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Economic Trends

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Editor: Paul Dickman

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In Brief

Articles

This month we feature two articles.

Jane Morgan of ONS gives an account of expenditure on Research and Development (R&D) statistics up to and including 2000. These statistics are consistent with the OECD's Frascati Manual that defines Research and Experimental Development. R&D is defined as creative work undertaken systematically to increase the stock of knowledge and the use of this knowledge to devise new applications. Performers and funders of Research and Development are divided into four economic sectors, which are defined: Government, Business, Higher Education Institutions and the Private Non-Profit sector.

Geoff Reed of ONS describes how much information is in the UK preliminary estimate of GDP. The article shows the proportions covered by industry information as opposed to being covered by estimates. The proportion of information content is also shown for output indicators and deflators. The results are based on the October 2001 preliminary estimate of GDP – a typical preliminary round.

Recent economic publications

Annual

United Kingdom National Accounts 2002 (ONS Blue Book). TSO, ISBN 0 11 621557 7. Price £39.50 (available from 20th August). Can be downloaded now from the National Statistics website **www.statistics.gov.uk/products/p1143.asp**
United Kingdom Balance of Payments 2002 (ONS Pink Book). TSO, ISBN 0 11 621558 5. Price £39.50 (available from 20th August). Can be downloaded now from the National Statistics website **www.statistics.gov.uk/products/p1140.asp**
United Kingdom Input Output Analyses 2002. Can be downloaded from the National Statistics website **www.statistics.gov.uk/products/p7640.asp**

Quarterly

Consumer Trends: 2002 quarter 1. Available for downloading from the National Statistics website **www.statistics.gov.uk/products/p242.asp**
United Kingdom Economic Accounts: 2002 quarter 1. TSO, ISBN 0 11 621545 3. Price £26. Also available for downloading from the National Statistics website **www.statistics.gov.uk/products/p1904.asp**
UK Trade in Goods analysed in terms of industries (MQ10): 2002 quarter 1. Available for downloading from the National Statistics website **www.statistics.gov.uk/products/p731.asp**

Monthly

Financial Statistics: July 2002. TSO, ISBN 0 11 621500 3. Price £23.50.
Focus on Consumer Price Indices: June 2002. Available for downloading from the National Statistics website **www.statistics.gov.uk/products/p867.asp**
Monthly Review of External Trade Statistics (MM24): May 2002. Available for downloading from the National Statistics website **www.statistics.gov.uk/products/p613.asp**

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Economic Update - August 2002

Geoff Tily, Macroeconomic Assessment - Office for National Statistics

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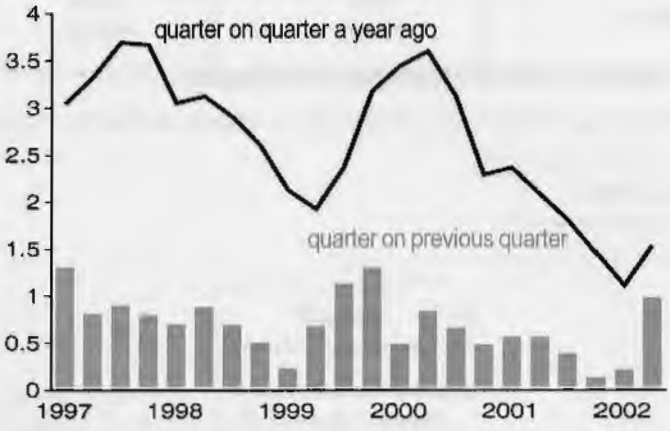
Overview

GDP data suggests economic growth picked up in the second quarter of 2002, alongside the first quarter improvement seen in other economies. However this improvement is set against a substantial deterioration in confidence in global financial markets in June and July. The pick-up in growth was driven by a return to growth in the manufacturing sector and less weak growth in the service sector. This improvement was foreshadowed in external indices, but which broadly showed less improvement into the second quarter. Construction output was also very strong. Household demand weakened in the first quarter of 2002, but appears to have picked up in the second quarter. Investment demand is falling, set against a background of weak revenues, concerns again about the indebtedness of the corporate sector and rising interest rates on some corporate debt. Figures now show a substantial acceleration in Government demand, with the public sector finances returning to deficit. Driving the growth in quarter two was very strong export demand, which follows the sharp decline in 2001. Import demand increased too, but not to the same extent. Headline labour market figures show both employment and unemployment increasing, with rates distorted by high increases to the working age population. By industry, manufacturing jobs are in decline, private sector service employment growth is weakening but public sector jobs accelerating. Figures also show an increase to the rate of redundancies. Price pressures are very subdued: earnings growth is below 4 per cent, producer price data show deflation coming into the factory and no inflation coming out, RPIX fell to 1.5 per cent.

GDP activity - overview

The preliminary estimate of gross domestic product (GDP) in the second quarter of 2002 shows quarterly growth of 0.9 per cent, following growth of 0.1 per cent in the first quarter of 2002. Growth comparing the second quarter of 2002 with the same quarter a year ago was 1.5 per cent, up from 1.1 per cent in the year to the first quarter of 2002 (figure 1). Annual growth in the first quarter was the lowest figure since the economy emerged from the 1990-91 recession.

Figure 1
Gross Domestic Product
growth



Clearly it is difficult to interpret such a sharp acceleration in quarterly GDP growth rates. In using quarterly growth rates as a guide to 'actual' GDP growth, there is a potential trade off between the drawback of additional volatility and the benefit of increased timeliness. It may be that the less volatile annual rates are currently providing a more useful measure.

That said, the increased growth in the latest quarter reflects a return to growth in the manufacturing sector following five consecutive quarters of negative growth, and more robust growth in the service sector following a particularly weak first quarter. While the expenditure measure of GDP is not produced until 23 August, advance indicators suggest that the stronger growth has been driven by overseas demand and a strengthening in household demand that followed a slightly weaker first quarter.

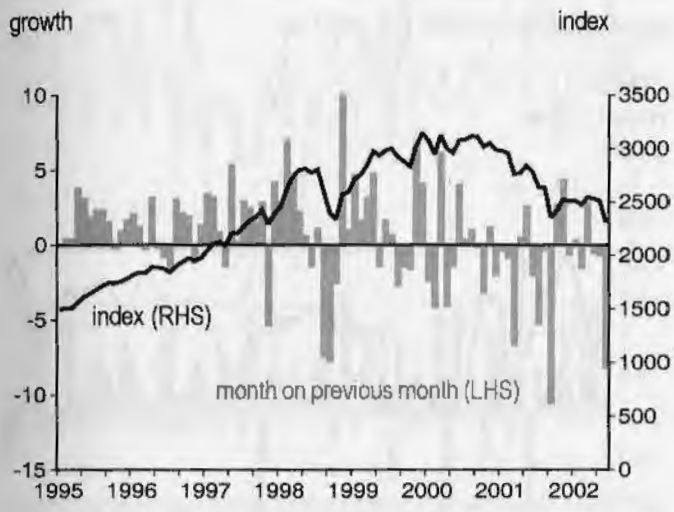
More generally the GDP slowdown prior to the latest quarter came alongside a deteriorating global environment. In the second half of 2001 GDP declined or was weak in the world's three largest economies, Japan, the United States and Germany. This deterioration has been dominated by sharp declines in the rate of business investment, which also appears to have been one of the major reasons for the deterioration in trade over the same period. While there has been a degree of recovery to GDP growth around the world in the first half of 2002, first quarter data showed that investment demand largely continued to fall.

Financial Market activity

The improvement in measured UK GDP activity is set against substantial deterioration in world stock market valuations of equity. Figure 2 shows a monthly decline of 8.1 per cent in the June UK FTSE all-share index, following a decline of 0.7 per cent in May. These falls have continued into July. The index now stands substantially below its previous trough that followed the terrorist attacks on September 11.

In the medium term, according to the FTSE all share index (average across the month) equity values peaked at 3115 in August 2000. The June 2002 index stood at 2309: a total decline of 25.9 per cent. This is the largest and most prolonged deterioration in FTSE since the decline in the early 1970s, where the same index fell by 71 per cent between August 1972 and December 1974.

Figure 2
FTSE all share average



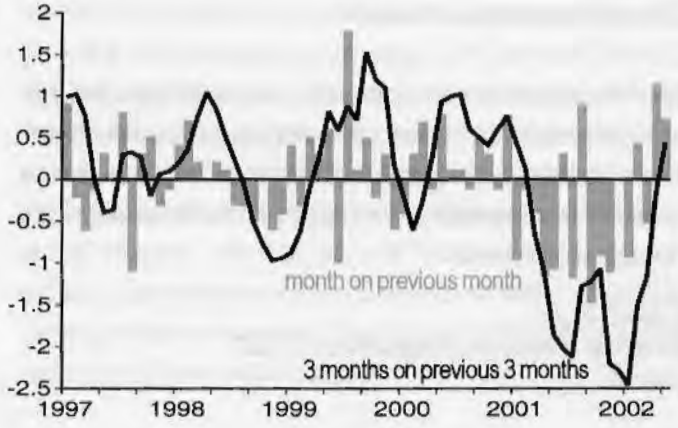
Outside the stock market, concerns are echoed in the corporate bond market. The July 2002 Monetary Policy Committee Minutes recorded a an "increase in UK corporate bond spreads over gilt yields in this period, of around 15 basis points for the Merrill Lynch aggregate index", noting also larger increases in spread for lower-rated bonds. Since 2001 corporate debt issues and long-term borrowing have been the primary source of UK private non-financial corporations' borrowing.

Output

Underpinning the increase in quarterly GDP growth is a turnaround in the activity of the UK manufacturing sector. At this preliminary stage of GDP estimation, manufacturing figures are not available for the second quarter of 2002 as a whole, but monthly data exists to May.

These monthly figures show relatively large increases in output in both April and May, leading to a quarterly growth estimate in the three months to May of 0.5 per cent, up sharply on the decline of 1.2 per cent in quarter one (figure 3). However manufacturing output continues to remain considerably below output in 2001. Comparing the three months to May with the same period in 2001 shows output declining by 4.4 per cent, although this too constitutes an improvement on the decline of 6.5 per cent in the year to the first quarter.

Figure 3
Manufacturing
growth



According to an industrial breakdown, the resumed increases in output have been seen in most industries in recent months. Particularly strong growth was seen in the production of motor vehicles, which grew by 2.2 per cent in the three months to May. This activity echoes vigorous activity in the motor vehicle industry throughout the world, which appears to be in response to interest free credit deals originating in the United States. Of interest also is the activity of the so- called information and communications technologies sectors (ICT, proxied by the NS series 'electrical and electronic engineering'). Here the extremely steep decline throughout 2001 is seen to have levelled off in the latest months, with growth in the three months to May of 0.4 per cent, following a decline of 6.8 per cent in quarter one.

Service sector quarterly growth was 0.6 per cent in the second quarter of 2002, following particularly subdued growth of 0.2 per cent in the first quarter. Comparing with the same quarter a year ago, annual growth was 2.1 per cent, down from 2.4 per cent in quarter one, and some way below the growth of 3.4 per cent recorded in 2001 as a whole.

A broad industrial breakdown shows that the general slowdown in the service sector over the previous year has been driven by a sharp slowdown to the previously very rapidly growing 'post and telecommunications' industries, and declines in 'transport and storage' and 'hotels and restaurants'. These are to some extent offset by stronger growth in distribution and business services industries. Furthermore recent movements have been dominated by movements in these strongly growing sectors, which showed a weak first quarter and a stronger second quarter.

Supporting GDP growth in the economy is very robust growth in construction output. Here figures show growth of 7.3 per cent in the year to 2002 quarter one and robust growth is projected to continue in the second quarter. Furthermore strong production in the mining and

quarrying industries and electricity gas and water supply industries are also behind the strong GDP growth in the second quarter.

External measures of output

External measures for both manufacturing and services stood at odds with official data in the first quarter of 2002 and showed a sharp acceleration from a very poor fourth quarter of 2001. Very broadly in the second quarter the measures held the level achieved in the first quarter, but did not show much increase.

Figure 4
External manufacturing/services, BCC
balances

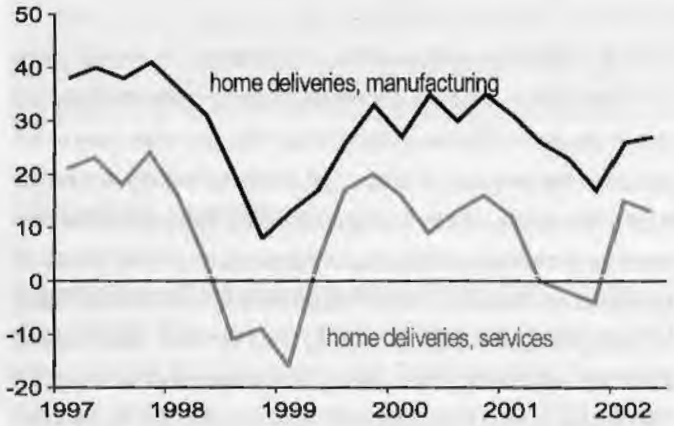


Figure 4 shows British Chamber of Commerce data for sales of the service and manufacturing industries moving in the way described above.

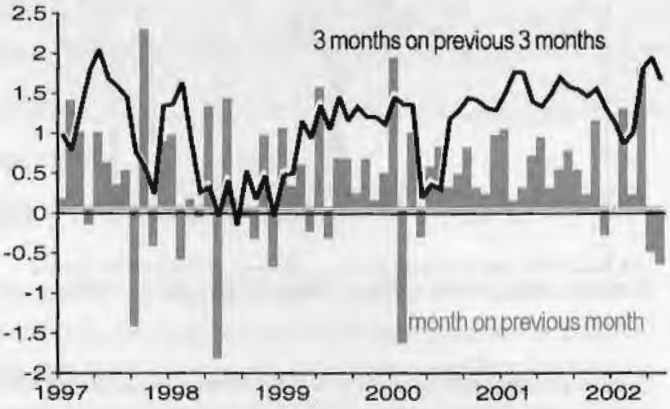
Specifically on the manufacturing sector, Confederation of British Industry (CBI) and Chartered Institute of Purchasing and supply (CIPS) figures are telling slightly different stories. The CBI orders figures increased in each month of the second quarter, whereas the CIPS 'Purchasing managers' index' figures peaked in May, and fell back a little in May and June (although still implying growth overall). The quarterly CBI industrial trends survey echoes the results of the monthly figures, but also shows a deterioration in overall business optimism.

Household demand

National Accounts figures for the first quarter of 2002 showed a small slowdown to the rate of growth in household demand. Both household final consumption expenditure and the retail sales index showed slowing growth relative to the very strong figures throughout 2001.

Figures so far for quarter two show mixed messages. At this stage there are no National Accounts figures available, however retail sales data is already available. This measure shows quarterly growth of 1.7 per cent, up on 1.0 per cent in the first quarter (figure 5). Comparing with the same period a year ago, retail sales growth is still a very strong 5.6 per cent. However the acceleration in retail sales volumes stands in contrast to a sharp deceleration in retail sales values. Figure 5 also shows value growth slowed from quarterly growth of 1.2 per cent in quarter one to 0.5 per cent in quarter two, suggesting volume growth is dominated by price cutting. Monthly movements in the volume measure are particularly difficult to interpret due to the public holidays for the Queen's Golden Jubilee celebrations, but again they suggest a potential degree of weakness showing declines into both May and June.

Figure 5
Retail sales
growth



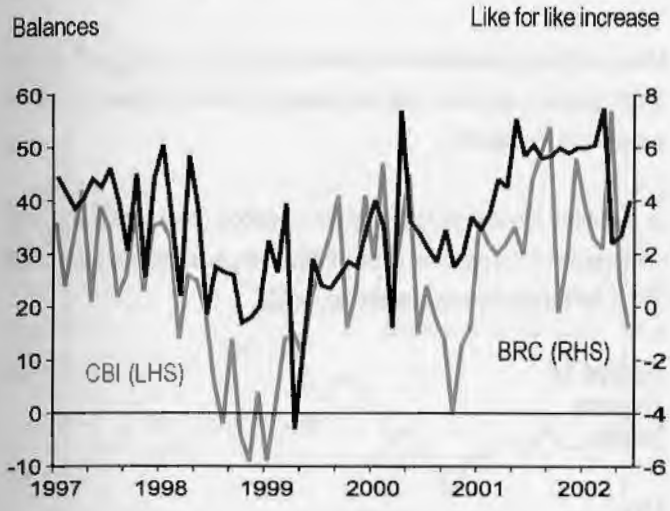
Figures for gross consumer credit echo the increase in quarterly growth showing acceleration in quarter two to 3.5 per cent from 2.9 per cent in quarter one. Compared with a year ago gross credit in quarter two grew by 13.4 per cent continuing a spell of borrowing at a pace not seen since 1998.

On the other hand external indices of retailing have showed some slowdown in the latest months with British Retail Consortium and CBI figures for both May and June considerably weaker than figures at the start of 2002 and throughout 2001 (figure 6).

The prolonged period of high growth in consumer credit shows that the present levels of consumer demand are supported by continued addition to the stock of household debt. The Bank of England has recently emphasised how the stock of household debt through bank lending is at an unprecedented level, and has questioned whether households have become too indebted. For example, credit debt figures are close to double the share of disposable income that they were in 1994. From this perspective household demand is at least partly dependent on both bank and building societies' willingness to lend and on households continuing to be able to meet the interest payments on previous and new borrowing. Many emphasise that with interest rates low, these debt servicing costs

continue to remain relatively low.

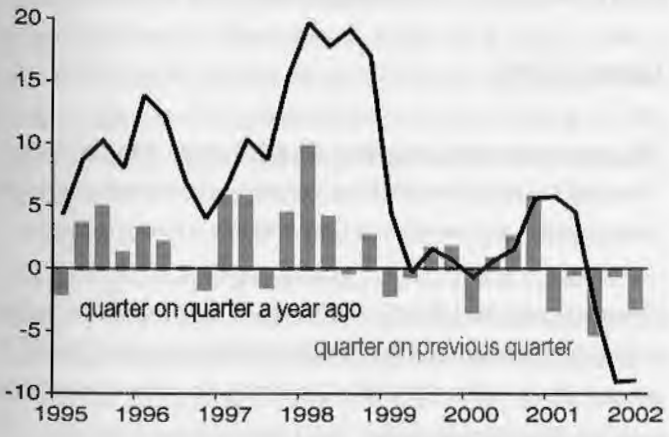
Figure 6
External retailing



Business demand

In contrast to household demand, but echoing the position around the world, UK business investment demand is falling sharply. In the first quarter, business investment fell by 3.1 per cent compared with the fourth quarter of 2001, and by 8.9 per cent compared with the first quarter of 2001 (figure 7). Last time business investment fell to this extent was in the 1990-91 recession.

Figure 7
Business investment
growth



External indices echo the general weakness in 2001, with BCC manufacturing and services figures showing investment intentions deteriorating quite rapidly and CBI manufacturing figures with a similar story. On the other hand, but in a similar way to external output measures, external investment indicators showed increases to intentions in the first half of 2002.

The weakening investment comes as profits of companies have been subdued, with private non-financial corporations' gross operating surplus (excluding UK continental shelf companies) in 2001 as a whole declining by 1.6 per cent following growth of 0.5 per cent into 2000. This weakening in profits set alongside weaker oil revenues and still high net property income payments returned the sector to more substantial net borrowing of £11.0 billion in 2001, following the recovery of borrowing, at £3.8 billion in 2000. However in the first quarter of 2002 there was a degree of recovery in both corporate profits and a return to net lending; it is possible that this improvement has been driven by restructuring within industry and cutting off of non-profitable outputs.

More generally the net borrowing over the past few years has added to the overall indebtedness of the private non-financial corporate sector (PNFC), where gross debt liabilities as a share of corporate profits are at a historic high. It may be that investment is faltering as borrowing conditions become more stringent, and companies, as well as financial organisations, review the sustainability of overall indebtedness. Potentially echoing these more stringent conditions are bank and building society figures (so-called M4 lending) that show sharply reduced growth of lending to non-financial and financial companies (although the two are set against robust growth in lending to individuals which echoes broader trends in the household demand story).

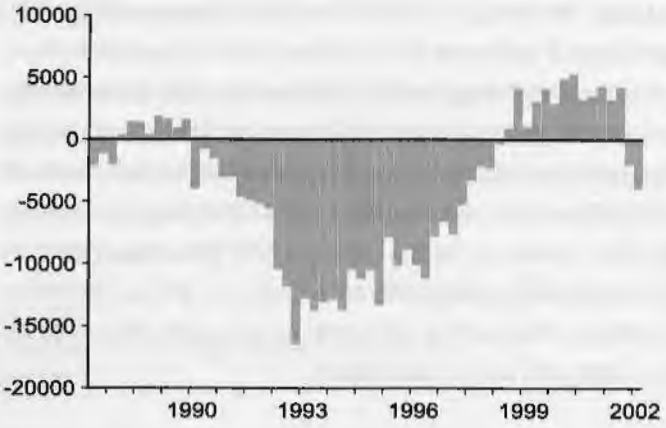
Government demand

Set against the reasonably robust household demand and falling business demand, there has now been a substantial acceleration in Government demand. Compared with the previous quarter, constant price Government expenditure grew by 2.0 per cent in the first quarter of 2002, following growth of 1.9 per cent in the fourth quarter. In cash expenditure terms Government expenditure has grown by 11.0 per cent in the year to the first quarter of 2002, the highest rate of growth since 1990.

The acceleration in Government expenditure has come as revenue growth is slowing, potentially reflecting the slowdown in the economy. The effect is that the central Government sector has returned to net borrowing for two consecutive quarters (£3.8 billion in quarter one 2002), following thirteen quarters of net lending.

Public sector net borrowing data extends to June 2002, and shows borrowing continuing into the second quarter. Overall cumulative net borrowing for the financial year 2002-03 stands at £7.1 billion compared with £5.0 billion in the same period a year ago. The data also shows Inland Revenue tax revenues in decline, by 2.2 per cent in the year to quarter two.

Figure 8
Central government net lending
millions

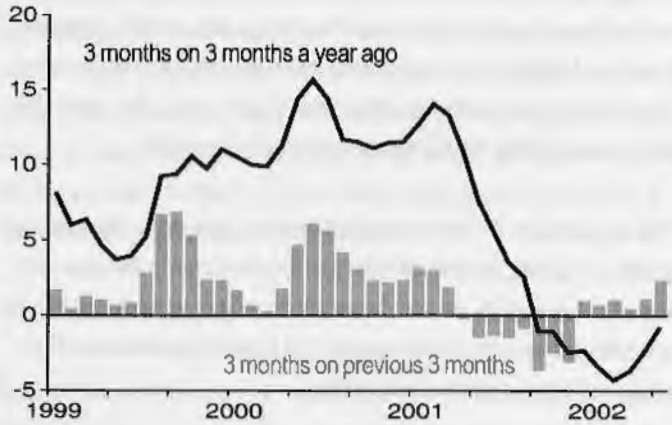


Imports

Imports declined sharply in 2001 but have recovered some momentum in 2002, showing positive growth of 0.9 per cent between the first quarter of 2002 and the last quarter of 2001. This is in contrast with quarterly declines in imports in the second and third quarters of the year.

Monthly data for trade in goods shows that in the three months to May imports of goods grew by 2.2 per cent compared with the previous three months, up on 0.3 per cent in the first quarter (figure 9). However data for May was a little weaker than April data. The growth was primarily driven by consumer goods with imports of capital goods continuing to decline.

Figure 9
Imports
growth



By country of origin, May showed a peculiar movement with imports from EU economies falling by 5.7 per cent on the previous month and imports from non-EU economies increasing by 5.5 per cent. This continues in a very exaggerated way the trend throughout 2002, with growth in imports coming only from non-EU economies.

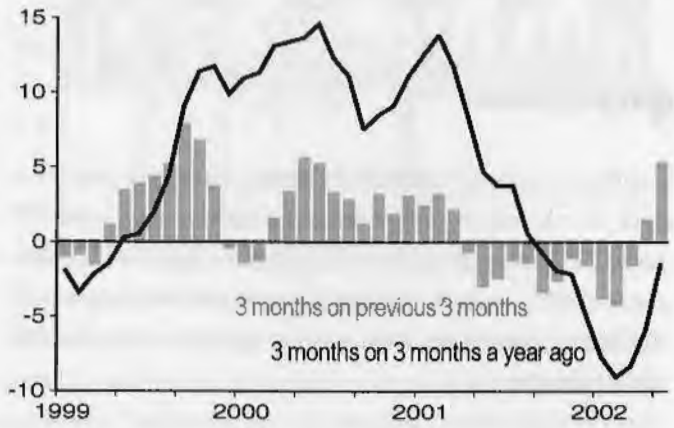
Overseas Demand

In line with global trends, UK export growth declined sharply throughout 2001. The decline of 7.2 per cent in the year to the first quarter of 2002, was the largest decline since the 1980-81 recession.

However trade has recovered some momentum in 2002, with only a weak quarterly decline in the first quarter and strong growth in goods exports into the second.

In the three months to May exports of goods grew by 5.3 per cent compared with the previous three months, very substantially up on a fall of 1.5 per cent in the first quarter (figure 10).

Figure 10
Exports
growth



This increased growth was seen to most major economies except Germany. UK exports to Germany declined by 19.4 per cent in the year to the three months to May 2002, by far the largest decline to any major economy.

Labour Market

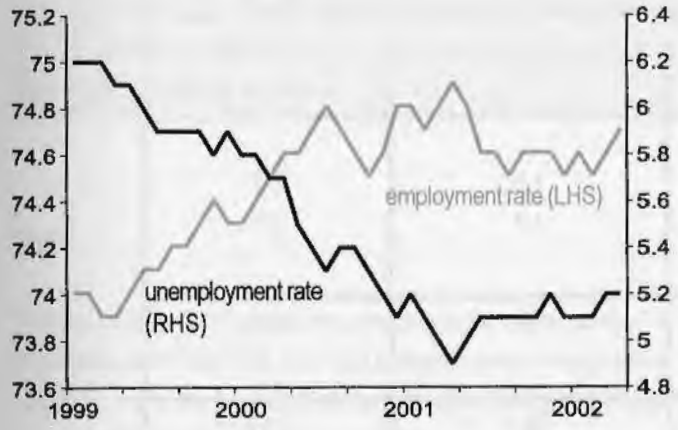
The headline messages from labour market data remain difficult to interpret. The latest two survey periods show increases to both employment and unemployment, and the detail contains a number of mixed messages.

On employment, the Labour Force Survey (LFS) figures show that the employment rate rose to 74.7 per cent between Mar-May 2002 from 74.6 per cent between Dec–Feb 2002. Conversely the unemployment rate also rose, to 5.3 per cent from 5.2 per cent over the same period. Over the year however the employment rate fell from 74.9 to 74.7 and the unemployment rate rose from 5.0 to 5.3 per cent.

However an important factor underpinning the apparent deterioration in the labour market is the recent rapid increase in the working age population

over the past two years. In the year to Mar-May 2002 the working age population grew by 239,000, between 1996 and 1998 the working age population was increasing only by about 180,000 per year. These increases could thus go some way to explaining the falling employment rates.

Figure 11
Labour Force Survey



On the other hand other figures do suggest a degree of deterioration. Redundancies have picked up a little, with 201,000 redundancies in the latest period (Winter 2002), up from 168,000 in the same period a year ago.

The industrial breakdown of employment also shows weakness in some sectors set against strength in others, with employment growth implied to be reliant on the public sector and the construction industry. Manufacturing employment has been declining for four years, and the annual rate of decline of 4.1 per cent in the first quarter of 2002 was the highest rate of decline since 1993. On the other hand construction employment grew by 4.5 per cent in the year to 2002, down from 7.0 per cent in the fourth quarter, which was the highest rate since the late 1980s. Within the service sector, employment growth is largely being driven by public sector jobs. Over the year to the first quarter total service sector jobs grew by 164,000, of these 138,000 were in the 'public administration, education and health' sectors.

The average earnings index continues to echo the more subdued labour market. In May 2002 the headline rate was 3.8 per cent, up on 3.3 per cent in April, but still well below the 4.5 per cent figure that the Bank of England consider broadly consistent with their inflation target. Similarly the corresponding figures excluding bonuses show earnings growth weakening in the latest months, with growth in the year to May at 3.9 per cent.

Prices

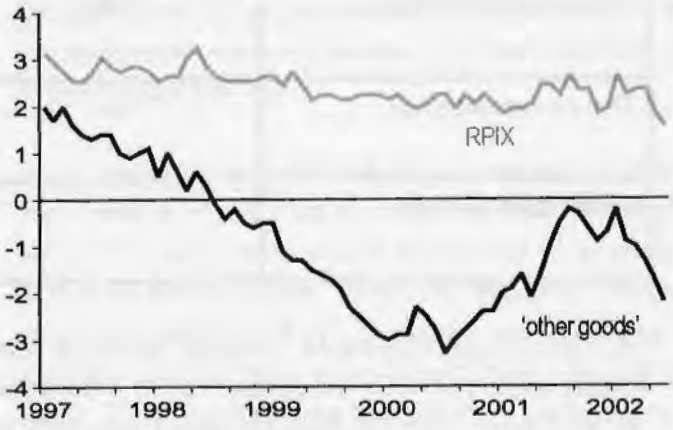
At the factory gate, output prices show very little inflation and input prices show deflation: the headline figures shows output price inflation at zero in the year to June and input price inflation a fall of 7.2 per cent over the same period. Both figures continue to be influenced by recent movements to the price of oil, but underlying measures across recent months continue to confirm the same overall story, albeit with slight increases in the latest three months. The weak producer price inflation may follow from the deteriorating global conditions in 2001, with over-supply becoming a significant phenomenon.

The June RPIX inflation figure was 1.5 per cent, continuing the sharp downward movement from 1.8 per cent in May and from 2.3 per cent in April (figure 12). The figure is now one percentage point below the Monetary Policy Committee's target.

The low outturns for inflation over recent months have been driven by goods components: petrol and oil prices have seen resumed falls; 'other goods' (including, for example, cars, consumer durables, clothing and DIY goods) have showed a resumed acceleration in the rate of deflation (figure 12); and in May and June food prices have also fallen on the year (due in particular to vegetables). The continued weakness in 'other goods' prices suggests that the recent strength in consumer demand is not having an impact on prices and indeed suggests that retailers are having to keep prices low to sustain the demand.

Overall, by historical standards earnings, consumer and producer price pressures continue to remain very subdued.

Figure 12
Consumer prices
growth, month on a year ago



Forecasts for the UK Economy

A comparison of independent forecasts, July 2002

The tables below are extracted from HM Treasury's "FORECASTS FOR THE UK ECONOMY" and summarise the average and range of independent forecasts for 2002 and 2003, updated monthly.

	Independent Forecasts for 2002		
	Average	Lowest	Highest
GDP growth (per cent)	1.7	0.4	2.2
Inflation rate (Q4: per cent)			
- RPI	2.3	1.0	3.2
- RPI excl MIPs	2.3	1.7	2.8
Unemployment (Q4, mn)	0.99	0.90	1.20
Current Account (£ bn)	-21.6	-29.2	-14.9
PSNB * (2002-03, £ bn)	11.7	-6.0	18.5

	Independent Forecasts for 2003		
	Average	Lowest	Highest
GDP growth (per cent)	2.7	-0.1	3.5
Inflation rate (Q4: per cent)			
- RPI	2.8	1.9	4.4
- RPI excl MIPs	2.4	1.7	3.2
Unemployment (Q4, mn)	0.98	0.72	1.35
Current Account (£ bn)	-22.7	-30.0	-12.9
PSNB* (2003-04, £ bn)	14.8	-2.0	24.3

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 Miss B K Phamber, Public Enquiry Unit, HM Treasury, Room 88/2, Parliament Street, London SW1P 3AG (Tel: 020-7270 4558). It is also available at the Treasury's internet site: http://www.hm-treasury.gov.uk.

* PSNB: Public Sector Net Borrowing.

