000	103.4	100.0	100.0	104.9	100.0	100.0	100.8	100.0	100.0	100.0	100.0
2001	94.4	89.5	95.3	104.6	94.5	98.4	77.2	82.9	91.2	102.7	99.2
2002	91.7 [†]	80.4	84.1 [†]	104.2 [†]	87.3 [†]	91.1 [†]	70.5	71.2 [†]	74.8 [†]	107.6	102.2
Quarterly											
1998 Q1	87.2	88.8	88.7	86.9	87.2	90.2	87.7	90.9	86.7	..	..
Q2	87.8	85.7	87.9	86.8	84.2	87.6	89.5	87.8	88.2	..	..
Q3	84.9	80.6	86.9	81.1	77.0	87.6	91.2	85.5	86.0	..	..
Q4	81.9	81.5	87.9	79.1	81.6	87.6	86.7	81.5	88.3	..	..
1999 Q1	83.1	88.6	90.2	79.9	88.5	91.1	88.5	88.6	89.0	92.2 [†]	..
Q2	82.4	86.8	90.6	80.6	88.7	91.3	85.3	84.2	89.8	95.4	..
Q3	86.8	95.0	93.0	85.3	98.1	95.9	89.3	90.8	89.0	98.3	..
Q4	92.0	96.9	93.9	92.8	101.5	95.6	90.8	90.8	91.7	99.0	..
2000 Q1	96.2	95.9	94.1	96.6	96.2	95.1	95.7	95.5	92.8	102.3	..
Q2	100.6	101.6	99.9	100.2	101.0	100.3	101.3	102.4	99.3	100.1	..
Q3	102.7	100.7	101.5	101.8	99.2	101.0	104.4	102.8	102.2	98.7	..
Q4	103.4	101.8	104.5	104.9	103.6	103.6	100.8	99.4	105.7	98.9	..
2001 Q1	104.4	102.1	104.4	106.2	102.2	104.7	101.3	102.0	104.2	101.0	..
Q2	102.0	91.0	97.1	108.2	97.8	99.0	91.3	81.9	94.5	102.0	..
Q3	99.9	86.6	92.0	107.6	91.5	96.0	86.9	79.9	86.6	102.9	103.1 [†]
Q4	94.4	78.5	87.8	104.6	86.4	93.9	77.2	67.8	79.6	104.8	90.2
2002 Q1	95.1 [†]	82.1 [†]	84.4 [†]	105.5 [†]	87.9 [†]	90.8 [†]	77.4 [†]	74.2 [†]	76.0 [†]	103.3	108.0
Q2	93.9	80.2	84.4	105.8	88.1	91.3	73.8	69.6	75.1	107.0	89.5
Q3	93.7	81.5	84.6	106.2	88.5	91.7	72.6	72.2	75.2	107.8	109.2
Q4	91.7	77.9	83.0	104.2	84.5	90.7	70.5	69.0	72.9	109.2	102.1
2003 Q1	90.2	78.3	82.7	103.0	88.7	93.9	68.6	64.4	68.0	106.4	104.5
Q2	91.6	82.4	83.7	105.1	93.0	94.1	68.6	68.2	69.9	112.4	95.6
Q3	91.9	81.3	83.7	107.0	92.8	94.2	66.3	65.9	70.0	114.5	93.3
Monthly											
2001 Jul	101.6	86.8	91.1	107.8	89.7	95.0	91.0	82.8	85.8	..	95.4 [†]
Aug	100.2	85.7	93.6	106.7	89.2	97.3	89.2	81.0	88.7	..	119.0
Sep	99.9	87.2	91.2	107.6	95.6	95.8	86.9	75.9	85.2	..	95.0
Oct	98.2	80.3	89.3	105.4	82.4	94.5	86.0	77.5	82.4	..	93.6
Nov	93.6	69.4	88.5	99.7	69.4	94.8	83.1	69.4	80.1	..	94.6
Dec	94.4	85.7	85.6	104.6	107.4	92.4	77.2	56.4	76.4	..	82.4
2002 Jan	94.7 [†]	81.5 [†]	84.1 [†]	104.3 [†]	84.2 [†]	90.0 [†]	78.5 [†]	78.0 [†]	76.3 [†]	..	94.1
Feb	95.9	85.7	84.3 [†]	105.6	92.1	90.7	79.5	77.2	75.9	..	104.6
Mar	95.1	79.0	84.8	105.5	87.5	91.6	77.4	67.5	75.7	..	125.2
Apr	94.7	81.4	85.6	105.4	89.1	93.3	76.7	71.2	75.3	..	82.2
May	94.3	82.5	87.0	105.9	92.5	94.1	74.6	69.2	77.5	..	96.0
Jun	93.9	76.6	80.6	105.8	82.8	86.6	73.8	68.3	72.6	..	90.4
Jul	94.4	83.8	84.8	106.0	88.3	91.0	74.8	77.8	76.6	..	113.3
Aug	94.8	81.9	83.6	107.9	95.2	91.6	72.5	64.1	73.0	..	99.9
Sep	93.7	78.8	85.4	106.2	82.0	92.4	72.6	74.6	76.1	..	114.4
Oct	93.9	80.5	82.5	105.5	83.5	89.8	74.4	76.5	72.9	..	92.6
Nov	91.3	71.1	83.0	102.7	76.1	90.2	71.9	64.4	73.6	..	92.0
Dec	91.7	82.0	83.4	104.2	94.0	92.0	70.5	66.0	72.1	..	121.7
2003 Jan	91.3	78.8	83.0	102.2	82.7	94.2	72.8	73.5	68.2	..	110.3
Feb	91.2	80.3	83.5	103.2	96.0	95.7	70.7	59.3	67.3	..	112.8
Mar	90.2	75.8	81.7	103.0	87.3	91.8	68.6	60.3	68.5	..	90.5
Apr	93.8	93.8	84.1	108.4	111.7	94.7	69.1	69.8	70.1	..	111.1
May	92.5	76.6	84.1	106.3	83.6	95.6	69.1	67.3	69.0	..	89.4
Jun	91.6	76.8	82.8	105.1	83.8	92.0	68.6	67.4	70.7	..	86.2
Jul	92.2	84.8	85.4	105.1	92.4	96.3	70.4	74.5	71.0	..	111.6
Aug	92.1	79.3	82.5	106.5	94.4	92.6	67.6	59.0	69.1	..	80.8
Sep	91.9	79.8	83.3	107.0	91.6	93.6	66.3	64.1	69.8	..	87.4
Oct	92.5	84.7	85.4	107.4	94.1	96.6	67.2	72.0	70.7	..	88.4

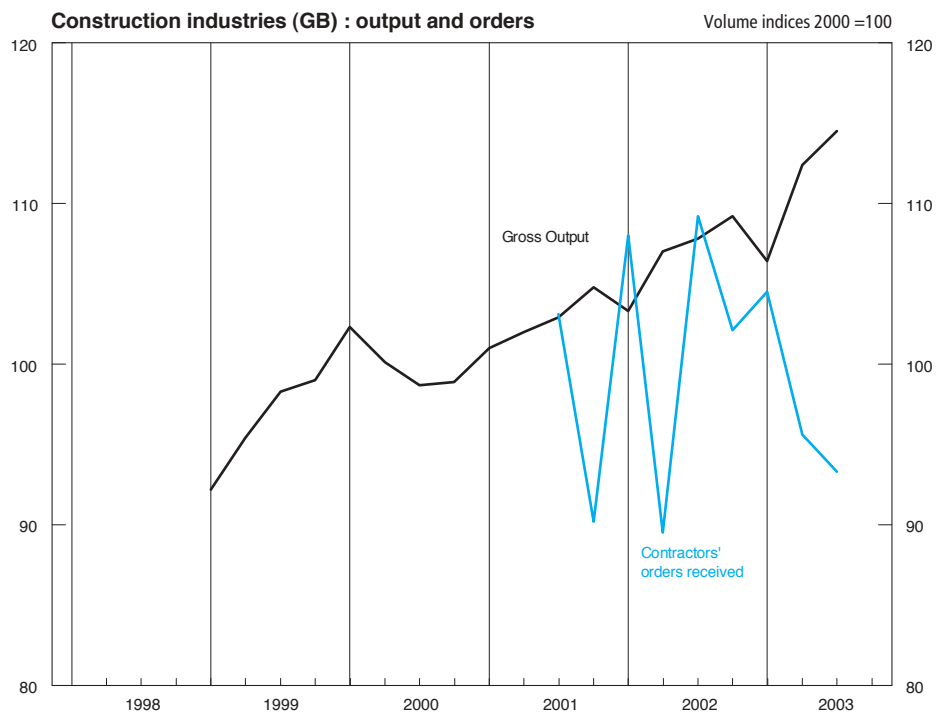
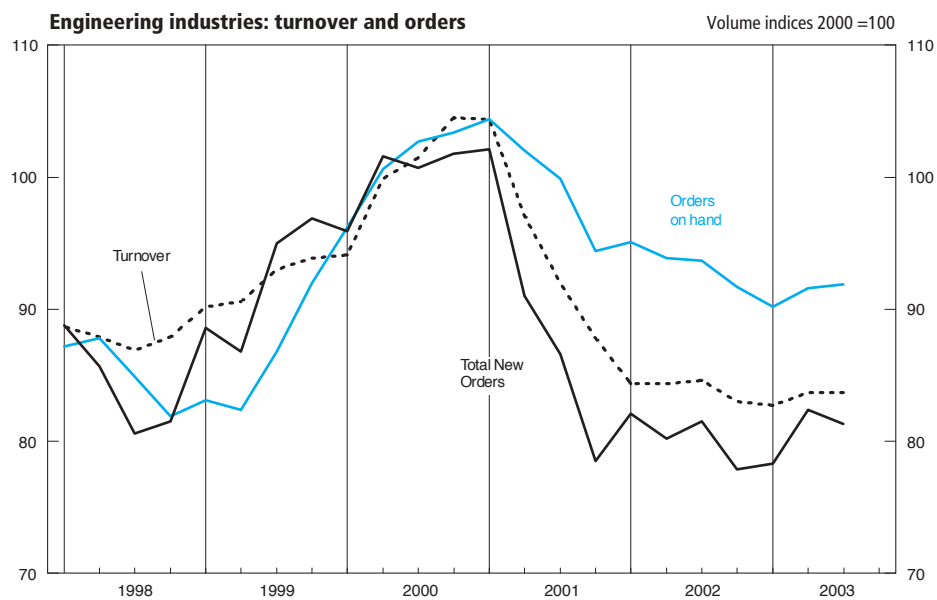
1 The figures shown represent the output of United Kingdom based manufacturers classified to Subsections DK and DL of the Standard Industrial Classification (2003).

2 For Orders on Hand, the annual and quarterly index values represent the value at the end of the period in question, rather than the average value for that period, so the annual value shown for 2000 may not equal 100.

3 Net of cancellations.

4 This index is based upon a gross output series which includes repair and maintenance estimates, unrecorded output by self-employed workers and small firms and output by the direct labour departments of the public sector.

Sources: Office for National Statistics; Enquiries Columns 1-9 01633 812540; Department of Trade and Industry; Enquiries Columns 10-11 020 7890 5583



5.3 Motor vehicle and steel production

	Passenger cars ¹				Commercial vehicles ¹				Crude steel production (NSA) ² (thousand tonnes)
	Not seasonally adjusted		Seasonally adjusted ⁴		Not seasonally adjusted		Seasonally adjusted ⁴		
	Total production (thousands)	<i>of which</i> for export (thousands)	Total production (thousands)	<i>of which</i> for export (thousands)	Total production (thousands)	<i>of which</i> for export (thousands)	Total production (thousands)	<i>of which</i> for export (thousands)	
Annual	FFAA	FFAB	FFAO	FFAP	FFAC	FFAD	FFAQ	FFAR	BCBS
1998	145.7	85.1	145.6	85.1	18.9	8.6	18.9	8.5	17 318.1
1999	148.9	94.9	148.9	94.9	15.5	6.2	15.5	6.2	16 283.8
2000	136.8	88.6	136.8	88.6	14.3	6.3	14.4	6.4	15 154.6
2001	124.4	74.5	124.4	74.5	16.1	8.0	16.1	8.0	13 542.7
2002	135.7	87.2	135.7	87.1	15.9	9.5	15.9	9.5	11 667.1
Quarterly									
1999 Q1	153.5	97.6	142.8	93.0	17.8	7.5	16.7	6.9	4 126.5
Q2	149.6	97.7	145.6	91.7	16.8	6.6	15.9	6.4	4 376.9
Q3	135.9	76.7	149.4	95.1	12.1	4.4	14.3	5.5	4 054.9
Q4	156.5	107.5	157.8	99.7	15.3	6.4	15.0	6.2	3 725.5
2000 Q1	164.8	105.0	151.6	99.5	16.7	8.4	15.3	7.8	4 442.5
Q2	144.4	97.6	141.5	91.9	17.3	8.2	16.6	8.0	4 019.8
Q3	111.7	63.2	127.0	80.1	9.5	3.5	11.9	4.6	3 288.7
Q4	126.3	88.6	127.1	82.9	13.7	5.2	13.6	5.1	3 403.6
2001 Q1	129.0	75.5	119.9	72.1	17.2	6.6	15.6	6.0	3 651.7
Q2	124.1	76.5	119.8	71.2	16.6	7.7	15.4	7.3	3 729.6
Q3	111.9	61.0	126.1	77.0	14.5	7.4	17.8	9.2	3 205.5
Q4	132.4	85.1	131.6	77.8	16.1	10.3	15.4	9.5	2 955.9
2002 Q1	149.9	85.0	138.6	80.7	16.7	8.4	15.4	8.0	3 046.3
Q2	133.5	93.8	127.8	84.7	14.8	9.4	14.0	8.9	3 060.0
Q3	130.6	80.7	148.4	101.5	14.9	9.3	17.4	10.9	2 801.9
Q4	128.7	89.3	127.9	81.4	17.3	10.9	16.8	10.1	2 758.9
2003 Q1	141.5	91.3	130.2	86.4 [†]	16.5	9.3	15.2 [†]	8.9 [†]	3 115.9
Q2	144.4	101.3	137.9 [†]	92.5	15.5	8.3	14.7	8.0	3 293.6
Q3	130.4	85.8	143.0	102.7	13.4	6.9	15.4	7.9	3 281.4
Monthly									
2001 Jul	114.9	63.9	122.2	74.8	14.1	7.6	15.6	8.8	985.5
Aug	89.3	45.5	129.1	80.4	12.0	6.0	21.3	9.8	1 165.3
Sep	131.6	73.6	127.0	75.9	17.3	8.7	16.6	9.0	1 054.7
Oct	146.0	92.8	133.3	78.3	17.6	10.9	15.6	9.5	1 231.8
Nov	145.0	93.1	124.4	77.0	17.6	11.5	15.2	9.7	913.5
Dec	106.1	69.3	137.1	78.0	13.0	8.5	15.4	9.4	810.6
2002 Jan	154.4	84.9	145.1	82.3	16.7	8.4	15.6	8.5	1 119.7
Feb	147.6	81.8	139.5	83.0	17.4	7.4	15.9	7.0	960.5
Mar	147.8	88.4	131.1	76.8	15.9	9.5	14.6	8.5	966.1
Apr	129.5	93.5	137.8	90.0	16.5	11.1	16.0	10.1	1 003.4
May	158.2	109.0	142.7	89.5	15.8	9.9	15.6	9.7	1 204.9
Jun	112.8	78.9	103.0	74.7	12.2	7.3	10.5	7.0	851.7
Jul	134.5	84.9	137.3	92.9	15.2	9.9	16.4	10.9	1 082.0
Aug	112.8	67.0	173.3	124.1	9.8	6.1	17.5	10.3	805.4
Sep	144.5	90.3	134.6	87.5	19.8	11.9	18.4	11.5	914.5
Oct	149.7	98.0	132.6	83.6	19.8	12.5	17.6	11.1	1 116.5
Nov	138.8	98.7	126.7	82.5	18.8	11.2	16.9	9.7	846.0
Dec	97.5	71.2	124.4	78.2	13.4	9.0	16.0	9.6	796.4
2003 Jan	136.1	85.2	125.2 [†]	79.7 [†]	15.8	8.3	15.0	8.4	1 107.1
Feb	136.4	86.2	129.6	87.7	16.3	8.9	15.1 [†]	8.8 [†]	994.6
Mar	151.9	102.4	135.7	91.8	17.3	10.7	15.4	9.4	1 014.2
Apr	144.8	100.8	149.9	96.0	14.6	8.0	14.7	8.1	1 230.5
May	133.1	97.6	126.0	84.9	14.0	7.5	14.2	7.6	1 034.9
Jun	155.4	105.6	137.9	96.6	18.0	9.5	15.3	8.4	1 028.2
Jul	146.3	93.1	143.8	102.3	15.2	7.6	16.1	8.4	1 257.4
Aug	91.4	57.5	142.6	103.8	7.8	3.8	14.9	7.1	989.5
Sep	153.5	106.8	142.7	102.1	17.1	9.2	15.3	8.3	1 034.5
Oct	153.4	113.8	134.2	94.0	16.8	9.5	15.1	8.2	1 195.3 ³
Nov	142.9	110.5	135.6	98.7	19.0	9.8	17.0	8.9	1 109.0

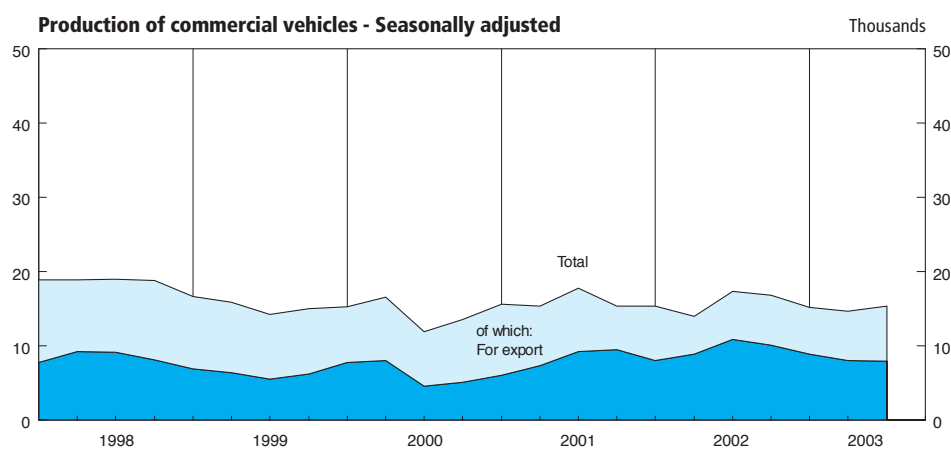
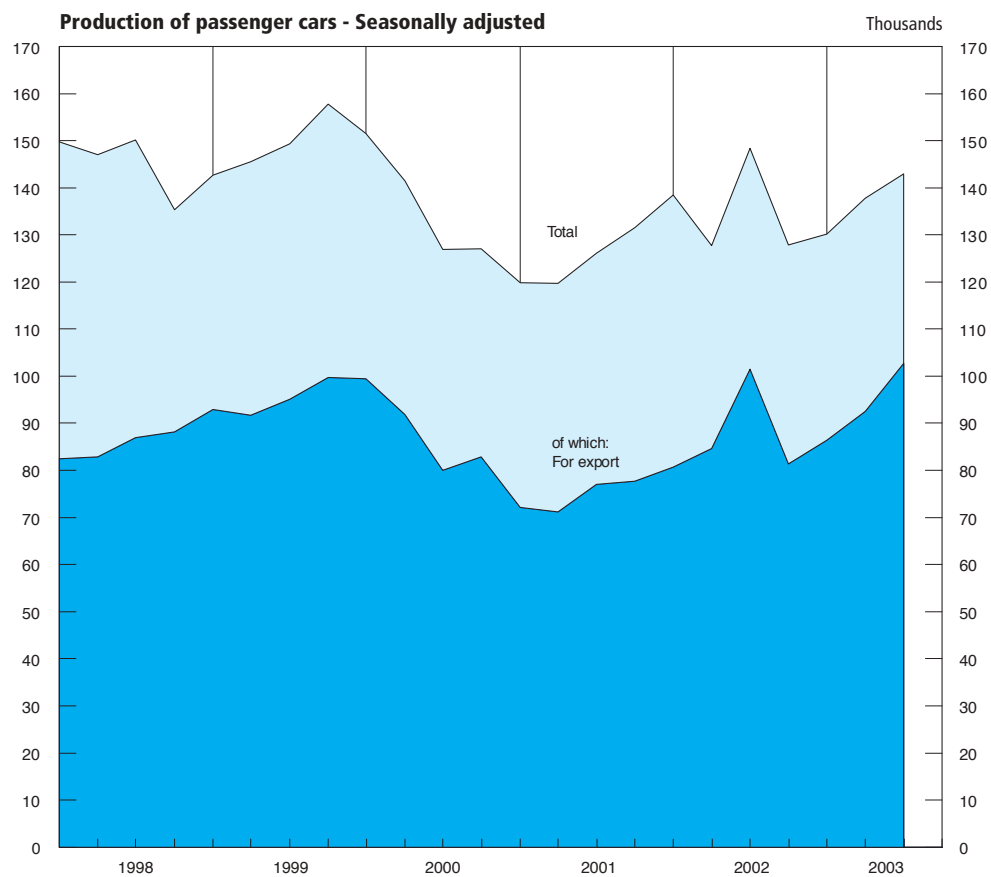
1 Annual and quarterly figures are monthly averages.

