

Economic Trends

**Managing Editor: Adèle Rowe
Editor: Paul Dickman**

Contents

	Page
Introduction, symbols and definitions used	iv
Articles previously published in <i>Economic Trends</i>	v
UK macro-economic statistics publications	vi
Articles	
In brief	1
Economic update	3
Forecast for the UK economy	8
International economic indicators	9
Final expenditure prices index (experimental)	21
Index of services (experimental)	27
Corporate services price index (experimental)	33
Measuring e-commerce - the ONS approach	41
Harmonised index of consumer prices: methodological improvements from January 2001	44
Revisions analysis of initial estimates of annual constant price GDP and its components	48
Regional accounts 1999: part 1 - regional gross domestic product	67
Developments in local area gross domestic product	82
Tables	
1. Summary	
1.1 Selected monthly indicators	T1
2. UK Economic Accounts	
2.1 National accounts aggregates	T2
2.2 Gross domestic product: by category of expenditure	T4
2.3 Gross domestic product and shares of income and expenditure	T6
2.4 Income, product and spending per head	T6
2.5 Households' disposable income and consumption	T8
2.6 Households' final consumption expenditure at constant 1995 prices	T8
2.7 Gross fixed capital formation	T10
2.8 Gross value added at constant 1995 basic prices by category of output	T12
2.9 Index numbers of gross value added at basic prices: service industries	T14
2.10 Summary capital accounts and net lending/net borrowing	T16
2.11 Private non-financial corporations: allocation of primary income account	T18
2.12 Private non-financial corporations: secondary distribution of income account and capital account	T20
2.13 Balance of payments: current account	T22
2.14 Trade in goods (on a balance of payments basis)	T24
2.15 Measures of UK competitiveness in trade in manufactures	T26
3. Prices	
3.1 Prices	T28
4. Labour market	
4.1 Labour market activity: seasonally adjusted	T30
4.2 Labour market activity: not seasonally adjusted	T32
4.3 Labour market activity by age: seasonally adjusted	T36
4.4 Jobs and claimant count	T38
4.5 Regional claimant count	T40
4.5A International Labour Organisation unemployment rates	T42
4.6 Average earnings	T44
4.7 Productivity and unit wage costs	T46
5. Selected output and demand indicators	
5.1 Output of production industries	T48
5.2 Engineering and Construction: output and orders	T50
5.3 Motor vehicle production and steel production and consumption	T52
5.4 Indicators of fixed investment in dwellings	T54
5.5 Number of property transactions	T56
5.6 Change in inventories at constant 1995 prices	T58
5.7 Inventory ratios	T58
5.8 Retail sales, new registrations of cars and credit business (Great Britain)	T60
5.9 Inland energy consumption	T62
6. Selected financial statistics	
6.1 Sterling exchange rates and UK official reserves	T64
6.2 Monetary aggregates	T66
6.3 Counterparts to changes in money stock M4	T68
6.4 General government receipts and expenditure	T70
6.5 Public sector key financial indicators	T70
6.6 Consumer credit and other personal sector borrowing	T72
6.7 Analysis of bank lending to UK residents amounts outstanding	T74
6.8 Interest rates, security prices and yields	T76
6.9 A selection of asset prices	T78

In Brief

Articles

This month we feature five articles.

Magdalen Williams of ONS introduces the ONS approach to the measurement of e-commerce. The ONS has formulated a strategy for identifying gaps in e-commerce statistics and for filling them. This has led to four sub-projects which are outlined: a standalone survey of businesses, an exercise to match subscriber data from internet service providers against the inter-departmental business register (IDBR) in order to give a profile of business users of the internet, a survey of Internet Service Providers to construct an 'index of business connectivity', and the implementation of changes to existing surveys to measure the extent of the use of e-commerce.

Jim O'Donoghue of ONS outlines the three methodological improvements in the Harmonised Index of Consumer Prices (HICP) which came into effect from January 2001. The first two are the implementation of EC regulations (i) the treatment of price reductions in the HICP and (ii) the timing of entering purchase prices into the index. Finally there are coverage improvements - extending the index for social protection services, and the inclusion of an index of hospital services for the first time. Future developments are also planned; for example the extension of the financial services category from January 2002 and possibly the inclusion of owner-occupier housing costs at a later date.

Peter Symons of ONS explains the revisions analysis of initial estimates of annual constant price GDP and its components. The article examines the evidence of statistically significant bias in revisions and dispersion of revisions to initial estimates of annual constant price GDP growth. Also the bias and dispersion of revisions to initial estimates of the major components of the three measures of annual GDP growth and the relationship between revisions to the initial estimates of GDP growth and the economic cycle are studied.

Alex Clifton-Fearnside of ONS presents provisional estimates of regional gross domestic product (GDP) at basic prices for 1999. These estimates are consistent with the estimates of UK GDP published in the 2000 edition of the UK National Accounts - *The Blue Book*. The methodologies used to produce these estimates were published in an article in the December 2000 edition of *Economic Trends*.

Adam Douglas of ONS outlines developments in Local Area GDP. The article describes the effect of changes made resulting from the ESA95 changes made to Regional GDP. Other changes made reflect new or more accurate data sources and more accurate methodologies.

Changes

Corporate Services Price Index (Experimental)

The number of component indices has increased by 6 this quarter bringing the total to 28. The new indices and their relation to the Standard Industrial Classification (SIC) 1992 are:

- canteens and catering (SIC 55.50)
- real estate activities (70.30);
- market research (74.13)
- technical testing (74.30)
- contract packaging (74.82)
- direct marketing and other secretarial services (part of 74.83)

continued...

Economic Update - March 2001

by Geoff Tily, Macro-Economic Assessment - Office for National Statistics

Address: D4/20, 1 Drummond Gate, London, SW1V 2QQ Tel: 020 7533 5919, E-mail: geoff.tily@ONS.gov.uk

Overview

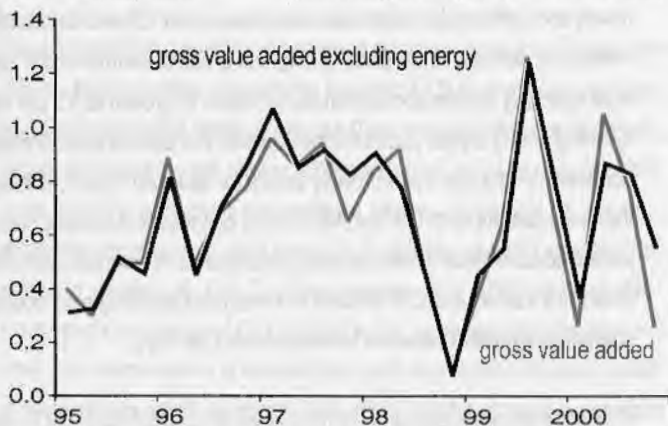
Recent economic data gives a mixed picture of the UK economy. GDP growth shows some slowdown, partly but not entirely driven by special factors in the energy sector. Manufacturing industry showed reasonable growth for 2000, but activity is dominated by high-tech industries. Services growth remains robust, but slowed a little into the fourth quarter. Demand data shows household demand remaining strong, but weakening a little on the previous year, while business demand remains relatively weak. Sector accounts data shows household saving low and business borrowing fairly high. On trade, imports slowed a little, but export growth remains strong, with exports to America remaining particularly strong. Labour market information now gives mixed signals, with employment levelling off, but unemployment continuing to fall. Price data continues to remain fairly inconsistent with a portrayal of an overheating economy. While average earnings growth has picked up a little; goods consumer prices outside fuel are deflating and services price increases are slowing. Producer price data now also shows a deceleration in inflationary pressure.

GDP Activity

GDP in the fourth quarter of 2000 showed quarterly growth of 0.3 per cent, a slowdown compared with 0.8 per cent in the third quarter and 1.0 per cent in the second. Comparing with the same quarter a year ago, annual growth was 2.5 per cent. This apparent slowdown was driven largely, but not wholly, by a sharp fall in the output of the energy sector, reflecting extended maintenance work and the reversal of gas flow in the 'Bacton-Zeebrugge interconnector' pipeline, which is now being used to import rather than export gas. To assess the impact of the volatile changes to energy output in recent quarters, chart 1 shows the quarterly growth profile of gross value added both including and excluding the energy data. Gross value added excluding energy exhibits a slightly smoother path, although quarterly growth is still seen to slow into the fourth quarter.

Chart 1

Gross value added
seasonally adjusted
percentage change, quarter on quarter

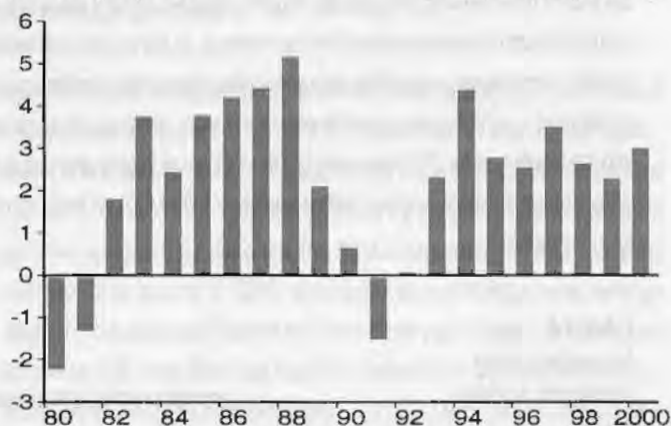


Overall the data shows a robust year as a whole, with GDP growth into 2000 as a whole at 3.0 per cent, up from 2.3 per cent for 1999 and 2.6 per cent for 1998 (chart 2). Gross domestic product growth has now been

Chart 2

Gross Domestic Product
seasonally adjusted

annual percentage change



positive for nine years in a row.

Quarterly growth in the service sector slowed to 0.7 per cent in the fourth quarter following 1.1 per cent in the third (with the latter figure revised up by 0.2 per cent in the latest dataset). This slowdown is driven largely by a slowdown to business activities such as computing, market research and architecture. However, the slowdown in the sector as a whole has been somewhat exaggerated by a fall in the activity of transport and storage industries following the railway disruption in the fourth quarter.

Data for the year 2000 shows how overall growth continues to be driven by the generally strong growth in the service sector. While this growth has actually pulled back somewhat from the stronger figures in 1997, the manufacturing sector has on the other hand picked up a little, with growth into 2000 at 1.6 per cent, the strongest year in that sector since 1994. Although it is notable that manufacturing is playing a far more limited role in overall growth compared to in the late 1980s (chart 3).

Change from April edition

Productivity data

On April 11 the Office for National Statistics will be releasing new productivity data. This will include new data on 'output per hour' as well as enhancements to the existing 'output per job' data. The changes are designed to obtain better consistency between the output and labour input measures resulting in improved productivity data. The new data will appear on the National Statistics web site along with an article describing the changes and assessing their impact on productivity. An article will also appear in the April issue of *Economic Trends*. Further articles on productivity are also planned. In May, further analysis of the new data will be published. A review of productivity measures for the non-production industries is also being done; the results of which will be published in a future issue of *Economic Trends*.

Recent economic publications

Quarterly

Consumer Trends: 2000 quarter 3 The Stationery Office, ISBN 0 11 621318 3. Price £45.

UK Economic Accounts: 2000 quarter 3. The Stationery Office, ISBN 0 11 621399 X. Price £26.

UK Trade in Goods Analysed in Terms of Industries (MQ10): 2000 quarter 3. The Stationery Office, ISBN 0 11 538058 2. Price £75 p.a.

Monthly

Consumer Price Indices (MM23): December 2000. The Stationery Office, ISBN 0 11 538018 3. Price £185 p.a.

Financial Statistics: February 2001. The Stationery Office, ISBN 0 11 621301 9. Price £23.50.

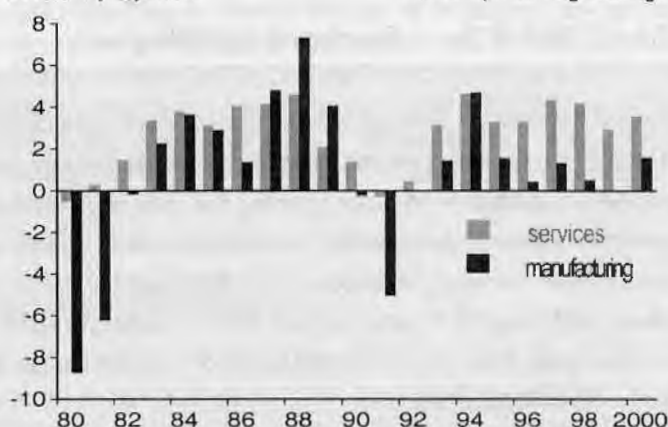
Monthly Review of External Trade Statistics (MM24): November 2000. The Stationery Office, ISBN 0 11 538026 4. Price £185 p.a.

All of these publications are available from The Stationery Office, telephone 0870 600 5522, fax 0870 600 5533, e-mail bookorders@theso.co.uk or The Stationery Office bookshops; details on the inside back cover.

Chart 3

Manufacturing and services output
seasonally adjusted

annual percentage change

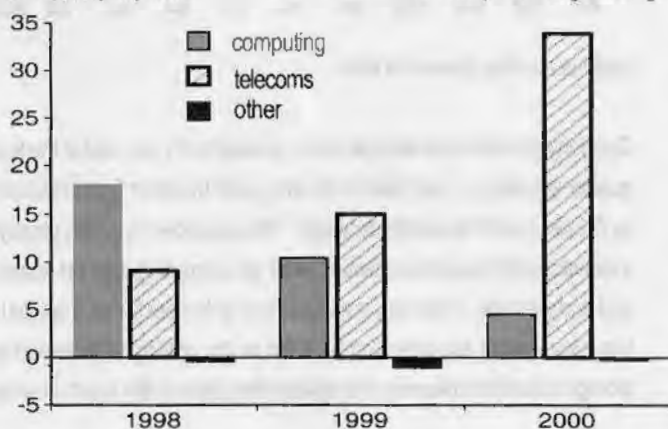


The recent manufacturing growth also remains highly concentrated in a few, so-called 'high-tech' areas of the economy. Chart 4 shows how growth in 2000 was dominated by output in the 'radio, TV and telecommunications' sector, which saw growth of 34.0 per cent. Growth in the 'office machinery and computers sector' was also strong, but data for the rest of the manufacturing sector together shows a slight fall of 0.2 per cent (although this masks rises in other sectors, in particular chemicals). Looking more closely at monthly data shows the telecommunications growth continuing at a high pace until the end of the year, with quarterly growth into the fourth quarter of 6.5 per cent; but the 'office machinery and computer data' seeing some slowdown with a quarterly fall of 4.0 per cent into the fourth quarter

Chart 4

Manufacturing
seasonally adjusted

annual percentage change



Forward looking information on activity showed a reasonably optimistic position in the fourth quarter but some concerns into the first quarter. The British Chamber of Commerce data shows modest rises in both services and manufacturing orders and deliveries into the fourth quarter, set against modest slowdowns in both according to NS figures. The CBI monthly manufacturing survey also echoed this increased optimism into the fourth

quarter, but this may have been primarily driven by an erratic figure for December, with data for January and February showing falls in confidence.

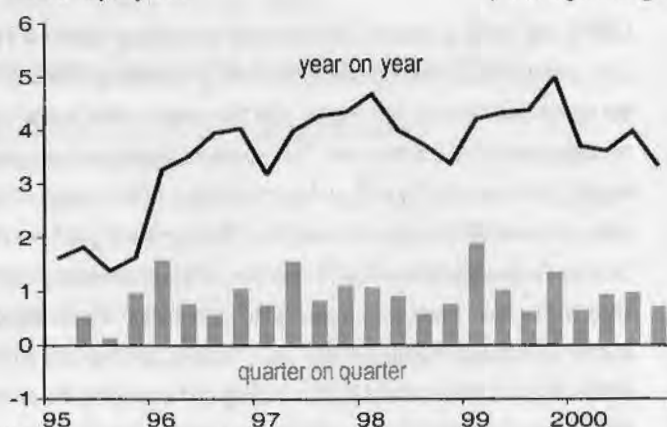
Domestic demand

In 2000 total household demand grew by a still vigorous 3.7 per cent, although this was down a little on the growth of 4.5 per cent in 1999. The quarterly profile of growth shows a slight slowdown into the fourth quarter, with quarterly growth of 0.7 per cent compared with 1.0 per cent in the third quarter. Comparing the fourth quarter of 2000 with the same quarter a year ago, annual growth fell to 3.3 per cent from 4.0 per cent in the third quarter (chart 5).

Chart 5

Household final consumption expenditure
seasonally adjusted

percentage change



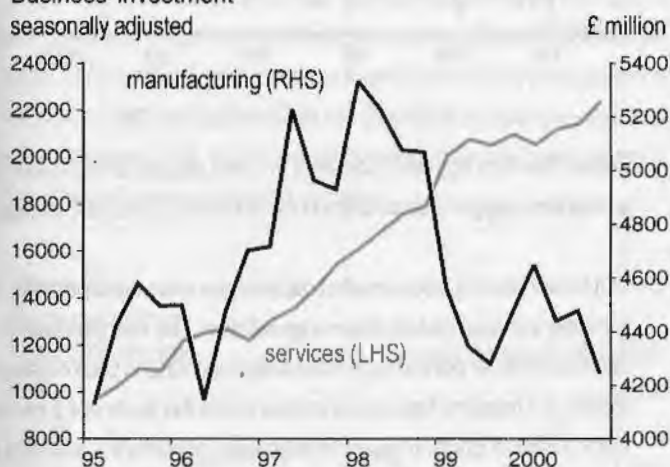
Retail sales data on the other hand exhibits continuing and fairly strong growth, with the index showing a strong monthly rise into January, and growth in the three months to January at 1.3 per cent, the same as in the three months to December. Differences with National Accounts data are mainly accounted for by weaker service consumption. Other data indicating strength in demand is the Bank of England gross consumer credit data; here quarterly figures showed an acceleration of growth to 3.2 per cent following a fall of 0.9 per cent in the third quarter. At the same time consumer confidence data has been broadly stable for several months, although the latest data for both GfK and MORI may be indicative of some slightly increased confidence. External retailing information is optimistic, with BRC data fairly stable, and CBI volume of sales data showing a particularly sharp improvement between November and January.

Overall on domestic demand the messages are a little mixed, but broadly suggests that there is not substantial evidence of a significant slowdown.

Turning to investment demand, new national accounts data shows some pick up of growth into the second half of the year, with quarterly growth of 1.2 per cent into the fourth quarter, and annual growth of 1.9 per cent

comparing the fourth quarter with the same quarter in 1999. Data for the year as a whole however shows the more generally subdued nature of investment demand, with growth of 2.3 per cent into 2000, following 5.4 per cent in 1999 and 10.1 per cent in 1998. Chart 6 shows manufacturing investment has recently fallen back into decline, with the latest service data perhaps showing some improvement following a subdued period. More generally the slowdown in investment may be partly driven by the overall financial position of the corporate sector, which is depicted by the sector accounts as borrowing £ 4.5 billion in the third quarter of 2000, the sixth successive quarter of borrowing around this level. The borrowing has arisen because since 1997 profits have slowed somewhat while investment and other payments such as interest and dividends have remained high. However, throughout 2000 the slower growth in investment and some resumed growth in profits, partly driven by high oil revenues as a consequence of price increase, have ensured that overall borrowing by the corporate sector has not accelerated.

Chart 6
Business investment
seasonally adjusted

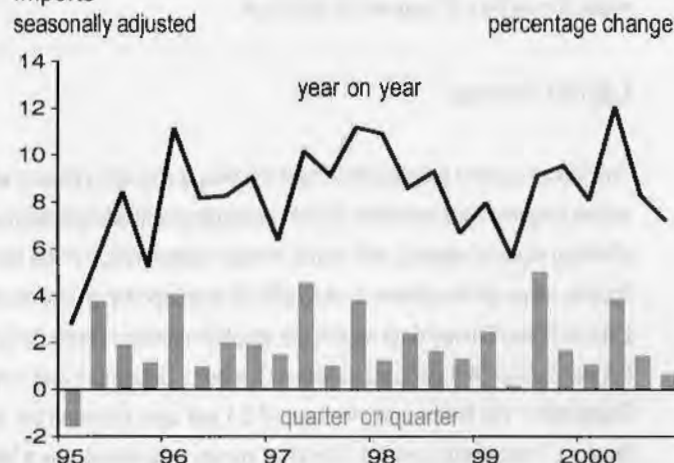


Government demand saw only modest quarterly growth of 0.2 per cent into the fourth quarter. Growth into the year 2000 as a whole is recorded as 2.6 per cent; this is below growth of 4.0 per cent into 1999, but significantly above growth of 1.1 per cent in 1998 and the fall of 1.4 per cent in 1997. This broadly increased expenditure comes alongside an ongoing improvement of government finances. Public sector net borrowing data shows a surplus of £16.7 billion between April 2000-January 2001 compared to a surplus of £13.8 billion in the same period of the previous year. The improvement in overall finances is due to the continued growth in tax revenues, which have more than accounted for stronger expenditure growth.

Finally on domestic demand, import growth may have slowed a little. National Accounts data shows quarterly growth into the fourth quarter at 0.7 per cent, compared to 1.4 per cent in the third (chart 7). Goods imports

from EU economies have been sluggish in the second half of 2000, but the slowdown over the quarter has mainly been driven by slower service imports.

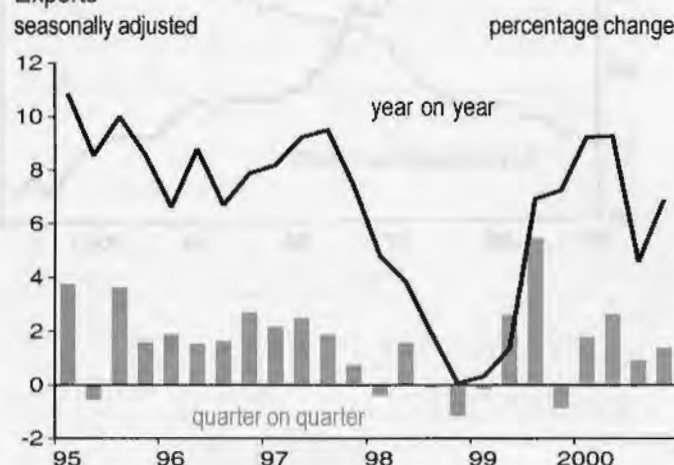
Chart 7
Imports
seasonally adjusted



Overseas demand

Despite concerns about threats to UK economic activity from international developments, in particular from the slowdown in the United States, exports are seen to have remained robust in the fourth quarter. National Accounts data showed exports growing by 1.4 per cent into the fourth quarter, up from 0.9 per cent in the third. Comparing the fourth quarter with the same quarter in 1999, annual growth was 6.9 per cent, perhaps slightly more subdued than at the start of the year (chart 8). Goods data shows growth was driven by quarterly growth of 6.5 per cent to non-EU economies, offset by a fall of 0.5 per cent to EU economies. At the same time service exports had slowed a little with growth falling by 1.5 per cent into the fourth quarter, and data for 2000 as a whole seeing a fall of 1.9 per cent.

Chart 8
Exports
seasonally adjusted



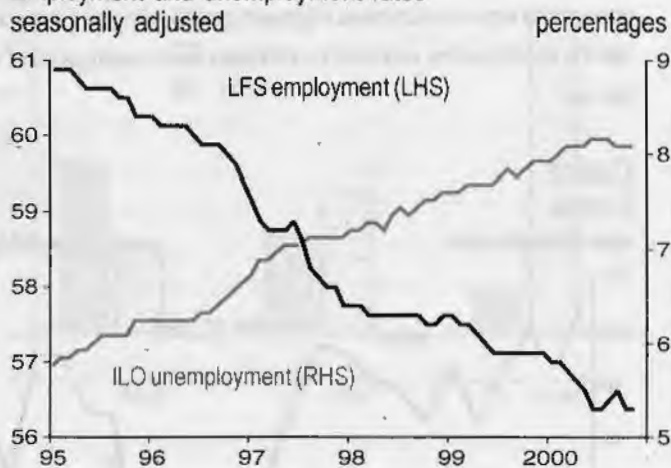
Value data shows quarterly growth in exports to the United States in the fourth quarter at 10.8 per cent, and 26.9 per cent compared with the same quarter in the previous year. While underlying this data monthly figures showed a fall into December, the data recovered into January. There is therefore no real evidence of the slowdown in US GDP growth impacting on the UK's exports at this stage.

Labour Market

The labour market dataset continues to show a changing picture with recent ongoing improvements to both unemployment and employment showing signs of slowing with some modest deterioration in the latest figures, although the picture is more difficult to interpret than last month. Labour Force Survey data shows the employment rate decreasing by 0.1 per cent to 74.6 per cent between October – December and July – September; this follows an increase of 0.1 per cent between the two previous three month periods. Employer survey data also shows a fall in employment, with workforce jobs showing a decline of 38,000 between the second and third quarters. Chart 9 shows how, very broadly, over the last few months the LFS estimates of the employment rates seems to have slowed, but the most recent data has sent more ambiguous signals. At the same time chart 9 shows how estimates of the unemployment rate had been slowing, again with the most recent figure a little more ambiguous. Looking at the latest two three month periods, the unemployment rate has fallen to 5.3 per cent from 5.4 per cent. At the same time claimant count data continues to record steady falls in unemployment, but at a slower pace than in 2000.

Chart 9

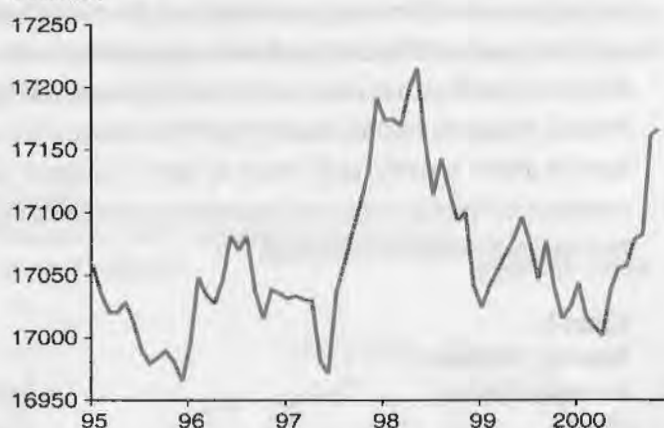
Employment and unemployment rates seasonally adjusted



However, at the same time as these changes in the labour market, there has been a sharp rise in the number of people registered as inactive, with the numbers increasing by 151,000 (chart 10). While the reason for this is unclear it might mean that the fall in employment ought to be treated with caution, for it is seen to be a fall that might be driven primarily by the choice of workers not to participate.

Chart 10

Inactivity thousands



Overall the data appears indicative of some degree of slowdown, but ambiguities suggest not reading too much into the figures at this stage.

The recent slowing labour market data may be more consistent with the generally subdued picture of earnings inflation. The very latest earnings data has however pointed to perhaps a slight increase in pace of earnings growth, but headline figures that remain below the figure of 4.5 per cent that the Bank of England regard as indicating concerns. In December the headline rate of the average earnings index grew at 4.4 per cent, up from the rate of 4.2 per cent in November. At the same time the underlying measure excluding bonuses also saw some acceleration to 4.7 per cent from 4.6 per cent in November.

Prices

At 1.8 per cent the January RPIX inflation rate was the lowest since the figure was first constructed in 1976 (chart 11); comfortably below the Government's target rate of 2.5 per cent. The slowdown from December's figure of 2.0 per cent was partly driven by recent falls in the price of petrol, but also by further falls to service inflation.

Chart 11

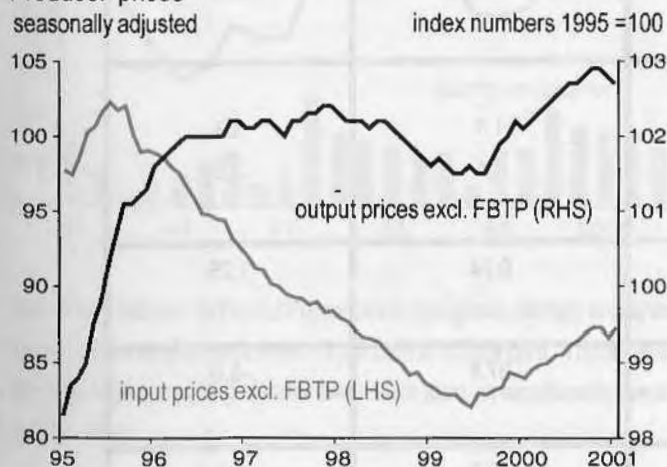
RPIX
annual percentage change



At the same time price increases at the factory gate appear to be slowing. Chart 12 shows that indices excluding food, beverages, tobacco and petroleum picked up growth in the middle of 1999, but around the turn of the year 2001 saw some falls. At an annual rate, underlying input prices are growing at 3.9 per cent, while output prices are growing by 0.6 per cent. The headline figures continue to be dominated by changes in the price of oil, both seeing sharp falls into December and January as the oil price continued to fall. In sum, overall the prices data continues to suggest few and diminishing inflationary concerns.

Chart 12

Producer prices
seasonally adjusted



Forecasts for the UK Economy

A comparison of independent forecasts, February 2001

The tables below are extracted from HM Treasury's "FORECASTS FOR THE UK ECONOMY" and summarise the average and range of independent forecasts for 2001 and 2002, updated monthly.

	Independent Forecasts for 2001		
	Average	Lowest	Highest
GDP growth (per cent)	2.6	1.5	3.2
Inflation rate (Q4: per cent)			
- RPI	2.2	1.2	3.9
- RPI excl MIPs	2.2	1.3	2.6
Unemployment (Q4: mn)	1.03	0.92	1.20
Current Account (£ bn)	-17.7	-26.0	-4.9
PSNB *(2001-02: £ bn)	-10.3	-16.4	-3.0

	Independent Forecasts for 2002		
	Average	Lowest	Highest
GDP growth (per cent)	2.6	0.7	3.6
Inflation rate (Q4: per cent)			
- RPI	2.5	1.1	3.3
- RPI excl MIPs	2.4	1.4	3.2
Unemployment (Q4: mn)	1.04	0.74	1.25
Current Account (£ bn)	-17.6	-37.9	-8.0
PSNB* (2002-03: £ bn)	-4.6	-17.0	8.0

NOTE: "FORECASTS FOR THE UK ECONOMY" gives more detailed forecasts, covering 27 variables, and is published monthly by HM Treasury, available on annual subscription, price £75. Subscription enquiries should be addressed to Miss C T Coast-Smith, Public Enquiry Unit, HM Treasury, Room 110/2, 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 (Treasury forecast excluding windfall taxes and associated spending).

International Economic Indicators - March 2001

by Craig Richardson, Macro-Economic Assessment - Office for National Statistics

Address: D4/20, 1 Drummond Gate, London, SW1V 2QQ Tel: 020 7533 5925, E-mail: Craig.Richardson@ONS.gov.uk

Overview

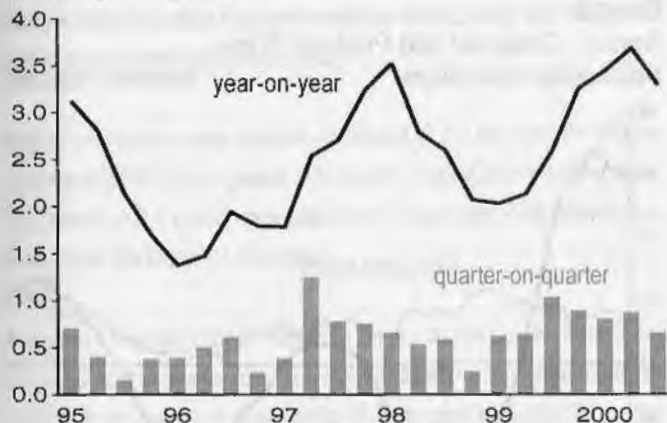
Quarterly GDP growth figures for quarter three show that while the EU15 growth slowed, it still grew fast than the US in this quarter, whilst quarter four data available for the US shows that the slowdown has continued. Within the EU15, Germany, France and Italy all grew by 0.6 per cent in the third quarter of 2000, although the annual growth rates varied. Unemployment in the EU15 also continues to fall. In the US industrial production contracted into the fourth quarter, the first time this has occurred since the first quarter of 1991. Unemployment, which remained stable at 4.0 per cent on a quarterly basis, showed some signs of rising into 2001. The Japanese economy recorded its second quarter of low growth in quarter three, with growth in industrial production falling sharply into quarter four.

EU 15

The EU15 economies grew by 0.7 per cent in quarter three 2000, down slightly from 0.9 per cent in quarter two (chart 1). This reflects slight falls in the contributions of consumption, government expenditure and stock building. Net trade made no contribution for the second quarter in a row.

Chart 1

EU15 - Gross Domestic Product percentage changes, quarters



Industrial production in the EU15 economies had grown strongly in quarter two, but then slipped back from 2.0 per cent to 1.0 per cent. This fall is likely to reflect a strong quarter two rather than an significantly weak quarter three.

Annual growth of retail sales rose strongly into quarter two, but then fell back into the third quarter, with growth of 2.8 per cent compared with 4.4 per cent. Monthly data shows that the index has remained unchanged since June.

Annual consumer price inflation rose slightly from 2.7 per cent in quarter three to 2.8 per cent in quarter four. Monthly data shows that although the index rose by 0.1 percentage points to 2.9 per cent in November, it slipped back to 2.7 per cent in December. Annual growth of producer prices levelled off in quarter four 2000, remaining at 5.1 per cent. Within

this, monthly data shows that the annual inflation rate fell quite sharply in December, down 0.7 percentage points to 4.5 per cent, reflecting the fall in the oil price.

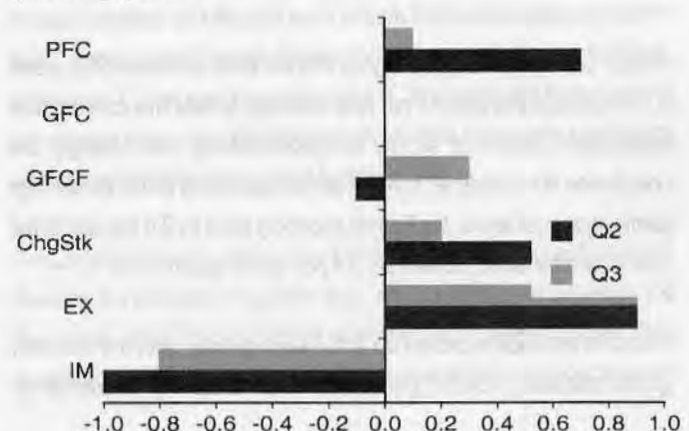
Annual growth in earnings dropped slightly in the third quarter of 2000, down by 0.1 percentage points to 3.5 per cent. Quarterly employment growth was negative in quarter one, with the index declining by 0.8 per cent, but this was reversed in quarter two with positive growth of 1.2 per cent. Growth then slowed to 0.8 per cent in quarter three. Unemployment in the EU15 continues to fall, with the rate reaching 8.1 per cent in quarter four, down from 8.3 per cent in quarter three and 8.4 per cent in quarter two.

Germany

Quarterly growth of GDP declined quite sharply into quarter three, from 1.1 per cent in quarter two to 0.6 per cent. The main driver of this was a strong fall in the contribution of private final consumption expenditure, which fell from 0.7 percentage points in quarter two to 0.1 percentage

Chart 2

Germany - Contributions to quarterly GDP growth percentage points



points (chart 2). The contribution of investment picked up quite substantially, but this was cancelled out by the fall in the contribution of stock building. The trade situation improved marginally, with the contribution of exports remaining constant into the third quarter, but with the contribution of imports falling. Correspondingly, the current account improved into the third quarter, although it remains in deficit.

German industrial production grew strongly into quarter three, with growth of 2.2 per cent, although following the strong growth of 3.0 per cent recorded in quarter two. The series has been growing strongly since the trough in the fourth quarter of 1998, and in quarter three 2000 it grew at an annual rate of 7.4 per cent. Survey data suggests that much of this growth in output in the third quarter comes from new export orders rather than from domestic demand, which ties in with the picture seen in the national accounts data above.

Annual growth of retail sales is also in line with the private final consumption expenditure data, showing a fall from 4.5 per cent in quarter two to 2.0 per cent in quarter three. Monthly data shows that this is mainly due to a weak September. In contrast with the drop in sales growth, consumer confidence rose into the third quarter.

Annual consumer price inflation rose to 2.4 per cent in quarter four, a rise of 0.7 percentage points since the start of the year, mainly reflecting rises in fuel prices. In the same way, annual growth of producer price inflation rose from 3.7 per cent in quarter three to 4.5 per cent in quarter four, although as with the EU15 average, the monthly figures show a sharp decline in December as oil prices fell.

The German labour market showed signs of continuing improvement into the second quarter of 2000. Annual earnings growth fell from 2.8 per cent in quarter one to 2.4 per cent in quarter two, and then rose to 3.3 per cent in quarter three. Quarterly employment growth rose by 1.4 per cent in quarter two and then by 0.9 per cent in quarter three. Although unemployment remained at 8.4 per cent in quarter two, it then fell by 0.1 percentage points in both quarters three and four.

France

French GDP growth slipped slightly into the third quarter of 2000, down 0.2 percentage points to 0.6 per cent. Although private final consumption expenditure picked up slightly and stockbuilding rose strongly, the contribution of net trade fell from 0.2 percentage points to -0.5 percentage points. In annual terms, the French economy grew by 3.0 per cent in the year to quarter three, down from 3.4 per cent in quarter two.

Industrial production picked up in the third quarter, with the quarterly growth rate rising from 0.2 per cent to 1.3 per cent. After quarter three,

October saw relatively strong growth, driven by increases in car and consumer goods output, although the index remained relatively stagnant in November. Capital utilisation in the third quarter of 2000 rose to the highest level seen since the third quarter of 1990. Survey data on business prospects shows that firms felt reasonably confident in quarter three, although the index then slumped into October.

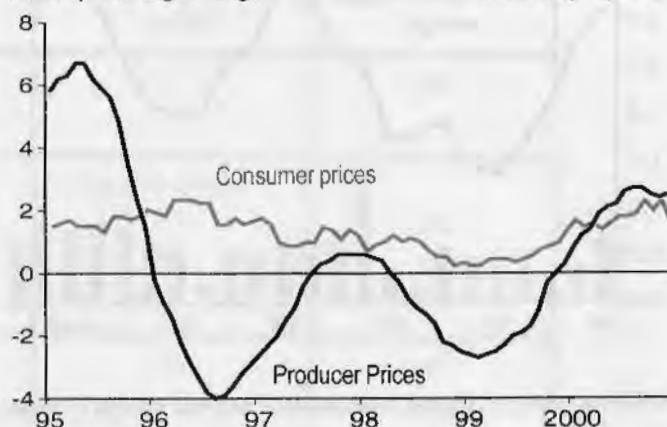
Contrasting with the picture from the GDP data which shows consumption slowing slightly on an annual basis, the annual growth of retail sales fell sharply into quarter four, down 1.3 per cent, following zero growth in the previous quarter. The annual growth rate has been declining over the past year.

In spite of the slowdown of retail sales, annual consumer price inflation remained relatively high in quarter four, recording annual growth of 1.9 per cent for the second consecutive quarter, although this still remains 0.9 percentage points below the EU15 average. It should be noted however that the monthly path of the series has exhibited considerable variations over the last six months, possibly driven by fluctuations in the oil price (chart 3). Annual growth of producer prices fell from 2.7 per cent in quarter three to 2.4 per cent in quarter four, although in contrast to a

Chart 3

France - Consumer and Producer Prices
annual percentage changes

seasonally adjusted



number of other countries the monthly data does not show a fall into December following the fall in the oil price.

French earnings have been growing strongly in the year 2000. The figures first rose sharply into quarter one 2000, by 1.8 percentage points to reach 5.2 per cent. There were suggestions by some commentators that the high rate of growth in earnings in quarter one was related to millennium related payments, however, growth then rose further to 5.4 per cent in quarter two 2000, and remained high at 5.2 per cent in quarter three, suggesting that there may be other factors at work here. Following a fall of 0.3 percentage points to 0.6 per cent in quarter two, employment growth rose marginally to 0.7 per cent in quarter three. Reflecting the

continued employment growth, unemployment continues to fall, down 0.5 percentage points to reach 8.9 per cent in quarter four 2000, the lowest rate seen since the fourth quarter of 1983.

Italy

The Italian GDP grew by 0.6 per cent in quarter three, up from 0.3 per cent in quarter two. The breakdown shows that this was driven almost entirely by a very strong pick up in net trade, with its contribution rising from -0.8 percentage points in quarter two to 0.7 percentage points in quarter three. Other sources of demand also remain subdued, with quarter three also seeing a marginal slowdown in private final consumption, government final consumption and investment, and a significant fall in stockbuilding. At an annual rate, growth in the Italian economy slowed from 2.8 per cent in quarter two to 2.6 per cent in quarter three.

On a quarterly rate, industrial production grew by a slight 0.1 per cent in quarter three, following growth of 1.4 per cent in quarter two. Capital utilisation also slipped into quarter three after a peak in quarter two. Survey data suggests that the level of future demand remains relatively strong though.

No new retail sales data has been available since quarter four 1998. The OECD hope to rectify this situation soon.

Annual consumer price inflation remained at 2.6 per cent for all four quarters of 2000. Annual growth of producer price inflation fell into quarter four, down by 0.2 percentage points to 6.5 per cent. This reflects the sharp fall in the index in December.

Annual employment growth rose from 2.1 per cent in quarter three 2000 to 2.8 per cent in quarter four. The standardised unemployment rate fell from 10.6 per cent in quarter two to 10.3 per cent in quarter three, the lowest rate since the second quarter of 1993. However, monthly figures

Chart 4
Italy - Unemployment Rate
percent, seasonally adjusted

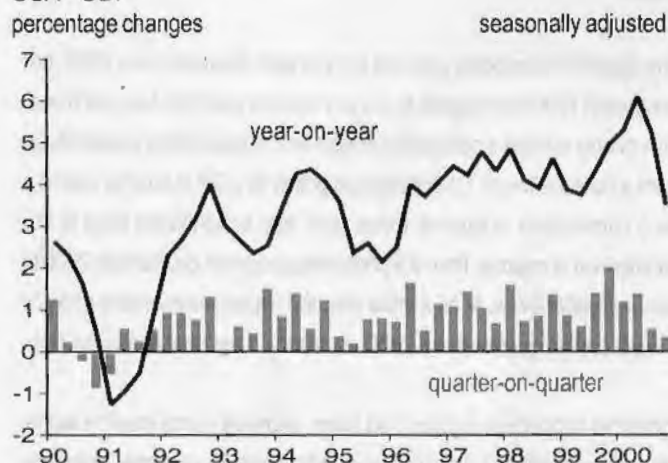


show that the rate has further declined to 10.1 per cent in October (chart 4). Italian earnings data supplied by the OECD has not been updated since quarter four 1999, when earnings were growing by 1.8 per cent on the year.

USA

US GDP growth fell to 0.3 per cent in quarter four 2000 (chart 5), after a fall of 0.9 percentage points to 0.5 per cent in quarter three. Private final consumption, investment and stockbuilding all contributed to the fall in the most recent quarter, although the net trade position improved marginally. Previously GDP growth had been driven by the strong consumption growth, but over the year 2000 the US has seen a slowdown in consumption, from a contribution of 1.2 percentage points in quarter one

Chart 5
USA - GDP
percentage changes



2000 to 0.5 percentage points in quarter four. The contribution of investment has also slowed dramatically over the year.

Quarterly growth of industrial production declined in quarter four, shrinking by 0.3 per cent following growth of 0.9 per cent the previous quarter. This is the first time industrial production has declined since the first quarter of 1991. Monthly data shows that this decline was not driven by a one-off movement, with the index declining in all three months of quarter four.