International Economic Indicators - August 2002

Gladys Asogbon, Marcoeconomic Assessment - National Statistics

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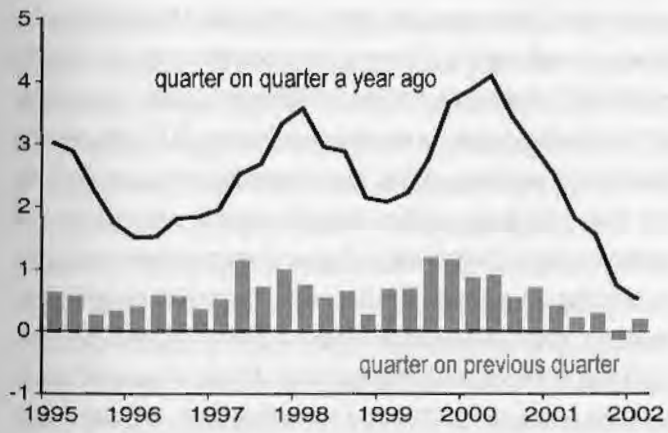
Overview

Having shown a decline in the second half of 2001, major economies grew again in the first quarter of 2002. For the EU economies, growth was mainly export driven, with domestic demand remaining subdued. In the US domestic demand was a little more robust, but stockbuilding was also very strong. In all major economies, investment demand remained weak, although the US showed a degree of recovery. Set against output, in most economies unemployment continued to rise and employment growth is weakening and in decline. In all major economies, there is producer price deflation and consumer price inflation is slowing.

EU15

The latest data for 2002 quarter one shows the EU economy grew by 0.2 percentage points following an 0.1 per cent contraction in the previous quarter (figure 1). The breakdown of the contributors to this performance is not available with this dataset at this stage.

Figure 1
GDP: EU15
growth



However, following on from an improvement in global conditions, the recovery is likely to be driven by trade, mainly from the export-led recoveries in both Germany and France. Another reason to suggest that the recovery is export-led is that consumer demand in the Euro area has been almost flat for the past three quarters. Rises in unemployment may be a main factor for this weak domestic demand.

Index of Production data show the source of the improvement from the output perspective. After four quarters of negative growth, the index was positive in 2002 quarter one, with growth of 0.4 per cent. It is unclear how broadly based this recovery is. The index for April shows a contraction of 0.2 percent.

The PPI for 2002 quarter one shows producer prices continuing to fall with a fall of 0.7 per cent compared to a year ago, although this figure is an improvement over 2001 quarter four when the index fell by 1.2 per cent. Growth in the index of consumer prices increased from 2.1 per cent in the year to the fourth quarter of 2001 to 2.2 per cent in the year to the first quarter of 2002, but monthly figures for May show a fall of 1.9 per cent.

EU employment figures continue to show growth, although at a declining rate. Annual growth for 2001 was 1.3 per cent, down from 1.9 per cent in the previous year. Annual growth in the year to the first quarter was 0.7 per cent, down from 0.8 per cent in 2001 quarter four. The EU unemployment rate in May 2002 was 7.6 per cent, a slight rise.

Annual earnings growth has again returned to 3.4 per cent in 2002 quarter one, having fallen to 2.5 per cent in 2001 quarter four, but the figures have a fairly odd volatility.

Germany

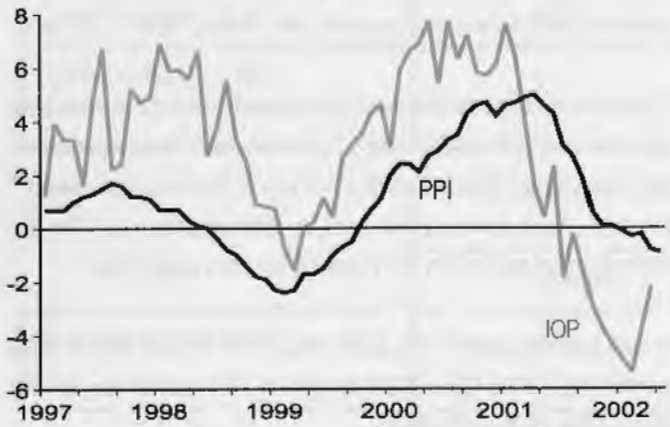
The latest data for Germany show quarterly GDP growth rebounding from two consecutive quarters of contraction to post positive growth of 0.2 per cent in 2002 quarter one.

This improvement in the performance of the German economy is due mainly to a strong increase in exports, which contributed 0.7 percentage points to GDP, compared to a negative contribution of 0.4 percentage points in the previous quarter. Government also made a positive contribution to quarterly GDP of 0.1 percentage points, although this contribution is less than the 0.2 percentage points made in the previous quarter. This positive position was also facilitated by a large decline in imports in 2002 quarter one. On the other hand, German domestic demand is very weak. Households made a negative contribution to GDP of 0.1 percentage points (also echoed in the retail sales figures where the

first quarter saw a contraction of 2.4 per cent in spending, accelerating from a contraction of 0.6 per cent in 2001 quarter four). Investment, the main driver of the previous slowdown, continued to contract, by 0.2 percentage points in the latest quarter. Changes in stock, which may in part have supported the increase in exports also made a large negative contribution to quarterly GDP of 1.2 percentage points compared with a positive contribution in the previous quarter of 0.4 percentage points.

As with overall GDP, the index of production has also shown some recovery from a contraction of 4.9 per cent in the year to January 2002 to a decline of 2.2 per cent in the year to April 2002 (figure 2). The month on previous month's changes in the index also show that with the exception of February, the index has shown growth in each month since December 2001.

Figure 2
IOP & PPI: Germany
growth, month on month a year ago



The producer price index for 2002 quarter one show prices falling at the factory gate by 0.2 per cent compared with a year ago. This is the first time producer prices growth has been negative since 1999 quarter three. Growth in consumer prices on the other hand shows a slight acceleration to 1.9 per cent in the year to 2002 quarter one from 1.8 per cent in the year to the previous quarter, although monthly data shows the figures weakening substantially into May.

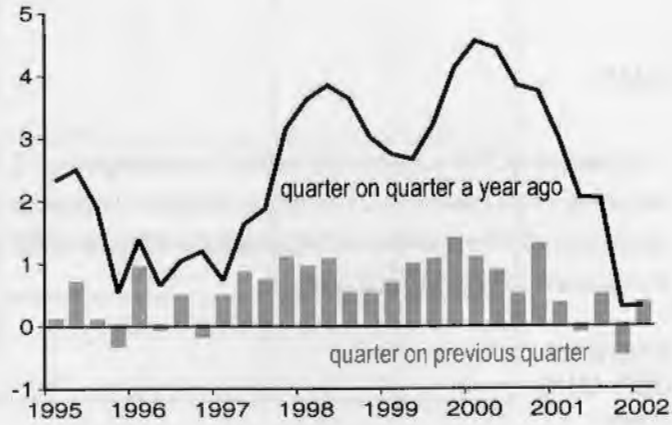
The unemployment rate in May 2002 was 8.1 per cent of the workforce, increasing slightly from 8.0 per cent in the previous four months. There has been a gradual increase in the unemployment rate from the recent trough of 7.6 per cent in the fourth quarter of 2000. Similarly employment growth contracted in the first quarter of 2002, with annual growth figures for the quarter showing negative growth of 0.4 per cent, accelerating from negative growth of 0.2 per cent in the previous quarter.

In line with a deteriorating labour market, annual earnings growth weakened further, growing by just 1.1 per cent in the third and fourth quarters of 2001, which, after accounting for inflation in the quarter, implies a fall in real earnings.

France

After two quarters of negative GDP growth in 2001 quarter two and 2001 quarter four, the French economy posted growth of 0.4 per cent in 2002 quarter one (figure 3).

Figure 3
GDP: France
growth



As with other European economies, the main driver of the positive growth is exports, with imports in France also rebounding strongly. Exports contributed 0.6 percentage points to GDP growth in 2002 quarter one. When considered against a negative contribution to GDP in the previous quarter of 0.7 percentage points, this is a considerable improvement. On the other hand, components of domestic demand made only modest contributions to GDP, with investment, government consumption and stocks contributing 0.1 percentage points each. Destocking has also been reversed, considering the large negative contribution it made to GDP in 2001 quarter four of 0.9 percentage points. Although households made a positive contribution to GDP of 0.1 percentage points, it is lower than its contribution in the previous quarter of 0.2 percentage points. However, retail sales data suggests that consumers are spending again with growth of 1.9 per cent in 2002 quarter one, compared with three consecutive quarters of decline starting from 2001 quarter two.

As with most other countries, the latest industrial production data show the IOP growing positively, with quarterly growth of 0.6 per cent for 2002 quarter one compared with the previous quarter where production fell by 1.7 per cent. The month on month changes in the index have been positive since January 2002, increasing by 0.5 percentage points in each month to March and by 0.4 percentage points in April.

Consumer prices increased by 1.5 per cent in the year to May 2002

compared to an increase of 1.9 per cent in the previous month. This is the lowest annual inflation in France since December 2001. Producer prices growth was negative for the fourth consecutive month in the year to May 2002 with a contraction in prices of 0.2 per cent. The last time producer prices growth was negative in France was in October 1999.

The improvement in economic activity has not been translated into falling unemployment. 9.2 per cent of the workforce were unemployed in May 2002, up from 9.1 per cent and 9.0 per cent in the previous two months and from the recent trough of 8.6 per cent throughout the first three quarters of 2001. Employment growth also continued its slowdown in the first quarter of 2002, with an annual rate of 0.7 per cent, well down on growth of 2.3 per cent at the start of 2001.

Following on from the labour market conditions, annual earnings growth continued to ease, slowing slightly from 4.1 per cent in the fourth quarter to 3.9 in the first quarter of 2002.

Italy

Recent data for the Italian economy show that after a quarter of contraction in 2001 quarter four, the economy grew by 0.2 percent in 2002 quarter one.

Unlike most other economies, the picture presented by Italy's GDP data is mixed. A breakdown of the contributions to changes in GDP shows that stocks were the main contributor adding 1.2 percentage points to GDP compare with a negative contribution of 0.8 percentage points in the previous quarter. Trade is yet to have an impact on GDP, with net trade making a large negative contribution of 0.5 percentage points. The contraction in export growth accelerated in the latest quarter, with the trade position further worsened by the acceleration in import growth. Domestic demand in Italy weakened considerably in quarter one. Households, having made a positive contribution to GDP in 2001 quarter four of 0.1 percentage points, made an equal negative contribution to GDP in 2002 quarter one. Investment, the main driver of the global slowdown throughout 2001 made a particularly large negative contribution to Italian quarterly GDP of 0.5 percentage points. Government consumption's contribution to GDP growth has remained flat at 0.1 percentage points since 2000 quarter three.

As with other countries, the index of production data shows an improvement, with 2002 quarter one data showing growth of 0.2 per cent, up from a decline of 1.9 per cent in the previous quarter. While this is the first time quarterly IOP growth has been positive since 2000 quarter four, monthly figures however record a return to decline in both March and April.

CPI figures show a slight easing in the year to June 2002 from 2.3 per cent in the previous month to 2.2 per cent, although remaining above the ECB ceiling of 2.0 per cent. Price growth at the factory gate is still negative, with prices falling by 0.9 per cent (in the year to May), slowing slightly from a fall of 1.3 per cent in the previous month.

Despite the overall weak and mixed picture painted by the GDP figures, the Italian labour market continues to show improvements (figure 4). Employment growth was 1.8 per cent in the year to the second quarter of 2002 and recently updated unemployment figures show slight reductions in the unemployment rate since October 2001.

Figure 4
Unemployment rate: Italy
percentage of workforce

In line with the labour market performance, annual earnings growth has picked up slightly, and grew in the year to May by 3.1 per cent. Annual growth in the first quarter of 2002 was 2.2 per cent, the third successive quarter of slightly rising earnings growth.

USA

The US economy's GDP grew substantially in the first quarter of 2002 with growth of 1.5 per cent up from 0.4 per cent in the last quarter of 2001 and rebounding strongly from the single quarter's contraction of 0.3 per cent in 2001 quarter three.

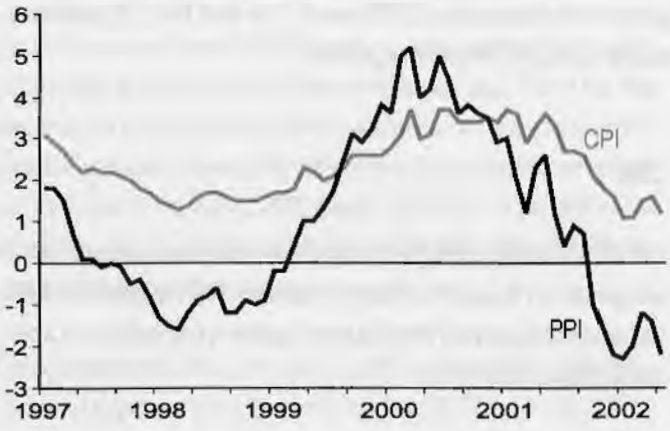
All components in GDP posted positive contributions to quarterly GDP growth. However, in the first quarter as with Italy, the main contribution was from changes in stock. De-stocking of the previous six quarters was reversed and made a positive contribution of 1.0 percentage points to quarterly GDP. Both exports and imports have also rebounded, although net trade continued to make a net negative contribution (of 0.2 percentage points) to quarterly GDP. On the other hand household spending decreased in the latest period, making a contribution of 0.6 percentage

points to quarterly GDP down from the very strong contribution of 1.0 percentage points in the previous quarter. Quarterly retail sales growth echoes this easing in consumer spending, with negative quarterly growth of 0.1 per cent in 2002 quarter one. This is a large change compared to the previous quarter's figure, which saw retail sales grow by 4.3 per cent. Government contribution to quarterly GDP growth remained stable at 0.2 per cent. Investment, which has been a main driver of the downturn, showed a slight improvement, contributing 0.1 percentage points to GDP from a negative contribution of 0.3 percentage points in the previous quarter.

Echoing the rebound, industrial production recovered strongly with the index of production showing quarterly growth in 2002 quarter one of 0.7 per cent. This is the first growth in the IOP for five consecutive quarters, with figures for 2001 as a whole showing industrial production contracted by 3.6 per cent. Monthly figures also reinforce the quarterly data with the index posting positive month on previous month changes since January 2002.

In line with the reduced consumer spending in the latest quarter, inflationary pressures continue to remain subdued (figure 5). Annual consumer prices growth slowed from 1.8 per cent in 2001 quarter four to 1.2 per cent in 2002 quarter one. Producer prices continued to fall, with annual figures showing the PPI decline accelerating from 1.7 per cent in the year to 2001 quarter four to 1.8 per cent in 2002 quarter one.

Figure 5
CPI & PPI: USA
growth, month on month a year ago



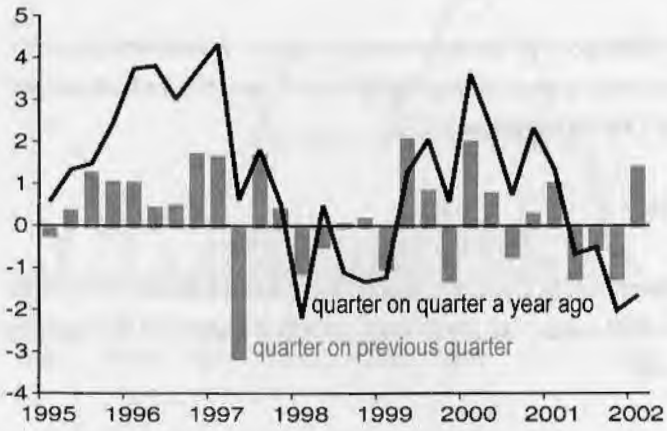
The US saw a sharp increase in the unemployment rate in 2001 from 4.2 per cent in January to 5.8 per cent in December. The sharp deterioration has slowed in 2002, but the volatility in the figures offers no clear signs of recovery.

Having grown more strongly in February and March 2002 by 4.2 per cent, earnings have returned to growth of 3.4 per cent in the year to April 2002 and continued to grow at that rate in May (as well as in the seven months before January 2002).

Japan

The latest figures for 2002 quarter one show growth in the Japanese economy rebounding strongly from three consecutive quarters of negative growth to post a 1.4 per cent increase in quarterly GDP (figure 6).

Figure 6
GDP: Japan
growth



Again, as with most other economies, this recovery is export-led, with exports contributing 0.7 percentage points to GDP. When compared with a negative contribution of 0.3 percentage points in the previous quarter, this is a considerable increase. This position is also aided by a reduction in imports, which when taken together saw net trade contributing 0.7 percentage points to GDP. Households also made a large contribution to GDP of 0.9 percentage points, although this is a slight decrease over the previous month's contribution of 1.0 percentage points. Retail sales figures also show consumers spending more in the latest quarter with a 0.8 per cent growth in spending over the pervious quarter, compared to a contraction in spending in 2001 quarter four of 1.5 per cent. Government also contributed 0.2 percentage points to GDP. However, investment is yet to recover and made a negative contribution to GDP of 0.3 percentage points, although this is relative to the previous quarter's negative contribution of 2.3 percentage points.

Industrial output, although still showing contraction in 2002 quarter one of 0.1 per cent, has improved substantially from the decline in the previous quarter of 2.4 per cent. Month on previous month changes also show increases in the IOP, with the index positive in every month from February 2002.

Consumer and producer price falls continue the deflation that began in

mid-1998. Annual growth figures for 2002 quarter one show that consumer and producer prices declined by 1.4 per cent and 1.5 per cent respectively in the year to 2002 quarter one.

Despite the burst of economic activity, the unemployment rate deteriorated in May following improvements to the rate in the first months of 2001. Unemployment was 5.4 per cent of the workforce in May, up by 0.2 percentage points over the previous month. Recent rates of unemployment are very high by historical standards for Japan (unprecedented since at least before 1960 when OECD records began). Employment growth is also negative, declining by 1.5 per cent in the year to 2002 quarter one, and this decline appearing to accelerate in quarter two.

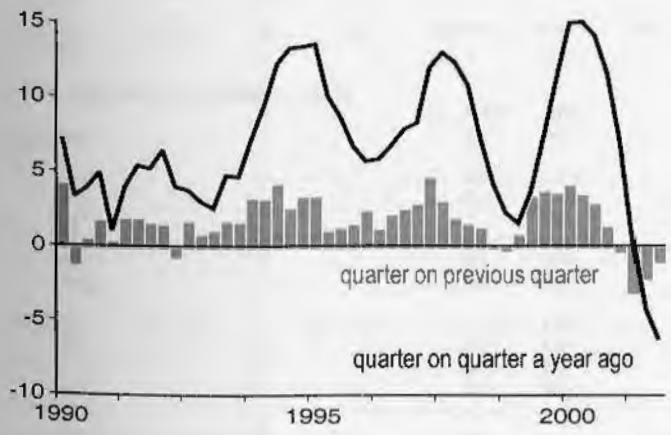
Earnings growth contracted considerably in line with the weak labour market conditions with negative annual growth in 2002 quarter one of 1.5 per cent, significantly worse than 2001 quarter four's negative growth of 0.6 per cent.

World Trade

Trade figures are showing a contraction in global trade, albeit with a lag due to later production of these figures. Although there is a substantial slowing in the rate decline in 2001 quarter four, 2002 quarter one figures might be expected to reflect the recent improvement in world trade activity.

Total trade in manufactures for 2001 quarter four contracted by 0.7 per cent and total trade in goods contracted by 0.5 per cent in the same period. Although total trade is still in decline, the rate of decline has slowed in the latest period, as the equivalent figures for the previous quarters showed falls of 1.9 per cent and 1.5 per cent respectively.

Figure 7
World exports of manufactures
growth



An analysis of the make up of the total trade data also shows some improvement in the latest figures. Total exports of manufactures contracted by 1.0 per cent in 2001 quarter four, compared with a fall of 2.1 per cent in the previous quarter (figure 7). Total exports of goods contracted by 0.7 per cent in 2002 quarter four, which is a substantial improvement over the previous quarter's contraction of 1.5 per cent.

Total imports of manufactures in 2001 quarter four contracted by 0.4 per cent while total imports of goods contracted by 0.3 per cent in the same period. On the goods import side, total imports contracted by 0.3 per cent compared with a contraction of 1.6 per cent in the previous quarter.

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.

1 European Union 15

	Contribution to change in GDP													
	GDP	PFC	GFC	GFCF	ChgStk[1]	Exports	less Imports	IoP	Sales	CPI	PPI	Earnings	Empl	Unempl
Percentage change on a year earlier	ILGB	HUDS	HUDT	HUDU	HUDV	HUDW	HUDX	ILGV	ILHP	HYAB	ILAI	ILAR	ILIJ	GADR
1996	1.7	1.2	0.3	0.4	–0.5	1.5	1.2	0.6	0.6	2.5	0.7	3.5	0.5	10.2
1997	2.6	1.3	0.2	0.7	0.1	3.1	2.7	3.8	1.4	2.0	0.9	3.1	1.0	10.0
1998	2.9	1.9	0.3	1.3	0.4	2.1	3.0	3.8	2.9	1.8	–0.4	2.8	1.9	9.4
1999	2.7	2.0	0.4	1.1	–0.2	1.8	2.4	1.8	2.0	1.2	0.1	2.7	1.9	8.7
2000	3.6	1.9	0.4	1.0	–	4.2	3.8	4.7	2.3	2.5	4.7	3.3	1.9	7.8
2001	1.7	1.3	0.4	–	–0.5	0.9	0.4	–0.1	1.8	2.5	1.2	3.0	1.3	7.4
1999 Q2	2.2	1.9	0.4	1.0	–0.3	1.1	1.9	0.6	1.2	1.1	–0.9	1.8	1.8	8.8
Q3	2.8	2.0	0.4	1.1	–0.3	2.1	2.5	2.1	1.9	1.2	0.5	3.6	1.9	8.6
Q4	3.7	2.0	0.5	1.2	–	3.3	3.3	4.2	2.8	1.6	2.4	2.7	1.7	8.4
2000 Q1	3.9	1.9	0.4	1.1	–0.2	4.2	3.6	4.2	2.8	2.1	4.1	3.6	1.8	8.1
Q2	4.1	2.2	0.5	1.1	0.1	4.3	4.1	5.7	3.1	2.3	4.8	3.6	1.9	7.9
Q3	3.4	1.8	0.4	1.0	0.1	4.2	4.0	4.9	2.1	2.7	5.1	2.6	1.8	7.7
Q4	3.0	1.5	0.3	0.9	–	4.0	3.7	4.3	1.6	2.7	5.1	3.5	2.1	7.5
2001 Q1	2.5	1.4	0.4	0.4	–0.2	2.8	2.4	3.8	2.5	2.7	3.3	2.6	1.8	7.4
Q2	1.8	1.3	0.4	0.2	–0.4	1.6	1.2	0.3	1.8	2.9	2.4	3.4	1.4	7.3
Q3	1.6	1.2	0.4	–0.2	–0.4	0.2	–0.3	–0.9	1.5	2.5	0.7	3.4	1.2	7.4
Q4	0.8	1.1	0.5	–0.4	–0.9	–1.0	–1.5	–3.5	1.2	2.1	–1.2	2.5	0.8	7.4
2002 Q1	0.5	..	..	..	..	..	..	–3.1	0.3	2.2	–0.7	3.4	0.7	7.5
Q2	..	..	..	..	..	..	..	..	..	..	..	..	..	..
2001 Jun	..	..	..	..	..	..	..	0.8	2.8	2.9	1.9	..	..	7.4
Jul	..	..	..	..	..	..	..	–1.3	0.9	2.7	1.1	..	..	7.4
Aug	..	..	..	..	..	..	..	–0.3	1.8	2.7	0.8	..	..	7.4
Sep	..	..	..	..	..	..	..	–1.1	1.8	2.3	–	..	..	7.4
Oct	..	..	..	..	..	..	..	–2.5	0.9	2.3	–0.8	..	..	7.4
Nov	..	..	..	..	..	..	..	–3.9	1.8	1.9	–1.4	..	..	7.4
Dec	..	..	..	..	..	..	..	–4.1	0.9	1.9	–1.2	..	..	7.4
2002 Jan	..	..	..	..	..	..	..	–3.2	–	2.3	–0.7	..	..	7.5
Feb	..	..	..	..	..	..	..	–3.4	0.9	2.0	–0.8	..	..	7.5
Mar	..	..	..	..	..	..	..	–2.6	–	2.2	–0.6	..	..	7.5
Apr	..	..	..	..	..	..	..	–1.5	–	2.2	–0.4	..	..	7.5
May	..	..	..	..	..	..	..	..	..	1.9	–0.5	..	..	7.6
Jun	..	..	..	..	..	..	..	..	..	..	..	..	..	..

Percentage change on previous quarter	ILGL	HUDY	HUDZ	HUEA	HUEB	HUEC	HUED	ILHF	ILHZ	ILIT
1999 Q2	0.7	0.2	–	0.2	–0.1	0.9	0.6	0.6	–0.3	1.2
Q3	1.2	0.6	0.1	0.4	–0.1	1.1	1.0	1.6	1.6	0.9
Q4	1.1	0.5	0.1	0.2	0.4	1.0	1.2	1.5	1.2	0.1
2000 Q1	0.8	0.6	0.1	0.3	–0.3	1.1	0.8	0.4	0.3	–0.3
Q2	0.9	0.4	0.1	0.2	0.2	1.0	1.0	2.0	–	1.2
Q3	0.5	0.2	0.1	0.2	–0.2	1.1	0.9	0.9	0.6	0.7
Q4	0.7	0.2	0.1	0.2	0.2	0.8	0.9	0.9	0.6	0.4
2001 Q1	0.4	0.5	0.2	–0.2	–0.5	–	–0.5	–0.1	1.2	–0.6
Q2	0.2	0.3	0.1	–0.1	0.1	–0.3	–0.1	–1.4	–0.6	0.8
Q3	0.3	0.2	0.1	–0.1	–0.2	–0.3	–0.6	–0.4	0.4	0.6
Q4	–0.1	0.2	0.2	–0.1	–0.3	–0.4	–0.4	–1.6	0.3	–
2002 Q1	0.2	..	..	..	..	..	..	0.4	0.3	–0.6
Q2	..	..	..	..	..	..	..	..	..	..

Percentage change on previous month	ILKF	ILKP
2001 Jun	0.4	0.9
Jul	–1.1	–0.9
Aug	1.3	0.9
Sep	–0.9	–
Oct	–1.3	–0.9
Nov	–0.5	1.8
Dec	0.6	–0.9
2002 Jan	–0.3	–
Feb	0.3	0.9
Mar	0.5	–0.9
Apr	–0.2	–0.9
May	..	..
Jun	..	..

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
Sales = Retail Sales Volume
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 labour force

2 Germany

	GDP	Contribution to change in GDP: PFC	GFC	GFCF	ChgStk	Exports	less Imports	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
1996	0.8	0.5	0.4	–0.1	–0.4	1.3	0.8	0.7	–1.1	1.4	–1.2	3.5	–0.4	8.7
1997	1.5	0.4	0.1	0.2	–	2.9	2.0	3.7	–1.7	1.9	1.1	1.5	–0.3	9.6
1998	1.7	0.9	0.2	0.5	0.5	1.7	2.2	4.2	1.0	1.0	–0.4	1.8	1.5	9.1
1999	1.7	1.7	0.3	0.8	–0.4	1.5	2.3	1.5	0.3	0.6	–1.0	2.6	0.8	8.4
2000	3.2	0.9	0.2	0.7	0.3	4.2	3.1	6.2	1.3	1.9	3.4	2.7	0.6	7.7
2001	0.7	0.7	0.3	–1.0	–0.9	1.7	0.1	0.5	0.6	2.5	2.9	1.5	–	7.7
1999 Q2	1.0	1.7	0.2	0.7	–0.5	0.7	1.9	0.5	–0.6	0.5	–1.7	2.4	0.3	8.5
Q3	2.1	1.7	0.3	1.0	–0.5	2.0	2.5	2.0	–0.3	0.7	–0.7	2.7	1.4	8.4
Q4	3.0	1.5	0.4	1.2	–0.3	3.3	3.0	4.2	0.7	1.0	0.6	3.0	0.7	8.2
2000 Q1	2.9	0.6	0.3	0.9	–0.5	4.3	2.6	5.2	–	1.7	2.3	2.8	0.5	7.9
Q2	4.4	1.7	0.4	0.8	0.3	4.0	2.8	6.6	4.1	1.6	2.6	2.4	0.7	7.8
Q3	3.2	1.1	0.1	0.6	0.4	4.2	3.1	7.1	1.4	2.0	3.7	3.3	0.3	7.7
Q4	2.5	0.4	0.2	0.4	1.1	4.5	4.1	5.9	–0.2	2.4	4.5	2.4	0.5	7.6
2001 Q1	1.8	0.9	0.3	–0.5	–0.2	3.1	1.8	6.1	1.3	2.5	4.8	2.0	0.3	7.6
Q2	0.7	0.7	0.3	–0.8	–0.7	2.4	1.2	1.5	0.5	3.2	4.7	2.0	0.1	7.7
Q3	0.4	0.7	0.3	–1.4	–1.0	1.5	–0.3	–1.3	0.8	2.5	2.6	1.1	0.1	7.7
Q4	–	0.6	0.3	–1.3	–1.5	–	–2.0	–3.8	–0.1	1.8	0.3	1.1	–0.2	7.9
2002 Q1	–0.2	–0.2	0.2	–1.0	–0.9	0.6	–1.1	–4.7	–3.6	1.9	–0.2	..	–0.4	8.0
Q2	..	..	..	..	..	..	..	..	..	..	..	..	..	..
2001 Jun	..	..	..	..	..	..	..	2.3	0.9	3.1	4.3	..	..	7.7
Jul	..	..	..	..	..	..	..	–1.9	0.4	2.6	3.1	..	..	7.7
Aug	..	..	..	..	..	..	..	–0.2	0.8	2.6	2.7	..	..	7.7
Sep	..	..	..	..	..	..	..	–1.6	1.3	2.1	1.9	..	..	7.8
Oct	..	..	..	..	..	..	..	–3.0	–1.1	2.0	0.6	..	..	7.9
Nov	..	..	..	..	..	..	..	–3.8	2.2	1.7	0.1	..	..	7.9
Dec	..	..	..	..	..	..	..	–4.4	–1.3	1.7	0.1	..	..	7.9
2002 Jan	..	..	..	..	..	..	..	–4.9	–4.6	2.1	–0.1	..	..	8.0
Feb	..	..	..	..	..	..	..	–5.4	–2.5	1.7	–0.3	..	..	8.0
Mar	..	..	..	..	..	..	..	–3.8	–3.7	1.8	–0.2	..	..	8.0
Apr	..	..	..	..	..	..	..	–2.2	–1.7	1.6	–0.8	..	..	8.0
May	..	..	..	..	..	..	..	..	..	1.1	–0.9	..	..	8.1
Jun	..	..	..	..	..	..	..	..	..	..	..	..	..	..

Percentage change on previous quarter	ILGI	HUCC	HUCD	HUCE	HUCF	HUCG	HUCH	ILHC	ILHW				ILIQ	
1999 Q2	–0.2	–0.5	–0.1	0.1	–	1.1	0.8	1.1	–3.1				0.7	
Q3	1.3	0.6	0.2	0.5	–0.2	0.9	0.7	1.6	1.4				1.0	
Q4	0.8	0.4	0.1	–0.1	0.2	0.8	0.7	1.3	1.9				0.5	
2000 Q1	1.0	0.1	0.1	0.3	–0.5	1.4	0.4	1.0	–0.2				–1.7	
Q2	1.2	0.6	–	–	0.8	0.8	0.9	2.5	0.9				0.9	
Q3	0.1	–0.1	–0.1	0.3	–0.2	1.1	0.9	2.1	–1.2				0.6	
Q4	0.2	–0.2	0.2	–0.3	1.0	1.1	1.7	0.2	0.3				0.7	
2001 Q1	0.4	0.6	0.2	–0.5	–1.8	–	–1.8	1.2	1.2				–1.8	
Q2	–	0.4	–	–0.3	0.2	0.1	0.4	–2.0	0.2				0.7	
Q3	–0.2	–0.1	–0.1	–0.3	–0.4	0.2	–0.5	–0.6	–0.9				0.6	
Q4	–0.3	–0.3	0.2	–0.2	0.4	–0.4	–	–2.4	–0.6				0.4	
2002 Q1	0.2	–0.1	0.1	–0.2	–1.2	0.7	–0.9	0.2	–2.4				–2.0	
Q2	..	..	..	..	..	..	..	..	..				..	