2 The totals are for 'usable steel' in accordance with the system used by the EC and the IISI, but in a change from previous publications, figures are actual production totals based on a four or five week period (not seasonally adjusted).

3 Provisional.

4 A seasonally adjusted series, based on the seasonal patterns of production from January 1999, has now been re-introduced. This affects the series from January 1999 only. Earlier data is based on previous production patterns.

Sources: Office for National Statistics; Enquiries Columns 1-8 01633 812963; ISSB Ltd; Enquiries Column 9 020 7343 3900



5.4 Indicators of fixed investment in dwellings

	Fixed investment in dwellings (£ million, chained volume measures, reference year 2000)	Orders received by contractors for new houses (GB) (£ million, 2000 prices)	Housing starts ^{1,2,3} (GB)+			Housing completions ^{1,2,3} (GB)+			Mix-adjusted price of new dwellings at mortgage completion stage (NSA) ⁶ (£)
			Private enterprise (thousands)	Registered Social Landlords ^{4,5} (thousands)	Local Authorities (NSA) (thousands)	Private enterprise (thousands)	Registered Social Landlords ^{4,5} (thousands)	Local Authorities (NSA) (thousands)	
Annual	DFEG	FCAS	FCAT	CTOQ	CTOU	FCAV	CTOS	CTOW	WMPS
1999	27 372	7 265 [†]	156.8	21.5	0.4	149.2	23.3	0.2	114 279
2000	27 394	7 005	158.3	18.9	0.3	144.1	22.9	0.3	127 728
2001	27 999	7 084	162.9	16.9	0.3	140.3	21.2	0.5	134 234
2002	32 825 [†]	7 697	165.1	17.6	0.3	150.3	19.7	0.4	161 533
Quarterly									
1999 Q1	6 735	..	38.6	5.6	0.1	35.5	5.6	–	107 241
Q2	7 181	..	38.7	5.2	0.1	36.3	6.1	0.1	112 711
Q3	6 423	..	38.2	5.4	0.1	38.6	5.8	–	115 789
Q4	7 033	..	41.3	5.2	0.1	38.6	5.8	0.1	118 699
2000 Q1	7 016	..	41.6	5.1	0.1	37.7	5.6	–	118 944
Q2	6 970	..	39.5	4.9	–	36.8	5.9	0.1	125 917
Q3	6 819	..	40.0	4.3	0.1	35.3	4.7	0.1	130 215
Q4	6 589	..	36.7	4.5	0.1	35.5	6.6	0.1	135 936
2001 Q1	7 044	..	38.3	5.7	0.2	34.7	5.7	0.3	130 771
Q2	6 769	..	40.4	4.2	–	34.6	4.7	–	130 774
Q3	7 142	1 813 [†]	41.9	3.3	–	36.0	4.7	0.1	135 507
Q4	7 044	1 746	42.9	3.8	0.1	35.0	6.2	0.1	137 368
2002 Q1	7 572 [†]	1 905	41.0	5.5	0.1	36.4	5.2	–	143 996
Q2	7 812	1 754	39.6	4.2	0.1	38.1	4.6	0.2	157 646
Q3	8 401	2 000	42.7	4.3	–	36.3	4.5	–	164 293
Q4	9 040	2 039	42.6	3.7	0.1	39.4	5.5	0.1	173 254
2003 Q1	8 590	2 059	44.6	4.6	0.1	38.2	5.0	0.2	175 947
Q2	9 100	2 078	..	..	..	..	..	..	187 676
Q3	9 152	1 872	..	..	..	..	..	..	188 570
Monthly									
2001 Jul	..	514 [†]	13.3	1.2	–	11.7	1.8	–	..
Aug	..	755	13.6	1.0	–	11.6	1.6	–	..
Sep	..	544	14.9	1.1	–	12.7	1.3	–	..
Oct	..	522	14.8	1.3	–	11.8	2.5	–	..
Nov	..	569	13.8	1.4	–	11.4	1.9	–	..
Dec	..	655	14.3	1.1	–	11.7	1.7	0.1	..
2002 Jan	..	731	13.4	1.6	0.1	12.2	1.7	–	..
Feb	..	552	13.4	1.7	–	12.4	1.7	–	147 989
Mar	..	622	14.2	2.1	–	11.8	1.7	–	153 792
Apr	..	619	15.6	1.7	–	12.3	1.7	0.1	153 366
May	..	544	12.6	1.4	–	13.4	1.3	0.1	157 653
Jun	..	591	11.4	1.0	0.1	12.4	1.7	–	161 917
Jul	..	673	13.6	1.1	–	11.3	1.4	–	156 787
Aug	..	715	13.5	1.7	–	12.2	1.3	–	165 201
Sep	..	612	15.6	1.5	–	12.8	1.8	–	170 891
Oct	..	655	13.9	1.5	–	12.5	1.8	–	168 194
Nov	..	658	13.9	1.2	–	13.0	1.8	–	171 984
Dec	..	726	14.7	1.1	–	14.0	1.8	–	179 585
2003 Jan	..	773	14.6	1.4	–	11.4	1.5	–	175 758
Feb	..	636	16.0	1.5	–	13.7	1.6	–	174 039
Mar	..	649	14.0	1.8	0.1	13.1	1.9	0.1	178 045
Apr	..	745	..	..	..	..	..	..	188 126
May	..	689	..	..	..	..	..	..	187 498
Jun	..	644	..	..	..	..	..	..	187 403
Jul	..	677	..	..	..	..	..	..	186 807
Aug	..	587	..	..	..	..	..	..	191 100
Sep	..	608	..	..	..	..	..	..	188 287
Oct	..	768	..	..	..	..	..	..	195 551

1 Monthly data collection ceased after March 2003. Only quarterly data is now collected. Great Britain data for Q2 2003 is not yet available. Data for England, Scotland and Wales is available from the website of the Office of the Deputy Prime Minister: www.odpm.gov.uk

2 Data includes estimates for Scotland monthly, quarterly from Q4 2002, and annually from 2002.

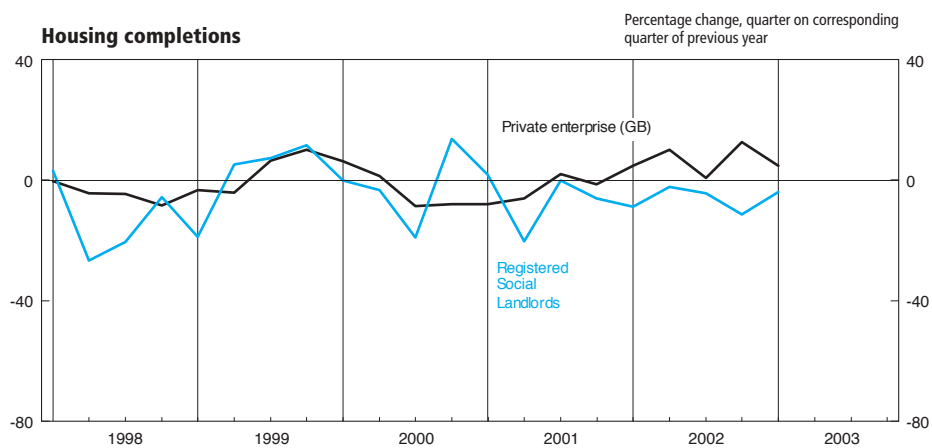
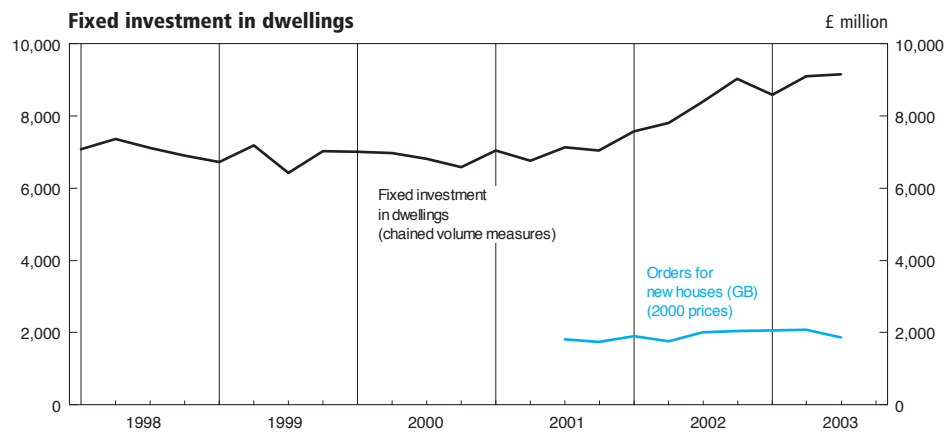
3 The annual totals shown do not equal the equivalent non-seasonally adjusted annual totals because the adjustment was based on financial years.

4 Includes registered and non-registered social landlords.

5 The Registered social landlords series is seasonally adjusted to March 2000 only for England, to December 1996 only for Scotland, and unadjusted for Wales.

6 Series based on mortgage lending by all financial institutions rather than building societies only, as previously published. This change has been made necessary because of the mergers, takeovers and conversions to plc status affecting the building society sector. The series is based on the Office of the Deputy Prime Ministers' 5% Survey of Mortgage Lenders (at completion stage) up to 2003q2. From 2003q3, quarterly data are based on monthly data from the significantly enlarged Survey of Mortgage Lenders.

Sources: Office for National Statistics;
Enquiries Column 1 020 7533 6010; Columns 9-10 020 7533 6046;
Department of Trade and Industry; Column 2 020 7944 5583;
Office of the Deputy Prime Minister;
Columns 3-8 0117 372 8055; Column 11 020 7944 3325



5.5 Number of property transactions¹

Thousands

	Number of property transactions				Number of property transactions		
	Not seasonally adjusted England & Wales	Seasonally adjusted England & Wales ^{2,3}	Not seasonally adjusted England, Wales & N. Ireland		Not seasonally adjusted England & Wales	Seasonally adjusted England & Wales ^{2,3}	Not seasonally adjusted England, Wales & N. Ireland
	FTAP		FTAR	Sep	140	125	145
1998	1 347		1 384	Oct	134	130	137
1999	1 469		1 511	Nov	141	129	144
2000	1 433		1 471	Dec	122	128	125
2001	1 458		1 497				
2002	1 586		1 627	2000 Jan	137	136	140
		FTAQ		Feb	112	128	116
1998 Q1	317	344	327	Mar	118	128	122
Q2	317	332	327	Apr	97	114	100
Q3	377	345	386	May	122	120	126
Q4	335	326	345	Jun	129	122	130
1999 Q1	316	345	325	Jul	127	117	130
Q2	342	358	354	Aug	134	117	137
Q3	414	379	425	Sep	117	112	121
Q4	397	388	407	Oct	123	112	127
2000 Q1	367	392	379	Nov	117	111	121
Q2	348	356	356	Dec	98	114	101
Q3	379	346	388	2001 Jan	123	115	127
Q4	339	338	349	Feb	99	119	102
2001 Q1	327	351	337	Mar	105	117	108
Q2	347	357	360	Apr	101	115	105
Q3	396	366	405	May	121	120	126
Q4	387	383	396	Jun	125	122	128
2002 Q1	342	383	351	Jul	132	119	135
Q2	395	400	404	Aug	140	123	143
Q3	457	412	468	Sep	124	124	127
Q4	392	391	404	Oct	140	125	143
2003 Q1	340	372	359	Nov	137	134	141
Q2	306	323	320	Dec	110	124	112
Q3	358	327	369	2002 Jan	131	125	134
1998 Jan	119	114	122	Feb	108	129	110
Feb	94	114	97	Mar	104	129	106
Mar	104	116	108	Apr	129	134	132
Apr	103	110	106	May	137	136	140
May	96	109	99	Jun	129	130	132
Jun	119	113	122	Jul	152	133	154
Jul	129	113	132	Aug	166	146	171
Aug	119	116	121	Sep	139	132	144
Sep	129	116	133	Oct	147	131	151
Oct	119	109	122	Nov	127	129	131
Nov	110	106	113	Dec	118	131	122
Dec	107	111	110	2003 Jan	131	127	137
1999 Jan	112	115	116	Feb	103	124	109
Feb	96	116	99	Mar	106	121	113
Mar	108	115	110	Apr	101	114	108
Apr	110	122	114	May	101	105	105
May	106	117	110	Jun	103	103	107
Jun	126	119	130	Jul	132	115	135
Jul	140	129	144	Aug	112	105	116
Aug	134	125	137	Sep	114	106	118
				Oct	120	109	124
				Nov	110	111	113

¹ The figures are based on counts of the relevant administrative forms processed each month. Normally the Stamp Offices are able to process the transactions they receive immediately, but high volumes handled in the second quarter of 2002 created some delays, which were partly addressed in July and fully addressed by August. The high volumes manifest itself in a time lag and the later processing of a proportion of the PD forms, which will boost the transactions in the later month. Furthermore because of the time lags involved between completion of transaction and receipt in the Stamp Office, the series above should normally be lagged one month to give a broad representation of transactions occurring in the month (details are given in the June 1991 edition of *Economic Trends*). This relationship will be weaker when Stamp Offices are not able to quickly process the transactions they receive.

² The Jubilee celebrations meant that the late May bank holiday was taken in June 2002. Seasonal features in the data arising from the May Bank holiday will therefore not automatically be removed by the process of seasonal adjustment. Caution should therefore be taken when interpreting monthly movements involving May or June 2002 data.

³ The sum of seasonally adjusted components does not exactly match the unadjusted (definitive) annual total.

Source: Board of Inland Revenue; Enquiries 020 7438 6314

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5.6 Change in inventories

Chained volume measures¹

Reference year 2000, £ million

	Mining and quarrying	Manufacturing industries				Electricity, gas and water supply	Distributive trades		Other industries ³	Change in inventories
		Materials and fuel	Work in progress	Finished goods	Total		Wholesale ²	Retail ²		
Level of inventories at end-December 2002	930	20 845	16 155	19 806	56 806	1 219	27 064	22 024	37 223	145 266
Quarterly										
	FAEA	FBNF	FBNG	FBNH	DHBM	FAEB	FAJX	FBYX	DLWX	CAFU
1999 Q1	22	216	-230	-4	-16	-36	156	442	2 176	2 742
Q2	-86	-29	-32	-481	-541	-3	407	600	105	476
Q3	-94	158	257	22	437	-101	387	321	729	1 677
Q4	-62	344	-113	-2	231	-23	742	129	506	1 531
2000 Q1	-36	139	400	102	640	71	620	599	-1 069	819
Q2	1	375	-91	114	399	37	440	363	17	1 262
Q3	-34	293	-80	67	282	78	750	320	538	1 941
Q4	-108	-76	291	188	401	99	93	-13	783	1 249
2001 Q1	-3	150	2	426	578	-355	266	235	74	795
Q2	-5	-241	-84	110	-215	164	458	118	1 286	1 806
Q3	32	-409	43	-172	-538	80	339	152	290	355
Q4	-3	-104	-264	47	-321	30	-584	9	851	-18
2002 Q1	236	538	99	-90	547	-276	-1 670	521	1 378 [†]	736 [†]
Q2	-74	-507	-476	-334	-1 317	51	712	848	-998	-778
Q3	-84	-436	-60	-212	-708	84	212	397	109	10
Q4	-87	-252	-145	-92	-489	103	543	92	1 366	1 528
2003 Q1	-30	-42	20	-149	-171	-203	-153	-4	1 767	1 206
Q2	60	-380	64	82	-234	82	-52	247	36	139
Q3	-13 [†]	53 [†]	87 [†]	361 [†]	501 [†]	-37 [†]	366 [†]	205 [†]	-49	973

1 Estimates are given to the nearest £ million but cannot be regarded as accurate to this degree.

2 Wholesaling and retailing estimates exclude the motor trades.

3 Quarterly alignment adjustment included in this series. For description see notes to the *Economic Trends Annual Supplement*. For details of adjustments, see notes section in the Sector and Financial Accounts article in *UK Economic Accounts*.