In slight contrast with the pick up in private final consumption in quarter three, annual growth of retail sales continued to fall into quarter three, down from 7.0 per cent in quarter two to 6.3 per cent, the lowest annual growth rate seen since the third quarter of 1998. Consumer confidence also slipped slightly into the third quarter of 2000.

Annual growth of consumer prices fell slightly from 3.5 per cent in quarter three to 3.4 per cent in quarter four, and as with most countries the December figure shows a slight downturn in the annual growth rate, possibly reflecting lower oil prices. The annual growth of producer prices

fell for the third successive quarter, down by 0.6 percentage points to reach 3.3 per cent in quarter four 2000. The monthly data shows that the annual growth rate fell 0.6 percentage points between November and December to reach 2.9 per cent.

Annual growth of earnings picked up into quarter four, rising from 2.9 per cent in quarter three to 3.5 per cent. Quarterly employment growth rose marginally in quarter four following a significant drop in quarter three, up from 0.1 per cent to 0.2 per cent in quarter four. However, the unemployment rate in quarter four remained at 4.0 per cent, for the fourth consecutive quarter. Monthly data for January 2001 shows that the unemployment rate has since risen to 4.2 per cent, and that employment growth contracted by 1.2 per cent, although one month's data alone should always be treated with caution.

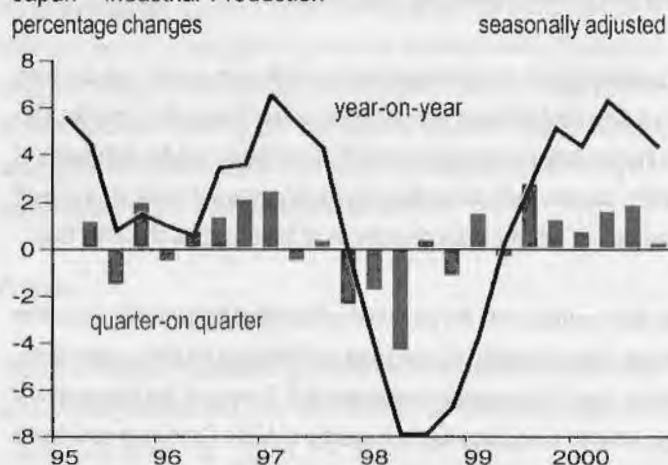
Japan

The Japanese economy grew by 2.4 per cent in quarter one 2000, but the growth rate then slipped to 0.2 per cent for quarters two and three. This mainly reflects a collapse in private final consumption expenditure, from a contribution of 1.1 percentage points to GDP in quarter one to a zero contribution in quarter three, and also a significant drop in the contribution of exports, from 0.5 percentage points in quarter one 2000 to zero in quarter three. At an annual rate, the Japanese economy grew by 1.4 per cent in quarter three 2000, up from 1.1 per cent in quarter two.

Industrial production figures had been showing some healthy signs, recording growth of 1.8 per cent in quarter three for example. However,

Chart 6

Japan - Industrial Production
percentage changes



growth fell to 0.2 per cent in quarter four (chart 6). The monthly data remains rather erratic, but generally the low growth was caused by a strong quarter three rather than just weak growth in quarter four.

Annual growth of retail sales continues to record negative growth, with

little signs of a significant improvement. Quarter four saw an annual decline of 1.1 per cent, the same as in quarter three. For 2000 as a whole sales declined by 1.7 per cent, the series has not seen positive growth since 1996.

Quarter four saw a marginal fall in the annual rate of deflation of consumer prices, down from 0.7 per cent to 0.5 per cent. For 2000 as a whole consumer prices fell by 0.7 per cent, after falling by 0.3 per cent in 1999. After two quarters of inflation, producer price inflation recorded zero growth for quarter four 2000. The producer price inflation rate for 2000 as a whole was 0.1 per cent, the first positive annual figure since 1997.

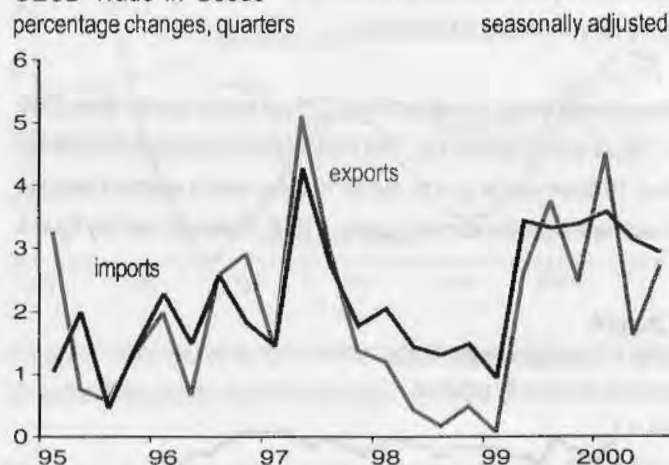
Annual earnings growth remained positive throughout 2000, growing by 1.1 per cent in quarter four, down from 1.5 per cent in quarter three. Quarter four also saw employment record no quarterly growth, for the second quarter in a row. Unemployment increased marginally from 4.7 per cent in quarter three to 4.8 per cent in quarter four 2000, the rate at which it started the year.

World Trade

OECD exports of goods (chart 7) grew by 2.7 per cent in quarter three 2000, following growth of 1.6 per cent in quarter two. Within this, exports of manufactures grew by 2.9 per cent, also following growth of 1.6 per

Chart 7

OECD Trade in Goods
percentage changes, quarters

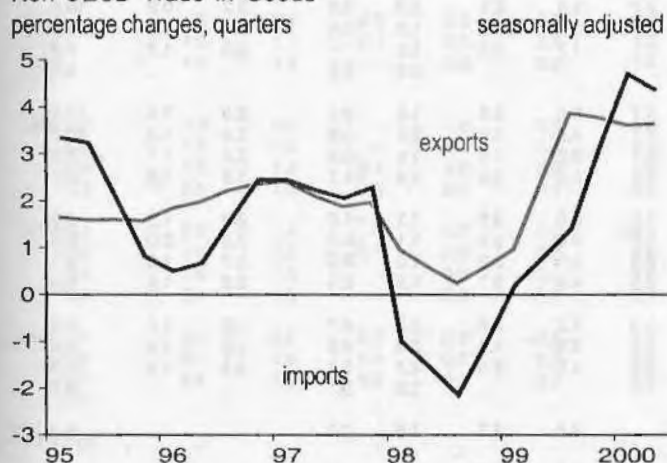


cent in quarter two. OECD imports of goods grew by 2.9 per cent in quarter three, whilst imports of manufactures grew by 3.1 per cent. Quarter four data may reveal a substantial slowdown in trade growth as the slowdown in American trade filters through.

Trade data for non-OECD countries is only available up to quarter two 2000. Exports of goods (chart 8) grew by 3.6 per cent in quarter two, the same rate as in quarter one 2000. Non-OECD exports of manufactures

grew by 4.2 per cent in both quarters one and two. Imports of goods rose by 4.3 per cent, down slightly from 4.7 per cent in quarter one. Within this, imports of manufactures by non-OECD countries grew by 4.4 per cent, down from 4.8 per cent in quarter one.

Chart 8
Non-OECD Trade in Goods
percentage changes, quarters



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 68 and 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 France, Germany, Italy, the USA and Japan has been updated to SNA93 basis, EU 15 tables are only available on an SNA68 basis. The two bases are not directly comparable meaning that cross-country comparisons with countries on different bases are less valid. All the European data is likely to be put on the SNA93 basis in OECD data very soon.

All data is *seasonally adjusted* except for the following:

Consumer Price Indices

Producer Price Indices

Earnings (excluding Japan)

Employment

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
1992	1.0	0.9	0.5	-0.1	-0.2	0.8	0.9	-1.3	..	4.5	1.2	5.6	-1.8	9.1
1993	-0.4	-0.2	0.2	-1.2	-0.4	0.4	-0.9	-3.5	..	3.6	1.4	4.3	-2.0	10.7
1994	2.7	1.0	0.2	0.5	0.7	2.4	2.0	4.9	..	3.1	2.1	4.0	-0.2	11.1
1995	2.4	1.1	0.1	0.6	0.2	2.3	2.0	3.6	-0.3	3.1	4.5	3.4	0.5	10.7
1996	1.6	1.1	0.3	0.4	-0.5	1.4	1.2	0.6	0.2	2.5	0.7	3.7	0.5	10.8
1997	2.6	1.2	0.1	0.6	0.2	3.1	2.7	3.8	2.5	2.0	0.9	3.2	0.8	10.6
1998	2.7	1.9	0.3	1.2	0.4	2.0	2.9	3.7	3.2	1.8	-0.4	2.5	1.6	9.9
1999	2.5	1.8	0.4	1.1	-0.2	1.5	2.1	1.7	2.9	1.2	-	3.0	1.7	9.2
2000	..	..	..	..	..	..	..	..	..	2.5	4.8	..	..	8.4
1998 Q1	3.5	1.8	0.2	1.4	0.6	3.3	3.7	5.5	2.6	1.8	0.7	2.9	1.5	10.2
Q2	2.8	1.7	0.2	1.0	0.5	2.5	3.1	4.6	2.6	2.2	0.2	2.8	1.3	10.0
Q3	2.6	2.0	0.3	1.3	0.2	1.5	2.7	3.2	3.9	1.6	-0.8	2.8	1.7	9.9
Q4	2.1	1.9	0.4	1.0	0.3	0.7	2.2	1.4	3.6	1.4	-1.7	1.8	1.8	9.7
1999 Q1	2.0	1.9	0.4	1.0	0.1	0.2	1.6	0.5	3.5	1.1	-1.8	2.8	1.8	9.5
Q2	2.1	1.7	0.4	1.2	-0.3	0.9	1.7	0.4	2.2	1.1	-0.9	2.8	2.0	9.3
Q3	2.6	1.7	0.4	1.1	-0.2	1.9	2.3	2.0	2.2	1.2	0.5	2.7	1.6	9.1
Q4	3.3	1.8	0.4	1.1	-0.3	3.1	2.9	4.0	3.7	1.5	2.4	3.6	1.6	8.9
2000 Q1	3.4	1.7	0.3	1.1	-0.3	4.0	3.3	4.2	2.8	2.2	4.1	3.6	1.5	8.7
Q2	3.7	1.8	0.4	1.0	0.2	3.9	3.6	5.6	4.4	2.3	4.8	3.6	1.5	8.4
Q3	3.3	1.6	0.4	0.9	0.3	3.8	3.7	4.8	2.8	2.7	5.1	3.5	1.5	8.3
Q4	..	..	..	..	..	..	..	..	..	2.8	5.1	..	..	8.1
1999 Dec	..	..	..	..	..	..	..	4.9	3.7	1.8	3.0	..	..	8.9
2000 Jan	..	..	..	..	..	..	..	2.8	3.7	2.1	3.7	..	..	8.8
Feb	..	..	..	..	..	..	..	4.7	3.7	2.2	4.2	..	..	8.8
Mar	..	..	..	..	..	..	..	5.0	0.9	2.2	4.6	..	..	8.6
Apr	..	..	..	..	..	..	..	5.4	4.7	2.1	4.4	..	..	8.5
May	..	..	..	..	..	..	..	6.6	5.6	2.2	4.9	..	..	8.4
Jun	..	..	..	..	..	..	..	4.8	2.8	2.6	5.2	..	..	8.3
Jul	..	..	..	..	..	..	..	4.6	1.8	2.5	5.0	..	..	8.3
Aug	..	..	..	..	..	..	..	4.9	2.8	2.5	4.8	..	..	8.3
Sep	..	..	..	..	..	..	..	4.7	3.7	2.9	5.3	..	..	8.2
Oct	..	..	..	..	..	..	..	3.7	0.9	2.8	5.5	..	..	8.1
Nov	..	..	..	..	..	..	..	3.5	..	2.9	5.2	..	..	8.1
Dec	..	..	..	..	..	..	..	..	..	2.7	4.5	..	..	8.1
Percentage change on previous quarter														
	ILGL	HUDY	HUDZ	HUEA	HUEB	HUEC	HUED	ILHF	ILHZ				ILIT	
1998 Q1	0.7	0.6	0.1	0.4	-	0.4	0.9	1.2	1.6				-0.6	
Q2	0.5	0.4	0.1	0.1	-	0.4	0.5	0.6	0.7				1.0	
Q3	0.6	0.5	0.1	0.4	-0.1	0.1	0.3	0.2	0.9				1.2	
Q4	0.2	0.4	0.1	0.2	0.3	-0.3	0.4	-0.6	0.3				0.2	
1999 Q1	0.6	0.6	0.1	0.3	-0.2	-	0.3	0.3	1.6				-0.6	
Q2	0.6	0.3	-	0.3	-0.3	1.0	0.6	0.6	-0.6				1.2	
Q3	1.0	0.5	0.1	0.3	-	1.1	0.9	1.8	0.9				0.9	
Q4	0.9	0.4	0.1	0.2	0.2	1.0	1.0	1.3	1.8				0.2	
2000 Q1	0.8	0.5	0.1	0.3	-0.2	0.9	0.8	0.4	0.6				-0.8	
Q2	0.9	0.4	0.1	0.2	0.2	0.9	0.9	2.0	0.9				1.2	
Q3	0.7	0.3	-	0.2	0.1	1.0	1.0	1.0	-0.6				0.8	
Q4	..	..	..	..	..	..	..	..	..				..
Percentage change on previous month														
								ILKF	ILKP					
1999 Dec								-	-					
2000 Jan								-0.9	0.9					
Feb								1.3	-					
Mar								0.7	-0.9					
Apr								0.5	0.9					
May								1.3	1.8					
Jun								-1.1	-1.8					
Jul								1.0	-					
Aug								0.9	-					
Sep								-0.4	-					
Oct								-0.3	-					
Nov								0.6	..					
Dec								..	..			

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

Sales = Retail Sales Volume
CPI = Consumer Prices, measurement not uniform among countries
PPI = Producer Prices (manufacturing)
Earnings = Average 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
Source: OECD - SNA68

Contribution to change in GDP

	GDP	PFC	GFC	GFCF	ChgStk	Exports	Imports	loP	Sales	CPI	PPI	Earnings	Empl ¹	Unempl
less														
Percentage change on a year earlier														
	ILFY	HUBW	HUBX	HUBY	HUBZ	HUCA	HUCB	ILGS	ILHM	HVLL	ILAF	ILAO	ILIG	GABD
1992	1.8	1.3	1.0	0.8	-0.6	-0.5	0.1	-2.5	-2.1	5.0	1.6	5.4	-1.4	4.5
1993	-1.1	0.1	-	-1.1	-0.1	-1.3	-1.2	-7.6	-4.2	4.5	0.1	5.1	-1.0	7.9
1994	2.4	0.6	0.5	0.9	0.3	1.7	1.6	3.6	-	2.7	0.7	3.7	-0.4	8.5
1995	1.8	1.3	0.3	-0.1	0.3	1.4	1.3	1.0	0.8	1.7	1.9	4.0	-0.2	8.2
1996	0.8	0.5	0.4	-0.2	-0.4	1.3	0.8	0.7	-1.1	1.4	-1.2	3.5	-0.3	8.9
1997	1.5	0.4	-0.2	0.2	0.2	2.9	2.1	3.7	-1.6	1.9	1.1	1.5	-0.4	9.9
1998	1.8	1.1	0.1	0.5	0.5	1.8	2.1	4.2	1.0	1.0	-0.4	1.8	0.7	9.4
1999	1.4	1.4	-	0.6	0.2	1.4	2.2	1.5	0.6	0.6	-1.0	2.6	0.9	8.8
2000	..	..	..	..	..	..	..	..	..	1.9	3.4	..	..	8.3
1998 Q1	3.0	0.9	-	1.0	0.5	3.0	2.4	6.3	0.8	1.2	0.7	1.3	0.1	9.8
Q2	1.7	0.5	-	0.4	0.5	2.8	2.5	4.8	-0.8	1.4	0.2	1.8	0.4	9.6
Q3	1.6	1.4	0.1	0.5	0.2	1.2	1.9	4.4	2.4	0.7	-0.8	2.1	0.9	9.2
Q4	0.9	1.5	0.3	0.1	0.7	0.1	1.7	1.4	1.9	0.4	-1.7	2.2	1.4	9.0
1999 Q1	0.6	1.4	-	0.2	0.6	-0.1	1.5	-0.6	1.7	0.3	-2.4	2.5	1.5	8.8
Q2	1.0	1.5	-0.1	0.6	0.3	0.6	1.9	0.5	-0.2	0.5	-1.7	2.4	1.3	8.7
Q3	1.6	1.3	-	0.9	-0.1	1.8	2.4	1.8	-0.1	0.7	-0.7	2.7	0.7	8.8
Q4	2.4	1.3	-	0.9	-0.1	3.1	2.8	4.3	0.7	1.0	0.6	3.0	0.2	8.7
2000 Q1	2.5	0.6	0.3	0.9	-0.5	4.2	3.0	4.9	-0.7	1.7	2.3	2.8	0.4	8.4
Q2	3.7	1.5	0.4	0.7	0.3	3.9	3.0	7.0	4.5	1.6	2.6	2.4	0.5	8.4
Q3	3.4	1.2	0.2	0.5	0.9	3.9	3.3	7.4	2.0	2.0	3.7	3.3	0.5	8.3
Q4	..	..	..	..	..	..	..	..	..	2.4	4.5	..	..	8.2
1999 Dec	..	..	..	..	..	..	..	4.5	1.5	1.2	1.1	..	..	8.6
2000 Jan	..	..	..	..	..	..	..	2.7	-	1.6	2.0	..	..	8.5
Feb	..	..	..	..	..	..	..	5.9	2.1	1.8	2.4	..	..	8.4
Mar	..	..	..	..	..	..	..	6.1	-3.9	1.9	2.4	..	..	8.4
Apr	..	..	..	..	..	..	..	6.8	6.6	1.5	2.1	..	..	8.4
May	..	..	..	..	..	..	..	9.1	7.6	1.4	2.7	..	..	8.4
Jun	..	..	..	..	..	..	..	5.2	-0.8	1.9	2.9	..	..	8.3
Jul	..	..	..	..	..	..	..	8.0	-0.2	1.9	3.3	..	..	8.3
Aug	..	..	..	..	..	..	..	6.8	2.0	1.8	3.5	..	..	8.3
Sep	..	..	..	..	..	..	..	7.3	4.2	2.5	4.3	..	..	8.3
Oct	..	..	..	..	..	..	..	5.4	-2.0	2.4	4.6	..	..	8.2
Nov	..	..	..	..	..	..	..	5.7	-	2.4	4.7	..	..	8.2
Dec	..	..	..	..	..	..	..	..	..	2.2	4.2	..	..	8.1
Percentage change on previous quarter														
	ILGI	HUCC	HUCD	HUCE	HUCF	HUCG	HUCH	ILHC	ILHW					ILIQ
1998 Q1	1.2	0.9	0.3	0.4	-	0.3	0.8	2.5	1.4					-2.2
Q2	-0.4	-0.3	-	-0.3	0.1	0.5	0.5	-0.1	-0.7					1.5
Q3	0.3	0.5	-0.1	0.3	0.1	-0.3	0.2	0.6	0.7					1.5
Q4	-0.1	0.3	0.1	-0.2	0.5	-0.4	0.3	-1.6	0.4					0.6
1999 Q1	0.9	0.9	-	0.5	-	0.1	0.6	0.6	1.3					-2.1
Q2	-0.1	-0.1	-0.1	0.1	-0.2	1.2	0.9	0.9	-2.6					1.3
Q3	0.9	0.3	0.1	0.5	-0.4	0.9	0.6	1.9	0.8					0.9
Q4	0.8	0.3	-	-0.2	0.5	0.9	0.7	0.8	1.2					0.1
2000 Q1	0.9	0.2	0.3	0.4	-0.4	1.2	0.7	1.2	-0.1					-1.9
Q2	1.1	0.7	-	-0.1	0.6	0.9	1.0	3.0	2.5					1.4
Q3	0.6	0.1	-	0.3	0.2	0.9	0.8	2.2	-1.6					0.9
Q4	..	..	..	..	..	..	..	..	..					..
Percentage change on previous month														
								ILKC	ILKM					
1999 Dec								-0.3	1.0					
2000 Jan								-0.3	-1.1					
Feb								2.1	2.4					
Mar								0.3	-2.3					
Apr								1.4	2.8					
May								2.3	4.4					
Jun								-2.9	-7.4					
Jul								3.2	1.3					
Aug								0.6	1.6					
Sep								-0.5	-0.5					
Oct								-0.8	-2.3					
Nov								0.4	0.5					
Dec								..	..			

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

loP = Industrial Production

Sales = Retail Sales volume

CPI = Consumer Prices measurement not uniform among countries

PPI = Producer Prices (manufacturing)

Earnings = Average Earnings (manufacturing), definitions of coverage and treatment vary among countries

Empl = Total Employment not seasonally adjusted

Unempl = Standardised Unemployment rates: percentage of total workforce

Source: OECD - SNA93

Contribution to change in GDP

	GDP	PFC	GFC	GFCF	ChgStk	Exports	Imports	loP	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
1992	1.3	0.4	0.8	-0.3	-0.2	1.0	0.3	-1.1	0.3	2.3	-1.1	4.0	-0.6	10.4
1993	-0.9	-0.1	1.0	-1.3	-1.2	-	-0.7	-3.7	0.2	2.2	-2.2	3.0	-1.3	11.7
1994	1.8	0.3	0.1	0.3	1.0	1.6	1.6	3.9	-0.1	1.7	1.2	2.0	0.1	12.3
1995	1.9	0.9	-	0.4	0.5	1.7	1.6	2.5	-	1.7	5.2	2.4	0.9	11.7
1996	1.0	0.7	0.5	-	-0.6	0.7	0.3	0.9	-0.3	2.0	-2.7	2.6	0.2	12.3
1997	1.9	0.1	0.5	-	0.1	2.8	1.5	3.8	1.0	1.2	-0.6	2.6	0.7	12.3
1998	3.2	1.9	0.1	1.2	0.6	2.0	2.5	5.1	2.6	0.8	-0.9	2.2	1.6	11.8
1999	3.0	1.3	0.6	1.4	-0.4	1.0	0.9	2.0	2.4	0.5	-1.6	2.5	1.9	11.3
2000	..	..	..	..	..	..	..	..	0.6	1.7	2.1	..	..	9.5
1998 Q1	3.3	1.5	0.1	1.1	0.6	3.2	3.1	7.6	2.3	0.9	0.5	2.4	1.2	11.9
Q2	3.5	2.1	-	1.2	0.9	2.4	3.1	6.8	3.1	1.1	-0.3	2.0	1.6	11.8
Q3	3.3	2.1	-	1.3	0.4	1.7	2.2	3.9	2.5	0.7	-1.4	2.1	1.8	11.8
Q4	2.8	1.8	0.1	1.3	0.7	0.6	1.6	2.6	2.7	0.4	-2.3	2.0	1.8	11.8
1999 Q1	2.7	1.5	0.5	1.5	-0.1	-0.1	0.5	1.1	3.4	0.2	-2.7	2.0	2.0	11.7
Q2	2.6	1.1	0.6	1.4	-0.3	0.3	0.5	0.4	1.8	0.4	-2.3	2.0	1.9	11.5
Q3	3.0	1.3	0.6	1.3	-0.8	1.4	0.9	2.5	2.2	0.5	-1.6	2.7	1.8	11.2
Q4	3.5	1.3	0.6	1.3	-0.3	2.3	1.7	4.0	1.9	1.0	-	3.4	2.0	10.7
2000 Q1	3.5	1.6	0.4	1.2	-0.1	3.3	2.9	4.5	2.1	1.5	1.2	5.2	2.3	10.2
Q2	3.4	1.3	0.3	1.2	-	3.8	3.3	4.1	1.4	1.5	2.1	5.4	2.4	9.6
Q3	3.0	1.0	0.4	1.3	0.9	3.5	4.1	3.7	-	1.9	2.7	5.2	2.6	9.4
Q4	..	..	..	..	..	..	..	..	-1.3	1.9	2.4	..	..	8.9
1999 Dec	..	..	..	..	..	..	..	4.2	2.8	1.3	0.3	..	..	10.5
2000 Jan	..	..	..	..	..	..	..	4.0	1.8	1.6	0.8	..	..	10.3
Feb	..	..	..	..	..	..	..	4.7	2.4	1.4	1.2	..	..	10.2
Mar	..	..	..	..	..	..	..	4.8	2.0	1.5	1.4	..	..	10.0
Apr	..	..	..	..	..	..	..	4.7	-1.0	1.3	1.9	..	..	9.8
May	..	..	..	..	..	..	..	3.9	4.1	1.5	2.1	..	..	9.6
Jun	..	..	..	..	..	..	..	3.8	1.2	1.7	2.2	..	..	9.4
Jul	..	..	..	..	..	..	..	3.9	-1.5	1.7	2.6	..	..	9.4
Aug	..	..	..	..	..	..	..	3.9	1.5	1.8	2.7	..	..	9.4
Sep	..	..	..	..	..	..	..	3.3	0.2	2.2	2.7	..	..	9.3
Oct	..	..	..	..	..	..	..	3.3	-1.2	1.9	2.5	..	..	9.1
Nov	..	..	..	..	..	..	..	2.3	-1.2	2.2	2.4	..	..	8.9
Dec	..	..	..	..	..	..	..	..	-1.5	1.5	2.5	..	..	8.8
Percentage change on previous quarter														
	ILGJ	HUBQ	HUBR	HUBS	HUBT	HUBU	HUBV	ILHD	ILHX					ILIR
1998 Q1	0.7	0.4	-0.1	0.3	0.4	0.6	0.9	1.7	-					0.4
Q2	0.9	0.8	-	0.4	0.1	0.3	0.6	1.3	1.0					0.6
Q3	0.6	0.3	0.1	0.3	-	-	0.1	-0.5	0.7					0.5
Q4	0.6	0.3	0.1	0.3	0.2	-0.3	0.1	0.1	1.1					0.3
1999 Q1	0.6	0.1	0.2	0.5	-0.4	-	-0.2	0.2	0.7					0.6
Q2	0.8	0.4	0.2	0.3	-0.1	0.6	0.5	0.5	-0.6					0.5
Q3	1.0	0.5	0.1	0.2	-0.4	1.1	0.5	1.7	1.0					0.6
Q4	1.1	0.3	0.1	0.3	0.6	0.6	0.9	1.5	0.8					0.5
2000 Q1	0.6	0.4	-	0.3	-0.2	1.0	1.0	0.7	0.8					0.9
Q2	0.8	0.1	0.1	0.3	-	1.1	0.9	0.2	-1.2					0.6
Q3	0.6	0.2	0.1	0.3	0.4	0.7	1.2	1.3	-0.4					0.7
Q4	..	..	..	..	..	..	..	..	-0.6					..
Percentage change on previous month														
								ILKD	ILKN					
1999 Dec								-0.8	-0.4					
2000 Jan								0.3	-0.5					
Feb								0.7	1.1					
Mar								0.4	0.6					
Apr								-0.4	-4.0					
May								0.2	3.7					
Jun								-0.1	-1.0					
Jul								1.3	-0.6					
Aug								-	-0.8					
Sep								-0.1	0.5					
Oct								0.8	-1.6					
Nov								0.1	1.8					
Dec								..	-0.7					

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 workforce
loP=Index of Production

Contribution to change in GDP

	GDP	PFC	GFC	GFCF	ChgStk	Exports	less Imports	IoP	Sales	CPI	PPI	Earnings	Empl	Unempl
Percentage change on a year earlier														
	ILGA	HUCI	HUCJ	HUCK	HUCL	HUCM	HUCN	ILGU	ILHO	HYAA	ILAH	ILAQ	ILII	GABE
1992	0.8	1.2	0.1	-0.3	-0.1	1.4	1.6	-1.0	1.8	5.3	2.0	5.4	-1.0	8.9
1993	-0.9	-2.3	-	-2.2	-0.7	1.9	-2.5	-2.3	-2.9	4.6	3.7	3.6	-4.1	10.2
1994	2.2	0.9	-0.2	-	0.8	2.2	1.7	5.8	-6.2	4.1	3.7	3.4	-1.7	11.1
1995	2.9	1.0	-0.4	1.1	0.2	3.1	2.1	5.8	-5.1	5.3	7.9	3.1	-0.6	11.7
1996	1.1	0.7	0.2	0.7	-0.7	0.2	-0.1	-1.5	-1.4	4.0	1.8	3.1	0.5	11.7
1997	1.8	1.7	0.1	0.2	0.3	1.7	2.3	3.8	6.9	2.0	1.3	3.6	0.4	11.8
1998	1.5	1.4	0.1	0.8	0.6	0.9	2.2	1.3	3.0	2.0	0.1	2.8	1.2	11.8
1999	1.4	1.0	0.1	0.8	0.4	-0.1	0.9	-	-	1.7	-0.2	2.3	1.2	11.4
2000	-	-	-	-	-	-	-	-	-	2.5	5.9	-	1.9	-
1998 Q1	2.8	1.5	0.1	1.2	1.3	2.3	3.6	5.2	3.8	2.0	1.2	2.2	1.0	11.8
Q2	1.5	1.1	0.1	0.8	0.1	1.6	2.2	2.7	0.4	2.1	0.6	3.1	0.9	11.9
Q3	1.5	1.3	0.1	0.8	0.2	0.6	1.5	0.3	3.2	2.1	-0.1	2.8	1.1	11.9
Q4	0.4	1.6	0.1	0.3	0.7	-0.7	1.6	-2.5	5.1	1.7	-1.2	3.0	1.5	11.8
1999 Q1	1.2	1.5	0.1	0.3	1.4	-1.5	0.6	-1.3	-	1.2	-1.8	3.0	1.2	11.6
Q2	1.0	1.0	0.1	0.8	0.8	-0.6	1.0	-2.6	-	1.4	-1.4	2.1	1.3	11.4
Q3	1.2	0.9	0.1	1.0	0.2	-	0.9	0.5	-	1.7	-	2.3	1.2	11.3
Q4	2.2	0.8	0.1	1.3	-0.6	1.7	1.0	3.2	-	2.1	2.2	1.8	1.4	11.1
2000 Q1	2.9	1.2	0.2	1.4	-1.3	2.9	1.5	3.4	-	2.6	4.6	-	1.2	11.0
Q2	2.8	1.3	0.2	1.4	-0.4	2.4	2.2	5.7	-	2.6	6.2	-	1.5	10.6
Q3	2.6	1.2	0.2	1.2	-0.2	3.4	3.2	3.5	-	2.6	6.7	-	2.1	10.3
Q4	-	-	-	-	-	-	-	-	-	2.6	6.5	-	2.8	-
2000 Jan	-	-	-	-	-	-	-	1.8	-	2.9	3.8	-	-	11.2
Feb	-	-	-	-	-	-	-	4.9	-	2.4	4.7	-	-	11.0
Mar	-	-	-	-	-	-	-	3.6	-	2.5	5.4	-	-	10.8
Apr	-	-	-	-	-	-	-	4.2	-	2.3	5.3	-	-	10.6
May	-	-	-	-	-	-	-	7.9	-	2.5	6.4	-	-	10.6
Jun	-	-	-	-	-	-	-	4.9	-	2.7	6.9	-	-	10.6
Jul	-	-	-	-	-	-	-	2.9	-	2.6	6.6	-	-	10.5
Aug	-	-	-	-	-	-	-	3.5	-	2.6	6.5	-	-	10.3
Sep	-	-	-	-	-	-	-	3.8	-	2.6	6.8	-	-	10.2
Oct	-	-	-	-	-	-	-	2.4	-	2.6	6.7	-	-	10.1
Nov	-	-	-	-	-	-	-	2.4	-	2.7	6.7	-	-	-
Dec	-	-	-	-	-	-	-	-	-	2.7	6.2	-	-	-
2001 Jan	-	-	-	-	-	-	-	-	-	3.0	-	-	-	-
Percentage change on previous quarter														
	ILGK	HUCO	HUCP	HUCQ	HUCR	HUCS	HUCT	ILHE	ILHY				ILIS	
1998 Q1	-0.4	0.4	-	0.3	-0.6	0.3	0.7	-0.9	5.1				-0.7	
Q2	0.6	0.6	0.1	-0.1	0.1	-	0.1	0.6	-0.5				1.1	
Q3	0.6	0.4	-	0.1	-	-0.1	-0.2	-0.9	-				1.4	
Q4	-0.4	0.3	0.1	0.1	1.2	-0.9	1.0	-1.4	0.6				-0.3	
1999 Q1	0.4	0.2	-	0.3	0.1	-0.6	-0.4	0.4	-				-1.0	
Q2	0.4	0.1	-	0.4	-0.4	0.9	0.5	-0.8	-				1.2	
Q3	0.8	0.3	0.1	0.3	-0.6	0.6	-0.2	2.3	-				1.3	
Q4	0.6	0.2	0.1	0.4	0.3	0.7	1.1	1.3	-				-0.1	
2000 Q1	1.1	0.6	-	0.4	-0.6	0.7	0.1	0.6	-				-1.2	
Q2	0.3	0.2	0.1	0.3	0.4	0.4	1.2	1.4	-				1.5	
Q3	0.6	0.1	-	0.1	-0.4	1.5	0.8	0.1	-				1.9	
Q4	-	-	-	-	-	-	-	-	-				0.6	
Percentage change on previous month														
								ILKE	ILKO					
2000 Jan								-1.0	-					
Feb								1.6	-					
Mar								0.2	-					
Apr								-0.5	-					
May								2.3	-					
Jun								-0.9	-					
Jul								-0.8	-					
Aug								1.2	-					
Sep								-	-					
Oct								-0.8	-					
Nov								1.1	-					
Dec								-	-					
2001 Jan								-	-					

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

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

Contribution to change in GDP

	GDP	PFC	GFC	GFCF	ChgStk	Exports	Imports	less	IoP	Sales	CPI	PPI	Earnings	Empl ¹	Unempl
Percentage change on a year earlier															
	ILGC	HUDG	HUDH	HUDI	HUDJ	HUDK	HUDL	ILGW	ILHQ	ILAA	ILAJ	ILAS	ILIK	GADO	
1992	3.1	1.9	0.1	0.8	0.3	0.8	0.6	3.2	3.4	3.0	1.3	2.7	0.6	7.5	
1993	2.7	2.2	-0.1	1.0	-	0.3	0.9	3.4	4.9	2.9	1.5	2.6	1.5	6.9	
1994	4.0	2.5	-	1.2	0.7	0.9	1.2	5.4	6.5	2.6	1.4	2.4	2.3	6.1	
1995	2.7	2.0	-	0.9	-0.5	1.0	0.9	4.8	3.6	2.8	2.9	2.6	1.5	5.6	
1996	3.6	2.1	0.1	1.5	-	0.9	1.0	4.6	4.9	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	6.7	4.1	2.3	0.3	3.1	2.3	5.0	
1998	4.4	3.1	0.2	2.1	0.2	0.3	1.6	4.7	6.4	1.6	-1.1	2.5	1.5	4.5	
1999	4.2	3.5	0.3	1.9	-0.4	0.3	1.5	4.2	8.6	2.1	1.8	2.9	1.5	4.2	
2000	5.0	3.6	0.3	1.9	0.2	1.1	2.1	5.6	..	3.4	4.1	3.5	1.3	4.0	
1998 Q1	4.8	2.8	0.2	2.0	0.8	0.8	1.8	6.3	4.8	1.4	-1.5	2.8	1.9	4.7	
Q2	4.1	3.4	0.2	2.2	-0.3	0.2	1.7	5.3	7.5	1.6	-0.9	2.8	1.5	4.4	
Q3	3.9	3.0	0.2	1.9	0.3	-0.2	1.3	4.3	5.3	1.6	-1.0	2.5	1.1	4.5	
Q4	4.6	3.3	0.3	2.2	-	0.3	1.5	3.2	7.7	1.5	-0.9	1.9	1.3	4.4	
1999 Q1	3.9	3.4	0.4	2.0	-0.8	-	1.2	3.3	9.0	1.7	-	1.8	1.7	4.3	
Q2	3.8	3.4	0.1	1.8	-0.5	0.2	1.4	3.8	7.8	2.2	1.1	2.8	1.4	4.3	
Q3	4.3	3.5	0.3	1.9	-0.4	0.6	1.8	4.4	9.3	2.4	2.4	3.7	1.4	4.2	
Q4	5.0	3.7	0.4	1.9	0.1	0.5	1.8	5.1	8.3	2.6	3.2	3.6	1.5	4.1	
2000 Q1	5.3	4.0	0.2	2.1	-0.1	0.9	2.0	5.8	8.5	3.4	4.6	4.3	1.6	4.0	
Q2	6.1	3.6	0.5	2.2	0.7	1.2	2.2	6.5	7.0	3.3	4.4	2.9	1.6	4.0	
Q3	5.2	3.5	0.3	1.9	0.4	1.3	2.3	5.9	6.3	3.5	3.9	2.9	1.1	4.0	
Q4	3.5	3.0	0.1	1.4	-0.1	0.9	1.8	4.1	..	3.4	3.3	3.5	1.0	4.0	
2000 Jan	..	..	..	..	..	..	..	5.6	8.9	3.0	3.6	4.5	1.5	4.0	
Feb	..	..	..	..	..	..	..	5.9	8.6	3.3	5.0	4.5	1.7	4.1	
Mar	..	..	..	..	..	..	..	5.7	8.0	3.8	5.2	3.6	1.7	4.0	
Apr	..	..	..	..	..	..	..	6.4	7.6	3.0	4.0	2.7	2.1	4.0	
May	..	..	..	..	..	..	..	6.4	6.7	3.1	4.2	2.7	1.2	4.1	
Jun	..	..	..	..	..	..	..	6.8	6.6	3.7	5.0	3.6	1.3	4.0	
Jul	..	..	..	..	..	..	..	5.6	6.7	3.7	4.4	3.6	1.0	4.0	
Aug	..	..	..	..	..	..	..	5.9	6.0	3.4	3.6	2.7	1.0	4.1	
Sep	..	..	..	..	..	..	..	6.1	6.3	3.4	3.8	2.6	1.1	3.9	
Oct	..	..	..	..	..	..	..	4.9	5.8	3.4	3.5	3.5	1.0	3.9	
Nov	..	..	..	..	..	..	..	4.4	..	3.5	3.5	3.5	0.9	4.0	
Dec	..	..	..	..	..	..	..	3.1	..	3.4	2.9	3.5	1.1	4.0	
2001 Jan	..	..	..	..	..	..	..	..	..	..	..	2.6	0.8	4.2	
Percentage change on previous quarter															
	ILGM	HUDM	HUDN	HUDO	HUDP	HUDQ	HUDR	ILHG	ILIA				ILIU		
1998 Q1	1.6	0.8	-0.1	0.7	0.6	-	0.5	0.9	1.4				-1.0		
Q2	0.7	0.9	0.2	0.7	-0.7	-0.1	0.4	0.7	2.6				1.5		
Q3	0.9	0.7	-	0.3	0.1	-0.1	0.2	0.9	0.5				0.6		
Q4	1.4	0.8	0.1	0.5	-	0.4	0.4	0.8	2.9				0.2		
1999 Q1	0.9	0.9	-	0.6	-0.2	-0.2	0.2	0.9	2.6				-0.6		
Q2	0.6	0.9	-	0.4	-0.4	0.2	0.6	1.2	1.5				1.2		
Q3	1.4	0.8	0.2	0.4	0.3	0.3	0.6	1.5	2.0				0.6		
Q4	2.0	1.0	0.2	0.5	0.5	0.3	0.4	1.4	2.0				0.3		
2000 Q1	1.2	1.2	-0.1	0.8	-0.5	0.2	0.4	1.6	2.7				-0.5		
Q2	1.4	0.5	0.3	0.4	0.5	0.4	0.7	1.9	0.1				1.2		
Q3	0.5	0.7	-0.1	0.1	-0.1	0.4	0.7	0.9	1.4				0.1		
Q4	0.3	0.5	-	-	-0.1	-0.1	-	-0.3	..				0.2		
Percentage change on previous month															
								ILKG	ILKO				ILLA		
2000 Jan								0.6	0.8				-0.9		
Feb								0.5	1.0				0.4		
Mar								0.6	-0.2				0.5		
Apr								0.7	-0.3				0.6		
May								0.7	0.3				-0.2		
Jun								0.5	0.1				0.8		
Jul								-0.2	0.9				-		
Aug								0.7	0.4				-0.4		
Sep								0.2	0.2				-0.5		
Oct								-0.3	-				0.6		
Nov								-0.2	..				-		
Dec								-0.6	..				0.3		
2001 Jan								..	..				-1.2		

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
Unempl = Standardised Unemployment rates: percentage of total workforce