Percentage change on previous month	ILKC	ILKM
2001 Jun	0.2	–1.0
Jul	–1.4	–0.8
Aug	1.7	0.6
Sep	–1.3	–0.2
Oct	–1.5	–1.9
Nov	–0.8	3.2
Dec	0.1	–2.6
2002 Jan	0.5	–2.5
Feb	–0.4	1.1
Mar	0.3	0.2
Apr	0.5	1.5
May	..	..
Jun	..	..

GDP = Gross Domestic Product at constant market prices
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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
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

3 France

	GDP	Contribution to change in GDP: PFC	GFC	GFCF	ChgStk	Exports	less Imports	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
1996	1.1	0.7	0.5	–	–0.5	0.7	0.4	0.9	–0.3	2.0	–2.7	2.6	0.3	11.9
1997	1.8	0.1	0.5	–	0.1	2.8	1.5	3.9	1.1	1.2	–0.6	2.6	0.7	11.8
1998	3.5	1.9	–	1.3	0.7	2.1	2.6	5.2	2.6	0.8	–0.9	2.2	1.9	11.4
1999	3.2	1.9	0.3	1.6	–0.3	1.1	1.5	2.0	2.4	0.5	–1.6	2.5	2.3	10.7
2000	4.1	1.5	0.7	1.6	0.4	3.6	3.7	3.5	0.5	1.7	2.1	5.2	2.7	9.3
2001	1.8	1.5	0.5	0.5	–1.0	0.3	–	0.7	–0.1	1.7	1.5	4.2	1.6	8.6
1999 Q2	2.7	1.8	0.3	1.5	–0.3	0.4	1.0	0.5	1.9	0.4	–2.3	2.0	2.0	11.0
Q3	3.2	2.0	0.3	1.6	–0.7	1.5	1.4	2.3	2.3	0.5	–1.6	2.7	2.2	10.6
Q4	4.1	1.9	0.6	1.7	–	2.4	2.4	4.4	2.2	1.0	–	3.4	2.5	10.2
2000 Q1	4.6	2.0	0.5	1.8	0.1	3.3	3.2	4.1	2.0	1.5	1.2	5.2	2.6	9.8
Q2	4.4	1.6	0.7	1.5	0.3	4.0	3.6	3.9	1.3	1.5	2.1	5.4	2.8	9.4
Q3	3.9	1.3	0.7	1.6	0.9	3.5	4.1	3.5	0.1	1.9	2.7	5.2	2.7	9.1
Q4	3.8	1.2	0.7	1.7	0.3	3.8	3.9	2.4	–1.3	1.9	2.4	5.0	2.6	8.8
2001 Q1	3.0	1.4	0.6	1.1	–0.6	2.7	2.2	2.3	1.3	1.2	2.5	4.3	2.3	8.6
Q2	2.1	1.4	0.5	0.7	–0.5	0.7	0.8	1.2	–0.4	2.1	1.8	4.2	1.8	8.6
Q3	2.0	1.7	0.6	0.4	–0.9	–0.3	–0.6	1.1	–0.7	1.9	1.1	4.2	1.3	8.6
Q4	0.3	1.5	0.4	–	–2.0	–1.9	–2.3	–1.7	–0.8	1.4	0.6	4.1	1.0	8.8
2002 Q1	0.3	0.9	0.5	0.1	–1.1	–1.2	–1.0	–0.9	–1.4	2.2	–0.2	3.9	0.7	9.0
Q2	..	..	..	..	..	..	..	..	..	..	..	..	..	..
2001 Jun	..	..	..	..	..	..	..	1.5	1.5	2.1	1.7	..	..	8.6
Jul	..	..	..	..	..	..	..	1.3	–0.8	2.1	1.3	..	..	8.6
Aug	..	..	..	..	..	..	..	1.3	–	1.9	1.1	..	..	8.6
Sep	..	..	..	..	..	..	..	0.8	–1.1	1.5	0.8	..	..	8.6
Oct	..	..	..	..	..	..	..	–1.3	–0.9	1.8	0.6	..	..	8.7
Nov	..	..	..	..	..	..	..	–1.6	–0.6	1.2	0.6	..	..	8.8
Dec	..	..	..	..	..	..	..	–2.1	–0.6	1.4	0.4	..	..	8.8
2002 Jan	..	..	..	..	..	..	..	–1.4	–3.5	2.3	–	..	..	8.9
Feb	..	..	..	..	..	..	..	–0.8	–0.6	2.1	–0.4	..	..	9.0
Mar	..	..	..	..	..	..	..	–0.4	–0.3	2.1	–0.3	..	..	9.0
Apr	..	..	..	..	..	..	..	0.9	–0.9	1.9	–0.2	..	..	9.1
May	..	..	..	..	..	..	..	..	2.3	1.5	–0.2	..	..	9.2
Jun	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Percentage change on previous quarter														
	ILGJ	HUBQ	HUBR	HUBS	HUBT	HUBU	HUBV	ILHD	ILHX				ILIR	
1999 Q2	1.0	0.6	0.1	0.5	–0.2	0.5	0.5	0.7	–0.2				0.5	
Q3	1.1	0.5	0.1	0.4	–0.5	1.2	0.5	1.3	1.2				0.7	
Q4	1.4	0.5	0.3	0.3	0.8	0.6	1.1	2.1	1.0				0.7	
2000 Q1	1.1	0.4	0.1	0.6	–	1.0	1.0	–0.1	–0.1				0.8	
Q2	0.9	0.1	0.2	0.3	–	1.2	1.0	0.5	–0.8				0.7	
Q3	0.5	0.3	0.1	0.4	0.1	0.7	1.1	0.9	–				0.6	
Q4	1.3	0.3	0.2	0.4	0.3	0.9	0.9	1.1	–0.4				0.6	
2001 Q1	0.3	0.7	0.1	–	–0.9	–0.1	–0.6	–0.3	2.6				0.5	
Q2	–0.1	0.1	0.1	–0.1	0.1	–0.8	–0.5	–0.5	–2.5				0.1	
Q3	0.5	0.5	0.2	0.1	–0.3	–0.2	–0.3	0.8	–0.3				0.2	
Q4	–0.4	0.2	0.1	–	–0.9	–0.7	–0.9	–1.7	–0.5				0.3	
2002 Q1	0.4	0.1	0.1	0.1	0.1	0.6	0.6	0.6	1.9				0.2	
Q2	..	..	..	..	..	..	..	..	..				..	
Percentage change on previous month														
								ILKD	ILKN					
2001 Jun								0.2	2.0					
Jul								0.8	–1.4					
Aug								–	0.7					
Sep								–0.7	–1.4					
Oct								–1.1	–0.3					
Nov								0.2	1.0					
Dec								–0.8	–0.1					
2002 Jan								0.5	–0.2					
Feb								0.5	2.3					
Mar								0.5	0.7					
Apr								0.4	–3.5					
May								..	2.7					
Jun								..	..					

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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

4 Italy

	GDP	Contribution to change in 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
1996	1.1	0.7	0.2	0.7	–0.7	0.2	–0.1	–1.6	1.2	4.0	1.9	3.1	0.5	11.5
1997	2.0	1.9	–	0.4	0.3	1.7	2.3	3.8	0.9	2.0	1.3	3.9	0.4	11.6
1998	1.8	1.9	–	0.7	0.3	1.0	2.2	1.4	1.0	2.0	0.1	3.0	1.2	11.7
1999	1.6	1.5	0.2	1.1	0.1	0.1	1.4	–	1.0	1.7	–0.2	1.8	1.2	11.3
2000	2.9	1.7	0.3	1.3	–1.1	3.3	2.5	4.1	–0.5	2.5	6.0	2.0	1.9	10.4
2001	1.8	0.7	0.4	0.5	–	0.2	–	–1.0	–1.4	2.7	1.9	1.9	2.0	9.4
1999 Q2	1.1	1.2	0.2	0.9	0.5	–0.8	1.1	–2.4	0.3	1.4	–1.4	1.4	1.3	11.3
Q3	1.4	1.4	0.2	1.2	–0.3	0.2	1.3	0.4	0.6	1.7	–	1.9	1.2	11.2
Q4	2.9	1.3	0.2	1.6	–0.1	2.0	2.1	3.2	2.3	2.1	2.2	1.5	1.4	11.0
2000 Q1	3.2	1.4	0.3	1.5	–1.3	4.1	2.8	3.4	–0.3	2.4	4.7	1.6	1.2	10.9
Q2	3.0	1.9	0.3	1.5	–0.8	2.9	2.7	5.8	–0.3	2.6	6.2	2.6	1.5	10.5
Q3	2.7	1.7	0.3	1.4	–1.5	3.6	2.7	3.5	–	2.6	6.7	1.9	2.1	10.3
Q4	2.6	1.6	0.3	0.8	–0.8	2.6	1.9	3.5	–1.3	2.6	6.5	1.8	2.8	9.9
2001 Q1	2.5	1.2	0.4	0.8	–0.3	0.9	0.4	2.5	–0.6	2.9	4.8	2.2	3.1	9.7
Q2	2.3	0.9	0.4	0.6	–0.1	1.4	0.9	–0.7	–1.0	3.0	3.2	1.3	2.1	9.5
Q3	1.7	0.5	0.4	0.3	1.2	–0.6	–	–1.2	–2.2	2.8	0.9	2.0	1.8	9.4
Q4	0.6	0.2	0.3	0.4	–0.6	–0.8	–1.1	–4.4	–1.9	2.5	–1.0	2.1	1.1	9.2
2002 Q1	0.1	–0.1	0.3	–0.4	0.9	–1.5	–0.9	–3.6	2.9	2.5	–1.3	2.2	1.8	9.0
Q2	..	..	..	..	..	..	..	..	..	2.3	..	..	1.8	..
2001 Jun	..	..	..	..	..	..	..	–0.6	–1.0	3.0	2.4	1.1	..	9.5
Jul	..	..	..	..	..	..	..	–0.7	–2.9	2.9	1.3	2.1	..	9.5
Aug	..	..	..	..	..	..	..	–0.9	–1.0	2.8	1.2	2.0	..	9.4
Sep	..	..	..	..	..	..	..	–2.1	–2.9	2.6	0.4	2.0	..	9.3
Oct	..	..	..	..	..	..	..	–1.5	–1.9	2.5	–0.6	2.0	..	9.3
Nov	..	..	..	..	..	..	..	–5.9	–1.9	2.4	–1.3	2.1	..	9.2
Dec	..	..	..	..	..	..	..	–5.7	–1.9	2.4	–1.3	2.1	..	9.1
2002 Jan	..	..	..	..	..	..	..	–3.4	2.9	2.4	–1.2	1.9	..	9.1
Feb	..	..	..	..	..	..	..	–3.1	2.9	2.5	–1.4	1.6	..	9.0
Mar	..	..	..	..	..	..	..	–4.4	2.9	2.5	–1.3	2.8	..	9.0
Apr	..	..	..	..	..	..	..	–3.6	1.0	2.4	–1.3	3.1	..	9.0
May	..	..	..	..	..	..	..	..	..	2.3	–0.9	3.1	..	..
Jun	..	..	..	..	..	..	..	..	..	2.2	..	..	..	..

Percentage change on previous quarter	ILGK	HUCO	HUCP	HUCQ	HUCR	HUCS	HUCT	ILHE	ILHY	ILIS
1999 Q2	0.5	–	–	0.3	–0.3	0.5	0.1	–0.4	0.3	1.2
Q3	0.9	0.4	0.1	0.3	–0.5	0.7	0.1	2.1	–	1.3
Q4	1.0	0.4	0.1	0.5	0.4	1.0	1.3	1.3	1.3	–0.1
2000 Q1	0.7	0.6	0.1	0.3	–0.8	1.8	1.3	0.4	–1.9	–1.2
Q2	0.4	0.4	–	0.3	0.2	–0.6	–	1.9	0.3	1.5
Q3	0.6	0.2	0.1	0.3	–1.2	1.3	0.1	–0.2	0.3	1.9
Q4	0.9	0.3	0.1	–0.1	1.0	0.1	0.6	1.4	–	0.6
2001 Q1	0.7	0.2	0.1	0.3	–0.3	0.1	–0.3	–0.6	–1.3	–0.8
Q2	0.1	0.2	0.1	0.1	0.4	–0.1	0.6	–1.3	–	0.5
Q3	–	–0.2	0.1	–	0.1	–0.7	–0.8	–0.7	–1.0	1.6
Q4	–0.2	0.1	0.1	–	–0.8	–0.1	–0.5	–1.9	0.3	–0.1
2002 Q1	0.2	–0.1	0.1	–0.5	1.2	–0.6	–0.1	0.2	3.6	–0.2
Q2	..	..	..	..	..	..	..	..	..	0.5

Percentage change on previous month	ILKE	ILKO
2001 Jun	0.1	–
Jul	–0.8	–1.0
Aug	0.7	–
Sep	–1.0	–
Oct	–0.2	–
Nov	–2.6	1.0
Dec	1.6	–1.0
2002 Jan	0.2	3.9
Feb	–	–
Mar	–0.7	–
Apr	–1.0	–1.9
May	..	..
Jun	..	..

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Empl = Total Employment not seasonally adjusted
Unempl = Standardised Unemployment not seasonally adjusted

5 USA

	GDP	Contribution to change in 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
1996	3.6	2.1	0.1	1.5	–	0.9	1.0	4.6	5.6	2.9	2.3	3.3	1.4	5.4
1997	4.4	2.4	0.3	1.6	0.4	1.4	1.7	7.0	4.9	2.3	0.3	3.2	2.3	4.9
1998	4.3	3.2	0.2	2.0	0.2	0.3	1.6	5.1	7.1	1.6	–1.1	2.5	1.5	4.5
1999	4.1	3.3	0.3	1.6	–0.2	0.4	1.5	3.7	9.0	2.1	1.8	2.9	1.5	4.2
2000	4.1	3.3	0.4	1.4	–0.1	1.1	2.0	4.5	6.5	3.4	4.1	3.5	1.3	4.0
2001	1.2	2.1	0.4	–0.2	–1.2	–0.8	–0.5	–3.6	4.5	2.8	0.7	3.2	–0.2	4.8
1999 Q2	3.9	3.3	0.1	1.6	–0.1	0.3	1.4	3.2	8.2	2.2	1.1	2.4	1.4	4.3
Q3	4.0	3.4	0.3	1.6	–0.4	0.6	1.7	3.7	9.7	2.4	2.4	3.7	1.4	4.2
Q4	4.4	3.4	0.4	1.4	0.1	0.5	1.7	4.4	8.5	2.6	3.2	3.6	1.5	4.1
2000 Q1	4.2	3.6	0.3	1.6	–0.6	1.0	2.0	4.8	8.6	3.2	4.6	4.2	1.6	4.0
Q2	5.2	3.3	0.6	1.6	0.5	1.3	2.2	5.9	7.0	3.3	4.4	3.3	1.6	4.0
Q3	4.4	3.3	0.4	1.4	0.1	1.3	2.2	4.8	6.3	3.5	3.9	2.9	1.1	4.1
Q4	2.8	2.8	0.2	1.1	–0.5	0.8	1.8	2.6	4.2	3.4	3.4	3.5	1.0	4.0
2001 Q1	2.5	2.4	0.4	0.6	–0.6	0.5	0.9	–0.4	2.7	3.4	2.1	2.6	0.7	4.2
Q2	1.2	2.2	0.3	–	–1.3	–0.2	–0.1	–3.5	4.0	3.4	2.1	3.5	–0.1	4.5
Q3	0.5	1.6	0.4	–0.5	–1.2	–1.2	–1.2	–4.8	3.4	2.7	0.6	3.4	–0.2	4.8
Q4	0.5	2.1	0.6	–0.8	–1.7	–1.3	–1.4	–5.8	7.7	1.8	–1.7	3.4	–1.0	5.6
2002 Q1	1.7	2.2	0.6	–0.9	–	–1.2	–0.9	–3.7	6.3	1.2	–1.8	4.0	–1.4	5.6
Q2	..	..	..	..	..	..	..	..	..	..	..	..	..	..
2001 Jun	..	..	..	..	..	..	..	–4.7	3.9	3.3	1.2	3.4	–0.2	4.6
Jul	..	..	..	..	..	..	..	–4.1	4.3	2.7	0.4	3.4	0.2	4.6
Aug	..	..	..	..	..	..	..	–4.6	4.5	2.7	0.9	3.4	–0.6	4.9
Sep	..	..	..	..	..	..	..	–5.7	1.4	2.6	0.7	3.4	–0.1	5.0
Oct	..	..	..	..	..	..	..	–5.9	9.1	2.1	–1.0	3.4	–0.6	5.4
Nov	..	..	..	..	..	..	..	–5.9	6.9	1.8	–1.6	3.4	–1.0	5.6
Dec	..	..	..	..	..	..	..	–5.8	7.1	1.6	–2.2	3.4	–1.4	5.8
2002 Jan	..	..	..	..	..	..	..	–4.4	6.0	1.1	–2.3	3.4	–1.8	5.6
Feb	..	..	..	..	..	..	..	–3.7	6.6	1.1	–2.0	4.2	–1.0	5.5
Mar	..	..	..	..	..	..	..	–3.0	6.3	1.5	–1.2	4.2	–1.4	5.7
Apr	..	..	..	..	..	..	..	–2.1	5.7	1.6	–1.4	3.4	–1.0	6.0
May	..	..	..	..	..	..	..	–1.6	5.0	1.2	–2.2	3.4	–0.6	5.8
Jun	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Percentage change on previous quarter	ILGM	HUDM	HUDN	HUDO	HUDP	HUDQ	HUDR	ILHG	ILIA				ILIU	
1999 Q2	0.4	0.9	–	0.3	–0.6	0.1	0.5	0.7	1.7				1.2	
Q3	1.1	0.7	0.2	0.3	0.1	0.3	0.5	1.2	1.9				0.6	
Q4	2.0	0.9	0.2	0.3	0.6	0.3	0.4	1.5	2.1				0.3	
2000 Q1	0.6	1.0	–0.1	0.6	–0.7	0.3	0.6	1.4	2.6				–0.5	
Q2	1.4	0.6	0.3	0.3	0.5	0.4	0.6	1.7	0.1				1.2	
Q3	0.3	0.7	–0.1	0.1	–0.3	0.3	0.5	0.2	1.3				0.1	
Q4	0.5	0.5	0.1	0.1	–0.1	–0.1	–	–0.7	0.1				0.2	
2001 Q1	0.3	0.5	0.2	0.2	–0.8	–	–0.2	–1.6	1.2				–0.7	
Q2	0.1	0.4	0.1	–0.3	–0.1	–0.4	–0.4	–1.4	1.4				0.4	
Q3	–0.3	0.2	0.1	–0.4	–0.3	–0.6	–0.6	–1.2	0.6				–	
Q4	0.4	1.0	0.2	–0.3	–0.6	–0.3	–0.3	–1.7	4.3				–0.6	
2002 Q1	1.5	0.6	0.2	0.1	1.0	0.1	0.3	0.7	–0.1				–1.1	
Q2	..	..	..	..	..	..	..	..	..				..	
Percentage change on previous month								ILKG	ILKQ				ILLA	
2001 Jun								–0.9	0.1				0.6	
Jul								0.1	1.0				0.4	
Aug								–0.3	0.7				–1.1	
Sep								–1.1	–2.6				–	
Oct								–0.6	7.7				–	
Nov								–0.3	–2.6				–0.4	
Dec								–0.4	0.4				–0.1	
2002 Jan								0.7	0.2				–1.6	
Feb								0.4	0.6				0.9	
Mar								0.4	–0.4				–	
Apr								0.2	0.9				0.3	
May								0.2	–0.6				0.5	
Jun								..	..				..	

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

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

6 Japan

	GDP	Contribution to change in 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
1996	3.6	1.3	0.4	2.0	0.3	0.6	1.0	2.2	0.6	0.1	−1.7	2.6	0.5	3.4
1997	1.8	0.5	0.2	0.2	–	1.1	0.1	4.0	−2.1	1.7	0.6	2.8	1.0	3.4
1998	−1.0	0.1	0.3	−1.2	−0.6	−0.2	−0.6	−6.7	−6.0	0.7	−1.3	−0.9	−0.6	4.1
1999	0.7	0.6	0.7	−0.2	−0.3	0.1	0.2	1.0	−2.6	−0.3	−1.4	−0.7	−0.8	4.7
2000	2.2	0.2	0.7	0.9	−0.1	1.3	0.8	5.2	−1.1	−0.7	0.1	1.6	−0.3	4.7
2001	−0.4	0.3	0.5	−0.5	–	−0.7	−0.1	−7.0	−1.2	−0.7	−0.9	0.1	−0.5	5.0
1999 Q2	1.3	1.3	0.8	−0.3	−0.3	−0.1	0.2	0.3	−2.5	−0.3	−1.7	−1.3	−1.1	4.7
Q3	2.1	1.6	0.8	0.1	−0.3	0.3	0.3	2.7	−2.2	–	−1.3	−0.3	−0.7	4.7
Q4	0.6	–	0.7	0.1	−0.2	0.7	0.8	5.1	−1.1	−1.0	−0.5	−0.3	−0.2	4.7
2000 Q1	3.6	1.7	0.8	0.6	−0.1	1.3	0.7	4.3	−2.2	−0.6	0.1	1.9	−0.5	4.8
Q2	2.3	0.3	0.8	0.7	−0.1	1.4	0.8	6.6	−1.5	−0.7	0.3	2.2	−0.4	4.7
Q3	0.7	−1.4	0.7	0.9	–	1.2	0.7	5.3	−0.4	−0.6	0.2	1.6	−0.4	4.7
Q4	2.3	0.2	0.7	1.3	0.1	1.0	0.9	4.4	−0.4	−0.8	−0.1	1.1	0.2	4.8
2001 Q1	1.4	0.8	0.6	0.4	–	0.2	0.7	0.6	2.3	−0.5	−0.4	0.4	0.5	4.7
Q2	−0.7	–	0.5	−0.3	–	−0.7	0.2	−5.2	−1.1	−0.7	−0.6	0.6	−0.4	4.9
Q3	−0.5	−0.2	0.4	0.2	−0.1	−1.1	−0.3	−10.4	−2.6	−0.8	−1.0	−0.2	−0.8	5.1
Q4	−2.0	0.5	0.4	−2.4	−0.1	−1.3	−0.8	−12.8	−3.4	−1.0	−1.6	−0.6	−1.3	5.4
2002 Q1	−1.6	0.4	0.5	−2.6	−0.1	−0.5	−0.8	−10.1	−4.4	−1.4	−1.5	−1.5	−1.5	5.3
Q2	..	..	..	..	..	..	..	..	..	..	..	..	..	..
2001 Jun	..	..	..	..	..	..	..	−6.9	−2.2	−0.8	−0.7	2.0	−0.6	4.9
Jul	..	..	..	..	..	..	..	−8.6	−2.2	−0.8	−0.8	1.1	−0.6	5.0
Aug	..	..	..	..	..	..	..	−11.3	−3.3	−0.7	−1.0	−1.1	−0.6	5.0
Sep	..	..	..	..	..	..	..	−11.1	−2.2	−0.8	−1.0	−0.6	−1.3	5.3
Oct	..	..	..	..	..	..	..	−12.2	−3.4	−0.8	−1.5	−0.4	−1.6	5.4
Nov	..	..	..	..	..	..	..	−13.1	−2.2	−1.0	−1.6	0.5	−1.1	5.4
Dec	..	..	..	..	..	..	..	−13.1	−4.5	−1.2	−1.8	−1.7	−1.2	5.5
2002 Jan	..	..	..	..	..	..	..	−11.1	−4.4	−1.4	−1.7	−2.7	−1.4	5.3
Feb	..	..	..	..	..	..	..	−10.8	−4.4	−1.6	−1.5	−0.8	−1.6	5.3
Mar	..	..	..	..	..	..	..	−8.5	−4.4	−1.2	−1.5	−1.0	−1.3	5.2
Apr	..	..	..	..	..	..	..	−6.4	−3.4	−1.1	−1.3	0.4	−1.4	5.2
May	..	..	..	..	..	..	..	−1.8	−2.3	−0.9	−1.1	−0.6	−1.9	5.4
Jun	..	..	..	..	..	..	..	..	..	..	..	..	..	..

Percentage change on previous quarter	ILGN	HUDA	HUDB	HUDC	HUDD	HUDE	HUDF	ILHH	ILIB				ILIV	
1999 Q2	2.1	1.6	0.4	–	0.1	0.1	0.2	−0.3	−0.4				2.2	
Q3	0.8	1.0	0.1	−0.2	−0.2	0.3	0.2	2.7	−0.4				–	
Q4	−1.3	−1.3	0.1	–	−0.1	0.2	0.2	1.2	−0.7				−0.6	
2000 Q1	2.0	0.4	0.2	0.8	0.1	0.7	0.1	0.6	−0.7				−2.1	
Q2	0.8	0.2	0.4	0.1	–	0.3	0.3	1.9	0.4				2.3	
Q3	−0.7	−0.7	–	–	−0.1	0.1	0.1	1.5	0.8				–	
Q4	0.3	0.3	–	0.3	–	–	0.4	0.3	−0.7				–	
2001 Q1	1.0	1.0	0.2	–	–	−0.2	–	−3.1	1.9				−1.8	
Q2	−1.2	−0.6	0.3	−0.6	–	−0.5	−0.2	−4.0	−2.9				1.4	
Q3	−0.5	−1.0	–	0.5	−0.1	−0.3	−0.4	−4.0	−0.8				−0.4	
Q4	−1.2	1.0	0.1	−2.3	–	−0.3	−0.2	−2.4	−1.5				−0.5	
2002 Q1	1.4	0.9	0.2	−0.3	−0.1	0.7	–	−0.1	0.8				−2.0	
Q2	..	..	..	..	..	..	..	..	..				..	

Percentage change on previous month								ILKH	ILKR				ILLB	
2001 Jun								−0.7	–				−0.2	
Jul								−2.3	–				−0.2	
Aug								0.3	−1.1				−0.1	
Sep								−3.3	–				−0.7	
Oct								0.1	−1.1				0.1	
Nov								−1.5	1.2				0.4	
Dec								1.7	−2.3				−1.1	
2002 Jan								−1.5	2.4				−1.4	
Feb								0.9	–				−0.3	
Mar								0.5	−1.1				0.7	
Apr								0.3	−1.2				0.6	
May								3.8	1.2				0.3	
Jun								..	..				..	

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Empl = Total Employment not seasonally adjusted
Unempl = Standardised Unemployment rates: percentage of total workforce

7 World trade in goods[1]

	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	ILJM
1992	4.3	3.3	8.6	5.3	4.3	8.3	4.3	3.7	5.9	5.1	4.2	7.8	4.8	4.7
1993	4.8	2.2	15.3	4.0	1.0	12.5	3.9	2.2	9.1	3.2	0.8	10.3	4.4	3.6
1994	12.0	9.9	19.9	11.9	12.3	11.0	10.6	9.4	14.0	10.9	11.0	10.8	12.0	10.8
1995	9.6	10.0	8.6	11.0	10.4	12.4	9.0	9.4	7.8	9.9	9.0	12.2	10.3	9.4
1996	6.5	6.4	6.5	7.0	7.9	4.6	6.6	6.4	7.2	6.0	7.0	3.5	6.7	6.3
1997	11.3	11.9	9.4	10.8	11.4	9.5	10.4	11.1	8.9	9.5	9.7	8.9	11.1	10.0
1998	6.0	6.4	4.8	6.8	9.6	–0.4	5.4	5.8	4.3	6.1	8.3	0.3	6.4	5.8
1999	5.9	6.1	5.6	7.9	10.3	0.8	5.4	5.7	4.7	6.3	8.8	–0.9	6.9	5.8
2000	13.8	12.6	18.3	14.6	13.9	16.6	12.6	12.1	13.8	12.9	12.0	15.9	14.2	12.8
2001	–0.8	–1.1	0.3	–0.1	–1.1	3.2	0.1	–0.3	1.2	0.6	–0.5	3.8	–0.4	0.3
1996 Q2	5.8	5.2	7.6	5.9	6.6	4.1	5.7	4.9	7.8	5.0	5.8	3.1	5.8	5.4
Q3	6.7	6.8	6.2	6.9	8.7	2.5	7.0	7.0	7.2	5.9	7.7	1.1	6.8	6.4
Q4	7.8	8.1	6.5	8.1	9.0	5.8	8.4	8.8	7.3	7.1	8.3	4.0	7.9	7.7
1997 Q1	8.2	8.0	9.0	8.2	8.2	8.3	7.9	7.6	8.7	7.2	7.2	7.1	8.2	7.5
Q2	11.9	13.1	7.8	11.5	12.4	9.3	11.3	12.5	8.2	10.3	10.6	9.2	11.7	10.8
Q3	12.9	14.0	9.0	12.2	12.5	11.2	11.8	13.0	8.7	10.7	10.6	10.8	12.5	11.2
Q4	12.2	12.4	11.6	11.4	12.3	9.1	10.8	11.2	9.8	9.9	10.4	8.7	11.8	10.4
1998 Q1	10.7	11.4	8.5	10.5	13.2	3.7	10.0	11.0	7.4	9.6	11.4	4.7	10.6	9.8
Q2	7.1	6.8	8.3	7.8	9.5	3.2	6.3	6.3	6.5	7.0	8.3	3.4	7.5	6.6
Q3	4.1	4.2	4.0	4.9	7.9	–2.9	3.4	3.4	3.5	4.4	6.9	–2.3	4.5	3.9
Q4	2.2	3.3	–1.6	4.1	7.6	–5.4	1.9	2.5	–	3.5	6.4	–4.6	3.1	2.7
1999 Q1	1.5	2.6	–2.2	4.3	7.1	–3.5	1.4	1.8	0.3	3.5	6.2	–4.1	2.9	2.4
Q2	3.7	3.9	2.8	6.1	9.0	–2.2	3.6	3.7	3.5	4.7	7.6	–3.6	4.9	4.2
Q3	7.3	7.4	7.3	9.1	11.4	2.3	6.7	7.2	5.3	7.1	9.6	–	8.2	6.9
Q4	11.2	10.4	14.3	12.1	13.8	6.6	9.9	10.0	9.6	9.9	11.9	4.1	11.6	9.9
2000 Q1	14.8	13.8	18.5	14.3	14.9	12.6	13.3	13.5	12.7	12.3	12.7	10.9	14.6	12.8
Q2	14.9	14.0	18.1	15.4	15.2	16.2	13.3	13.3	13.5	13.7	13.1	15.6	15.2	13.5
Q3	14.0	12.4	19.6	15.5	14.4	19.1	12.9	11.9	15.7	14.2	12.7	19.0	14.8	13.6
Q4	11.5	10.0	16.8	13.0	11.3	18.6	10.7	9.8	13.4	11.6	9.6	17.9	12.3	11.2
2001 Q1	7.0	6.2	9.9	7.7	6.0	13.0	6.9	6.1	9.0	7.3	5.5	13.0	7.4	7.1
Q2	0.4	–	1.8	1.1	–0.1	5.1	1.0	0.6	2.0	1.6	0.4	5.3	0.8	1.3
Q3	–4.3	–4.3	–4.2	–3.7	–4.4	–1.4	–3.0	–3.0	–2.7	–2.8	–3.4	–0.8	–4.0	–2.9
Q4	–6.3	–6.3	–6.1	–5.4	–5.9	–4.0	–4.7	–5.1	–3.6	–3.9	–4.4	–2.4	–5.8	–4.3
2002 Q1	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Q2	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Percentage change on previous quarter	ILJN	ILJO	ILJP	ILJQ	ILJR	ILJS	ILJT	ILJU	ILJV	ILJW	ILJX	ILJY	ILJZ	ILKA
1996 Q2	1.0	0.7	2.2	1.0	1.0	1.0	1.1	0.7	2.0	1.0	1.3	0.5	1.0	1.1
Q3	2.0	2.3	0.7	2.4	2.8	1.2	2.3	2.5	1.6	2.2	2.5	1.2	2.2	2.2
Q4	2.3	2.7	1.1	2.4	2.2	3.0	2.5	2.9	1.4	2.1	1.9	2.7	2.4	2.3
1997 Q1	2.7	2.1	4.7	2.2	2.0	2.8	1.8	1.2	3.4	1.6	1.3	2.6	2.4	1.7
Q2	4.5	5.5	1.1	4.1	4.9	1.9	4.3	5.3	1.5	4.0	4.5	2.5	4.3	4.1
Q3	2.9	3.1	1.9	3.0	2.9	3.1	2.7	3.0	2.1	2.6	2.5	2.7	2.9	2.6
Q4	1.7	1.2	3.5	1.7	2.0	1.1	1.6	1.3	2.5	1.5	1.8	0.7	1.7	1.5
1998 Q1	1.3	1.2	1.8	1.4	2.8	–2.4	1.1	1.1	1.1	1.3	2.2	–1.2	1.4	1.2
Q2	1.1	1.1	0.8	1.5	1.6	1.5	0.8	0.8	0.7	1.5	1.6	1.2	1.3	1.1
Q3	–	0.6	–2.1	0.2	1.4	–3.1	–0.1	0.2	–0.8	0.1	1.2	–3.0	0.1	–
Q4	–0.2	0.3	–2.1	0.9	1.7	–1.5	0.1	0.4	–0.9	0.6	1.3	–1.7	0.4	0.3
1999 Q1	0.6	0.5	1.2	1.6	2.3	–0.4	0.6	0.3	1.4	1.3	2.0	–0.7	1.1	1.0
Q2	3.2	2.5	5.9	3.2	3.3	2.9	3.0	2.7	3.9	2.7	3.0	1.7	3.2	2.8
Q3	3.5	3.9	2.2	3.0	3.6	1.4	2.9	3.7	0.9	2.4	3.0	0.6	3.3	2.7
Q4	3.4	3.1	4.3	3.7	4.0	2.7	3.0	3.0	3.0	3.2	3.5	2.3	3.5	3.1
2000 Q1	3.9	3.6	5.0	3.7	3.2	5.2	3.7	3.5	4.3	3.5	2.8	5.8	3.8	3.6
Q2	3.3	2.7	5.6	4.2	3.6	6.1	3.1	2.4	4.7	4.0	3.3	6.1	3.8	3.5
Q3	2.7	2.5	3.4	3.2	2.9	3.9	2.5	2.4	2.8	2.9	2.6	3.6	2.9	2.7
Q4	1.2	0.9	1.9	1.4	1.1	2.3	1.0	1.1	1.0	0.8	0.6	1.4	1.3	0.9
2001 Q1	–0.3	–	–1.2	–1.2	–1.6	0.2	0.1	–	0.2	–0.5	–1.1	1.4	–0.7	–0.2
Q2	–3.1	–3.3	–2.2	–2.2	–2.4	–1.3	–2.6	–2.8	–2.0	–1.6	–1.8	–1.2	–2.6	–2.1
Q3	–2.1	–1.9	–2.6	–1.7	–1.4	–2.6	–1.5	–1.3	–1.9	–1.6	–1.3	–2.4	–1.9	–1.5
Q4	–1.0	–1.2	–0.2	–0.4	–0.5	–0.3	–0.7	–1.0	–	–0.3	–0.4	–0.2	–0.7	–0.5
2002 Q1	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Q2	..	..	..	..	..	..	..	..	..	..	..	..	..	..