Sources: Office for National Statistics; Enquiries Columns 1-8 01633 812351; Columns 9-10 020 7533 5949

5.7 Inventory ratios

	Manufacturers' inventories ¹ to manufacturing production				Retail inventories ¹ to retail sales ²	Total inventories ^{1,3} to gross value added
	Materials and fuel	Work in progress	Finished goods	Total inventories		
Quarterly						
	FAPG	FAPH	FAPI	FAPF	FAPC	FDCA
1999 Q1	99.8	99.6	104.6	101.3	96.3 [†]	100
Q2	99.3	99.1	101.7	100.1	98.6	100
Q3	98.6	99.2	100.4	99.4	99.0	101
Q4	99.9	98.1	100.0	99.4	98.5	101
2000 Q1	100.0	100.0	100.0	100.0	100.0	100
Q2	101.1	98.9	100.0	100.1	101.8	100
Q3	102.3	98.2	100.1	100.4	102.1	101
Q4	101.0	99.0	100.2	100.1	101.1	101
2001 Q1	101.8	99.1	102.4	101.2	100.6	101
Q2	102.8	100.7	105.1	103.0	99.1	102
Q3	101.0	101.1	104.3	102.2	98.2	102
Q4	102.6	101.6	106.7	103.7	97.0	102
2002 Q1	106.1	103.0	107.2	105.6	97.4	102
Q2	105.0	101.4	106.8	104.5	99.6	101
Q3	101.8	100.0	104.5	102.2	100.6	101
Q4	101.4	99.9	104.9	102.2	99.5	101
2003 Q1	101.3	100.1	104.2	102.0	100.2	101
Q2	98.9	100.0	104.1	101.0	99.8	100
Q3	99.0	100.3	105.8	101.7	99.1	99

1 Chained volume measure: reference year 2000

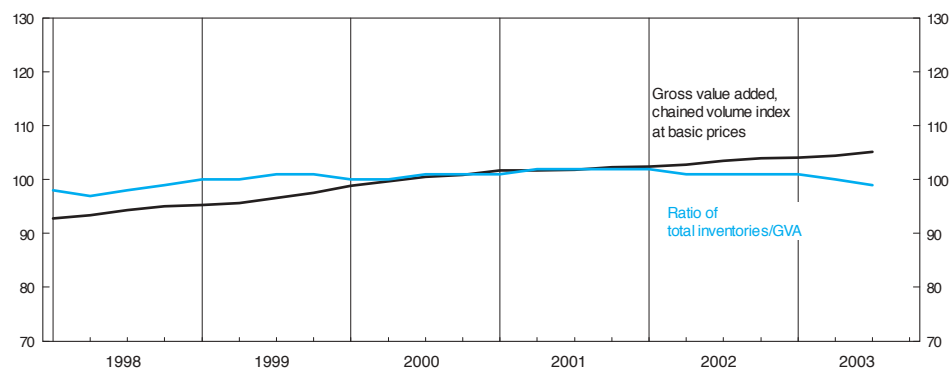
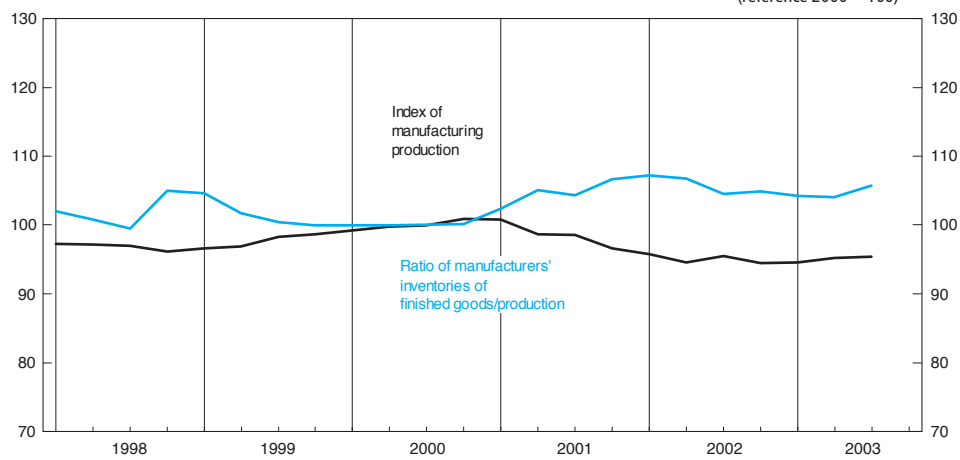
2 Classes 64-65 excluding activity headings 6510 and 6520, retail distribution of motor vehicles and parts, and filling stations.

3 Including quarterly alignment adjustment. For details of adjustments see notes section in the Sector and Financial Accounts article in *UK Economic Accounts*.

Source: Office for National Statistics; Enquiries Columns 1-6 01633 812351

Inventory ratios

chained volume measures,
seasonally adjusted
(reference 2000 = 100)



5.8 Retail sales, new registrations of cars and credit business (Great Britain)

	Volume of retail sales per week+(average 2000=100) ^{1,2}									New regi- strations of cars (NSA, thousands) ⁵	Total consumer credit: Net lending (£ million) ^{3,4}	of which	
	Value of retail sales per week: total (average 2000=100) ^{1,2}	All retailers	Predomin- antly food stores	Predominantly non-food stores								Credit cards ⁶	Other ⁶
				Total	Non- specialist stores	Textile, clothing and footwear	Household goods stores	Other stores	Non-store and repair				
<i>Sales in 2000 £ million</i>	<i>207 149</i>	<i>207 149</i>	<i>89 041</i>	<i>106 359</i>	<i>18 781</i>	<i>27 880</i>	<i>27 699</i>	<i>31 999</i>	<i>11 749</i>				
Annual	EAQV	EAPS	EAPT	EAPV	EAPU	EAPX	EAPY	EAPW	EAPZ	BCGT	RLMH	VZQX	VZQY
2000	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	2 337.3	13 929 [†]	6 519 [†]	7 409 [†]
2001	105.9	106.1	104.1	107.7	105.9	109.4	110.9	104.6	106.1	2 577.5	17 517	6 178	11 340
2002	111.2	112.7	108.2	116.4	110.4	120.9	120.9	112.2	113.4	2 682.0	20 900	7 535	13 364
Quarterly													
2000 Q1	99.0	99.0	99.3	98.6	100.6	96.1	99.6	98.8	100.3	682.4	3 998	1 626	2 372
Q2	99.1	99.1	99.4	98.8	98.4	98.3	99.0	99.5	99.2	581.4	3 469 [†]	1 742 [†]	1 727
Q3	100.3	100.5	100.3	100.8	99.4	101.5	100.5	101.1	99.5	612.5	3 028	1 594	1 433 [†]
Q4	101.6	101.4	101.0	101.8	101.7	104.1	100.9	100.6	101.0	461.0	3 434	1 557	1 877
2001 Q1	102.8	103.1	102.8	103.7	104.1	104.9	107.1	99.3	100.5	704.2	3 346	1 247	2 099
Q2	105.5	105.3	103.7	106.6	106.0	107.4	110.6	102.6	106.8	617.7	4 573	1 658	2 916
Q3	107.0	107.1	104.6	109.0	106.8	111.0	111.5	106.2	109.6	725.6	4 218	1 331	2 887
Q4	108.0	108.4	105.6	110.9	107.3	113.3	113.8	108.3	107.7	530.0	5 380	1 942	3 438
2002 Q1	110.1	110.8	106.7	114.7	108.9	118.2	117.7	112.5	106.1	758.7	5 095	1 872	3 223
Q2	111.2	112.8	108.0	116.7	109.7	121.2	119.6	114.4	113.2	650.0	4 853	1 660	3 193
Q3	111.9	113.7	109.1	117.2	112.2	122.4	121.6	111.6	117.5	744.6	5 860	2 129	3 731
Q4	113.3	115.4	110.8	118.9	113.3	122.7	124.3	114.1	119.1	528.7	5 092	1 874	3 217
2003 Q1	112.6	114.6	109.9	119.2	111.3	126.7	122.3	114.6	109.6	737.6	4 943	2 038	2 906
Q2	113.7	116.4	111.7	121.1	112.3	129.0	126.5	114.6	109.1	642.7	5 278	2 279	2 999
Q3	115.0 [†]	117.7 [†]	112.7 [†]	123.2 [†]	114.3 [†]	131.1 [†]	129.0	116.7	106.3 [†]	742.8	4 846	2 209	2 637
Monthly													
2001 Jul	106.2	106.4	104.4	107.5	105.7	108.1	110.4	105.5	110.8	179.7	1 607 [†]	457	1 150 [†]
Aug	106.6	106.6	104.4	108.4	107.2	107.9	112.2	106.1	107.7	81.4	1 247	396 [†]	851
Sep	107.9	108.2	105.0	110.6	107.3	115.8	111.7	106.9	110.3	464.5	1 364	478	886
Oct	107.8	108.2	105.5	110.5	106.8	111.5	116.2	107.0	108.5	195.8	1 610	578	1 033
Nov	108.1	108.6	106.0	110.7	108.6	115.3	110.7	107.9	110.1	197.3	1 740	727	1 012
Dec	108.0	108.4	105.4	111.3	106.7	113.2	114.3	109.7	105.2	136.9	2 030	637	1 393
2002 Jan	109.1	109.4	106.3	112.4	108.4	114.4	114.9	110.7	106.8	213.5	1 783	669	1 114
Feb	110.6	111.5	107.0	115.7	109.6	119.6	118.0	113.8	107.4	98.9	1 905	754	1 151
Mar	110.9	111.6	106.9	116.3	108.7	120.8	120.2	113.3	104.3	446.3	1 407	449	958
Apr	112.7	113.9	107.3	119.6	111.3	126.6	119.4	118.5	112.8	214.0	2 073	707	1 365
May	111.2	112.6	108.2	116.5	111.2	117.7	120.9	114.6	111.2	219.0	1 436	295	1 141
Jun	110.2	111.9	108.3	114.6	107.2	119.7	118.8	110.9	115.2	217.0	1 345	658	686
Jul	111.7	113.4	109.1	116.8	112.7	122.2	120.6	111.1	116.0	204.7	1 894	677	1 217
Aug	111.8	113.8	109.2	117.0	111.3	124.0	120.4	111.3	119.1	93.0	2 035	770	1 265
Sep	112.0	113.9	109.1	117.6	112.4	121.4	123.3	112.3	117.5	446.9	1 931	682	1 249
Oct	113.1	114.9	110.0	118.6	113.5	123.2	123.9	113.0	119.0	193.0	1 874	537	1 337
Nov	112.8	114.9	110.4	118.4	113.7	118.6	125.6	114.9	117.6	182.9	1 398	689	709
Dec	113.9	116.2	111.8	119.5	112.8	125.6	123.7	114.3	120.5	152.8	1 819	648	1 171
2003 Jan	112.0	114.2	108.6	119.1	111.6	125.5	122.6	114.9	112.1	193.4	1 396	680	716
Feb	112.5	114.4	110.0	118.9	110.7	126.3	122.4	114.3	107.2	92.2	1 555	552	1 003
Mar	113.1	115.2	110.7	119.5	111.6	127.9	122.0	114.7	109.6	452.0	1 992	805	1 188
Apr	113.6	116.0	111.6	120.3	111.2	128.2	125.3	114.3	110.6	196.3	1 331	663	668
May	113.2	115.8	111.3	120.4	111.9	126.6	127.4	113.9	108.5	202.6	1 836	799	1 038
Jun	114.2	117.1	112.0	122.3	113.6	131.5	126.8	115.5	108.3	243.8	2 110	818	1 293
Jul	114.4	117.1	112.1 [†]	122.3	113.6 [†]	130.2 [†]	127.8	115.6 [†]	107.5	201.1	1 487	689	797
Aug	115.0	117.6	113.1	122.7	114.4	129.3	128.7 [†]	116.5	105.7	94.2	1 553	736	817
Sep	115.5 [†]	118.4 [†]	112.9	124.5	114.8	133.2	130.0	117.7	105.7 [†]	447.5	1 807	783	1 024
Oct	116.3	119.1	113.3	125.4 [†]	116.5	132.6	130.7	119.7	107.0	186.6	1 395	693	702
Nov	116.2	119.2	113.0	125.5	115.8	131.3	130.9	121.3	110.2	175.7	1 617	574	1 043

1 Great Britain only. The motor trades are excluded. Information for periods earlier than those shown is available from ONS Newport (tel 01633 812509).

2 The retail sales index has been rebased using detailed information from the 2000 Annual Business inquiry. Further information is available via the National Statistics website: www.statistics.gov.uk

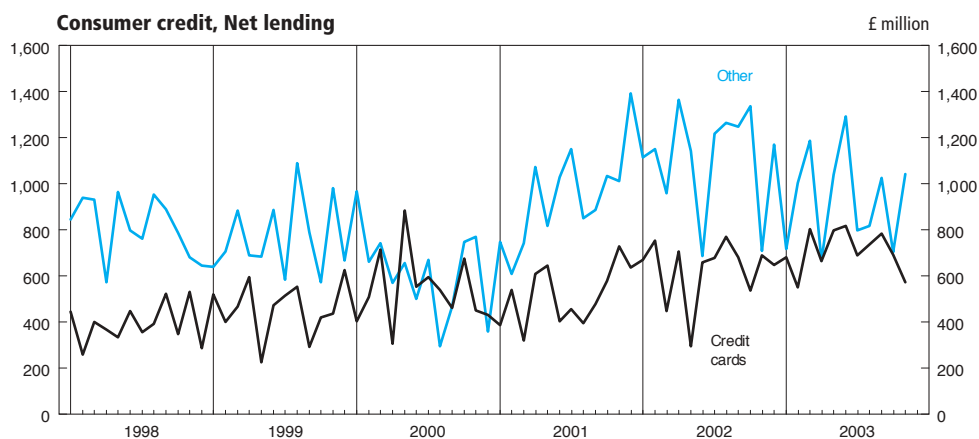
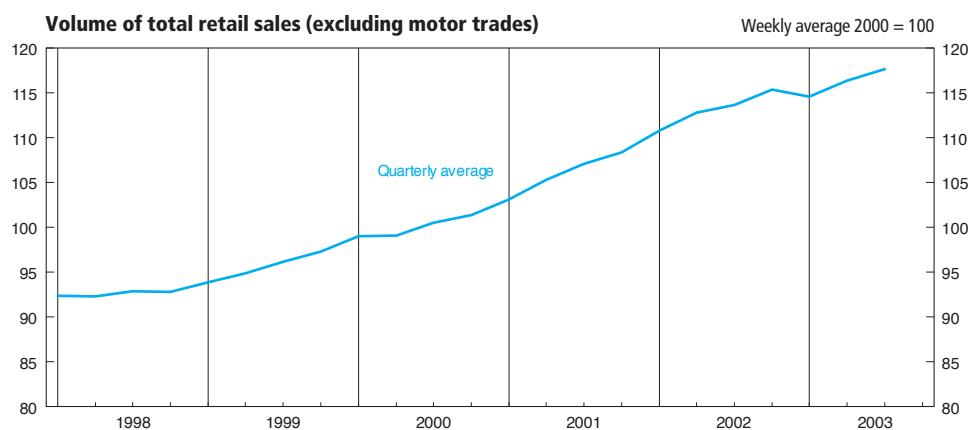
3 Net lending equals changes in amounts outstanding adjusted to remove distortions arising from revaluations of debt such as write-offs.

4 Covers all institutions providing finance for consumers; including loans by banks on personal accounts and on bank credit cards and charge cards, by insurance companies, retailers and other specialist lenders, but excluding loans for house purchase.

5 Seasonally adjusted data are not published in *Economic Trends* at present. Series DKBY ends in 1998 because seasonal adjustment has ceased; the existing model is not applicable to the new bi-annual registration system. It is published in the *Economic Trends Annual Supplement*.

6 See Table 6.6, note 2.

Sources: Office for National Statistics;
Enquiries Columns 1-9 01633 812713; Columns 12-14 01633 812782;
Department of Transport;
Enquiries Column 10, 11 020 7890 3077.



Please note: data from January 1999 are not directly comparable with earlier periods

5.9 Inland energy consumption: primary fuel input basis

Million tonnes of oil equivalent

Seasonally adjusted and temperature corrected⁷ (annualised rates)

	Coal ¹	Petroleum ²	Natural gas ³	Nuclear	Primary electricity ⁵		Total
					Natural flow Hydro ⁴	Net imports ⁶	
Annual	FDAI	FDAJ	FDAK	FDAL	FDAM	FDAW	FDAH
1998	43.6	76.8	90.4	23.4	0.5	1.1	235.8
1999	38.3	78.0	95.8	22.2	0.5	1.2	236.2
2000	40.2	78.1	98.8	19.7	0.5	1.2	238.5
2001	43.2	76.3 [†]	96.9	20.8	0.4	0.9	238.6 [†]
2002	40.1	73.8	99.5	20.1	0.6	0.7	234.8
Quarterly							
1998 Q1	43.9	76.5	97.6	23.4	0.5	1.4	243.4
Q2	46.3	79.7	87.7	22.3	0.5	1.4	237.9
Q3	45.2	77.2	79.8	23.1	0.6	0.3	226.2
Q4	38.9	73.9	96.6	24.7	0.4	1.2	235.7
1999 Q1	37.6	80.9	104.9	23.4	0.5	1.2	248.6
Q2	37.7	79.7	90.1	23.1	0.6	1.3	232.5
Q3	38.4	77.4	84.9	21.6	0.5	1.1	224.0
Q4	39.6	74.0	103.4	20.8	0.5	1.2	239.5
2000 Q1	39.4	81.0	110.5	20.2	0.6	1.1	252.7
Q2	40.3	75.7	95.2	19.8	0.5	1.3	232.7
Q3	40.2	80.5	86.5	19.5	0.5	1.3	228.4 [†]
Q4	41.0	75.3	103.1	19.2	0.5	1.2	240.3
2001 Q1	46.2	74.9 [†]	108.2	20.0	0.3	1.1	250.9
Q2	43.8	73.9	93.1	19.0	0.4	0.9	231.1
Q3	42.1	81.5	86.0	22.0	0.5	0.9	233.1
Q4	40.6	74.8	100.3	22.4	0.5	0.7	239.2
2002 Q1	42.7	74.8	108.1	21.4	0.6	0.6	248.2
Q2	35.0	76.2	96.6	20.0	0.7	1.0	229.5
Q3	38.0	77.4	90.5	20.1	0.5	0.2	226.8
Q4	44.5	67.0	102.8	18.8	0.4	1.1	234.5
2003 Q1	44.1	71.3	107.2	21.6	0.3	0.3	244.8
Q2	43.4	82.4	92.7	21.1	0.5	0.1	240.2
Q3	44.1	71.3	107.2	21.6	0.3	0.3	244.8

Percentage change, quarter on corresponding quarter of previous year

Quarterly	FDAP	FDAQ	FDAR	FDAS	FDAT	FDAX	FDAO
1998 Q1	-3.6	1.7	4.7	2.9	..	-1.3	2.2
Q2	15.7	4.3	4.3	-2.7	..	-2.0	5.8
Q3	3.9	5.8	-0.5	5.8	..	-78.8	-1.7
Q4	-13.6	-2.3	5.3	20.3	..	-19.4	-1.6
1999 Q1	-14.3	5.8	7.5	-0.2	-0.1	-14.1	2.1
Q2	-18.6	-	2.8	3.6	22.2	-6.8	-2.2
Q3	-14.9	0.2	6.4	-6.5	-9.8	-	-0.9
Q4	1.6	0.3	7.0	-15.6	4.7	5.6	1.6
2000 Q1	4.6	0.1	5.3	-13.7	11.7	-10.6	1.6
Q2	7.0	-5.0	5.6	-14.5	-25.2	1.9	0.1
Q3	4.4	4.0	1.8	-9.8	-13.0	12.9	1.9
Q4	3.7	1.7	-0.3	-7.8	5.9	-5.1	0.3
2001 Q1	17.4	-7.4 [†]	-2.0	-0.9	-43.9	-	-0.7 [†]
Q2	8.8	-2.4	-2.2	-4.0	-9.2	-30.3	-0.7
Q3	5.0	1.2	-0.5	13.0	5.0	-29.0	2.1
Q4	-1.2	-0.6	-2.7	16.4	6.1	-45.0	-0.5
2002 Q1	-7.5	-0.2	-0.1	7.0	74.1	-43.7	-1.0
Q2	-20.1	3.1	3.8	5.6	73.7	5.5	-0.7
Q3	-9.8	-5.0	5.1	-8.7	12.2	-75.5	-2.7
Q4	9.7	-10.5	2.4	-15.9	-32.1	67.6	-2.0
2003 Q1	3.1	-4.6	-0.8	0.9	-44.4	-56.2	-1.4
Q2	23.8	8.2	-4.0	5.1	-32.0	-89.0	4.6
Q3	15.9	-7.9	18.5	7.3	-39.0	23.7	7.9

1 Includes solid renewable sources (wood, straw, waste), a small amount of renewable primary heat sources (solar, geothermal, etc.) and net foreign trade and stock changes in other solid fuels.