Contribution to change in GDP

	GDP	PFC	GFC	GFCF	ChgStk	Exports	less Imports	IoP ¹	Sales	CPI	PPI	Earnings ²	Empl	Unempl
Percentage change on a year earlier														
	ILGD	HUCU	HUCV	HUCW	HUCX	HUCY	HUCZ	ILGX	ILHR	ILAB	ILAK	ILAT	ILIL	GADP
1992	0.9	1.4	0.4	-0.8	-0.4	0.3	-	-5.7	-0.2	1.8	-1.0	1.3	1.1	2.1
1993	0.5	1.1	0.4	-0.9	-0.2	-	-0.1	-3.4	-2.8	1.2	-1.6	0.3	0.2	2.5
1994	1.0	1.4	0.4	-0.4	-0.2	0.3	0.5	1.3	0.3	0.7	-1.8	2.2	0.1	2.9
1995	1.6	0.8	0.6	-	0.6	0.3	0.9	3.0	0.1	-0.1	-0.7	2.9	-	3.1
1996	3.4	1.0	0.4	2.0	0.3	0.6	1.0	2.2	0.7	0.1	-1.7	2.6	0.5	3.4
1997	1.9	0.6	0.2	0.2	-	1.1	0.1	4.0	-1.9	1.7	0.6	2.9	1.0	3.4
1998	-1.1	0.1	0.3	-1.2	-0.6	-0.2	-0.6	-6.7	-5.5	0.7	-1.3	-0.8	-0.6	4.1
1999	0.8	0.7	0.6	-0.2	-0.2	0.1	0.2	1.0	-2.0	-0.3	-1.5	-0.6	-0.8	4.7
2000	..	..	..	..	..	..	..	5.1	-1.7	-0.7	0.1	1.8	-0.3	4.8
1998 Q1	-2.6	-2.4	0.2	-0.8	-0.1	0.2	-0.4	-4.2	-10.0	2.0	0.4	-0.2	-	3.7
Q2	0.7	1.3	0.3	-0.7	-0.6	-0.3	-0.6	-7.9	-2.4	0.4	-1.9	-0.3	-0.7	4.1
Q3	-0.8	1.0	0.3	-1.8	-0.9	-0.2	-0.6	-7.9	-3.8	-0.2	-1.8	-1.7	-0.9	4.2
Q4	-1.4	0.6	0.3	-1.5	-0.8	-0.6	-0.6	-6.7	-5.2	0.5	-2.0	-0.7	-1.0	4.4
1999 Q1	-0.4	0.2	0.5	-0.7	-0.4	-0.4	-0.3	-3.7	-4.2	-0.1	-2.1	-0.4	-1.2	4.6
Q2	1.0	1.1	0.5	-0.2	-0.2	-0.1	0.1	0.3	-2.1	-0.3	-1.8	-1.1	-1.1	4.7
Q3	2.1	1.6	0.7	-0.1	-0.1	0.3	0.3	2.7	-1.4	-	-1.4	-0.3	-0.7	4.7
Q4	0.4	-0.2	0.6	0.1	-	0.7	0.8	5.1	-0.3	-1.0	-0.6	-0.3	-0.2	4.6
2000 Q1	2.4	1.0	0.6	0.2	-	1.2	0.7	4.4	-2.9	-0.7	-0.1	2.0	-0.5	4.8
Q2	1.1	-	0.6	-0.2	0.1	1.4	0.8	6.3	-1.9	-0.7	0.4	2.3	-0.4	4.7
Q3	1.4	-0.7	0.5	1.1	-	1.2	0.7	5.3	-1.1	-0.7	0.2	1.5	-0.4	4.7
Q4	..	..	..	..	..	..	..	4.3	-1.1	-0.5	-	1.1	0.2	4.8
1999 Dec	..	..	..	..	..	..	..	6.2	-	-1.1	-0.5	-2.2	-0.3	4.7
2000 Jan	..	..	..	..	..	..	..	4.4	-2.2	-0.9	-0.3	2.5	-0.4	4.7
Feb	..	..	..	..	..	..	..	4.0	-3.3	-0.6	-0.1	1.8	-0.4	4.9
Mar	..	..	..	..	..	..	..	4.7	-3.3	-0.5	0.2	1.7	-0.6	4.9
Apr	..	..	..	..	..	..	..	7.3	-3.3	-0.8	0.5	2.2	-0.5	4.8
May	..	..	..	..	..	..	..	4.7	-1.1	-0.7	0.3	2.1	-0.5	4.6
Jun	..	..	..	..	..	..	..	6.9	-1.1	-0.7	0.4	2.8	-0.3	4.7
Jul	..	..	..	..	..	..	..	5.7	-1.1	-0.5	0.2	1.3	-0.1	4.7
Aug	..	..	..	..	..	..	..	6.8	-1.1	-0.8	0.3	2.0	-0.4	4.6
Sep	..	..	..	..	..	..	..	3.5	-1.1	-0.8	0.1	1.5	-0.5	4.7
Oct	..	..	..	..	..	..	..	5.0	-1.1	-0.9	-	1.4	0.1	4.7
Nov	..	..	..	..	..	..	..	3.3	-1.1	-0.5	-0.1	-0.1	0.3	4.8
Dec	..	..	..	..	..	..	..	4.6	-1.1	-0.2	-	1.9	0.2	4.9
Percentage change on previous quarter														
	ILGN	HUDA	HUDB	HUDC	HUDD	HUDE	HUDD	ILHH	ILIB				ILIV	
1998 Q1	-0.6	0.3	-	-0.3	-0.4	-0.3	-0.1	-1.7	-0.3				-1.6	
Q2	0.1	0.2	0.2	-0.2	-0.2	-0.1	-0.3	-4.3	-2.4				2.1	
Q3	-1.1	0.3	-	-1.2	-0.2	-0.1	-	0.3	-0.7				-0.4	
Q4	0.1	-0.1	0.1	0.2	-0.1	-0.1	-0.2	-1.1	-1.8				-1.1	
1999 Q1	0.5	-0.1	0.2	0.5	0.1	-	0.2	1.4	0.8				-1.8	
Q2	1.5	1.1	0.2	0.3	-	0.2	0.2	-0.3	-0.3				2.2	
Q3	-0.1	0.7	0.2	-1.0	-0.1	0.3	0.2	2.7	-				-	
Q4	-1.5	-1.9	0.1	0.4	-0.1	0.3	0.3	1.2	-0.8				-0.6	
2000 Q1	2.4	1.1	0.2	0.6	0.2	0.5	-	0.7	-1.9				-2.1	
Q2	0.2	0.1	0.2	-0.2	0.1	0.4	0.3	1.6	0.8				2.3	
Q3	0.2	-	0.1	0.4	-0.1	-	0.1	1.8	0.8				-	
Q4	..	..	..	..	..	..	..	0.2	-0.8				-	
Percentage change on previous month														
								ILKH	ILKR				ILLB	
1999 Dec								0.2	-				-0.9	
2000 Jan								-0.4	-1.1				-1.1	
Feb								-0.2	-1.1				-0.7	
Mar								2.1	-				0.6	
Apr								-0.5	-				1.4	
May								0.2	1.1				1.0	
Jun								1.8	1.1				-	
Jul								-0.5	-				-0.2	
Aug								3.3	-				-0.1	
Sep								-3.5	-1.1				-	
Oct								1.3	-				0.4	
Nov								-0.5	-				-0.1	
Dec								1.4	-				-1.0	

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
Unempl = Standardised Unemployment rates: percentage of total workforce
IoP = Index of Production

7 World trade in goods¹

	Export of manufactures			Import of manufactures			Export of goods			Import of goods			Total trade	
	Total	OECD	Other	Total	OECD	Other	Total	OECD	Other	Total	OECD	Other	manufactures	goods
Percentage change on a year earlier														
	ILIZ	ILJA	ILJB	ILJC	ILJD	ILJE	ILJF	ILJG	ILJH	ILJI	ILJJ	ILJK	ILJL	ILJM
1992	4.3	3.4	8.4	5.2	4.3	7.9	4.2	3.7	5.7	5.0	4.1	7.5	4.7	4.6
1993	4.7	2.2	15.3	4.0	1.0	12.5	3.9	2.1	9.1	3.3	0.8	10.3	4.4	3.6
1994	12.1	9.9	20.1	12.0	12.3	11.1	10.6	9.4	14.1	10.9	10.9	10.8	12.0	10.8
1995	9.5	9.8	8.6	10.8	10.2	12.4	8.9	9.3	7.8	9.7	8.8	12.2	10.2	9.3
1996	6.6	6.2	7.7	7.3	7.6	6.6	6.5	6.1	7.6	6.5	7.2	4.9	7.0	6.5
1997	11.4	11.8	10.0	10.7	11.2	9.4	10.5	11.1	9.1	9.6	9.9	8.8	11.1	10.1
1998	5.9	6.0	5.2	6.5	9.3	-0.5	5.3	5.5	4.6	5.8	8.1	-0.3	6.2	5.5
1999	6.0	5.5	7.9	7.8	10.1	1.1	5.5	5.1	6.5	6.3	8.4	-	6.9	5.9
2000	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1995 Q1	13.2	13.4	12.6	13.7	14.0	12.8	12.2	13.0	10.1	12.4	12.2	12.8	13.5	12.3
Q2	10.0	10.3	8.9	12.1	11.5	13.8	9.6	10.2	7.9	11.3	10.3	13.7	11.1	10.4
Q3	8.5	9.0	6.9	10.5	9.6	12.9	7.8	8.2	6.7	9.3	7.9	12.7	9.5	8.5
Q4	6.8	6.9	6.4	7.4	6.3	10.3	6.2	6.0	6.6	6.3	5.0	9.8	7.1	6.2
1996 Q1	5.6	5.3	6.6	7.5	7.2	8.0	5.3	4.7	6.8	6.4	6.3	6.7	6.5	5.8
Q2	5.6	5.1	7.1	6.2	6.3	5.9	5.3	4.6	7.2	5.3	5.8	4.1	5.9	5.3
Q3	6.9	6.6	7.9	7.6	8.5	5.5	7.0	6.7	7.8	6.8	8.0	3.6	7.3	6.9
Q4	8.2	7.9	9.3	8.1	8.6	7.0	8.4	8.3	8.7	7.6	8.4	5.3	8.2	8.0
1997 Q1	8.5	8.0	10.2	8.0	8.0	8.2	8.1	7.7	9.3	7.5	7.6	7.3	8.3	7.8
Q2	12.4	13.0	10.4	11.4	12.2	9.4	11.6	12.5	9.4	10.1	10.5	9.0	11.9	10.8
Q3	13.0	13.9	10.1	11.7	12.4	10.0	11.8	12.9	9.0	10.3	10.7	9.5	12.4	11.1
Q4	11.6	12.3	9.5	11.6	12.2	10.0	10.5	11.2	8.6	10.3	10.6	9.3	11.6	10.4
1998 Q1	10.5	11.3	8.0	10.7	12.8	5.5	9.9	11.0	7.1	9.7	11.3	5.7	10.6	9.8
Q2	6.5	6.5	6.3	7.0	9.2	1.4	5.9	6.0	5.5	6.5	8.2	1.7	6.7	6.2
Q3	3.9	3.8	4.3	4.8	7.6	-2.7	3.3	3.2	3.8	4.2	6.7	-2.4	4.3	3.8
Q4	2.9	2.9	2.6	4.0	7.7	-5.7	2.3	2.3	2.4	3.1	6.4	-5.6	3.4	2.7
1999 Q1	2.0	1.9	2.3	3.8	6.6	-3.8	1.5	1.1	2.4	2.7	5.3	-4.4	2.9	2.1
Q2	3.8	3.5	4.7	6.3	8.9	-1.0	3.5	3.3	4.3	4.8	7.3	-2.2	5.0	4.2
Q3	7.8	7.1	10.0	9.1	11.3	2.6	7.2	7.0	8.0	7.4	9.5	1.4	8.4	7.3
Q4	10.6	9.4	14.5	11.8	13.5	6.8	9.7	9.1	11.4	10.0	11.5	5.6	11.2	9.9
2000 Q1	15.2	14.3	18.1	14.7	15.7	11.5	14.0	13.9	14.3	13.4	14.4	10.4	14.9	13.7
Q2	14.8	13.4	19.4	15.6	15.8	15.2	13.6	12.8	15.6	14.1	14.1	14.3	15.2	13.9
Q3	..	12.2	..	..	14.9	..	..	11.7	..	..	13.6	..	..	..
Q4	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Percentage change on previous quarter														
	ILJN	ILJO	ILJP	ILJQ	ILJR	ILJS	ILJT	ILJU	ILJV	ILJW	ILJX	ILJY	ILJZ	ILKA
1995 Q1	3.0	3.4	1.8	2.0	1.5	3.4	2.8	3.2	1.7	1.7	1.0	3.3	2.5	2.2
Q2	1.0	0.9	1.7	2.3	1.9	3.2	1.0	0.8	1.6	2.3	2.0	3.2	1.6	1.7
Q3	1.0	0.9	1.5	1.2	0.8	2.2	0.8	0.6	1.6	0.9	0.5	2.0	1.1	0.9
Q4	1.5	1.5	1.3	1.7	2.0	1.1	1.4	1.3	1.6	1.3	1.4	0.8	1.6	1.3
1996 Q1	2.0	2.0	2.0	2.1	2.5	1.3	1.9	2.0	1.8	1.8	2.3	0.5	2.0	1.9
Q2	1.0	0.6	2.1	1.0	1.0	1.2	1.0	0.7	2.0	1.2	1.5	0.7	1.0	1.1
Q3	2.3	2.3	2.3	2.5	2.8	1.8	2.5	2.6	2.2	2.3	2.6	1.6	2.4	2.4
Q4	2.7	2.7	2.6	2.2	2.1	2.5	2.7	2.9	2.4	2.0	1.8	2.4	2.5	2.4
1997 Q1	2.2	2.1	2.8	2.0	1.9	2.5	1.7	1.4	2.4	1.7	1.5	2.4	2.1	1.7
Q2	4.6	5.3	2.3	4.2	4.9	2.3	4.3	5.1	2.1	3.7	4.3	2.2	4.4	4.0
Q3	2.9	3.1	1.9	2.8	3.1	2.3	2.7	3.0	1.9	2.5	2.7	2.1	2.8	2.6
Q4	1.5	1.3	2.1	2.1	1.9	2.5	1.5	1.4	2.0	1.9	1.8	2.3	1.8	1.7
1998 Q1	1.2	1.2	1.4	1.3	2.4	-1.7	1.1	1.2	1.0	1.2	2.1	-1.0	1.2	1.2
Q2	0.8	0.8	0.7	0.7	1.6	-1.7	0.5	0.4	0.6	0.6	1.4	-1.5	0.7	0.6
Q3	0.4	0.5	-	0.7	1.6	-1.8	0.2	0.2	0.2	0.4	1.3	-2.1	0.5	0.3
Q4	0.5	0.4	0.5	1.3	2.0	-0.7	0.5	0.5	0.6	0.8	1.5	-1.0	0.9	0.7
1999 Q1	0.3	0.1	1.0	1.1	1.3	0.4	0.3	0.1	1.0	0.7	0.9	0.2	0.7	0.5
Q2	2.6	2.4	3.1	3.1	3.8	1.1	2.5	2.6	2.4	2.8	3.4	0.8	2.8	2.7
Q3	4.3	4.0	5.1	3.4	3.9	1.8	3.8	3.7	3.8	2.9	3.3	1.4	3.8	3.3
Q4	3.1	2.6	4.6	3.8	4.0	3.4	2.8	2.4	3.7	3.3	3.4	3.1	3.5	3.1
2000 Q1	4.5	4.6	4.2	3.6	3.3	4.8	4.2	4.5	3.6	3.8	3.6	4.7	4.1	4.0
Q2	2.2	1.6	4.2	4.0	3.8	4.4	2.2	1.6	3.6	3.4	3.1	4.3	3.1	2.8
Q3	..	2.9	..	..	3.1	..	..	2.7	..	..	2.9	..	..	..
Q4	..	..	..	..	..	..	..	..	..	..	..	..	..	..

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

Source: OECD - SNA68

Final Expenditure Prices Index (Experimental) – January 2001

Contact: Richard Clegg

Tel: 020-7533 5822

E-mail: fepi@ons.gov.uk

Note that further development work is ongoing and the FEPI will be available only as an experimental index until this work has been completed.

Summary

The rate of inflation for the FEPI was 1.3 per cent in January 2001, broadly the same as in the previous month. Estimates for the FEPI(P), a variant version of the FEPI incorporating government output prices (see Note 6), are not available for January 2001.

The FEPI annual percentage change

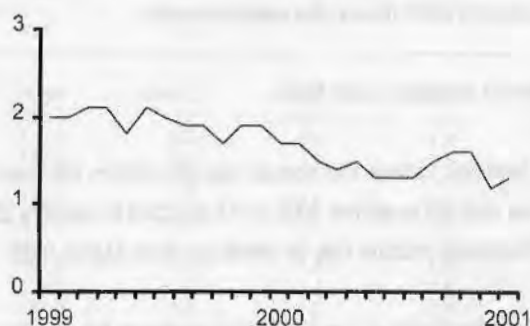


Table A

Final Expenditure Prices Index and components (January 1992=100 and annual percentage change)

		ICP		IIP		IGP		IGP(P)		FEPI		FEPI(P)	
		Index	% change	Index	% change	Index	% change	Index	% change	Index	% change	Index	% change
2000	Aug	122.6	0.7	114.8	2.1	123.7	2.1	122.8	2.0	121.2	1.3	121.0	1.3
	Sep	123.4	1.1	115.2	2.5	124.1	2.2	123.0	1.9	121.8	1.5	121.6	1.4
	Oct	123.2	1.1	115.1	2.5	124.1	2.4	122.9	1.8	121.7	1.6	121.5	1.5
	Nov	123.5	1.1	115.3	2.0	124.4	2.4	123.1	1.8	122.0	1.6	121.7	1.4
	Dec	123.4	0.8	115.2	1.4	124.6	2.4	123.2	1.7	122.0	1.2	121.7	1.2
	Jan	122.5	0.8	115.1	1.3	124.8	2.3	NA	NA	121.5	1.3	NA	NA

The Index of Consumer Prices (ICP)

Consumer price inflation, as measured by the ICP, was 0.8 per cent in January 2001, the same as in the previous month.

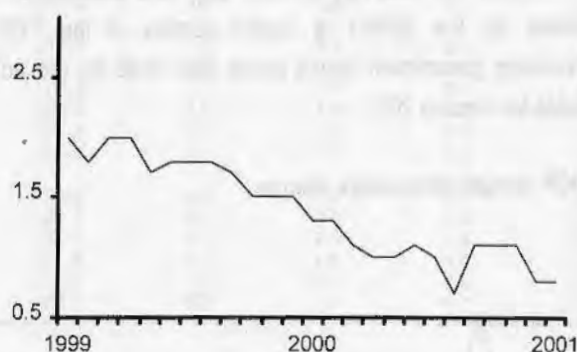
Upward pressure came from:

- Household goods and services, where the annual rate of inflation increased from minus 0.7 per cent in December 2000 to plus 0.2 per cent in January 2001. This was largely due to shallower discounting for furniture and furnishings compared with last year.
- Clothing and footwear, where the annual rate of inflation was less negative in January 2001, at minus 4.0 per cent, than in the previous month at minus 4.4 per cent. The price of garments fell by less in January 2001 compared with last year.

Downward pressure came from:

- Transport and communication, where the annual rate of inflation was minus 0.1 per cent in January 2001 compared with plus 0.6 per cent in the previous month, due to falling pump prices for petrol.

The ICP annual percentage change



The Index of Investment Prices (IIP)

Investment price inflation, as measured by the IIP, fell from 1.4 per cent in December 2000 to 1.3 per cent in January 2001.

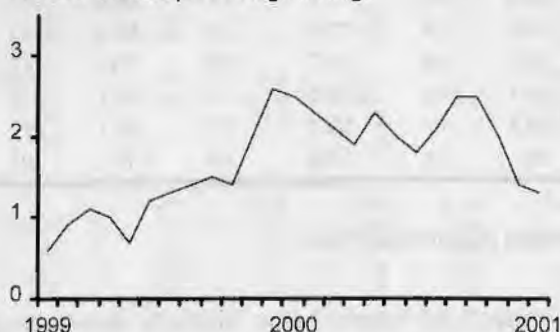
Upward pressure came from:

- Transport Equipment and Other Machinery & Equipment, where the annual rate of inflation was less negative in January 2001 than in the previous month.

Downward pressure came from:

- Dwellings, where the annual rate of inflation fell from 7.8 per cent in December 2000 to 6.8 per cent in January 2001, the lowest inflation rate for dwellings since March 1999.
- Transfer Costs of Land & Buildings, where the annual rate of inflation fell from 6.6 per cent in December 2000 to 5.0 per cent in January 2001, largely due to lower inflation for estate agents' fees and conveyancing costs.

The IIP annual percentage change



The Index of Government Prices - IGP

The rate of inflation for the IGP fell slightly from 2.4 per cent in December 2000 to 2.3 per cent in January 2001, largely due to lower inflation for local government pay and procurement. Estimates for the IGP(P), a variant version of the FEPI incorporating government output prices (see Note 6), are not available for January 2001.

The IGP annual percentage change



Comparison between FEPI and other inflation measures

Table B

Measures of Inflation (annual percentage changes)

		FEPI	FEPI(P)	RPIX	HICP	ICP(FEPI)	PPI
2000	Aug	1.3	1.3	1.9	0.6	0.7	2.5
	Sep	1.5	1.4	2.2	1.0	1.1	2.5
	Oct	1.6	1.5	2.0	1.0	1.1	2.8
	Nov	1.6	1.4	2.2	1.0	1.1	2.8
	Dec	1.2	1.2	2.0	0.9	0.8	2.4
2001	Jan	1.3	NA	1.8	0.9	0.8	1.9

NOTES

1. The headline measure of inflation is the Retail Prices Index (RPI). The RPI should be used as the main indicator of inflation affecting average households.

2. The Final Expenditure Prices Index (FEPI) is a measure of the change in the prices paid by UK households, businesses and government for final purchases of goods and services. Intermediate purchases by businesses are excluded. The FEPI is made up of three components:

The Index of Consumer Prices (ICP)
The Index of Investment Prices (IIP)
The Index of Government Prices (IGP).

3. The ICP measures inflation affecting all consumers in the UK. The price indicators used in the ICP are taken mainly from the Retail Prices Index (RPI).

4. The IIP is a measure of the change in the prices paid for capital goods by businesses and by government. It also covers new construction projects and dwellings built for consumers, businesses and government. The price indicators used are mainly Producer Price Indices (PPIs), implied import deflators, construction output price indices and average house price indicators.

5. The IGP measures inflation affecting government. It covers expenditure by central and local government on pay and on procurement. The price indicators used are mainly Average Earnings Indices (to reflect labour costs), PPIs and RPIs (to reflect the cost of goods consumed by government).

6. The IGP(P) is a variant version of the IGP which incorporates government output prices for health, education, social security administration, legal aid, crown and county courts and magistrates courts (which comprise around 55% of general government final consumption expenditure) and therefore reflects movements in productivity. The IGP(P) feeds into a variant version of the FEPI, the FEPI(P), which differs from the FEPI solely because of the inclusion of government output prices. An article describing the development of the FEPI(P) is included in Economic Trends, No 555, February 2000.

7. An article describing the development and composition of the FEPI is included in Economic Trends, No 526, September 1997. Data are available in computer readable form from the National Statistics website: [http://www.statistics.gov.uk/press_release/experimental.asp].

Final Expenditure Prices Index - FEPI & FEPI(P)

Summary Table

Experimental price indices

	Index of Consumer Prices ICP	Index of Investment Prices IIP	Index of Government Prices IGP	Final Expenditure Prices Index FEPI	Annual percentage changes			
					ICP	IIP	IGP	FEPI
January 1992=100								
Weights								
1997	595	180	225	1000				
1998	597	183	220	1000				
1999	608	182	210	1000				
2000	602	191	207	1000				
FINAL EXPENDITURE PRICES INDEX - FEPI								
	CUSE	CUSK	CUSO	CUSP	CGAZ	CGBF	CGBJ	CGBK
1999 Jan	120.0	110.8	119.2	118.0	2.0	0.6	2.8	2.0
Feb	120.4	111.0	119.1	118.3	1.8	0.9	2.8	2.0
Mar	121.1	111.3	119.1	118.7	2.0	1.1	3.0	2.1
Apr	121.7	111.6	120.3	119.4	2.0	1.0	3.1	2.1
May	122.0	111.8	120.7	119.7	1.7	0.7	3.0	1.8
Jun	122.0	112.2	121.9	120.0	1.8	1.2	3.9	2.1
Jul	121.4	112.4	121.1	119.5	1.8	1.3	2.8	2.0
Aug	121.7	112.4	121.2	119.7	1.8	1.4	2.8	1.9
Sep	122.1	112.4	121.4	120.0	1.7	1.5	2.7	1.9
Oct	121.9	112.3	121.2	119.8	1.5	1.4	2.7	1.7
Nov	122.1	113.0	121.5	120.1	1.5	2.0	2.8	1.9
Dec	122.4	113.6	121.7	120.5	1.5	2.6	2.3	1.9
2000 Jan	121.5	113.6	122.0	120.0	1.3	2.5	2.3	1.7
Feb	122.0	113.5	122.0	120.3	1.3	2.3	2.4	1.7
Mar	122.4	113.6	121.9	120.5	1.1	2.1	2.4	1.5
Apr	122.9	113.7	123.2	121.1	1.0	1.9	2.4	1.4
May	123.2	114.4	123.4	121.5	1.0	2.3	2.2	1.5
Jun	123.4	114.4	123.5	121.6	1.1	2.0	1.3	1.3
Jul	122.6	114.4 [†]	123.6	121.1 [†]	1.0	1.8 [†]	2.1	1.3 [†]
Aug	122.6	114.8	123.7	121.2	0.7	2.1	2.1	1.3
Sep	123.4	115.2	124.1	121.8	1.1	2.5	2.2	1.5
Oct	123.2	115.1	124.1	121.7	1.1	2.5	2.4	1.6
Nov	123.5	115.3	124.4	122.0	1.1	2.0	2.4	1.6
Dec	123.4	115.2	124.6 [†]	122.0	0.8	1.4	2.4 [†]	1.2
2001 Jan	122.5	115.1	124.8	121.5	0.8	1.3	2.3	1.3
FINAL EXPENDITURE PRICES INDEX INCORPORATING IMPLIED GOVERNMENT OUTPUT PRICES - FEPI(P)								
			LGTZ	LGUA			GXVN	GXVO
1999 Jan	120.0	110.8	117.7	117.7	2.0	0.6	3.1	2.1
Feb	120.4	111.0	117.9	118.0	1.8	0.9	3.2	2.0
Mar	121.1	111.3	118.2	118.5	2.0	1.1	3.6	2.2
Apr	121.7	111.6	118.9	119.1	2.0	1.0	3.5	2.1
May	122.0	111.8	119.2	119.4	1.7	0.7	3.5	2.0
Jun	122.0	112.2	120.3	119.6	1.8	1.2	4.2	2.1
Jul	121.4	112.4	120.0	119.3	1.8	1.3	3.5	2.1
Aug	121.7	112.4	120.4	119.5	1.8	1.4	3.6	2.0
Sep	122.1	112.4	120.7	119.9	1.7	1.5	3.6	2.1
Oct	121.9	112.3	120.7	119.7	1.5	1.4	3.5	1.9
Nov	122.1	113.0	120.9	120.0	1.5	2.0	3.5	2.0
Dec	122.4	113.6	121.2	120.3	1.5	2.6	3.2	2.0
2000 Jan	121.5	113.6	121.4	119.8	1.3	2.5	3.1	1.8
Feb	122.0	113.5	121.4	120.1	1.3	2.3	3.0	1.8
Mar	122.4	113.6	121.4	120.4	1.1	2.1	2.7	1.6
Apr	122.9	113.7	122.2	120.8	1.0	1.9	2.8	1.4
May	123.2	114.4	122.3	121.2	1.0	2.3	2.6	1.5
Jun	123.4	114.4	122.4	121.3	1.1	2.0	1.7	1.4
Jul	122.6	114.4 [†]	122.6	120.9 [†]	1.0	1.8 [†]	2.2	1.3 [†]
Aug	122.6	114.8	122.8	121.0	0.7	2.1	2.0	1.3
Sep	123.4	115.2	123.0	121.6	1.1	2.5	1.9	1.4
Oct	123.2	115.1	122.9	121.5	1.1	2.5	1.8	1.5
Nov	123.5	115.3	123.1	121.7	1.1	2.0	1.8	1.4
Dec	123.4	115.2	123.2	121.7	0.8	1.4	1.7	1.2

[†] indicates earliest revision.

Final Expenditure Prices Index (FEPI)

Index of Consumer Prices (ICP)

Experimental price indices

	Food	Alcoholic Drink	Tobacco	Clothing and Footwear	Housing	Fuel and Power	Household Goods and Services	Transport and Communi- cation	Recreation Entertain- ment and Education	Other Goods and Services	Index of Consumer Prices ICP	Of which: goods	Of which: services
January 1992=100													
Weights													
1997	126	68	30	67	90	39	71	189	119	201	1000	595	405
1998	127	68	29	67	87	39	71	188	118	206	1000	597	403
1999	119	66	28	70	85	34	75	192	113	218	1000	600	400
2000	117	64	26	68	85	31	76	191	126	216	1000	595	405
	CURU	CURV	CURW	CURX	CURY	CURZ	CUSA	CUSB	CUSC	CUSD	CUSE	MJYH	MJYI
1999 Jan	115.1	126.5	172.0	97.6	131.5	97.3	111.3	121.2	110.7	130.6	120.0	114.2	129.5
Feb	115.4	126.8	172.1	100.0	131.5	97.2	112.8	121.2	110.6	131.0	120.4	114.8	129.7
Mar	114.7	126.8	178.2	101.6	131.4	97.5	114.5	122.6	110.7	131.3	121.1	115.5	130.2
Apr	114.1	127.0	180.7	102.0	133.5	97.3	113.2	124.1	111.1	132.3	121.7	115.7	131.5
May	114.7	127.6	180.7	102.5	133.6	97.1	114.6	124.1	111.2	132.5	122.0	116.0	131.7
Jun	114.2	128.2	181.2	102.3	133.7	97.1	114.0	123.8	111.0	132.9	122.0	115.8	131.9
Jul	113.5	127.9	184.3	97.4	134.0	97.4	112.0	123.8	110.3	133.6	121.4	114.7	132.4
Aug	113.0	128.1	184.7	98.8	134.3	97.4	113.1	124.2	110.1	133.7	121.7	115.0	132.5
Sep	112.9	128.1	184.8	102.6	134.4	97.7	114.0	123.9	110.6	133.9	122.1	115.5	133.0
Oct	112.8	128.2	184.7	101.6	134.8	97.9	113.4	123.7	110.9	133.1	121.9	115.2	132.8
Nov	113.4	127.8	184.8	102.0	135.1	98.1	114.6	123.3	110.8	133.7	122.1	115.3	133.3
Dec	113.5	127.5	184.7	101.2	135.3	98.7	116.5	123.6	110.7	134.1	122.4	115.5	133.7
2000 Jan	113.4	128.4	184.9	94.4	136.0	98.6	111.5	124.1	110.3	133.9	121.5	114.0	133.9
Feb	113.4	128.5	186.7	97.5	136.1	98.6	112.6	124.2	110.8	134.1	122.0	114.6	134.1
Mar	112.7	128.7	186.9	98.9	135.9	98.7	113.9	125.2	110.7	134.7	122.4	115.1	134.5
Apr	112.6	129.0	198.5	100.2	135.7	97.4	113.8	125.9	111.2	134.6	122.9	115.6	134.7
May	113.6	129.6	198.6	100.0	135.9	96.7	114.3	126.0	111.5	135.2	123.2	115.9	135.2
Jun	113.9	129.9	199.0	99.4	136.2	96.2	113.7	126.8	111.2	135.5	123.4	115.9	135.6
Jul	115.0	129.7	199.1	92.0	136.6	96.1	111.5	126.7	110.6	135.7	122.6	114.6	135.8
Aug	114.0	129.9	200.2	93.7	137.0	96.1	112.6	125.2	110.8	136.1	122.6	114.5	135.9
Sep	114.1	130.1	201.6	96.9	137.3	96.7	113.9	125.5	111.6	136.7	123.4	115.3	136.7
Oct	114.3	130.2	201.7	96.9	137.7	97.0	112.8	124.6	111.6	136.7	123.2	115.0	136.7
Nov	114.9	130.2	201.7	97.5	137.8	96.9	114.1	125.0	111.1	137.1	123.5	115.4	136.9
Dec	115.1	129.7	201.7	96.7	138.1	96.7	115.7	124.4	111.0	137.0	123.4	115.3	136.9
2001 Jan	115.3	130.6	201.7	90.6	138.4	96.4	111.7	124.0	110.4	136.9	122.5	113.7	137.0
Annual Percentage Changes													
	Food	Alcoholic Drink	Tobacco	Clothing and Footwear	Housing	Fuel and Power	Household Goods and Services	Transport and Communi- cation	Recreation Entertain- ment and Education	Other Goods and Services	Index of Consumer Prices ICP	Of which: goods	Of which: services
	CGAP	CGAQ	CGAR	CGAS	CGAT	CGAU	CGAV	CGAW	CGAX	CGAY	CGAZ	MJYJ	MJYK
1999 Jan	3.0	3.6	8.0	-2.1	3.3	-1.1	1.4	0.5	0.4	4.1	2.0	1.1	3.6
Feb	3.3	3.0	7.9	-2.0	3.2	-1.5	1.2	0.3	0.1	3.6	1.8	0.8	3.4
Mar	2.9	2.7	11.7	-2.4	3.0	-1.4	1.2	1.5	0.3	3.5	2.0	1.0	3.6
Apr	2.1	2.8	11.5	-2.9	2.8	-1.6	1.0	1.6	0.3	3.7	2.0	0.8	3.7
May	1.1	2.5	11.1	-3.3	2.7	-1.2	1.1	1.5	0.1	3.4	1.7	0.4	3.5
Jun	1.0	3.1	11.3	-3.2	2.7	-0.5	1.2	1.3	0.3	3.5	1.8	0.6	3.5
Jul	0.6	2.4	13.1	-1.9	2.8	0.1	0.5	1.5	-0.1	3.9	1.8	0.6	3.8
Aug	-1.0	2.3	13.2	-2.4	2.8	0.2	0.8	1.9	-0.3	3.8	1.8	0.3	3.7
Sep	-0.7	2.2	13.2	-3.0	2.8	0.4	1.0	1.6	-0.4	4.0	1.7	0.3	3.8
Oct	-1.0	2.1	13.0	-3.0	2.8	0.4	0.9	1.8	-0.3	2.8	1.5	0.3	3.3
Nov	-0.4	2.1	13.1	-3.1	2.9	0.7	0.9	1.8	-0.4	2.7	1.5	0.3	3.3
Dec	-1.0	1.9	9.8	-3.3	3.0	1.5	0.7	2.6	-0.3	2.7	1.5	0.3	3.4
2000 Jan	-1.5	1.5	7.5	-3.3	3.4	1.3	0.2	2.4	-0.4	2.5	1.3	-0.2	3.4
Feb	-1.7	1.3	8.5	-2.5	3.5	1.4	-0.2	2.5	0.2	2.4	1.3	-0.2	3.4
Mar	-1.7	1.5	4.9	-2.7	3.4	1.2	-0.5	2.1	-	2.6	1.1	-0.3	3.3
Apr	-1.3	1.6	9.9	-1.8	1.6	0.1	0.5	1.5	0.1	1.7	1.0	-0.1	2.4
May	-1.0	1.6	9.9	-2.4	1.7	-0.4	-0.3	1.5	0.3	2.0	1.0	-0.1	2.7
Jun	-0.3	1.3	9.8	-2.8	1.9	-0.9	-0.3	2.4	0.2	2.0	1.1	0.1	2.8
Jul	1.3	1.4	8.0	-5.5	1.9	-1.3	-0.4	2.3	0.3	1.6	1.0	-0.1	2.6
Aug	0.9	1.4	8.4	-5.2	2.0	-1.3	-0.4	0.8	0.6	1.8	0.7	-0.4	2.6
Sep	1.1	1.6	9.1	-5.6	2.2	-1.0	-0.1	1.3	0.9	2.1	1.1	-0.2	2.8
Oct	1.3	1.6	9.2	-4.6	2.2	-0.9	-0.5	0.7	0.6	2.7	1.1	-0.2	2.9
Nov	1.3	1.9	9.1	-4.4	2.0	-1.2	-0.4	1.4	0.3	2.5	1.1	0.1	2.7
Dec	1.4	1.7	9.2	-4.4	2.1	-2.0	-0.7	0.6	0.3	2.2	0.8	-0.2	2.4
2001 Jan	1.7	1.7	9.1	-4.0	1.8	-2.2	0.2	-0.1	0.1	2.2	0.8	-0.3	2.3

† indicates earliest revision.

Final Expenditure Prices Index (FEPI) Index of Investment Prices (IIP) Experimental price indices

	Transport Equipment	Other Machinery and Equipment	Dwellings	Other Buildings and Structures	Transfer Costs of Land and Buildings	Intangible Fixed Assets ¹	Index of Investment Prices IIP
January 1992=100							
Weights							
1997	95	382	187	270	32	34	1000
1998	97	392	181	262	35	33	1000
1999	98	390	178	260	42	32	1000
2000	97	383	180	267	41	32	1000
	CUSH	CUSG	CUSJ	CUSF	CUSI	MJYL	CUSK
1999 Jan	121.2	97.3	118.7	117.3	167.0	120.0	110.8
Feb	121.8	97.2	118.9	117.6	168.0	120.4	111.0
Mar	121.9	96.8	120.6	117.9	170.2	120.9	111.3
Apr	122.1	96.6	122.7	118.1	171.6	121.4	111.6
May	122.1	96.0	124.3	118.3	175.4	121.5	111.8
Jun	122.3	95.7	126.3	118.5	179.9	121.4	112.2
Jul	121.5	95.2	128.5	118.8	182.5	121.1	112.4
Aug	121.3	94.2	130.8	119.0	185.3	121.3	112.4
Sep	121.2	93.6	131.4	119.2	186.0	121.5	112.4
Oct	121.0	93.0	131.9	119.7	189.4	121.4	112.3
Nov	122.8	93.5	133.2	120.0	186.4	121.7	113.0
Dec	123.7	93.8	135.2	120.4	186.1	121.9	113.6
2000 Jan	121.9	93.5	135.9	120.6	191.1	121.2	113.6
Feb	121.8	93.1	136.3	121.0	189.6	121.2	113.5
Mar	121.7	92.6	138.3	121.0	191.4	121.7	113.6
Apr	120.6	92.1	140.6	121.3	191.9	123.1	113.7
May	121.7	92.8	141.9	121.4	191.7	123.3	114.4
Jun	122.1	92.3	142.2	121.6	193.5	123.2	114.4
Jul	121.8 [†]	92.1	142.6	122.0	194.2	122.9	114.4 [†]
Aug	120.9	92.6 [†]	143.5	122.3	195.8	122.7	114.8
Sep	121.3	92.6	144.2	122.7	199.4	123.0	115.2
Oct	120.9	92.2	145.1	123.1 [†]	198.9	122.7 [†]	115.1
Nov	119.4	92.2	146.0	123.6	199.3	123.5	115.3
Dec	119.5	91.9	145.8 [†]	124.0	198.3	123.9	115.2
2001 Jan	118.9	91.8	145.2	124.2	200.7	124.7	115.1
Annual Percentage Changes							
	Transport Equipment	Other Machinery and Equipment	Dwellings	Other Buildings and Structures	Transfer Costs of Land and Buildings	Intangible Fixed Assets ¹	Index of Investment Prices IIP
	CGBC	CGBB	CGBE	CGBA	CGBD	MJYM	CGBF
1999 Jan	3.6	-6.8	7.4	4.5	10.4	1.1	0.6
Feb	4.3	-5.9	7.0	4.3	9.5	1.1	0.9
Mar	3.0	-5.2	6.7	4.2	10.1	1.4	1.1
Apr	3.4	-5.0	6.8	4.1	7.7	1.6	1.0
May	2.4	-5.8	7.2	3.9	9.6	1.0	0.7
Jun	2.9	-5.1	7.4	3.8	12.0	1.3	1.2
Jul	2.1	-4.7	8.1	3.7	10.6	1.4	1.3
Aug	1.3	-4.9	9.5	3.5	12.6	1.3	1.4
Sep	1.2	-4.6	9.5	3.3	12.5	1.2	1.5
Oct	0.6	-4.9	9.8	3.3	14.3	1.1	1.4
Nov	1.3	-4.1	11.3	3.0	12.9	1.3	2.0
Dec	1.6	-3.4	13.6	2.9	13.3	1.3	2.6
2000 Jan	0.6	-3.9	14.5	2.8	14.4	1.0	2.5
Feb	-	-4.2	14.6	2.9	12.9	0.7	2.3
Mar	-0.2	-4.3	14.7	2.6	12.5	0.7	2.1
Apr	-1.2	-4.7	14.6	2.7	11.8	1.4	1.9
May	-0.3	-3.3	14.2	2.6	9.3	1.5	2.3
Jun	-0.2	-3.6	12.6	2.6	7.6	1.5	2.0
Jul	0.2 [†]	-3.3	11.0	2.7	6.4	1.5	1.8 [†]
Aug	-0.3	-1.7 [†]	9.7	2.8	5.7	1.2	2.1
Sep	0.1	-1.1	9.7	2.9	7.2	1.2	2.5
Oct	-0.1	-0.9	10.0	2.8 [†]	5.0	1.1 [†]	2.5
Nov	-2.8	-1.4	9.6	3.0	6.9	1.5	2.0
Dec	-3.4	-2.0	7.8 [†]	3.0	6.6	1.6	1.4
2001 Jan	-2.5	-1.8	6.8	3.0	5.0	2.9	1.3

[†] indicates earliest revision.

¹ This covers mineral exploration, computer software and entertainment, literary and artistic originals.

Final Expenditure Prices Index - FEPI & FEPI(P) Index of Government Prices - IGP & IGP(P)

Experimental price indices

					Annual percentage changes			
	Local Government Pay & Procurement	Central Government Pay & Procurement	Education Grants	Index of Government Prices	Local Government Pay & Procurement	Central Government Pay & Procurement	Education Grants	Index of Government Prices
January 1992=100								
Weights								
1997	354	569	77	1000				
1998	353	570	77	1000				
1999	351	567	82	1000				
2000	352	569	79	1000				
INDEX OF GOVERNMENT PRICES - IGP								
	CUSL	CUSM	CUSN	CUSO	CGBG	CGBH	CGBI	CGBJ
1999 Jan	122.0	117.1	122.3	119.2	2.7	2.8	2.5	2.8
Feb	122.0	117.0	122.3	119.1	2.7	3.1	2.5	2.8
Mar	122.1	116.9	122.3	119.1	2.9	3.2	2.6	3.0
Apr	123.7	117.7	123.7	120.3	2.7	3.2	3.0	3.1
May	123.7	118.5	123.7	120.7	2.6	3.2	3.0	3.0
Jun	125.9	119.3	123.7	121.9	4.4	3.7	3.0	3.9
Jul	124.4	118.7	124.7	121.1	3.2	2.6	3.4	2.8
Aug	124.5	118.8	124.7	121.2	3.1	2.6	3.4	2.8
Sep	125.1	118.8	124.8	121.4	3.2	2.3	3.5	2.7
Oct	125.1	118.4	124.8	121.2	3.3	2.2	3.5	2.7
Nov	125.2	118.9	124.9	121.5	3.2	2.5	3.5	2.8
Dec	125.3	119.2	124.9	121.7	2.6	2.1	2.9	2.3
2000 Jan	125.3	119.5	124.9	122.0	2.7	2.0	2.1	2.3
Feb	125.3	119.6	124.9	122.0	2.7	2.2	2.1	2.4
Mar	125.3	119.5	124.9	121.9	2.6	2.2	2.1	2.4
Apr	127.5	120.2	126.9	123.2	3.1	2.1	2.6	2.4
May	127.6	120.5	126.2	123.4	3.2	1.7	2.0	2.2
Jun	127.7	120.6	126.2	123.5	1.4	1.1	2.0	1.3
Jul	127.7	120.6	127.3	123.6	2.7	1.6	2.1	2.1
Aug	127.8	120.8	127.3	123.7	2.7	1.7	2.1	2.1
Sep	128.3	121.1	127.3	124.1	2.6	1.9	2.0	2.2
Oct	128.3	121.1	127.3	124.1	2.6	2.3	2.0	2.4
Nov	128.5	121.5	127.5 [†]	124.4	2.6	2.2	2.1 [†]	2.4
Dec	128.7 [†]	121.8 [†]	127.5	124.6 [†]	2.7 [†]	2.2 [†]	2.1	2.4 [†]
2001 Jan	128.5	122.2	127.4	124.8	2.6	2.3	2.0	2.3
INDEX OF GOVERNMENT PRICES INCORPORATING IMPLIED OUTPUT PRICES - IGP(P)								
	LGTU	LGTX		LGTZ	GXVL	GXVM		GXVN
1999 Jan	115.9	118.4	122.3	117.7	3.2	3.1	2.5	3.1
Feb	116.3	118.6	122.3	117.9	3.6	3.3	2.5	3.2
Mar	116.7	118.8	122.3	118.2	4.0	3.5	2.6	3.6
Apr	117.3	119.4	123.7	118.9	3.6	3.4	3.0	3.5
May	117.7	119.7	123.7	119.2	3.9	3.3	3.0	3.5
Jun	120.1	120.2	123.7	120.3	5.9	3.4	3.0	4.2
Jul	119.1	120.2	124.7	120.0	4.9	2.8	3.4	3.5
Aug	119.6	120.6	124.7	120.4	5.1	2.9	3.4	3.6
Sep	120.3	120.6	124.8	120.7	5.1	2.7	3.5	3.6
Oct	120.5	120.5	124.8	120.7	5.1	2.6	3.5	3.5
Nov	120.8	120.7	124.9	120.9	5.0	2.5	3.5	3.5
Dec	121.0	121.0	124.9	121.2	4.8	2.4	2.9	3.2
2000 Jan	121.1	121.2	124.9	121.4	4.5	2.4	2.1	3.1
Feb	121.3	121.2	124.9	121.4	4.3	2.2	2.1	3.0
Mar	121.3	121.2	124.9	121.4	3.9	2.0	2.1	2.7
Apr	122.3	121.7	126.9	122.2	4.3	1.9	2.6	2.8
May	122.4	121.9	126.2	122.3	4.0	1.8	2.0	2.6
Jun	122.6	122.0	126.2	122.4	2.1	1.5	2.0	1.7
Jul	122.7	122.2	127.3	122.6	3.0	1.7	2.1	2.2
Aug	122.7	122.4	127.3	122.8	2.6	1.5	2.1	2.0
Sep	123.2	122.4	127.3	123.0	2.4	1.5	2.0	1.9
Oct	123.2	122.4	127.3	122.9	2.2	1.6	2.0	1.8
Nov	123.3	122.5 [†]	127.5 [†]	123.1	2.1	1.5 [†]	2.1 [†]	1.8
Dec	123.4 [†]	122.8	127.5	123.2	2.0 [†]	1.5	2.1	1.7

[†] Indicates earliest revision.