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

Source: OECD - SNA93

Regional Economic Indicators - August 2002

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Overview

In the first quarter of 2002, employment growth continued, although regional variation saw robust growth in some regions, e.g. London offset by small declines in others, e.g. the East. Similarly into 2002, while the claimant count was flat at the national level, most regions saw falls but some saw rises. On production and construction, data in the first quarter of 2002 shows countraction in industrial production in all countries, while construction data shows increases in most countries. So far confidence data into 2002 shows strong increases in optimism across all regions, but less tangible increases in output.

GDP at basic prices

Tables 1 to 4 concern National Accounts statistics for the regions.

ONS will be releasing regional GDP data for 2000 in early November.

In Table 1, London and the South East accounted for 31.7 per cent of the UK's total GDP in 1999, with contributions of 15.9 per cent and 15.8 per cent respectively. The South East increased its share from 14.8 per cent in 1989 to 15.8 per cent in 1999. Northern Ireland posted an 82.3 per cent increase in value terms from 1989 to 1999, from £9.3 billion in 1989 to £17.0 billion in 1999 (figure 1). However, it accounted for only 2.2 per cent of the UK's total GDP in 1999. Annual growth for the UK was 3.8 per cent in 1999, compared to 6.1 per cent in 1998 (figure 1). The South East had the highest annual growth rate of 5.1 per cent, while the North East had the lowest annual growth of 2.3 per cent. These regional GDP estimates are residence based, locating the income of commuters to where they live rather than to their place of work.

Figure 1
GDP, UK, England, Wales, Scotland & Northern Ireland
growth, year on previous year
percentage change, 1997 to 1999

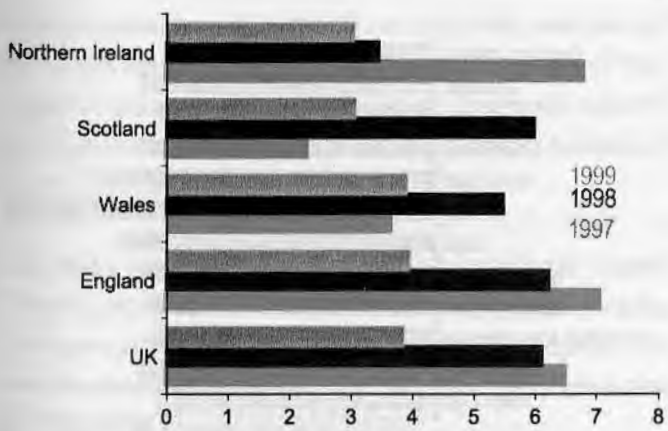


Table 2 compares GDP per head per region and shows that London remains the richest region on that basis but that the economy there grew by 2.0 per cent in 1999, compared to 3.4 per cent nationally. This is also the lowest growth rate of all regions in 1999. The growth rate was the highest in the South East, 4.1 per cent. GDP per head for all the regions was above £10,000 for the first time. The East recorded a figure above the UK average in 1999. The North East had the lowest regional GDP per head in 1999, followed by Northern Ireland and Wales.

Table 3 shows how household disposable income per head increased in the UK in 1999 by 4.9 per cent, compared to an increase of 2.1 per cent in 1998. London recorded the highest monetary rate in 1999 of £12,036 followed by the East with £11,255, which has overtaken the South East for the first time since 1992. Looking at annual percentage changes, the West Midlands recorded the largest rise of 6.8 per cent in 1999, while the North East was the slowest growing region, with growth of 3.1 per cent in 1999. Other slow growing regions were the East Midlands, with 3.4 per cent, and the South West and London, both with growth of 3.7 per cent in 1999. Significant acceleration in the rates of increase in 1999 compared to 1998, of more than 3.2 per cent, was seen in the West Midlands, Yorkshire and the Humber, the South East, Wales and Northern Ireland.

Table 4, shows individual consumption expenditure per head, with London recording the highest monetary value of £12,250 in 1999, followed by the South East with £11,392. Looking at annual percentage changes, London also recorded the largest rise in consumption with growth of 8.8 per cent in 1999, while the North East recorded a decline of 1.0 per cent in the same period, compared to an increase of 4.4 per cent in 1998. The average growth for the UK as a whole was 5.9 per cent in 1999, following an increase of 6.2 per cent in 1998.

The Labour Market

Tables 5 to 11 concern the labour market. Tables 6, 8 and 9 are seasonally adjusted; tables 5, 7, 10 and 11 are not.

The **total in employment** (from the Labour Force Survey), table 9, shows that with the exception of the North West and the East, all regions saw growth in total employment in the first quarter of 2002. Employment growth in the UK as a whole increased by 0.3 per cent in the latest quarter, compared to an increase of 0.7 per cent in the previous quarter. However, the performance across regions differed to some extent, with the largest quarterly growth in employment in London (0.7 per cent), East Midlands (0.6 per cent) and the South West (0.6 per cent). Both the North East and the West Midlands employment grew by 0.2 per cent. Employment growth in Yorkshire and the Humber was 0.1 per cent. There was no growth in employment in 2002 quarter one in the South East. Northern Ireland had the highest employment growth in that quarter of 2.8 per cent.

National year-on-year growth to 2002 quarter one stood at 1.2 per cent, the same as in the year to the previous quarter. All regions except the North East, the North West and Scotland saw growth relative to the first quarter a year ago, with the highest employment growth in London, the South West, the East Midlands and Northern Ireland.

Employee jobs (from Employers Surveys), in table 11, on the other hand showed employment growth declining across regions with the exception of the East, although the data shows growth between 2000 and 2001 in most regions with the exception of the North West and the West Midlands. However, as noted previously, there appear to be seasonal factors present in the data. When comparing across regions in the year to March, the data is more mixed with some showing growth and others a decline.

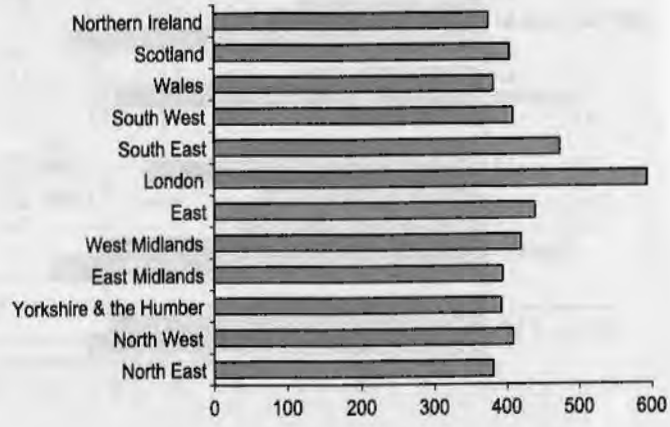
The UK **claimant count rate**, table 8, remained at 3.2 per cent of the workforce in the UK in April, May and June 2002. While at the national level unemployment has been flat in the year between June 2001 and June 2002, at regional level most regions saw falls in their counts. Regions with falls of 0.3 percentage points were the North East, Yorkshire and the Humber, the East Midlands, Wales and Northern Ireland. On the other hand, the East, London and the South East counts grew with London's count growing by 0.3 percentage points.

In Table 6, the rate of **ILO unemployment** in the UK increased in 2002 quarter one from 5.1 per cent to 5.2 per cent and up from 4.9 per cent in 2001 quarter one. However, there was a high degree of volatility between the latest quarters at the regional level. Increases in unemployment in 2002 quarter one were seen in the North West, Yorkshire and the Humber, the South East and Wales, London and Scotland. There were decreases to unemployment rates in the East Midlands, the East, and Northern Ireland in the same period. The West Midlands unemployment rate remained at 5.6 per cent in both 2001 quarter four and 2002 quarter one. In the year to 2002 quarter one, the picture across regions is fairly mixed although in contrast to the claimant count data, more regions saw increases in their unemployment rate than decreases. The regions with the largest increases were Scotland (1.2 percentage points) and London (0.8 percentage points). Northern Ireland saw the largest decline in its unemployment rate in the year to 2002 quarter one of 0.8 percentage points.

Long-term claimant count rates as a percentage of the unemployed, table 7, is showing a mixed picture across the regions, with increases in June 2002 of 0.2 percentage points in the East Midlands, the South East, the South West and Wales. The claimant count increased in the same period by 0.1 percentage points in the East. Regions where the claimant count decreased were Yorkshire and the Humber (0.1 percentage points), the West Midlands (0.2 percentage points) London (0.1 percentage points) and Scotland (0.1 percentage points). Northern Ireland's long-term claimant count continued to improve quickly and the region saw the largest fall in its claimant count of 1.2 percentage points in June 2002. Unchanged between May and June were the counts of the North East and the North West. It is difficult to interpret the significance of these figures, as the data has only been available since January 1999. Also, a decline in these rates can be attributable either to a reduction in the number of long-term unemployed or offset by a rise in the number of short-term unemployed.

Table 10 shows **redundancy rates** in the government office regions. Almost all regions saw decreases in redundancies between Winter 2001 and Spring 2002, with the exceptions being the West Midlands and the East, the East Midlands and Yorkshire and the Humber. In general terms, comparing Spring 2002 with Spring 2001 shows that the West Midlands, the East, and the South East had increased redundancies over the period. Scotland had 2 fewer redundancies per 1,000 employees in Spring 2002 than the same period a year ago.

Figure 2
Total average gross weekly pay
2001 April
seasonally adjusted



Total average gross weekly pay (from the annual New Earnings Survey), in table 5, shows how all regions recorded an acceleration in the rate of growth of pay in the last two years. The West Midlands recorded the highest rate of growth in the year to April 2001, with a rate of 8.2 per cent, although this came after it had the lowest rate of growth out of all the regions the previous year. Other regions recording growth in excess of 6.0 per cent were the South East where wages grew by 6.7 per cent and the South West, where wages grew by 7.3 per cent. London continues to be the region with the highest weekly pay of £593.7 (figure 2).

Industrial Production and Construction

UK industrial production output, table 12, declined for the sixth quarter in a row with a decline of 1.2 per cent between 2001 four and 2002 quarter one. Manufacturing output, which accounts for the bulk of production, decreased by 1.2 per cent in the first quarter of 2002, a continuation of the previous quarter's decline, although not as steep. Within the manufacturing industries the most significant falls were in the electrical and optical equipment industries and the basic metals and metal products industries. Over the year to quarter one, UK production output decreased by 5.7 per cent.

On the other hand, **UK construction output**, table 13, rose by 3.0 per cent in 2002 quarter one, the sixth successive quarter of positive growth, following the previous quarter's increase of 1.8 per cent. Overall in 2001, construction output increased by 3.6 per cent. This is the largest annual percentage increase since 1997.

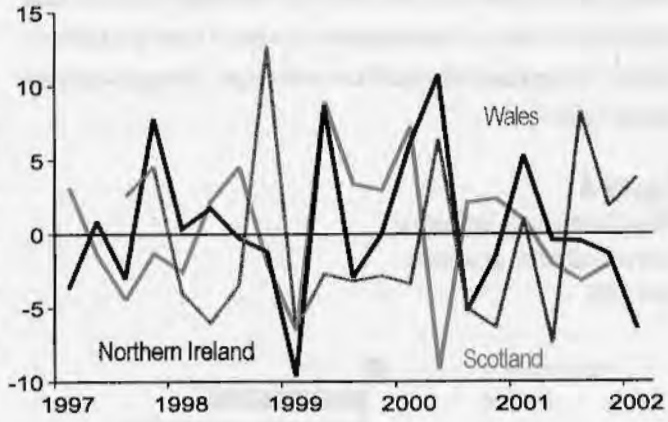
Wales' industrial production, table 12, showed a contraction in 2002 quarter one of 0.3 per cent, following a contraction in the fourth quarter of 0.8 per cent. The decline in annual growth was more pronounced, with overall production down by 7.5 per cent in 2001. This is the largest decline since this series was released. The fall in manufacturing output was mainly due to declines in electrical & optical equipment, textile and basic metals & fabricated metal products.

Wales' construction output, table 13, shows that while growth resumed in the third and fourth quarters of 2001 and the first quarter of 2002, overall construction output remained subdued. Construction output fell by 6.0 per cent in 2001 as a whole, following a 7.2 per cent contraction in the previous year.

Scotland's industrial production, table 12, continued to contract, recording negative growth of 3.3 per cent in the fourth quarter, following on from negative growth of 4.1 per cent in the previous quarter. The overall contraction for 2001 was 7.8 per cent. This is the largest decline since figures for this series became available.

Scotland's construction output, table 13, shows in the latest figures a quarterly contraction in growth of 2.1 per cent in 2001 quarter four, following a decline of 3.2 per cent in the previous quarter (figure 3). This is the fourth successive quarter of negative growth. In 2001, construction growth fell overall by 2.5 per cent, compared with positive growth of 7.6 per cent in 2000 and 3.4 per cent in 1999.

Figure 3
Index of construction: Wales, Scotland & Northern Ireland
growth, quarter on previous quarter



Northern Ireland's industrial production, table 12, continued to contract, recording a fall of 2.1 per cent in the first quarter of 2002, having fallen by 3.4 per cent in the previous quarter. Overall in 2001, industrial production declined by 0.9 per cent, although this followed the particularly vigorous growth of 8.2 per cent in 2000 and 7.1 per cent in 1999.

Northern Ireland's construction output, table 13, contracted by 6.4 per cent in the first quarter of 2002 (provisional), following a revised fall of 1.4 per cent in the previous quarter (figure 3). This is the fourth successive fall in output, although the data is very volatile.

Manufacturing

Almost all CBI data is presented on the basis of government office regions. However, London and the South East are combined in the same manner as the standard statistical region of the South East.

Tables 14 to 18 show that CBI/BSL balances reveal a substantial increase in business optimism but more modest increases in the volumes of new orders across most regions in its latest survey.

Table 14 shows that businesses in all regions were substantially more **optimistic about the business situation** in the April 2002 survey

than the January survey. The only regions that had negative balances were the West Midlands and Northern Ireland, although these were still much improved over the previous survey.

UK manufacturing output, as measured by CBI/BSL balances for **volume of output** in table 15, shows deterioration in the volume of output over the past four months, but an anticipated improvement looking ahead. The pattern is fairly uniform across regions (figure 4).

The overall CBI/BSL April 2002 balance for **volume of new orders,** table 16, shows a similar volume of new orders in the April and January surveys, although with particularly vivid improvements in the North East and the North West and deterioration in the South West and Northern Ireland. Looking ahead to the next four months, again, all regions anticipate improvements.

Figure 4
Manufacturing industry
business optimism (balances)
April 2002

Volume of new export orders, table 17, for the next four months is showing a mixed picture from the April 2002 survey across the regions. The North East, the East Midlands, London and the South East, the South West, Wales and Scotland are expecting improvements looking ahead. On the other hand, Yorkshire and the Humber, the West Midlands, the East and Northern Ireland show the balance of opinion on the side of deterioration, although not to the level of the past four months.

In contrast, the percentages of **firms working below capacity,** table 18, shows an increase in the UK in the number of firms working below capacity from 66 percent in January 2002 to 72 per cent in April 2002. This is the highest percentage of firms working below capacity since 1993 quarter one. Most firms echoed the overall increase with the West Midlands and Northern Ireland seeing the largest increases in the number of firms working below capacity. On the other hand, capacity utilisation increased in the North East and Scotland.

The Housing Market

In Table 20, UK **house price growth** (not seasonally adjusted) grew in the first quarter, increasing by 3.7 per cent over the previous quarter

The latest quarterly data showed this increases in most regions, but a wide range of rates. The highest levels of quarterly growth occurred in the East Midlands (6.2 per cent), the East (13.3 per cent), Scotland (11.2 per cent), Wales (16.0 per cent), the West Midlands (4.2 per cent), Northern Ireland (7.4 per cent) and Yorkshire and the Humber (4.4 per cent). House prices declined in the North East (1.2 per cent), Merseyside (13.6 per cent) and London (0.7 per cent).

The annual data shows a similar story. UK year-on-year growth to 2002 quarter one saw house prices increase by 9.1 per cent. All regions, with the exception of Merseyside (where house prices fell by 19.2 per cent on the year) and Northern Ireland (where prices fell by 5.0 per cent on the year), saw increases in the year to the first quarter. Regions with double digit increases in house prices were the North East (13.8 per cent), the East Midlands (18.8 per cent), the West Midlands (11.0 per cent), the East (18.1 per cent), the South West (10.5 per cent), Wales (22.2 per cent) and Scotland (12.3 per cent).

In Table 19 the number of **permanent dwellings started** fluctuates quite widely from quarter to quarter with a significant seasonal factor involved. The latest data for 2002 quarter one shows an increase in the growth of the number of permanent dwellings started in all the regions with the exception of Yorkshire and the Humber. There were major increases in the North East of 58.0 per cent (from a decline of 28.0 per cent in the previous quarter), the West Midlands (28.9 per cent), the East (32.0 per cent), London (53.1 per cent compared to a decline in the previous quarter of 44.1 per cent) and the South West (24.4 per cent). Annual growth in the year to 2002 quarter one also shows the number of permanent dwelling started in most region increasing. The exceptions were Yorkshire and the Humber, with a fall of 14.2 per cent, the North East, a fall of 8.2 per cent, the East Midlands, with a fall of 4.7 per cent and Northern Ireland, by 19.6 per cent.

Business Start-Ups

VAT registrations and de-registrations, table 21, shows registrations outnumbering de-registrations by 6,200 for the calendar year 2000 which, although a net gain, is well down on the level recorded in 1998, when there was a net gain of 30,300 registered enterprises. The net gain of 6,200 enterprises during 2000 shows a rise in the total business stock for the fifth consecutive year, however, in all regions net gains were less than

those recorded in 1998. In 2000 registrations outnumbered de-registrations in every region, except Yorkshire and the Humber, where there was a net loss of 800 businesses, and Wales, with a net loss of 200 businesses. Both the South West and Scotland recorded no change in their respective numbers of registered businesses. The largest net gains were in London (2,700 businesses), the South East (1,900 businesses), the East (1,000 businesses) and the North West (a net gain of 800 businesses).

1 Gross domestic product[1] at basic prices

Government Office Regions

£ million

	United Kingdom[2] (£m)	North East	North West	Yorkshire and the Humber	East Midlands	West Midlands	East	London	South East	South West	England	Wales	Scotland	Northern Ireland
	TMPV	TMPW	TMPX	TMPY	TMPZ	TMQA	TMQB	TMQC	TMQD	TMQE	TMQF	TMQG	TMQH	TMQI
1989	452 437	17 156	49 365	34 848	30 439	37 956	45 885	68 907	66 979	34 118	385 653	19 007	38 448	9 329
1993	562 857	21 480	60 664	42 952	37 124	46 859	55 928	86 574	83 817	42 529	477 927	23 191	49 302	12 437
1994	593 931	22 074	63 938	44 752	39 023	49 577	59 824	91 118	88 936	44 607	503 851	24 463	52 273	13 344
1995	622 389	22 975	66 007	47 108	40 976	52 407	62 416	93 843	93 319	47 385	526 437	25 989	55 667	14 297
1996	657 775	23 755	68 937	50 043	44 184	54 851	66 484	99 490	100 614	50 128	558 483	27 017	57 338	14 936
1997	700 567	24 202	72 414	53 182	47 261	57 783	72 698	108 559	108 276	53 580	597 956	28 010	58 650	15 952
1998	743 314	25 294	75 275	55 457	49 413	61 130	77 962	118 499	116 024	56 064	635 117	29 541	62 153	16 501
1999	771 849	25 875	77 562	57 554	50 906	63 495	81 793	122 816	121 956	58 151	660 108	30 689	64 050	17 003

1 Based on the European System of Accounts 1995 (ESA95).
2 UK *less* Extra-Regio and statistical discrepancy.

Source: National Statistics

2 Gross domestic product[1] at basic prices: £ per head

Government Office Regions

£

	United Kingdom[2]	North East	North West	Yorkshire and the Humber	East Midlands	West Midlands	East	London	South East	South West	England	Wales	Scotland	Northern Ireland
	TMQJ	TMQK	TMQL	TMQM	TMQN	TMQO	TMQP	TMQQ	TMQR	TMQS	TMQT	TMQU	TMQV	TMQW
1989	7 888	6 614	7 199	7 042	7 621	7 242	9 012	10 135	8 805	7 297	8 069	6 624	7 544	5 893
1993	9 671	8 216	8 783	8 563	9 102	8 855	10 772	12 494	10 834	8 927	9 852	7 978	9 614	7 610
1994	10 170	8 441	9 248	8 901	9 519	9 352	11 467	13 088	11 441	9 311	10 349	8 393	10 168	8 114
1995	10 619	8 796	9 547	9 354	9 944	9 869	11 889	13 406	11 918	9 828	10 771	8 900	10 818	8 654
1996	11 185	9 111	9 980	9 927	10 673	10 309	12 582	14 107	12 761	10 351	11 384	9 240	11 162	8 964
1997	11 871	9 301	10 494	10 541	11 371	10 845	13 657	15 266	13 634	11 008	12 141	9 562	11 429	9 507
1998	12 548	9 741	10 909	10 983	11 848	11 455	14 530	16 532	14 510	11 447	12 845	10 063	12 117	9 754
1999	12 972	10 024	11 273	11 404	12 146	11 900	15 094	16 859	15 098	11 782	13 278	10 449	12 512	10 050

1 Based on the European System of Accounts 1995 (ESA95).
2 UK *less* Extra-Regio and statistical discrepancy.

Source: National Statistics

3 Household disposable income[1]: £ per head

Government Office Regions

£

	United Kingdom[2]	North East	North West	Yorkshire and the Humber	East Midlands	West Midlands	East	London	South East	South West	England	Wales	Scotland	Northern Ireland
	DEPZ	LRCG	LRCH	DEQB	DEQC	DEQH	LRCI	DEQE	LRCJ	DEQG	LREV	DEQJ	DEQK	DEQL
1989	5 560	4 908	5 239	5 208	5 280	4 934	6 097	6 549	6 110	5 638	5 643	4 994	5 355	4 729
1993	7 771	7 053	7 313	7 232	7 214	7 112	8 248	9 311	8 519	7 608	7 867	6 986	7 704	6 540
1994	8 019	7 095	7 536	7 417	7 569	7 391	8 540	9 612	8 873	7 767	8 127	7 235	7 773	6 959
1995	8 442	7 423	7 912	7 740	7 883	7 871	8 909	10 123	9 306	8 290	8 545	7 703	8 199	7 428
1996	8 867	7 819	8 341	8 272	8 390	8 113	9 292	10 635	9 824	8 698	8 991	8 010	8 579	7 621
1997	9 403	8 108	8 761	8 589	8 931	8 405	10 233	11 358	10 503	9 368	9 559	8 338	8 918	8 150
1998	9 603	8 104	8 932	8 794	9 040	8 612	10 640	11 607	10 663	9 474	9 755	8 583	9 172	8 247
1999	10 078	8 353	9 375	9 305	9 346	9 195	11 255	12 036	11 249	9 825	10 237	9 113	9 558	8 659

1 Based on the European System of Accounts 1995 (ESA95).
2 UK *less* Extra-Regio

Source: National Statistics

4 Individual consumption expenditure[1]: £ per head

Government Office Regions

£

	United Kingdom	North East	North West	Yorkshire and the Humber	East Midlands	West Midlands	East	London	South East	South West	England	Wales	Scotland	Northern Ireland
	TLZI	TLZJ	TLZK	TLZL	TLZM	TLZN	TLZO	TLZP	TLZQ	TLZR	TLZS	TLZT	TLZU	THZZ
1994	7 441	6 676	7 082	7 081	7 180	6 920	7 380	8 799	8 424	7 045	7 539	6 563	7 334	6 427
1995	7 762	6 973	7 336	7 306	7 583	7 364	7 915	9 011	8 697	7 408	7 865	6 997	7 537	6 775
1996	8 268	7 391	7 798	7 758	7 939	7 705	8 514	9 485	9 333	8 049	8 365	7 722	8 007	7 188
1997	8 776	7 744	8 331	8 177	8 370	8 128	8 963	10 248	9 938	8 584	8 895	8 041	8 488	7 463
1998	9 316	8 086	8 662	8 763	8 695	8 640	9 740	11 264	10 656	8 961	9 488	8 079	8 874	7 749
1999	9 864	8 003	9 321	8 907	9 057	9 262	10 077	12 250	11 392	9 600	10 057	8 206	9 459	8 281

1 Based on the European System of Accounts 1995 (ESA95).

Source: National Statistics

5 Total average gross weekly pay[1]

Government Office Regions

£

	United Kingdom[2]	North East	North West	Yorkshire and the Humber	East Midlands	West Midlands	East	London	South East	South West	Wales	Scotland	Northern Ireland
	DEOG	LRCO	LSHZ	DCQI	DCQH	DCQG	LRCQ	DCPI	LRCR	DCQF	DCQL	DCQM	DCQN
1993 Apr	316.0	286.2	299.1	287.6	285.5	292.7	312.2	408.8	328.9	298.8	281.5	297.6	282.4
1994 Apr	324.7	294.6	307.7	297.0	292.6	300.1	322.9	420.6	339.4	306.9	290.5	301.9	286.5
1995 Apr	335.3	299.2	317.7	306.0	306.4	311.3	331.5	441.5	348.1	313.9	302.0	313.5	300.2
1996 Apr	350.2	314.1	329.6	316.4	317.9	324.3	345.7	454.3	367.4	326.5	313.1	324.9	306.2
1997 Apr	366.3	327.6	345.8	330.5	332.9	337.8	362.4	480.1	382.5	342.7	330.1	336.8	319.7
1998 Apr	383.1	339.2	361.6	344.9	350.4	358.8	378.6	500.9	405.5	354.0	343.9	350.3	332.6
1999 Apr	398.7	349.6	372.6	361.0	361.7	375.6	396.6	520.0	423.2	364.9	353.6	364.9	344.9
2000 Apr	–	368.0	389.0	375.1	374.4	387.2	416.2	561.7	443.3	380.6	368.4	383.0	360.4
2001 Apr	–	380.8	408.3	392.1	394.3	419.1	438.7	593.7	473.0	408.5	381.8	404.5	375.0

1 Average gross weekly earnings of full-time employees on adult rates whose pay for the survey pay-period was not affected by absence.
2 Apr 2000 and Apr 2001 data for UK not available at time of publication.

Sources: New Earnings Survey, National Statistics; Department of Economic Development, Northern Ireland

6 ILO unemployment rates as a percentage of the economically active[1], seasonally adjusted

Government Office Regions

Percentages

	United Kingdom	North East	North West	Yorkshire and the Humber	East Midlands	West Midlands	East	London	South East	South West	England	Wales	Scotland	Northern Ireland[2]
	MGSX	YCNC	YCND	YCNE	YCNF	YCNG	YCNH	YCNI	YCNJ	YCNK	YCNL	YCNM	YCNN	MGXW
1999 Q1	6.2	9.7	6.7	6.8	5.1	7.0	4.2	7.8	3.9	4.9	6.0	7.2	7.5	7.2
Q2	6.0	9.6	6.3	6.3	5.3	6.9	4.2	7.4	3.9	4.5	5.8	7.5	7.2	7.6
Q3	5.9	9.7	6.3	6.1	5.6	6.3	4.0	7.5	3.8	4.4	5.7	7.3	7.0	7.3
Q4	5.9	8.4	6.0	6.1	5.6	6.8	4.2	7.1	4.1	4.2	5.6	7.4	7.2	6.6
2000 Q1	5.8	9.0	6.1	6.3	5.2	6.1	4.0	7.6	3.5	4.3	5.5	6.8	7.5	6.6
Q2	5.5	8.9	5.4	6.1	4.9	6.1	3.6	7.2	3.3	4.2	5.2	6.1	7.2	6.7
Q3	5.4	9.0	5.4	6.1	4.8	5.8	3.7	7.0	3.1	4.0	5.1	6.5	6.9	5.8
Q4	5.2	8.0	5.2	5.6	4.6	6.0	3.4	6.9	3.4	3.9	5.0	6.2	6.0	6.1
2001 Q1	4.9	7.4	5.4	5.1	4.9	5.1	3.7	6.1	3.7	3.6	4.7	6.1	5.7	6.2
Q2	5.1	7.1	5.4	5.5	4.8	5.3	3.8	6.3	3.3	3.7	4.8	5.9	6.7	6.0
Q3	5.1	7.3	5.5	5.1	4.4	5.4	3.9	6.9	3.4	3.5	4.9	5.4	6.7	6.3
Q4	5.1	7.6	5.1	5.0	4.7	5.6	3.8	6.8	3.3	3.5	4.9	5.3	6.6	6.1
2002 Q1	5.2	6.9	5.6	5.4	4.2	5.6	3.6	6.9	3.9	3.7	5.0	6.1	6.9	5.4

1 Periods are calendar quarters.
2 Estimates for Northern Ireland are not seasonally adjusted. The quarterly series starting in 1995 provides insufficient data to do this reliably.