2 Excludes non-energy use.

3 Includes gas used during production, colliery methane, landfill gas and sewage gas. Excludes gas flared or re-injected and non energy-use of gas.

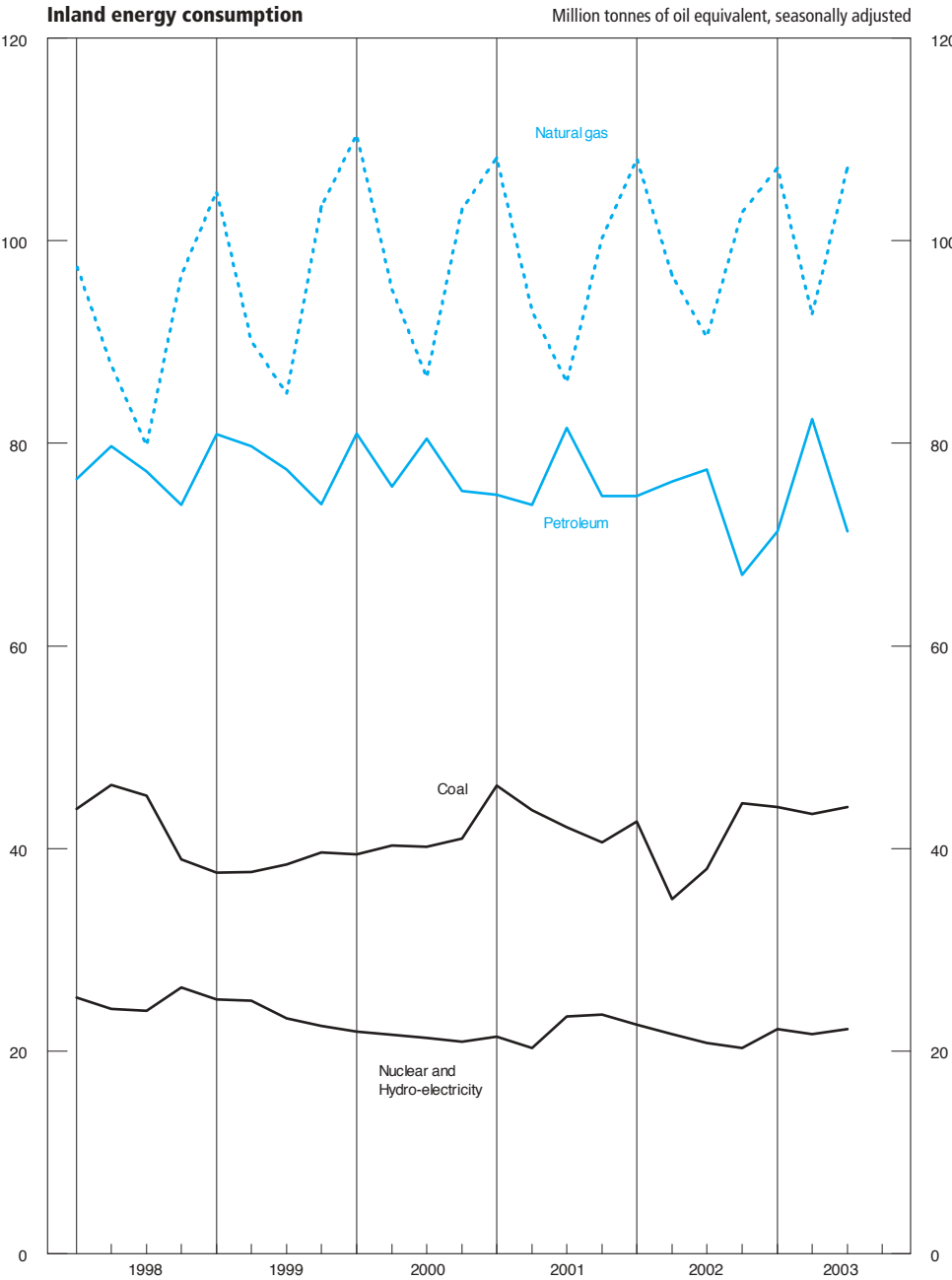
4 Includes generations at wind stations. Excludes generation from pumped storage stations.

5 Not temperature corrected.

6 Not seasonally adjusted.

7 For details of temperature correction see DTI energy statistics website at www.dti.gov.uk/energy/inform/dukes/dukes2002/01longterm.pdf

Source: Department of Trade and Industry; Enquiries 020 7215 2698



6.1 Sterling exchange rates and UK reserves⁴

Not seasonally adjusted

	Sterling exchange rate against major currencies ¹								UK inter- national reserves ³ at end of period (£ million)	Sterling exchange rate index 1990 = 100
	Japanese yen	US dollar	Swiss franc	Euro ²	Danish kroner	Norwegian kroner	Swedish kronor	Hong Kong dollar		
Annual	AJFO	AUSS	AJFD	THAP	AJFK	AJFJ	AJFI	AJFU	THFE	AGBG
1999	184.01	1.6183	2.430	1.5192	11.296	12.619	13.373	12.5541	25 938	103.8
2000	163.40	1.5162	2.558	1.6422	12.240	13.324	13.870	11.8057	32 227	107.5
2001	174.90	1.4400	2.430	1.6087	11.987	12.944	14.886	11.2312	27 773	105.8
2002	187.84	1.5026	2.334	1.5909	11.821	11.953	14.570	11.7265	26 566	106.0
Quarterly										
1999 Q1	190.19	1.6335	2.328	1.4574	10.8368	12.514	13.059	12.6531	..	101.1
Q2	194.13	1.6070	2.432	1.5209	11.3044	12.527	13.539	12.4547	..	104.1
Q3	181.35	1.6021	2.446	1.5271	11.3547	12.561	13.304	12.4369	21 447	103.8
Q4	170.35	1.6306	2.515	1.5712	11.6851	12.874	13.588	12.6721	25 938	105.9
2000 Q1	171.99	1.6067	2.617	1.6286	12.1257	13.206	13.835	12.4926	22 090	108.4
Q2	163.52	1.5334	2.568	1.6398	12.2271	13.466	13.584	11.9236	26 898	107.7
Q3	159.19	1.4784	2.522	1.6336	12.1862	13.232	13.726	11.5304	28 818	106.4
Q4	158.89	1.4464	2.523	1.6670	12.4250	13.394	14.333	11.2735	32 227	107.6
2001 Q1	172.26	1.4584	2.424	1.5814	11.7988	12.965	14.230	11.3765	30 457	104.5
Q2	174.19	1.4208	2.487	1.6280	12.1436	13.039	14.847	11.0866	30 632	106.4
Q3	174.67	1.4380	2.432	1.6152	12.0231	12.928	15.203	11.2092	29 662	106.1
Q4	178.45	1.4428	2.375	1.6111	11.9887	12.845	15.264	11.2548	27 773	106.1
2002 Q1	188.79	1.4260	2.396	1.6263	12.0863	12.700	14.895	11.1230	28 053	106.9
Q2	185.29	1.4630	2.329	1.5923	11.8379	11.956	14.564	11.4015	28 623	105.3
Q3	184.85	1.5495	2.305	1.5747	11.6973	11.662	14.538	12.0871	27 950	105.7
Q4	192.42	1.5720	2.304	1.5716	11.6733	11.494	14.285	12.2547	26 566	106.0
2003 Q1	190.67	1.6017	2.189	1.4937	11.0987	11.313	13.709	12.5030	26 349	102.3
Q2	191.90	1.6194	2.163	1.4256	10.5851	11.344	13.032	12.6352	25 147	99.1
Q3	189.14	1.6108	2.209	1.4300	10.6264	11.794	13.103	12.5605	26 909	99.2
Monthly										
2001 Jan	172.49	1.4769	2.408	1.5753	11.759	12.969	14.017	11.5197	31 232	104.4
Feb	168.85	1.4529	2.423	1.5786	11.780	12.957	14.164	11.3321	29 117	104.1
Mar	175.44	1.4454	2.441	1.5901	11.856	12.969	14.509	11.2736	30 457	105.0
Apr	177.49	1.4350	2.460	1.6084	12.004	13.047	14.647	11.1913	30 446	105.8
May	173.68	1.4259	2.500	1.6304	12.165	13.033	14.766	11.1483	30 651	106.6
Jun	171.41	1.4014	2.502	1.6434	12.249	13.036	15.127	10.9302	30 632	106.8
Jul	176.07	1.4139	2.487	1.6433	12.234	13.095	15.225	11.0279	29 187	107.2
Aug	174.42	1.4365	2.416	1.5955	11.878	12.853	14.844	11.2038	29 669	105.1
Sep	173.53	1.4635	2.394	1.6060	11.951	12.837	15.540	11.4144	29 662	106.1
Oct	176.14	1.4517	2.371	1.6024	11.917	12.813	15.338	11.3230	28 090	105.8
Nov	175.67	1.4358	2.370	1.6166	12.036	12.813	15.233	11.1984	28 733	106.1
Dec	183.55	1.4409	2.384	1.6151	12.021	12.908	15.220	11.2375	27 773	106.5
2002 Jan	190.01	1.4323	2.392	1.6222	12.057	12.844	14.972	11.1705	27 089	106.9
Feb	190.11	1.4231	2.415	1.6348	12.146	12.731	15.013	11.0993	27 940	107.4
Mar	186.26	1.4225	2.381	1.6224	12.059	12.525	14.700	11.0946	28 053	106.5
Apr	188.50	1.4434	2.386	1.6282	12.104	12.415	14.878	11.2581	28 191	107.1
May	184.26	1.4593	2.318	1.5914	11.833	11.963	14.676	11.3814	28 055	105.3
Jun	183.10	1.4863	2.284	1.5515	11.532	11.491	14.137	11.5934	28 623	103.6
Jul	183.50	1.5546	2.290	1.5665	11.640	11.615	14.528	12.1261	27 649	105.3
Aug	182.97	1.5377	2.302	1.5723	11.677	11.698	14.550	11.9944	28 208	105.4
Sep	188.07	1.5561	2.323	1.5861	11.780	11.672	14.537	12.1370	27 950	106.5
Oct	192.90	1.5574	2.325	1.5868	11.790	11.645	14.450	12.1464	28 322	106.7
Nov	190.99	1.5723	2.303	1.5694	11.654	11.484	14.237	12.2624	28 972	105.9
Dec	193.36	1.5863	2.284	1.5566	11.560	11.354	14.167	12.3711	26 566	105.5
2003 Jan	192.07	1.6169	2.226	1.5222	11.314	11.172	13.964	12.6105	24 708	104.0
Feb	192.12	1.6046	2.189	1.4893	11.091	11.262	13.652	12.5450	26 140	102.4
Mar	187.82	1.5836	2.152	1.4649	10.880	11.506	13.511	12.3503	26 349	100.6
Apr	188.79	1.5747	2.170	1.4505	10.771	11.347	13.279	12.2817	25 232	99.8
May	190.42	1.6230	2.125	1.4030	10.417	11.047	12.840	12.6579	25 371	97.9
Jun	196.49	1.6606	2.193	1.4234	10.569	11.638	12.978	12.9502	25 147	99.6
Jul	192.72	1.6242	2.209	1.4277	10.613	11.828	13.130	12.6671	25 736	99.4
Aug	189.42	1.5950	2.200	1.4286	10.617	11.800	13.186	12.4395	26 511	99.0
Sep	185.29	1.6131	2.219	1.4338	10.649	11.755	12.994	12.5590	26 909	99.2
Oct	183.76	1.6787	2.220	1.4334	10.651	11.807	12.917	12.9962	26 092	99.8
Nov	184.47	1.6901	2.250	1.4426	10.729	11.832	12.973	13.1201	..	100.4

1 Average of daily Telegraphic Transfer rates in London.

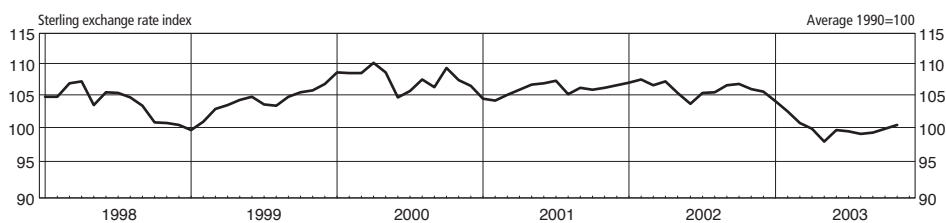
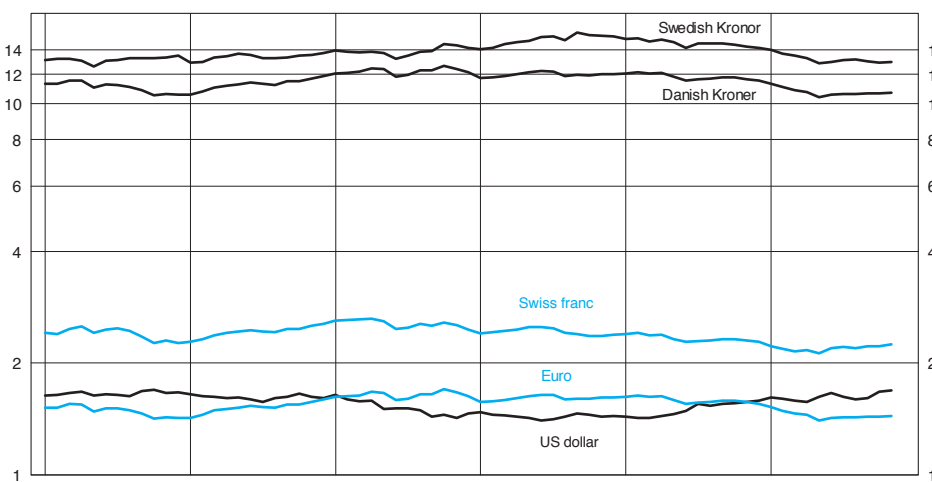
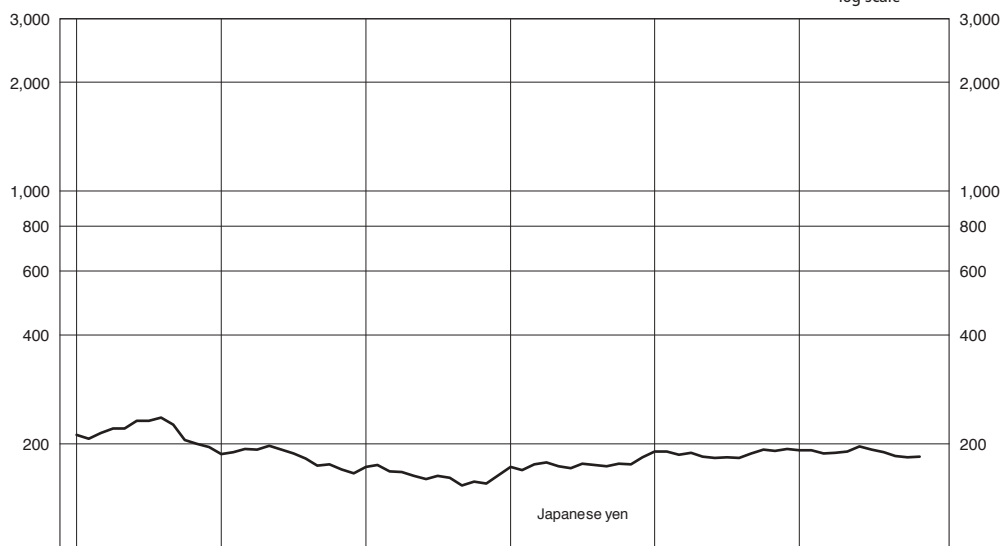
2 Prior to January 1999, a synthetic Euro has been calculated by geometrical averaging the bilateral exchange rates of the 11 Euro-area countries using "internal weights" based on each country's share of the extra Euro-area trade.

3 International reserves data are all valued at end-period market prices and exchange rates. They additionally include other reserve assets such as repos (sale and purchase agreements) and derivatives. Full details are shown in Table 1.21 of *Financial Statistics*.