Index of services (experimental) – November 2000

Statistician: Rob Pike

Tel: 01633 812624; email: ios.enquiries@ons.gov.uk

In November, the seasonally adjusted experimental monthly index of services was 121.4 at 1995 prices.

Output of the service industries in the latest three months increased by 0.6 per cent compared with the previous three months and by 3.2 per cent compared with the same three months a year ago.

There was some slowing in the growth of business services and finance and in the growth of transport, storage and communication. Output in most other services industries grew at broadly the same rate as in recent months.

Experimental index of services

seasonally adjusted: 1995=100

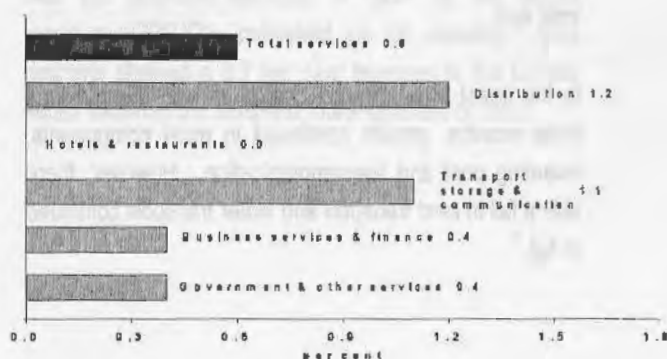


Total services					Distribution		
Percentage change					Percentage change		
	Index (1995=100)	latest 3 mth on previous 3 mth	latest 3 mth on same 3 mth a year ago		Index (1995=100)	latest 3 mth on previous 3 mth	latest 3 mth on same 3 mth a year ago
<i>seasonally adjusted</i>							
1999 Nov	117.8	1.2	3.4		113.5	0.9	2.9
Dec	117.5	1.0	3.4		112.9	0.4	2.7
2000 Jan	117.3	1.0	3.6		113.5	0.2	2.7
Feb	117.7	0.4	3.2		112.2	-0.4	1.9
Mar	118.1	0.4	3.0		113.3	-0.2	1.7
Apr	117.8	0.3	2.8		112.7	-0.5	1.3
May	119.6	0.9	3.3		115.2	0.8	2.0
Jun	120.0	1.2	3.7		115.5	1.3	2.7
Jul	119.5	1.5	3.9		115.3	2.3	3.1
Aug	120.6	1.3	3.8		116.7	1.9	3.1
Sep	120.5	0.9	3.5		116.2	1.4	2.9
Oct	120.5	0.7	3.5		117.1	1.1	3.2
Nov	121.4	0.6	3.2		118.4	1.2	3.5

Experimental index of services: percentage changes, latest 3 months on previous 3 months



Experimental index of services, industry detail: percentage changes, latest 3 months on previous 3 months



Index of services (experimental)- November 2000

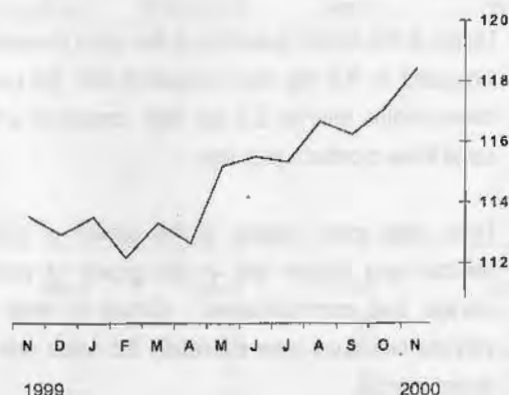
Distribution (SIC92 divisions 50-52)

In the latest three months, the monthly index for the distribution sector rose by 1.2 per cent compared with the previous three months and by 3.5 per cent compared with the same three months a year ago.

In the latest three months compared with the previous three months, the strongest growth was in the motor trades. By contrast, in the latest three months compared with the same three months a year ago, growth was stronger in wholesale and retail.

Experimental index: distribution

seasonally adjusted: 1995=100

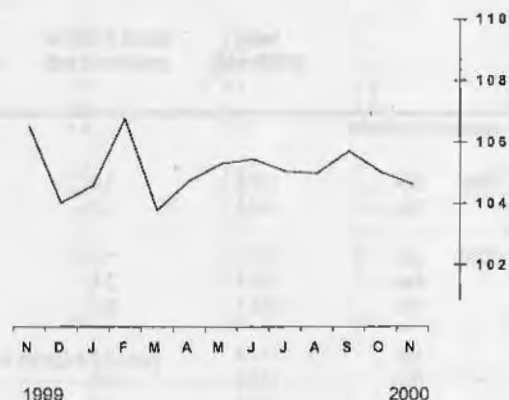


Hotels and restaurants (SIC92 division 55)

In the latest three months, the monthly index for hotels and restaurants was unchanged compared with the previous three months. It fell by 1.7 per cent compared with the same three months a year ago.

Experimental index: hotels and restaurants

seasonally adjusted: 1995=100



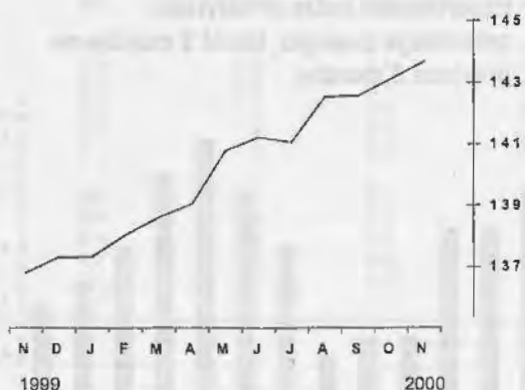
Transport, storage and communication (SIC92 divisions 60-64)

In the latest three months, the monthly index for transport, storage and communication rose by 1.1 per cent compared with the previous three months and by 5.8 per cent compared with the same three months a year ago.

In the latest three months compared with the previous three months, growth continued in most components, including post and telecommunication. However, there was a fall in land transport and water transport continued to fall.

Experimental index: transport, storage and communication

seasonally adjusted: 1995=100



Index of services (experimental)- November 2000

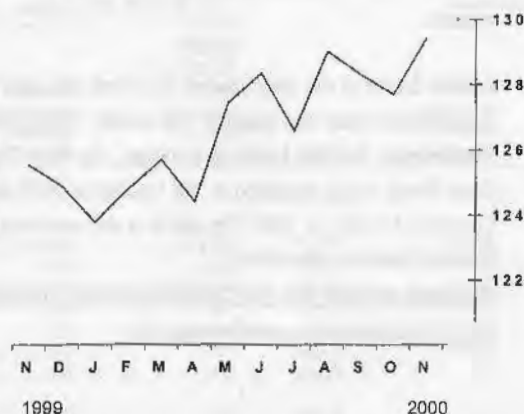
Business services and finance (SIC92 divisions 65-74)

In the latest three months, the monthly index for business services and finance rose by 0.4 per cent compared with the previous three months and by 3.5 per cent compared with the same three months a year ago.

In the latest three months compared with the previous three months, growth in business services was maintained overall. There was a small decline in the total output of the financial services industries.

Experimental index: business services and finance

seasonally adjusted: 1995=100



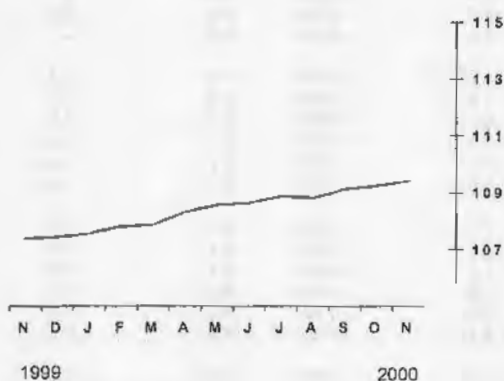
Government and other services (SIC92 divisions 75-95)

In the latest three months, the monthly index for government and other services rose by 0.4 per cent compared with the previous three months and by 2.0 per cent compared with the same three months a year ago.

Growth was strongest in categories with a significant private sector component.

Experimental index: government and other services

seasonally adjusted: 1995=100



Coverage of the experimental IoS

The experimental IoS shows the monthly movements in gross value added of the service industries. Coverage includes both private sector and government services; together these account for two thirds of total gross domestic product (GDP). Index numbers are based on 1995=100 and all values are seasonally adjusted.

Consistency with quarterly estimates of GDP(O)

The monthly figures for the experimental IoS and its component series shown in this release are consistent with the quarterly estimate of GDP by the output measure (GDP(O)), published on 26 January. That estimate showed a 0.7 per cent increase in the service sector between the third and fourth quarters of 2000.

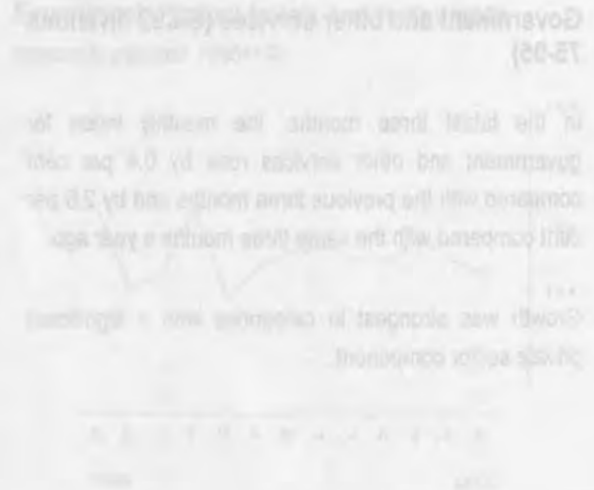
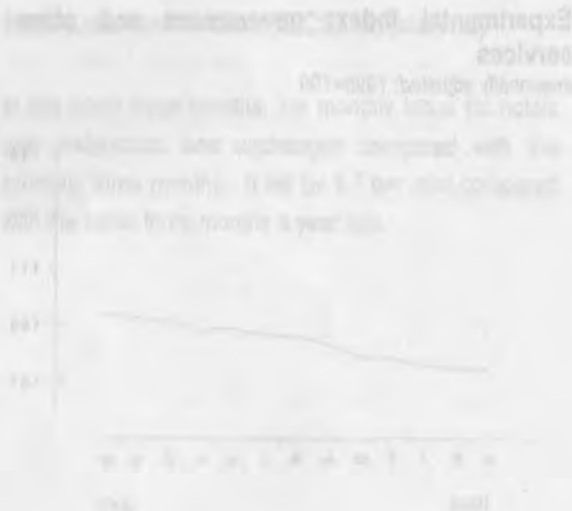
Index of services (experimental)- November 2000

Notes

Values for the three components of the distribution sector (motor trades, wholesaling and retailing) can be provided on request.

Further details of the data sources and methods used in this experimental index are given in the article, 'Introducing the Experimental Monthly Index of Services', by Rob Pike and Geoff Reed, which appeared in the December 2000 issue of Economic Trends (no. 565). The article is also available on the National Statistics web-site at:

<http://www.statistics.gov.uk/nsbase/themes/economy/Articles/ShortTermIndicators/ReportsServices.asp>



Consistency with quarterly estimates of GDP

The experimental index is consistent with the quarterly estimates of GDP. The index is calculated using the same data sources and methods as the quarterly estimates of GDP. The index is calculated using the same data sources and methods as the quarterly estimates of GDP.

Coverage of the experimental index

The experimental index covers the services sector. The index includes the following components: motor trades, wholesaling, and retailing. The index is calculated using the same data sources and methods as the quarterly estimates of GDP.

1 Index of Services (EXPERIMENTAL)

Index numbers of service industries' gross value added at constant basic prices ^{1,2,3}

1995=100, seasonally adjusted

	Industry groups								
	Total service industries ⁴			Distribution: wholesale and retail trade; repairs ⁴			Hotels and restaurants ⁴		
	percentage change			percentage change			percentage change		
	Index	latest 3 months on previous 3 months	latest 3 months on same 3 months a year ago	Index	latest 3 months on previous 3 months	latest 3 months on same 3 months a year ago	Index	latest 3 months on previous 3 months	latest 3 months on same 3 months a year ago
1995 weights	1000			176			44		
	FVQQ	FVGD	FVGE	FVVR	FVVL	FVVM	FVXT	FVXB	FVXC
1997 Jan	105.7	1.0	3.7	105.3	-0.3	2.9	102.7	1.2	6.0
Feb	106.0	1.1	4.0	105.9	-0.3	3.5	102.0	-0.2	5.2
Mar	106.1	1.2	3.9	105.8	0.9	4.1	102.0	-1.5	2.6
Apr	106.9	1.2	3.9	107.3	1.6	4.4	102.3	-1.4	-
May	106.9	1.1	3.8	106.9	1.6	4.1	103.1	-0.5	-1.8
Jun	107.7	1.2	4.1	107.5	1.5	4.2	104.5	1.1	-1.2
Jul	108.2	1.2	4.3	107.8	1.0	3.8	104.0	1.7	0.4
Aug	108.3	1.3	4.6	107.5	0.8	3.7	104.3	1.7	2.0
Sep	109.2	1.3	4.8	107.3	0.3	3.0	104.5	0.9	2.4
Oct	109.7	1.3	4.8	109.2	0.5	2.9	103.9	0.3	1.8
Nov	109.2	1.2	4.7	108.1	0.6	2.8	104.1	-0.1	1.0
Dec	110.0	1.0	4.7	108.4	1.0	3.6	105.6	0.3	0.7
1998 Jan	110.5	0.8	4.6	109.8	0.8	3.9	104.5	0.5	1.1
Feb	110.3	0.9	4.5	109.4	1.0	4.1	104.3	0.6	1.8
Mar	111.4	1.0	4.5	110.3	1.2	3.9	105.0	0.1	2.3
Apr	111.7	1.1	4.5	109.5	0.9	3.2	105.3	0.1	2.7
May	111.8	1.2	4.7	109.8	0.6	3.0	104.7	0.2	2.4
Jun	112.6	1.2	4.5	110.2	-	2.4	105.2	0.4	1.7
Jul	112.9	1.2	4.5	110.7	0.5	2.7	105.7	0.3	1.3
Aug	112.8	1.0	4.3	109.8	0.3	2.5	106.3	0.7	1.4
Sep	113.0	0.8	4.0	110.4	0.4	2.6	106.0	0.9	1.7
Oct	113.3	0.5	3.6	110.1	-0.1	2.0	105.9	0.9	1.8
Nov	113.3	0.4	3.5	109.9	-0.1	1.8	106.3	0.3	1.8
Dec	113.7	0.5	3.5	110.6	-0.1	1.5	108.8	0.9	2.3
1999 Jan	113.5	0.4	3.3	110.6	0.2	1.5	109.2	1.9	3.2
Feb	114.4	0.6	3.3	110.9	0.5	1.4	108.3	2.5	3.8
Mar	114.8	0.7	3.2	111.9	0.8	1.2	106.8	1.1	3.3
Apr	114.6	1.0	3.1	111.0	0.6	1.4	106.8	-0.7	2.3
May	114.8	0.8	2.8	111.5	0.7	1.4	106.0	-2.0	1.5
Jun	115.2	0.6	2.6	111.7	0.2	1.4	105.8	-1.8	1.1
Jul	115.7	0.6	2.5	112.4	0.5	1.5	106.0	-1.2	0.7
Aug	116.0	0.8	2.5	112.9	0.8	1.9	106.7	-0.3	0.4
Sep	116.8	1.1	2.9	113.1	1.2	2.3	108.0	0.7	0.8
Oct	116.5	1.0	3.0	113.3	1.1	2.7	106.3	1.0	0.9
Nov	117.8	1.2	3.4	113.5	0.9	2.9	106.5	0.7	0.8
Dec	117.5	1.0	3.4	112.9	0.4	2.7	104.0	-1.2	-1.3
2000 Jan	117.3	1.0	3.6	113.5	0.2	2.7	104.6	-1.8	-2.8
Feb	117.7	0.4	3.2	112.2	-0.4	1.9	106.8	-1.7	-3.3
Mar	118.1	0.4	3.0	113.3	-0.2	1.7	103.8	-0.5	-2.8
Apr	117.8	0.3	2.8	112.7	-0.5	1.3	104.8	0.1	-2.0
May	119.6	0.9	3.3	115.2	0.8	2.0	105.3	-0.5	-1.8
Jun	120.0	1.2	3.7	115.5	1.3	2.7	105.5	0.1	-1.0
Jul	119.5	1.5	3.9	115.3	2.3	3.1	105.1	0.2	-0.6
Aug	120.6	1.3	3.8	116.7	1.9	3.1	105.0	0.5	-1.0
Sep	120.5	0.9	3.5	116.2	1.4	2.9	105.7	0.1	-1.6
Oct	120.5 [†]	0.7	3.5	117.1	1.1 [†]	3.2	105.0 [†]	- [†]	-1.6 [†]
Nov	121.4	0.6	3.2	118.4	1.2	3.5	104.6	-	-1.7

1 Indices are valued at constant basic prices, which exclude taxes and subsidies on products.

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

3 Any apparent inconsistencies between the index numbers and the percentage changes shown in these tables are due to rounding.

4 The equivalent quarterly index series are released electronically as part of the GDP(O) estimates. For further information about obtaining these quarterly series please telephone 020 7533 5675, fax 020 7533 5688 or email on-line.services.branch@ons.gov.uk

Sources: For further information on these data please telephone 01633 812624; fax 01633 819043 or email ios.enquiries@ons.gov.uk

Index of Services (EXPERIMENTAL)

Index numbers of service industries' gross value added at constant basic prices ^{1,2,3}

1995=100, seasonally adjusted

Industry groups									
Transport, storage and communication ⁴				Business services and finance ⁴			Government and other services ⁴		
percentage change				percentage change			percentage change		
Index	latest 3 months on previous 3 months	latest 3 months on same 3 months a year ago		Index	latest 3 months on previous 3 months	latest 3 months on same 3 months a year ago	Index	latest 3 months on previous 3 months	latest 3 months on same 3 months a year ago
1995 weights	124			317			339		
	FVYD	FVYG	FVYF	FVPA	FVGG	FVGH	FVPI	FVGJ	FVGK
1997 Jan	108.1	2.3	5.3	108.3	1.7	5.0	102.9	0.4	2.1
Feb	110.2	2.7	5.9	108.4	2.2	5.8	102.8	0.1	1.8
Mar	110.7	2.8	6.4	108.7	2.4	5.4	102.7	-	1.6
Apr	111.1	3.1	7.2	109.8	2.0	5.5	102.9	-0.1	1.4
May	111.2	2.2	7.5	109.9	1.6	5.5	103.1	-	1.4
Jun	112.3	1.7	8.1	111.2	1.7	6.0	103.3	0.3	1.5
Jul	113.8	1.6	8.9	111.7	1.8	6.2	103.6	0.5	1.5
Aug	114.4	2.2	9.5	111.8	1.9	6.6	103.8	0.6	1.6
Sep	115.9	2.8	10.1	113.7	1.9	7.3	104.0	0.7	1.5
Oct	117.3	3.0	10.4	113.7	1.9	7.7	104.2	0.7	1.5
Nov	117.4	3.0	10.6	112.5	1.6	7.5	104.3	0.6	1.4
Dec	117.9	2.5	10.2	114.4	1.0	7.2	104.5	0.5	1.4
1998 Jan	118.1	1.7	9.8	114.9	0.8	6.7	104.8	0.5	1.5
Feb	118.1	1.0	8.7	114.5	1.2	6.4	104.7	0.5	1.7
Mar	119.1	0.8	8.0	116.4	1.5	6.3	105.2	0.6	2.0
Apr	119.2	0.9	7.4	117.5	2.0	6.6	105.5	0.6	2.3
May	119.4	1.0	7.4	117.6	2.2	7.1	105.4	0.7	2.4
Jun	121.3	1.3	7.5	118.9	2.4	7.0	105.7	0.6	2.4
Jul	122.2	1.8	7.5	119.1	2.1	6.9	105.8	0.4	2.2
Aug	122.3	2.2	7.4	119.0	1.6	6.7	105.8	0.4	2.1
Sep	123.6	2.3	7.0	118.8	0.8	5.9	106.0	0.3	2.0
Oct	124.0	1.9	6.4	119.4	0.4	5.3	106.1	0.3	1.9
Nov	124.8	1.8	6.2	119.4	0.2	5.2	106.0	0.3	1.8
Dec	125.7	1.7	6.2	119.5	0.4	5.2	106.2	0.2	1.7
1999 Jan	126.1	1.8	6.6	118.5	0.1	4.6	106.2	0.2	1.6
Feb	127.3	1.8	7.1	120.7	0.3	4.3	106.5	0.2	1.6
Mar	128.8	2.1	7.6	121.0	0.5	4.1	106.4	0.3	1.4
Apr	129.9	2.5	8.3	120.5	1.3	3.9	106.3	0.2	1.2
May	129.9	2.5	8.6	121.2	1.1	3.2	106.3	0.1	0.9
Jun	130.8	2.2	8.5	121.9	0.9	2.7	106.4	-0.1	0.7
Jul	131.7	1.6	8.1	122.5	0.9	2.8	106.3	-	0.7
Aug	132.8	1.7	8.1	122.4	1.1	2.7	106.6	0.1	0.6
Sep	134.2	2.1	8.3	124.2	1.5	3.4	106.7	0.2	0.6
Oct	134.7	2.4	8.6	122.6	1.0	3.3	107.1	0.4	0.8
Nov	136.8	2.6	9.0	125.5	1.5	4.1	107.4	0.6	1.0
Dec	137.3	2.5	9.2	124.9	1.1	4.1	107.4	0.7	1.1
2000 Jan	137.3	2.4	9.2	123.8	1.4	4.7	107.6	0.6	1.2
Feb	138.0	1.7	8.8	124.8	0.3	4.1	107.8	0.5	1.2
Mar	138.6	1.3	8.3	125.7	0.3	3.9	107.9	0.4	1.3
Apr	139.1	1.0	7.7	124.4	0.2	3.5	108.3	0.5	1.5
May	140.8	1.4	7.7	127.4	1.1	4.1	108.6	0.6	1.8
Jun	141.2	1.7	7.8	128.3	1.6	4.6	108.6	0.7	2.0
Jul	141.0	1.8	7.8	126.6	2.0	4.6	108.9	0.7	2.2
Aug	142.5	1.5	7.5	129.0	1.7	4.7	108.8	0.5	2.2
Sep	142.6	1.2	6.9	128.3	1.0	4.0	109.1	0.4	2.2
Oct	143.1 [†]	1.2 [†]	6.6 [†]	127.7	0.7	4.3	109.2 [†]	0.3	2.1
Nov	143.7	1.1	5.8	129.4	0.4	3.5	109.4	0.4	2.0

For footnotes see page 1 of this table.

Sources: For further information on these data please telephone 01633 812624
fax 01633 819043 or email ios.enquiries@ons.gov.uk

Corporate Services Price Index (Experimental) – 4th Quarter 2000

Contact: Nick Palmer

Tel: (01633) 813493

email: cspi.ons.gov.uk

Introduction

This summary contains the latest quarter's results for the experimental Corporate Services Price Index (CSPI) and its industry-level component indices. "Corporate services" are those services purchased by businesses from other businesses to support them in their usual line of activity. Broadly, the CSPI is the services sector equivalent of the manufacturing Producer Price Index (PPI).

The number of component indices has increased by 6 this quarter bringing the total to 28. The new indices and their relation to the Standard Industrial Classification (SIC) 1992 are:

- canteens and catering (SIC 55.50);
- real estate activities (70.30);
- market research (74.13);
- technical testing (74.30);
- contract packaging (74.82); and
- direct marketing and other secretarial services (part of 74.83).

Full background and details of the development of the CSPI were included in an article published in the July 2000 issue of *Economic Trends*.

The main uses of the CSPI are as:

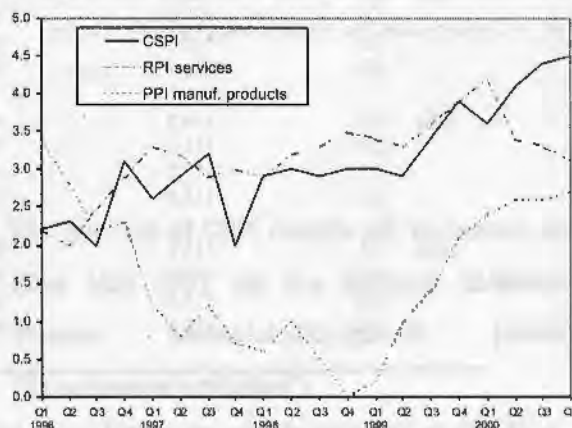
- a key indicator of inflation in the services sector;
- a deflator of service sector output for use in calculating GDP and the compilation of the Index of Services; and
- an information tool for business itself.

*N.B. Measurement of service sector prices is inherently difficult and challenging. When viewing the results **it should be borne in mind that many of the indices shown are regarded as experimental**, particularly those that have been added to the series more recently. Therefore some of the results will be subject to revision before the completion of the CSPI development project. The top-level index should also be viewed as **experimental**.*

Results for Quarter 4, 2000

The top-level CSPI is constructed by weighting together the currently available industry-level indices. With the new additions, coverage is now around 50% of the targeted corporate services sector. The top-level index is shown below alongside the service sector Retail Price Index (RPI) and the manufacturing PPI.

Experimental top-level CSPI compared with RPI for services and PPI for manufactured products: percentage change on same quarter a year ago



The graph shows that the annual rate of increase for the CSPI rose to 4.5 per cent in Q4 2000, compared to a rise of 4.4 per cent for the previous quarter. The annual rate of increase of the RPI for services has reduced over the last 3 quarters.

The top-level quarterly results are shown in the table that follows. Results are also shown with *property rental payments* excluded from the top-level index – a category having a significant effect due to its relatively high weighting (just under a third). The introduction of new indices causes slight discontinuities in the top-level index before 1999. (The ONS is looking to reduce such small discontinuities in future via an alternative calculation method). The latest set of new indices causes revisions to the top-level CSPI of up to +0.2 from Q4 1997 onwards. The revisions are slightly larger when property rental payments are excluded (because the relative weight of the new indices is slightly greater).

Experimental corporate services price index (CSPI), quarterly index values and percentage changes:

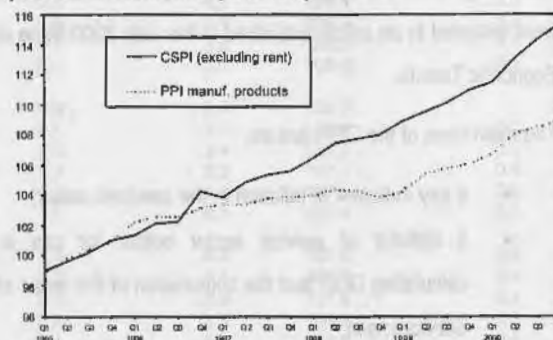
		Quarterly CSPI index values (1995=100)		Percentage change on same quarter in previous year (%)	
		Including rent	Excluding rent	Including rent	Excluding rent
1995	Q1	99.2	99.0	.	.
	Q2	99.7	99.6	.	.
	Q3	100.2	100.2	.	.
	Q4	100.8	101.0	.	.
1996	Q1	101.4	101.4	2.2	2.4
	Q2	102.0	102.1	2.3	2.5
	Q3	102.3	102.2	2.0	1.9
	Q4	103.9	104.3	3.1	3.3
1997	Q1	104.0	103.9	2.6	2.5
	Q2	104.9	104.9	2.9	2.8
	Q3	105.5	105.4	3.2	3.2
	Q4	106.0	105.6	2.0	1.3
1998	Q1	107.1	106.5	2.9	2.4
	Q2	108.1	107.5	3.0	2.5
	Q3	108.6	107.7	2.9	2.1
	Q4	109.1	108.0	3.0	2.2
1999	Q1	110.3	108.9	3.0	2.2
	Q2	111.2	109.5	2.9	1.9
	Q3	112.2	110.1	3.4	2.2
	Q4	113.4	111.0	3.9	2.8
2000	Q1	114.2	111.5	3.6	2.4
	Q2	115.7	113.1	4.1	3.2
	Q3	117.1	114.3	4.4	3.9
	Q4	118.4	115.4	4.5	3.9

In Q4 2000, the CSPI (including property rentals) rose by 1.1 per cent. The key rises contributing to this were charges for road freight and property rental payments.

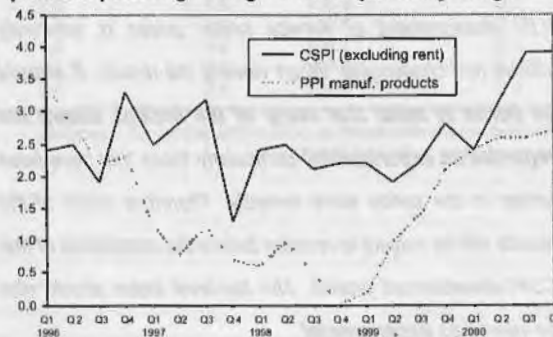
The top-level CSPI (excluding property rental payments) is compared to the net sector output PPI for manufactured products in the graph to the right. Increases in the prices of corporate services covered by this inquiry have shown a relatively smooth upward path since 1997 but have been at a greater rate over this period than that of the PPI.

Looking at the annual changes, i.e. the percentage change over the same quarter in the previous year, increases in the CSPI since mid-1996 have almost always been higher than those for the PPI. During 1999 the differences narrowed but since then there have been higher annual increases for the CSPI.

Experimental 'top-level' CSPI and PPI for manufactured products: index values (1995=100)



Experimental 'top-level' CSPI and PPI for manufactured products: percentage change on same quarter a year ago



Industry-specific indices

The main table contains the series for the 28 industries for which indices of corporate services prices are currently available. The weighting for each index is shown separately for when property rentals are included and excluded. Some key points to note are:

- *bus and coach hire* prices are up more than 10 per cent over the year, mainly due to increases in fuel bills and drivers' wages according to the industry;
- the costs of *road freight* have continued to rise, apparently due to the impact of increased fuel costs and drivers' wages and are almost 8 per cent higher than a year ago;
- a recovery in the prices for *sea and coastal water freight* is continuing as a result of improved market conditions and a 9 per cent increase over the year has been shown;
- the latest annual price changes in *national post parcel* rates are evident for the 2nd quarter of 2000 and the index is 6 per cent higher than a year ago;
- *business air fares* show a 12 per cent increase over the year, due to higher fares being reported for a range of flights to many destinations, plus increases in fuel costs;
- the 13 per cent fall in charges for *sewerage services* in the 2nd quarter of 2000 reflects OfWat's revised price controls which came into effect in April 2000;
- charges for *waste disposal* partly reflect the higher rate of Landfill Tax which came into force in April 2000. The tax rose to £11 per tonne from £10 per tonne according to the annual price escalator announced in the Budget. Previously it had risen to £10 per tonne from £7 in April 1999 following its introduction in quarter 4 1996 – the effects of these earlier changes are also apparent in the index.

The next set of CSPI results will be issued on 22nd May 2001 via the National Statistics Website www.statistics.gov.uk (under "Experimental statistics").

Note to the main table:

There are external sources for the indices denoted by an asterisk, as follows:

Index	Source
Property rental payments	Investment Property Databank (IPD)
Car contract hire and maintenance and repair of motor vehicles	Yewtree.com Ltd
Construction plant hire	Construction Plant Association (CPA)
Business telecommunications	Published sources: Tarifica Telecom Pricing Intelligence and What Cellphone magazine
Sewerage services	OfWat (Office of the Water Regulator)
National post parcels	Parcel Force

Corporate Services Price Indices (EXPERIMENTAL) (1995=100)

SIC(92):	Freight transport by road							
	Maintenance and repair of motor vehicles* 50.20	Canteens and catering 55.50	Bus and coach hire 60.23/1	Total 60.24	International component	Commercial vehicle ferries 61.10/1	Sea and coastal water freight 61.10/2	Business air fares 62.10/1
1995 net sector weights (%):								
(including property rentals)	3.95	0.78	0.59	19.80		0.51	0.59	1.97
(excluding property rentals)	5.71	1.13	0.86	28.63		0.74	0.85	2.85
Annual								
1995	100.0	..	100.0	100.0	100.0	..	..	..
1996	99.8	..	103.0	103.8	101.1	..	..	103.4
1997	104.5	..	108.5	110.4	105.2	96.9	95.4	115.1
1998	106.0	112.0	115.2	113.4	105.4	96.4	88.6	123.5
1999	108.0	114.7	119.7	116.5	101.4	101.9	79.6	127.2
2000	110.0	115.8	130.6	123.6	103.4	101.3	82.2	135.2
Percentage change, latest year on previous year								
1996	-0.2	..	3.0	3.8	1.1	..	..	..
1997	4.7	..	5.4	6.3	4.0	..	..	11.3
1998	1.4	..	6.1	2.7	0.2	-0.4	-7.2	7.3
1999	1.9	2.5	3.9	2.7	-3.8	5.6	-10.2	3.0
2000	1.9	0.9	9.1	6.1	1.9	-0.5	3.3	6.3
Quarterly results (not seasonally adjusted)								
1996 Q1	99.1	..	101.9	102.3	101.6	..	..	101.4
Q2	99.5	..	102.4	103.4	100.0	..	..	101.8
Q3	99.9	..	103.5	103.6	100.2	103.4	97.2	101.8
Q4	100.8	..	104.2	105.9	102.5	100.9	98.3	108.5
1997 Q1	104.2	..	106.8	108.3	101.7	99.2	95.2	112.7
Q2	104.4	..	108.4	110.5	106.3	98.0	95.4	113.7
Q3	104.8	111.0	109.2	111.3	106.3	95.8	95.7	116.6
Q4	104.8	110.8	109.8	111.4	106.3	94.4	95.5	117.3
1998 Q1	105.4	110.8	111.9	112.2	105.2	97.0	93.7	119.8
Q2	106.4	111.9	115.5	113.3	105.8	96.3	88.4	124.2
Q3	106.3	112.4	116.2	113.9	106.0	95.9	88.1	124.9
Q4	106.1	112.8	117.1	114.3	104.6	96.6	84.0	125.1
1999 Q1	107.0	113.9	118.4	114.8	104.3	103.8	81.8	125.4
Q2	107.9	114.9	119.6	115.5	100.6	102.7	81.2	127.5
Q3	108.2	115.1	120.1	116.8	100.5	101.5	77.1	127.7
Q4	108.9	115.1	120.5	119.0	100.4	99.6	78.0	128.3
2000 Q1	109.2	115.1	126.6	119.3	102.3	102.1	79.3	129.5
Q2	109.5	115.9	130.8	121.9	102.3	101.5	81.3	132.4
Q3	110.1	116.1	131.9	124.9	102.9	101.4	82.9	135.9
Q4	111.2	116.1	133.0	128.3	106.2	100.3	85.1	143.2
Percentage change, latest quarter on previous quarter								
1997 Q1	3.4	..	2.4	2.3	-0.8	-1.7	-1.1	3.9
Q2	0.2	..	1.5	2.0	4.6	-1.2	0.2	0.8
Q3	0.4	..	0.8	0.6	0.0	-2.3	0.3	2.6
Q4	0.0	-0.1	0.5	0.1	0.0	-1.4	-0.2	0.6
1998 Q1	0.6	0.0	1.9	0.8	-1.1	2.7	-1.9	2.2
Q2	0.9	1.0	3.2	0.9	0.6	-0.8	-5.7	3.7
Q3	-0.1	0.5	0.6	0.5	0.2	-0.4	-0.3	0.6
Q4	-0.2	0.4	0.8	0.3	-1.3	0.8	-4.6	0.1
1999 Q1	0.8	0.9	1.1	0.5	-0.3	7.4	-2.6	0.2
Q2	0.8	0.9	1.0	0.6	-3.6	-1.1	-0.7	1.7
Q3	0.4	0.2	0.5	1.2	-0.1	-1.2	-5.1	0.2
Q4	0.6	-0.1	0.3	1.9	-0.1	-1.8	1.1	0.5
2000 Q1	0.2	0.0	5.1	0.3	1.9	2.5	1.6	1.0
Q2	0.3	0.7	3.3	2.2	0.0	-0.6	2.6	2.2
Q3	0.5	0.1	0.8	2.5	0.6	-0.1	2.0	2.6
Q4	1.0	0.0	0.9	2.7	3.2	-1.0	2.7	5.4
Percentage change, latest quarter on corresponding quarter of previous year								
1997 Q1	5.1	..	4.8	5.9	0.1	..	..	11.2
Q2	5.0	..	5.9	7.0	6.3	..	..	11.7
Q3	4.9	..	5.5	7.4	6.1	-7.4	-1.6	14.5
Q4	4.0	..	5.3	5.1	3.8	-6.5	-0.8	8.1
1998 Q1	1.1	..	4.8	3.6	3.4	-2.2	-1.5	6.2
Q2	1.9	..	6.6	2.5	-0.5	-1.8	-7.3	9.3
Q3	1.4	1.3	6.4	2.4	-0.3	0.1	-7.9	7.1
Q4	1.3	1.8	6.6	2.6	-1.6	2.3	-12.0	6.7
1999 Q1	1.5	2.8	5.8	2.3	-0.9	7.0	-12.7	4.7
Q2	1.4	2.7	3.5	1.9	-4.9	6.6	-8.1	2.6
Q3	1.8	2.4	3.4	2.6	-5.2	5.8	-12.5	2.2
Q4	2.7	2.0	2.9	4.1	-4.1	3.1	-7.2	2.6
2000 Q1	2.0	1.1	6.9	3.9	-1.9	-1.6	-3.1	3.3
Q2	1.5	0.9	9.3	5.6	1.7	-1.1	0.1	3.8
Q3	1.7	0.8	9.8	7.0	2.4	-0.1	7.5	6.4
Q4	2.1	0.9	10.4	7.9	5.8	0.7	9.1	11.6

Corporate Services Price Indices (EXPERIMENTAL) (1995=100) – continued

SIC(92):	Freight forwarding 63.40	National post parcels* 64.11	Courier services 64.12	Business telecomm-unications* 64.20	Property rental payments* 70.20	Real estate activities 70.30	Car contract hire* 71.10	Construction plant hire* 71.32
1995 net sector weights (%): (including property rentals) (excluding property rentals)	5.78 8.35	4.28 6.19	0.97 1.40	7.40 10.71	30.84 0.00	1.18 1.71	1.34 1.94	1.99 2.88
Annual								
1995	..	..	..	..	100.0	..	..	..
1996	..	100.0	100.4	..	102.2	..	..	98.4
1997	103.9	103.7	101.4	85.8	105.4	..	96.4	96.5
1998	99.2	110.5	105.6	83.4	110.0	119.5	97.5	99.8
1999	95.5	113.3	107.0	83.4	116.0	125.5	99.2	103.9
2000	96.1	118.8	110.0	83.0	122.6	132.6	102.2	108.9
Percentage change, latest year on previous year								
1996	..	..	..	..	2.2	..	..	..
1997	..	3.7	1.0	..	3.1	..	..	-1.9
1998	-4.5	6.6	4.2	-2.7	4.3	..	1.2	3.4
1999	-3.7	2.5	1.3	0.0	5.4	5.0	1.7	4.1
2000	0.6	4.9	2.8	-0.4	5.7	5.7	3.0	4.8
Quarterly results (not seasonally adjusted)								
1996 Q1	..	100.0	99.7	..	101.4	..	..	98.4
Q2	..	100.0	100.3	..	101.8	..	93.4	99.7
Q3	..	100.0	100.8	..	102.3	..	93.2	99.0
Q4	..	100.0	100.6	..	103.2	..	94.1	96.7
1997 Q1	103.5	100.0	101.2	88.0	104.2	..	96.1	98.2
Q2	103.7	104.9	101.5	85.6	105.1	..	96.7	96.3
Q3	104.0	104.9	101.2	85.0	105.7	..	96.2	94.9
Q4	104.4	104.9	101.7	84.4	106.7	..	96.5	96.6
1998 Q1	102.2	104.9	102.7	83.5	108.4	117.0	97.6	101.3
Q2	99.7	112.4	105.8	83.1	109.3	119.0	98.4	99.8
Q3	98.1	112.4	106.8	83.5	110.5	120.9	96.9	99.1
Q4	96.7	112.4	107.3	83.5	111.7	121.3	97.3	99.1
1999 Q1	97.4	112.4	107.3	83.5	113.4	121.9	97.8	105.3
Q2	94.7	113.6	106.9	83.4	114.9	124.6	98.1	102.6
Q3	94.5	113.6	106.9	83.3	116.9	126.6	99.6	103.0
Q4	95.4	113.6	107.0	83.3	118.7	128.8	101.4	104.9
2000 Q1	95.2	113.6	108.5	83.7	120.3	130.3	102.3	105.6
Q2	95.7	120.5	108.6	83.7	121.7	132.2	102.7	108.7
Q3	96.3	120.5	109.3	83.7	123.3	133.4	102.2	111.1
Q4	97.1	120.5	113.6	81.0	125.3	134.6	101.6	110.2
Percentage change, latest quarter on previous quarter								
1997 Q1	..	0.0	0.6	..	0.9	..	2.1	1.5
Q2	0.2	4.9	0.3	-2.8	0.8	..	0.6	-1.9
Q3	0.3	0.0	-0.4	-0.6	0.6	..	-0.5	-1.4
Q4	0.4	0.0	0.5	-0.8	0.9	..	0.3	1.8
1998 Q1	-2.1	0.0	1.0	-1.0	1.6	..	1.1	4.8
Q2	-2.5	7.1	3.1	-0.4	0.9	1.7	0.8	-1.4
Q3	-1.6	0.0	0.9	0.4	1.1	1.6	-1.5	-0.7
Q4	-1.4	0.0	0.5	0.0	1.1	0.4	0.4	0.0
1999 Q1	0.7	0.0	0.0	0.0	1.5	0.5	0.5	6.3
Q2	-2.8	1.1	-0.4	-0.1	1.3	2.2	0.3	-2.6
Q3	-0.2	0.0	0.0	-0.1	1.8	1.6	1.6	0.5
Q4	0.9	0.0	0.1	0.0	1.5	1.7	1.9	1.8
2000 Q1	-0.2	0.0	1.4	0.5	1.4	1.2	0.9	0.7
Q2	0.5	6.1	0.1	0.0	1.2	1.5	0.4	2.9
Q3	0.6	0.0	0.6	0.0	1.3	0.8	-0.5	2.2
Q4	0.9	0.0	3.9	-3.2	1.6	0.9	-0.6	-0.7
Percentage change, latest quarter on corresponding quarter of previous year								
1997 Q1	..	0.0	1.5	..	2.8	..	..	-0.2
Q2	..	4.9	1.2	..	3.2	..	3.5	-3.4
Q3	..	4.9	0.3	..	3.3	..	3.2	-4.1
Q4	..	4.9	1.1	..	3.3	..	2.5	-0.1
1998 Q1	-1.2	4.9	1.4	-5.2	4.0	..	1.5	3.1
Q2	-3.8	7.1	4.2	-2.9	4.1	..	1.8	3.6
Q3	-5.7	7.1	5.5	-1.8	4.5	..	0.8	4.4
Q4	-7.3	7.1	5.5	-1.0	4.8	..	0.8	2.5
1999 Q1	-4.7	7.1	4.5	0.0	4.7	4.2	0.2	4.0
Q2	-5.0	1.1	1.0	0.3	5.1	4.8	-0.3	2.8
Q3	-3.6	1.1	0.1	-0.3	5.8	4.7	2.7	4.0
Q4	-1.3	1.1	-0.3	-0.2	6.2	6.1	4.2	5.9
2000 Q1	-2.3	1.1	1.1	0.2	6.1	6.9	4.7	0.3
Q2	1.0	6.1	1.6	0.3	5.9	6.1	4.8	5.9
Q3	1.8	6.1	2.2	0.5	5.4	5.3	2.6	7.8
Q4	1.8	6.1	6.1	-2.7	5.6	4.5	0.2	5.1