Source: Labour Force Survey, National Statistics

7 Long-term claimant count as a percentage of the unemployed[1] (those out of work for 12 months or more)

Government Office Regions

Percentages

	United Kingdom	North East	North West	Yorkshire and the Humber	East Midlands	West Midlands	East	London	South East	South West	Wales	Scotland	Northern Ireland
	LRFN	LRFO	LSIA	LRFR	LRFS	LRFT	LRFU	LRFV	LRFW	LRFX	LRFY	LRFZ	LRGA
2001 May	*20.3*	*22.0*	18.7	*18.3*	*18.0*	*22.2*	*17.2*	*24.3*	*17.1*	*15.5*	*18.8*	*19.0*	*32.2*
Jun	*20.6*	*22.4*	19.2	*18.7*	*18.4*	*22.7*	*17.6*	*24.3*	*17.3*	*15.9*	*19.7*	*18.9*	*32.2*
Jul	*20.0*	*21.7*	18.8	*18.4*	*18.1*	*22.2*	*17.1*	*23.9*	*16.6*	*15.4*	*19.2*	*18.0*	*30.1*
Aug	*19.5*	*21.4*	18.5	*17.9*	*17.9*	*21.5*	*16.4*	*23.3*	*15.8*	*14.9*	*18.7*	*17.4*	*29.7*
Sep	*19.7*	*21.3*	18.9	*18.1*	*18.2*	*21.8*	*16.1*	*22.9*	*15.5*	*14.8*	*18.9*	*18.0*	*30.7*
Oct	*19.5*	*20.6*	19.0	*18.2*	*18.2*	*21.9*	*15.7*	*22.6*	*15.0*	*14.5*	*18.8*	*17.4*	*31.5*
Nov	*18.9*	*19.8*	18.5	*17.7*	*17.6*	*21.7*	*15.0*	*21.9*	*14.1*	*13.7*	*18.1*	*16.6*	*31.5*
Dec	*18.0*	*18.7*	17.7	*16.9*	*16.9*	*20.7*	*14.2*	*21.0*	*13.0*	*13.0*	*17.0*	*15.9*	*30.8*
2002 Jan	*16.8*	*17.4*	16.5	*15.9*	*15.6*	*19.5*	*13.0*	*20.6*	*12.0*	*12.0*	*15.9*	*14.4*	*29.5*
Feb	*16.4*	*17.3*	16.2	*15.6*	*15.3*	*19.0*	*12.5*	*20.0*	*11.4*	*11.5*	*15.3*	*14.1*	*28.4*
Mar	*16.3*	*17.4*	16.1	*15.4*	*15.1*	*18.9*	*12.4*	*19.8*	*11.3*	*11.8*	*15.3*	*14.0*	*27.6*
Apr	*16.6*	*17.8*	16.5	*15.8*	*15.8*	*19.2*	*12.7*	*19.8*	*11.6*	*12.6*	*15.8*	*14.2*	*27.7*
May	*16.7*	*18.1*	16.6	*15.8*	*15.9*	*19.2*	*12.7*	*19.7*	*11.6*	*12.9*	*16.1*	*14.2*	*27.4*
Jun	*16.7*	*18.1*	16.6	*15.7*	*16.1*	*19.0*	*12.8*	*19.6*	*11.8*	*13.1*	*16.3*	*14.1*	*26.2*

1 Computerised claims only.

Source: National Statistics

8 Claimant count rates as a percentage of total workforce

Government Office Regions

Seasonally adjusted

	United Kingdom	North East	North West	Yorkshire and the Humber	East Midlands	West Midlands	East	London	South East	South West	Wales	Scotland	Northern Ireland
	BCJE	DPDM	IBWC	DPBI	DPBJ	DPBN	DPDP	DPDQ	DPDR	DPBM	DPBP	DPBQ	DPBR
1998	4.5	7.2	5.1	5.4	4.0	4.6	3.2	5.0	2.6	3.4	5.4	5.5	7.3
1999	4.2	7.0	4.6	5.0	3.7	4.5	2.9	4.5	2.3	3.1	5.0	5.1	6.4
2000	3.6	6.3	4.1	4.4	3.5	4.0	2.5	3.8	1.9	2.5	4.4	4.6	5.3
2001	3.2	5.5	3.7	4.0	3.2	3.7	2.1	3.3	1.6	2.1	3.9	4.2	5.0
2001 Jun	3.2	5.4	3.7	4.0	3.2	3.7	2.1	3.3	1.6	2.1	3.9	4.2	5.0
Jul	3.2	5.4	3.7	3.9	3.2	3.7	2.1	3.3	1.5	2.1	3.9	4.1	5.0
Aug	3.2	5.4	3.7	3.9	3.1	3.6	2.1	3.3	1.5	2.1	3.8	4.1	5.0
Sep	3.2	5.3	3.7	3.9	3.1	3.6	2.1	3.3	1.5	2.1	3.8	4.2	4.9
Oct	3.2	5.4	3.7	3.9	3.1	3.6	2.1	3.4	1.5	2.1	3.8	4.2	4.9
Nov	3.2	5.4	3.7	3.8	3.1	3.6	2.1	3.4	1.6	2.1	3.8	4.2	4.9
Dec	3.2	5.4	3.7	3.8	3.0	3.6	2.1	3.5	1.6	2.1	3.7	4.2	4.9
2002 Jan	3.2	5.3	3.6	3.7	3.0	3.6	2.1	3.5	1.6	2.0	3.7	4.1	4.8
Feb	3.1	5.2	3.6	3.7	2.9	3.5	2.1	3.5	1.6	2.0	3.7	4.1	4.8
Mar	3.1	5.2	3.6	3.7	2.9	3.5	2.1	3.5	1.6	2.0	3.6	4.1	4.8
Apr	3.2	5.1	3.6	3.7	2.9	3.5	2.1	3.6	1.7	2.0	3.6	4.2	4.8
May	3.2	5.1	3.6	3.7	2.9	3.5	2.2	3.6	1.7	2.0	3.6	4.1	4.7
Jun	3.2	5.1	3.6	3.7	2.9	3.5	2.2	3.6	1.7	2.0	3.6	4.1	4.7

Source: National Statistics

9 Total in employment[1,2], seasonally adjusted

Government Office Regions

Thousands

	United Kingdom	North East	North West	Yorkshire and the Humber	East Midlands	West Midlands	East	London	South East	South West	England	Wales	Scotland	Northern Ireland[3]
	MGRZ	YCJP	YCJQ	YCJR	YCJS	YCJT	YCJU	YCJV	YCJW	YCJX	YCJY	YCJZ	YCKA	YCPT
1999 Q1	27 540	1 058	3 023	2 287	2 009	2 454	2 652	3 391	4 049	2 372	23 295	1 238	2 309	694
Q2	27 592	1 062	3 064	2 291	1 998	2 461	2 656	3 394	4 046	2 374	23 346	1 231	2 318	693
Q3	27 696	1 077	3 077	2 311	2 006	2 475	2 664	3 389	4 053	2 360	23 411	1 244	2 335	705
Q4	27 769	1 089	3 093	2 320	2 019	2 459	2 661	3 406	4 057	2 390	23 494	1 244	2 333	702
2000 Q1	27 824	1 087	3 106	2 312	2 018	2 471	2 673	3 383	4 107	2 394	23 550	1 242	2 336	695
Q2	27 930	1 105	3 137	2 344	2 036	2 459	2 684	3 378	4 116	2 381	23 641	1 252	2 353	680
Q3	27 999	1 100	3 096	2 348	2 020	2 458	2 702	3 399	4 112	2 425	23 660	1 262	2 378	701
Q4	28 088	1 099	3 125	2 353	2 012	2 461	2 757	3 420	4 117	2 401	23 745	1 255	2 388	699
2001 Q1	28 180	1 108	3 136	2 335	2 009	2 481	2 753	3 454	4 134	2 410	23 819	1 250	2 398	713
Q2	28 161	1 097	3 100	2 328	2 019	2 479	2 729	3 472	4 152	2 428	23 804	1 252	2 384	721
Q3	28 227	1 097	3 096	2 323	2 052	2 505	2 743	3 475	4 148	2 440	23 878	1 260	2 382	706
Q4	28 419	1 099	3 141	2 347	2 043	2 492	2 777	3 544	4 179	2 462	24 084	1 258	2 371	707
2002 Q1	28 511	1 101	3 129	2 349	2 056	2 498	2 771	3 569	4 180	2 477	24 134	1 262	2 388	727

1 Includes employees, the self-employed, participants on Government-supported employment and training schemes and unpaid family-workers.
2 Periods are calendar quarters.
3 Estimates for Northern Ireland are not seasonally adjusted. The quarterly series starting in 1995 provides insufficient data to do this reliably.

Source: Labour Force Survey, National Statistics

10 Redundancies, not seasonally adjusted[1]

Government Office Regions

Rates[2]

	United Kingdom	North East	North West	Yorkshire and the Humber	East Midlands	West Midlands	East	London	South East	South West	Wales	Scotland	Northern Ireland
	DITA	LRDH	LRDI	DCXF	DCXG	DCXL	LRDJ	DCXI	LRDK	DCXK	DCXN	DCXO	DITB
Spring 1998	7	–[3]	6	7	10	8	7	7	7	7	–[3]	10	–[3]
Summer 1998	7	–[3]	7	9	9	9	5	5	7	6	–[3]	8	–[3]
Autumn 1998	7	10	7	7	8	9	9	6	9	8	–[3]	6	–[3]
Winter 1998	9	16	9	6	8	9	6	10	8	9	12	11	–[3]
Spring 1999	8	–[3]	9	9	–[3]	11	8	6	7	7	10	10	–[3]
Summer 1999	7	–[3]	9	9	8	8	7	4	6	7	–[3]	8	–[3]
Autumn 1999	7	–[3]	10	6	9	6	6	6	7	8	–[3]	6	–[3]
Winter 1999	8	11	8	7	11	10	6	7	7	6	15	9	–[3]
Spring 2000	7	10	7	9	8	8	4	7	6	8	–[3]	10	–[3]
Summer 2000	6	–[3]	7	5	9	7	5	4	7	8	–[3]	6	–[3]
Autumn 2000	7	–[3]	8	7	7	8	6	6	6	6	–[3]	7	–[3]
Winter 2000	7	–[3]	9	6	7	9	5	6	6	8	9	6	–[3]
Spring 2001	7	–[3]	8	5	8	8	6	7	5	7	–[3]	10	–[3]
Summer 2001	7	–[3]	8	7	7	8	9	5	7	5	–[3]	8	–[3]
Autumn 2001	8	10	9	10	7	6	7	8	9	6	–[3]	7	–[3]
Winter 2001	9	12	10	5	8	9	8	8	10	8	10	10	–[3]
Spring 2002	8	–[3]	8	5	8	11	10	7	8	7	–[3]	8	–[3]

1 The method of calculating redundancy estimates back to spring 1995 has changed from that used to calculate data previously published in this table Thus the data in this table are not comparable to those previously published. See pp225-229 of the May 2000 Labour Market Trends for more informa-

Source: Labour Force Survey, National Statistics

11 Employee jobs (all industries)

Government Office Regions

June 1996 = 100

	United Kingdom	North East	North West	Yorkshire and the Humber	East Midlands	West Midlands	East	London	South East	South West	Wales	Scotland	Northern Ireland
	YEKA	YEKB	YEKJ	YEKC	YEKD	YEKI	YEKE	YEKF	YEKG	YEKH	YEKK	YEKL	YEKM
1999	105.3	101.1	105.2	103.9	103.8	102.6	106.2	109.5	107.6	104.9	104.7	102.8	106.3
2000	106.9	113.2	101.8	110.3	107.0	105.9	106.6	102.8	103.6	104.5	105.7	105.2	108.2
2001	107.7	114.9	100.8	110.6	109.8	105.9	108.0	102.9	104.2	105.2	105.8	106.2	109.3

Source: National Statistics

12 Index of industrial production[1]

Seasonally adjusted 1995 = 100

	United Kingdom	Scotland	Northern Ireland	Wales
	CKYW	LRFK	LRFL	TMQX
1998	103.4	111.5	110.5	100.0
1999	104.2	115.3	118.3	100.9
2000	105.9	115.7	128.0	103.1
2001	103.7	106.7	126.9	95.4
1999 Q1	102.7	113.7	113.8	99.8
Q2	103.6	114.4	116.1	99.8
Q3	105.1	116.4	121.1	102.2
Q4	105.3	116.7	122.3	101.8
2000 Q1	104.8	116.6	124.0	104.5
Q2	106.2	117.3	124.4	102.8
Q3	106.4	115.8	130.9	101.5
Q4	106.3	113.0	132.5	101.5
2001 Q1	105.8	110.1	134.5	97.9
Q2	104.5	109.7	126.2	94.9
Q3	103.5	105.2	125.6	94.9
Q4	101.0	101.7	121.3	94.1
2002 Q1	99.8	..	118.7	93.8

1 The index of industrial production has been rebased from 1990=100 to 1995=100. Figures on the 1990=100 base are not being continued

Sources: National Statistics; Scottish Executive; Department of Enterprise, Trade & Investment Northern Ireland;

13 Index of construction[1]

Seasonally adjusted 1995 = 100

	United Kingdom	Scotland	Northern Ireland	Wales
	GDQB	LRZR	LRFM	TMQY
1998	107.0	98.3	..	98.1
1999	107.8	101.6	..	93.0
2000	109.7	109.3	..	86.3
2001	113.7	106.6	..	81.1
1999 Q1	106.3	92.9	97.7	97.1
Q2	106.9	101.2	106.2	94.5
Q3	108.7	104.6	103.1	91.5
Q4	109.3	107.7	103.1	88.9
2000 Q1	112.1	115.5	109.4	85.9
Q2	109.7	104.9	121.2	91.4
Q3	107.9	107.1	114.9	86.8
Q4	109.2	109.6	113.2	81.3
2001 Q1	111.5	110.6	119.2	82.2
Q2	113.1	108.3	118.7	76.1
Q3	114.1	104.8	118.1	82.4
Q4	116.1	102.6	116.5[2]	83.9
2002 Q1	119.6	..	109.0[3]	87.1

1 The index of construction has been rebased from 1990=100 to 1995=100. Figures on the 1990=100 base are not being continued
2 Revised
3 Provisional

Sources: National Statistics; Scottish Executive; Department of Finance and Personnel, Northern Ireland

14 Manufacturing industry: optimism about business situation

Government Office Regions (London and the South East is still on an SSR basis)

Balance[1]

	United Kingdom	North East	North West	Yorkshire and the Humber	East Midlands	West Midlands	East	London and the South East	South West	Wales	Scotland	Northern Ireland
	DCMO	LRYS	LRYT	DCMU	DCMT	DCMS	LRYU	DCMP	DCMR	DCMX	DCMY	DCMZ
2001 Jul	–22	–28	–22	–27	3	–8	–29	–36	–41	–21	–52	–60
Oct	–54	–52	–74	–66	–47	–72	–40	–62	–72	–72	–47	–51
2002 Jan	–31	–14	–47	–34	–36	–59	–4	–9	–42	–33	–34	–18
Apr	21	11	13	14	15	–6	18	26	4	22	14	–2

1 Balance in percentage of firms reporting rises *less* those reporting falls.

Source: CBI/BSL Regional Trends Survey ISSN:0960 7781

15 Manufacturing industry: volume of output

Government Office Regions (London and the South East is still on an SSR basis)

Balance[1]

	United Kingdom	North East	North West	Yorkshire and the Humber	East Midlands	West Midlands	East	London and the South East	South West	Wales	Scotland	Northern Ireland
Past 4 months	DCLQ	LRYV	LRYW	DCLW	DCLV	DCLU	LRYX	DCLR	DCLT	DCLZ	DCMA	DCMB
2001 Jul	–9	–19	–15	–24	–12	–7	–11	–14	2	–1	–21	–19
Oct	–11	–42	–41	–16	7	–5	–17	–15	17	–9	–34	–14
2002 Jan	–13	–24	–46	–24	–5	3	–5	–8	3	–18	–26	7
Apr	–15	–3	–5	–24	–5	–17	–11	–9	–26	–	–33	–21
Next 4 months	DCMC	LRYY	LRYZ	DCMI	DCMH	DCME	LRZA	DCMD	DCMF	DCML	DCMM	DCMN
2002 Apr	14	38	21	13	16	17	11	14	–16	13	–2	1

1 Balance in percentage of firms reporting rises *less* those reporting falls.

Source: CBI/BSL Regional Trends Survey ISSN:0960 7781

16 Manufacturing industry: volume of new orders

Government Office Regions (London and the South East is still on an SSR basis)

Balance[1]

	United Kingdom	North East	North West	Yorkshire and the Humber	East Midlands	West Midlands	East	London and the South East	South West	Wales	Scotland	Northern Ireland
Past 4 months	DCNA	LRZB	LRZC	DCNG	DCNF	DCNE	LRZD	DCNB	DCND	DCNJ	DCNK	DCNL
2001 Jul	–6	–25	–28	–17	–17	–1	–6	–3	–15	–1	–24	–
Oct	–14	–27	–46	–26	8	–21	–17	–11	17	–19	–54	–2
2002 Jan	–15	–13	–41	–28	–9	–2	–10	–10	–9	–20	–23	10
Apr	–14	7	9	–19	–1	–15	–10	–17	–22	–7	–30	–22
Next 4 months	DCNM	LRZE	LRZF	DCNS	DCNR	DCNQ	LRZG	DCNN	DCNP	DCNV	DCNW	DCNX
2002 Apr	9	47	19	10	31	10	5	12	4	15	–3	–3

1 Balance in percentage of firms reporting rises *less* those reporting falls.

Source: CBI/BSL Regional Trends Survey ISSN:0960 7781

17 Manufacturing industry: volume of new export orders

Government Office Regions (London and the South East is still on an SSR basis)

Balance[1]

	United Kingdom	North East	North West	Yorkshire and the Humber	East Midlands	West Midlands	East	London and the South East	South West	Wales	Scotland	Northern Ireland
Past 4 months	DCNY	LRZH	LRZI	DCOE	DCOD	DCOC	LRZJ	DCNZ	DCOB	DCOH	DCOI	DCOJ
2001 Jul	–20	–11	–22	–14	–28	–8	–16	8	–17	4	–4	3
Oct	–32	–61	–56	–31	–7	–57	–4	–4	15	–32	–36	–6
2002 Jan	–36	–41	–48	–46	–22	–37	–20	–17	–18	–19	–39	–59
Apr	–18	7	–8	–20	–29	–23	–22	–14	–56	2	–21	–31
Next 4 months	DCOK	LRZK	LRZL	DCOQ	DCOP	DCOO	LRZM	DCOL	DCON	DCOT	DCOU	DCOV
2002 Apr	6	32	–	–13	22	–3	–3	6	5	5	11	–20

1 Balance in percentage of firms reporting rises *less* those reporting falls.

Source: CBI/BSL Regional Trends Survey ISSN:0960 7781

18 Manufacturing industry: firms working below capacity

Government Office Regions (London and the South East is still on an SSR basis)

Percentages

	United Kingdom	North East	North West	Yorkshire and the Humber	East Midlands	West Midlands	East	London and the South East	South West	Wales	Scotland	Northern Ireland
	DCOW	LRZN	LRZO	DCPC	DCPB	DCPA	LRZP	DCOX	DCOZ	DCPF	DCPG	DCPH
2001 Jul	*67*	*90*	*73*	*73*	*52*	*68*	*66*	*70*	*48*	*56*	*49*	*84*
Oct	*59*	*90*	*73*	*62*	*43*	*55*	*63*	*65*	*41*	*41*	*54*	*72*
2002 Jan	*66*	*90*	*70*	*74*	*51*	*50*	*65*	*69*	*62*	*62*	*61*	*54*
Apr	*72*	*80*	*65*	*80*	*66*	*60*	*69*	*72*	*71*	*69*	*54*	*68*

Source: CBI/BSL Regional Trends Survey ISSN:0960 7781

19 Permanent dwellings started
Government Office Regions

Numbers

	United Kingdom	North East	North West	Yorkshire and the Humber	East Midlands	West Midlands	East	London	South East	South West	Wales	Scotland[1]	Northern Ireland
		LRDP	LRZQ	DCRX	DCRW	DCRV	LRDR	DCRR	LRDS	DCRU	BLIA	BLFA	BLGA
2000	188 852	7 094	18 683	13 813	15 130	15 780	18 686	15 300	23 440	16 741	9 352	23 679	11 154
2001	..	6 332	19 104	14 556	14 836	14 459	18 876	16 463	25 571	16 337	9 136	..	13 197
1999 Q1	49 389	1 874	4 336	3 676	3 799	4 149	4 724	4 196	6 422	3 968	2 255	6 798	3 192
Q2	49 701	1 792	5 037	4 104	4 303	4 191	5 108	3 494	6 920	4 571	2 722	4 760	2 699
Q3	47 720	1 891	5 007	3 986	3 817	3 851	4 653	2 867	6 565	4 534	2 376	5 821	2 352
Q4	42 842	1 473	4 424	3 418	4 034	3 402	4 101	2 951	5 361	3 709	1 958	5 386	2 625
2000 Q1	52 100	2 071	5 546	3 571	4 161	4 566	5 350	3 240	6 316	4 688	2 205	6 794	3 592
Q2	50 641	1 793	4 804	3 661	3 992	4 464	5 074	4 466	6 776	4 595	2 749	5 464	2 803
Q3	48 140	1 712	4 554	3 594	3 890	3 663	4 871	4 119	6 078	4 258	2 781	6 130	2 490
Q4	37 971	1 518	3 779	2 987	3 087	3 087	3 391	3 475	4 270	3 200	1 617	5 291	2 269
2001 Q1	48 910	1 926	4 788	3 879	3 757	4 026	4 521	3 446	6 043	4 082	2 206	6 472	3 764
Q2	51 772	1 735	4 938	3 797	3 766	4 116	5 641	4 338	7 071	4 431	2 705	5 454	3 780
Q3	48 617	1 552	4 689	3 426	3 821	3 152	4 630	5 567	6 353	4 069	2 452	6 005	2 901
Q4	..	1 119	4 689	3 454	3 492	3 165	4 084	3 112	6 104	3 755	1 773	..	2 752
2002 Q1	..	1 768	5 258	3 328	3 580	4 079	5 391	4 765	6 431	4 672	..	..	3 026

1 Includes estimates for outstanding returns for private sector.
2 Estimates for 2001 Q4 & 2002 Q1 for the English regions are provisional.

Sources: Office of the Deputy Prime Minister; National Assembly for Wales; Scottish Executive; Department for Social Development, Northern Ireland

20 House prices[1]
Government Office Regions

1993 = 100

	United Kingdom	North East	North West[2]	Mersey-side	Yorkshire and the Humber	East Midlands	West Midlands	East	London	South East	South West	Wales	Scotland	Northern Ireland
	LRBH	LRDX	LRDY	LREN	LRBJ	LRBK	LRBP	LRDZ	LRBM	LREA	LRBO	LRBR	LRBS	LRBT
2000	165.3	126.9	132.6	122.1	123.2	141.7	147.5	172.8	209.7	188.1	169.1	130.9	124.0	188.6
2001	179.2	132.1	143.5	141.9	132.5	157.1	160.5	192.9	231.8	207.5	191.3	146.4	129.3	207.8
1999 Q1	134.4	117.1	118.5	114.5	112.4	120.5	122.8	139.8	155.5	148.6	135.9	118.7	112.4	167.7
Q2	140.1	119.6	120.9	110.3	114.8	126.0	124.5	143.1	170.1	151.0	139.5	126.9	118.4	163.8
Q3	148.3	129.5	127.1	115.3	120.0	130.0	135.0	144.7	185.5	160.1	151.3	125.5	124.8	171.1
Q4	152.1	119.4	129.5	112.7	120.0	129.7	136.3	159.7	192.6	167.3	150.6	125.5	124.8	170.7
2000 Q1	156.0	116.5	126.5	109.8	119.9	137.3	137.5	163.7	200.7	171.6	157.7	128.6	124.2	181.5
Q2	164.5	131.9	135.8	120.0	119.9	140.8	146.9	170.6	215.7	184.5	163.8	129.2	123.6	184.3
Q3	167.6	122.4	134.8	121.2	127.4	144.6	151.0	178.0	204.1	192.4	176.9	131.8	124.4	186.0
Q4	172.6	126.2	129.3	134.8	125.7	144.7	153.1	181.4	219.2	202.1	177.7	133.2	124.2	201.9
2001 Q1	171.7	122.7	135.4	150.5	129.0	146.3	152.2	188.1	225.5	192.0	182.0	137.7	130.2	221.9
Q2	177.9	132.9	138.0	132.0	128.8	154.5	157.9	187.9	234.4	211.3	183.8	154.6	126.9	204.4
Q3	184.3	132.7	153.5	141.5	135.9	162.6	166.6	196.3	236.4	214.3	200.2	148.1	130.5	215.0
Q4	180.6	141.3	142.0	140.7	135.7	163.6	162.1	196.2	228.2	207.9	197.9	145.1	131.5	196.2
2002 Q1	187.3	139.6	144.5	121.6	141.7	173.8	168.9	222.2	226.6	211.0	201.2	168.3	146.2	210.7

1 These indices adjust for the mix of dwellings (by size and type, whether new or second-hand) and exclude those bought at non-market prices and are based on a sample of mortgage completions by all lenders.
2 Excludes Merseyside.

Source: Department for Transport, Local Government and the Regions

21 VAT registrations and deregistrations[1]: net change[2]
Government Office Regions

Thousands

	United Kingdom	North East	North West	Yorkshire and the Humber	East Midlands	West Midlands	East	London	South East	South West	Wales	Scotland	Northern Ireland
	DCYQ	LREB	LRZS	DCYT	DCYU	DCYY	LRED	DEON	LREE	DCYX	DCZA	DCZB	DCZC
1997	18.1	–0.2	1.0	–0.4	0.5	–0.3	2.5	8.9	4.3	0.9	–0.1	0.7	0.2
1998	30.3	0.2	2.5	0.5	1.2	1.7	2.7	11.3	6.9	1.7	–0.1	0.9	0.9
1999	6.5	–0.1	0.9	–0.7	–0.2	0.2	0.6	4.6	2.4	0.1	–0.7	–0.5	–0.1
2000	6.2	0.1	0.8	–0.8	0.2	0.3	1.0	2.7	1.9	–	–0.2	–	0.3

1 Registrations and deregistrations of VAT-based enterprises. Not wholly comparable with figures for earlier years which counted VAT reporting units.
2 Registrations *less* deregistrations.

Source: Department of Trade and Industry

Research and Experimental Development (R&D) Statistics 2000

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Research and experimental development (R&D) statistics 2000
List of Tables

Summary of trends

- Measuring expenditure and employment of R&D is difficult because of the subjective judgements that have to be made about the dividing line between R&D and other activities. There are discontinuities in the series arising from the interpretation of definitions, and because of changes in the actual or perceived status of organisations[1], (Chapter 1 details this). Some general conclusions can be drawn, but significance should not be given to small percentage changes between years.

- In 2000 Gross Domestic Expenditure on R&D (GERD) was 1.83 per cent of GDP, very similar to 1999 (Table 2). In terms of international comparisons in 2000 the UK was just below the EU average of 1.88 per cent.[5]

- Within the UK, net expenditure in real terms on R&D by government peaked in 1980–81. Since then there was a gradual downward trend until 1999–2000, after which point the expenditure increases slightly (Table 4). The overall level of net government expenditure on defence R&D has fallen from 41 per cent in 1992 to 36 per cent in 2000 (Table 6).

- Expenditure in real terms performed by the business sector has remained constant when compared to the total in 1999 (Table 7).

- Within the manufacturing sector, the chemicals broad product group has the largest share of total R&D expenditure at 31 per cent. The services sector accounts for 17 per cent of total R&D expenditure (Table 8).

- Within the regions, spending is highest in the South East for both the business & government sectors (Table 14).

Background

This article is the latest in an annual series, the previous issue was published in the August 2001 edition of *Economic Trends*. Most of the figures have already been published by the Office for National Statistics, the Department of Trade and Industry, Office of Science and Technology (OST) or the OECD.[1,2,4,5] The purpose of this report is to bring together a range of data produced and published by ONS in a single annual article and our aim is to continue to inform and stimulate debate within the R&D community.

The R&D statistics published here are consistent with OECD's Frascati Manual[3] which defines Research and Experimental Development (R&D) and gives guidelines on how to measure expenditure and employment on R&D. The manual is applied throughout the OECD so it is possible to make comparisons between countries.[5,6]

R&D is defined as creative work undertaken systematically to increase the stock of knowledge, including knowledge of man, culture and society, and the use of this knowledge to devise new applications.

Care should be exercised when using R&D statistics for economic analysis. R&D can lead to the technological inventions that are necessary for a successful innovative economy. However, such inventions are not a sufficient condition for success – many other economic and social factors are important. Undue weight should not be given to the economic significance of R&D's role as a generator of inventions. On the other hand, the economic benefit of R&D is not limited to that role: R&D develops skills and techniques that are important for any economy.

Sources of information

Performers and funders of R&D are divided into four economic sectors: Government, Business, Higher Education Institutions (HEIs), and the Private Non-Profit (PNP) sector. Definitions are provided at the end of this article.

The ONS conducts an annual survey of Central Government R&D, which is addressed to all Government departments. The survey collects data on expenditure and employment for outturn and planning years. The latest detailed results will be published in OST's *Science, Engineering and Technology Statistics* 2002 (SET 2002).[1] This document will be available on OST's web site at **www.dti.gov.uk/ost/**.

The ONS also conducts an annual survey of R&D in businesses. As in previous years the 2000 survey used a sample survey to minimise burdens on contributors. The register of R&D performers is continually updated and results and detailed methodology notes can be found in the 2000 Business Monitor.[2]

Statistics on expenditure and employment on R&D in Higher Education Institutions (HEIs) are based on information collected by Higher Education Funding Councils and HESA (Higher Education Statistics Agency). In 1994 a new methodology was introduced to estimate expenditure on R&D in HEIs. This was based on the allocation of various Funding Council Grants. Full details of the new methodology will be contained in SET 2002.[1]

The Tables

Gross Domestic Expenditure on R&D (GERD) (Tables 1–3)

These tables show the performers and funders of R&D in the UK. Measuring expenditure on R&D performed within each sector avoids problems of omission and double counting that can arise when measuring funds provided for R&D. GERD is the sum of R&D performed in the four sectors. Tables 1 and 2 show that UK GERD in 2000 was £17.5 billion in cash terms. GERD is often quoted as a percentage of GDP when making international comparisons. In 2000 UK GERD was 1.83 per cent of GDP, similar to the previous year's figure, just below the provisional OECD estimate for the EU average of 1.88 per cent.