4 These figures fall outside the scope of National Statistics.

Source: Bank of England: Enquiries 020 7601 4342

Sterling exchange rates

Relates to the £
log scale

6.2 Monetary aggregates^{1,3}

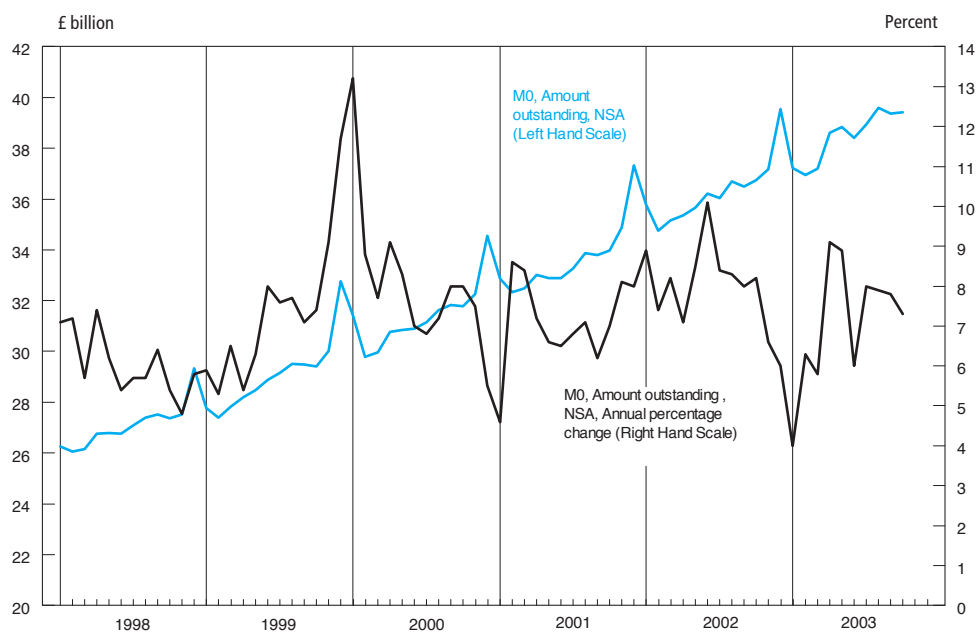
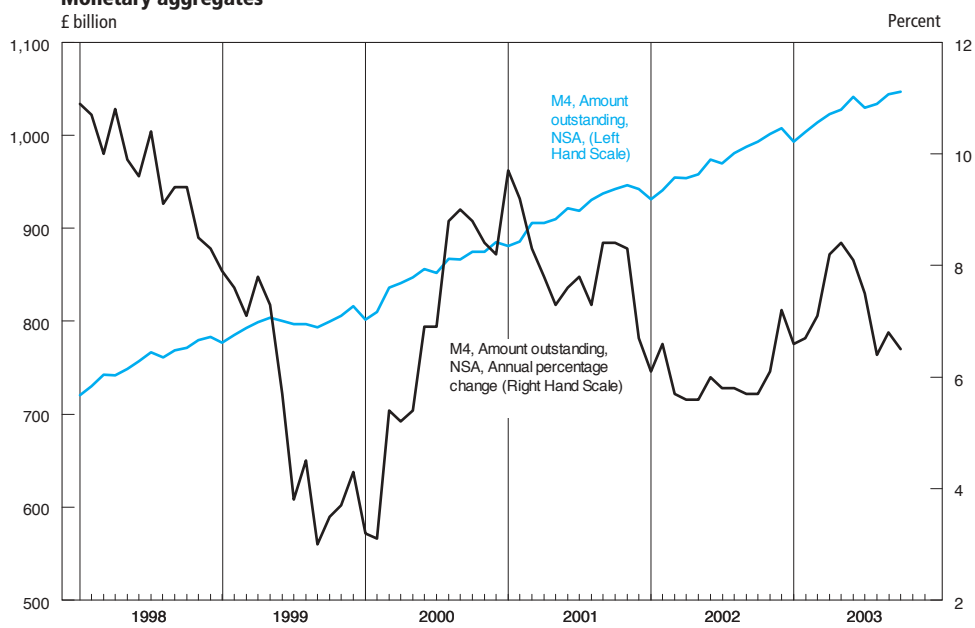
	M0				M4			
	Amount outstanding ² (NSA)		Amount outstanding (£ million) +	Velocity of circulation: ratio	Amount outstanding (NSA)		Amount outstanding (£ million) +	Velocity of circulation: ratio
	£ million	Annual percentage change			£ million	Annual percentage change		
Annual	AVAD	VQNB	AVAE	AVAM	AUYM	VQLC	AUYN	AUYU
1998	29 346	5.8	27 705	31.85	783 240	8.3	781 207 [†]	1.14
1999	32 768	11.7	30 916	31.30	816 545	4.3	814 227	1.14
2000	34 566	5.5	32 315 [†]	30.42	884 839 [†]	8.2	882 922	1.12
2001	37 319	8.0	34 975	29.72	942 433	6.7	940 697	1.09
2002	39 546	6.0	37 014	28.91	1 007 781	7.2	1 006 053	1.08
Quarterly								
1999 Q1	27 830	6.5	28 160	31.67	792 903	7.1	788 042 [†]	1.12
Q2	28 884	8.0	28 932	31.44	800 698	5.7	794 994	1.13
Q3	29 477	7.1	29 398	31.20	793 684	3.0	796 319	1.15
Q4	32 768	11.7	30 916	30.87	816 545	4.3	814 227	1.15
2000 Q1	29 968	7.7	30 461	30.53	836 240	5.4	831 027	1.15
Q2	30 896	7.0	31 158	30.65	856 220	6.9	849 538	1.12
Q3	31 821	8.0	31 941 [†]	30.46	866 379 [†]	9.0	867 023	1.11
Q4	34 566	5.5	32 315	30.03 [†]	884 839	8.2	882 922	1.10
2001 Q1	32 489	8.4	32 985	29.99	905 800	8.3	901 075	1.10
Q2	32 896	6.5	33 244	30.00	921 571	7.6	913 645	1.09
Q3	33 797	6.2	33 965	29.58	937 071	8.4	934 932	1.08
Q4	37 319	8.0	34 975	29.31	942 433	6.7	940 697	1.07
2002 Q1	35 157	8.2	35 482	29.06	954 540	5.7	950 539	1.08
Q2	36 222	10.1	36 337	28.90	974 112	6.0 [†]	964 567	1.08
Q3	36 510	8.0	36 663	28.87	987 748	5.7	984 047	1.08
Q4	39 546	6.0	37 014	28.80	1 007 781	7.2	1 006 053	1.07
2003 Q1	37 192	5.8	37 757	28.78	1 013 544	7.1	1 009 936	1.06
Q2	38 411	6.0	38 797	28.20	1 040 994	8.1	1 029 907	1.06
Q3	39 356	7.8	39 510	..	1 044 261	6.8	1 040 342	..
Monthly								
2001 Jun	32 896	6.5	33 244 [†]	..	921 571 [†]	7.6	913 645 [†]	..
Jul	33 272	6.8	33 497	..	918 688	7.8	920 105	..
Aug	33 881	7.1	33 757	..	930 373	7.3	928 279	..
Sep	33 797	6.2	33 965	..	937 071	8.4	934 932	..
Oct	33 978	7.0	34 172	..	942 388	8.4	940 855	..
Nov	34 883	8.1	34 662	..	945 995	8.3	942 802	..
Dec	37 319	8.0	34 975	..	942 433	6.7	940 697	..
2002 Jan	35 799	8.9	35 304	..	930 772	6.1	944 088	..
Feb	34 750	7.4	35 330	..	941 001	6.6	951 775	..
Mar	35 157	8.2	35 482	..	954 540	5.7	950 539	..
Apr	35 369	7.1	35 613	..	954 144	5.6	953 563	..
May	35 661	8.5	35 900	..	957 957	5.6	957 547	..
Jun	36 222	10.1	36 337	..	974 112	6.0 [†]	964 567	..
Jul	36 050	8.4	36 243	..	969 433	5.8	971 576	..
Aug	36 689	8.3	36 474	..	980 704	5.8	979 349	..
Sep	36 510	8.0	36 663	..	987 748	5.7	984 047	..
Oct	36 749	8.2	36 984	..	993 159	5.7	991 288	..
Nov	37 167	6.6	37 038	..	1 001 479	6.1	997 313	..
Dec	39 546	6.0	37 014	..	1 007 781	7.2	1 006 053	..
2003 Jan	37 236	4.0	37 154	..	993 336	6.6	1 007 010	..
Feb	36 952	6.3	37 554	..	1 003 590	6.7	1 014 603	..
Mar	37 192	5.8	37 757	..	1 013 544	7.1	1 009 936	..
Apr	38 599	9.1	38 695	..	1 023 032	8.2	1 021 854	..
May	38 833	8.9	38 775	..	1 027 553	8.4	1 026 430	..
Jun	38 411	6.0	38 797	..	1 040 994	8.1	1 029 907	..
Jul	38 946	8.0	39 196	..	1 029 388	7.5	1 032 048	..
Aug	39 587	7.9	39 360	..	1 033 412	6.4	1 033 812	..
Sep	39 356	7.8	39 510	..	1 044 261	6.8	1 040 342	..
Oct	39 426	7.3	39 695	..	1 047 066	6.5	1 045 936	..

1 A fuller range of monetary aggregates is published monthly in the ONS publication *Financial Statistics*.

2 The monthly figures for M0 give the average of the amounts outstanding each Wednesday during the calendar month.

3 These figures fall outside the scope of National Statistics.

Source: Bank of England; Enquiries 020 7601 5467

Monetary aggregates

6.3 Counterparts to changes in money stock M4^{1,4}

£ million, not seasonally adjusted

	Public Sector Net Cash Requirement ³	Purchases by the M4 ² private sector of:		External and foreign currency financing of public sector		Banks and Building Societies lending to the M4 private sector	External and foreign currency transactions of UK banks and building societies	Net non-deposit sterling liabilities of UK banks and building societies	Domestic counterparts	External and foreign currency counterparts	M4	
		Central government debt			Purchase of British government stocks by overseas sector							
		British government stocks	Other	Other public sector debt		Other						
	1	2	3	4	5	6	7	8	9	10	11	12
Annual												
	RURQ	AVBY	AVBU	AVBV	AVBZ	AQGA	AVBS	AVBW	AVBX [†]	AVBN	VQLP	AUZI
1999	-1 296	-3 981	1 803	1 115	-4 906	1 294	78 088	-44 743	-3 103 [†]	75 033	-38 544	33 386
2000	-37 562	11 388	1 915	285	4 040	7 657	111 230	7 072 [†]	-30 949	87 480	10 688 [†]	67 220 [†]
2001	-2 921	-9 671	-2 481	246	-19 361	4 195	82 446	-21 637	-10 785	67 732	1 920	58 868
2002	17 165 [†]	-8 383	906 [†]	-597	-897	1 589	107 654	-25 975	-25 291	116 711	-23 489	67 933
Quarterly												
1999 Q1	-5 641	4 338	-478	341	8	419	21 386	-9 294	-952 [†]	19 550	-8 884	9 714
Q2	5 334	-4 967	157	226	790	511	18 342	-9 120	-2 353	19 110	-9 399	7 358
Q3	-3 185	-2 685	1 658	-92	-5 497	108	12 703	-11 829	-9 399	8 386	-6 224	-7 237
Q4	2 196	-667	466	640	-207	256	25 657	-14 500	9 601	27 987	-14 037	23 551
2000 Q1	-12 886	5 013	-1 257	-336	2 141	2 577	36 677	-2 568	-5 927	27 432	-2 133	19 372
Q2	-11 831	-4 104	6 729	147	-1 017	3 301	25 254	278	-1 472	16 198	4 596	19 323
Q3	-16 499	5 653	-91	183	540	1 281	27 255	5 374 [†]	-13 189	16 491	6 115 [†]	9 417 [†]
Q4	3 654	4 826	-3 466	291	2 376	498	22 044	3 988	-10 361	27 359	2 110	19 108
2001 Q1	-12 573	163	-1 183	-178	-6 682	3 734	31 075	-7 738	1 273	17 317	2 677	21 267
Q2	6 317	-12 059	-424	183	-10 982	1 000	21 194	-7 294	-4 293	15 289	4 689	15 685
Q3	-6 138	1 267	3 393	110	-2 709	1 288	15 710	7 251	-8 866	14 361	11 249	16 744
Q4	9 473	958	-4 267	131	1 012	-1 827	14 467	-13 856	1 101	20 765	-16 695	5 172
2002 Q1	-6 334	-679	3 679	-261	-1 045	2 399	24 732	-7 769	-3 149	21 165	-4 326	13 691
Q2	7 056	-1 330	-2 949	101	-266	-1 001	24 507	791	-8 178	27 429	57	19 308
Q3	665 [†]	-2 432	357 [†]	-190	-1 960	208	34 214	-8 825	-11 055	32 586	-6 657	14 875
Q4	15 778	-3 942	-181	-247	2 374	-17	24 201	-10 172	-2 909	35 531	-12 563	20 059
2003 Q1	-1 035	-3 092	-307	-104	1 934	431	21 516	2 632	-4 467	16 981	1 129	13 643
Q2	16 189	-4 802	-4 369	-106	2 142	-2 084 [†]	35 394 [†]	-1 239	-7 127	42 296 [†]	-5 465	29 704
Q3	6 021	-11 742 [†]	1 183	-188 [†]	979	-1 228	29 545	-963	-17 894	24 685	-3 170	3 622
Monthly												
2001 Jul	-9 464	-1 678	3 101	-192	-3 570	51	-1 800	6 383 [†]	-2 897	-10 034	10 004 [†]	-2 927 [†]
Aug	-295	-1 671	236	167	-1 921	1 693	16 044	-3 323	-2 453	14 492	292	12 332
Sep	3 621	4 616	56	136	2 782	-457	1 466	4 191	-3 517	9 903	952	7 339
Oct	-5 900	-75	1 389	-44	-1 317	312	12 444	-9 935	5 848	7 780	-8 306	5 323
Nov	5 964	5 909	-3 962	-2	2 180	-571	5 335	-1 732	-5 361	13 298	-4 483	3 454
Dec	9 409	-4 876	-1 694	177	149	-1 568	-3 312	-2 189	614	-313	-3 906	-3 605
2002 Jan	-11 995	-1 443	1 226	-295	-2 433	2 210	9 432	-1 289	-8 736	-3 101	3 354	-8 482
Feb	-2 108	105	2 810	-116	60	897	5 446	1 776	330	6 188	2 613	9 131
Mar	7 769	659	-357	150	1 328	-709	9 854	-8 255	5 257	18 078	-10 293	13 042
Apr	-3 038	725	-372	100	-1 098	-560	-1 380	2 144	857	-3 989	2 683	-450
May	2 748	-1 438	-397	19	573	-49	14 719	-10 016	-1 236	15 691	-10 638	3 817
Jun	7 346	-617	-2 180	-17	259	-392	11 168	8 663	-7 799	15 727	8 012	15 940
Jul	-6 806 [†]	-3 287	2 775	-78	-460	-267	-1 554	13 162	-9 460	-8 964	13 355	-5 069
Aug	2 134	3 647	-843	58	902	548	14 719	-11 332	5 200	19 699	-11 686	13 213
Sep	5 337	-2 793	-1 575 [†]	-170	-2 402	-73	21 049	-10 656	-6 794	21 851	-8 326	6 731
Oct	-2 448	-1 713	2 503	-178	339	-154	14 738	-8 389	1 515	12 873	-8 882	5 506
Nov	6 616	-2 217	-562	24	570	731	10 941	-979	-5 692	14 757	-818	8 247
Dec	11 610	-12	-2 122	-94	1 465	-594	-1 477	-805	1 269	7 901	-2 864	6 306
2003 Jan	-11 863	-4 053	1 866	-198	1 138	761	4 739	10 302	-15 022	-9 533	9 925	-14 629
Feb	-182	-870	530	190	-1 402	-245	11 019	-12 324	10 836	10 669	-11 167	10 338
Mar	11 010	1 831	-2 703	-95	2 198	-85	5 758	4 654	-281	15 845	2 371	17 935
Apr	250	-6 125	1 607	-219	-1 969	-927 [†]	10 964	1 980	3	6 487 [†]	3 022	9 512
May	5 793	4 496	-4 980	150	4 611	-234	10 688	5 703	-10 945	16 134	857	6 047
Jun	10 146	-3 173	-996	-37	-500	-923	13 742 [†]	-8 922	3 815	19 675	-9 344	14 146
Jul	-6 063	-5 773 [†]	3 288	-117	-1 339	875	6 723	205	-11 684 [†]	-2 048	2 419	-11 313
Aug	3 517	-4 139	-1 574	39	227	-771	5 463	-10 126	11 864	3 291	-11 124	4 032
Sep	8 567	-1 830	-531	-110 [†]	2 091	-1 332	17 359	8 959	-18 074	23 442	5 536	10 903
Oct	-1 682	-7 316	2 069	-126	-1 161	3 018	22 954	-22 985	5 884	16 000	-18 805	3 078
Nov	5 805	..	..	..	..	..	..	..	..	..	..	..

For most periods the relationships between the columns are as follows:

11 = 5 + 6 + 8; 12 = 9 + 10 + 11. Due to the inclusion of Public Sector Net Cash Requirement (PSNCR) information on a ESA95 basis, 10 = 1 + 2 + 3 + 4 + 7 from 1994/95 only. Because the latest available PSNCR information is included figures for more recent periods may not add exactly.