Corporate Services Price Indices (EXPERIMENTAL) (1995=100) – continued

SIC(92):	Market research 74.13	Technical testing 74.30	Employment agencies 74.50	Security services 74.60	Industrial cleaning 74.70	Commercial film processing 74.81/9	Contract packaging 74.82
1995 net sector weights (%):							
(including property rentals)	1.28	1.21	6.32	1.15	2.27	0.09	0.49
(excluding property rentals)	1.85	1.75	9.14	1.66	3.29	0.12	0.71
Annual							
1995	..	..	..	..	100.0	100.0	..
1996	..	..	..	99.4	99.4	101.7	..
1997	..	..	108.9	99.5	98.8	104.7	..
1998	..	108.5	114.9	100.3	101.3	105.5	..
1999	112.2	112.3	120.6	103.0	101.8	105.6	109.4
2000	116.1	113.4	123.2	105.0	101.8	106.3	112.6
Percentage change, latest year on previous year							
1996	..	..	..	..	-0.6	1.7	..
1997	..	..	..	0.1	-0.5	2.9	..
1998	..	..	5.5	0.9	2.5	0.8	..
1999	..	3.5	4.9	2.7	0.5	0.1	..
2000	3.5	1.0	2.2	1.9	0.0	0.7	2.9
Quarterly results (not seasonally adjusted)							
1996 Q1	..	..	..	99.9	100.1	101.3	..
Q2	..	..	..	100.3	99.8	101.1	..
Q3	..	..	..	98.8	98.7	100.2	..
Q4	..	..	..	98.7	98.8	104.1	..
1997 Q1	..	..	107.0	98.9	98.8	104.4	..
Q2	..	..	108.4	99.2	98.6	104.4	..
Q3	..	..	109.9	99.7	98.9	104.7	..
Q4	..	..	110.4	100.0	99.0	105.3	..
1998 Q1	..	107.8	112.9	100.3	100.8	105.5	..
Q2	..	108.9	114.1	99.8	101.3	105.5	..
Q3	106.8	108.2	115.3	100.4	101.5	105.5	..
Q4	108.6	109.2	117.5	100.8	101.7	105.5	..
1999 Q1	111.7	110.6	119.4	101.4	101.8	105.5	109.2
Q2	112.0	112.0	120.7	102.5	101.9	105.6	109.5
Q3	112.4	113.1	121.0	103.9	101.9	105.6	109.5
Q4	112.8	113.7	121.3	104.3	101.7	105.6	109.5
2000 Q1	115.2	113.3	121.6	104.3	101.8	105.9	112.0
Q2	115.7	113.7	122.9	104.4	102.1	105.9	112.2
Q3	116.5	113.6	123.9	105.6	102.0	106.5	113.5
Q4	117.1	113.1	124.5	105.6	101.5	107.0	112.7
Percentage change, latest quarter on previous quarter							
1997 Q1	..	..	..	0.2	0.0	0.3	..
Q2	..	..	1.2	0.3	-0.2	0.0	..
Q3	..	..	1.4	0.5	0.3	0.3	..
Q4	..	..	0.5	0.3	0.1	0.6	..
1998 Q1	..	..	2.2	0.3	1.8	0.2	..
Q2	..	1.1	1.1	-0.5	0.5	0.0	..
Q3	..	-0.6	1.0	0.6	0.2	0.0	..
Q4	1.6	0.9	1.9	0.3	0.1	0.0	..
1999 Q1	2.9	1.2	1.6	0.6	0.1	0.0	..
Q2	0.3	1.3	1.0	1.1	0.1	0.1	0.3
Q3	0.4	1.0	0.2	1.4	0.0	0.0	0.0
Q4	0.3	0.5	0.3	0.4	-0.2	0.0	0.0
2000 Q1	2.1	-0.3	0.2	0.0	0.0	0.3	2.3
Q2	0.5	0.3	1.1	0.1	0.3	0.0	0.1
Q3	0.7	-0.1	0.8	1.1	-0.2	0.5	1.2
Q4	0.6	-0.4	0.5	0.0	-0.4	0.5	-0.7
Percentage change, latest quarter on corresponding quarter of previous year							
1997 Q1	..	..	..	-1.0	-1.3	3.0	..
Q2	..	..	..	-1.1	-1.2	3.3	..
Q3	..	..	..	1.0	0.2	4.5	..
Q4	..	..	..	1.3	0.3	1.1	..
1998 Q1	..	..	5.5	1.4	2.1	1.1	..
Q2	..	..	5.3	0.6	2.8	1.1	..
Q3	..	..	4.9	0.7	2.6	0.8	..
Q4	..	..	6.4	0.8	2.6	0.2	..
1999 Q1	..	2.8	5.8	1.1	0.9	0.0	..
Q2	..	2.8	5.7	2.6	0.6	0.1	..
Q3	5.2	4.5	4.9	3.4	0.4	0.1	..
Q4	3.9	4.1	3.2	3.5	0.1	0.1	..
2000 Q1	3.1	2.5	1.8	2.9	0.0	0.4	2.6
Q2	3.3	1.5	1.9	1.9	0.2	0.3	2.4
Q3	3.6	0.4	2.5	1.6	0.0	0.8	3.7
Q4	3.9	-0.5	2.7	1.2	-0.2	1.3	2.9

Corporate Services Price Indices (EXPERIMENTAL) (1995=100) – continued

SIC(92):	Direct marketing & other secretarial services 74.83 (part)	Translation & interpretation services 74.83 (part)	Adult education 80.42	Sewerage services 90.00/1	Waste disposal 90.00/2	Commercial washing & dry cleaning 93.01	TOP-LEVEL CSPI	
							Including property rentals	Excluding property rentals
1995 net sector weights (%):								
(including property rentals)	0.19	0.15	0.58	1.33	2.39	0.58	100.00	..
(excluding property rentals)	0.27	0.21	0.84	1.92	3.46	0.83	..	100.00
Annual								
1995	..	..	100.0	100.0	100.0	..	100.0	100.0
1996	..	..	103.4	105.5	111.3	..	102.5	102.8
1997	..	..	108.5	109.9	126.8	..	105.1	104.9
1998	108.0	106.9	111.1	114.1	129.0	108.9	108.2	107.4
1999	109.9	108.5	114.7	118.1	138.1	112.1	111.8	109.9
2000	109.9	108.6	118.9	107.8	144.7	114.7	116.4	113.6
Percentage change, latest year on previous year								
1996	..	..	3.4	5.5	11.3	..	2.5	2.8
1997	..	..	4.9	4.2	13.9	..	2.5	2.1
1998	..	..	2.4	3.8	1.8	..	3.0	2.4
1999	1.8	1.5	3.2	3.4	7.0	2.9	3.3	2.3
2000	0.0	0.0	3.7	-8.7	4.8	2.4	4.1	3.4
Quarterly results (not seasonally adjusted)								
1996 Q1	..	..	102.7	101.4	105.4	..	101.4	101.4
Q2	..	..	103.4	106.8	107.1	..	102.0	102.1
Q3	..	..	103.6	106.8	109.2	..	102.3	102.2
Q4	..	..	104.1	106.8	123.7	..	103.9	104.3
1997 Q1	..	..	107.2	106.8	126.4	..	104.0	103.9
Q2	..	..	107.3	111.0	125.9	..	104.9	104.9
Q3	..	106.5	108.8	111.0	126.8	106.5	105.5	105.4
Q4	..	106.6	110.7	111.0	128.0	107.7	106.0	105.6
1998 Q1	106.4	106.9	111.1	111.0	128.5	107.3	107.1	106.5
Q2	108.1	106.7	110.9	115.2	129.2	109.2	108.1	107.5
Q3	109.1	106.9	110.7	115.2	128.9	109.8	108.6	107.7
Q4	108.2	107.1	111.9	115.2	129.3	109.4	109.1	108.0
1999 Q1	109.3	108.5	113.9	115.2	130.9	110.5	110.3	108.9
Q2	110.4	108.6	114.4	119.0	139.6	112.5	111.2	109.5
Q3	109.7	108.5	115.0	119.0	140.8	112.4	112.2	110.1
Q4	110.0	108.5	115.4	119.0	140.9	112.9	113.4	111.0
2000 Q1	110.2	108.9	117.6	119.0	141.7	114.6	114.2	111.5
Q2	109.8	109.0	117.6	104.0	147.3	115.0	115.7	113.1
Q3	110.2	108.2	119.7	104.0	146.2	115.3	117.1	114.3
Q4	109.4	108.2	120.6	104.0	143.7	114.0	118.4	115.4
Percentage change, latest quarter on previous quarter								
1997 Q1	..	..	3.0	0.0	2.2	..	0.2	-0.3
Q2	..	..	0.1	3.9	-0.4	..	0.9	0.9
Q3	..	..	1.4	0.0	0.7	..	0.8	0.5
Q4	..	0.1	1.7	0.0	0.9	1.1	0.4	0.2
1998 Q1	..	0.2	0.3	0.0	0.4	-0.4	1.0	0.8
Q2	1.7	-0.1	-0.2	3.8	0.5	1.7	0.9	1.0
Q3	0.9	0.2	-0.2	0.0	-0.2	0.8	0.4	0.2
Q4	-0.8	0.2	1.1	0.0	0.3	-0.4	0.5	0.3
1999 Q1	1.0	1.3	1.8	0.0	1.2	1.0	1.0	0.8
Q2	1.0	0.0	0.4	3.3	6.7	1.8	0.8	0.6
Q3	-0.6	0.0	0.5	0.0	0.8	-0.1	0.9	0.5
Q4	0.3	0.0	0.4	0.0	0.1	0.5	1.1	0.8
2000 Q1	0.2	0.4	1.9	0.0	0.6	1.5	0.7	0.4
Q2	-0.4	0.0	0.0	-12.6	4.0	0.4	1.3	1.4
Q3	0.4	-0.7	1.8	0.0	-0.8	0.3	1.2	1.1
Q4	-0.7	0.0	0.8	0.0	-1.7	-1.1	1.1	0.9
Percentage change, latest quarter on corresponding quarter of previous year								
1997 Q1	..	..	4.5	5.3	20.0	..	2.6	2.5
Q2	..	..	3.7	3.9	17.6	..	2.9	2.8
Q3	..	..	5.1	3.9	16.1	..	3.2	3.2
Q4	..	..	6.4	3.9	3.4	..	2.0	1.3
1998 Q1	..	..	3.6	3.9	1.6	..	2.9	2.4
Q2	..	..	3.3	3.8	2.6	..	3.0	2.5
Q3	..	0.4	1.7	3.8	1.7	3.1	2.9	2.1
Q4	..	0.4	1.1	3.8	1.1	1.5	3.0	2.2
1999 Q1	2.8	1.6	2.5	3.8	1.9	3.0	3.0	2.2
Q2	2.1	1.7	3.2	3.3	8.1	3.0	2.9	1.9
Q3	0.8	1.5	3.8	3.3	9.2	2.3	3.4	2.2
Q4	1.7	1.4	3.1	3.3	8.9	3.2	3.9	2.8
2000 Q1	0.8	0.4	3.2	3.3	8.2	3.7	3.6	2.4
Q2	-0.6	0.4	2.8	-12.6	5.5	2.2	4.1	3.2
Q3	0.5	-0.3	4.1	-12.6	3.8	2.6	4.4	3.9
Q4	-0.5	-0.3	4.5	-12.6	2.0	1.0	4.5	3.9

Measuring E-Commerce – the ONS Approach

Magdalen Williams

Overseas, Financial and Co-ordination Division

Office for National Statistics

Room 1.276

Government Buildings

Cardiff Road

Newport NP10 8XG

Tel: 01633 812004

E-mail: magdalen.williams@ons.gov.uk

Introduction

Without doubt, buying and selling goods and services over the internet has had an impact on business. Customers have a larger shop-window to browse and sellers can reach markets all over the world. Business can benefit from the opportunity to source supplies in collaboration with others. Everyone gains from the reduced costs inherent in abandoning bricks and mortar and labour-intensive selling methods.

There are also risks. The businesses that do not keep pace with the move to electronic trade will lose their customers to the lower cost electronic providers. The National Governments that do not facilitate their businesses' transition to the new economy risk their economy faltering. In the UK, the government's aim, set out in the 1998 Competitiveness White Paper, is to 'make the UK the best environment in the world for e-commerce'.

But how will they know?

There are currently no National Statistics on e-commerce by business. The Department of Trade and Industry (DTI) commissions an annual survey to benchmark across 8 countries the extent to which businesses are using information and communication technologies to engage in e-commerce. This International Benchmarking Survey (IBS) is a survey of 6,000 businesses across the 8 countries. The results of the survey are used widely but the analysis is constrained by the size of the survey. There are also a multitude of market research data published daily in the press, but it is not always possible to obtain any information on the methodologies used to produce these in order to assess their quality.

In April 2000, to respond to this need, the Office for National Statistics (ONS) formulated a strategy for first identifying gaps in e-commerce

statistics and then for filling them. As a first step, Economic Assessment and Strategy Division carried out an exercise to assess the validity of current outputs in the light of e-commerce. The main conclusion was that:

inquiry teams were aware of the issues raised by e-commerce, and that generally e-commerce was being captured within existing outputs. However, there is a need to increase awareness of the potential for e-commerce, as a horizontal issue, to impact across all business and social inquiries in ONS and elsewhere in the National Statistics framework.¹

The report concluded by recommending that 'consideration should be given to a separate e-commerce business survey that could capture coherently the economic effects of on-line transactions'.²

To build on this work, ONS distilled the strategy on e-commerce into four sub-projects:

1. A standalone survey of businesses to estimate the value of e-commerce;
2. An exercise to match subscriber data from internet service providers (ISPs) against the inter-departmental business register (IDBR) to provide a profile of business users of the internet;
3. A regular survey of ISPs to construct an 'index of business connectivity';
4. Implementation of changes to existing surveys where this proved the best option.

Standalone E-Commerce Inquiry

ONS sent out a pilot form for a standalone inquiry on the impact of e-commerce in October 2000 to 400 businesses. The survey asked

for the percentage of sales and purchases carried out over any electronic network (including EDI). It used an internationally agreed definition of e-commerce; namely that e-commerce occurs where the decision between seller and buyer to transfer ownership of goods or services has occurred over an electronic network. In other words, e-commerce occurred where the order was placed electronically and payment or delivery can be by other mediums. The survey achieved nearly a 50 per cent response rate.

The report of the pilot made several recommendations to improve the quality of the data, including reducing the frequency of the survey and increasing the sample size. The final form incorporates some qualitative data on enablers and barriers to the use of e-commerce, as well as the percentage of sales and purchases carried out by electronic networks. The forms for the annual survey were sent out to a sample of 9,000 businesses at the end of January. Results are expected in May and will be published in *Economic Trends*. The data will be comparable with the rest of the EU where similar surveys have been carried out.

Matching ISP Data with the IDBR

The second strand of the strategy was to identify the data currently available from Internet Service Providers that could be analysed to produce a snapshot of business usage of the internet. The International E-commerce Research Centre (IERC) was contracted to carry out an exercise to match the postcodes of 6 million active subscribers to ISPs with postcodes held on the Inter Departmental Business Register. This produced a profile of the type and location of businesses using the internet and the full results were expected at the end of January.

Survey of ISPs

In order to supplement the annual, higher quality data from the standalone survey, ONS decided to explore the potential for a quick and easy 'index of connectivity' via a monthly survey of ISPs. The intention was to use the publicly available membership list of the ISP trade association, the ISPA, on the basis that their membership provided a large majority of the internet service providers within the UK.

On this basis a pilot form was sent to 84 ISPA members in December 2000, asking for numbers of subscribers, services offered and technologies used. The intention was to send this more detailed form out annually, supplemented monthly with a few questions on the number of subscribers.

There have been two problems with this survey. Firstly, the pilot

showed the respondents tend to be new businesses with little or no experience of National Statistics forms. Secondly, a representative list of ISPs is difficult to compile - it is estimated that there are around 600 ISPs in total, although many of these have insignificant levels of subscribers. The industry is a particularly dynamic one with a higher degree of births, deaths and mergers. There should be data available within a couple of months, although it will take some time to improve its quality.

Changes to Existing Surveys and Sources

Changes to existing ONS business surveys have been limited to date as a result of the investigations described in the first part of this article. The one area where changes have been made is to the annual structural survey. For the 2000 Annual Business Inquiry (ABI) despatched in December 2000, three questions have been added specifically to measure the extent of the use of e-commerce. These questions ask businesses:

1. Do you place orders for goods or services via the internet?
2. Do you receive orders for goods or services via the internet?
3. Do you have a website?

As the ABI goes to around 72,000 businesses, the results should be very useful indicators of the take-up of e-commerce in various sectors of industry, in different geographical locations and in different sized enterprises. Early results should be available in the summer with full results at the end of the year and these can be used to improve the sample of next year's standalone e-commerce inquiry.

The effect of e-commerce on international trade is currently being explored. There is concern about the classification of items which are delivered by being downloaded over the internet. This is an entirely new category, which doesn't fall neatly into goods or services and no decisions have yet been made internationally on how this should be handled. In addition, because the internet creates opportunities for small firms and individuals to trade internationally, there is a risk that e-commerce is creating international trade that is not being picked up and identified by existing data collection systems.

ONS are continuing to monitor whether there is demand for other changes to business inquiries.

The Future

The past year has been one of exploration, trial and error. However, it will produce some good data and useful lessons for next year; the objective is a complementary set of approaches to measure different aspects of e-commerce. These can then be used, in conjunction with data from the social surveys on consumer activity, by

government, business, economists and the population as whole to measure the UK's progress in the electronic world.

For further information e-mail: magdalen.williams@ons.gov.uk
(01633 812004).

References

- 1 Drew, Chris. E-Commerce: Validity of Current Statistics and Challenges for the future of National Statistics (ONS: May, 2000).

Harmonised Index of Consumer Prices: Methodological Improvements from January 2001

Jim O'Donoghue
Economic Statistics Directorate
Office for National Statistics
Zone D2/20
1 Drummond Gate,
London SW1V 2QQ
Tel: 0207 533 5818
Fax: 0207 533 5829
E-mail: jim.o'donoghue@ons.gov.uk.

Summary

This article is the latest in a series reporting on the development of the Harmonised Index of Consumer Prices (HICP). The main focus of this article is to describe the methodological improvements which came into effect from January 2001. In particular, it presents estimates of the effect of the extensions to coverage of goods and services which brought hospital services, and nursing and retirement homes into the HICP for the first time.

Background

The HICP has been developed, as required by the Maastricht Treaty, by the National Statistical Institutes of Member States of the European Union, in conjunction with Eurostat (the European Communities' Statistical Office). It was used in the assessment of countries' eligibility to join Monetary Union in 1998 and, since January 1999, has been used by the European Central Bank to measure inflation in the European Monetary Union area. It is also used to measure inflation in the European Union as a whole and, more generally, for comparisons of inflation between countries.

This is the latest in a series of articles reporting on the development of the HICP. Earlier articles in *Economic Trends*^{1,2,3} presented:

- the background to the HICP and its uses; how it is constructed and how it compares with the UK Retail Prices Index (RPI);
- historical estimates of the UK HICP from 1988 to 1995, with indicative figures for 1975–1987;
- an update on methodological developments since the launch of the HICP and, in particular, the significant changes which came into effect from January 2000.

The rules to be followed in constructing the HICP are laid down in a

series of Regulations (legal documents) and Guidelines (agreements between Member States and Eurostat, setting out recommended practices). An initial Council Regulation, establishing the framework for the HICP, was passed in October 1995. This has been followed up with a series of detailed implementing measures.

Changes coming into effect with index from January 2001

The following implementing measures came into effect with the index for January 2001:

- treatment of price reductions (this was previously a Guideline);
- timing of entering purchase prices into the index;
- extensions to coverage of goods and services to include all social protection services as well as hospital services.

Treatment of price reductions

This Regulation⁴ differs little in substance from the Guideline on which it is based, which came into effect with the January 1999 index. It sets out the circumstances in which price reductions should be taken into the HICP. These are in accord with the approach adopted in the UK. The basic principle is that where price reductions are available to all potential customers, without special conditions attached, they should be included in the HICP. Normal sales prices should be recorded. End-of-line sales' prices should be excluded, as the products on sale will not be generally available and might be of a lower quality. Implementation of this Regulation required no changes to the UK HICP.

Timing of entering purchase prices into the index

This Regulation⁵ states that:

- prices for goods shall be entered into the index for the month in which they are observed;

- prices for services shall be entered into the index for the month in which the consumption of the service at the observed price can commence. This means, for instance, that the cost of a package holiday where the departure date is in August, will impact on the August index, even if the holiday is booked in January or paid for in March.

Implementation of this Regulation required no changes to the UK HICP.

Extension to coverage

In January 2000, an index for social protection services (COICOP code 12.4) was introduced into the HICP for the first time, but with coverage restricted to nurseries and childcare. From January 2001, the coverage of this category has been extended to include retirement homes and other social services provided to people in their homes. All relevant services are now covered.

Also from January 2001, an index for hospital services (COICOP code 06.3) was included in the HICP for the first time. This index comprises household expenditure on nursing homes and medical services for hospital in-patients (including accommodation and food). Included are payments for these services funded out of insurance claims.

These extensions to coverage required the development and incorporation of some new price indicators, particularly for nursing and retirement homes where the price indicators needed to cover both residents who pay the full amount for their accommodation (including food and care) and those who receive some Local Authority (LA) financial support.

Prices for residents paying the full amount, who account for the majority of expenditure in this category, are obtained from samples of nursing and retirement homes around the country. For LA-supported places, the amount paid by residents for their care depends on their income and savings. The price indicator reflects HICP rules which require changes in the amount paid arising from changes in income to be reflected in the index. This is done by using administrative data to estimate the average amount paid. This average is broken down into two components, Government-set income (the basic state pension or residential allowance, net of the Personal Expenses Allowance) and other sources of payment. The changes in each of these are calculated separately.

The overall effect of the extensions to coverage has been to increase the proportion of household expenditure covered by the HICP by about 1.5 per cent. Of this, 0.9 per cent is attributable to hospital services and the remainder to social protection services. The complete set of weights for 2001 is shown in Table 1.

In order to gauge the effect of the extension to coverage, the HICP for 2000 has been recalculated as if the changes had come into effect a year earlier. This was done by estimating the weight in 2000 of the two COICOP categories affected by the extensions to coverage and calculating estimated indices for these two categories, using relevant price indicators. The results are summarised in Table 2. It should be noted that the results are illustrative only and, because they are based on a single year's analysis, should not be used to draw general conclusions about the effect of the new Regulations in future years. It should also be noted that the official 12-month percentage changes for 2001 will be calculated by reference to the HICP indices for 2000 calculated on the coverage of goods and services prevailing prior to the new Regulations.

Table 2 shows that the extensions to coverage have had minimal or no impact on the overall HICP. The effect on the indices for health and miscellaneous goods and services is more pronounced. In December 2000, the health index is higher by 1.1 index points, reflecting the higher inflation rate for the new category, hospital services. The miscellaneous goods and services index has increased by 0.2 points despite the December index for social protection services being down by 1.4 points. This is because the latter's inflation rate is still higher than the miscellaneous goods and services category as a whole and its weight has increased with the extension of coverage to include retirement homes.

Future development of the HICP

The HICP is still under development. The final extension to coverage required by existing Regulations will come into effect with the index for January 2002 when the financial services category (COICOP category 12.6.2) will be extended to include financial services where charges are proportional to the value of the transaction. This will increase the proportion of household expenditure covered by the UK HICP by up to two per cent.

Eurostat and Member States are also considering the possibility of extending the HICP to include owner-occupier housing costs, using the "net acquisitions" approach. Under this approach, the weight for owner-occupied housing is calculated as the net cost of dwellings acquired by households from other sectors of the economy. This approach is considered to be consistent with the conceptual basis of the HICP. In effect, it would mean the weight being calculated as total expenditure on acquiring newly built or newly converted dwellings, plus purchases of council homes from Local Authorities. Member States have agreed to develop a net acquisition index on an experimental basis. After a period of time, the pilot time series will be analysed, and the methodological and measurement issues arising considered, before a decision is taken on whether the index should be incorporated into the HICP.

Table 1: HICP: Detailed weights data for 2001

	Weight		Weight
HICP (Overall Weight)	1 000	06.2 Out-patient services	4
01 Food and Non-Alcoholic Beverages	114	06.2.1/3 Medical services and paramedical services	2
02 Alcoholic Beverages and Tobacco	48	06.2.2 Dental services	2
03 Clothing and Footwear	67	06.3 Hospital services	9
04 Housing, Water, Electricity, Gas and other Fuels	112	07.1 Purchase of vehicles	46
05 Household Furnishings, Equipment and Maintenance	78	07.1.1 New and second-hand cars	43
06 Health	25	07.1.2/3 Motorcycles and bicycles	3
07 Transport	152	07.2 Operation of personal transport equipment	73
08 Communications	25	07.2.1 Spare parts and accessories	6
09 Recreation and Culture	159	07.2.2 Fuels and lubricants	37
10 Education	12	07.2.3 Maintenance and repairs	23
11 Restaurants and Hotels	144	07.2.4 Other services	7
12 Miscellaneous Goods and Services	84	07.3 Transport services	33
01.1 Food	103	07.3.1 Passenger transport by railway	9
01.1.1 Bread and cereals	18	07.3.2 Passenger transport by road	14
01.1.2 Meat	25	07.3.3 Passenger transport by air	9
01.1.3 Fish	5	07.3.4 Passenger transport by sea and inland waterway	1
01.1.4 Milk, cheese and eggs	13	08.1 Postal services	2
01.1.5 Oils and fats	2	08.2/3 Telephone and telefax equipment and services	23
01.1.6 Fruit	9	09.1 Audio-visual equipment and related products	23
01.1.7 Vegetables including potatoes and tubers	17	09.1.1 Reception and reproduction of sound and pictures	8
01.1.8 Sugar, jam, syrups, chocolate and confectionery	11	09.1.2 Photographic, cinematographic and optical equipment	4
01.1.9 Food products nec ¹	3	09.1.3 Data processing equipment	4
01.2 Non-alcoholic beverages	11	09.1.4 Recording media	6
01.2.1 Coffee, tea and cocoa	2	09.1.5 Repair of audio-visual equipment & related products	1
01.2.2 Mineral waters, soft drinks and juices	9	09.2 Other major durables for recreation and culture	8
02.1 Alcoholic beverages	20	09.2.1/2 Major durables for in/outdoor recreation	8
02.1.1 Spirits	5	09.3 Other recreational items, gardens and pets	37
02.1.2 Wine	9	09.3.1 Games, toys and hobbies	18
02.1.3 Beer	6	09.3.2 Equipment for sport and open-air recreation	4
02.2 Tobacco	28	09.3.3 Gardens, plants and flowers	7
03.1 Clothing	58	09.3.4/5 Pets and related products	8
03.1.1 Garments	54	09.4 Recreational and cultural services	36
03.1.2 Other clothing and clothing accessories	2	09.4.1 Recreational and sporting services	15
03.1.3 Other clothing and clothing accessories	2	09.4.2 Cultural services	21
03.1.4 Cleaning, repair and hire of clothing	2	09.5 Books, newspapers and stationery	25
03.2 Footwear including repairs	9	09.5.1 Books	5
04.1 Actual rentals for housing	53	09.5.2 Newspapers and periodicals	10
04.3 Regular maintenance and repair of the dwelling	20	09.5.3 Misc. printed matter, stationery and drawing materials	10
04.3.1 Materials for maintenance and repair	10	09.6 Package holidays	30
04.3.2 Services for maintenance and repair	10	10.0 Education	12
04.4 Misc. services relating to the dwelling	10	11.1 Catering services	128
04.4.1 Water supply	5	11.1.1 Restaurants and cafes	121
04.4.3 Sewerage collection	5	11.1.2 Canteens	7
04.5 Electricity, gas and other fuels	29	11.2 Accommodation services	16
04.5.1 Electricity	15	12.1 Personal care	28
04.5.2 Gas	11	12.1.1 Hairdressing and personal grooming establishments	8
04.5.3 Liquid fuels	2	12.1.2/3 Appliances and products for personal care	20
04.5.4 Solid fuels	1	12.3 Personal effects nec¹	9
05.1 Furniture, furnishings and carpets	33	12.3.1 Jewellery, clocks and watches	7
05.1.1 Furniture and furnishings	26	12.3.2 Other personal effects	2
05.1.2 Carpets and other floor coverings	7	12.4 Social protection	12
05.2 Household textiles	8	12.5 Insurance	6
05.3 Household appliances, fitting and repairs	11	12.5.2 House contents insurance	2
05.3.1/2 Major appliances and small electric goods	10	12.5.3 Health insurance	2
05.3.3 Repair of household appliances	1	12.5.4 Transport insurance	2
05.4 Glassware, tableware and household utensils	7	12.6 Financial services nec¹	1
05.5 Tools and equipment for house and garden	6	12.6.2 Other financial services nec ¹	1
05.6 Goods and services for routine maintenance	13	12.7 Other services nec¹	8
05.6.1 Non-durable household goods	7		
05.6.2 Domestic services and household services	6		
06.1 Medical products, appliances and equipment	12		
06.1.1 Pharmaceutical products	8		
06.1.2/3 Other medical and therapeutic equipment	4		

(1) nec - not elsewhere covered

Table 2: Estimated HICP for 2000, consistent with coverage from 2001

	Food and non-alcoholic beverages	Alcoholic beverages and tobacco	Clothing and footwear	Housing, water, electricity, gas & other fuels	Household furnishings, equipment & maintenance	Health		Transport	Communi- cation	Recreation and culture	Education	Hotels, cafes and restaurants	Miscellaneous goods and services	HICP (overall index)	
						Total	Hospital services ¹						Total	Social protection services ²	
Estimated index (1996=100)															
2000 Jan	100.4	118.4	82.0	106.6	97.6	110.4	100.8	110.1	91.5	102.1	121.6	112.8	110.8	100.8	104.6
Feb	100.4	119.0	83.3	106.6	98.2	110.5	100.8	110.9	91.0	102.2	121.6	113.1	110.6	100.8	104.9
Mar	99.6	119.0	84.4	106.7	99.2	110.6	100.5	111.9	90.7	102.1	121.6	113.3	110.7	100.9	105.1
Apr	99.3	122.9	84.7	106.1	99.1	111.1	101.0	112.8	90.2	102.3	121.6	114.0	110.7	101.3	105.5
May	100.3	123.0	84.5	106.0	99.3	111.5	101.7	112.9	89.7	102.5	121.6	114.7	111.2	101.7	105.8
Jun	100.7	123.1	84.1	106.0	98.7	111.6	102.1	114.3	89.5	102.4	121.6	115.0	111.0	102.4	105.9
Jul	101.5	122.9	77.5	106.2	96.8	112.4	103.4	114.3	90.3	102.2	121.6	115.4	111.3	102.8	105.4
Aug	100.6	123.2	78.9	106.4	97.4	112.7	103.4	113.2	88.4	102.4	121.6	116.0	111.8	103.1	105.4
Sep	100.9	124.0	82.0	107.1	98.9	112.9	103.3	113.6	87.8	103.0	128.6	116.4	112.0	103.7	106.2
Oct	100.9	123.9	82.1	107.5	97.8	113.4	104.3	112.8	87.7	103.3	129.6	116.7	112.4	104.1	106.2
Nov	101.5	123.8	82.6	107.4	99.0	113.7	105.1	112.9	87.9	102.9	129.6	116.9	112.6	104.3	106.4
Dec	101.7	123.2	82.0	107.4	100.5	114.0	105.4	112.4	86.9	102.9	129.6	117.1	112.8	104.5	106.4
Difference compared with actual index															
2000 Jan	0.0	0.0	0.0	0.0	0.0	0.2	..	0.0	0.0	0.0	0.0	0.0	0.0	-0.4	0.0
Feb	0.0	0.0	0.0	0.0	0.0	0.2	..	0.0	0.0	0.0	0.0	0.0	0.1	-0.5	0.0
Mar	0.0	0.0	0.0	0.0	0.0	0.0	..	0.0	0.0	0.0	0.0	0.0	0.0	-0.8	0.0
Apr	0.0	0.0	0.0	0.0	0.0	0.0	..	0.0	0.0	0.0	0.0	0.0	0.1	-0.4	0.0
May	0.0	0.0	0.0	0.0	0.0	0.2	..	0.0	0.0	0.0	0.0	0.0	0.1	-0.2	0.0
Jun	0.0	0.0	0.0	0.0	0.0	0.4	..	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0
Jul	0.0	0.0	0.0	0.0	0.0	0.8	..	0.0	0.0	0.0	0.0	0.0	0.3	0.1	0.0
Aug	0.0	0.0	0.0	0.0	0.0	0.5	..	0.0	0.0	0.0	0.0	0.0	0.2	-0.5	0.0
Sep	0.0	0.0	0.0	0.0	0.0	0.5	..	0.0	0.0	0.0	0.0	0.0	0.2	-0.9	0.0
Oct	0.0	0.0	0.0	0.0	0.0	0.8	..	0.0	0.0	0.0	0.0	0.0	0.2	-1.0	0.1
Nov	0.0	0.0	0.0	0.0	0.0	1.2	..	0.0	0.0	0.0	0.0	0.0	0.2	-1.1	0.0
Dec	0.0	0.0	0.0	0.0	0.0	1.1	..	0.0	0.0	0.0	0.0	0.0	0.2	-1.4	0.0

¹ New category from January 2001; estimated figures based on Dec 1999=100

² New category from January 2000; figures based on Dec 1999=100

References

- O'Donoghue, J and Wilkie, C (1998): *Harmonised Indices of Consumer Prices; Economic Trends* No. 532 March 1998.
- O'Donoghue, J (1998): *Harmonised Indices of Consumer Prices: Historical estimates; Economic Trends* No. 541 December 1998.
- O'Donoghue, J (2000): *Harmonised Indices of Consumer Prices: Update on methodological developments; Economic Trends* No. 556 March 2000.
- Council Regulation (EC) No 2602/2000 of 17 November 2000 regarding minimum standards for the treatment of price reductions in the HICP; OJ L 300; 29.11.2000; p.16
- Council Regulation (EC) No 2601/2000 of 17 November 2000 regarding the timing of entering purchaser prices into the HICP; OJ L 300; 29.11.2000; p.14

Revisions analysis of initial estimates of annual constant price GDP and its components

Peter Symons

Economic Statistics Directorate

Office for National Statistics

Zone D4/19

1 Drummond Gate

LONDON SW1V 2QQ

Tel: 020 7533 5913

E-mail: peter.symons@ons.gov.uk

Introduction

This article examines:

- evidence of statistically significant bias in revisions to initial estimates of annual constant price GDP growth;
- the dispersion of revisions to initial estimates of annual constant price GDP growth;
- the bias and dispersion of revisions to initial estimates of the major components of the three measures of annual GDP growth;
- the movement in the bias and dispersion of revisions to initial estimates of constant price GDP growth (and its components) since 1970; and
- the relationship between revisions to the initial estimate of GDP growth and the economic cycle.

For the purposes of this article, revisions are defined as revisions to the initial estimate of annual GDP growth between successive editions of the *United Kingdom National Accounts* ('the *Blue Book*'), namely, the edition in which the estimate of GDP appears for the first time and that in which the estimate appears for a second time. (The *Blue Book* usually appears in around August of the year following the latest year of data and contains annual data for that year and revised data for previous years.)

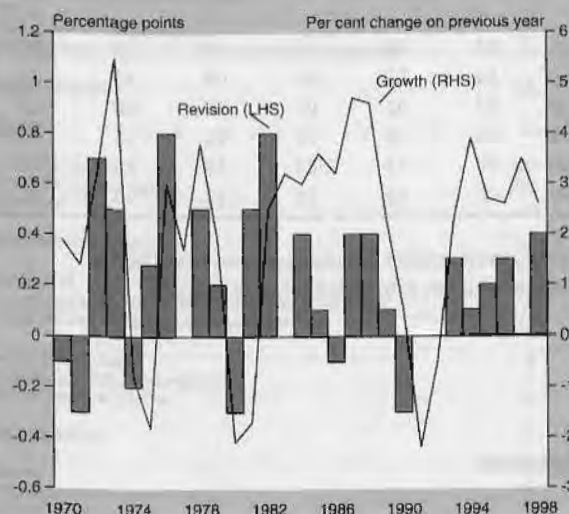
e.g. Revision in 1998 is $\left[\frac{100 \times \text{GDP}(98)}{\text{GDP}(97)} - 100 \right]$
2000 *Blue Book* data
less $\left[\frac{100 \times \text{GDP}(98)}{\text{GDP}(97)} - 100 \right]$
1999 *Blue Book* data

This article does not consider revisions between the first publication of the initial estimate of annual GDP growth (in January following the year to which it refers) and the initial publication in the *Blue Book*.

Chart 1 shows the revision to annual constant price GDP growth in each year for the past three decades and GDP growth in each year.

Chart 1

Annual GDP growth and revisions to GDP growth



Background

Annual revisions to a series are considered to be statistically biased if the mean revision is statistically significantly different from zero. Bias in a series suggests that there is scope to enhance the compilation of that series in an attempt to remove or minimise the bias. In the short term, the preliminary estimate of that series can be

adjusted by the amount of the mean revision to take account of the bias, assuming that the pattern of bias is stable over the economic cycle and that future patterns of bias reflect past experience.

Alternatively, revisions to a series may display bias, but if the absolute size of that bias is low, difficulties in the interpretation of the initial estimate of that series are unlikely to be substantial.

The amount of bias in a series provides information about the reliability of that series (see Box).

BOX: Reliability and accuracy of a series

For the purposes of this article, the **accuracy** of a series relates to how close the published series is to the 'true' movement in that series. The **reliability** of the initial estimate of a series refers to the consistency between the initial estimate and the final estimate of that series. Consideration of bias in revisions provides information about the reliability of a series, but not the accuracy of a series.

In addition, for a given mean revision, the dispersion of the revision needs to be considered. An estimate with a lower variance is preferred to one with a larger variance. A measured initial estimate of a series with a high variance – even if characterised by a low mean revision – is a less 'efficient' indicator of the 'true' series compared to one with a low variance.

The mean square error of a series captures the notions of bias and dispersion (or variance) of revisions in a series in the one measure. A lower mean square error suggests a more reliable and efficient series than one with a high mean square error, although for a given mean square error, there can be a trade-off between dispersion and bias.

Revisions to the initial estimate of GDP (and its components) are analysed in terms of growth rates. This allows a straightforward comparison between series and time periods, abstracting from changes in the size of the economy and the different size of the various series considered. It is recognised, though, that there need not be a straightforward link between revisions to growth rates and revisions to levels of GDP.

In the second half of 1998, new international accounting standards were adopted in the United Kingdom. The new national accounting standards are the European System of Accounts (ESA95) and the IMF *Balance of Payments Manual*, fifth edition, 1993. The new standards have resulted in new terminology, new data series and some changes to the definitions of existing series.

Summary of Results

Revisions to the initial estimates of the growth rates of the following constant price (except where indicated) annual series over the past 29 years, are considered in this article:

- GDP;
- final household consumption expenditure;
- final government consumption expenditure;
- gross fixed capital formation (GFCF);
- exports of goods and services;
- imports of goods and services;
- gross operating surplus (in current prices);
- compensation of employees (in current prices);
- manufacturing production; and
- output of services.

The series were selected on the basis of statistical and economic importance.

The results of the analysis are:

- a mean upward revision in the initial estimate of GDP growth of 0.2 percentage points over the past 29 years compared with average annual growth of 2 per cent over this period;
- the mean revision to the initial estimate of GDP growth is significant at the 5 per cent level, indicating that the revision to the initial estimate is statistically biased;
- a standard deviation of the revision to the initial estimate of GDP growth of 0.3 percentage points and a mean square error of 0.14;
- the mean revision and dispersion of revisions to the initial estimate of annual GDP growth is lower than for many of its components, suggesting that the revisions to the various components of GDP tend to cancel each other out so that the overall mean revision and dispersion in revisions to GDP is comparatively low;

- the mean revision and dispersion of the revisions to the initial estimate of GDP growth have fallen in each decade over the past thirty years;
- some tendency for the revisions to the initial estimates of GDP growth to be biased upward by a greater amount in years of strong growth and biased downward in the years (or the year preceding) of negative growth;
- it is difficult to differentiate between revisions to components that drive revisions to GDP growth and components that are revised as a result of revisions to GDP;
- there is no statistical evidence of bias in any of the revisions to the initial estimates of the components of GDP growth, with the exception of gross operating surplus and GFCF; and
- on the expenditure side, revisions to GFCF growth account for roughly, around two-thirds of the mean revision to GDP growth over the past 29 years, while revisions to net exports account for the remaining one-third.

Comment on the results

The result that the revision to the initial estimate of constant price GDP growth is biased may suggest that the initial estimate could be adjusted by the amount of the average revision. Assuming that historical patterns of bias continue, the second estimate of GDP growth would then be aligned with the initial (adjusted) estimate and the bias from any resulting revision removed.

The mean revision is statistically significant and has a positive bias (of 0.2 percentage points) – the size of the revision is around one-tenth of the average annual growth rate in GDP (of 2 percentage points) over the period under investigation. This suggests that the statistical and economic issues arising from the publication of an initial estimate of GDP that requires revision of this relative size require careful consideration.

In particular, if the economy is at a turning point in the cycle, or close to its long run potential rate of growth, the size of the average revision to the initial estimate may make a difference to the interpretation of the position of the economy in the cycle.

In addition, the direction – and size – of the bias varies with the economic cycle. The variation of the bias complicates an adjustment to an initial estimate of GDP growth by the amount of the average historical revision over the past 30 years.

Moreover, the mean revision has fallen in each of the past three decades, suggesting that the reliability of the initial estimates of GDP has improved over time. (An alternative interpretation is that the economy itself has become less volatile and hence growth rates are easier to measure.) Should this trend continue, the mean revision to the initial estimate of GDP will soon be close to zero.

The results in this article are consistent with the analysis of revisions to quarterly constant price GDP growth contained in Barklem, A., *Revisions analysis of initial estimates of key economic indicators and GDP components*, *Economic Trends*, March 2000.

Methodological Issues

There are a number of aspects to the concept of assuring the 'quality of statistics'. The aspect considered in this article, namely, the reliability of the initial estimate of GDP growth and its components, is only one part of consideration of quality.

A general framework within which quality attributes can be considered has been developed within the European statistical system. The scheme defines quality in terms of six components:

- the relevance of statistical concepts;
- the accuracy and reliability of the estimates;
- timeliness and punctuality in disseminating results;
- the accessibility and clarity of the information;
- the comparability of statistics; and
- coherence.

Within this framework, the components of accuracy are:

- sampling errors and non-sampling errors;
- frame errors;
- measurement errors;
- processing errors;
- non-response errors; and
- model assumption errors.

The methodological issues behind the analysis in this article are similar to those identified in the analysis to revisions in quarterly data discussed in the article in *Economic Trends*, March 2000. As outlined in that article, revisions to economic series may result from:

- receipt of additional data, including replacement of judgemental estimates with more concrete source data; and
- changes in estimation or other procedures.

The analysis is conducted over a period of 29 years from 1970 to 1998. In selecting this time period, it was necessary to balance the number of years on which the test is based (the higher the number of years, the more robust are the test statistics) and the need to assume comparability of the annual GDP data over that period of time. Clearly, over the past 29 years the structure of the economy and the definitions and sources of the components of GDP have changed markedly, clouding the comparability of the data over the period. Yet a reasonable period of time is needed to preserve the robustness of the statistical tests.