Table 1 shows the interaction between R&D funders and performers. For example £11.5 billion was spent on R&D in the business sector. Of this, £1.0 billion was provided by the government, £2.5 billion came from abroad and £8.0 billion was funded by businesses from their own sources. Funds from abroad include those from overseas parent companies, contracts for R&D projects, support for R&D provided through European Union schemes and international collaborative projects typically for aerospace or defence projects.

Figure 1

Gross expenditure on R&D in the UK, by sectors, 2000

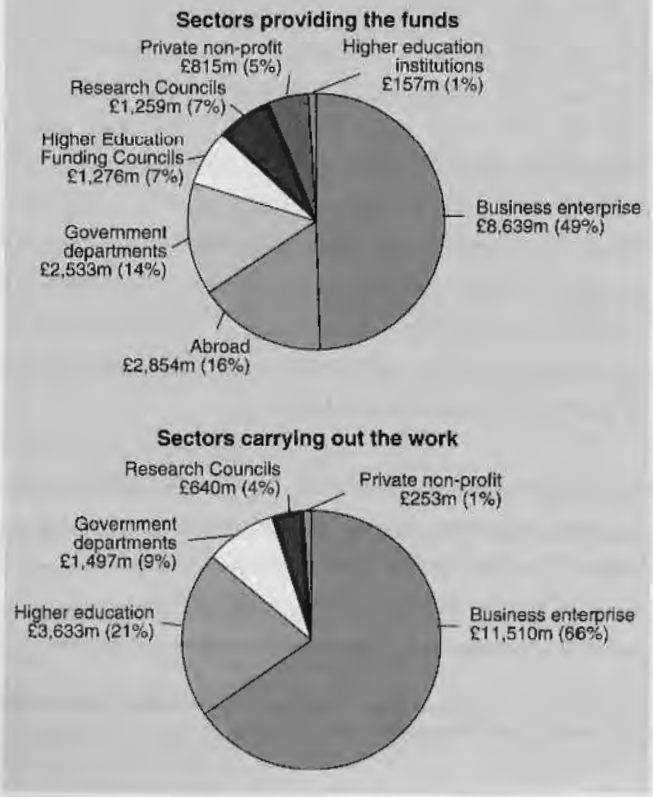


Figure 1 shows that the business sector is the most important sector of the economy in terms of providing funds for and carrying out R&D.

Government R&D expenditure (Tables 4–6)

A department's net expenditure on R&D is its expenditure on R&D performed within the department (intramural), plus its expenditure on R&D outside the department (extramural), minus receipts for R&D.

The sum of a department's net expenditure is the R&D element of the government's budget expenditure. This is used for international comparisons of Government appropriations for R&D (e.g. Table 17). The UK has a high proportion of Central Government expenditure devoted to R&D for defence purposes.

Figures in Tables 4 and 6 for Government's net expenditure on R&D differ from Government funding figures in Tables 1 and 3. This is because Tables 1 to 3 are based on information supplied by R&D (performers) whilst Tables 4 to 6 contain expenditure figures reported by Government departments (funders). The gap is mainly accounted for by differences in the reporting of Government contracts with businesses for certain types of defence R&D and R&D performed abroad but funded by the UK Government. In addition the difference is also attributed to other factors such as time lag problems due to differences in accounting periods and not all monies given being used in that financial period, treatment of VAT and sub-contracting of R&D work.

R&D in NHS hospitals previously included in Table 5 on the basis of the Culyer report[7], are now reported as extramural expenditure. The figures for Central Government intramural R&D in Table 5 are lower than those performed by the government sector in Tables 1 and 2. This is because the latter includes estimates for a small amount of R&D not available from the Government survey and R&D performed by local authorities.

Table 4 shows a time series dating back to 1966–67. This shows that in 2000/01 the net Government expenditure on R&D (by civil and defence departments) was £6.1 billion, a 6 per cent increase on 1999–2000. In real terms, spending on R&D was flat in the late sixties but rose in the seventies to a peak in 1980–81. Since then it has declined although spending in 2000–01 was still greater than in 1966–67.

Table 5 shows the breakdown of departmental intramural expenditure (see Figure 2); the current (which is also shown by Frascati type of research) and capital expenditure. Figure 2 shows that 93 per cent (£1.6 billion) of intramural expenditure is current expenditure. Applied

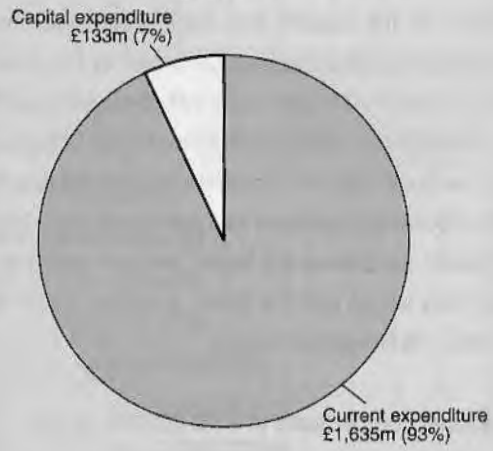
research accounts for 50 per cent of the total intramural expenditure. Total intramural expenditure is further broken down in Table 5 into Social Science & Humanities (SSH) and Natural Science & Engineering (NSE) research.

Table 6 provides an analysis of net government R&D expenditure by Frascati type of research activity for the period 1992–93 to 2000–01. The share of expenditure attributed to applied research has remained fairly constant over the nine-year period, whereas the share attributed to basic research has increased. In 2000–01 defence expenditure accounted for 36 per cent of total expenditure.

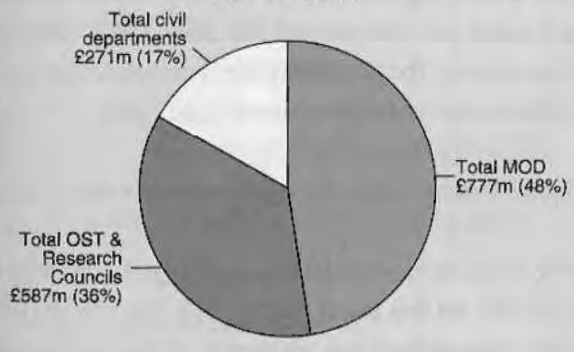
Figure **2**

Analysis of Central Government Intramural Expenditure, 2000–01

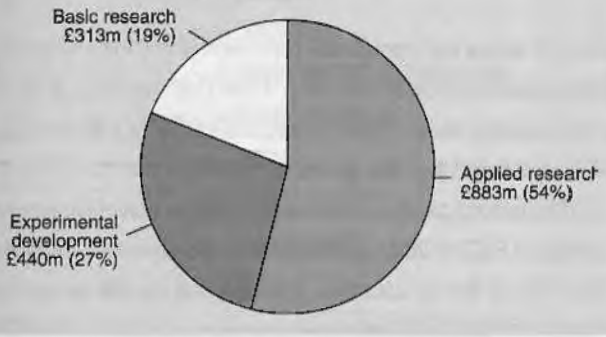
Breakdown of intramural current and capital expenditure



Departmental breakdown of current intramural R&D



Breakdown of current expenditure by Frascati type of research



R&D performed by the Business Sector (Tables 7–12)

Table 7 and Figure 3 show a time series dating back to 1966 for expenditure performed by the Business sector. They show that in 2000 R&D expenditure was £11.5 billion. Expenditure in real terms in the business sector has increased by 77 per cent on 1966 figures.

Table 8 shows that within the business sector, the services broad product group accounted for 17 per cent of the total expenditure in 2000. In the manufacturing sector the pharmaceuticals and chemicals broad product group had the largest share of R&D expenditure at 31 per cent of the total.

Statistics for civil and defence have been collected separately since 1989. Defence includes all R&D programmes undertaken primarily for defence reasons, regardless of their content or whether they have secondary civil applications.

In 2000, civil R&D represented 85 per cent of all R&D expenditure performed by business (Table 9). Table 10 and Figure 4 show that, in 2000, 77 per cent of civil R&D performed by businesses was funded by businesses themselves. Government funded 2 per cent of civil R&D, whereas it funded 47 per cent of defence R&D.

Figure **3**

Net business enterprise expenditure on R&D, in cash and real terms, 1966–2000

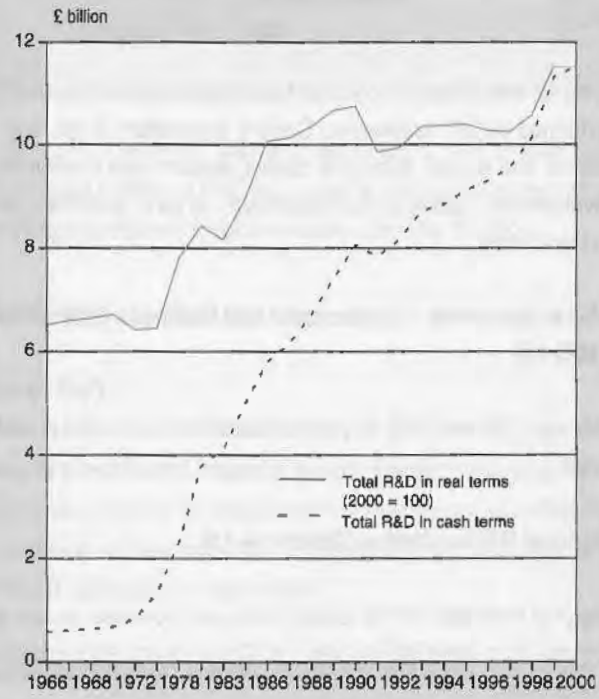
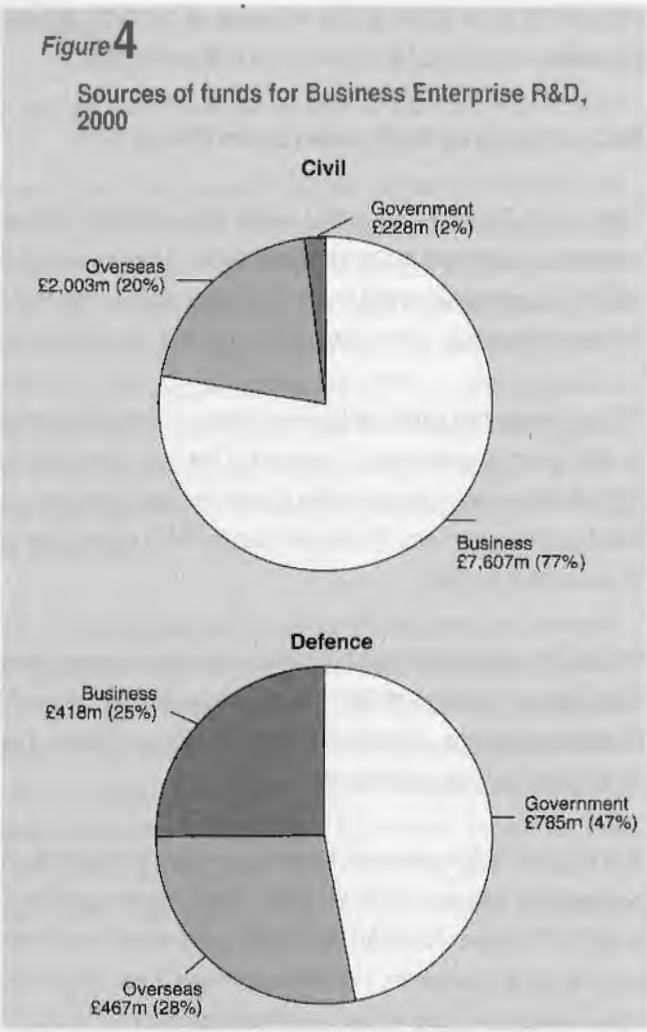


Figure **4**

Sources of funds for Business Enterprise R&D, 2000



The breakdown into detailed product groups is shown in Tables 11 and 12. The product group with the largest expenditure is pharmaceuticals, medical chemicals and botanical products, which accounted for £2.8 billion in 2000, followed by Aerospace at £1.1 billion.

Table 12 shows the split of current and capital expenditure on R&D performed by UK businesses. Current expenditure is the sum of salaries and wages, basic and applied research and experimental development. Capital is the expenditure on land, buildings, plant and machinery.

R&D employment – Government and Business Enterprise (Table 13)

Between 1999 and 2000, employment rates have remained at similar levels.

Regional R&D statistics (Tables 14–15)

Regional estimates for the Government and Business sectors are derived from the ONS surveys of Government and Business Enterprises.

The Higher Education Institutions' (HEI) regional R&D estimates are less reliable and should be treated with special caution. The expenditure estimates are obtained by allocating total R&D performed by HEIs (HERD) to individual HEIs in proportion to their income from research grants and contracts. An estimate of the labour force in Full Time Equivalents (FTE) is not available.

Estimates are given for UK Government Office Regions (GOR). Of the 12 GOR regions the South East of England has the highest number of R&D personnel and the largest expenditure on R&D (this reflects in part the greater size of the South East). To adjust for this the R&D personnel estimates are shown as a percentage of the labour force (see Figure 6). At the time of publication it is not possible to show R&D expenditure as a percentage of GDP because of the unavailability of regional GDP for 2000. Tables 14 and 15 show that, within the UK, the Eastern and South East have the highest concentration of R&D expenditure performed by business. For the Government sector the highest regions are the South East, the South West and the Eastern region, whilst for the Higher Education Sector, London, the South East and Scotland are prominent (see Figure 5). In terms of personnel estimates as a percentage of the labour force (see Figure 6), the Eastern and South East regions are prominent in the Business sector and the South East and South West are prominent in the Government sector.

International comparisons of R&D (Tables 16–19)

Although the guidelines in the Frascati Manual are generally followed, methods of collecting R&D data do vary from country to country (Main Science and Technological Indicators (MSTI)[5] discusses national variations). Therefore small differences should not be treated as significant when making international comparisons.

The figures shown for Japan in the tables are estimated by OECD.

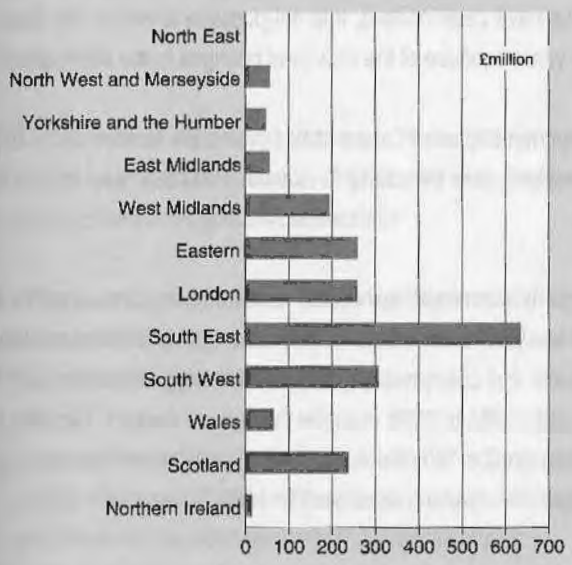
Table 16 shows the trend of R&D as a percentage of GDP for the G7 countries over the time period 1992 to 2000. The ratio for GERD has been fairly constant over this time for most of the countries. Figure 7 shows the position in 2000. The UK was ranked fifth. Table 16 also shows BERD and GOVERD as a percentage of GDP.

Table 17 shows the international comparisons of GERD by sector of performance and source of funding. Table 18 shows R&D performed in the business sector. Table 16 also shows this as a percentage of GDP; Japan and the USA are the top spenders with the UK holding a middle ranking position. International comparison of Government funding of R&D in 2000 by socio-economic objective is shown in Table 19. Of the G7 countries, the USA and the UK devoted the highest proportion of their total Government funding of R&D to

Figure **5**

(i) Estimated regional (GOR) BERD in 2000

(ii) Estimated regional (GOR) GOVERD in 2000



(iii) Estimated regional (GOR) HERD in 2000

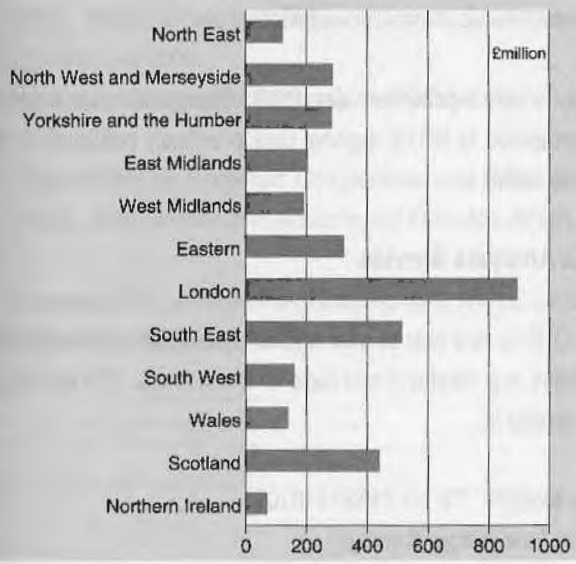
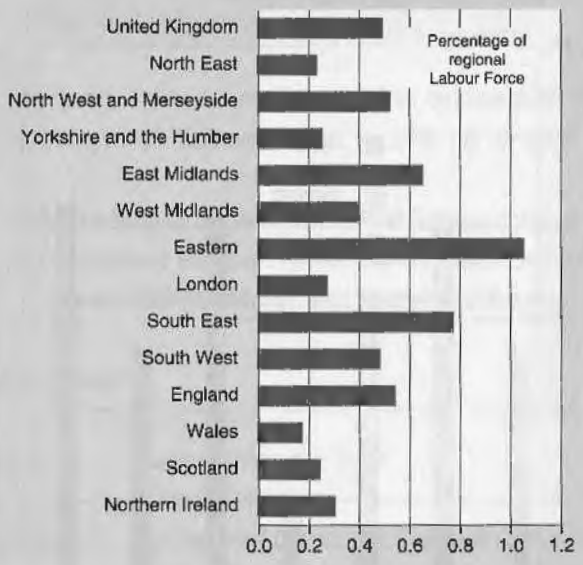


Figure **6**

(i) Estimated regional (GOR) BERD in 2000



(ii) Estimated regional (GOR) Government R&D in 2000

defence. For Germany, Italy and Japan about half of their total Government funding of R&D was classified as the advancement of knowledge compared to approximately a third for the UK.

Definitions

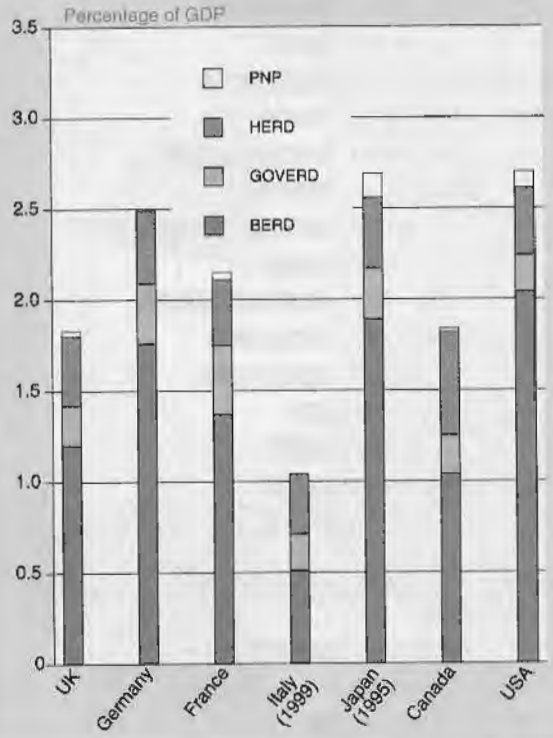
Type of R&D

Basic or fundamental research is experimental or theoretical work undertaken primarily to acquire new knowledge of the underlying foundations of phenomena and observable facts, without any particular application or use in view.

Applied research is research undertaken with either a general or a particular application in view.

Figure **7**

Comparison of BERD, GOVERD, HERD and PNP as a percentage of GDP, 2000



Experimental Development is the use of the results of basic and applied research directed to the introduction of new materials, processes, products, devices and systems, or the improvement of existing ones. It should include the prototype or pilot plant stage, design and drawing required during R&D and innovative work done on contracts with outside organisations, government departments, and public bodies. Firms in the aerospace industry are asked to include expenditure on development batches.

Sectors of the Economy

The four sectors of the economy are defined in an ONS publication.[4] However higher education is identified separately as recommended in the Frascati Manual.

Central Government includes the central government departments, research councils, higher education funding councils, Non-departmental public bodies (NDPBs), and Executive Agencies.

Business Enterprises include private businesses, public corporations, and research associations serving businesses.

Higher Education includes the former polytechnics and central institutions in Scotland as well as the old universities.

Private Non-Profit sector makes up the remainder and includes medical research charities.

Regional data

Data is classified according to the Government Office Regions (GOR).

Rounding

Throughout the tables components of totals have been rounded independently of the totals. Therefore the rounded totals will not always be equal to the sums of the rounded components. Symbols follow the conventions used elsewhere in *Economic Trends.*

Revisions and Discontinuities

In the Government Tables, a new method for estimating Government-funded R&D in HE was introduced in 1994/95, therefore 1993/94 figures have been revised. It is not possible to revise the data for prior years because of the structural changes in the HE sector.

Government figures in some tables (see table footnotes) for 1995/96 onwards, now include NHS Hospital R&D estimates for the first time.

Company mis-reporting has led to a number of revisions in the Business R&D survey. Data for the product group "Refined petroleum products and coke oven products; Processing of nuclear fuel" for the years 1993 to 1998 inclusive have been revised. Similarly the product groups "Wholesale and retail trade" and "Transport and storage" have been revised back to 1992.

Figures relating to gross expenditure on R&D published in the ONS First Release on 22 March 2002[4] have been revised slightly due to government department amendments.

Regional data is published using GOR regions and these should not be compared to NUTS regional data previously published in this annual article.

Data Analysis Service

The ONS is now able to offer additional analysis concerning R&D statistics, e.g. sizeband and regional breakdowns. The contact for this service is:

Jane Morgan Tel no: 01633 813109
e-mail: jane.morgan@ons.gov.uk

For further information on:	ONS Contacts:
Business R&D[2]	Jane Morgan Tel. 01633 813109
Information on aggregated R&D data	Jane Morgan Tel. 01633 813109
Definitions of R&D[3]	Jane Morgan Tel. 01633 813109
GERD[4]	Jane Morgan Tel. 01633 813109
General information on Science & Technology[1]	Steve Churchill Tel. 01633 812003
International comparisons[5,6,8]	Steve Churchill Tel. 01633 812003

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2 Office for National Statistics (2002). *UK Business Enterprise, Research and Development in UK Business*, MA14. **www.statistics.gov.uk/products/p165.asp**

3 Organisation for Economic Co-operation and Development (1993). *Proposed Standard Practice for Surveys of Research and Experimental Development (The Frascati Manual).*

4 Office for National Statistics (2002). First Release, 22 March 2002, *Gross Domestic Expenditure on Research and Development* 2000. **www.statistics.gov.uk/press_release/Archive.asp**

5 Organisation for Economic Co-operation and Development (2002). *Main Science and Technological Indicators* 2002/1.

6 Eurostat (2001). *Research and Development: Annual Statistics* 1990–2000, ISSN 1682-0959.

7 *Supporting Research and Development In The NHS.* (A report to the Minister of Health by a research and development task force chaired by Professor Anthony Culyer), September 1994. ISBN 0 11 321831 1

8 Morgan J. Research and experimental development (R&D statistics) 1999. *Economic Trends*, No. 573, pp. 39–62.

9 Office for National Statistics (2001). First Release 23 November 2001, *Business Enterprise Research and Development* 2000. **www.statistics.gov.uk/press_release/Archive.asp**

Abbreviations

BERD	Business Enterprise R&D
EU	European Union
EUROSTAT	The Statistical Office of the European Communities
FTE	Full Time Equivalent
G7	Group of Seven countries, comprising: UK, Germany, France, Italy, Japan, Canada, USA
GDP	Gross Domestic Product
GERD	Gross (Domestic) Expenditure on R&D
GOVERD	Government Intramural Expenditure on R&D
GOR	Government Office Regions
HEFC	Higher Education Funding Council
HEIs	Higher Education Institutions
HERD	Higher Education Expenditure on R&D
HESA	Higher Education Statistics Agency
NDPB	Non-Departmental Public Body
NHS	National Health Service
NUTS	Nomenclature of Territorial Units for Statistics
OECD	Organisation for Economic Co-operation and Development
ONS	Office for National Statistics
OST	Office of Science and Technology (part of DTI since April 1996)
PPP	Purchasing Power Parities
PNP	Private Non-Profit
R&D	Research and (Experimental) Development

Government Departments

MOD	Ministry of Defence
DFES	Department for Education and Skills
DWP	Department of Work and Pensions

DOH	Department of Health
HSE	Health and Safety Executive
HO	Home Office
DFID	Department for International Development
DTI	Department of Trade and Industry
NI	Northern Ireland Department of Enterprise, Trade & Investment
SE	Scottish Executive
NAW	National Assembly for Wales
DCMS	Department for Culture, Media and Sport
OCD	Other Civil Departments
BBSRC	Biotechnology and Biological Sciences Research Council
ESRC	Economic and Social Research Council
EPSRC	Engineering and Physical Sciences Research Council
MRC	Medical Research Council
NERC	Natural Environment Research Council
PPARC	Particle Physics and Astronomy Research Council
CCLRC	Council for the Central Laboratories of the Research Councils
OST-DTI	Office of Science and Technology
HEFC	Higher Education Funding Council
NHS	National Health Service
FSA	Food Standards Agency
DTLR	Department for Transport, Local Government and the Regions
DEFRA	Department for Environment, Food and Rural Affairs

Table 1 Gross expenditure on civil and defence R&D performed in the UK in 2000[1]

£ million

Sectors providing the funds[2,3]	Sectors carrying out the work[2,3]: Government departments[4]	Research Councils	Higher education	Business enterprise	Private non-profit	Totals	Abroad
Government departments[4]	1,155	94	246	1,011	28	2,533	186
Research Councils	6	413	826	3	12	1,259	122
Higher Education Funding Councils	-	-	1,276	-	-	1,276	
Higher education institutions	0	8	147	-	2	157	
Business enterprise	277	35	259	8,023	44	8,639	
Private non-profit	19	49	598	3	146	815	
Abroad	39	40	282	2,470	21	2,854	
TOTAL	1,497	640	3,633	11,510	253	17,532	n/a
Civil							
Government departments[4]	512	90	214	226	28	1,070	184
Research Councils	6	413	826	3	12	1,259	122
Higher Education Funding Councils	-	-	1,276	-	-	1,276	
Higher education institutions	0	8	147	-	2	157	
Business enterprise	162	35	229	7,604	44	8,075	
Private non-profit	19	49	598	3	146	815	
Abroad	8	40	282	2,003	21	2,355	
TOTAL	707	636	3,572	9,838	253	15,006	n/a
Defence							
Government departments[4]	643	4	31	785	0	1,464	2
Research Councils	-	-	-	-	-	-	-
Higher Education Funding Councils	-	-	-	-	-	-	
Higher education institutions	-	-	-	-	-	-	
Business enterprise	116	-	29	419	-	563	
Private non-profit	0	-	-	-	-	0	
Abroad	31	-	-	467	-	499	
TOTAL	790	4	61	1,671	0	2,526	n/a

Source: ONS

Notes:

General Note:

These estimates are derived from the ONS surveys of government and business enterprise R&D and from information from the HEFC. More details are in the ONS First Release *Gross Domestic Expenditure on Research and Development*, published on 22 March 2002. The First Release has been revised slightly due to departmental amendments.

Notes:

1 Research in the social sciences and humanities is included.

2 The OECD terminology is used for describing the breakdown of GERD by sector.

3 Some of the numbers have been estimated.

4 The total for R&D performed by government includes estimates for a small amount of R&D not available from the Government Survey; R&D performed by local authorities. Since 1996 UK NHS figures have been obtained from the Department of Health and the Scottish Office on the basis of the Culyer report.