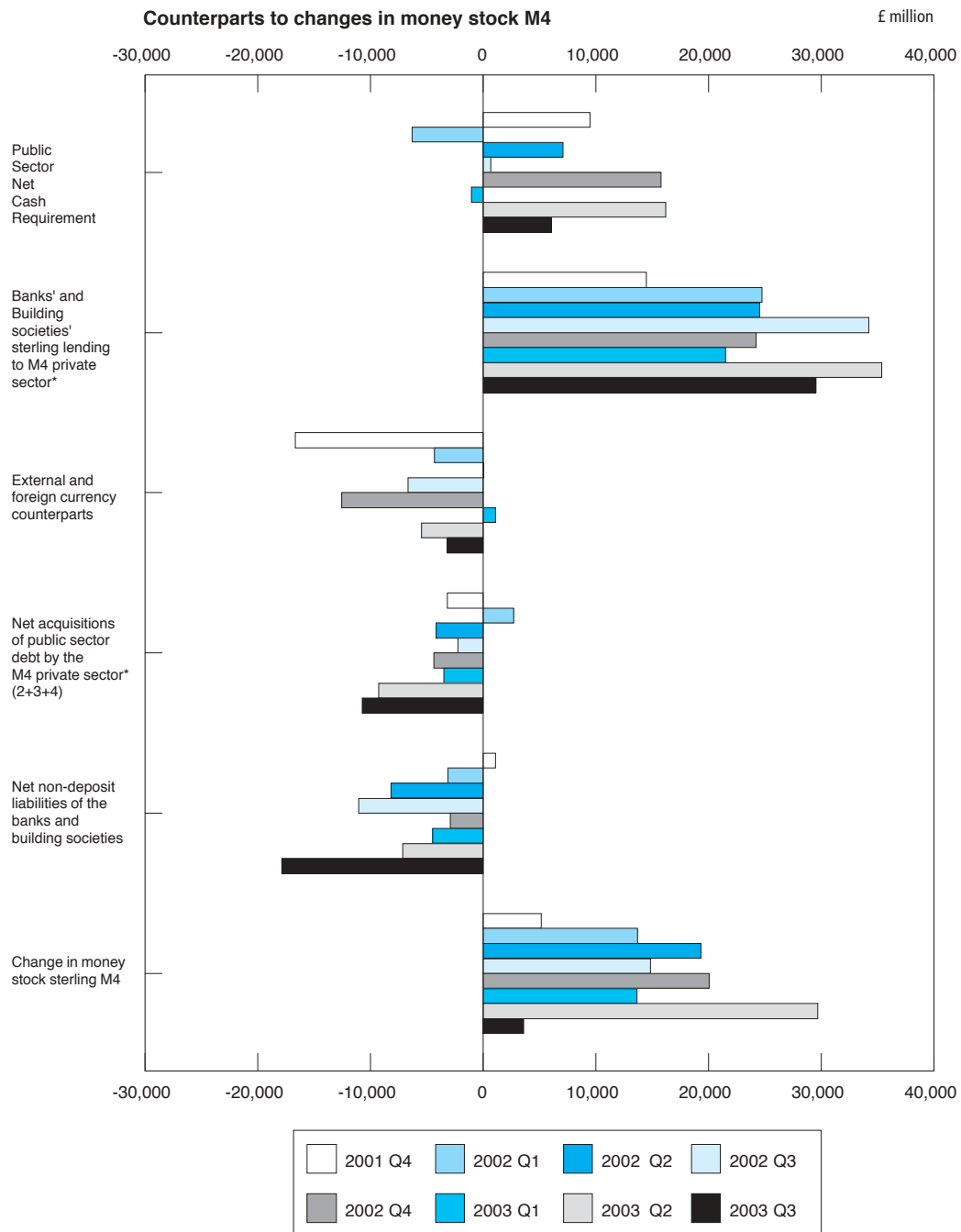
1 A wider range of figures is published monthly in *Financial Statistics*.

2 The M4 private sector comprises all UK residents other than the public sector, banks and building societies.

3 Formerly called the Public Sector Borrowing Requirement.

4 Columns 2-12 do not contain National Statistics data.

Sources: Office for National Statistics; Enquiries Column 1 020 7533 5984; Bank of England; Columns 2-12 020 7601 5467



* Private sector other than banks and building societies

6.4 Public sector receipts and expenditure

£ million, not seasonally adjusted

	Public sector current expenditure										Public sector current receipts							
	Current expenditure on goods and services	Subsidies	Net current Social Bene ts	Net current grants abroad	Other current grants	Interest paid to private sector and RoW	Total current expenditure	Operating surplus	Taxes on production	Taxes on income and wealth	Taxes on capital	Other Current taxes	Compulsory social contrib-utions	Interes- t/divide from private-/RoW	Rent and other current transfe- rs	Total current receipts		
Annual																		
2000	GZSN 177 740	NMRL 5 058	ANLY 114 986	GZSI 334	NNAI 18 638	ANLO 26 122	ANLT 342 878	ANBP 17 814	NMYE 129 716	ANSO 140 088	NMGI 2 215	NVCM 18 223	ANBO 60 284	ANBQ 5 433	ANBS 2 130	ANBT 375 043		
2001	191 171	6 405	123 574	-2 134	18 899	23 618	361 533	18 681	133 111	147 521	2 396	19 168	62 887	5 395	2 879	391 118		
2002	209 461 [†]	6 281 [†]	126 881 [†]	-539	22 840 [†]	21 392 [†]	386 316 [†]	18 424 [†]	140 570 [†]	142 121 [†]	2 381 [†]	20 286	63 381 [†]	4 370 [†]	2 815 [†]	393 408 [†]		
Quarterly																		
2000 Q1	42 447	1 283	27 452	219	4 230	6 047	81 678	4 378	31 319	43 124	548	4 350	16 173	1 091	540	101 306		
Q2	44 496	1 213	28 054	-163	4 575	6 700	84 875	4 363	32 830	26 834	566	4 605	14 588	1 263	363	85 198		
Q3	45 285	1 208	28 369	73	4 695	6 359	85 989	4 345	32 368	34 721	579	4 692	14 337	1 532	716	93 075		
Q4	45 512	1 354	31 111	205	5 138	7 016	90 336	4 728	33 199	35 409	522	4 576	15 186	1 547	511	95 464		
2001 Q1	45 932	1 410	29 293	-261	4 945	6 331	87 650	4 473	31 508	47 192	569	4 620	17 957	1 699	909	108 712		
Q2	47 201	1 685	29 913	-259	4 757	5 990	89 287	4 497	33 134	29 131	612	4 907	14 518	1 283	560	88 407		
Q3	48 218	1 704	31 068	-1 294	4 312	5 329	89 337	4 616	34 098	35 513	617	4 865	15 064	1 276	853	96 667		
Q4	49 820	1 606	33 300	-320	4 885	5 968	95 259	5 095	34 371	35 685	598	4 776	15 348	1 137	557	97 332		
2002 Q1	51 300	1 225	30 233 [†]	12	5 513 [†]	5 238 [†]	93 521 [†]	4 574 [†]	33 098 [†]	44 693	556	4 806	18 231 [†]	1 018 [†]	808	107 549 [†]		
Q2	52 068 [†]	1 606 [†]	31 144	-126	5 640	5 432	95 764	4 460	34 627	28 649 [†]	607 [†]	5 158	14 703	1 074	596 [†]	89 639		
Q3	52 571	1 674	31 802	-375	6 271	4 643	96 586	4 516	36 300	35 682	619	5 185	14 900	1 116	826	98 909		
Q4	53 522	1 776	33 702	-50	5 416	6 079	100 445	4 874	36 545	33 097	599	5 137	15 547	1 162	585	97 311		
2003 Q1	56 453	1 832	31 761	-75	6 038	5 244	101 253	4 530	34 618	45 425	545	5 132 [†]	18 407	1 118	752	110 292		
Q2	58 451	1 965	33 107	-184 [†]	6 094	5 905	105 338	4 652	37 397	29 995	607	5 668	17 071	1 034	397	96 584		
Q3	57 533	1 856	33 777	-266	5 177	5 471	103 548	4 821	37 000	36 810	631	5 689	17 596	1 028	403	103 741		

Sources: Office for National Statistics; Enquiries 020 7533 5987

6.5 Public sector key fiscal indicators¹

£ million⁵, not seasonally adjusted

	Surplus on current budget ²		Net investment ³		Net borrowing ⁴		Net cash requirement		Public sector net debt	
	General Government	Public Sector	General Government	Public Sector	General Government	Public Sector	General Government	Public Sector	£ billion ⁶	% of GDP ⁷
Annual										
2000	ANLW 20 377	ANMU 19 086	-ANNV 5 361	-ANNW 4 305	NNBK 15 016	ANNX 14 781	RUUS -38 282 [†]	RURQ -37 562	RUTN 317.4	RUTO 32.6
2001	17 146	15 948	9 029	8 471	8 117	7 477	-3 462	-2 921	318.8	31.4
2002	-5 133 [†]	-7 140 [†]	10 143 [†]	9 323 [†]	-15 276 [†]	-16 463 [†]	16 486	17 165 [†]	335.9	31.4
Quarterly										
2000 Q1	17 443	16 405	2 958	2 722	14 485	13 683	-14 336	-12 886	340.9	36.2
Q2	-3 023	-2 931	-1	-344	-3 022	-2 587	-11 602	-11 831	329.1	34.6
Q3	4 456	3 802	910	655	3 546	3 147	-16 913 [†]	-16 499	313.6	32.6
Q4	1 501	1 810	1 494	1 272	7	538	4 569	3 654	317.4	32.6
2001 Q1	18 688	17 706	3 310	3 411	15 378	14 295	-13 826	-12 573	306.9	31.2
Q2	-4 259	-4 266	951	1 018	-5 210	-5 284	6 636	6 317	314.3	31.6
Q3	4 533	3 910	1 725	1 589	2 808	2 321	-6 538	-6 138	308.2	30.7
Q4	-1 816	-1 402	3 043	2 453	-4 859	-3 855	10 266	9 473	318.8	31.4
2002 Q1	11 554	10 526 [†]	4 620 [†]	4 468 [†]	6 934 [†]	6 058 [†]	-6 958	-6 334	311.2	30.2
Q2	-9 445 [†]	-9 669	1 055	960	-10 500	-10 629	7 435	7 056	318.2	30.5
Q3	-430	-1 255	2 129	1 865	-2 559	-3 120	-257	665 [†]	320.4	30.3
Q4	-6 812	-6 742	2 339	2 030	-9 151	-8 772	16 266	15 778	335.9	31.4
2003 Q1	6 623	5 411	6 338	5 779	285	-368	-1 933	-1 035	334.1	30.8
Q2	-12 146	-12 407	3 363	2 640	-15 509	-15 047	16 845	16 189	349.9	31.9
Q3	-2 970	-3 483	2 899	2 785	-5 869	-6 268	5 905	6 021	355.3	32.0

1 National accounts entities as defined under the European System of Accounts 1995 (ESA95).

2 Net saving, plus capital taxes.

3 Gross capital formation, plus payments less receipts, of investment grants less depreciation.

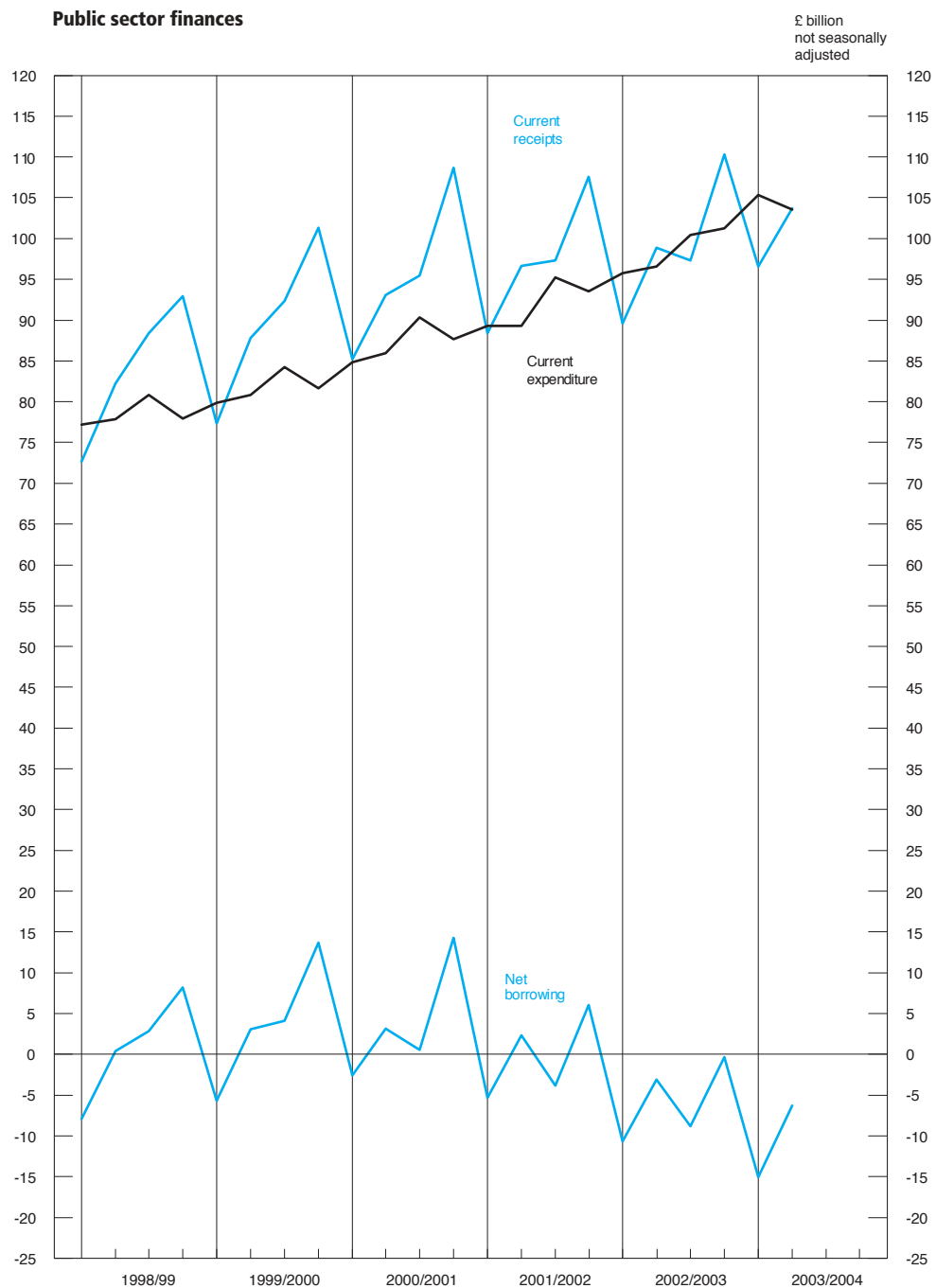
4 Net borrowing = surplus on current budget minus net investment.