The methodological changes to the compilation of GDP over the period covered by this paper have been substantial. For example, the initiatives introduced following the Pickford Report (1988) and the Chancellor's Initiatives (1990 and 1991) were significant. The Chancellor's Initiatives concentrated upon improving the measurement of service sector output, GFCF and gross operating surplus. These Initiatives included:

- wider use of statutory data collection powers;
- increasing the sample size of the monthly sales inquiry (used in the preparation of industrial production data);
- expanding the sample size of the monthly retail sales inquiry;
- extending the quarterly stockbuilding inquiry to cover the retail, motor trades and construction sectors;
- introducing monthly and quarterly turnover inquiries for service industries;
- introducing a new overseas trade in services inquiry; and
- introducing a new quarterly profits inquiry.

In addition, considerable further attention has been paid to the components of GDP (I), particularly in the use of source data - for instance, the more timely use of taxation data.

A further issue is the change (in 1993) to the basis on which GDP is reported (see Wroe, D., *Improving Macroeconomic Statistics*, *Economic Trends*, January 1993 for more detail). Previously, GDP had been reported as an average of its three measures. Subsequently, one measure of GDP has been produced with the three measures balanced to form that estimate using an input-output approach.

The aim of the input-output approach is to provide a framework for the detailed reconciliation of the main components of GDP at current market prices. Using annual benchmark data, the input-output framework is used to produce a single estimate of current price GDP. The three measures of GDP - income, production and expenditure - are reconciled to produce a single measure within a logically consistent and rigorous framework.

Input-output supply and use tables are currently produced annually. The first input-output supply-and use tables were produced in 1991-92 for 1989. Since then, the production of input-output balances has become more timely. In 1994, input-output supply and use tables for 1991 and 1992 were produced together - the first time that the balance for the year ('t-2') was produced 18 months after the end of year ('t-2') and published in the *Blue Book* in year 't'.

An input-output framework is not presently used and reported in year (t-1), (although elements of the framework are used to inform the calculation of GDP for that year). It follows that a major source of revisions to the initial estimate of GDP growth is the revisions arising from the use of formal input-output supply and use tables to balance GDP in year ('t-2') using information and methodologies not used to prepare the initial estimate ('t-1').

The increased use of the input-output framework in the preparation of estimates of GDP growth throughout the 1990s is a major methodological change introduced in the 1990s. It will affect the revisions pattern of the 1990s compared to that of the 1970s and 1980s, as well as that within the 1990s as the use of input-output supply and use tables was gradually applied to more recent years.

Further methodological and definitional changes to the aggregates were introduced as a result of the adoption of ESA95. Again, this change potentially limits comparability between revisions before and after the introduction of these methodological changes, although changes to growth rates following the introduction of ESA95 were generally slight.

The difference in methodology undermines the usefulness of the comparison of revisions over a thirty-year period. Nevertheless, it is useful to consider whether the changes in the basis of compilation

of GDP in the early 1990s has resulted in a reduction in the bias. The sample period has been split into three sub-periods in order to ascertain whether the size and variation of the revisions have changed over time. Already, the evidence suggests that revisions to GDP and many of its components have fallen in the 1990s.

A further methodological point relates to the year of comparison for the calculation of the revision to the initial estimate of GDP growth. The article takes the reported GDP growth in the *Blue Book* one year later (i.e. in year (t-2)) as the point of comparison. However, it is possible that GDP growth in subsequent years of the *Blue Book* (i.e. in years (t-3), (t-4) and beyond) is also revised and that it is cumulative revisions to the initial estimate of GDP growth over a number of years that should be the basis of any analysis of bias in the revision to the initial estimate.

Conceptually, it is preferable to consider cumulative revisions over a reasonable period of time rather than only one year on from publication of the initial estimate. In practice, GDP growth was not revised significantly beyond year (t-2) for most years of the 1990s (although such revisions did take place prior to the 1990s). On this basis, year (t-2) was selected as the basis of calculation for the revision to the initial estimate.

In addition, this paper does not consider revisions between the first publication of the initial estimate of annual GDP growth (in January following the year to which it refers) - referred to as the 'month 1' estimate - and the initial publication in the *Blue Book*. The first estimate of annual growth in GDP is presented by ONS in January of the following year in *Gross Domestic Product, Preliminary estimate - 4th quarter*. The estimate may then be revised in subsequent releases of GDP data (which occur on a monthly basis) between January and when the *Blue Book* is usually published and beyond.

Revisions between January and July in any given year are not considered in this article. In a previous article on revisions analysis (Barklem, A., *Revisions analysis of initial estimates of key economic indicators and GDP components*, *Economic Trends*, March 2000), revisions to initial estimates of annual GDP growth were considered, in particular, revisions between the 'month one' and 'month three' estimates (i.e. the third estimate of annual GDP growth), and between the 'month three' estimate and 'month nine' estimate (i.e. the ninth estimate of annual GDP growth), were analysed.

For example, in that article, annual GDP growth for the fourth quarter of a year (published as the 'month one' estimate in January of the following year) was compared to the 'month three' estimate of annual GDP growth published in March. Also, revisions to the 'month three'

rate of growth were compared to the estimate published six months later (i.e. in September, the 'month nine' estimate refers to quarter four GDP growth of the preceding year). The interested reader is referred to that article for further detail.

The mean, variance, mean square error and adjusted t-statistic

The revision to an annual economic series is defined as the difference between the initial estimate of that series ('t-1') and a one-year later, updated estimate ('t-2'). (For example, in the 2000 *Blue Book*, the GDP growth estimate for 1999 is 't-1' and 1998 is 't-2'. Put another way, the estimate for 1999 as it appears in the 2000 *Blue Book* is 't-1' while the estimate for 1999 in the 2001 *Blue Book* will be 't-2'.)

Revisions are considered to be biased if the mean revision is statistically significantly different from zero. An 'adjusted' t test is used to test the significance of mean revisions to the initial estimate of GDP growth. The rationale for using an 'adjusted' t-test is that successive revisions may not be independent, indicating that the 'standard' t-test may overstate the significance of the test results. The test is outlined in Appendix A.

It is desirable that a series is characterised by a low average revision, a low variance of revisions and that the revision is unbiased. Revisions to a series are statistically biased if the mean revision of that series is high relative to its variance, according to the calculated t-statistic, which is defined as follows:

$$t = (\bar{X} - \mu_x) / \sqrt{(\sigma_x^2 / n)} \text{ where } \begin{array}{l} \bar{X} \text{ is the sample mean revision,} \\ \mu_x \text{ is the population mean revision} \\ \text{(assumed to be zero),} \\ \sigma_x^2 \text{ is the variance,} \\ n \text{ is the number of observations} \end{array}$$

A threshold issue is the response to the result of a t-test that indicates that a series is statistically biased. As mentioned above, if the absolute size of the mean revision is small (and the dispersion is low), the initial estimate of the series can still give a reliable and accurate indication of the second estimate of the series as it suggests that there is only a small difference between the initial estimate and the 'final' estimate.

If the bias is large, but the dispersion is low, it is a reasonably straightforward task to accurately adjust the initial estimate of the series to remove the need for revision. However, a series may be biased because, although its mean absolute revision may be small, the revision is statistically significant because the dispersion of the series is low.

In this context, a high dispersion is spuriously attractive because (for a given mean revision) it lowers the adjusted t-statistic, and hence the likelihood that the mean revision is statistically significant (i.e. that bias is present). For a given mean, a series with a lower variance is generally seen as preferred to one with a higher variance on the grounds that it is a more 'efficient' estimator.

In other words, consideration of bias alone may not give an accurate indication of the quality of the initial estimate of the series. Consideration of the dispersion is also necessary.

A measure that encapsulates both the bias and dispersion of a series is the mean square error. The mean square error of a series is the sum of the square of the bias and the variance of the series. A preferred series displays a low mean square error. Further details about the mean square error are provided at Appendix B

$$\text{mean square error} = \text{bias squared} + \text{variance}$$

Results

Revisions analysis of annual national accounts data is applied to the following series: GDP, final household and government consumption, gross fixed capital formation, exports, imports, gross operating surplus, compensation of employees, manufacturing and services output. A summary of the results is provided in Table 1.

Table 1 Summary statistics for revisions to the initial estimate of constant price annual GDP growth and its components, 1970–1998

	Mean ¹	Standard Deviation ¹	Mean Square Error ⁴
GDP ²	0.2	0.3	0.1
Household consumption	0.0	0.3	0.1
Government consumption	-0.2	0.6	0.4
Gross fixed capital formation ²	0.7	1.4	2.4
Exports of goods	0.2	0.7	0.5
Exports of services	0.3	1.8	3.2
Imports of goods	0	0.9	0.9
Imports of services	0.3	1.4	2.1
Compensation of employees ¹	0.1	0.6	0.3
Gross operating surplus ^{1,2}	0.9	1.9	4.5
Manufacturing output	0.1	0.4	0.2
Services output ³	0	0.4	0.1

¹ current prices

² series is statistically biased, i.e. reject the null hypothesis that the mean revision is not statistically different from zero at the 5 per cent level.

³ 1984–1998 only

⁴ sample statistics

These components are discussed in turn, followed by consideration of the correlation between revisions to these series.

Constant price GDP

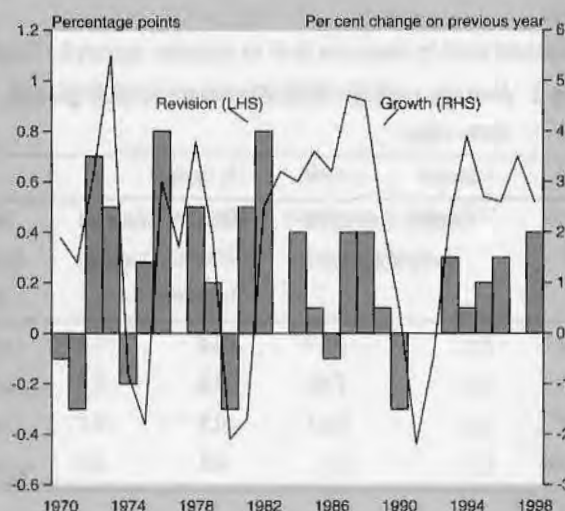
The results of the analysis of revisions to the first estimate of annual GDP growth show:

- a mean revision of 0.2 percentage points (compared with average annual growth of 2 per cent over the period);
- a standard deviation of 0.3 percentage points;
- an adjusted t-statistic of 4.23, statistically significant at the 5 per cent level, indicating the presence of bias in revisions to the initial estimates of GDP growth;
- a coefficient of correlation between the first estimate of GDP growth and the revision to growth of around 0.4;
- a mean square error of 0.14; and
- the series is likely to be revised upward by a greater amount during periods of strong growth but revised downward in the year preceding - or the first year of - a recession.

Although the time periods used for both papers differ, these results are consistent with those of the article in the March 2000 edition of *Economic Trends*, which showed that revisions to the first estimate of annual GDP growth (on a quarterly basis) were statistically biased.

Chart 2

Annual constant price GDP growth and revisions



The analysis indicates statistically significant bias. The size of the average bias, 0.2 percentage points, is modest relative to average annual growth of 2 per cent over this period. In addition, the dispersion and mean square error are low.

As mentioned above, there are caveats attached to these results, namely, that a relatively short period of time is considered (implying that the degrees of freedom are low), structural changes to the economy were significant over this period and that there have been changes to the methodology and definition and collection of data over the period.

Nevertheless, the analysis of revisions, particularly the movement of revisions over time, remains useful. Such an analysis can reveal whether the surveys and methodologies in place at the time have been able to pick up structural changes in (the initial estimate of) a series, or whether such changes do not become apparent until later, necessitating revisions.

The analysis of revisions over time can also help in the assessment of new methodologies and surveys as to whether they have resulted in better quality (judged by the degree of bias and dispersion). Of particular interest is whether the reforms resulting from the Pickford Report and the Chancellor's Initiatives (outlined earlier) have led to a reduction in the bias and dispersion of revisions to initial estimates of annual growth in GDP and its components.

It is apparent that the average revision has fallen over time. Table 2 shows the average revision to the initial estimate of growth in GDP has fallen from 0.3 percentage points in the 1970s to 0.2 percentage points in the 1980s to 0.1 percentage points in the 1990s. This result indicates that estimation of this series has improved significantly over the period. Similarly, the variance and mean square error have fallen over this period, suggesting that the first estimate has become a more reliable and efficient indicator of the final estimate of GDP growth.

Table 2 Average revision to first estimate of GDP growth, 1970–1998

	Number of revisions upward/downward	Mean	Standard Deviation	Mean Square Error
1970s	6—3	0.3	0.4	0.2
1980s	7—2	0.2	0.3	0.2
1990s*	5—1	0.1	0.2	0.1
Average		0.2	0.3	0.1

* until 1998

The bias in the initial estimates of GDP growth was examined (visually) over periods of economic upswing and strong economic upswing. The mean value of the revision was found to vary positively with the strength of GDP growth, although the absolute value of the bias still remains modest even in periods of strong growth (see Table 3).

For instance, in years of strong growth (i.e. when the economy grows at more than 3 per cent p.a.) the average revision is 0.3 percentage points.

By contrast, the first estimate of GDP growth tends to be either revised down in the first year (or year preceding) a period of negative growth or negligible.

However, there are too few episodes analysed to conclude that there is a *statistically* strong relationship between the size of the revision and GDP growth in a particular year.

Table 3 Bias and strength of GDP growth

	Negative growth	Positive growth	Growth>2%	Growth>3%
Mean revision (ppts)	0.05	0.25	0.31	0.32

Components of constant price GDP

Overview

According to the test results, revisions to only two components of GDP – gross operating surplus and GFCF – show statistically significant bias. Nevertheless, the revisions to the initial estimates of each component vary as regards the mean, variance and mean square error. A ranking of the components of GDP growth by mean revision to the initial estimate is shown in Table 4.

Table 4 GDP growth and its components, 1970–1998, ranked by mean revision

	Mean	Mean Square Error
Household consumption	0	0.1
Services output	0	0.1
Imports of goods	0	0.9
Manufacturing output	0.1	0.2
Compensation of employees	0.1	0.3
GDP	0.2	0.1
Government consumption	-0.2	0.4
Exports of goods	0.2	0.5
Imports of services	0.3	2.1
Exports of services	0.3	3.2
Gross fixed capital formation	0.7	2.4
Gross operating surplus	0.9	4.5

It is apparent from Table 4 that constant price GDP growth is in the middle of the ranking. This result is unsurprising. The mean square error for GDP is lower than that of most of its components, suggesting that the initial estimate of GDP growth is a more reliable and efficient indicator of final GDP growth than initial estimates of components of GDP are for the equivalent final estimate of that component.

The initial estimates of growth in services output and household consumption are not prone to revision – the average revision is negligible, as is its volatility. The low mean revision to the initial estimate of growth in imports of goods is misleading – this series is prone to some volatility and there have been noteworthy revisions in both directions, as evidenced by the mean square error of 0.9.

At the other end of the scale, both gross operating surplus and gross fixed capital formation are subject to high mean revisions to initial growth estimates. The revisions to these series also display a high variance.

On the expenditure side, revisions to GFCF growth account for around two-thirds of the mean revision to annual GDP growth over the past thirty years. Net exports account for around one-third of the mean revision to GDP growth. On the income side, as a very rough indication, compensation of employees and gross operating surplus account for around one third and two-thirds of the revision to GDP growth respectively. The shares of the revisions to output growth have not been calculated, as data for services output revisions is available for only part of the period under consideration.

Usually series are revised jointly due to the use of annual benchmarking data and the mechanisms to obtain a balanced

estimate of GDP in the formal balancing processes. It can be difficult to disentangle series that are determinants of revisions to the initial estimates of GDP growth from series that are revised as a result of revisions to the initial estimates of annual GDP growth.

As discussed earlier, the means of deriving the subsequent estimate of GDP and its components differs from that used to derive the initial estimate. To that extent, some revisions should be expected. Nevertheless, the recent pattern has been that those revisions are becoming smaller suggesting that the initial estimate is very close to that reported in the *Blue Book* a year later (which has been obtained from the formal input-output balancing process).

Because of the difficulty in determining the direction of causality, no conclusion is drawn in this paper as to the components of GDP that are most likely to be responsible for the revisions to GDP.

Constant price household final consumption

Final household consumption accounts for around 65 per cent of GDP. The average revision to the initial estimate of annual household final consumption growth (rounded) is zero – the series is subject to negligible mean revision. The revisions are not statistically significant and the standard deviation (0.3) and mean square error (0.1) are low.

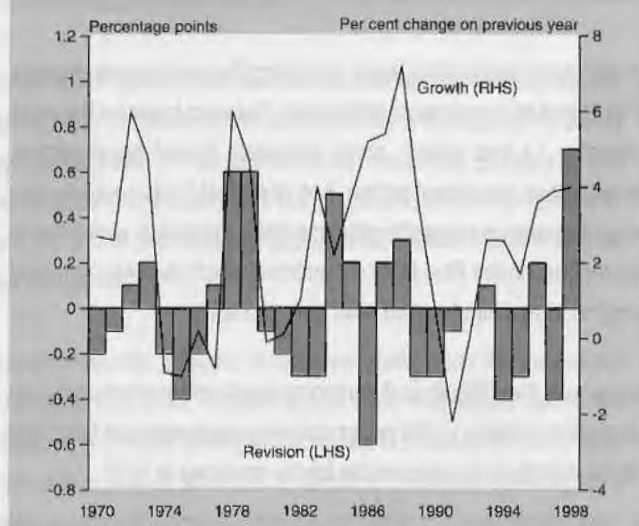
The mean and standard deviation of the revisions has been reasonably stable over the past 30 years (see Table 5 and Chart 3). Nevertheless, there have been some significant revisions in particular years in this period. In the 1990s, initial estimates have been subsequently revised down for five of the eight years, although there was a significant revision upward in 1998.

There does not appear to be a relationship between the direction of the revision and the growth rate in final household expenditure.

Table 5 Average revision to first estimate of final household consumption growth, 1970–1998

	Number of revisions upward/downward	Mean revision	Standard Deviation	Mean Square Error
1970s	5—5	0.1	0.3	0.1
1980s	4—6	-0.1	0.3	0.1
1990s*	3—5	-0.1	0.3	0.1
Average		0.0	0.3	0.1

* until 1998

Chart 3**Annual growth in household consumption and revisions****Government consumption**

Government consumption accounts for around 10 per cent of total output.

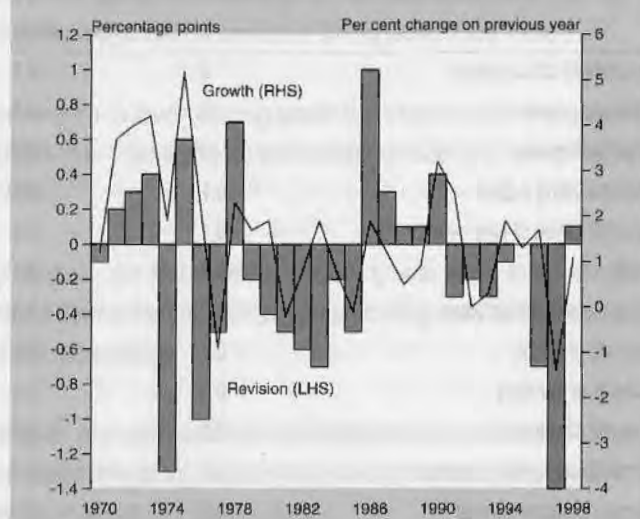
The mean revision to the initial estimate over the past 29 years is modest at -0.2 and not statistically significant. Government consumption is the only component of GDP to be revised down, on average, from its initial estimate (see Chart 4 and Table 6). The mean and standard deviation of the revisions have been fairly stable over the period of analysis and are modest at 0.6 and 0.4 respectively.

There have, however, been some large revisions in particular years. There does not appear to be a relationship between the direction of the revision and the size of growth.

Table 6 Average revision to first estimate of government consumption growth, 1970–1998

	Number of revisions upward/ downward	Mean revision	Standard Deviation	Mean Square Error
1970s	5–5	-0.1	0.7	0.5
1980s	4–6	-0.1	0.5	0.3
1990s*	3–5	-0.3	0.5	0.4
Average		-0.2	0.6	0.4

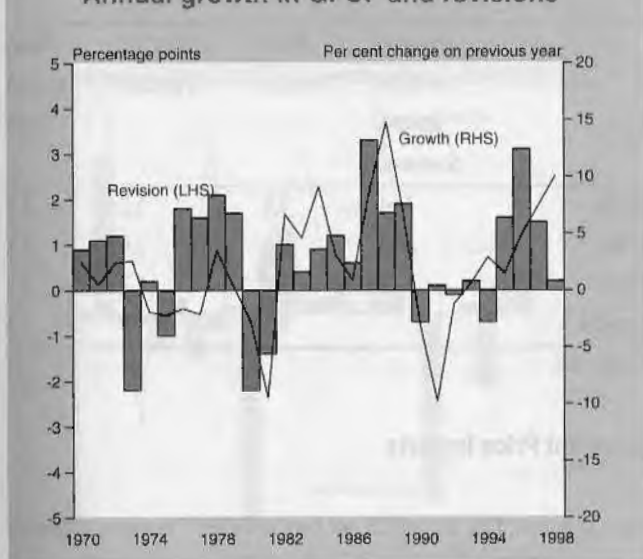
* until 1998

Chart 4**Annual growth in government consumption and revisions****Constant Price Gross Fixed Capital Formation**

Gross fixed capital formation (GFCF) accounts for around 20 per cent of GDP. It shows a large mean revision and a standard deviation, with a mean revision of 0.7 percentage points and a standard deviation of 1.4 percentage points (see Chart 5). The mean revision is the second highest of all series analysed, and the revision is statistically significant (i.e. biased) at the 5 per cent level. The mean square error is 2.4.

The past 29 years has been characterised by a tendency for the initial estimate to constantly underestimate the final estimate of growth in this series - the initial estimate has subsequently been revised upward in two of every three years in the past three decades. There was also a period in the mid 1990s when the initial estimate of growth in this series was persistently too low. Not only have the revisions themselves been volatile, but growth in GFCF is in itself volatile compared with other components of GDP.

Nonetheless, the initial estimates of this series have improved substantially in the 1990s - the mean revision is lower (0.6 as against 0.7 in the 1970s), as is the mean square error of the revisions (1.9 as against 2.6 in the 1970s) (see Table 7). There does not appear to be a relationship between the direction of the revision and the direction of growth.

Chart 5**Annual growth in GFCF and revisions****Table 7 Average revision to first estimate of gross fixed capital formation growth, 1970–1998**

	Number of revisions upward/ downward	Mean revision	Standard Deviation	Mean Square Error
1970s	8–2	0.7	1.5	2.6
1980s	8–2	0.7	1.6	3.0
1990s*	6–3	0.6	1.2	1.9
Average		0.7	1.4	2.4

* until 1998 only

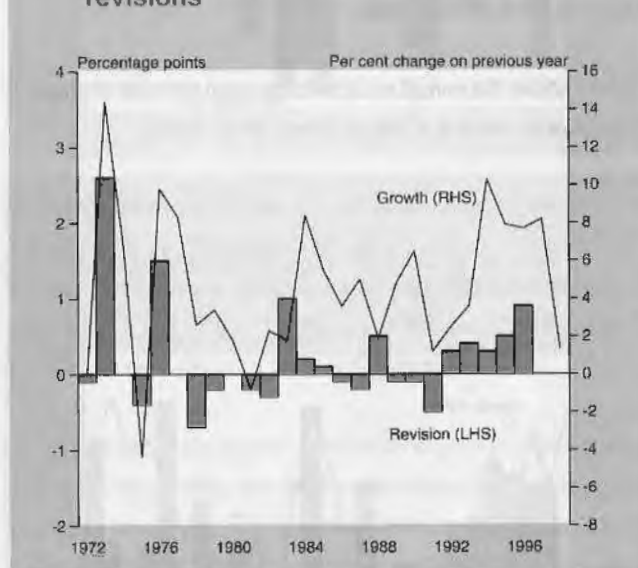
Although revisions to GFCF are not biased, GFCF displays a high mean revision and volatility. Further, revisions to GFCF have, on average, accounted for around two-thirds of the revision to GDP over the past 29 years. This suggests that GFCF could be targeted for further refinement in order to reduce the mean and variance of the revision to the initial estimate.

Constant Price Exports

Exports account for around 30 per cent of GDP. The mean average revision to the initial estimate of export growth is low, at 0.3 percentage points. Nevertheless, revisions to (net) exports have accounted for around one-third of the mean revision to GDP growth over the past 29 years. Given the differences in methodology and sources between exports of goods and services, it is useful to consider the revisions to the component series separately.

Constant price exports of goods

The mean annual revision to exports of goods over the past 29 years is 0.2 percentage points - very low, especially when compared with average annual growth in this series of 4.6 per cent. The revision to the series is not statistically biased at the 5 per cent level. The standard deviation of revisions is moderate at 0.7 percentage points while the mean square error is 0.5. Chart 6 shows the pattern of revisions and annual growth since 1972.

Chart 6**Annual growth in exports of goods and revisions**

The series was prone to some particularly high revisions in the 1970s, which tended to coincide with periods of strong growth in the series. However, the average revision and volatility of the series declined markedly in the 1980s (see Table 8). In the 1990s, the average revision increased, and the standard deviation was unchanged. There were a number of upward revisions to this series in the first half of the 1990s, suggesting a tendency to underestimate growth.

Table 8 Average revision to first estimate of growth in exports of goods, 1972–1998

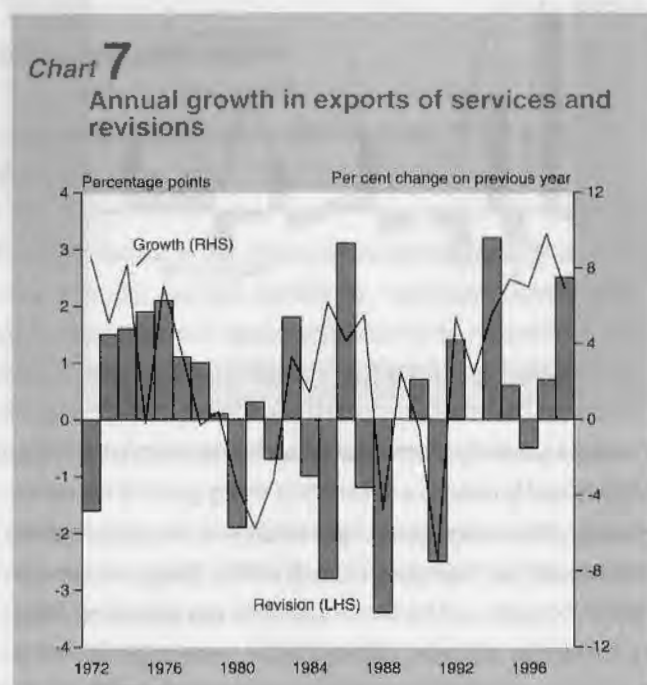
	Number of revisions upward/ downward	Mean revision	Standard Deviation	Mean Square Error
1970s	2–4	0.3	1.1	1.4
1980s	5–5	0.1	0.4	0.2
1990s*	5–2	0.2	0.4	0.2
Average		0.2	0.7	0.5

* until 1998

Constant price exports of services

The pattern and nature of revisions to the initial estimate of growth in constant price exports of services is different to that of constant price exports of goods. The bias in the revision to the initial estimate of growth in constant price exports of services is 0.3 percentage points, only slightly above that of the average revision to growth in constant price exports of services (0.2 percentage points), but the revision to constant price exports of services growth is considerably more volatile - a standard deviation of 1.8 percentage points (compared with 0.7 percentage points for the revision to exports of goods). The mean square error of the revision to constant price exports of goods is high at 3.2. The revisions are not statistically biased at the 5 per cent level.

Chart 7 shows the annual revision to the initial estimate of growth in exports of services, and annual growth in the series.



There does not appear to be a clear relationship between the size and direction of the revision to the initial estimate and annual growth. However, it is noteworthy that there have been particularly large revisions in certain years. The (absolute value) of the mean revision has declined since the 1970s, but, with an average revision of 0.7 percentage points in the 1990s, it remains high. The standard deviation of the revisions, is high, at 1.7 percentage points in the 1990s (see Table 9).

Table 9 Average revision to first estimate of growth in exports of services, 1972-1998

	Number of revisions upward/ downward	Mean revision	Standard Deviation	Mean Square Error
1970s	7-1	1.0	1.2	2.4
1980s	3-6	-0.6	2.0	4.3
1990s*	6-2	0.7	1.7	3.3
Average		0.3	1.8	3.2

* until 1998

Constant Price Imports

Imports account for around 35 per cent of GDP. The mean revisions to initial estimates of annual import growth show a low mean revision of 0.1 and a high standard deviation of 0.9 percentage points. However, the mean revision is statistically insignificant, and the mean square error overall is moderate at 0.8 percentage points.

Given the differences in compilation between imports of goods and imports of services, revisions analysis is conducted on these series separately.

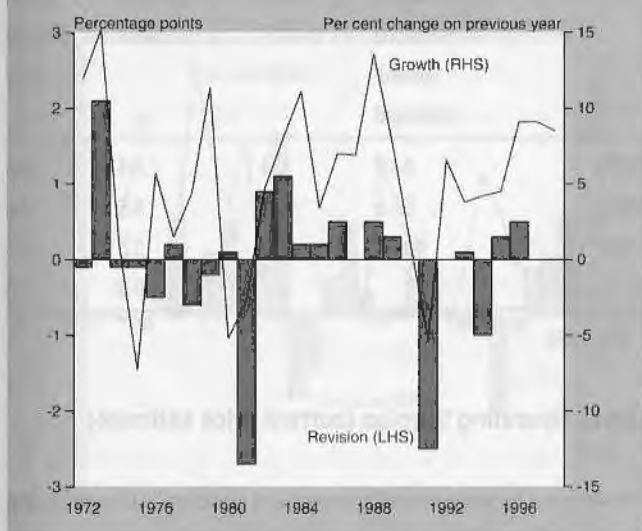
Constant price imports of goods

The mean revision to the initial estimate of growth in constant price imports of goods is zero - statistically insignificant at the 5 per cent level. The standard deviation is moderate at 0.9 percentage points while the mean square error is also 0.9.

The moderate standard deviation is largely attributable to three years where the revision was particularly large - 1973, 1981 and 1991.

There does not seem to be a correlation between the annual revision and growth in imports of goods, although it is noteworthy that the large revision downward in growth in the initial estimate of imports of goods in 1991 occurred in the same year as a decline in annual growth of this series (see Chart 8).

The absolute value of the mean revision to the initial estimate of growth in constant price imports of goods remained unchanged (at 0.1 percentage point) in the 1970s and the 1980s. However, it increased in absolute terms to 0.3 percentage points in the 1990s (see Table 10). The mean revision in the 1990s is distorted in the 1990s by one very large revision at the beginning of the decade (as it was in the 1980s). The standard deviation of the mean revision has remained broadly unchanged over the past three decades.

Chart 8**Annual growth in imports of goods and revisions****Table 10 Average revision to first estimate of imports of goods growth, 1970–1998**

	Number of revisions upward/ downward	Mean revision	Standard Deviation	Mean Square Error
1970s	2–6	0.1	0.9	0.8
1980s	8–1	0.1	1.0	1.1
1990s*	3–2	-0.3	0.9	1.0
Average		0	0.9	0.9

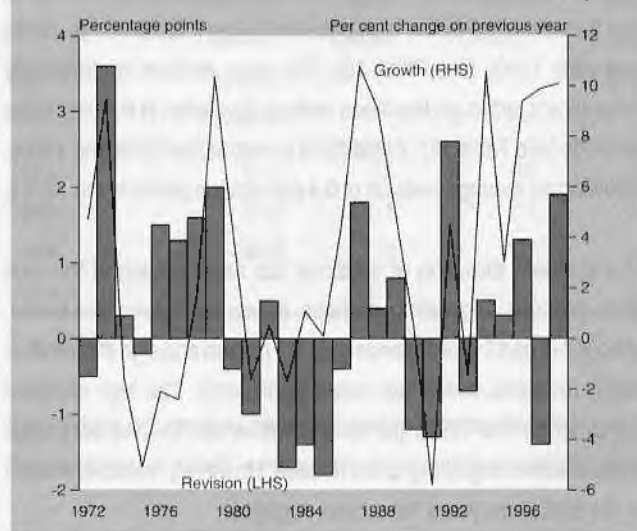
* until 1998

Constant price imports of services

Revisions to the initial estimates of growth in constant price imports of services display a different pattern of behaviour to that of goods. The mean revision to the initial estimate of growth over the last three decades is 0.3 percentage points while the standard deviation is high at 1.4 percentage points. The mean square error is also high at 2.1.

As Chart 9 shows, this series is subject to considerable volatility. It is difficult to interpret movements in the average revision to this series across successive decades, as the revisions have been large and volatile. The high mean revision in the 1970s reflects a number of successive years of large positive revisions - an indication that growth in this series was continually underestimated initially.

In the first half of the 1980s the opposite was the case - initial estimates of growth were too large and subsequently revised

Chart 9**Annual growth in imports of services and revisions**

downward. This was followed by a period of positive revisions at the end of the 1980s. Overall the low mean revision (–0.3 percentage points) in the 1980s is misleading as a number of the high positive and negative revisions in the decade cancel out. The key point is that the standard deviation fell only slightly in the 1980s.

The 1990s was characterised by a number of years of high revisions and again, the positive and negative revisions in successive years tended to cancel out. The low mean revision (of 0.2 percentage points) in this decade is to an extent misleading. The standard deviation of the revisions to the initial estimate is high at 1.5 percentage points.

Overall this is a series with high revisions and a high volatility in those revisions. This pattern has not changed substantially in the past 30 years (see Table 11).

Table 11 Average revision to first estimate of growth in imports of services, 1972–1998

	Number of revisions upward/ downward	Mean revision	Standard Deviation	Mean Square Error
1970s	6–2	1.2	1.3	3.2
1980s	4–6	-0.3	1.2	1.5
1990s*	5–4	0.2	1.5	2.2
Average		0.3	1.4	2.1

* until 1998

Compensation of Employees (current price estimate)

Overall trends in revisions to compensation of employees over the past 29 years are difficult to interpret, because the series is nominal and thus distorted by the high price and wage inflation in the 1970s and early 1980s (see Chart 10). The mean revision is statistically insignificant, although the mean revision has fallen in the past three decades (see Table 12) - it was close to zero in the 1980s and 1990s, following an average revision of 0.4 percentage points in the 1970s.

The standard deviation of revisions has risen in each of the past three decades, suggesting, perhaps, an increasingly volatile series, although in part this is dependent on the pattern and sign of individual yearly revisions, which has varied significantly. The high standard deviation for the 1990s (to date) is influenced by one very large revision at the beginning of the decade. However, revisions in each of the past three years have been negligible.

The mean square error is small at 0.3. Although the bias is not statistically significant, revisions to compensation of employees roughly account for around one-fifth of the mean revision to GDP growth.

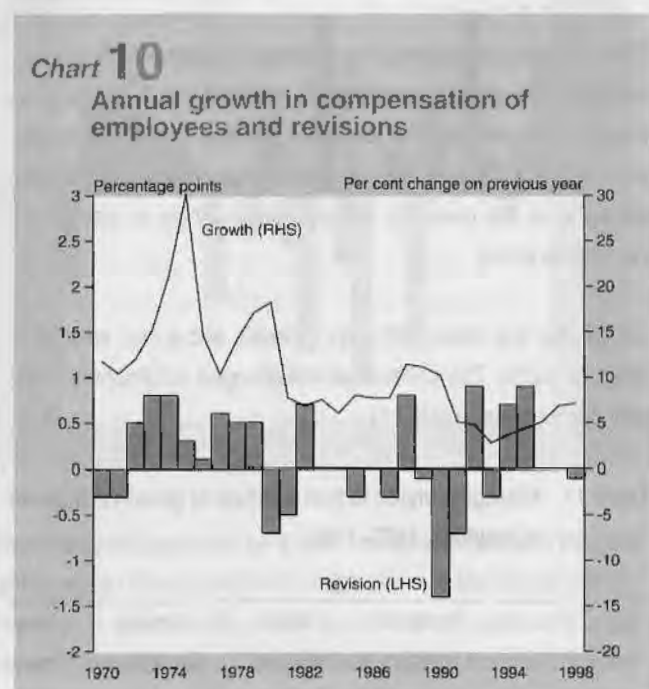


Table 12 Revisions to first estimate of compensation of employees growth, 1970-1998

	Number of revisions upward/ downward	Mean revision	Standard Deviation	Mean Square Error
1970s	8-2	0.4	0.4	0.3
1980s	2-5	-0.1	0.5	0.2
1990s*	3-4	0	0.8	0.6
Average		0.1	0.6	0.3

* until 1998

Gross Operating Surplus (current price estimate)

The revision to gross operating surplus is statistically biased (at the 5 per cent level). The mean revision to the initial estimate of this series - 0.9 percentage points - is the highest of all the series considered in this article. In part, the high average revision is due to the receipt of additional and later information that helps provide a better estimate of annual growth in gross operating surplus. Reflecting this, considerable effort has been concentrated at improving the initial estimates of this series - the mean revision has halved in the 1990s.

Revisions to the initial estimate of annual growth in gross operating surplus have both a high mean revision (0.9 percentage points) and standard deviation (of 1.9 percentage points), although, as for compensation of employees, interpretation of the movements over the last 29 years is difficult due to the presence of periods of high inflation (see Chart 11) and large revisions in particular years. The volatility of revisions to the initial estimate of gross operating surplus in this period is the highest in any of the series. The mean square error of 4.5 is also the highest of all the series (see Table 13) considered in this article.

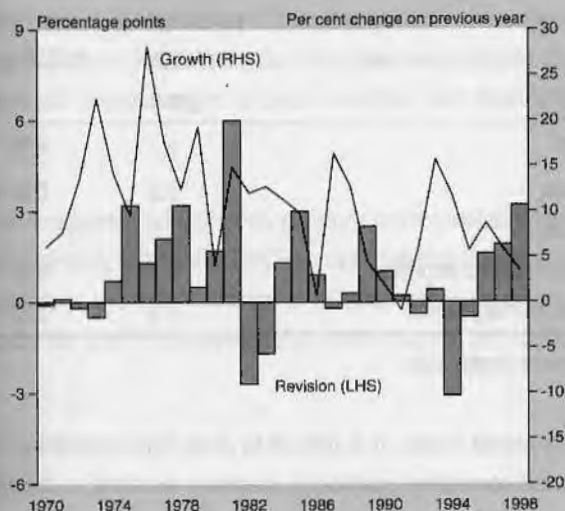
Table 13 Average revision to first estimate of gross operating surplus growth, 1970-1998

	Number of revisions upward/ downward	Mean revision	Standard Deviation	Mean Square Error
1970s	7-3	1.1	1.4	3.3
1980s	7-3	1.1	2.5	7.3
1990s*	6-3	0.5	1.8	3.4
Average		0.9	1.9	4.5

* until 1998

Chart 11

Annual growth in gross operating surplus and revisions



Constant Price Manufacturing Output

Revisions to the initial estimates of annual growth in manufacturing output do not show evidence of statistically significant bias at the 5 per cent level (see Chart 12). The mean revision is very low (0.1) as is the standard deviation (0.4). The mean square error is also very low at 0.2. Overall, the initial estimate of growth in this series is a reliable indicator of the final estimate (see Table 14) and does not contribute significantly to revisions in GDP.

Chart 12

Annual growth in manufacturing output and revisions

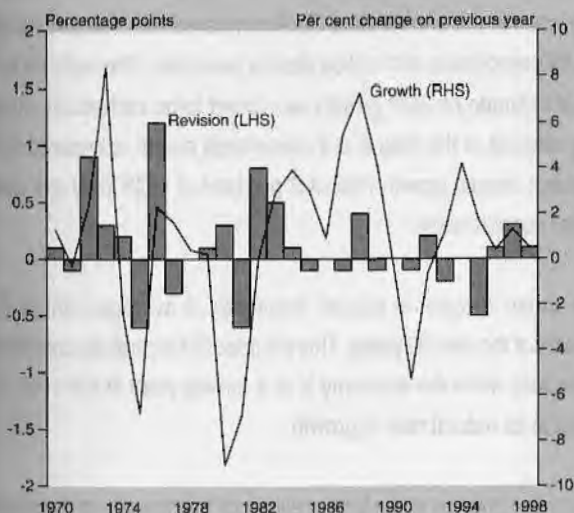


Table 14 Average revision to first estimate of manufacturing output growth, 1970–1998

	Number of revisions upward/ downward	Mean revision	Standard Deviation	Mean Square Error
1970s	6–3	0.2	0.6	0.3
1980s	5–4	0.1	0.4	0.2
1990s*	4–3	0	0.2	0.1
Average		0.1	0.4	0.2

* until 1998

There does not seem to be a relationship between the direction of the revision and growth in manufacturing output in a particular year.

Constant Price Services Output

An index for total services output in total was not reported in the *Blue Book* until 1984. Interpretation of revisions to this series is therefore limited by a lack of data. From the data that are available, revisions to initial estimates of growth in output of services are not statistically biased at the 5 per cent level. The mean revision is low (0, rounded), as are the standard deviation and mean square error (see Table 15 and Chart 13). The initial estimate is a reliable and accurate indicator of the final estimate of growth in services output.

The introduction of the new Index of Services Output in December 2000 should further improve the initial estimate of this series.

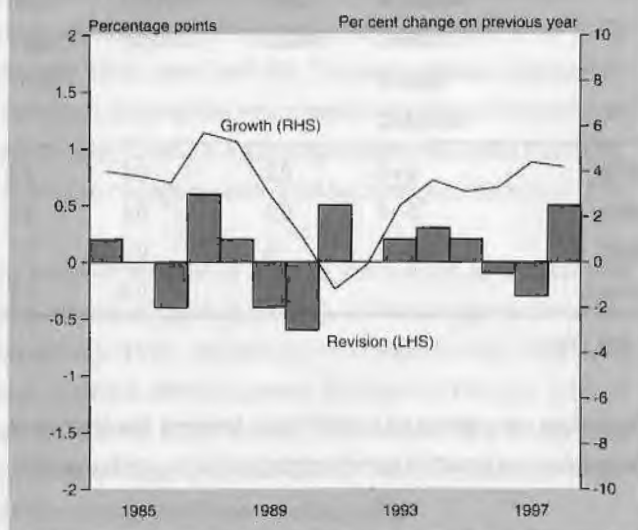
In the late 1980s and early 1990s, there is some relationship between the direction of the revision to the initial estimate of this series and annual growth in the series. As annual growth declined, the size of the revision declined. The revision was negative for two years at the end of the 1980s, when annual growth in the series was positive but low. However, overall there is insufficient data to conclude that there is a robust relationship between the size of the revision and growth in services output.

Table 15 Average revision to first estimate of service output growth

	Number of revisions upward/ downward	Mean revision	Standard Deviation	Mean Square Error
Average 1985–1998	8–5	0	0.4	0.1

Chart 13

Annual growth in services output and revisions



Correlation between revisions of components of initial estimates of GDP growth and revisions to GDP growth

Table 16 Coefficients of correlation between revision series

Component	Coefficient of Correlation
Total consumption expenditure	0.34
Gross fixed capital formation	0.67
Exports	0.28
Imports	0.08
Compensation of Employees	0.35
Gross Operating Surplus	0.04
Manufacturing	0.32
Services	0.69

Table 16 shows the coefficient of correlation between revisions to all the initial estimates of components of annual GDP growth considered in this paper and the revision to GDP growth itself. The only series with a large coefficient of correlation with annual GDP growth are GFCF and services output.