Table 2 Gross expenditure on R&D in the UK by performing sector, 1992 to 2000[1]

£ million

	1992	1993	1994	1995	1996	1997	1998	1999	2000
Expenditure in cash terms (£m):									
Performed by:									
Government	1,846	1,928	2,051	1,462	1,495	1,427	1,487	1,450	1,497
Research Councils	-	-	-	581	575	590	591	622	640
Business enterprise	8,167	8,717	8,842	9,116	9,297	9,556	10,133	11,302	11,510
Higher education	2,129	2,312	2,623	2,696	2,792	2,893	3,040	3,324	3,633
Private non-profit	224	232	168	177	177	190	203	231	253
TOTAL	12,367	13,189	13,684	14,034	14,336	14,657	15,454	16,929	17,532
Expenditure in real terms (2000=100)[2] (£m):									
Performed by:									
Government	2,247	2,290	2,404	1,667	1,651	1,530	1,551	1,476	1,497
Research Councils	-	-	-	663	635	633	616	634	640
Business enterprise	9,939	10,353	10,364	10,390	10,271	10,241	10,565	11,510	11,510
Higher education	2,592	2,746	3,074	3,073	3,085	3,101	3,170	3,385	3,633
Private non-profit	273	275	197	202	196	204	212	235	253
TOTAL	15,051	15,665	16,040	15,994	15,838	15,708	16,113	17,240	17,532
Total as percentage of GDP[3]	*2.01*	*2.02*	*1.98*	*1.93*	*1.85*	*1.78*	*1.78*	*1.85*	*1.83*

Notes:

1 See notes at Table 1.

2 GDP deflators are:

1992	1993	1994	1995	1996	1997	1998	1999	2000
82.2	84.2	85.3	87.7	90.5	93.3	95.9	98.2	100.0

3 Gross domestic product values are:

£ million

1992	1993	1994	1995	1996	1997	1998	1999	2000
615,404	653,582	690,575	729,001	772,918	824,396	868,809	914,699	956,297

Table 3 Gross expenditure on R&D in the UK by source of funds, 1992 to 2000[1,2]

£ million

	1992	1993	1994	1995	1996	1997	1998	1999	2000
Sector providing funds									
Expenditure in cash terms (£m):									
Funded by:									
Government	4,089	4,237	4,479	2,514	2,402	2,332	2,535	2,601	2,533
Research Councils	-	-	-	1,078	1,092	1,135	1,117	1,185	1,259
Higher Education Funding Councils	-	-	-	1,018	1,027	1,033	1,085	1,157	1,276
Higher education	99	103	116	119	120	123	130	142	157
Business enterprise	6,339	6,815	6,886	6,765	6,817	7,321	7,356	8,213	8,639
Private non-profit	435	477	514	511	545	578	621	701	815
Abroad	1,404	1,558	1,689	2,029	2,331	2,136	2,610	2,929	2,854
TOTAL	12,367	13,189	13,684	14,034	14,336	14,657	15,454	16,929	17,532
Expenditure in real terms (2000=100) (£m):									
Funded by:									
Government	4,977	5,032	5,250	2,865	2,654	2,499	2,643	2,649	2,533
Research Councils	-	-	-	1,228	1,207	1,216	1,164	1,207	1,259
Higher Education Funding Councils	-	-	-	1,160	1,135	1,107	1,131	1,178	1,276
Higher education	121	122	136	135	133	131	136	145	157
Business enterprise	7,715	8,094	8,072	7,710	7,531	7,846	7,670	8,364	8,639
Private non-profit	530	567	602	583	603	620	648	714	815
Abroad	1,709	1,851	1,980	2,313	2,576	2,289	2,721	2,982	2,854
TOTAL	15,051	15,665	16,040	15,994	15,838	15,708	16,113	17,240	17,532
Total as percentage of GDP	***2.01***	***2.02***	***1.98***	***1.93***	***1.85***	***1.78***	***1.78***	***1.85***	***1.83***

Notes:

Source: ONS

1 See notes at Table 1.
2 See notes at Table 2.

Table 4 Total Net Government expenditure on R&D in cash terms and real terms, 1966–67 to 2000–01

£ million

Year	Total Net Government R&D	
	In cash terms excluding NHS figures	In real terms (2000=100)[1]
1966–67	486	5,459
1967–68	503	5,488
1968–69	531	5,522
1969–70	562	5,550
1970–71	606	5,523
1971–72	755	6,306
1972–73	847	6,546
1973–74	964	6,955
1974–75	1,169	7,045
1975–76	1,495	7,196
1976–77	1,647	6,981
1977–78	1,814	6,764
1978–79	2,097	7,044
1979–80	2,601	7,480
1980–81	3,184	7,744
1981–82	3,395	7,540
1982–83	3,519	7,307
1983–84	3,730	7,414
1984–85	3,964	7,485
1985–86	4,175	7,476
1986–87	4,255	7,377
1987–88	4,408	7,250
1988–89	4,497	6,924
1989–90	4,772	6,857
1990–91	4,955	6,605
1991–92	5,027	6,317
1992–93	5,078	6,180
1993–94	5,402	6,416
1994–95	5,200	6,096
1995–96[2]	5,295	6,035
1996–97[2]	5,351	5,912
1997–98[2]	5,504	5,899
1998–99[2]	5,304	5,531
1999–00[2]	5,782	5,888
2000–01[2]	6,141	6,141

Notes:
1 See note at Table 2.
2 Figures for NHS are available in SET 2002.[1]

Source: ONS

Table 5 Analysis of Government Intramural expenditure, 2000–01[1,2,4]

£ million

	Current expenditure	Breakdown of current Frascati R&D expenditure: Basic	Applied	Experimental development	Capital expenditure	TOTAL INTRAMURAL	SSH	NSE
OST - DTI	-	-	-	-	-	-	-	-
Research Councils								
BBSRC	147.1	50.3	96.9	-	14.3	161.4	-	161.4
ESRC	4.2	4.2	-	-	0.8	4.9	4.9	-
MRC	177.1	107.7	69.4	-	28.7	205.8	-	205.8
NERC	116.1	37.3	66.6	12.2	8.4	124.5	-	124.5
EPSRC	17.0	17.0	-	-	-	17.0	-	17.0
PPARC	27.3	24.5	2.7	-	3.1	30.4	-	30.4
CCLRC	98.1	24.3	73.7	-	14.7	112.8	-	112.8
Total OST & Research Councils	**586.9**	**265.3**	**309.4**	**12.2**	**70.0**	**656.8**	**4.9**	**651.9**
Higher Education Funding Councils	-	-	-	-	-	-	-	-
Total Higher Education Funding Councils	-	-	-	-	-	-	-	-
Civil departments								
DEFRA	86.3	17.8	64.9	3.6	4.5	90.7	0.8	89.9
DFEE	11.2	-	6.4	4.8	0.0	11.2	11.2	-
DTLR	5.6	0.2	5.0	0.4	-	5.6	1.9	3.7
DH (includes NHS)	31.5	1.3	23.8	6.3	2.0	33.5	0.2	33.3
NHS[3]	-	-	-	-	-	-	-	-
DSS	1.0	1.0	-	-	-	1.0	1.0	-
HSC	6.6	-	5.9	0.7	0.4	7.0	1.0	6.0
HO	21.9	-	20.4	1.6	0.9	22.9	14.2	8.7
DCMS (formerly DNH)	9.9	8.4	1.5	-	0.5	10.4	0.9	9.5
DFID (formerly ODA)	2.6	-	2.6	-	-	2.6	1.0	1.6
DTI (ex OST)	6.9	3.5	3.5	-	-	6.9	-	6.9
FSA	-	-	-	-	-	-	-	-
NI	7.6	0.3	6.7	0.6	0.5	8.1	1.5	6.6
SE (formerly SO)	53.4	14.0	38.6	0.8	0.2	53.6	3.0	50.6
NAW (formerly WO)	2.1	0.4	1.3	0.4	-	2.1	0.8	1.3
Other departments	24.8	0.8	20.5	3.4	2.6	27.3	10.0	17.4
Total civil departments	**271.4**	**47.7**	**201.1**	**22.6**	**11.6**	**283.0**	**47.5**	**235.5**
Total civil R&D	**858.3**	**313.1**	**510.4**	**34.8**	**81.6**	**939.9**	**52.4**	**887.5**
MOD	777.1	-	372.2	404.9	50.9	828.0	13.1	814.9
TOTAL	**1,635.4**	**313.1**	**882.6**	**439.7**	**132.5**	**1,767.9**	**65.5**	**1,702.4**

Notes:

1 Excludes Research Councils' pensions/other costs.

2 Includes intramural R&D funded by other departments.

3 NHS expenditure figures are now reported as extramural.

4 Full departmental titles can be found under "Abbreviations" in the "Definitions" section.

Source: ONS

Table 6 Analysis of net Government R&D expenditure by Frascati type of research activity, 1992–93 to 2000–2001[1]

£ million

	1992–93	1993–94	1994–95	1995–96[2]	1996–97[2]	1997–98[2]	1998–99[2]	1999–00[2]	2000–01[2]
Total Government R&D									
Basic	1,511	1,571	-	-	-	-	-	-	-
- pure	-	-	1,253	1,273	1,322	1,334	1,369	1,492	1,691
- orientated	-	-	472	504	524	523	535	566	620
Applied - strategic	953	1,019	879	1,004	1,109	1,079	1,020	1,153	1,256
- specific	870	1,050	1,075	1,322	1,224	1,198	1,178	1,059	1,005
Experimental development	1,744	1,762	1,492	1,530	1,570	1,757	1,592	1,902	1,966
Total £m	**5,078**	**5,402**	**5,171**	**5,634**	**5,750**	**5,891**	**5,695**	**6,172**	**6,539**
Civil R&D									
Basic	1,511	1,571	-	-	-	-	-	-	-
- pure	-	-	1,253	1,273	1,322	1,334	1,369	1,467	1,666
- orientated	-	-	472	504	524	523	535	566	620
Applied - strategic	907	962	810	839	948	923	875	985	1,096
- specific	403	454	479	813	681	698	704	667	633
Experimental development	177	137	126	136	131	102	116	141	145
Total £m	**2,997**	**3,124**	**3,140**	**3,565**	**3,606**	**3,580**	**3,599**	**3,827**	**4,160**
Defence R&D									
Basic	-	-	-	-	-	-	-	-	-
- pure	-	-	-	-	-	-	-	25	25
- orientated	-	-	-	-	-	-	-	-	-
Applied - strategic	46	58	69	166	160	156	145	167	161
- specific	467	596	596	510	544	500	475	392	372
Experimental development	1,568	1,624	1,366	1,394	1,439	1,655	1,476	1,761	1,821
Total £m	**2,080**	**2,278**	**2,032**	**2,070**	**2,144**	**2,311**	**2,096**	**2,345**	**2,379**

Notes:

1 For the purpose of this analysis Research Councils expenditure for Pensions/Other costs have been excluded from 1994–95 onwards.

2 Includes NHS estimates.[1]

Source: ONS

Table 7 Business Enterprise R&D, in cash terms and real terms, 1966–2000

£ million

Year	Total Business Enterprise R&D	
	In cash terms	In real terms (2000=100)[1]
1966	580	6,515
1967	605	6,601
1968	639	6,645
1969	680	6,715
1970	N/S	N/S
1971	N/S	N/S
1972	831	6,422
1973	N/S	N/S
1974	N/S	N/S
1975	1,340	6,450
1976	N/S	N/S
1977	N/S	N/S
1978	2,324	7,807
1979	N/S	N/S
1980	N/S	N/S
1981	3,793	8,425
1982	N/S	N/S
1983	4,104	8,157
1984	N/S	N/S
1985	5,005	8,961
1986	5,804	10,064
1987	6,159	10,130
1988	6,717	10,343
1989	7,416	10,657
1990	8,054	10,736
1991	7,842	9,853
1992	8,166	9,938
1993	8,717	10,353
1994	8,842	10,364
1995	9,116	10,389
1996	9,297	10,271
1997	9,556	10,242
1998	10,133	10,565
1999	11,302	11,510
2000	11,510	11,510

Notes:
1 See notes at Table 2.
2 See notes about revisions to past data.
(N/S) = No survey carried out

Source: ONS

Table 8 Expenditure on R&D performed in UK businesses: broad product groups, in cash & real terms, 1992–2000

£ million

In cash terms	1992	1993	1994	1995	1996	1997	1998	1999	2000
Manufacturing: Total	**6,558**	**6,965**	**7,051**	**7,134**	**7,264**	**7,608**	**8,142**	**8,995**	**9,231**
Chemicals	2,166	2,400	2,509	2,515	2,479	2,831	2,926	3,253	3,528
Mechanical engineering	580	665	761	660	668	709	730	712	776
Electrical machinery	1,258	1,386	1,218	1,245	1,313	1,181	1,320	1,335	1,558
Transport equipment	670	717	710	833	977	990	1,020	1,235	1,094
Aerospace	898	782	860	886	812	893	1,039	1,237	1,091
Other manufacturing	986	1,015	993	994	1,016	1,004	1,108	1,222	1,183
Services	**1,201**	**1,376**	**1,458**	..	**1,736**	**1,652**	**1,668**	**1,972**	**1,905**
Other: Total	**408**	**376**	**334**	..	**296**	**295**	**323**	**335**	**374**
Agriculture, hunting & forestry; Fishing	80	89	80	..	76	84	102	115	135
Extractive industries	126	62	66	65	64	44	41	42	46
Electricity, gas & water supply	187	214	177	168	148	130	140	137	160
Construction	15	11	11	8	8	38	39	41	34
TOTAL	8,166	8,717	8,842	9,116	9,297	9,556	10,133	11,302	11,510

In real terms (at 2000 prices)	1992	1993	1994	1995	1996	1997r	1998r	1999	2000
Manufacturing: Total	**7,981**	**8,272**	**8,265**	**8,130**	**8,025**	**8,154**	**8,489**	**9,160**	**9,231**
Chemicals	2,636	2,850	2,941	2,866	2,739	3,034	3,051	3,313	3,528
Mechanical engineering	706	790	892	752	738	760	761	725	776
Electrical machinery	1,531	1,646	1,428	1,419	1,451	1,266	1,376	1,360	1,558
Transport equipment	815	852	832	949	1,079	1,061	1,063	1,258	1,094
Aerospace	1,093	929	1,008	1,010	897	957	1,083	1,260	1,091
Other manufacturing	1,200	1,206	1,164	1,133	1,122	1,076	1,155	1,244	1,183
Services	**1,462**	**1,634**	**1,709**	..	**1,918**	**1,771**	**1,739**	**2,008**	**1,905**
Other: Total	**497**	**447**	**391**	..	**327**	**316**	**337**	**341**	**374**
Agriculture, hunting & forestry; Fishing	97	106	94	..	84	90	106	117	135
Extractive industries	153	74	77	74	71	47	43	43	46
Electricity, gas & water supply	228	254	207	191	164	139	146	140	160
Construction	18	13	13	9	9	41	41	42	34
TOTAL	**9,938**	**10,353**	**10,364**	**10,389**	**10,271**	**10,242**	**10,565**	**11,510**	**11,510**

Notes:
1 .. denotes disclosive figures.
2 See notes about revisions to past data.

Table 9 Expenditure on civil and defence R&D performed by Business Enterprises, 1993–2000

(i) in cash terms (£m)

	Civil								Defence							
	1993	1994	1995	1996	1997	1998	1999	2000	1993	1994	1995	1996	1997	1998	1999	2000
All product groups	7,375	7,421	7,725	7,937	8,112	8,600	9,626	9,838	1,342	1,420	1,391	1,360	1,443	1,533	1,675	1,671
Manufacturing: Total	5,742	5,717	5,865	5,997	6,303	6,725	7,376	7,582	1,221	1,334	1,292	1,268	1,305	1,417	1,619	1,649
Chemicals	2,311	2,500	2,511	2,477	2,829	2,926	3,252	3,527	89	9	3	2	2	-	1	-
Mechanical engineering	467	415	418	395	407	455	434	463	198	346	266	273	302	276	279	314
Electrical machinery	1,031	824	823	896	803	916	1,013	1,163	354	394	423	417	377	404	322	395
Transport equipment	655	699	823	967	979	983	1,159	1,023	62	11	10	10	11	36	77	71
Aerospace	337	380	413	359	412	485	535	457	445	480	473	453	481	554	701	634
Other manufacturing	941	899	878	903	873	960	983	948	73	94	117	113	131	147	239	235
Services	..	1,372	..	1,644	1,513	1,552	1,915	1,883	..	87	99	92	139	116	57	22
Other: Total	..	334	..	296	295	322	335	374	..	1	-	-	-	-	-	-
Agriculture, hunting & forestry; Fishing	89	80	..	76	84	102	115	135	-	-	-	-	-	-	-	-
Extractive industries	62	66	65	64	44	41	42	46	-	-	-	-	-	-	-	-
Electricity, gas & water supply	..	177	168	148	130	140	137	160	..	1	-	-	-	-	-	-
Construction	11	11	8	8	38	39	41	34	-	-	-	-	-	-	-	-

(ii) in real terms (£m 2000 prices)[1]

	Civil								Defence							
	1993	1994	1995	1996	1997	1998	1999	2000	1993	1994	1995	1996	1997	1998	1999	2000
All product groups	**8,759**	**8,698**	**8,804**	**8,769**	**8,694**	**8,966**	**9,803**	**9,838**	**1,594**	**1,664**	**1,585**	**1,503**	**1,547**	**1,598**	**1,706**	**1,671**
Manufacturing: Total	6,820	6,701	6,684	6,625	6,755	7,012	7,512	7,582	1,450	1,564	1,472	1,401	1,399	1,477	1,649	1,649
Chemicals	2,745	2,930	2,862	2,737	3,032	3,051	3,312	3,527	106	11	3	2	2	-	1	-
Mechanical engineering	555	486	476	436	436	474	442	463	235	406	303	302	324	288	284	314
Electrical machinery	1,225	966	938	990	861	955	1,032	1,163	420	462	482	461	404	421	328	395
Transport equipment	778	819	938	1,068	1,049	1,025	1,180	1,023	74	13	11	11	12	38	78	71
Aerospace	400	445	471	397	442	506	545	457	529	563	539	500	516	578	714	634
Other manufacturing	1,118	1,054	1,001	998	936	1,001	1,001	948	87	110	133	125	140	153	243	235
Services	..	1,608	..	1,816	1,622	1,618	1,950	1,883	..	102	113	102	149	121	58	22
Other: Total	..	391	..	327	316	336	341	374	..	1	-	-	-	-	-	-
Agriculture, hunting & forestry; Fishing	106	94	..	84	90	106	117	135	-	-	-	-	-	-	-	-
Extractive industries	74	77	74	71	47	43	43	46	-	-	-	-	-	-	-	-
Electricity, gas & water supply	..	207	191	164	139	146	140	160	..	1	-	-	-	-	-	-
Construction	13	13	9	9	41	41	42	34	-	-	-	-	-	-	-	-

Notes:
1 See Table 2 for deflators
2 Broad product groups have been refined and expanded in order to more accurately categorise the data.
3 See notes about revisions to past data.

Source: ONS

Table 10 Sources of funds for business enterprise R&D in cash terms, 1992–2000

£ million, cash terms

		Government £m	Overseas £m	Mainly own resources[1] £m	Total intramural R&D £m
1992		**1,021**	**1,220**	**5,926**	**8,166**
of which:	**Civil**	344	931	5,511	6,785
	Defence	678	289	415	1,382
1993		**965**	**1,345**	**6,409**	**8,717**
of which:	**Civil**	244	1,048	6,085	7,375
	Defence	722	295	324	1,342
1994		**910**	**1,410**	**6,523**	**8,842**
of which:	**Civil**	198	1,071	6,152	7,421
	Defence	713	338	370	1,420
1995		**953**	**1,738**	**6,426**	**9,116**
of which:	**Civil**	224	1,409	6,093	7,725
	Defence	729	329	333	1,391
1996		**842**	**2,018**	**6,438**	**9,297**
of which:	**Civil**	150	1,715	6,074	7,937
	Defence	693	303	364	1,360
1997		**915**	**1,800**	**6,841**	**9,556**
of which:	**Civil**	198	1,475	6,439	8,112
	Defence	717	325	401	1,443
1998		**1,094**	**2,238**	**6,800**	**10,133**
of which:	**Civil**	307	1,857	6,435	8,600
	Defence	787	381	365	1,533
1999		**1,157**	**2,570**	**7,575**	**11,302**
of which:	**Civil**	316	2,092	7,219	9,626
	Defence	841	478	356	1,675
2000		**1,013**	**2,470**	**8,026**	**11,510**
of which:	**Civil**	228	2,003	7,607	9,838
	Defence	785	467	418	1,671
		%	%	%	%
1992		***13***	***15***	***73***	***100***
of which:	**Civil**	*5*	*14*	*81*	*100*
	Defence	*49*	*21*	*30*	*100*
1993		***11***	***15***	***74***	***100***
of which:	**Civil**	*3*	*14*	*83*	*100*
	Defence	*54*	*22*	*24*	*100*
1994		***10***	***16***	***74***	***100***
of which:	**Civil**	*3*	*14*	*83*	*100*
	Defence	*50*	*24*	*26*	*100*
1995		***10***	***19***	***70***	***100***
of which:	**Civil**	*3*	*18*	*79*	*100*
	Defence	*52*	*24*	*24*	*100*
1996		***9***	***22***	***69***	***100***
of which:	**Civil**	*2*	*22*	*77*	*100*
	Defence	*51*	*22*	*27*	*100*
1997		***10***	***19***	***72***	***100***
of which:	**Civil**	*2*	*18*	*79*	*100*
	Defence	*50*	*23*	*28*	*100*
1998		***11***	***22***	***67***	***100***
of which:	**Civil**	*4*	*22*	*75*	*100*
	Defence	*51*	*25*	*24*	*100*
1999		***10***	***23***	***67***	***100***
of which:	**Civil**	*3*	*22*	*75*	*100*
	Defence	*50*	*29*	*21*	*100*
2000		***9***	***21***	***70***	***100***
of which:	**Civil**	*2*	*20*	*77*	*100*
	Defence	*47*	*28*	*25*	*100*

Notes:
1 Mainly own resources includes Other Private sector funds which is shown separately in ONS's First Release for Business Enterprise R&D.
2 See notes about revisions to past data.

Source: ONS

Table 11 Intramural expenditure on R&D performed in UK businesses: detailed product groups, 1992–2000

£ million

	1992	1993	1994	1995	1996	1997	1998	1999	2000
Total	**8,166**	**8,717**	**8,842**	**9,116**	**9,297**	**9,556**	**10,133**	**11,302**	**11,510**
Agriculture, hunting and forestry; Fishing	80	89	80	..	76	84	102	115	135
Extractive Industries	126	62	66	..	64	44	41	42	46
Food products and beverages; Tobacco products	225	191	228	189	198	180	242	237	264
Textiles, clothing and leather products	25	44	22	23	27	33	33	28	29
Pulp, paper and paper products; printing and publishing; Wood and straw products	44	40	44	39	57	44	49	45	38
Refined petroleum products and coke oven products; Processing of nuclear fuel	253	224	203	239	230	225	234	212	182
Chemicals, man-made fibres	720	721	689	701	627	680	688	718	682
Pharmaceuticals, medical chemicals and botanical products	1,446	1,679	1,820	1,813	1,852	2,151	2,238	2,535	2,846
Rubber and plastic products	25	67	72	60	67	60	66	72	54
Other non-metallic mineral products	43	42	56	54	60	47	56	59	..
Casting of iron and steel	43	50	51	46	39	39	47	41	..
Non-ferrous metals	22	16	15	20	15	15	20	22	21
Fabricated metal products	63	72	72	100	91	88	90	70	73
Machinery and equipment	517	593	689	583	577	622	640	642	703
Office machinery and computers	256	252	134	150	161	102	125	111	113
Electrical machinery and apparatus	523	576	567	494	490	424	423	357	422
Radio, television and communication equipment	479	558	517	602	662	655	772	867	1,024
Precision instruments	283	312	273	303	307	336	340	473	480
Motor vehicles and parts	636	682	669	795	926	924	913	1,060	864
Other transport equipment	18	17	24	18	30	50	72	99	158
Shipbuilding and repairs	16	18	17	20	20	15	36	76	72
Aerospace	898	782	860	886	812	893	1,039	1,237	1,091
Furniture; Other manufactured goods	22	28	28	21	16	25	20	33	27
Recycling	1	1	1	..	1	-	-	1	1
Electricity, gas and water supply	187	214	177	168	148	130	140	137	160
Construction	15	11	11	8	8	38	39	41	34
Wholesale and retail trade	..	..	..	..	..	..	..	..	..
Transport and storage	..	..	..	..	..	..	..	..	..
Post and telecommunications	386	389	408	414	455	496	449	565	674
Miscellaneous business activities; Technical testing and analysis	86	118	104	..	141	142	157	196	131
Computer and related activities	555	635	744	675	749	680	688	713	611
Research and development services	142	199	178	247	369	313	346	448	428
Public administration	18	16	10	14	10	6	8	11	12

Notes:

1 .. denotes disclosive figures.

2 Zero denotes a value less than 0.5

3 For 1992 Furniture; Wood and straw products was included with Pulp, paper and paper products; Printing and publishing.

4 See notes about revisions to past data.

Source: ONS

Table 12 Current and capital expenditure, and as a percentage, on R&D performed in the UK Businesses: detailed product groups, 2000

	Total	Capital Total	Current Total	Salaries and wages	Other current	Total	Capital Total	Current Total	Salaries and wages	Other current
	£m	£m	£m	£m	£m	%	%	%	%	%
Total	**11,510**	**1,179**	**10,331**	**4,625**	**5,706**	***100***	***10***	***90***	***40***	***50***
Agriculture, hunting and forestry; Fishing	135	23	111	65	46	*100*	*17*	*83*	*48*	*34*
Extractive Industries	46	2	44	25	19	*100*	*3*	*97*	*56*	*41*
Food products and beverages; Tobacco products	264	29	235	131	105	*100*	*11*	*89*	*49*	*40*
Textiles, clothing and leather products	29	5	25	18	6	*100*	*16*	*84*	*63*	*21*
Pulp, paper and paper products; Printing and publishing; Wood and straw products	38	1	37	11	26	*100*	*3*	*97*	*29*	*68*
Refined petroleum products and coke oven products; Processing of nuclear fuel	182	..	..	..	95	*100*	..	..	..	*52*
Chemicals, man-made fibres	682	75	607	300	307	*100*	*11*	*89*	*44*	*45*
Pharmaceuticals, medical chemicals and botanical products	2,846	532	2,314	938	1,376	*100*	*19*	*81*	*33*	*48*
Rubber and plastic products	54	11	44	22	21	*100*	*19*	*81*	*41*	*39*
Other non-metallic mineral products	..	..	..	..	..	*100*	..	..	..	..
Casting of iron and steel	..	..	..	..	..	*100*	..	..	..	..
Non-ferrous metals	21	2	20	10	10	*100*	*8*	*92*	*46*	*46*
Fabricated metal products	73	3	70	33	37	*100*	*4*	*96*	*45*	*51*
Machinery equipment	703	27	676	302	374	*100*	*4*	*96*	*43*	*53*
Office machinery and computers	113	11	102	41	61	*100*	*10*	*90*	*36*	*54*
Electrical machinery and apparatus	422	43	379	154	225	*100*	*10*	*90*	*37*	*53*
Radio, television and communication equipment	1,024	140	883	416	467	*100*	*14*	*86*	*41*	*46*
Precision instruments	480	16	465	230	235	*100*	*3*	*97*	*48*	*49*
Motor vehicles and parts	864	64	800	415	385	*100*	*7*	*93*	*48*	*45*
Other transport equipment	158	2	157	18	139	*100*	*1*	*99*	*11*	*88*
Shipbuilding and repairs	72	1	71	40	31	*100*	*2*	*98*	*55*	*43*
Aerospace	1,091	60	1,032	360	672	*100*	*5*	*95*	*33*	*62*
Furniture; Other manufactured goods	27	1	26	17	9	*100*	*4*	*96*	*62*	*34*
Recycling	1	0	1	0	0	*100*	*6*	*94*	*63*	*31*
Electricity, gas and water supply	160	7	153	72	80	*100*	*5*	*95*	*45*	*50*
Construction	34	2	32	20	12	*100*	*5*	*95*	*60*	*35*
Wholesale and retail trades	..	0	..	..	..	*100*	..	..	..	..
Transport and storage	..	-	..	..	..	*100*	..	..	..	..
Post and telecommunications	674	28	646	294	352	*100*	*4*	*96*	*44*	*52*
Miscellaneous business activities; Technical testing and analysis	131	7	124	68	56	*100*	*6*	*94*	*51*	*43*
Computer related activities	611	37	575	303	271	*100*	*6*	*94*	*50*	*44*
Research and development services	428	18	410	199	211	*100*	*4*	*96*	*47*	*49*
Public administration	12	5	6	1	5	*100*	*45*	*55*	*8*	*47*

Notes:
1 Zero denotes a value less than 0.5

Source: ONS

Table 13 Government and business enterprise personnel engaged on R&D in the UK, 1992–2000

Full time equivalents, thousands

	1992	1993	1994	1995	1996	1997	1998	1999	2000	% change in 2000 from 1999
PERSONNEL ENGAGED ON R&D										
- Business Enterprise	152	156	150	145	142	137	148	153	145	*-5*
- Research Councils	13	13	12	12	12	11	11	11	11	*-1*
- Government Departments[1]	25	22	20	17	16	15	18	18	18	*0*
Total Civil	**150**	**159**	**148**	**143**	**141**	**135**	**145**	**149**	**144**	***-3***
Total Defence	**40**	**32**	**35**	**31**	**29**	**28**	**32**	**33**	**31**	***-7***
RESEARCHERS										
- Business Enterprise	80	84	79	82	82	83	91	92	86	*-7*
- Research Councils	6	6	6	6	5	5	5	5	5	*-3*
- Government Departments[1]	9	8	8	8	8	7	9	10	10	*1*
Total Civil	**77**	**81**	**75**	**78**	**78**	**78**	**87**	**87**	**82**	***-6***
Total Defence	**18**	**17**	**18**	**17**	**17**	**17**	**19**	**20**	**19**	***-8***
TECHNICIANS										
- Business Enterprise	37	39	40	33	33	30	32	33	30	*-10*
- Research Councils	2	3	2	2	3	3	3	3	3	*-3*
- Government Departments[1]	4	4	4	4	3	3	4	4	4	*-2*
Total Civil	**35**	**40**	**38**	**33**	**33**	**29**	**32**	**32**	**30**	***-9***
Total Defence	**8**	**6**	**8**	**7**	**6**	**6**	**7**	**7**	**7**	***-8***
ADMIN & OTHER STAFF										
- Business Enterprise	35	33	31	29	27	24	24	28	30	*8*
- Research Councils	5	4	4	4	4	3	3	3	3	*3*
- Government Departments[1]	11	9	8	5	5	4	5	5	5	*-1*
Total Civil	**37**	**36**	**34**	**33**	**29**	**27**	**27**	**30**	**35**	***16***
Total Defence	**14**	**10**	**9**	**7**	**6**	**5**	**6**	**6**	**3**	***-45***

Note:
1 Excludes NHS employment, as these figures were not available.

Source: ONS

Table 14 Estimated GOR breakdown of expenditure on Intramural R&D in the Business, Government and Higher Education sectors, 2000[1]

	R&D performed within business (BERD)	R&D performed Government Establishments (GOVERD)[2]	R&D perfomed within Higher Education Institutions (HERD)
United Kingdom	**11,510**	**2,134**	**3,633**
North East	164	2	122
North West and Merseyside	1,451	57	287
Yorkshire and the Humber	304	48	284
East Midlands	933	56	204
West Midlands	576	194	192
Eastern	2,758	259	324
London	810	258	895
South East	2,964	635	515
South West	867	307	160
England	**10,827**	**1,816**	**2,984**
Wales	144	65	139
Scotland	400	238	440
Northern Ireland	139	15	70

Note: *Source: ONS*

1 Regional GDP figures are not available at time of publication and therefore it is not possible to show R&D expenditure as a percentage of regional GDP.
2 Figures include estimates for those areas of Central Government not available from the Government Survey and local authorities.

Table 15 Estimated regional breakdown of personnel engaged on R&D in the Business and Government sectors, 2000[1]

	R&D performed within business		R&D performed within Government establishments[2]	
	Full time equivalents 000's	% of the regional Labour Force[3,4]	Full time equivalents 000's	% of the regional Labour Force[3,4]
United Kingdom	**145.5**	***0.49***	**29.7**	***0.10***
North East	2.7	*0.23*	0.0	*0.00*
North West and Merseyside	17.2	*0.52*	0.8	*0.02*
Yorkshire and the Humber	6.1	*0.25*	0.7	*0.03*
East Midlands	13.7	*0.65*	0.8	*0.04*
West Midlands	10.5	*0.40*	2.7	*0.10*
Eastern	30.0	*1.05*	3.6	*0.13*
London	9.9	*0.27*	3.6	*0.10*
South East	32.7	*0.77*	8.8	*0.21*
South West	12.0	*0.48*	4.3	*0.17*
England	**134.9**	***0.54***	**25.2**	***0.10***
Wales	2.3	*0.17*	0.9	*0.07*
Scotland	6.0	*0.24*	3.3	*0.13*
Northern Ireland	2.3	*0.30*	0.2	*0.03*

Notes: *Source: ONS*

1 Regional breakdown is based on the GOR (Government Office Region) classification.
2 Government sector covers Central Government only. Local Authorities, NHS and those areas of Central Government not available from the Government survey are excluded
3 Labour Force figure used is a head count. An estimate of the Labour Force in full-time equivalents(FTE) is not available. Using the head count figure gives a lower percentage than a FTE would give.
Labour Force figures relate to those in employment, rather than all those economically active.
4 Labour Force figures are for Spring 2001.