5 Unless otherwise stated

6 Net amount outstanding at end of period.

7 Net debt at end of the month, Gross domestic product at market prices for 12 months centred on the end of the month.

Sources: Office for National Statistics; Enquiries 020 7533 5984



6.6 Consumer credit and other household sector borrowing

£ million

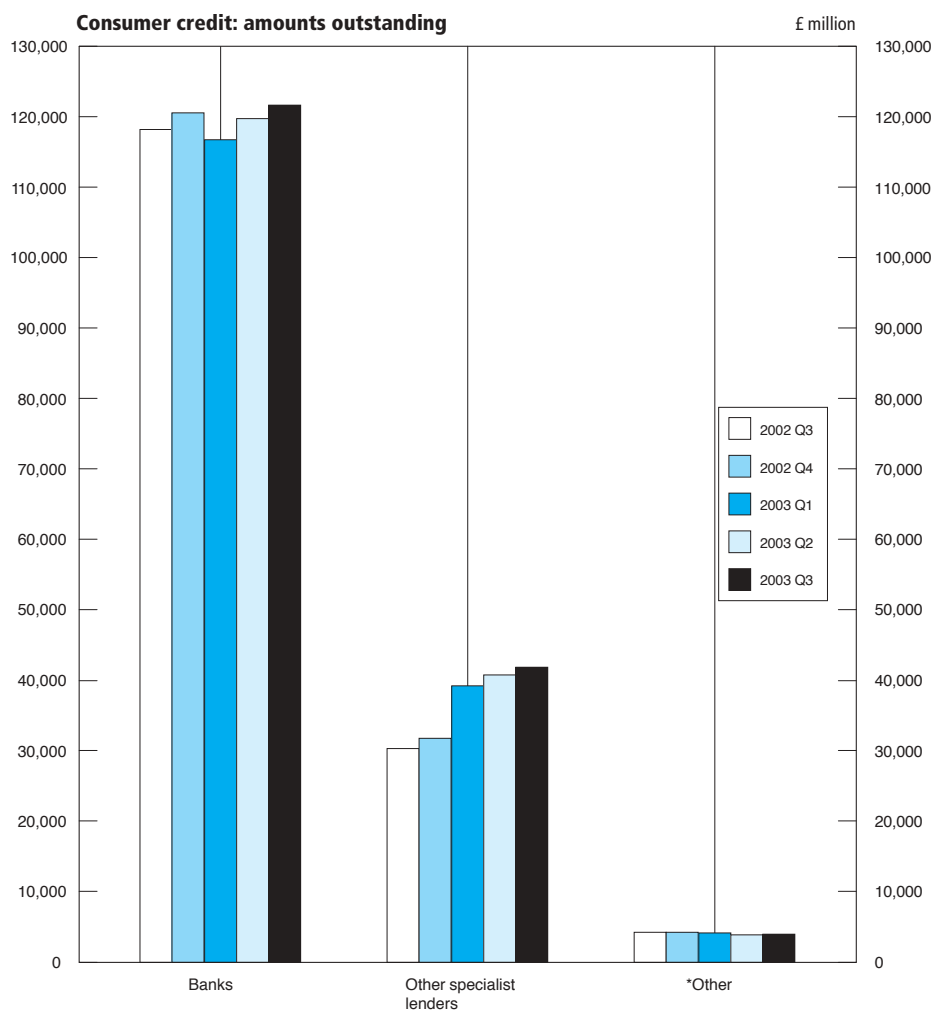
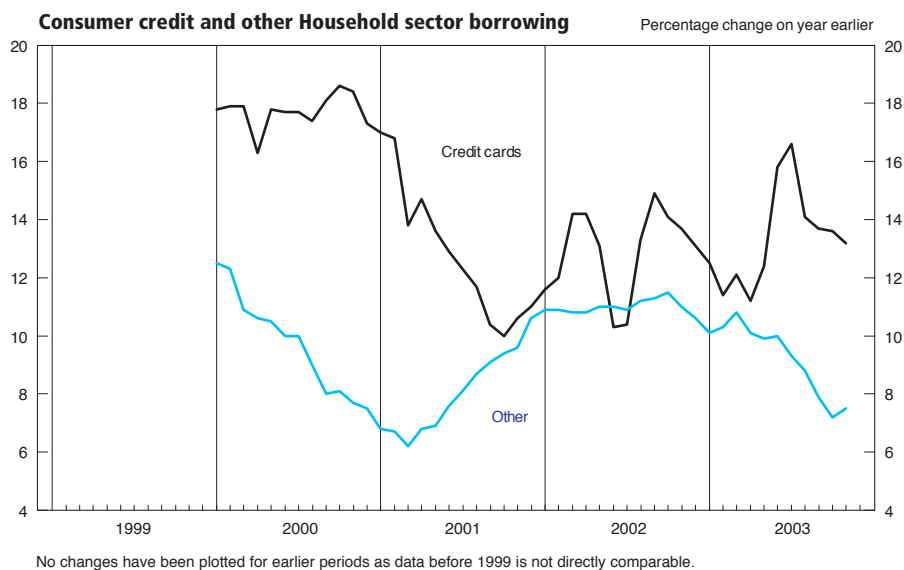
	Consumer credit									Loans secured on dwellings (NSA [†])
	Total consumer credit ¹	of which		Banks ¹	Building Societies' Class 3 Loans ¹	Other specialist lenders	Retailers	Insurance companies		
		credit cards ^{1,2}	other ^{1,2}							
Amounts outstanding: quarterly										
	VZRI	VZRJ	VZRK	VRVV	VZRG	VZRH	RLBO	VZQZ	AMWT	
1998 Q1	91 964	19 327	72 637	66 696	205	21 180	2 639	1 244	435 542	
Q2	95 241	20 483	74 758	69 605	191	21 535	2 666	1 243	442 027	
Q3	98 535	21 470	77 065	72 210	178	22 229	2 677	1 242	449 691	
Q4	101 416	22 319	79 097	72 923	289	24 330	2 630	1 244	456 802	
1999 Q1	105 512	28 229	77 283	75 517	290	25 719	2 673	1 313	463 303	
Q2	108 569	29 518	79 052	77 692	315	26 506	2 671	1 385	472 729	
Q3	112 112	30 644	81 468	80 454	324	27 273	2 656 [†]	1 405	484 269	
Q4	115 251	31 988	83 264 [†]	82 496	293	28 257	2 741	1 464	494 199	
2000 Q1	118 972 [†]	33 269	85 702	85 879 [†]	307	28 737	2 644	1 406	503 559	
Q2	121 745	34 750 [†]	86 995	88 729	320	28 788	2 595	1 313	514 840	
Q3	124 203	36 200	88 004	91 065	343	28 967	2 552	1 275 [†]	525 842	
Q4	127 039	37 533	89 506	93 998	385 [†]	28 965	2 486	1 206	535 751	
2001 Q1	128 897	37 857	91 040	95 764	406	28 999 [†]	2 507	1 221	546 485	
Q2	132 831	39 245	93 586	100 356	430	28 327	2 498	1 220	561 443	
Q3	135 981	39 949	96 033	103 438	437	28 386	2 516	1 204	577 424	
Q4	140 626	41 653	98 973	107 499	426	29 048	2 470	1 184	591 466	
2002 Q1	144 086	43 233	100 853	110 956	458	29 024	2 490	1 158	606 483	
Q2	147 177	43 272	103 905	113 276	470	29 716	2 566	1 148	625 966	
Q3	152 786	45 899	106 887	118 237	515	30 358	2 550	1 126	648 582 [†]	
Q4	156 582	47 117	109 465	120 579	593	31 772	2 539	1 100	670 858	
2003 Q1	160 198	48 448	111 750	116 778	622	39 250	2 499	1 049	690 706	
Q2	164 464	50 125	114 339	119 782	682	40 776	2 206	1 018	713 054	
Q3	167 525	52 174	115 351	121 691	725	41 917	2 205	987	..	
Amounts outstanding: monthly										
2001 Jan	127 929 [†]	37 837 [†]	90 093 [†]	94 963 [†]	395	28 774	2 595 [†]	1 202	..	
Feb	128 857	38 291	90 566	95 973 [†]	399	28 760	2 516	1 210	..	
Mar	128 897	37 857	91 040	95 764	406	28 999 [†]	2 507	1 221 [†]	..	
Apr	130 365	38 377	91 988	98 042	408	28 162	2 525	1 228	..	
May	131 598	38 930	92 668	99 187	427	28 258	2 499	1 227	..	
Jun	132 831	39 245	93 586	100 356	430	28 327	2 498	1 220	..	
Jul	134 166	39 608	94 558	101 624	439	28 374	2 515	1 214	..	
Aug	135 214	39 908	95 306	102 632	440	28 429	2 505	1 208	..	
Sep	135 981	39 949	96 033	103 438	437 [†]	28 386	2 516	1 204	..	
Oct	137 386	40 485	96 901	104 897	451	28 336	2 503	1 199	..	
Nov	138 865	41 115	97 750	106 263	426	28 496	2 486	1 193	..	
Dec	140 626	41 653	98 973	107 499	426	29 048	2 470	1 184	..	
2002 Jan	142 101	42 212	99 890	108 916	432	29 123	2 454	1 175	..	
Feb	143 332	42 896	100 436	110 081	441	29 166	2 479	1 166	..	
Mar	144 086	43 233	100 853	110 956	458	29 024	2 490	1 158	..	
Apr	145 717	43 838	101 879	112 461	468	29 137	2 498	1 154	..	
May	146 900	44 028	102 872	113 579	475	29 148	2 546	1 151	..	
Jun	147 177	43 272	103 905	113 276	470	29 716	2 566	1 148	..	
Jul	148 632	43 726	104 906	114 691	482	29 763	2 554	1 143	..	
Aug	151 160	45 203	105 957	117 198	495	29 805	2 527	1 135	..	
Sep	152 786	45 899	106 887	118 237	515	30 358	2 550	1 126	..	
Oct	154 202	46 181	108 021	118 348	530	31 657	2 550	1 117	..	
Nov	155 268	46 745	108 524	119 407	556	31 643	2 555	1 108	..	
Dec	156 582	47 117	109 465	120 579	593	31 772	2 539	1 100	..	
2003 Jan	157 500	47 503	109 997	121 357	604	31 943	2 511	1 086	..	
Feb	158 602	47 797	110 806	119 900	615	34 491	2 529	1 067	..	
Mar	160 198	48 448	111 750	116 778	622	39 250	2 499	1 049	..	
Apr	160 981	48 768	112 213	116 860	647	39 955	2 483	1 035	..	
May	162 536	49 490	113 046	118 429	660	39 973	2 447	1 026	..	
Jun	164 464	50 125	114 339	119 782	682	40 776	2 206	1 018	..	
Jul	165 687	50 985	114 702	120 742	694	41 036	2 207	1 008	..	
Aug	166 867	51 576	115 291	121 875	711	41 050	2 234	997	..	
Sep	167 525	52 174	115 351	121 691	725	41 917	2 205	987	..	
Oct	168 325	52 484	115 841	121 694	730	42 721	2 203	977	..	
Nov	169 599	52 918	116 681	122 433	748	43 218	2 230	970	..	

1 These figures fall outside the scope of National Statistics.

2 From January 1999 onwards, a more accurate breakdown between credit card and 'other lending' is available.

Credit card lending by other specialist lenders can now be separately identified and is included for the first time within the credit card component. Hence, data from January 1999 onwards are not directly comparable with earlier periods.

Sources: Bank of England; Enquiries Columns 1-5, 9 020 7601 5468; Office for National Statistics; Enquiries Columns 6-8 020 7 533 6046



*Other is the sum of Retailers, Insurance companies and Building society class 3 loans

6.7 Analysis of bank lending to UK residents^{1,2,4,5,6}

Amounts outstanding

£ million, not seasonally adjusted

	Manufacturing ³	Other production	Financial	Services	Persons	Total loans, advances and acceptances
Total Loans, Advances, Acceptances and Sterling Commercial paper						
	TBSF	BCEX	BCFH	BCFR	TBTW	TBSA
2002 Q3	53 142	34 454	338 483	223 171	560 584	1 209 833
Q4	51 708	35 004	338 353	236 069	576 315	1 237 449
2003 Q1	50 875 [†]	35 255	360 829	240 309	573 875 [†]	1 261 143 [†]
Q2	49 483	35 355 [†]	360 586 [†]	248 528 [†]	588 463	1 282 415
Q3	47 320	34 707	381 493	248 566	606 819	1 318 905
Of which in sterling						
	TBUF	BCEY	BCFI	BCFS	TBVW	TBUA
2002 Q3	34 462	30 937	180 673	204 287	560 146	1 010 505
Q4	34 231	31 477	174 298	215 949	575 819	1 031 774
2003 Q1	32 532 [†]	31 752	181 717	219 366	573 342 [†]	1 038 710 [†]
Q2	32 436	31 862 [†]	182 826 [†]	226 680 [†]	587 926	1 061 730
Q3	30 839	31 456	192 798	226 444	606 197	1 087 734
Changes in total lending (sterling)						
	TBWF	BCEZ	BCFJ	BCFT	TBXW	TBWA
2002 Q3	-211	-213	6 714	7 745	19 662	33 697
Q4	-249	540	-6 357	11 638	16 832	22 404
2003 Q1	-1 451 [†]	371	2 587	4 425	4 997 [†]	10 929 [†]
Q2	-61	224 [†]	3 230 [†]	7 109 [†]	16 473	26 974
Q3	-1 589	-398	9 996	154	22 080	30 243
Changes in total lending (foreign currencies)						
	TBYF	BCFA	BCFK	BCFU	TBZW	TBYA
2002 Q3	376	-450	-8 385	-675	-13	-9 147
Q4	-1 359	17	4 462	1 181	60	4 361
2003 Q1	214	-134	10 441	116	22	10 659
Q2	-967	76	12 236 [†]	1 356	21	12 722 [†]
Q3	-652 [†]	-254 [†]	10 695	196 [†]	85	10 071
Facilities granted						
	TCAF	BCFB	BCFL	BCFV	TCBW	TCAA
2002 Q3	95 975	65 006	387 612	321 029	620 172	1 489 793
Q4	96 946	63 765	384 484	330 529	631 881	1 507 605
2003 Q1	97 860 [†]	64 422	408 170	338 301	639 426 [†]	1 548 179 [†]
Q2	93 240	65 963	407 773 [†]	343 872 [†]	661 318	1 572 166
Q3	91 556	65 468 [†]	429 668	347 360	681 360	1 615 412
Of which in sterling						
	TCCF	BCFC	BCFM	BCFW	TCDW	TCCA
2002 Q3	57 928	49 216	212 141	276 475	619 516	1 215 275
Q4	57 848	49 349	205 087	287 157	631 178	1 230 620
2003 Q1	56 944 [†]	49 334	212 398	295 165	638 662 [†]	1 252 504 [†]
Q2	54 711	50 685 [†]	215 042 [†]	301 834 [†]	660 540	1 282 812
Q3	54 779	50 783	226 036	303 417	680 456	1 315 470
Changes in sterling (facilities granted)						
	TCEF	BCFD	BCFN	BCFX	TCFW	TCEA
2002 Q3	-1 148	-1 752	6 977	6 315	17 551	27 944
Q4	-97	133	-7 036	10 521	12 821	16 342
2003 Q1	-657 [†]	82	2 478	9 020	15 070 [†]	25 993 [†]
Q2	-2 183	1 473 [†]	4 787 [†]	6 511 [†]	23 778	34 365
Q3	76	105	11 018	1 973	23 725	36 897
Changes in foreign currencies (facilities granted)						
	TCGF	BCFE	BCFO	BCFY	TCHW	TCGA
2002 Q3	595	-1 758	-9 040	2 793	37	-7 373
Q4	989	-1 225	2 274	-895	51	1 193
2003 Q1	575	287	11 315	-1 513	39	10 703
Q2	-1 321	697	11 044 [†]	100	37	10 558 [†]
Q3	-1 900 [†]	-646 [†]	10 611	1 809 [†]	127	10 001

1 Comprises loans advances (including under reverse repos), finance leasing, acceptances, facilities and holdings of sterling commercial paper issued by UK residents, provided by reporting banks to their UK resident non-bank and non-building society customers. This analysis is based on Standard Industrial Classification of 1992 and excludes lending to residents in the Channel Islands and the Isle of Man which are classified as non-residents for statistical purposes from end-September 1997. Holdings of investments and bills and adjustments for transit items are no longer included. For a more detailed breakdown of these data, see *Financial Statistics* Table 4.5B.

2 Changes in the reporting population in the quarter to end-December 1997, including the entry of Northern rock plc, account for an increase of £12.8bn in total sterling lending. Other currency lending was unchanged.

Changes data have been adjusted to reflect only the new business undertaken by Northern Rock plc during the quarter.

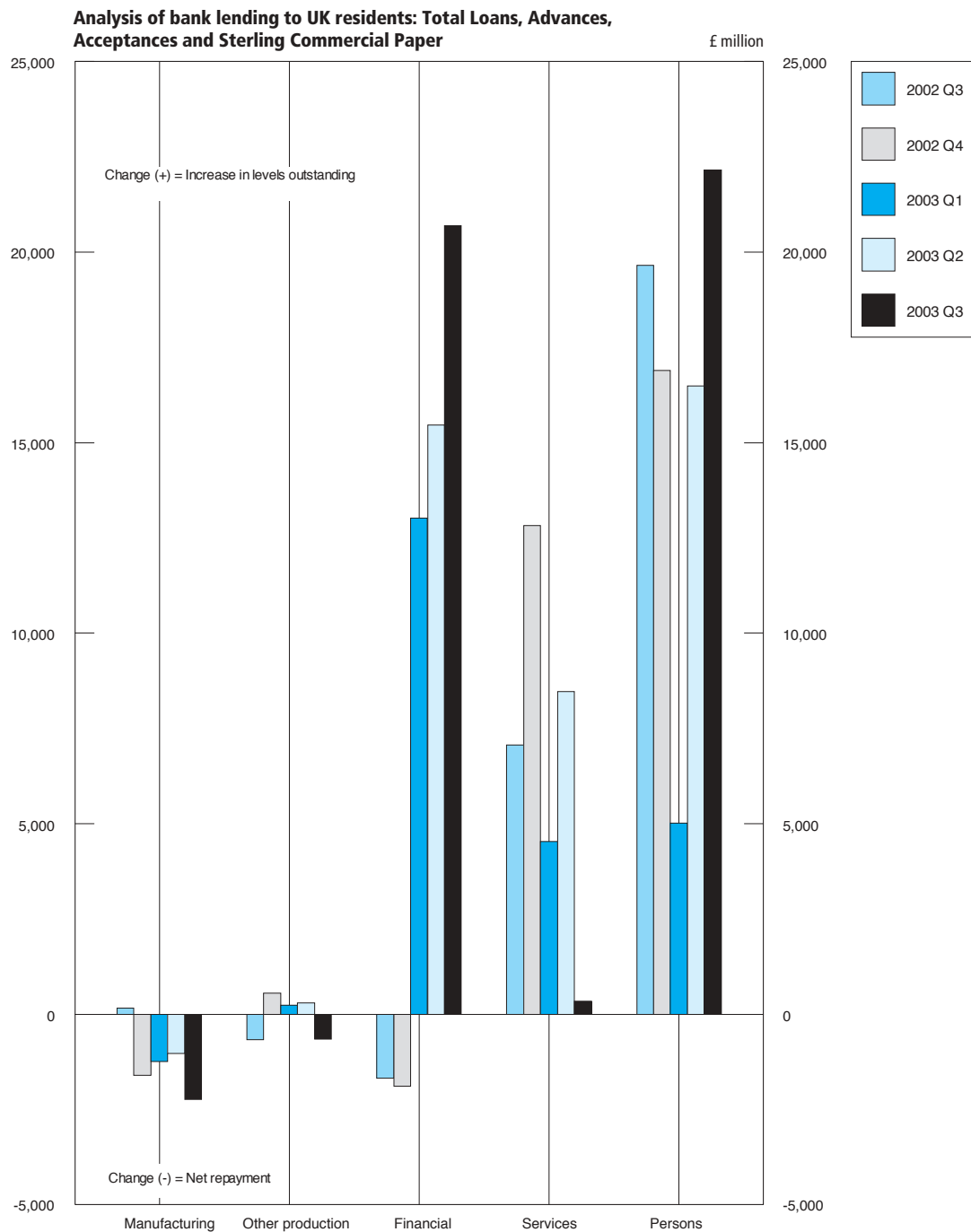
3 Includes lending under DTI special scheme for domestic shipbuilding.

4 Data for amounts outstanding at end-Q2 1999, reflect the acquisition of Birmingham mid-shires Building Society by Halifax plc in April 1999. Changes data have been adjusted to reflect only the net business undertaken by Bradford and Bingley plc during December.

5 Data for amounts outstanding to end-Q4, 2000 reflect the entry of Bradford and Bingley plc to the banking sector in December 2000. Changes data have been adjusted to reflect only the net business undertaken by Bradford and Bingley plc during December.

6 These figures fall outside the scope of National Statistics.

Source: Bank of England; Enquiries 020 7601 5360



6.8 Interest rates, security prices and yields⁵

Percentage rate

	Last Friday						Last working day	Average of working days	
	Treasury bill yield ¹	Deposits with local authorities - 3 months ²	Inter-bank 3 months bid rate ³	Inter-bank 3 months offer rate ³	Sterling certificates of deposit 3 months bid rate	Sterling certificates of deposit 3 months offer rate		Euro-dollar 3 month rate	British government securities: long dated ⁴ - 20 years
Annual	AJRP	AJOI	HSAJ	HSAK	HSAL	HSAM	ZCMG	AJIB	AJLX
2000	5.69	5.84	5.81	5.84	5.75	5.81	..	6.35	4.68
2001	3.87	4.00	4.03	4.06	3.98	4.02	..	1.83	4.78
2002	3.92	..	3.94	3.96	3.90	3.94	..	1.35	4.83
Monthly									
2000 Jan	5.85	6.25	6.09	6.16	6.03	6.09	5.75	6.05	4.82
Feb	5.93	6.06	6.16	6.22	6.09	6.16	6.00	6.08	4.71
Mar	5.93	6.13	6.16	6.22	6.13	6.16	6.00	6.29	4.56
Apr	6.05	6.22	6.25	6.31	6.22	6.25	6.00	6.44	4.63
May	6.04	6.13	6.19	6.22	6.13	6.16	6.00	6.82	4.69
Jun	5.93	6.06	6.13	6.16	6.06	6.13	6.00	6.76	4.63
Jul	5.93	6.03	6.16	6.19	6.13	6.16	6.00	6.71	4.64
Aug	5.95	6.06	6.16	6.19	6.09	6.13	6.00	6.64	4.74
Sep	5.85	6.03	6.09	6.13	6.03	6.09	6.00	6.74	4.86
Oct	5.81	6.00	6.03	6.06	6.00	6.03	6.00	6.71	4.81
Nov	5.72	5.88	5.94	5.97	5.91	5.97	6.00	6.64	4.59
Dec	5.69	5.84	5.81	5.84	5.75	5.81	6.00	6.35	4.49
2001 Jan	5.57	5.63	5.69	5.72	5.66	5.72	6.00	5.35	4.51
Feb	5.46	5.53	5.53	5.56	5.50	5.53	5.75	5.01	4.57
Mar	5.29	5.38	5.44	5.47	5.40	5.43	5.75	4.86	4.56
Apr	5.11	5.13	5.25	5.28	5.23	5.25	5.50	4.27	4.86
May	5.02	5.13	5.16	5.19	5.16	5.17	5.25	3.95	4.99
Jun	5.10	5.06	5.19	5.25	5.18	5.18	5.25	3.80	5.07
Jul	5.04	5.13	5.16	5.22	5.16	5.17	5.25	3.60	5.03
Aug	4.71	4.75	4.84	4.88	4.83	4.84	5.00	3.43	4.81
Sep	4.33	4.38	4.41	4.47	4.41	4.51	4.75	2.52	4.93
Oct	4.16	4.06	4.13	4.19	4.10	4.13	4.50	2.15	4.80
Nov	3.81	3.94	3.94	4.00	3.92	3.96	4.00	2.00	4.51
Dec	3.87	4.00	4.03	4.06	3.98	4.02	4.00	1.83	4.75
2002 Jan	3.90	3.94	3.97	4.03	3.97	3.99	4.00	1.86	4.81
Feb	3.91	3.88	3.97	4.00	3.91	3.95	4.00	1.85	4.83
Mar	4.04	4.09	4.09	4.16	4.09	4.11	4.00	2.00	5.11
Apr	3.98	4.00	4.06	4.13	4.05	4.06	4.00	1.86	5.13
May	4.04	4.03	4.09	4.13	4.09	4.11	4.00	1.82	5.18
Jun	3.97	4.03	4.06	4.09	4.05	4.07	4.00	1.83	5.02
Jul	3.75	..	3.94	3.97	3.92	3.94	4.00	1.75	4.90
Aug	3.86	..	3.91	3.97	3.91	3.93	4.00	1.80	4.64
Sep	3.81	..	3.88	3.91	3.85	3.86	4.00	1.74	4.45
Oct	3.73	..	3.88	3.91	3.85	3.87	4.00	1.64	4.59
Nov	3.86	..	3.94	3.98	3.94	3.95	4.00	1.42	4.64
Dec	3.92	..	3.94	3.96	3.90	3.94	4.00	1.35	4.62
2003 Jan	3.79	..	3.88	3.91	3.88	3.89	4.00	1.29	4.44
Feb	3.49	..	3.59	3.64	3.60	3.62	3.75	1.30	4.39
Mar	3.51	..	3.57	3.61	3.57	3.59	3.75	1.25	4.54
Apr	3.47	..	3.55	3.58	3.54	3.56	3.75	1.28	4.67
May	3.44	..	3.54	3.57	3.55	3.55	3.75	1.22	4.46
Jun	3.50	..	3.55	3.59	3.55	3.56	3.75	1.09	4.39
Jul	3.32	..	3.36	3.40	3.36	3.38	3.50	1.06	4.65
Aug	3.53	..	3.54	3.57	3.54	3.56	3.50	1.11	4.68
Sep	3.59	..	3.66	3.67	3.63	3.65	3.50	1.13	4.76
Oct	3.81	..	3.86	3.90	3.85	3.87	3.50	1.13	4.88
Nov	3.86	..	3.90	3.94	3.90	3.92	3.75	1.12	4.95