Table 17 shows the major contributors to the mean revision in GDP growth, with a rough estimate of the percentage point revision weighted by share in GDP. The data in this table do not imply causality between revisions to GDP growth and growth in any particular component.

Table 17 Contributions to revisions in mean GDP growth, 1970–1998¹

	Average percentage point revision (ppts)	Contribution to mean revision to GDP growth (ppts)
GFCF	0.7	0.14
Exports	0.3	0.05 (net)
Imports	0.1	
Compensation of employees	0.1	0.06
Gross operating surplus	0.9	0.23

¹ Broad estimates only;

As discussed earlier, it is difficult to draw firm conclusions from reported correlation coefficients between revisions to the initial estimate of GDP growth and revisions in constituent components and from identification of the major contributors to that revision. On the one hand, a high coefficient of correlation may reflect revisions to the particular series driving revisions to GDP, in which case the source of the bias to revisions to initial estimates of GDP growth is at least partly isolated (even if the revision to the series itself is not statistically significant).

On the other hand, a high coefficient of correlation may reflect a reverse causality, that is, revisions to a particular component of GDP flowing from the preparation of the balanced estimate of GDP.

Conclusion

This article has considered the presence of bias in the revisions to the initial estimate of growth in GDP (and its components) as published in the annual *Blue Book* compared with that published in the following issue of the *Blue Book* a year later. The revision to the initial estimate of GDP growth was found to be statistically biased. The amount of the bias is 0.2 percentage points, compared to the average annual growth rate of 2 per cent of GDP over the period under consideration.

The mean revision is around one-tenth of average annual GDP growth for the past 30 years. This will need to be carefully considered, especially when the economy is at a turning point in the cycle or is close to its natural rate of growth.

In addition, there is some limited evidence that the size of the revision varies with the position of the economy in the cycle.

Nevertheless, estimation of GDP has improved over the past 30 years, with the average bias and standard deviation of the revisions to the initial estimates of GDP growth falling over this period. The 1990s has seen a fall in the mean revision to the initial estimate of GDP to an average revision of 0.1 percentage point. It is conceivable that revisions to GDP in the near future become negligible should the recent improvements to data collection and methodology continue.

Of the components of GDP, only revisions to the initial estimates of gross operating surplus and GFCF show statistically significant bias. Revisions to the initial estimate of all other components vary as regards the size of the average bias (and variance) but the bias is

not statistically significant. The mean square error of revisions to the initial estimate of GDP is lower than that for virtually all its components.

The major contributors to the mean revision to the initial estimate of GDP growth are gross operating surplus, compensation of employees, exports, imports and GFCF. In relation to the correlation between revisions to GDP and revisions to its components, only revisions to GFCF have a high coefficient of correlation with revisions to the initial estimate of GDP growth. Revisions to individual series are prepared jointly together with revisions to each of the measures of GDP as part of the annual preparation of input-output tables.

Appendix A The Adjusted T-Statistic

The Cochrane-Orcutt procedure allows for serial correlation when fitting a regression model

$$Y_t = \mu + \beta X_t + \varepsilon_t$$

If the errors, ε_t , are thought to be serially correlated, they follow an autoregressive model of order one (AR(1)), namely

$$\varepsilon_t = \alpha \varepsilon_{t-1} + u_t$$

where the u_t are independent and the constant α is such that its absolute value is less than 1.

However, in this case, there is no explanatory variable X_t , so the Cochrane-Orcutt procedure need not apply. However, an adjustment needs to be made to the usual t statistic to allow for a possible non zero mean.

For such a model, Priestly(1981) has suggested another procedure for an AR(1) process such that the (adjusted) variance of the mean is given, approximately, by

$$\sigma^2 (1+\alpha)/n(1-\alpha), \quad (\sigma^2 \text{ is the standard unadjusted variance}).$$

When α is zero (no serial correlation), this formula reduces to the usual formula ie σ^2/n .

The equivalent number of independent observations is $n(1-\alpha)/(1+\alpha)$

The variance of the sample mean is estimated as $s\bar{x}^2 = s^2(1+\hat{\alpha})/n(1-\hat{\alpha})$

where s^2 is the estimate of the variance and $\hat{\alpha}$ equals the first order serial correlation of the revisions.

A corrected t-statistic can, therefore, be calculated directly (without using the Cochrane-Orcutt procedure) as

$t = \text{mean revisions} / \text{standard deviation of revisions in the sample}$

using the adjusted variance as given above and number of observations as follows

$n^* = n(1-\alpha^2)/(1+\alpha^2)$ degrees of freedom, which gives the equivalent number of independent observations for estimating the variance (Priestly(1981)).

If serial correlation is negligible, the adjustment to the t-value will be low.

Appendix B The Mean Square Error

Bias, Efficiency and Mean Square Error

A desirable property of the (sample) mean of an estimated series, $\hat{\theta}$, ('the estimator') is that its expected value is equal to the true (or population) mean θ .

The average value of the estimator, $\hat{\theta} = E(X) = \frac{\sum X_i}{n}$

For an unbiased estimator $E(\hat{\theta}) - \theta = 0$

If the equality does not hold the estimator may be biased

ie Bias($\hat{\theta}$) = $E(\hat{\theta}) - \theta$

An estimator, $\hat{\theta}_1$, is a minimum variance estimator of θ if the variance of $\hat{\theta}_1$ is less than the variance of an alternative estimator $\hat{\theta}_2$.

An efficient estimator, $\hat{\theta}_1$, is one for which, given two unbiased estimators $\hat{\theta}_1$ and $\hat{\theta}_2$, the variance of $\hat{\theta}_1$ is less than the variance of $\hat{\theta}_2$.

Assuming that $\hat{\theta}$ is a linear estimator of θ , $\hat{\theta}$ is referred to as BLUE (Best Linear Unbiased Estimator).

The mean square error of an estimator is equal to $E(\hat{\theta} - \theta)^2$.

It can be shown that the mean square error, $mse(\hat{\theta})$, is equal to the variance of $\hat{\theta}$ plus the square of the bias

$$mse(\hat{\theta}) = var(\hat{\theta}) + \text{square bias}(\hat{\theta})$$

Generally, an estimator with a lower mean square error is seen as preferred to one with a higher mean square error, although it is recognised that, for a given mean square error, there is a trade-off between the bias and the variance of the estimator.

The mean square error is usually used to select between competing estimators. In this sense, it is an indicator best used in a relative sense to assess the relative merits of estimators.

In this article, $\hat{\theta}$ refers to the time series of revisions to the initial estimate of constant price GDP or its components. It is drawn from a distribution of a mean of zero, assuming that the first estimates of growth rates are unbiased.

Regional Accounts 1999: Part 1

Regional gross domestic product

Alex Clifton-Fearnside
Office for National Statistics

Address: B4/10, 1 Drummond Gate,
London SW1V 2QQ
Tel 020 7533 5791; Fax 020 7533 5799
E-mail: alex.clifton-fearnside@ons.gov.uk

This article presents provisional estimates of regional gross domestic product (GDP) at basic prices first published in an Office for National Statistics (ONS) news release on 27 February 2001. These estimates are consistent with the estimates of UK GDP published in the 2000 edition of the *UK National Accounts - The Blue Book*¹. Due to the absence of key regional indicator data, the estimates for 1997 to 1999 are marked as provisional.

The provisional estimates for 1999 show that:

- Annual growth for UK GDP, (excluding Extra-Region and the statistical discrepancy) was 3.8 per cent in 1999. The South East had the highest growth at 5.1 per cent. Annual growth was lowest in the North East at 2.3 per cent.
- GDP per head in London was 30 per cent higher than the UK average. In Northern Ireland and the North East it was 23 per cent lower.
- GDP per head for all regions was above £10,000 for the first time in 1999 (Table 1).

Gross domestic product by region

The estimates included in this article have been endorsed by statisticians within ONS, other government departments, and the devolved administrations as the best that can be produced with the regional data currently available. The methodologies used to produce these estimates were published in an article in the December 2000 edition of *Economic Trends*².

Latest figures and recent trends

Estimates of regional GDP at basic prices presented here are consistent with the 2000 edition of *UK National Accounts - The Blue Book*, published in August 2000.

Table A shows the contribution each region makes to UK GDP. In 1999, GDP for the South East and for London was around £120 billion, each accounting for about 16 per cent of total UK GDP. The region with the smallest share was Northern Ireland, at about 2 per cent (£17 billion). Changes to the regional share of UK GDP over time are shown in Chart B.

Regional GDP per head

Chart A shows estimates of GDP per head of population, indexed to the UK average (UK=100) for 1999. In 1999 London had the highest level of GDP per head, over £16,900, followed by the South East and East, both at £15,100. No other regions were above the UK average of £13,000.

The North East had the lowest regional GDP per head in 1999, at £10,000, followed by Northern Ireland at £10,100 and Wales at £10,400.

Chart C shows GDP per head (excluding Extra-Region) indexed to a UK average of 100 for 1996 to 1999. Only three regions (London, South East and East) are consistently above the UK average for the whole period shown.

Table A Regional GDP¹

Region	Total £bn	Share of UK (%)	Per Head £	Per Head Index UK=100
United Kingdom ²	771.9	100.0	13,000	100.0
North East	25.9	3.4	10,000	77.3
North West & Merseyside	77.6	10.0	11,300	86.9
Yorkshire & the Humber	57.6	7.5	11,400	87.9
East Midlands	50.9	6.6	12,100	93.6
West Midlands	63.5	8.2	11,900	91.7
East	81.8	10.6	15,100	116.4
London	122.8	15.9	16,900	130.0
South East	122.0	15.8	15,100	116.4
South West	58.1	7.5	11,800	90.8
England	660.1	85.5	13,300	102.4
Wales	30.7	4.0	10,400	80.5
Scotland	64.0	8.3	12,500	96.5
Northern Ireland	17.0	2.2	10,100	77.5

1. Provisional GDP at basic prices

2. Excluding Extra-Region and statistical discrepancy. The GDP for Extra-Region comprises compensation of employees and gross operating surplus which cannot be assigned to regions

Chart A

GDP per head, 1999

Index (UK=100)



GDP per head, UK=100

- below 85
- 85 to 94.9
- 95 to 104.9
- 105 to 114.9
- 115 to 124.9
- 125 and above

Chart B: Regional shares of GDP 1989-1999

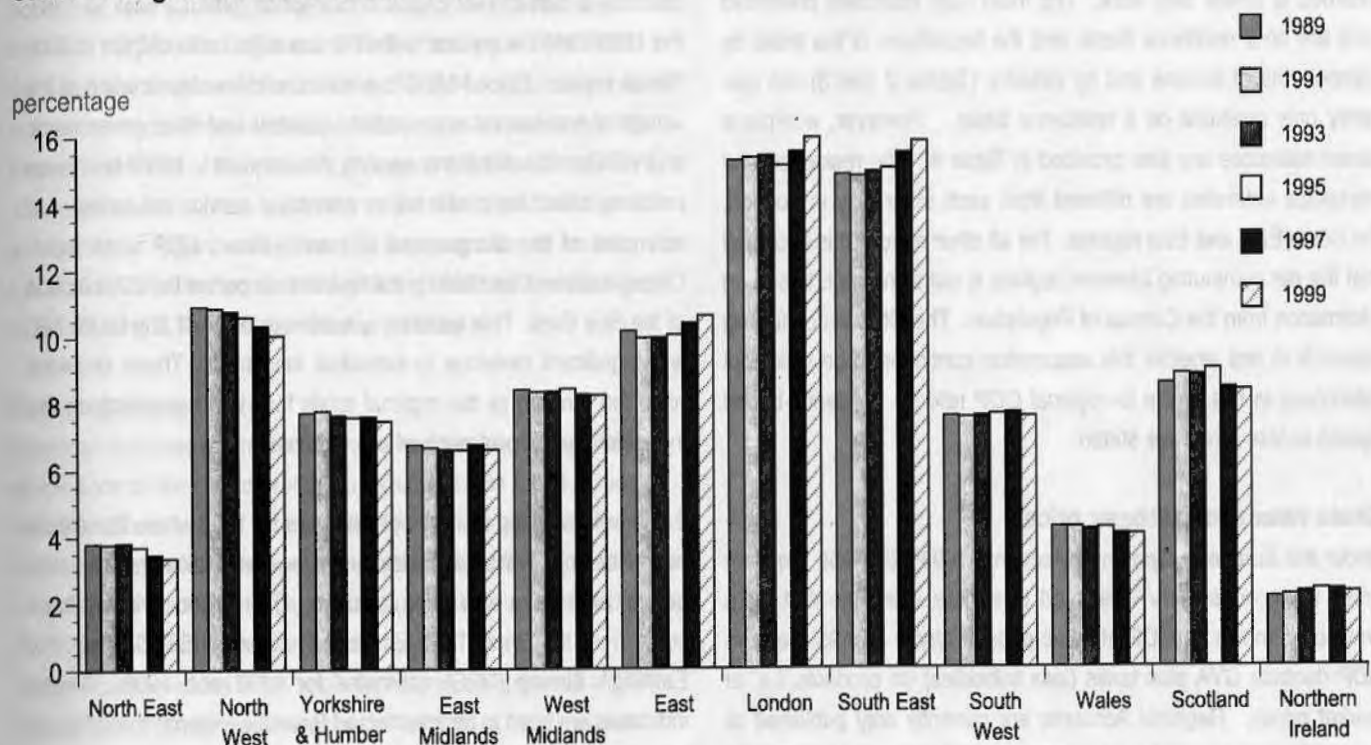
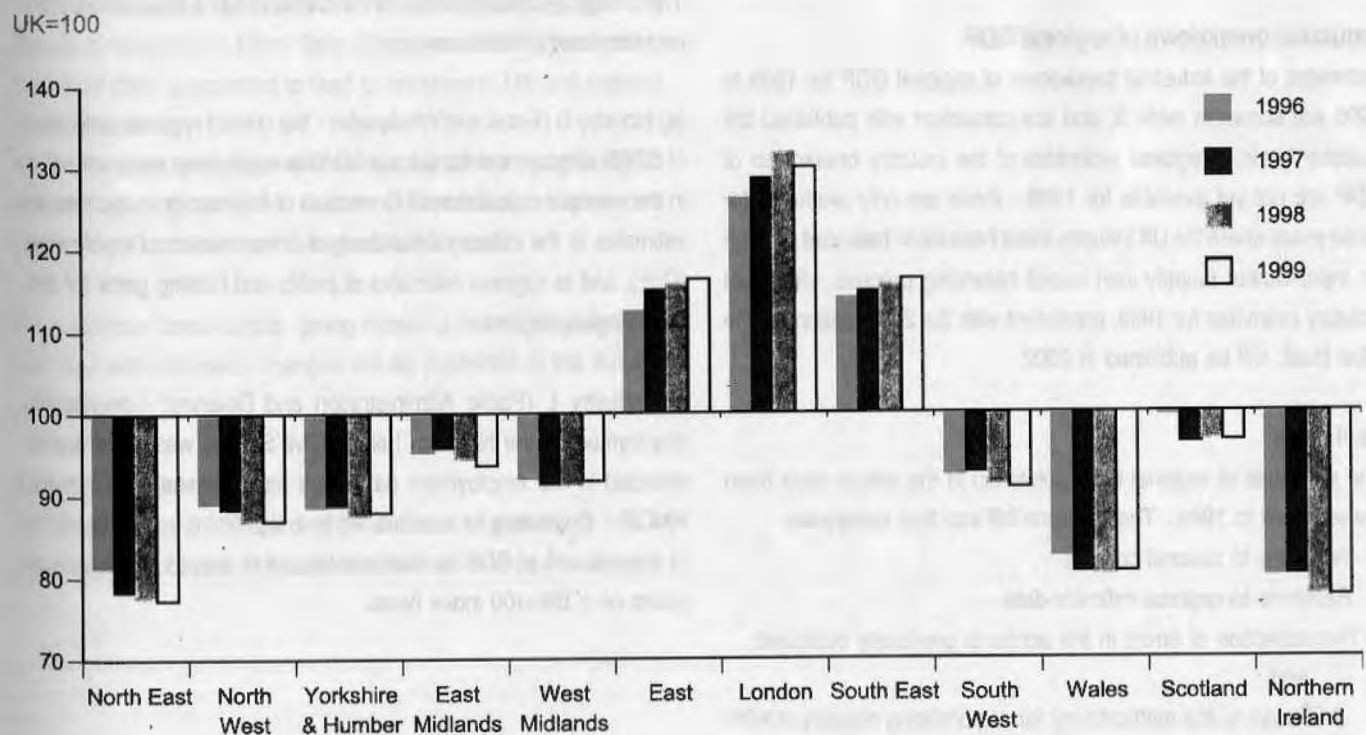


Chart C: GDP per head 1996 - 1999, index UK=100



Treatment of commuting in regional estimates of GDP

Regional GDP can be calculated both on a workplace and a residence basis. Residence based GDP allocates the incomes of commuters to where they live, whereas workplace GDP allocates their incomes to where they work. The main GDP estimates presented here are on a residence basis, and the breakdown of the totals by components of income and by industry (Tables 2 and 3) are currently only available on a residence basis. However, workplace based estimates are also provided in Table 4. The residence and workplace estimates are different from each other only in London, the South East and East regions. For all other regions it is assumed that the net commuting between regions is not significant, based on information from the Census of Population. The ONS is conducting research to test whether this assumption continues to be valid. All references in this article to regional GDP refer to residence-based figures unless otherwise stated.

Gross value added at basic prices

Under the European System of Accounts 1995³ (ESA95), the term gross value added (GVA) is used to denote estimates that were previously known as GDP at basic prices. Under ESA95 the term GDP denotes GVA plus taxes (less subsidies) on products, i.e. at market prices. Regional Accounts are currently only published at basic prices so should be referred to as GVA rather than GDP. To avoid confusion, the term GDP is used as synonymous with GVA at basic prices in this article, thereby maintaining continuity with the regional GDP estimates published in June 2000. From 2002, the term GVA will be used throughout.

Industrial breakdown of regional GDP

Estimates of the industrial breakdown of regional GDP for 1989 to 1998 are shown in table 3, and are consistent with published UK industry totals. Regional estimates of the industry breakdown of GDP are not yet available for 1999 - these are only produced for those years where the UK industry totals have been balanced through an Input-Output (supply-use) based balancing process. Regional industry estimates for 1999, consistent with the 2001 edition of *the Blue Book*, will be published in 2002.

Revisions

The estimates of regional GDP published in this article have been revised back to 1989. The revisions fall into four categories:

1. Revisions to national controls
2. Revisions to regional indicator data
3. The correction of errors in the accounts previously published;
and
4. A change to the methodology for regionalising household rent.

1. The regional estimates of GDP included in this article are consistent with the estimates of UK GDP at current basic prices published in the 2000 edition of the *UK National Accounts - The Blue Book*. The 2000 edition of *the Blue Book* included revisions to the UK estimate of non-market capital consumption (NMCC) back to 1965. For 1989-1998 the revision to the UK was in the order of £1bn to £2bn for each year. Since NMCC is a measure of the depreciation of the assets of non-market organisations (central and local government, and non-profit institutions serving households - NPISHs), these revisions affect the public sector orientated service industries. UK estimates of the components of Income-based GDP were Input-Output balanced for 1998 for the first time as part of the 2000 edition of *the Blue Book*. This led to an upward revision of £7.5bn for the UK, and significant revisions to individual industries. These revisions have fed through to the regional totals for 1998 depending on the industrial make-up of each of the regions.

2. As well as taking on regional indicators for 1999 where these data have become available, revisions to regional indicators for years before 1999 have also been included. The major revisions have come from the Short Term Employment Survey (STES) and New Earnings Survey (NES) estimates for 1997 and 1998. These indicators are used to forecast Inland Revenue regional control totals (from 1996), and provide region by industry shares for compensation of employees and, indirectly, profits and holding gains.

3. The estimates of regional GDP published in June 2000, and subsequently in the August 2000 Regional Accounts *Economic Trends* article⁴ contained two errors that have since been discovered and corrected. These are:

(a) Industry G (Retail and Wholesale) - the correct regional estimates of STES employment for female full-time employees were not used in the previous calculations. Correction of this results in changes to estimates of the industry breakdown of compensation of employees (CoE), and to regional estimates of profits and holding gains for the nine English regions.

(b) Industry L (Public Administration and Defence) - previously, employment in the Northern Ireland Civil Service was not properly reflected in the employment data used as a regional indicator for NMCC. Correcting for this has led to a significant upward revision to the estimate of GDP for Northern Ireland of about 1.5 percentage points on a UK=100 index basis.

4. The final revision relates to a change in methodology for regionalising household rent, as pre-announced in a regional GDP methodology article, published in the December 2000 edition of *Economic Trends*. For the estimates published in June 2000, household rent was regionalised on the basis of house prices from the Land Registry for England and Wales, and equivalent bodies in Scotland and Northern Ireland. These house price estimates have now been replaced by mix-adjusted house prices by region, produced by the Department of Environment, Transport & the Regions (DETR)⁵. Mix-adjusted prices more accurately reflect the mix of housing within any particular region, rather than just that proportion of housing on the market. This has resulted in significant revisions to most regions in the Renting & Real Estate industry (industry K).

Future changes

Regional Accounts are revised on an annual basis, taking account of revisions to the UK control totals included in the latest edition of *the Blue Book*, as well as revised regional indicator data where these are available. When regional estimates for 2000 (consistent with *the Blue Book 2001*) are published in 2002, it is expected that the following revisions will be included:

1. Significant revisions to UK totals for income components of GDP. The 2001 edition of *the Blue Book* will include a large number of revisions and methodological changes.
2. Regional estimates of wages and salaries for 1997 to 1999 are expected to be available from Inland Revenue for the first time. These will replace the employment and earnings survey estimates currently being used for these years.
3. The introduction of the new Annual Business Inquiry, replacing Annual Employment / Short Term Employment Survey estimates from April 2001 is expected to lead to revisions to UK and regional industry totals.
4. The availability of regional GVA data from the Annual Business Inquiry (replacing the Annual Census of Production) is expected to lead to significant revisions to regional profits totals.

An *Economic Trends* article giving details of forthcoming revisions and any methodological changes will be published in the autumn of 2001.

Diversity of the regions

The regions of the UK are diverse in size and population, and in terms of their economic characteristics. Annex A shows this diversity.

Gross domestic product¹ (GDP) at current basic prices by region 1989 to 1999

		1989	1990	1991	1992	1993	1994	1995	1996	1997 ²	1998 ²	1999 ²
Total GDP (£million)												
United Kingdom ³	ABML	461 925	501 473	523 137	545 487	573 377	605 720	635 498	674 029	715 127	755 297	787 386
North East	TMFW	17 156	18 271	19 365	20 383	21 480	22 074	22 975	23 755	24 202	25 294	25 875
North West	TMFX	49 365	53 260	55 775	57 803	60 664	63 938	66 007	68 937	72 414	75 275	77 562
Yorkshire & the Humber	TMFY	34 848	37 863	39 872	40 977	42 952	44 752	47 108	50 043	53 182	55 457	57 554
East Midlands	TMFZ	30 439	32 708	34 131	35 368	37 124	39 023	40 976	44 184	47 261	49 413	50 906
West Midlands	TMQA	37 956	41 344	42 716	44 610	46 859	49 577	52 407	54 851	57 783	61 130	63 495
East	TMQB	45 885	49 652	50 968	53 852	55 928	59 824	62 416	66 484	72 698	77 962	81 793
London	TMQC	68 907	74 933	78 641	82 409	86 574	91 118	93 843	99 490	108 559	118 499	122 816
South East	TMQD	66 979	73 254	75 730	78 939	83 817	88 936	93 319	100 614	108 276	116 024	121 956
South West	TMQE	34 118	37 160	38 584	40 507	42 529	44 607	47 385	50 128	53 580	56 064	58 151
England	TMQF	385 653	418 445	435 784	454 848	477 927	503 851	526 437	558 483	597 956	635 117	660 108
Wales	TMQG	19 007	20 376	21 533	22 129	23 191	24 463	25 989	27 017	28 010	29 541	30 689
Scotland	TMQH	38 448	42 458	45 103	47 183	49 302	52 273	55 667	57 338	58 650	62 153	64 050
Northern Ireland	TMQI	9 329	10 013	10 890	11 611	12 437	13 344	14 297	14 936	15 952	16 501	17 003
United Kingdom less Extra-Region ⁴ & statistical discrepancy	TMFV	452 437	491 291	513 308	535 772	562 857	593 931	622 389	657 775	700 567	743 314	771 849
Extra-Region ⁴	DDQZ	9 488	10 182	9 829	9 715	10 520	11 789	13 109	16 254	14 560	11 983	14 350
Statistical discrepancy (income adjusted)	DDRA	-	-	-	-	-	-	-	-	-	-	1 188
GDP per head (£)												
United Kingdom ³	DDAB	8 053	8 712	9 050	9 404	9 852	10 372	10 842	11 462	12 118	12 750	13 213
North East	TMQK	6 614	7 033	7 433	7 811	8 216	8 441	8 796	9 111	9 301	9 741	10 024
North West	TMQL	7 199	7 757	8 096	8 380	8 783	9 248	9 547	9 980	10 494	10 909	11 273
Yorkshire & the Humber	TMQM	7 042	7 630	8 002	8 195	8 563	8 901	9 354	9 927	10 541	10 983	11 404
East Midlands	TMQN	7 621	8 149	8 464	8 722	9 102	9 519	9 944	10 673	11 371	11 848	12 146
West Midlands	TMQO	7 242	7 875	8 108	8 450	8 855	9 352	9 869	10 309	10 845	11 455	11 900
East	TMQP	9 012	9 711	9 913	10 415	10 772	11 467	11 889	12 582	13 657	14 530	15 094
London	TMQQ	10 135	10 935	11 422	11 930	12 494	13 088	13 406	14 107	15 266	16 532	16 859
South East	TMQR	8 805	9 586	9 866	10 242	10 834	11 441	11 918	12 761	13 634	14 510	15 098
South West	TMQS	7 297	7 917	8 183	8 547	8 927	9 311	9 828	10 351	11 008	11 447	11 782
England	TMQT	8 069	8 692	9 020	9 384	9 852	10 349	10 771	11 384	12 141	12 845	13 278
Wales	TMQU	6 624	7 080	7 450	7 832	8 216	8 393	8 900	9 240	9 562	10 063	10 449
Scotland	TMQV	7 544	8 321	8 814	9 217	9 614	10 168	10 818	11 162	11 429	12 117	12 512
Northern Ireland	TMQW	5 893	6 300	6 787	7 163	7 610	8 114	8 654	9 964	9 507	9 754	10 050
United Kingdom less Extra-Region ⁴	TMQJ	7 888	8 535	8 880	9 236	9 671	10 170	10 619	11 185	11 871	12 548	12 972
GDP per head; indices (UK less Extra-Region=100)												
United Kingdom	DDAF	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
North East	DDBE	83.9	82.4	83.7	84.6	85.0	83.0	82.8	81.5	78.4	77.6	77.3
North West	DDBF	91.3	90.9	91.2	90.7	90.8	90.9	89.9	89.2	88.4	86.9	86.9
Yorkshire & the Humber	DDBG	89.3	89.4	90.1	88.7	88.5	87.5	88.1	88.8	88.8	87.5	87.9
East Midlands	DDBH	96.6	95.5	95.3	94.4	94.1	93.6	93.6	95.4	95.8	94.4	93.6
West Midlands	DDBI	91.8	92.3	91.3	91.5	91.6	92.0	92.9	92.2	91.4	91.3	91.7
East	DDBJ	114.2	113.8	111.6	112.8	111.4	112.8	112.0	112.5	115.0	115.8	116.4
London	DDBK	128.5	128.1	128.6	129.2	129.2	128.7	126.2	126.1	128.6	131.7	130.0
South East	DDBL	111.6	112.3	111.1	110.9	112.0	112.5	112.2	114.1	114.9	115.6	116.4
South West	DDBM	92.5	92.8	92.2	92.5	92.3	91.6	92.6	92.5	92.7	91.2	90.8
England	DDBN	102.3	101.8	101.6	101.6	101.9	101.8	101.4	101.8	102.3	102.4	102.4
Wales	DDBO	84.0	83.0	83.9	82.6	82.5	82.5	83.8	82.6	80.6	80.2	80.5
Scotland	DDBP	95.6	97.5	99.3	99.8	99.4	100.0	101.9	99.8	96.3	96.6	96.5
Northern Ireland	DDBQ	74.7	73.8	76.4	77.6	78.7	79.8	81.5	80.1	80.1	77.7	77.5

1 Estimates of regional GDP in this table are on a residence basis, where income of commuters is allocated to where they live rather than their place of work.

2 Provisional.

3 Components may not sum to totals as a result of rounding.

4 The GDP for Extra-Region comprises compensation of employees and gross operating surplus which cannot be assigned to regions.

Gross domestic product¹ (GDP) by component of income at current basic prices 1989 to 1999

		1989	1990	1991	1992	1993	1994	1995	1996	1997 ²	1998 ²	1999 ²
Total GDP (£ million)												
United Kingdom ³	ABML	461 925	501 473	523 137	545 487	573 377	605 720	635 498	674 029	715 127	755 297	787 386
North East	TMPW	17 156	18 271	19 365	20 383	21 480	22 074	22 975	23 755	24 202	25 294	25 875
North West	TMFX	49 365	53 260	55 775	57 803	60 664	63 938	66 007	68 937	72 414	75 275	77 562
Yorkshire & the Humber	TMFY	34 848	37 863	39 872	40 977	42 952	44 752	47 108	50 043	53 182	55 457	57 554
East Midlands	TMFZ	30 439	32 708	34 131	35 368	37 124	39 023	40 976	44 184	47 261	49 413	50 906
West Midlands	TMQA	37 956	41 344	42 716	44 610	46 859	49 577	52 407	54 851	57 783	61 130	63 495
East	TMQB	45 885	49 652	50 968	53 852	55 928	59 824	62 416	66 484	72 698	77 962	81 793
London	TMQC	68 907	74 933	78 641	82 409	86 574	91 118	93 843	99 490	108 559	118 499	122 816
South East	TMQD	66 979	73 254	75 730	78 939	83 817	88 936	93 319	100 614	108 276	116 024	121 956
South West	TMQE	34 118	37 160	38 584	40 507	42 529	44 607	47 385	50 128	53 580	56 064	58 151
England	TMQF	385 653	418 445	435 784	454 848	477 927	503 851	526 437	558 483	597 956	635 117	660 108
Wales	TMQG	19 007	20 376	21 533	22 129	23 191	24 463	25 989	27 017	28 010	29 541	30 689
Scotland	TMQH	38 448	42 458	45 103	47 183	49 302	52 273	55 667	57 338	58 650	62 153	64 050
Northern Ireland	TMQI	9 329	10 013	10 890	11 611	12 437	13 344	14 297	14 936	15 952	16 501	17 003
United Kingdom less Extra-Region ⁴ & statistical discrepancy	TMPV	452 437	491 291	513 308	535 772	562 857	593 931	622 389	657 775	700 567	743 314	771 849
Extra-Region ⁴	DDQZ	9 488	10 182	9 829	9 715	10 520	11 789	13 109	16 254	14 560	11 983	14 350
Statistical discrepancy (income adjusted)	DDRA	-	-	-	-	-	-	-	-	-	-	1 188
Of which:												
Compensation of Employees (£million)												
United Kingdom ³	HAEA	285 787	315 208	333 850	347 036	356 323	369 960	385 397	404 521	432 388	463 044	491 373
North East	DDCE	11 538	12 656	13 555	14 191	14 460	14 571	15 178	15 681	16 043	16 708	17 237
North West	DDCF	31 720	34 662	36 681	38 044	38 787	40 176	41 314	43 080	45 353	47 578	50 121
Yorkshire & the Humber	DDCG	22 323	24 430	26 159	27 166	27 943	28 734	29 973	31 386	33 586	35 576	38 011
East Midlands	DDCH	19 209	20 877	22 076	22 800	23 571	24 405	25 407	27 064	29 005	30 681	32 260
West Midlands	DDCI	24 292	26 862	28 454	29 704	30 333	31 874	33 384	34 514	36 451	39 032	41 386
East	DDCJ	28 085	30 948	32 570	33 892	34 425	36 139	37 829	39 701	43 998	48 009	51 804
London	DDCK	43 315	48 119	50 300	52 029	53 625	55 749	57 928	62 005	67 096	73 076	76 881
South East	DDCL	41 066	45 583	47 669	49 399	51 634	53 941	56 383	60 630	65 448	70 497	75 852
South West	DDCM	20 870	23 005	24 249	25 222	25 829	26 670	27 935	29 208	31 646	33 562	35 550
England	DDCN	242 418	267 142	281 713	292 447	300 607	312 259	325 331	343 269	368 626	394 719	419 102
Wales	DDCO	11 553	12 596	13 583	14 156	14 389	14 963	15 773	16 295	17 180	18 451	19 721
Scotland	DDCP	24 382	27 344	29 528	31 075	31 901	32 905	34 049	34 762	35 749	38 396	40 415
Northern Ireland	DDCQ	5 879	6 420	7 191	7 544	7 849	8 176	8 569	8 703	9 359	9 954	10 499
United Kingdom less Extra-Region ⁴	DDAH	284 233	313 503	332 014	345 222	354 747	368 304	383 723	403 029	430 914	461 521	489 737
Extra-Region ⁴	DDAI	1 554	1 705	1 836	1 814	1 576	1 655	1 674	1 492	1 474	1 523	1 636
Operating Surplus/Mixed Income⁵ (£ million)												
United Kingdom ³	DDAM	176 138	186 265	189 287	198 451	217 054	235 761	250 101	269 508	282 739	292 253	294 825
North East	DDCR	5 619	5 615	5 810	6 192	7 019	7 503	7 797	8 075	8 159	8 586	8 637
North West	DDCS	17 644	18 598	19 094	19 759	21 877	23 762	24 692	25 857	27 061	27 697	27 441
Yorkshire & the Humber	DDCT	12 525	13 433	13 712	13 811	15 009	16 018	17 135	18 657	19 597	19 882	19 544
East Midlands	DDCU	11 230	11 831	12 056	12 568	13 553	14 618	15 569	17 120	18 256	18 732	18 646
West Midlands	DDCV	13 664	14 482	14 262	14 907	16 526	17 703	19 023	20 337	21 332	22 098	22 109
East	DDCW	17 800	18 704	18 398	19 960	21 503	23 685	24 587	26 783	28 700	29 953	29 990
London	DDCX	25 593	26 813	28 342	30 380	32 949	35 369	35 916	37 485	41 463	45 422	45 935
South East	DDCY	25 913	27 672	28 061	29 540	32 182	34 995	36 936	39 983	42 828	45 527	46 104
South West	DDCZ	13 248	14 153	14 335	15 285	16 700	17 938	19 450	20 919	21 933	22 502	22 599
England	DDDA	143 235	151 301	154 070	162 402	177 318	191 591	201 105	215 216	229 329	240 399	241 005
Wales	DDDB	7 453	7 780	7 950	7 973	8 803	9 500	10 216	10 722	10 830	11 090	10 968
Scotland	DDDC	14 066	15 114	15 574	16 108	17 401	19 368	21 618	22 575	22 901	23 757	23 634
Northern Ireland	DDDD	3 450	3 593	3 700	4 067	4 588	5 168	5 728	6 233	6 593	6 547	6 504
United Kingdom less Extra-Region ⁴	DDAK	168 204	177 786	181 294	190 550	208 110	225 627	238 667	254 746	269 653	281 793	282 111
Extra-Region ⁴	DDAL	7 934	8 477	7 993	7 901	8 944	10 134	11 434	14 762	13 086	10 460	12 714

1 Estimates of regional GDP in this table are on a residence basis, where the income of commuters is allocated to where they live rather than their place of work.

2 Provisional.

3 Components may not sum to totals as a result of rounding.

		1989	1990	1991	1992	1993	1994	1995	1996	1997 ²	1998 ²
North East											
Agriculture, hunting, forestry & fishing	DDDE	179	196	188	205	208	204	214	233	202	188
Mining and quarrying of energy producing materials	DDDF	285	273	277	243	163	124	115	137	97	66
Other mining and quarrying	DDDG	161	142	113	126	106	91	81	91	78	78
Manufacturing	DDDH	5 480	5 438	5 272	5 520	6 036	6 337	6 494	6 842	6 861	6 904
Electricity, gas and water supply	DDDI	420	394	436	427	464	568	644	571	604	645
Construction	DDFB	1 271	1 348	1 355	1 290	1 184	1 152	1 262	1 324	1 414	1 474
Wholesale and retail trade (including motor trade)	DDFF	1 631	1 857	2 055	2 130	2 200	2 279	2 292	2 380	2 445	2 632
Hotels and restaurants	DDFG	408	468	501	536	552	540	603	699	724	707
Transport, storage and communication	DDFH	1 188	1 340	1 433	1 450	1 497	1 502	1 542	1 566	1 600	1 804
Financial intermediation	DDFI	636	727	772	869	823	813	760	742	729	762
Real estate, renting and business activities	DDFK	2 150	2 291	2 515	2 812	3 085	3 103	3 268	3 376	3 531	3 856
Public administration and defence ³	DDFL	912	1 116	1 298	1 506	1 582	1 485	1 469	1 501	1 418	1 394
Education	DDFM	1 002	1 094	1 284	1 373	1 379	1 563	1 630	1 702	1 654	1 688
Health and social work	DDFN	1 288	1 409	1 623	1 733	1 870	1 996	2 131	2 154	2 230	2 394
Other services	DDFO	563	634	629	669	790	861	959	935	1 072	1 154
FISIM ⁴	DDFP	-418	-456	-384	-505	-460	-543	-490	-499	-456	-453
Total	TMPW	17 156	18 271	19 365	20 383	21 480	22 074	22 975	23 755	24 202	25 294
North West											
Agriculture, hunting, forestry & fishing	DDFQ	745	809	774	863	909	901	898	892	780	702
Mining and quarrying of energy producing materials	DDFR	41	72	53	36	27	22	31	28	23	19
Other mining and quarrying	DDFS	143	126	94	87	68	91	113	111	220	153
Manufacturing	DDFT	15 896	16 527	15 917	16 263	16 689	17 695	18 483	18 750	18 905	18 892
Electricity, gas and water supply	DDFU	1 660	1 473	1 604	1 454	1 620	1 744	1 612	1 818	1 808	1 764
Construction	DDFV	3 473	3 566	3 360	3 130	3 121	3 373	3 452	3 600	3 869	3 876
Wholesale and retail trade (including motor trade)	DDFW	5 635	6 390	6 891	7 305	7 671	7 832	8 102	8 645	9 193	9 941
Hotels and restaurants	DDFX	1 333	1 563	1 567	1 716	1 764	1 700	1 800	2 002	2 322	2 397
Transport, storage and communication	DDFY	4 054	4 342	4 549	4 785	4 929	5 417	5 487	5 703	5 946	6 188
Financial intermediation	DDFZ	2 159	2 334	2 289	2 728	2 940	3 458	3 029	2 944	3 045	3 376
Real estate, renting and business activities	DDGA	6 709	7 718	8 744	9 117	9 645	10 179	10 681	11 397	12 528	13 830
Public administration and defence ³	DDGB	2 308	2 524	2 803	3 046	3 214	3 222	3 265	3 227	3 331	3 227
Education	DDGC	2 447	2 601	3 090	3 313	3 483	3 721	3 855	4 149	4 211	4 476
Health and social work	DDGD	2 708	3 119	3 604	3 908	4 138	4 518	4 897	5 196	5 258	5 461
Other services	DDGE	1 669	1 764	1 814	1 917	2 234	2 541	2 553	2 659	3 113	3 393
FISIM ⁴	DDGF	-1 614	-1 668	-1 378	-1 863	-1 788	-2 474	-2 251	-2 184	-2 138	-2 420
Total	TMPX	49 365	53 260	55 775	57 803	60 664	63 938	66 007	68 937	72 414	75 275
Yorkshire & the Humber											
Agriculture, hunting, forestry & fishing	DDGG	752	824	791	841	902	881	1 053	1 150	995	901
Mining and quarrying of energy producing materials	DDGH	481	460	553	492	341	196	206	164	252	222
Other mining and quarrying	DDGI	231	215	193	212	177	142	159	234	130	116
Manufacturing	DDGJ	10 188	10 737	10 439	10 616	11 055	11 612	12 498	13 521	14 468	14 483
Electricity, gas and water supply	DDGK	1 005	1 037	1 324	1 282	1 236	1 155	1 149	1 224	1 399	1 374
Construction	DDGL	2 593	2 735	2 508	2 337	2 445	2 715	2 704	2 881	2 962	2 985
Wholesale and retail trade (including motor trade)	DDGM	4 138	4 534	4 997	5 009	5 319	5 678	5 909	6 202	6 554	6 832
Hotels and restaurants	DDGN	862	992	1 069	1 137	1 201	1 222	1 254	1 418	1 615	1 728
Transport, storage and communication	DDGO	2 704	2 888	3 028	3 061	3 296	3 518	3 753	3 823	4 182	4 623
Financial intermediation	DDGP	1 564	1 780	1 815	2 154	2 267	2 543	2 330	2 210	2 358	2 681
Real estate, renting and business activities	DDGQ	4 440	5 210	5 667	5 863	6 077	6 531	7 084	7 507	8 357	9 077
Public administration and defence ³	DDGR	2 050	2 224	2 344	2 605	2 703	2 694	2 813	2 765	2 557	2 668
Education	DDGS	1 826	2 035	2 365	2 592	2 689	2 838	2 886	3 077	3 041	3 309
Health and social work	DDGT	2 039	2 269	2 566	2 899	3 126	3 188	3 442	3 694	3 983	4 240
Other services	DDGU	1 182	1 262	1 317	1 382	1 550	1 670	1 654	1 840	2 155	2 280
FISIM ⁴	DDGV	-1 205	-1 340	-1 106	-1 505	-1 430	-1 831	-1 788	-1 668	-1 827	-2 062
Total	TMPY	34 848	37 863	39 872	40 977	42 952	44 752	47 108	50 043	53 182	55 457
East Midlands											
Agriculture, hunting, forestry & fishing	DDGW	911	949	970	989	1 136	1 094	1 160	1 190	1 030	974
Mining and quarrying of energy producing materials	DDGX	426	420	519	469	332	190	176	189	196	121
Other mining and quarrying	DDGY	289	271	260	311	265	195	185	245	163	182
Manufacturing	DDGZ	9 411	9 732	9 428	9 907	10 640	11 502	12 118	13 209	14 003	14 237
Electricity, gas and water supply	DDHA	810	825	1 108	1 185	1 263	1 139	1 035	1 208	1 058	966
Construction	DDHB	2 235	2 299	2 206	2 097	2 024	2 220	2 236	2 229	2 350	2 620
Wholesale and retail trade (including motor trade)	DDHC	3 652	3 984	4 302	4 522	4 773	4 979	5 427	5 774	6 192	6 408
Hotels and restaurants	DDHD	699	783	814	863	892	898	1 010	1 179	1 302	1 388
Transport, storage and communication	DDHE	2 056	2 230	2 363	2 357	2 510	2 645	2 811	2 973	3 206	3 359
Financial intermediation	DDHF	694	946	987	1 209	1 249	1 607	1 463	1 383	1 428	1 789
Real estate, renting and business activities	DDHG	3 992	4 625	4 958	5 069	5 378	5 813	6 001	6 696	7 673	8 418
Public administration and defence ³	DDHH	1 630	1 760	1 788	1 901	1 884	1 900	1 983	1 954	1 968	1 993
Education	DDHI	1 394	1 610	1 888	1 957	2 008	2 090	2 250	2 396	2 697	2 671
Health and social work	DDHJ	1 577	1 788	2 005	2 113	2 196	2 532	2 787	2 935	2 920	3 165
Other services	DDHK	1 080	1 123	1 054	1 120	1 255	1 273	1 327	1 559	1 993	2 191
FISIM ⁴	DDHL	-618	-638	-520	-701	-682	-1 054	-994	-934	-920	-1 068
Total	TMPZ	30 439	32 708	34 131	35 368	37 124	39 023	40 976	44 184	47 261	49 413

1 Estimates of regional GDP in this table are on a residence basis, where the income of commuters is allocated to where they live rather than their place of work.