Table 16 OECD Science and Technology indicators
Gross Expenditure on R&D: International Comparisons, 1992–2000

	Year	UK	Germany[1]	France[2]	Italy[3]	Japan[4]	Canada	USA[5]
Gross Domestic Product (GDP)[6] (£ billion at ppp)[7]	1992	615.4	940.5	683.7	640.7	1,576.1	332.1	3,855.9
	1993	653.6	980.6	700.7	649.6	1,682.4	362.3	4,195.6
	1994	690.6	1,058.9	731.0	696.1	1,757.6	392.6	4,513.0
	1995	729.0	1,142.9	784.7	753.9	1,915.2	442.6	4,798.7
	1996	772.9	1,139.2	779.2	773.9	1,986.3	448.9	4,991.9
	1997	824.4	1,186.3	794.4	786.7	2,015.4	466.7	5,197.9
	1998	868.8	1,256.6	854.5	860.7	2,000.6	488.8	5,635.6
	1999	914.7	1,313.7	902.7	898.2	2,054.8	524.5	5,989.0
	2000	956.3	1,376.7	946.9	939.1	2,132.7	557.4	6,348.0
Gross Expenditure on R&D (GERD) (£ billion at ppp)[7]	1992	12.4	22.6 (e)	16.3	7.6	42.5 (e)	5.5	102.1
	1993	13.2	23.1	16.8	7.3	44.0 (e)	6.2	105.9
	1994	13.7	23.9 (e)	17.1	7.3	45.1 (e)	6.9	109.5
	1995	14.0	25.8 (e)	18.1	7.5	51.4 (e)	7.6	120.4
	1996	14.3	25.7 (e)	17.9	7.8	..	7.6	127.4
	1997	14.7	27.2	17.6	8.3	..	7.9	134.1
	1998	15.5	29.1 (e)	18.5	9.2	..	8.7	146.9
	1999	16.9	32.1	19.7	9.3	..	9.4	159.2
	2000	17.5	34.2 (e)	20.3 (p)	..	..	10.2 (p)	171.7 (p)
GERD as a percentage of GDP	1992	*2.01*	*2.41 (e)*	*2.38*	*1.18*	*2.70 (e)*	*1.65*	*2.65*
	1993	*2.02*	*2.35*	*2.40*	*1.13*	*2.62 (e)*	*1.70*	*2.52*
	1994	*1.98*	*2.26 (e)*	*2.34*	*1.05*	*2.57 (e)*	*1.76*	*2.43*
	1995	*1.93*	*2.26 (e)*	*2.31*	*1.00*	*2.69 (e)*	*1.73*	*2.51*
	1996	*1.85*	*2.26 (e)*	*2.30*	*1.01*	..	*1.69*	*2.55*
	1997	*1.78*	*2.29*	*2.22*	*1.05*	..	*1.70*	*2.58*
	1998	*1.78*	*2.31 (e)*	*2.17*	*1.07*	..	*1.79*	*2.61*
	1999	*1.85*	*2.44*	*2.19*	*1.04*	..	*1.80*	*2.66*
	2000	*1.83*	*2.48 (e)*	..	..	..	*1.84 (p)*	*2.70 (p)*
BERD as a percentage of GDP	1992	*1.33*	*1.66 (e)*	*1.49*	*0.66*	*1.99*	*0.83*	*1.90*
	1993	*1.33*	*1.58*	*1.48*	*0.60*	*1.86*	*0.89*	*1.78*
	1994	*1.28*	*1.51 (e)*	*1.45*	*0.56*	*1.83*	*0.99*	*1.71*
	1995	*1.25*	*1.50*	*1.41*	*0.53*	*1.89*	*1.00*	*1.80*
	1996	*1.20*	*1.49 (e)*	*1.41*	*0.54*	..	*0.97*	*1.87*
	1997	*1.16*	*1.54*	*1.39*	*0.52*	..	*1.01*	*1.91*
	1998	*1.17*	*1.57 (e)*	*1.35*	*0.52*	..	*1.07*	*1.94*
	1999	*1.24*	*1.70*	*1.38*	*0.51*	..	*1.02*	*1.99*
	2000	*1.20*	*1.76 (e)*	*1.37 (p)*	*0.51 (p)*	..	*1.04 (p)*	*2.04 (p)*
GOVERD as a percentage of GDP	1992	*0.30*	*0.34*	*0.50*	*0.26*	*0.24*	*0.29*	*0.26*
	1993	*0.30*	*0.36*	*0.51*	*0.24*	*0.26*	*0.28*	*0.26*
	1994	*0.30*	*0.34*	*0.48*	*0.22*	*0.25*	*0.26*	*0.24*
	1995	*0.28*	*0.35*	*0.48*	*0.21*	*0.28*	*0.25*	*0.24*
	1996	*0.27*	*0.34*	*0.47*	*0.20*	..	*0.25*	*0.22*
	1997	*0.24*	*0.34*	*0.41*	*0.20*	..	*0.22*	*0.21*
	1998	*0.24*	*0.34*	*0.40*	*0.22*	..	*0.22*	*0.20*
	1999	*0.23*	*0.34*	*0.40*	*0.20*	..	*0.22*	*0.21*
	2000	*0.22*	*0.33 (e)*	*0.38 (p)*	*0.21 (p)*	..	*0.21 (p)*	*0.20 (p)*
HERD as a percentage of GDP	1992	*0.35*	*0.41 (e)*	*0.36*	*0.26*	*0.35 (e)*	*0.51*	*0.39*
	1993	*0.35*	*0.41*	*0.38*	*0.28*	*0.37 (e)*	*0.51*	*0.39*
	1994	*0.38*	*0.41*	*0.38*	*0.27*	*0.36 (e)*	*0.48*	*0.38*
	1995	*0.37*	*0.41*	*0.39*	*0.25*	*0.39 (e)*	*0.46*	*0.38*
	1996	*0.36*	*0.42*	*0.39*	*0.27*	..	*0.45*	*0.38*
	1997	*0.35*	*0.41*	*0.39*	*0.32*	..	*0.45*	*0.37*
	1998	*0.35*	*0.40*	*0.38*	*0.34*	..	*0.48*	*0.37*
	1999	*0.36*	*0.40*	*0.38*	*0.33*	..	*0.54*	*0.37*
	2000	*0.38*	*0.40 (e)*	*0.36 (p)*	..	..	*0.57 (p)*	*0.37 (p)*

Source: OECD databank (May 2002)

Notes:

1 There are breaks in the GERD series between 1991 and 1992.

2 There are breaks in series for all data between 1996 and 1997.

3 There are breaks in series for GERD and HERD between 1996 and 1997.

4 Data for Japan are adjusted by OECD.

5 Excludes most or all capital expenditure.

6 The measure of GDP used is at market prices.

7 Amounts are converted to £ sterling using the purchasing power parities (ppp) developed by the OECD.

p = provisional.

e = estimate.

Table 17 International comparison of gross expenditure on R&D by sector of performance and source of funding, 2000

Per cent

	UK	Germany[1]	France (p)[2]	Italy (p)[3]	Japan (e)[4]	Canada (p)	USA (p)[5]
Percentage by sector of performance							
Government	12.2	13.3	17.8	19.2	10.4	11.3	7.5
Business enterprise	65.6	70.8	64.0	49.3	70.3	56.8	75.3
Higher education	20.7	16.0	16.7	31.5	14.5	31.0	13.6
Other	1.4	-	1.5	-	4.8	1.0	3.6
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Percentage by source of funds							
Government	28.9	31.4	36.9	50.8	20.9	31.8	27.3
Business enterprise	49.3	66.1	54.1	43.0	72.3	42.6	68.2
Abroad	16.3	2.1	7.0	6.2	0.1	15.8	-
Other[6]	5.5	0.4	1.9	-	6.7	9.9	4.4
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Notes:

1 Data for "other" included elsewhere.
2 Source of funds data for France are for 1999.
3 For Italy, sector of performance data are for 1999 and source of funds data are for 1996.
4 Data for Japan are OECD estimates and are for 1995.
5 Excludes most or all capital expenditure.
6 For UK data, "Other" consists of Higher Education & Private Non-Profit expenditure. For the remaining countries, "Other" represents other national sources.
(p) = provisional (e) = estimate

Source: OECD databank (May 2002)

Table 18 R&D performed in the Business Enterprise sector (BERD), 1992–2000

£ billion at ppp[1]

Year	UK	Germany	France[2]	Italy	Japan[3]	Canada	USA[4]
1992	8.2	15.6 (e)	10.2	4.2	31.3	2.8	73.3
1993	8.7	15.5	10.4	3.9	31.3	3.2	74.8
1994	8.8	16.0 (e)	10.6	3.9	32.1	3.9	77.2
1995	9.1	17.1	11.1	4.0	36.2	4.4	86.4
1996	9.3	17.0 (e)	11.0	4.2	..	4.4	93.2
1997	9.6	18.3	11.0	4.1	..	4.7	99.2
1998	10.1	19.8 (e)	11.5	4.4	..	5.2	109.3
1999	11.3	22.4	12.5	4.6	..	5.4	118.9
2000	11.5	24.2 (e)	13.0 (p)	4.8 (p)	..	5.8 (p)	129.3 (p)

Notes:

1 Amounts are converted to £ sterling using the purchasing power parities (ppp) developed by the OECD.
2 There is a break in series between 1996 and 1997.
3 Data for Japan are adjusted by OECD.
4 Excludes most or all capital expenditure.
p = provisional e = estimate

Source: OECD databank (May 2002)

Table 19 International comparison of Government funding of R&D in 2000 by socio-economic objective (percentage distribution)[1]

Per cent

	UK	Germany (p)	France (p)	Italy	Japan[2]	Canada (p)	USA (p)[3]
Agriculture, forestry and fishing	4.1	2.5	2.5	2.2	3.5	10.8	2.2
Industrial development	1.7	12.3	6.4	13.8	6.8	10.0	0.5
Energy	0.5	3.5	5.1	4.0	18.1	4.5	1.3
Infrastructure	1.2	1.6	0.7	0.2	3.7	3.4	2.1
Environmental protection	2.3	3.4	1.8	2.3	0.8	3.9	0.7
Health	14.5	3.4	5.6	6.7	3.9	9.2	23.5
Social development and services	4.1	3.6	0.7	3.2	0.9	2.6	0.9
Earth and atmosphere	1.3	1.8	0.6	1.4	1.7	5.3	1.4
Advancement of knowledge	31.5	55.1	40.4	57.8	49.4	37.0	6.3
Civil space	2.2	4.5	11.0	7.7	5.6	6.6	6.8
Defence	36.3	8.0	22.6	0.8	4.1	5.4	54.1
Not elsewhere classified	0.3	0.1	2.6	-	1.5	1.2	-
%	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total £ million[4]	**6,563**	**11,084**	**8,825**	**6,174**	**13,640**	**2,914**	**50,902**

Notes:

1 Data for Canada are for 1999.
2 Data for Japan are OECD estimates.
3 Excludes most or all capital expenditure.
4 Amounts are converted to £ sterling using the purchasing power parities (ppp) developed by the OECD.
(p) = provisional

Source: OECD databank (May 2002)

How much information is in the UK Preliminary Estimate of GDP?

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Overview

This article describes the information content of the preliminary estimate of GDP. It shows the proportions covered by industry information as opposed to being covered by estimates. The proportion of information content is also shown for output indicators and deflators. The results are based on the October 2001 preliminary estimate of GDP - a typical preliminary round.

Introduction

- The information content of the preliminary estimate of GDP is 45% by value-added weight. For the service industries 35% is based on information.

- Considering output indicator information alone (that is, excluding consideration of deflators) the proportion of GDP covered by indicator information is 53%. For the private sector 65% of this preliminary estimate is based on indicator information.

- Government activity and deflators are the components where the least information is available and are also those where short-term changes are relatively smooth.

- The use of secondary sources in advance of receipt of results from the formal source can be further developed.

- The Index of Services development programme has led to an increase in the amount of information available for the preliminary estimate of GDP. For private sector industries this will rise further as the programme continues.

Background

The UK Preliminary estimate of GDP is published three and a half weeks after the end of the quarter to which it relates. It is based almost entirely on output sources (Reed, 2000) - and on the output approach to estimating GDP, abbreviated to GDP(O). The expenditure and income approaches to measuring GDP have little information at the preliminary estimate stage.

An explanatory note included in each ONS First Release of the preliminary estimate of quarterly GDP says:

'This preliminary estimate for gross domestic product is based on the estimate of the index of output of the production industries for the first two months of the quarter, as published on (date) and the retail sales estimates for the three months (to the end of this quarter), as published on (date), together with limited information on the output of the rest of the economy. At this stage, estimates for the latest quarter for most individual industry series are not sufficiently reliable for publication.'

This background note has been included for some years. As data sources and quality have improved the information on the output of the rest of the economy has become less 'limited' and this improvement - largely in services - will continue in future.

Scope of the analysis

The analytical work that gives rise to the results in this paper was part of an ONS economic research project undertaken into the sources of revision in the estimates of GDP growth. The revisions analysis has been published separately in July 2002 Economic Trends.

Each indicator series in GDP(O) is used to estimate the short term change in the output for a particular industrial category in the economy. Each category is classified according to the SIC92 industrial classification and is assigned a 'weight' in proportion to its gross value-added (GVA) share in the economy. The GVA estimates themselves are produced using the UK current price input-output breakdown for the base year - currently 1995. The industrial breakdown in the input-output tables is itself based

on the results of the Annual Business Inquiry. More on the conceptual basis of the output estimate of GDP is given in the box below.

Output indicator and deflator information is received from the owners of the series that are used as indicators and deflators - those who routinely supply the series updates. For the preliminary estimate of 2001 Q3, as published in October 2001, the data for the latest quarter has been classified into whether it is based on:

- the **primary** information source used for that industry
- **secondary** information sources for that industry;
- an **'owner' estimate** - one produced by the owners of the indicator or deflator series - who are relatively close to their data;
- an '**internal' estimate** - one produced by the ONS branch that produces GDP(O).

The estimates are used to fill gaps for missing components so that an overall GDP(O) estimate can be produced. The owners of the series have familiarity and knowledge of their sources and series, so their estimates should be of higher quality than 'internal' estimates.

The proportions of primary and secondary indicator data, and of 'owner' and 'internal' estimates, are calculated by aggregating the component GVA weights for each indicator used in the preliminary estimate. This gives the proportions of GVA covered by information as opposed to estimates.

The results reflect the use of monthly ONS turnover surveys that have replaced quarterly ones. This owes much to the development of a monthly Index of Services (Pike and Reed, 2000).

Data Sources for the October 2001 Round

The complete set of individual indicator and deflator series used in GDP(O) is listed in 'GSS Methodology Series #15' (ONS, 1999). The main sources of indicator data received for the preliminary estimate are ONS monthly turnover inquiries and VAT aggregates. Since April 2000 many of the short-term services turnover inquiries used for the services industries have been converted from quarterly to monthly periodicity. This has helped raise the proportion of data available to the preliminary estimate (two months of relatively firm data plus early returns for the third month,

Conceptual Basis of the Output Approach to GDP.

The output estimate of GDP is defined as the sum of the value-added of all the economic activities that produce goods and services. The value added by an economic activity is defined as the total output (usually sales or turnover) of the activity less the inputs of other economic activities required to produce this output. An adjustment is made for changes in inventories - to move the results from a 'sales' to an 'output' basis for production industries where inventories are significant.

The output approach is used to provide an estimate of short-term change in economic net output or value-added at constant basic prices. It achieves this by aggregating - using economic 'value-added' weights - the indicators of growth in real terms for individual industries.

The industry indicators generally do not measure the short-term change in constant-price value-added directly. They are 'proxy' indicators for that change and are considered to serve as an adequate estimator of the change in value-added of an industry component in the short term. The preferred short-term proxy indicator is deflated turnover, although volume and other indicators are used where they are considered adequate or necessary.

All current-price indicator series are deflated to constant-price volume terms, to provide a series that gives a real indicator of change in GVA at constant-prices for that industry component. Then each series is converted to a fixed base Laspeyres volume index series with a base year currently of 1995.

The value-added (GVA) weight of each industry for 1995 is used to aggregate each indexed series with other indexed volume series to produce an overall indexed series. The base-year value-added weights are taken from annual Current Price Supply and Use Tables (ONS, 2001a) produced by the ONS, supplemented by more detail where necessary. The result of the aggregation gives an estimate of the constant-price change in value-added in the economy - the short-term change in GDP.

The range of output indicators and deflators now used can be found in the 'GSS Methodology Series' publication #15: 'Gross Domestic Product: Output Approach (Gross Value Added)' edited by Peter Sharp (ONS, 1999). This also gives the value-added weights used to aggregate the individual component series when they have been indexed. A previous edition of this publication - GSS Methodology Series #5 - contains extra information on the output approach methodology (ONS, 1998).

Price bases of the GDP output, expenditure and income estimates.
The introduction of the ESA95 in 1998 changed the price basis for calculating constant price GDP estimates to constant market prices and the expenditure and income approaches to GDP are now calculated directly on this basis. However under the ESA95 the output breakdown of GDP (GDPO) is calculated at constant basic prices. No significant difference is assumed as a result of this in calculating the preliminary estimate of GDP change through GDP(O).

as opposed to early returns for the quarter). This is part of an ongoing process that owes much to the ONS decision to develop an experimental monthly Index of Services. Collection and methodological improvements will continue to be made as part of this long-term project.

GDP(O) uses a variety of deflators. In the manufacturing industries monthly turnover indicators are deflated by a range of monthly producer price indices (PPIs) and export price indices (EPIs). The PPIs are as up to date as the manufacturing turnover series; EPIs are slightly less timely. In the service industries the wide variety of deflators includes four main sources: the RPI (retail price index) and its components, average earnings estimates, Corporate Service Price Indices (CSPIs) and Household Final Consumption (HHFC) series. Most but not all RPI components were available for use in the October 2001 preliminary round. Other deflators, including average earnings series, CSPIs and HHFC series, are generally of quarterly rather than monthly periodicity and are not available for the preliminary round.

To obtain the raw material for this analysis, individual series owners were asked about the information content of each of their series supplied to the October 2001 preliminary estimate. The answers for the individual series were classified into one of the four information categories (primary and secondary indicator, owner and internal estimates) and the individual results were aggregated using the industry GVA weight for each series. The GVA weights used are the latest - post BB 2001 - parts per-thousand (ppt) of total gross value-added (GVA) weights. The breakdown follows 'GSS Methodology Series #15' (ONS, 1999). The tables and charts show by SIC92 industry section the amount of the total GVA weight that falls into each of the four information categories.

Detailed enquiry responses and supply sources are listed in a supplementary analysis[1] with GVA-weighted summaries, including separate identification of indicators and deflators. This supplementary detail has been placed on the ONS web-site[1] for those interested in more of the industry and information detail underpinning these analyses.

Summarising the results

Many of the indicator series used by GDP(O) are turnover series and require deflation. Others do not. Indicators that require no deflation - because they are quantities or volumes of something non-financial (tonne-kilometres, numbers of letters, etc) - are referred to here as 'volume' indicators. Each indicator series is used to estimate the short-term change for a particular part of total GVA. The results are then aggregated using the GVA weights for individual volume and turnover indicators, to give estimates of the coverage of this GDP estimate according to each of the four information categories (primary and secondary indicator, owner and internal estimates).

The total of the GVA values for individual series is the complete UK GVA. Because the GVA weights for individual series are expressed as parts per thousand of total GVA in this analysis the GVA total itself is simply 1000 - as shown in the tables. In order to allow individual indicator results to aggregate to this total an additional assumption is necessary where the output indicator is a turnover series, because each turnover series needs to be deflated. Consequently only part of the information about short-term change in GDP for an industry component that uses a turnover indicator comes from its turnover series. The remainder comes from the change in the deflator series used to deflate it. The contributions of both the turnover series and the deflator have to be taken into account in any aggregation of the information content of the industry component.

Obviously the GVA weight for each industry component can only be allocated once or there would be double counting which would result in an overall GVA greater than UK GVA. To avoid double counting it is necessary to split the GVA weight between the turnover series and its deflator for industry components where the short-term change is estimated by turnover series. In this analysis the indicator series is assigned half the industry GVA weight and the deflator the other half: the implied assumption being that each is equally important to the final result. So if one - say the deflator - is information-based and the other - say the indicator - is estimated, then for the purposes of aggregation half the GVA weight is assigned to each of two information categories.

This equal weighting of indicator and deflator may over-emphasise the importance of deflator series in identifying short-term variance by comparison with the indicator series. Deflator series tend to be smoother and so their absence is less significant to the quality of the GDP estimate of short-term change.

The results of these aggregations are presented in tables 1 and 2. The

[1] See www.statistics.gov.uk/themes/economy/articles/shorttermindicators/

Table 1: Information coverage by industry and category - in parts per thousand of GVA weight.

Industry	Total Weight	Primary Source	Secondary Source	Series Owner Estimate	Internal Estimate
Agriculture	18.3	8.6	nil	8.6	1.1
Index of Production	268.4	194.3	nil	74.2	nil
Construction	51.6	nil	16.8	34.8	nil
Distribution	116.6	111.1	nil	5.5	nil
Hotels/ restaurants etc.	28.5	9.7	nil	14.3	4.5
Transport / Comm'n	80.2	35.5	10.0	8.7	26.0
Finance / Bus. Serv's	212.2	50.2	nil	91.0	71.1
(Of which: Finance/ FSA):	*(26.4)*	*(-0.9)*	*nil*	*(16.0)*	*(11.2)*
(Business Services):	*(186.0)*	*(52.6)*	*nil*	*(75.0)*	*(59.9)*
Government and other.	224.0	14.75	nil	169.6	39.55
TOTALS	1000.0	424.15	26.8	406.7	142.25

Table 2: Information coverage by category: percentages of GVA weight by industry.

Industry	Primary Source	Secondary Source	Series Owner Estimate	Internal Estimate
Agriculture	47%	nil	47%	6%
Index of Industrial Production	72%	nil	28%	nil
Construction	nil	33%	67%	nil
Distribution	95%	nil	5%	nil
Hotels / restaurants etc.	34%	nil	50%	16%
Transport and Communication	44%	12%	11%	33%
Finance and Business Services.	24%	nil	43%	33%
Government and other.	7%	nil	76%	17%
TOTALS	42%	3%	41%	14%

Table 3: Indicator coverage by industry and category - in parts per thousand of GVA weight:

Industry	Total Weight	Primary Source	Secondary Source	Series Owner Estimate	Internal Estimate
Agriculture	18.3	8.6	nil	8.6	1.1
Index of Production	268.4	195	nil	73.3	Nil
Construction	51.6	nil	16.7	34.8	Nil
Distribution	116.6	111.1	nil	5.5	Nil
Hotels/ restaurants etc.	28.5	19.4	nil	0.1	9.0
Transport / Comm'n	80.2	49.2	10.0	1.7	18.4
Finance / Bus. Serv's	212.2	95.8	nil	89.5	27.2
(Of which: Finance/ FSA):	*(26.4)*	*(-0.8)*	*nil*	*(16.0)*	*(11.2)*
(Business Services):	*(186.0)*	*(96.6)*	*nil*	*(73.5)*	*(16.0)*
Government and other.	224.0	23.0	nil	164.8	36.2
TOTALS	1000.0	502.1	26.7	378.3	93.9
As Percentages:	100%	50%	3%	38%	9%

Table 4: Deflator coverage by industry and category - in parts per thousand of GVA weight:

Industry	Total Weight	Undeflated Indicator	Information Source	Series Owner Estimate	Internal Estimate
Agriculture	18.3	18.3	nil	nil	nil
Index of Production	268.4	64.1	125.4	79.1	nil
Construction	51.6	1.4	16.7	33.4	nil
Distribution	116.6	20.9	90.2	5.5	nil
Hotels/ restaurants etc.	28.5	nil	nil	28.5	nil
Transport / Comm'n	80.2	22.3	11.7	15.6	30.5
Finance / Bus. Serv's	212.2	13.4	3.5	91.0	104.6
(Of which: Finance/ FSA):	*(26.4)*	*(5.7)*	*(-0.2)*	(16.0)	*(4.9)*
(Business Services):	*(186.0)*	*(7.7)*	*(3.7)*	(75.0)	*(99.7)*
Government and other.	224.0	166.1	3.2	43.4	11.2
TOTALS	1000.0	306.5	250.7	296.5	146.3
As Percentages:	100%	30%	25%	30%	15%

extent of coverage by indicator or deflator information separately is shown in tables 3 and 4. Allocating half of the GVA weight to the indicator and half to the deflator for turnover series in tables 1 and 2 gives rise to a presentational difference between the two pairs of tables. In tables 3 and 4 the GVA weight is not split between turnover indicators and deflators. For instance, table 3 shows the coverage by indicators alone in the preliminary estimate and here we allocate all of the component GVA weight to the appropriate indicator information category (otherwise the components would not add to total GVA). Likewise table 4 for deflators. So figures in the overall tables (tables 1and 2) are not simply averages of the figures in tables 3 and 4. Table 4 also shows the significant extent to which volume indicators - requiring no deflation - are used in some industries.

Comparisons of the proportion of information content for government activities and for private sector activities are of interest. These have been made by comparing coverage for the 'government and other' category in the tables with the aggregate of all the other industry categories. The 'government and other' category includes all significant public sector activities and consists of 70 per cent public sector and 30 per cent private sector activity (by GVA weight). The remaining industry categories in the tables are almost entirely private sector. This comparison gives simple estimates for the public and private sectors.

Previous estimate of data content

A breakdown of the amount of data in the preliminary estimate was published in Economic Trends in March 2000 (Reed, 2000). This was based on assumptions about the proportions of data and estimates in each series in the preliminary estimate. It was not derived from enquiries of owners of series, nor was it as clearly defined as the present analysis: it included adjustments for the proportions of samples received. Recent improvements to GDP(O) also make it out of date. Consequently no direct comparison should be made with the earlier estimates. However some industry differences are marked.

The tables

The results presented in tables 1 to 4 are based on the information position for the October 2001 preliminary GDP round (ONS, 2001b) and on answers to inquiries made to series owners. In the tables the percentages have been rounded to sum to 100% but GVA weights in parts per thousand may not add exactly to 1000 due to rounding. Table 1 and 2 contain the summary results, giving equal weight to indicator and deflator information. Table 1 gives the overall proportions of coverage by GVA weight in parts-per-thousand of total UK GVA. Table 2 presents these results as percentages by industry.

Tables 3 and 4 give results for indicators and deflators separately. This makes clear the differences between the coverage of indicator and deflator information. It also avoids the need to allocate half the GVA weight to the indicator and half to the deflator. An indicator series always exists but not necessarily a deflator so the layouts of tables 3 and 4 tables are different. The extent of volume indicator series is identified in table 4, which also shows that no deflators are based on 'secondary' sources.

General Results

- Overall something less than half (45 % by GVA weight) of the preliminary estimate of GDP change for October 2001 is based on information. For indicator information alone the coverage is 53% of total GVA.
- The extent of internal estimation - series where no information or estimate is supplied by a series owner for the latest period - is shown and is limited to 14% of total GVA.
- Tables 3 and 4 show the extent to which indicators tend to have more information coverage than deflators. This arises partly because the monthly turnover inquiries give early results for the latest quarter whereas many deflator sources are quarterly or are less timely for other reasons.
- As figure 1 shows 70% of the GDP estimate is covered by indicators that require deflation; of this, 25% was covered by deflator information and the remaining 45% by estimates.
- Secondary sources are little used when primary indicators are unavailable (3%) and not at all for deflators. Some of the recent improvements to GDP(O) estimation for government activities result in components that are conceptually stronger but slower to arrive. Earlier, though less strong, secondary indicators would be preferable to using estimates; these could be benchmarked to conceptually better indicators when they arrive.

Figure 1:
Deflator coverage by category
percentages

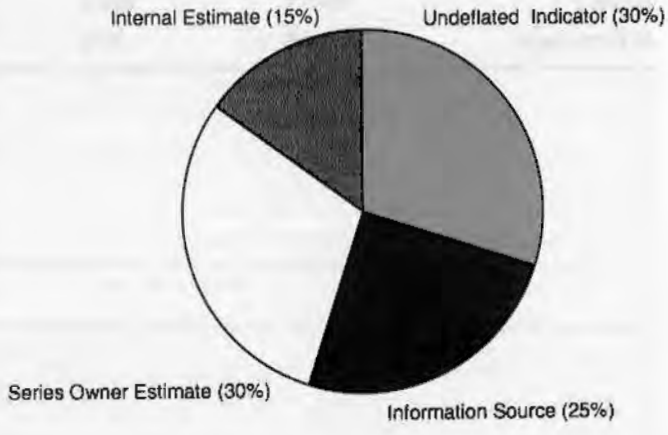


Figure 2:
Information Content by industry
percentage

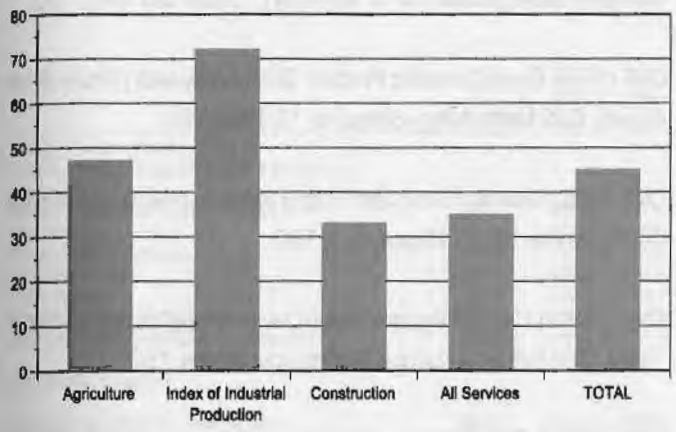
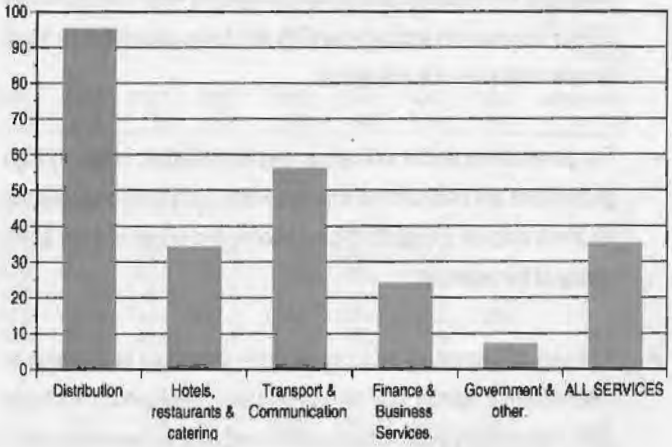


Figure 3:
Information Content of Services Industries
percentage



Industry Comparisons

Figure 2 gives an industry overview of the information coverage in the preliminary estimate and figure 3 gives more detail on the service industries. They show considerable industry variation:

- the IoP and 'Distribution' industries are well covered by information.
- The high proportion of 'Transport and Communication' covered by information is due to the use of monthly turnover inquiries as a widespread indicator source, supplemented for October 2001 by some secondary sources.
- The relatively small proportion of information coverage for 'Finance and Business' Services is a result of two factors: a general lack of deflators and a lack of indicator information for 'Finance' services.
- The small proportion of information in 'Hotels etc' results mainly from a complete lack of deflators.

Figure 4 shows the distribution of volume indicators by industry:

- 'Government and other' has by far the greatest coverage of GVA by volume indicators, while 'hotels/ restaurants etc' uses none at all.

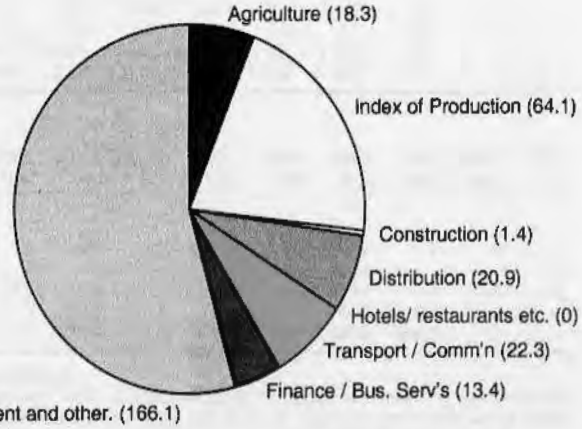
Public and private sector comparisons

The proportion of 'government activity' covered by (indicator and deflator) supplier information is 7%. For indicator information alone the proportion is 10%. Most of the information coverage for 'government activity' comes from the relatively small private sector component of the 'government and other' category.

For industry categories relating to the private sector the proportion of information from suppliers is generally much higher than for the 'government and other' category. Information from suppliers (both primary and secondary) represents 56% by GVA weight of private sector activities. The exclusion of secondary data sources would reduce this by 3%.

Considering indicator information alone the proportion of information content is generally over 50% of GVA for private sector services. 'Finance and business services' activity is an exception (just below 50%) due to a lack of early indicator data for 'finance services': the 'business services' part has over 50% information coverage. For private sector activities in total 65% of the GVA weight was covered by indicator information.

Figure 4:
Use of volume indicators by industry
parts per thousand of UK GVA



Concluding comments

- The information content of this preliminary estimate in terms of coverage, for indicators and deflators together, was 45% of UK total GVA. For indicators alone it was 53% and it was above that for most private sector service industries.

- For government sector indicators, and for deflators, relatively high proportions are based on estimation. Here short-term changes are relatively smooth and so the lack of information is less of a risk to the quality of the estimate.

- The use of secondary sources as early indicators in advance of results from a 'formal' source can be more developed. In October 2001, 'secondary information' contributed only to the construction and air transport industries.

- Information coverage by industry varies considerably. For construction, 'hotels etc' and 'finance and business services' it is low - around a third; for government it is very low - below 10%; for distribution it is very high.

- For private sector industries overall, the coverage of data for the preliminary estimate of GDP is 56%. It can be expected to rise as more collection and methodological improvements are implemented. The changes suggested in the STOIR review (ONS, 2000) and the project to introduce a monthly Index of Services (Pike and Reed 2000) are the most significant of these.

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