1 Average discount rate expressed as the rate at which interest is earned during the life of the bills.

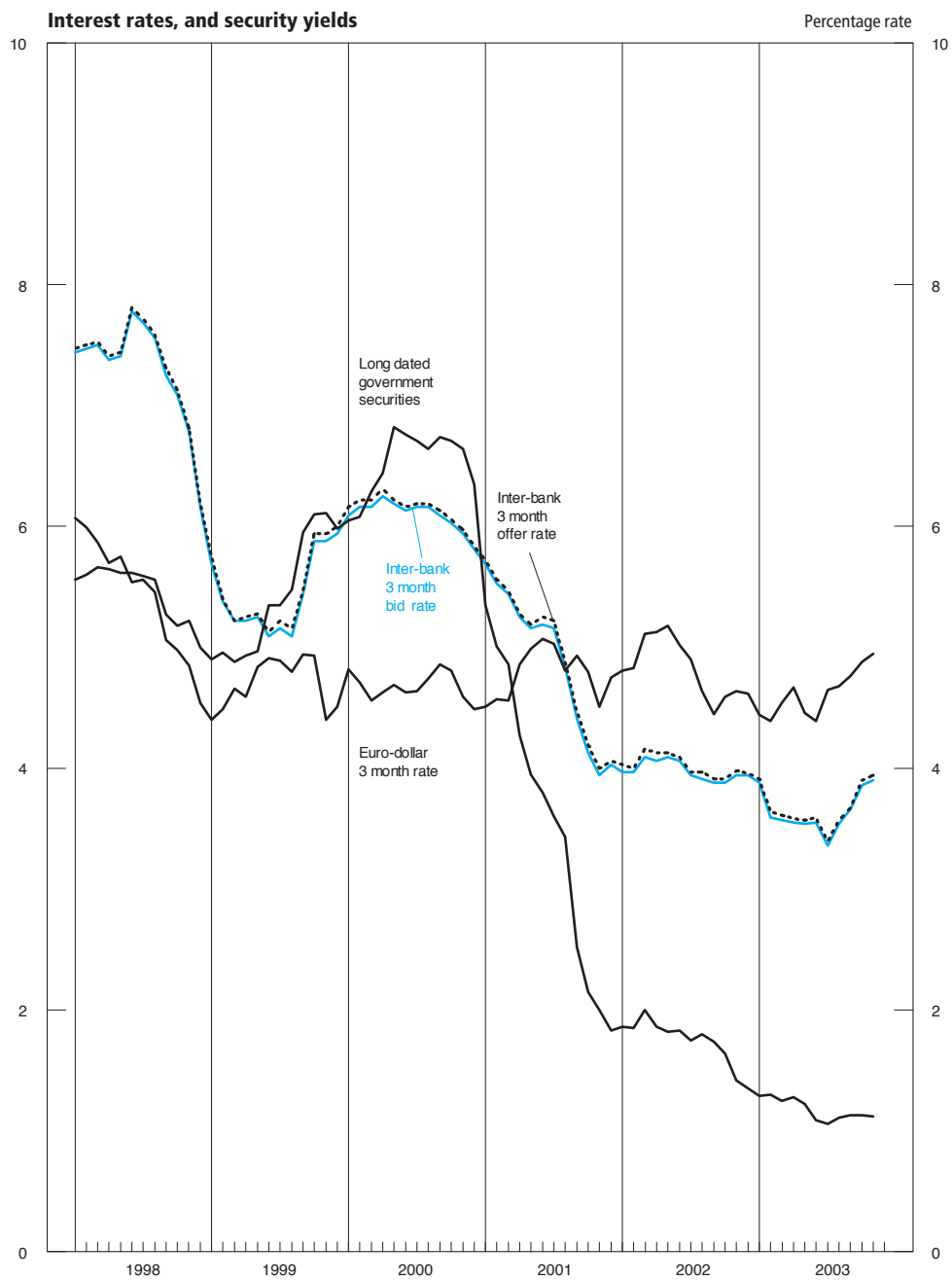
2 For a minimum term of 3 months and thereafter at 7 days' notice.

3 Spread of rates over the day in the inter-bank sterling market; from June 1982 rates are the spread at 10.30 am.

4 Averages of Wednesdays until February 1980; from March 1980 figures are the average of all observations (3 a week); from January 1982 average of working days. Calculated gross redemption yields - see *Financial Statistics Explanatory Handbook*.

5 These figures fall outside the scope of National Statistics.

Sources: Bank of England; Enquiries 020 7601 4342.



6.9 A selection of asset prices

	Producer price indices (NSA) (2000 = 100)		Housing: ODPM all lenders mix adjusted house price index (NSA) (2002 = 100)			
	Plant and machinery bought as fixed assets by	Manufactured output	New dwellings ¹	Secondhand dwellings ¹	All dwellings ¹	Average price of agricultural land in England (NSA, 1995 = 100) ²
	Motor vehicle industry	Motor vehicle industry				
Annual	PVJL	PQIR	WMPN	WMPP	WMPQ	BAJI
1999	99.3	102.8	75.6	76.7	76.7	..
2000	100.0	100.0	84.6	88.0	87.7	..
2001	102.0	95.4	90.3	95.7	95.1	..
2002	100.2	95.2	108.7	111.6	111.2	..
Quarterly						
1999 Q1	100.1	103.4	73.2	71.8	72.1	116 ³
Q2	99.6	103.3	77.0	74.7	75.1	128 ³
Q3	99.0	102.2	79.1	79.5	79.5	155 ³
Q4	98.5	102.3	81.1	81.5	81.6	149 ³
2000 Q1	99.0	102.0	81.3	83.9	83.6	142 ³
Q2	99.4	101.8	86.0	88.5	88.2	143 ³
Q3	100.1	99.9	89.0	89.9	89.9	159 ³
Q4	101.4	96.3	92.9	92.3	92.5	144 ³
2001 Q1	102.9	95.4	90.8	92.1	92.1	156 ³
Q2	103.1	95.5	90.8	96.0	95.4	143 ³
Q3	101.2	95.4	94.1	99.4	98.8	158 ³
Q4	101.1	95.4	95.4	96.9	96.8	154 ³
2002 Q1	101.0	95.6	100.0	100.0	100.0	131 ³
Q2	100.5	95.5	106.5	108.4	108.2	141 ³
Q3	100.0	94.9	111.0	116.1	115.5	151 ³
Q4	99.2	94.9	117.1	121.8	121.3	154 ³
2003 Q1	99.1	94.6	119.3	124.0	123.4	..
Q2	99.7	94.1	127.2	127.3	127.2	..
Q3	99.9p	94.4r [†]	127.8	131.1	130.7	..
Monthly						
2002 Jan	100.9	95.6	..	..	..	..
Feb	101.1	95.6	100.0	100.0	100.0	..
Mar	101.1	95.6	103.9	103.5	103.5	..
Apr	100.8	95.6	103.6	105.1	104.9	..
May	100.1	95.6	106.5	107.8	107.6	..
Jun	100.5	95.4	109.4	112.4	112.0	..
Jul	100.2	94.9	105.9	113.8	112.9	..
Aug	100.4	94.9	111.6	115.9	115.4	..
Sep	99.4	94.9	115.5	118.6	118.2	..
Oct	99.2	94.9	113.7	119.9	119.1	..
Nov	99.2	95.0	116.2	120.9	120.3	..
Dec	99.1	94.9	121.4	124.7	124.3	..
2003 Jan	98.5	94.7	119.2	124.0	123.4	..
Feb	99.0	94.6	118.0	122.7	122.1	..
Mar	99.7	94.6	120.7	125.2	124.7	..
Apr	99.9	94.2	127.5	127.8	127.7	..
May	99.8	93.9	127.1	126.8	126.8	..
Jun	99.4	94.2	127.1	127.2	127.1	..
Jul	99.7	94.2r [†]	126.6	129.7	129.3	..
Aug	100.1p	94.5r	129.6	131.9	131.6	..
Sep	100.0p	94.6	127.6	131.7	131.2	..
Oct	100.1p	95.1p	132.6	133.7	133.5	..
Nov	99.8p	95.1p	..	..	..	..

1 Series based on mortgage lending by all financial institutions rather than building societies only, as previously published. This change has been made necessary because of the mergers, takeovers and conversions to plc status affecting the building society sector. The series is based on the Office of the Deputy Prime Ministers' 5% survey of mortgage lenders (at completion stage), but now includes all mortgage lenders rather than building societies only. From February 2002, monthly data has been obtained from the enlarged survey and quarterly data from 2002q2 are based on monthly indices.

2 Please note that because of some changes in coverage, the revised series from Q1 1993 is not directly comparable with the old series. From Q1 1993 prices of all sales of agricultural land exclude some transfers in order to come closer to estimates of market determined prices. However the new series does not represent exactly competitive open market values. Sales are now analysed and recorded on the basis of when the transactions actually took place. Further information is available on the DEFRA Website (www.defra.gov.uk/esg/statnot) accessible through the Internet and by a fax-back facility (Fax No 0906 711 0396 charged at 50 pence per minute). Data prior to 1993 remains on the previous basis.

3 Provisional estimates.

Sources: Office for National Statistics;
Enquiries Columns 1-2 01633 812106 or 813390;
Office of the Deputy Prime Minister;
Enquiries Columns 3-5 020 7944 3325;
Department of Environment, Food and Rural Affairs;
Enquiries Column 6 01904 455083

Measures of variability of selected economic series¹

	Table	Period covered	Average percentage changes				I / C for MCD MCD (or or QCD) span	
			CI	I	C	I / C	Q	QCD
Quarterly series								
National income and components : chained volume measures, reference year 2000								
Gross Value Added (GVA) at Basic Prices	2.1	Q1 1985 to Q2 2003	0.7	0.2	0.7	0.3	1	0.3
Households' Final Consumption Expenditure	2.5	Q1 1985 to Q2 2003	0.9	0.3	0.9	0.4	1	0.4
Gross fixed capital formation	2.2, 2.7	Q1 1985 to Q2 2003	2.1	1.2	1.5	0.8	1	0.8
Exports: goods and services	2.2	Q1 1985 to Q2 2003	2.0	1.1	1.4	0.8	1	0.8
Imports: goods and services	2.2	Q1 1985 to Q2 2003	2.1	1.0	1.8	0.6	1	0.6
Real Households' disposable income	2.5	Q1 1985 to Q2 2003	1.2	1.0	0.8	1.1	2	0.3
Gross operating surplus of private non-financial corporations	2.11	Q1 1985 to Q2 2003	3.1	2.2	2.0	1.1	2	0.4
Other quarterly series								
Construction output ²	5.2	Q1 1985 to Q2 2003	1.6	0.9	1.2	0.8	1	0.8
Households' saving ratio ³	2.5	Q1 1985 to Q2 2003	1.0	0.9	0.4	2.2	2	0.7
Monthly series								
Retail sales (volume per week)								
Predominantly food stores	5.8	Jan 1986 to Jun 2003	0.6	0.6	0.2	2.5	3	0.8
Predominantly non-food stores	5.8	Jan 1986 to Jun 2003	1.1	1.0	0.4	2.5	3	0.7
Non-store and repair	5.8	Jan 1986 to Jun 2003	1.7	1.6	0.4	4.3	5	1.0
Housing starts ² :								
Private enterprise	5.4	Jan 1985 to Mar 2003	7.0	6.8	1.5	4.4	5	0.9
Registered Social Landlords	5.4	Jan 1985 to Mar 2003	14.9	14.8	1.6	9.1	6	1.0
Housing completions ² :								
Private enterprise	5.4	Jan 1985 to Mar 2003	5.7	5.7	0.7	8.6	6	1.0
Registered Social Landlords	5.4	Jan 1985 to Mar 2003	14.1	14.0	1.6	8.8	6	1.0
Index of industrial production								
Production industries	5.1	Jan 1985 to Jun 2003	0.7	0.7	0.2	3.1	4	0.9
Manufacturing industries	5.1	Jan 1985 to Jun 2003	0.7	0.7	0.3	2.5	3	0.8
Average earnings: whole economy	4.6	Jan 1990 to Jun 2003	0.4	0.3	0.4	0.7	1	0.7
Exports: value, f.o.b. ⁴	2.13	Jan 1985 to Jun 2003	2.9	2.7	0.9	3.1	3	1.0
Imports: value, f.o.b. ⁴	2.13	Jan 1985 to Jun 2003	2.3	2.1	0.8	2.8	3	0.8
Money stock - M0 ⁵	6.2	Jan 1985 to Jun 2003	0.5	0.3	0.5	0.6	1	0.6
Money stock - M4 ⁵	6.2	Jan 1985 to Jun 2003	0.8	0.3	0.8	0.4	1	0.4

¹ For a fuller description of these measures see article 'Measuring variability in economic time series' in *Economic Trends*, No 226, August 1972.

The following are brief definitions of the measures.

CI is the average month to month (quarter to quarter for quarterly series) percentage change without regard to sign in the seasonally adjusted series.

C is the same for the trend component.

I is the same for the irregular component, obtained by dividing the trend component into the seasonally adjusted series, except for those series which are seasonally adjusted using an additive model, see footnotes 3 and 5.

I / C is therefore a measure of the size of the relative irregularity of the seasonally adjusted series.

The average changes I and C can also be computed successively over spans of increasing numbers of months (quarters). MCD (QCD), months (quarters) for cyclical dominance, is the shortest span of months (quarters) for which I / C is less than 1 and therefore represents the minimum period over which changes in the trend, on average, exceed the irregular movement.

MCD cannot exceed 6 even if I / C exceeds 1 for 6-month periods.

² Series relate to Great Britain.

³ The figures in the tables were obtained from an additive analysis of the households' saving ratio so CI, I and C are differences in percentage points.

⁴ The figures have been updated as described in an article in *Economic Trends*, No 320, June 1980.

⁵ As the irregular component for M0 and M4 is obtained by subtraction of the trend rather than by division, the figures for CI, I and C are expressed as percentages of the trend level in the preceding month.

Source: Office for National Statistics: Enquiries 020 7533 6243

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Abbreviations

DEFRA – Department for Environment, Food and Rural Affairs.

ODPM – Office of the Deputy Prime Minister.

	Table	Source	Further statistics (where available)
Asset prices	6.9	Office for National Statistics DEFRA ODPM	
Average earnings	1.1, 4.6	Office for National Statistics	First Release Labour Market Trends Monthly Digest of Statistics
Balance of payments (current account)	2.13	Office for National Statistics	First Release Financial Statistics UK Economic Accounts
Banking		Bank of England	Financial Statistics
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Capital account summary, analysis by sector	2.10	Office for National Statistics	
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Coal (see also Energy)	5.9	Department of Trade and Industry	Energy Trends
Consumer prices index	1.1, 3.1	Office for National Statistics	First Release Focus on consumer price indices Labour Market Trends
Commercial vehicles, production (see also Motor vehicles)	5.3	Office for National Statistics	News Release
Construction industry			
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Gross saving	2.10		
In relation to gross domestic product	2.3		Monthly Digest of Statistics
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Financial Statistics explanatory handbook 2004. TSO, ISBN 0 11 621604 2. Price £39.50. www.statistics.gov.uk/products/p4861.asp

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UK Economic Accounts

Consumer Trends

Overseas Trade analysed in terms of industry

First releases

- UK Balance of Payments
- UK National Accounts
- UK Output, Income & Expenditure
- GDP Preliminary estimate
- Business investment
- Institutional Investment
- Govt Deficit & Debt under the Treaty
- Public Sector Accounts
- Profitability of UK companies
- Productivity

Consumer Trends 2003 quarter 3 www.statistics.gov.uk/products/p242.asp

United Kingdom Economic Accounts: 2003 quarter 3. TSO, ISBN 0 11 621727 8. Price £27. www.statistics.gov.uk/products/p1904.asp

UK Trade in Goods analysed in terms of industry (MQ10): 2003 quarter 3 www.statistics.gov.uk/products/p731.asp

Monthly publications

Consumer Price Indices

Economic Trends

Producer Price Indices

Financial Statistics

Monthly Review of External Trade Statistics

First releases

- UK Trade
- Public Sector Finances
- Consumer Price Indices
- Producer Prices
- Retail Sales Index
- Institutional Investment
- Index of Production
- Consumer Prices

Financial Statistics: December 2003. TSO, ISBN 0 11 621603 4. Price £23.50.

Focus on Consumer Price Indices: November 2003. www.statistics.gov.uk/products/p867.asp

Monthly review of External Trade Statistics (MM24): November 2003 www.statistics.gov.uk/products/p613.asp

Other publications

- Retail Prices 1914–1990
- Labour Market Trends
- National Accounts Concepts Sources and Methods -
- Sector Classification Guide for the National Statistics