2 Provisional.

3 Public administration, national defence and compulsory social security.

4 Financial Intermediation Services Indirectly Measured.

3 Gross domestic product¹ by industry groups, current basic prices by region 1989-98

£million

continued

		1989	1990	1991	1992	1993	1994	1995	1996	1997 ²	1998 ²
West Midlands											
Agriculture, hunting, forestry & fishing	DDHM	802	891	860	993	975	978	1 054	1 110	986	906
Mining and quarrying of energy producing materials	DDHN	147	165	179	141	77	61	73	73	73	50
Other mining and quarrying	DDHO	144	132	112	115	92	94	120	112	104	136
Manufacturing	DDHP	12 676	13 368	12 651	12 865	13 361	14 527	15 687	16 496	17 286	17 671
Electricity, gas and water supply	DDHQ	898	924	1 135	1 192	1 565	1 431	1 457	1 389	1 546	1 733
Construction	DDHR	2 797	2 824	2 640	2 493	2 490	2 731	2 765	2 914	3 084	3 246
Wholesale and retail trade (including motor trade)	DDHS	4 445	4 889	5 246	5 579	5 873	6 299	6 554	6 776	6 971	7 248
Hotels and restaurants	DDHT	951	1 058	1 034	1 091	1 174	1 262	1 389	1 467	1 479	1 672
Transport, storage and communication	DDHU	2 491	2 681	2 893	3 081	3 074	3 205	3 555	3 743	3 903	4 093
Financial intermediation	DDHV	1 551	1 727	1 660	2 039	2 148	2 409	2 433	2 421	2 483	2 628
Real estate, renting and business activities	DDHW	5 494	6 240	6 683	7 130	7 533	8 011	8 476	9 143	9 845	10 966
Public administration and defence ³	DDHX	1 854	2 104	2 299	2 452	2 409	2 442	2 466	2 449	2 443	2 496
Education	DDHY	1 812	2 088	2 504	2 672	2 791	2 825	2 918	3 095	3 301	3 549
Health and social work	DDHZ	1 946	2 221	2 532	2 750	3 081	3 357	3 478	3 466	3 599	3 974
Other services	DDIA	1 188	1 292	1 299	1 364	1 535	1 644	1 706	1 914	2 337	2 564
FISIM ⁴	DDIB	-1 239	-1 259	-1 011	-1 347	-1 318	-1 696	-1 724	-1 717	-1 658	-1 803
Total	TMQA	37 956	41 344	42 716	44 610	46 859	49 577	52 407	54 851	57 783	61 130
East											
Agriculture, hunting, forestry & fishing	DDIC	1 293	1 406	1 352	1 421	1 511	1 461	1 519	1 636	1 413	1 287
Mining and quarrying of energy producing materials	DDID	167	217	221	215	144	201	255	222	205	198
Other mining and quarrying	DDIE	19	23	28	26	22	33	45	67	71	75
Manufacturing	DDIF	9 810	10 015	9 669	10 127	10 559	11 467	11 772	12 298	12 829	13 226
Electricity, gas and water supply	DDIG	998	1 030	1 345	1 436	1 535	1 545	1 503	1 537	1 564	1 546
Construction	DDIH	3 943	4 072	3 647	3 332	3 173	3 328	3 489	3 838	4 260	4 505
Wholesale and retail trade (including motor trade)	DDII	5 624	5 942	6 293	6 598	6 828	7 233	7 650	8 114	9 393	10 128
Hotels and restaurants	DDIJ	961	1 063	1 101	1 137	1 283	1 378	1 456	1 550	1 923	2 119
Transport, storage and communication	DDIK	4 423	4 838	5 152	5 363	5 669	6 191	6 329	6 406	6 813	7 400
Financial intermediation	DDIL	4 068	4 358	3 997	5 055	5 086	5 883	5 663	5 813	6 640	6 883
Real estate, renting and business activities	DDIM	7 678	8 799	9 303	9 820	10 123	10 982	11 932	13 190	15 121	17 488
Public administration and defence ³	DDIN	2 666	2 890	3 153	3 503	3 591	3 433	3 361	3 347	3 458	3 432
Education	DDIO	1 934	2 177	2 392	2 632	2 816	3 047	3 177	3 344	3 685	3 923
Health and social work	DDIP	2 107	2 407	2 547	2 801	3 047	3 384	3 542	3 844	4 019	4 241
Other services	DDIQ	1 542	1 865	1 982	2 015	2 111	2 349	2 710	3 113	3 463	3 964
FISIM ⁴	DDIR	-1 349	-1 450	-1 214	-1 628	-1 570	-2 090	-1 988	-1 834	-2 158	-2 452
Total	TMQB	45 885	49 652	50 968	53 852	55 928	59 824	62 416	66 484	72 698	77 962
South East											
Agriculture, hunting, forestry & fishing	DDIS	931	1 009	963	1 019	1 070	1 048	1 127	1 143	996	916
Mining and quarrying of energy producing materials	DDIT	74	170	184	211	198	211	229	176	118	113
Other mining and quarrying	DDIU	52	60	34	48	63	103	119	152	185	194
Manufacturing	DDIV	12 376	12 908	12 595	12 681	13 625	14 661	15 885	16 656	17 369	17 686
Electricity, gas and water supply	DDIW	1 535	1 522	2 015	2 049	2 112	1 992	1 854	1 831	1 982	1 949
Construction	DDIX	5 333	5 315	4 940	4 425	4 254	4 503	4 866	5 374	5 759	6 101
Wholesale and retail trade (including motor trade)	DDIY	8 398	8 833	9 231	9 495	10 161	10 818	11 302	12 206	13 163	14 085
Hotels and restaurants	DDIZ	1 738	1 937	1 959	2 041	2 185	2 356	2 553	2 905	3 156	3 416
Transport, storage and communication	DDJA	6 491	7 072	7 309	7 882	8 324	9 125	9 599	10 347	10 931	11 759
Financial intermediation	DDJB	4 387	4 820	4 386	5 657	6 275	7 199	6 805	7 120	7 129	7 196
Real estate, renting and business activities	DDJC	13 584	15 729	16 522	17 341	18 577	20 079	21 622	23 658	27 053	31 034
Public administration and defence ³	DDJD	5 257	5 804	6 164	6 537	6 500	6 696	6 248	6 278	6 268	6 328
Education	DDJE	2 832	3 235	3 631	3 867	4 076	4 139	4 334	4 722	5 384	5 630
Health and social work	DDJF	3 650	4 234	4 563	4 882	5 248	5 461	5 730	6 472	6 633	6 905
Other services	DDJG	2 514	2 884	3 132	3 364	3 599	3 972	4 307	5 005	5 540	6 129
FISIM ⁴	DDJH	-2 154	-2 277	-1 898	-2 562	-2 450	-3 428	-3 261	-3 433	-3 388	-3 418
Total	TMQD	66 979	73 254	75 730	78 939	83 817	88 936	93 319	100 614	108 276	116 024
London											
Agriculture, hunting, forestry & fishing	DDJI	89	84	41	43	39	40	40	46	46	39
Mining and quarrying of energy producing materials	DDJJ	191	264	292	237	187	193	208	162	123	118
Other mining and quarrying	DDJK	13	17	21	25	28	41	47	64	78	82
Manufacturing	DDJL	10 428	10 367	10 380	10 362	10 388	11 573	11 929	12 091	12 490	12 941
Electricity, gas and water supply	DDJM	1 422	1 461	1 813	1 781	1 840	1 759	1 659	1 621	1 601	1 588
Construction	DDJN	3 862	4 261	3 902	3 565	3 274	3 421	3 665	4 069	4 603	4 934
Wholesale and retail trade (including motor trade)	DDJO	8 159	8 942	9 166	10 075	10 743	11 053	11 682	12 661	14 154	15 218
Hotels and restaurants	DDJP	2 342	2 631	2 745	2 973	2 940	3 314	3 557	3 974	4 385	4 790
Transport, storage and communication	DDJQ	7 868	8 538	8 777	9 052	9 115	9 711	9 603	9 756	10 905	11 782
Financial intermediation	DDJR	8 710	9 351	8 705	10 856	11 615	13 386	12 432	12 554	12 599	13 059
Real estate, renting and business activities	DDJS	17 057	18 921	20 146	20 919	22 295	24 069	25 509	27 689	31 251	36 753
Public administration and defence ³	DDJT	3 852	4 407	4 681	5 101	5 513	5 255	5 282	5 160	5 034	5 045
Education	DDJU	3 689	3 704	4 080	4 284	4 496	4 526	4 631	4 926	5 440	5 733
Health and social work	DDJV	3 974	4 139	4 374	4 678	4 949	4 946	5 154	5 739	6 151	6 438
Other services	DDJW	3 438	4 126	4 493	4 882	5 230	5 660	6 252	7 212	7 901	8 679
FISIM ⁴	DDJX	-6 189	-6 283	-4 973	-6 423	-6 077	-7 828	-7 807	-8 234	-8 203	-8 701
Total	TMQC	68 907	74 933	78 641	82 409	86 574	91 118	93 843	99 490	108 559	118 499

See footnotes on first page of table.

3 Gross domestic product¹ by industry groups, current basic prices by region 1989-98

Emillion

continued

		1989	1990	1991	1992	1993	1994	1995	1996	1997 ²	1998 ²
South West											
Agriculture, hunting, forestry & fishing	DDJY	1 209	1 312	1 278	1 383	1 498	1 519	1 765	1 740	1 554	1 400
Mining and quarrying of energy producing materials	DDJZ	20	49	48	46	41	40	44	30	16	9
Other mining and quarrying	DDKA	87	108	101	129	152	247	298	252	270	273
Manufacturing	DDKB	7 373	7 692	7 548	7 857	8 239	8 928	9 499	10 339	10 683	10 986
Electricity, gas and water supply	DDKC	878	1 048	1 538	1 571	1 679	1 790	1 645	1 723	1 832	1 682
Construction	DDKD	2 879	2 968	2 579	2 371	2 322	2 491	2 695	2 634	2 857	3 102
Wholesale and retail trade (including motor trade)	DDKE	4 171	4 347	4 589	4 803	5 052	5 320	5 565	5 724	6 462	6 730
Hotels and restaurants	DDKF	1 118	1 224	1 285	1 354	1 422	1 458	1 597	1 807	2 028	2 105
Transport, storage and communication	DDKG	2 298	2 479	2 513	2 702	2 711	2 778	3 003	3 148	3 520	3 819
Financial intermediation	DDKH	1 916	2 053	1 944	2 368	2 586	3 338	3 180	3 035	2 854	2 953
Real estate, renting and business activities	DDKI	5 886	6 550	6 635	6 949	7 374	7 750	8 299	8 967	9 819	10 890
Public administration and defence ³	DDKJ	3 048	3 557	3 910	4 223	4 301	4 098	4 288	4 482	4 623	4 632
Education	DDKK	1 534	1 736	1 983	2 129	2 230	2 308	2 348	2 532	2 853	3 061
Health and social work	DDKL	1 969	2 223	2 522	2 736	2 909	3 158	3 347	3 510	3 642	3 926
Other services	DDKM	1 246	1 383	1 394	1 516	1 588	1 664	1 984	2 331	2 532	2 635
FISIM ⁴	DDKN	-1 514	-1 572	-1 280	-1 631	-1 556	-2 277	-2 169	-2 131	-1 963	-2 141
Total	TMQE	34 118	37 160	38 584	40 507	42 529	44 607	47 385	50 128	53 580	56 064

		1989	1990	1991	1992	1993	1994	1995	1996	1997 ²	1998 ²
England											
Agriculture, hunting, forestry & fishing	DDKO	6 912	7 479	7 218	7 757	8 249	8 121	8 830	9 140	8 003	7 313
Mining and quarrying of energy producing materials	DDKP	1 834	2 092	2 326	2 091	1 509	1 238	1 337	1 180	1 102	917
Other mining and quarrying	DDKQ	1 140	1 094	957	1 079	971	1 038	1 165	1 328	1 298	1 289
Manufacturing	DDKR	93 637	96 784	93 899	96 199	100 592	108 301	114 363	120 201	124 896	127 027
Electricity, gas and water supply	DDKS	9 626	9 713	12 317	12 376	13 316	13 124	12 559	12 923	13 394	13 248
Construction	DDKT	28 384	29 388	27 138	25 039	24 287	25 933	27 134	28 863	31 158	32 842
Wholesale and retail trade (including motor trade)	DDKU	45 852	49 719	52 770	55 515	58 619	61 490	64 483	68 482	74 526	79 221
Hotels and restaurants	DDKV	10 414	11 719	12 075	12 848	13 414	14 128	15 220	17 001	18 935	20 321
Transport, storage and communication	DDKW	33 573	36 409	38 016	39 734	41 125	44 091	45 684	47 466	51 005	54 828
Financial intermediation	DDKX	25 886	28 098	26 555	32 934	34 989	40 635	38 095	38 222	39 264	41 326
Real estate, renting and business activities	DDKY	66 989	76 084	81 173	85 020	90 087	96 516	102 872	111 623	125 178	142 312
Public administration and defence ³	DDKZ	23 558	26 386	28 440	30 873	31 697	31 224	31 176	31 164	31 100	31 215
Education	DDLA	18 470	20 281	23 216	24 820	25 969	27 058	28 028	29 945	32 266	34 040
Health and social work	DDLB	21 256	23 809	26 337	28 500	30 564	32 539	34 509	37 011	38 434	40 746
Other services	DDLC	14 422	16 334	17 113	18 229	19 871	21 635	23 451	26 569	30 106	32 990
FISIM ⁴	DDLD	-16 301	-16 941	-13 765	-18 165	-17 332	-23 220	-22 471	-22 634	-22 711	-24 518
Total	TMQF	385 653	418 445	435 784	454 848	477 927	503 851	526 437	558 483	597 956	635 117

		1989	1990	1991	1992	1993	1994	1995	1996	1997 ²	1998 ²
Wales											
Agriculture, hunting, forestry & fishing	DDLE	501	506	495	525	561	543	457	538	509	545
Mining and quarrying of energy producing materials	DDLJ	160	147	141	120	84	89	108	114	84	125
Other mining and quarrying	DDLK	109	90	65	75	72	102	139	99	104	134
Manufacturing	DDLH	5 836	6 132	6 112	5 912	5 951	6 618	7 354	7 723	7 815	7 981
Electricity, gas and water supply	DDLI	666	602	621	638	770	790	842	808	596	486
Construction	DDLJ	1 323	1 384	1 245	1 125	1 218	1 366	1 399	1 446	1 515	1 550
Wholesale and retail trade (including motor trade)	DDLK	1 792	2 014	2 226	2 347	2 439	2 499	2 510	2 581	2 925	3 201
Hotels and restaurants	DDLL	500	575	583	619	655	740	809	868	976	1 045
Transport, storage and communication	DDLM	1 350	1 480	1 549	1 555	1 598	1 627	1 663	1 603	1 720	1 786
Financial intermediation	DDLN	652	690	783	910	955	983	986	961	1 031	1 147
Real estate, renting and business activities	DDLO	2 370	2 551	2 836	3 105	3 275	3 375	3 689	3 752	4 099	4 457
Public administration and defence ³	DDLQ	1 183	1 411	1 593	1 701	1 745	1 745	1 819	1 897	1 767	1 737
Education	DDLQ	1 052	1 102	1 293	1 393	1 481	1 595	1 622	1 848	1 675	1 939
Health and social work	DDLQ	1 288	1 425	1 663	1 879	2 070	2 041	2 180	2 234	2 486	2 630
Other services	DDLS	770	803	770	805	878	1 007	1 043	1 178	1 340	1 449
FISIM ⁴	DDLT	-545	-536	-441	-580	-561	-657	-632	-634	-631	-673
Total	TMQG	19 007	20 376	21 533	22 129	23 191	24 463	25 989	27 017	28 010	29 541

		1989	1990	1991	1992	1993	1994	1995	1996	1997 ²	1998 ²
Scotland											
Agriculture, hunting, forestry & fishing	DDLJ	1 157	1 228	1 150	1 425	1 379	1 479	1 632	1 476	1 341	1 220
Mining and quarrying of energy producing materials	DDLK	951	1 062	1 355	1 318	1 007	1 121	1 124	1 166	1 198	1 248
Other mining and quarrying	DDLW	18	20	17	22	24	36	41	129	135	177
Manufacturing	DDLX	9 010	9 770	9 142	9 300	9 746	10 656	12 253	12 547	12 799	13 054
Electricity, gas and water supply	DDLY	949	1 004	1 240	1 335	1 564	1 620	1 760	1 954	1 813	1 763
Construction	DDLZ	2 784	3 133	2 986	3 157	2 965	3 295	3 582	3 386	3 339	3 552
Wholesale and retail trade (including motor trade)	DDMA	3 788	4 261	4 788	5 237	5 416	5 750	5 558	5 942	6 431	6 898
Hotels and restaurants	DDMB	1 185	1 323	1 451	1 539	1 620	1 825	2 002	2 195	2 214	2 375
Transport, storage and communication	DDMC	3 345	3 489	3 739	3 786	3 922	4 252	4 158	4 113	4 292	4 649
Financial intermediation	DDMD	2 125	2 292	2 488	2 963	3 177	3 185	3 053	2 989	2 973	3 136
Real estate, renting and business activities	DDME	5 114	5 871	6 686	7 078	7 477	7 844	8 309	8 732	9 170	10 405
Public administration and defence ³	DDMF	2 975	3 279	3 478	3 662	3 838	3 862	3 923	3 917	3 890	3 804
Education	DDMG	2 383	2 656	2 887	2 865	3 074	3 204	3 509	3 743	3 672	3 840
Health and social work	DDMH	2 831	3 167	3 521	3 663	3 878	4 049	4 437	4 633	4 667	5 162
Other services	DDMI	1 373	1 529	1 587	1 792	2 068	2 260	2 373	2 350	2 690	3 006
FISIM ⁴	DDMJ	-1 520	-1 626	-1 412	-1 959	-1 854	-2 165	-2 049	-1 934	-1 974	-2 136
Total	TMQH	38 448	42 458	45 103	47 183	49 302	52 273	55 667	57 338	58 650	62 153

See footnotes on first page of table.

3 Gross domestic product¹ by industry groups, current basic prices by region 1989-98

£million

continued

		1989	1990	1991	1992	1993	1994	1995	1996	1997 ²	1998 ²
Northern Ireland											
Agriculture, hunting, forestry & fishing	DDMK	528	487	512	641	576	634	794	809	741	653
Mining and quarrying of energy producing materials	DDML	8	11	10	9	9	11	12	9	9	10
Other mining and quarrying	DDMM	36	32	29	34	50	74	91	65	72	77
Manufacturing	DDMN	1 924	2 123	2 184	2 293	2 430	2 628	2 777	3 014	3 109	3 135
Electricity, gas and water supply	DDMO	273	300	374	372	397	398	400	435	428	354
Construction	DDMP	625	650	626	643	675	753	833	868	915	1 001
Wholesale and retail trade (including motor trade)	DDMQ	991	1 092	1 197	1 266	1 346	1 462	1 597	1 693	1 983	2 085
Hotels and restaurants	DDMR	217	246	259	281	314	330	378	407	459	505
Transport, storage and communication	DDMS	550	557	606	639	649	738	793	812	900	938
Financial intermediation	DDMT	276	311	326	432	515	618	592	558	583	591
Real estate, renting and business activities	DDMU	865	920	1 015	1 064	1 230	1 347	1 477	1 615	1 869	2 175
Public administration and defence ³	DDMV	1 510	1 621	1 789	1 883	1 967	1 933	1 941	1 960	1 969	1 966
Education	DDMW	646	661	819	913	953	953	1 052	1 096	1 252	1 367
Health and social work	DDMX	790	885	1 005	1 055	1 143	1 295	1 355	1 376	1 373	1 380
Other services	DDMY	312	340	349	378	462	538	554	572	650	672
FISIM ⁴	DDMZ	-222	-243	-210	-293	-278	-367	-348	-355	-362	-406
Total	TMQI	9 329	10 013	10 890	11 611	12 437	13 344	14 297	14 936	15 952	16 501
UK excluding Extra-Region											
Agriculture, hunting, forestry & fishing	DDNA	9 097	9 700	9 376	10 349	10 765	10 777	11 714	11 963	10 595	9 731
Mining and quarrying of energy producing materials	DDNB	2 951	3 312	3 832	3 538	2 609	2 459	2 581	2 470	2 394	2 301
Other mining and quarrying	DDNC	1 304	1 236	1 067	1 210	1 118	1 250	1 437	1 621	1 609	1 678
Manufacturing	DDND	110 407	114 809	111 337	113 704	118 718	128 202	136 747	143 485	148 619	151 197
Electricity, gas and water supply	DDNE	11 514	11 618	14 553	14 721	16 049	15 932	15 562	16 120	16 230	15 851
Construction	DDNF	33 117	34 555	31 995	29 965	29 144	31 347	32 948	34 563	36 927	38 945
Wholesale and retail trade (including motor trade)	DDNG	52 423	57 085	60 980	64 366	67 820	71 201	74 148	78 698	85 865	91 405
Hotels and restaurants	DDNH	12 296	13 863	14 368	15 286	16 003	17 023	18 409	20 471	22 585	24 246
Transport, storage and communication	DDNI	38 818	41 934	43 909	45 714	47 294	50 708	52 297	53 994	57 916	62 200
Financial intermediation	DDNJ	28 939	31 390	30 151	37 239	39 636	45 421	42 726	42 730	43 852	46 199
Real estate, renting and business activities	DDNK	75 339	85 426	91 710	96 267	102 069	109 082	116 348	125 722	140 316	159 348
Public administration and defence ³	DDNL	29 227	32 697	35 300	38 120	39 247	38 764	38 859	38 938	38 727	38 722
Education	DDNM	22 553	24 719	28 214	29 990	31 477	32 810	34 212	36 633	38 865	41 187
Health and social work	DDNN	26 165	29 286	32 525	35 097	37 655	39 925	42 481	45 254	46 960	49 918
Other services	DDNO	16 876	19 006	19 819	21 204	23 280	25 440	27 421	30 669	34 786	38 116
FISIM ⁴	DDNP	-18 588	-19 347	-15 828	-20 997	-20 025	-26 410	-25 499	-25 557	-25 678	-27 732
Total	TMNV	452 437	491 291	513 308	535 772	562 857	593 931	622 389	657 775	700 567	743 314

See footnotes on first page of table.

4 Workplace based gross domestic product¹ (GDP) at current basic prices by region 1989 to 1999

		1989	1990	1991	1992	1993	1994	1995	1996	1997 ²	1998 ²	1999 ²
Total GDP (£ million)												
United Kingdom ³	ABML	461 925	501 473	523 137	545 487	573 377	605 720	635 498	674 029	715 127	755 297	787 386
North East	TMPW	17 156	18 271	19 365	20 383	21 480	22 074	22 975	23 755	24 202	25 294	25 875
North West	TMPX	49 365	53 260	55 775	57 803	60 664	63 938	66 007	68 937	72 414	75 275	77 562
Yorkshire & the Humber	TMPY	34 848	37 863	39 872	40 977	42 952	44 752	47 108	50 043	53 182	55 457	57 554
East Midlands	TMPZ	30 439	32 708	34 131	35 368	37 124	39 023	40 976	44 184	47 261	49 413	50 906
West Midlands	TMQA	37 956	41 344	42 716	44 610	46 859	49 577	52 407	54 851	57 783	61 130	63 495
East	DGPH	41 066	44 506	45 448	47 985	50 052	53 631	55 989	60 070	64 982	69 607	72 821
London	DGPI	79 098	85 675	89 388	93 349	97 769	103 021	106 759	112 033	122 014	133 081	138 265
South East	DGPJ	61 607	67 657	70 503	73 866	78 498	83 227	86 831	94 484	102 536	109 797	115 479
South West	TMQE	34 118	37 160	38 584	40 507	42 529	44 607	47 385	50 128	53 580	56 064	58 151
England	TMQF	385 653	418 445	435 784	454 848	477 927	503 851	526 437	558 483	597 956	635 117	660 108
Wales	TMQG	19 007	20 376	21 533	22 129	23 191	24 463	25 989	27 017	28 010	29 541	30 689
Scotland	TMQH	38 448	42 458	45 103	47 183	49 302	52 273	55 667	57 338	58 650	62 153	64 050
Northern Ireland	TMQI	9 329	10 013	10 890	11 611	12 437	13 344	14 297	14 936	15 952	16 501	17 003
United Kingdom less Extra-Region ⁴ & statistical discrepancy	TMPV	452 437	491 291	513 308	535 772	562 857	593 931	622 389	657 775	700 567	743 314	771 849
Extra-Region ⁴	DDQZ	9 488	10 182	9 829	9 715	10 520	11 789	13 109	16 254	14 560	11 983	14 350
Statistical discrepancy (Income adjusted)	DDRA	-	-	-	-	-	-	-	-	-	-	1 188
GDP per head (£)												
United Kingdom ³	DDAB	8 053	8 712	9 050	9 404	9 852	10 372	10 842	11 462	12 118	12 750	13 213
North East	TMQK	6 614	7 033	7 433	7 811	8 216	8 441	8 796	9 111	9 301	9 741	10 024
North West	TMQL	7 199	7 757	8 096	8 380	8 783	9 248	9 547	9 980	10 494	10 909	11 273
Yorkshire & the Humber	TMQM	7 042	7 630	8 002	8 195	8 563	8 901	9 354	9 927	10 541	10 983	11 404
East Midlands	TMQN	7 621	8 149	8 464	8 722	9 102	9 519	9 944	10 673	11 371	11 848	12 146
West Midlands	TMQO	7 242	7 875	8 108	8 450	8 855	9 352	9 869	10 309	10 845	11 455	11 900
East	DGPL	8 065	8 705	8 839	9 281	9 640	10 280	10 665	11 368	12 208	12 973	13 438
London	DGPM	11 634	12 503	12 983	13 514	14 110	14 798	15 251	15 885	17 159	18 566	18 979
South East	DGPN	8 098	8 853	9 185	9 584	10 147	10 706	11 090	11 983	12 912	13 731	14 296
South West	TMQS	7 297	7 917	8 183	8 547	8 927	9 311	9 828	10 351	11 008	11 447	11 782
England	TMQT	8 069	8 692	9 020	9 384	9 852	10 349	10 771	11 384	12 141	12 845	13 278
Wales	TMQU	6 624	7 080	7 450	7 632	7 978	8 393	8 900	9 240	9 562	10 063	10 449
Scotland	TMQV	7 544	8 321	8 814	9 217	9 614	10 168	10 818	11 162	11 429	12 117	12 512
Northern Ireland	TMQW	5 893	6 300	6 787	7 163	7 610	8 114	8 654	8 964	9 507	9 754	10 050
United Kingdom less Extra-Region ⁴	TMQJ	7 888	8 535	8 880	9 236	9 671	10 170	10 619	11 185	11 871	12 548	12 972
GDP per head; indices (UK less Extra-Region=100)												
United Kingdom	DDAF	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
North East	DDBE	83.9	82.4	83.7	84.6	85.0	83.0	82.8	81.5	78.4	77.6	77.3
North West	DDBF	91.3	90.9	91.2	90.7	90.8	90.9	89.9	89.2	88.4	86.9	86.9
Yorkshire & the Humber	DDBG	89.3	89.4	90.1	88.7	88.5	87.5	88.1	88.8	88.8	87.5	87.9
East Midlands	DDBH	96.6	95.5	95.3	94.4	94.1	93.6	93.6	95.4	95.8	94.4	93.6
West Midlands	DDBI	91.8	92.3	91.3	91.5	91.6	92.0	92.9	92.2	91.4	91.3	91.7
East	DGPO	102.2	102.0	99.5	100.5	99.7	101.1	100.4	101.6	102.8	103.4	103.6
London	DGPP	147.5	146.5	146.2	146.3	145.9	145.5	143.6	142.0	144.5	148.0	146.3
South East	DGPQ	102.7	103.7	103.4	103.8	104.9	105.3	104.4	107.1	108.8	109.4	110.2
South West	DDBM	92.5	92.8	92.2	92.5	92.3	91.6	92.6	92.5	92.7	91.2	90.8
England	DDBN	102.3	101.8	101.6	101.6	101.9	101.8	101.4	101.8	102.3	102.4	102.4
Wales	DDBO	84.0	83.0	83.9	82.6	82.5	82.5	83.8	82.6	80.6	80.2	80.5
Scotland	DDBP	95.6	97.5	99.3	99.8	99.4	100.0	101.9	99.8	96.3	96.6	96.5
Northern Ireland	DDBQ	74.7	73.8	76.4	77.6	78.7	79.8	81.5	80.1	80.1	77.7	77.5

1 Estimates of workplace based GDP allocate incomes to the region in which commuters work.

2 Provisional.

3 Components may not sum to totals as a result of rounding.

4 The GDP for Extra-Region comprises compensation of employees and gross operating surplus which cannot be assigned to regions

Diversity of the Regions

There is much diversity between the regions of the UK. Scotland, Wales, Northern Ireland and the regions of England are all different in character, industrial structure and economic performance. The table below shows some of the differences in size of the regions. Scotland has the largest area, but has a small population relative to its size; London has by far the smallest area, but the second largest population - over 7 million. At the other extreme, Northern Ireland has only a population of 1.7 million. These large variations in the regions' populations are reflected in the size of regional GDP and incomes.

The wide variation in the size of the regions makes it difficult to compare the regions' economic performance using cash totals; comparisons are therefore usually expressed in terms of amounts per head of the population. However, it is important to note that the growth in totals may be quite different to the growth per head in regions where the population has increased or decreased. Furthermore, the level per head is determined both by the average amount of cash of the working population and by the proportion of dependants. In Northern Ireland, for example, households have a high proportion of children (24 per cent of the population were aged under 16 in 1999 compared with 19 to 21 per cent in other regions). This will tend to depress amounts per head. Ideally the age structure of the population should therefore be taken into account when comparing figures on a per head basis.

Key Regional Statistics - Percentages of the UK

Region	Area 1999	Population 1999	Total economically active March 99	GDP ¹ 1999	Individual Consumption Expenditure 1998	Household Income ² 1998
United Kingdom (=100%)	243820 sq km	59.0m	28.4m	£771.9bn	£545.1bn	£824.0bn
North East	3.5	4.5	4.0	3.4	3.7	3.7
North West	5.8	11.7	11.1	10.0	11.0	10.7
Yorkshire & the Humber	6.4	8.5	8.4	7.5	8.0	7.8
East Midlands	6.4	7.0	7.2	6.6	6.6	6.6
West Midlands	5.3	9.0	9.0	8.2	8.3	8.2
East	7.8	9.0	9.4	10.6	9.8	9.9
London	0.6	12.0	12.5	15.9	14.4	14.9
South East	7.8	13.5	14.2	15.8	15.2	15.4
South West	9.8	8.2	8.4	7.5	7.9	8.0
England	53.4	83.4	84.2	85.5	85.0	85.2
Wales	8.5	5.0	4.5	4.0	4.3	4.2
Scotland	32.0	8.7	8.5	8.3	8.4	8.3
Northern Ireland	5.8	2.8	2.6	2.2	2.4	2.3

BACKGROUND NOTES

European System of Accounts 1995 (ESA95)

1. The estimates of GDP published here are consistent with the *European System of Accounts 1995* (ESA95). ESA95 is based on the *System of National Accounts 1993*⁵ (SNA93) which was sponsored by all major international organisations and is being adopted world wide. The European system, which is being adopted by EU Member States, is consistent with SNA93 but is more specific and prescriptive in certain parts. *Introducing the European System of Accounts 1995*⁷, *National Accounts Concepts Sources & Methods* (1998)⁸, & *Regional Accounts Methods*⁹ give more detail of the changed system of accounts, and the particular effects on the UK.

Regional GDP

2. The regional GDP estimates presented in this article are consistent with the national accounts published in the *United Kingdom National Accounts 2000 (The Blue Book)*, which also defines the terms used. Regional GDP estimates for 2000, consistent with the 2001 edition of *the Blue Book* will be published in 2002.
3. The estimates included in this article are at basic prices. GDP at basic prices excludes taxes (less subsidies) on products such as VAT and excise duties, but includes taxes (less subsidies) on production, such as national non-domestic rates. From 2002, the terminology GVA will replace the use of "GDP at basic prices" within the Regional Accounts publications.

Geography

4. The GDP estimates published in this article relate to the nine Government Office Regions (GORs) of England, as well as totals for Scotland, Wales, and Northern Ireland. These form level 1 of the NUTS geography described below.
5. The nomenclature of territorial units for statistics (NUTS) provides a single uniform breakdown for the production of regional statistics for the European Union. There are five levels of NUTS in the UK, although GDP estimates are only published for the first three. These are:
 - NUTS-1 Government Office Regions and Scotland, Wales, and Northern Ireland.
 - NUTS-2 37 areas - sometimes referred to as sub-regions.
 - NUTS-3 133 areas - generally groups of unitary authorities or districts, also known as local areas.

Some areas appear at more than one level, for example, Northern Ireland appears at NUTS levels 1 and 2.

6. Revised estimates of GDP for geographies below NUTS-1 have not been published by the ONS since October 1998. Estimates of local area GDP for 1993 to 1998, giving figures for the UK, broken down into the 133 (NUTS-3) areas will be published on 26 April 2001 in the form of an ONS News Release, and in an article in the May 2001 edition of *Economic Trends*.
7. An article explaining the methodological changes made the local area estimates is included in this edition of *Economic Trends*¹⁰. Maps of the NUTS-2 and NUTS-3 areas are given in chapters 14 to 17 of the 2000 edition of *Regional Trends*¹¹.

Regional gross domestic product - concepts and definitions

8. In this article regional GDP is measured as the sum of incomes earned from the production of goods and services in the region. Insufficient information is available to estimate GDP for all regions of the UK using either the production or expenditure approaches. Estimates of GDP for Scotland only, based on the production approach, and measured in terms of constant (real) prices are published quarterly by the Scottish Executive. An article detailing the methodologies used is given in the 2001 edition of *Scottish Economic Statistics*¹².
9. As described above, the estimates of regional GDP presented in this article are calculated as the sum of incomes earned from productive activity in the region. The income (referred to as compensation of employees under ESA95) of commuters should therefore be included in the region where they work. Historically, however, the estimates of regional GDP have not been compiled on this basis; but have instead been compiled using regional estimates of compensation of employees on a residence basis, because this was the basis of the most reliable data source (the one per cent sample of Department of Social Security (DSS) national insurance records). This has a significant effect on the estimates for London, the South East and East of England regions, but is assumed not to introduce any significant distortion for the other regions. Estimates of GDP on a residence basis are given in tables 1 to 3 in this article.
10. Figures allocating the compensation of employees (CoE) to their workplace (the preferred GDP approach) are also included in this article, in table 4. The workplace based CoE figures for London, South East and East are based on regional data from the Short Term Employment Survey (STES) and New Earnings Survey (NES). There is, however no industry breakdown currently available on a workplace basis.
11. Unless otherwise stated, all references in this article to regional GDP refer to residence-based figures.

12. An article describing the methodology used to produce the regional GDP estimates was published in the December 2000 edition of *Economic Trends*. This article also pre-announced the new methodology used in the regionalisation of household rent.

Extra-Regio

13. The contribution to GDP of UK embassies abroad and UK forces stationed overseas is included in Extra-Regio, along with the element of GDP relating to activities taking place on the continental shelf. As these cannot be assigned to specific regions they are assigned as "Extra-Regio GDP".

General

14. All the items in regional accounts are measured in current prices which means that increases over time reflect inflation as well as real growth. Trends in total GDP per head cannot be analysed easily without deflating the data. However, there are no regional price indices that could be used to remove the effect of inflation from the figures. Comparisons of trends can therefore be based either on the difference between regional increases at current prices or on movements in the amount relative to the UK average. Both approaches would be misleading if the rate of inflation in any region were different from the national average.
15. In the regional accounts it is usual to look at changes per head relative to the UK average over time. However, this obscures the effect of changes in population size. In areas where the population is increasing most rapidly, growth in total GDP would be expected to grow relatively strongly; conversely, areas with a low or negative population growth would be expected to grow more slowly.
16. The analyses of GDP by industry, both national and regional, are based on classifying each economic unit by industry, based on its main activity, and allocating all its activity to that industry. Subsidiary activities of these units are therefore included with the main activity.

Accuracy

17. As with the national accounts, the regional estimates, although calculated as reliably as possible, cannot be regarded as accurate to the last digit shown.
18. The regional GDP estimates are partly based on sample surveys and the quality of the results therefore varies according to sample size. This means that the results for areas with smaller populations are subject to a greater degree of uncertainty than

those for more populated areas. An assessment of the quality of the regional estimates was published in *Economic Trends*, November 1990¹³.

19. This release contains only a summary of the information available. A more detailed breakdown of manufacturing, and total regional compensation of employees information are available on request from: Regional Accounts Branch, Office for National Statistics, B4/10, 1, Drummond Gate, London SW1V 2QQ, tel: 020-7533 5793, fax: 020-7533 5799, email: philip.papaiah@ons.gov.uk.
20. The estimates and text presented in this article were produced by members of the Regional Accounts Branch of the Office for National Statistics. Regional Accounts Branch are: David Vincent, Alex Clifton-Fearnside, Adam Douglas, Aubrey Stoll, Hara Sidiropoulou & Philip Papaiah. The author would also like to acknowledge the contribution made by David Lacey (ONS), and Jon Lloyd.

References

1. *UK National Accounts - The Blue Book 2000*. The Stationery Office (London: 2000).
2. Lacey, D. UK Regional Gross Domestic Product (GDP): Methodological Guide, *Economic Trends* no. 565. TSO (London: 2000).
3. *European System of Accounts (1995)*. Office for the Official Publications of the European Communities (Luxembourg: 1996).
4. Vincent, D. Regional Accounts: 1998 Part 1. *Economic Trends* no. 561. TSO (London: 2000).
5. *House Price Statistics: 4th Quarter 2000*. Department of the Environment, Transport and the Regions (London: 2001).
6. *System of National Accounts 1993*. UN, OECD, IMF, EU. (1993).
7. *Introducing the European System of Accounts 1995*. TSO (London: 1998).
8. *National Accounts Concepts Sources & Methods*. TSO (London: 1998).
9. *Regional Accounts Methods*. Office for the Official Publications of the European Communities (Luxembourg: 1995).
10. Douglas, A. Developments in Local Area Gross Domestic Product. *Economic Trends* no. 568. TSO (London: 2001).
11. *Regional Trends 2000*. TSO (London: 2000).
12. Rigg, J. The Interpretation of the Quarterly GDP for Scotland Series. *Scottish Economic Statistics 2001*. TSO (Edinburgh: 2001).
13. Regional Accounts 1989: Part 1. *Economic Trends* no. 444. HMSO (London: 1990).

Developments in Local Area Gross Domestic Product

Adam Douglas
Office for National Statistics

Address: B4/10, 1 Drummond Gate,
London SW1V 2QQ
Tel 020 7533 5729; Fax 020 7533 5799
E-mail: Adam.Douglas@ons.gov.uk

Introduction

Sub-regional and local area estimates of Gross Domestic Product (GDP) for years 1993 to 1998 will be published as a news release on the 26th April 2001 and also in an article in the May 2001 edition of *Economic Trends*. These will be consistent with the latest Regional GDP totals published on 27th February 2001 and in an article¹ in this edition of *Economic Trends*. Local area GDP estimates were last published by ONS in October 1998² on the basis of the European System of Accounts 1979 (ESA79).

Geographies

The ONS currently publishes GDP at regional, sub-regional and local area level. An explanation of the standard geographies is provided in the *UK Regional Accounts 1999: Part 1* article in this edition of *Economic Trends*.

Sub-regional areas are defined as level 2 of the European NUTS classification. There are 37 NUTS-2 areas in the United Kingdom. Within England they are individual counties or groups of counties; Wales is divided into two NUTS-2 areas and Scotland into four areas. Northern Ireland is a single NUTS-2 area. The term "Local Area" is used to refer to the 133 NUTS-3 areas, which are generally equivalent to individual counties, unitary authorities or groups of unitary authorities or districts.

European System of Accounts 1995

The last local area data published by ONS were compiled on an ESA79 basis and were published at factor cost. The forthcoming 1993 to 1998 local area data will be consistent with ESA95.

The ESA95 changes made to the sub-regional and local area GDP methodology reflect those made at the regional level. The changes brought about by the move to ESA95 are described in greater detail in the *Regional Accounts articles published in the August*³ and December 2000⁴ editions of *Economic Trends*. The effects of these changes in summary are:

- Changes to the national methodologies and control totals which are reflected in the sub-national estimates of GDP. A brief summary of these was provided in *Introducing the European System of Accounts*⁵.
- The calculation of local area taxes (less subsidies) on production. Taxes on production account for around 2 per cent of UK GDP at basic prices.

- The addition of taxes (less subsidies) to factor cost GDP estimates moves the estimates on to the ESA95-preferred basic prices basis. Estimates of taxes on production have been calculated at both the sub-regional and local area level using the same indicator data and methodology as used at the regional level.
- The earnings of UK armed forces personnel serving abroad are now classified as and included within Extra-Region activity.

Gross value added at basic prices

Under ESA95, the term gross value added (GVA) is used to denote estimates that were previously known as GDP at basic prices. With the ESA95 definition, the term GDP denotes GVA plus taxes (less subsidies) on products, i.e. at market prices. These sub-regional and local area estimates are published only at basic prices, and should be referred to as GVA rather than GDP. In order to avoid confusion, the term GDP is used synonymously with GVA at basic prices at the moment. In future publications the term GVA will be used throughout.

Other changes

The remaining changes made to the sub-regional and local area GDP methodology reflect where new or more appropriate data sources have been identified, or more accurate methodologies developed since sub-regional and local area estimates were last compiled. These changes are:

- Due to unresolved quality issues concerning Annual Business Inquiry (ABI) local area profits estimates, this year the whole of the manufacturing Gross Operating Surplus (GOS) element of local area GDP has been split using Compensation of Employees (CoE) as an indicator, instead of the (preferable) ABI indicator series. The use of CoE for allocating local area manufacturing GOS is still consistent with established Eurostat published methodology. The order of methodological preference for the indicators that can be used to allocate GOS is highlighted in the

following extract taken from the Eurostat Regional Accounts guide⁶:

"The Gross Operating Surplus is usually allocated using wages and salaries, labour costs, employment or turnover. Amongst these a tentative preference may be given to turnover, followed by labour costs, wages and salaries and then the number of employees."

Page 17, para 5.3(c).

- The use of CoE for the allocation of sub-regional and local area profits is a temporary measure that will only be used in our GDP methodology whilst the 1989 to 1997 ABI manufacturing profits data at these geographic levels are quality assured by Regional Accounts Branch.
- The rental income of financial and non-financial corporations received from ownership of commercial property is now allocated using National Non-Domestic Rates received by the sub-region and local area. This is consistent with changes introduced in our regional methodology.
- In the forthcoming publication, the estimates of employee jobs, which feed into the sub-regional and local area indicators of CoE, are taken from the Annual Employment Survey (AES) and therefore are not consistent with the ABI employee jobs series due to be published in April 2001. In the future, use of the AES series will be discontinued in favour of the new ABI employee jobs estimates.
- The value of Financial Intermediation Services Indirectly Measured (FISIM) are now compiled according to a new methodology, which will be detailed in a forthcoming *Economic Trends* article.

Until ABI employee jobs information and reliable estimates of manufacturing GOS become available, the sub-regional and local area GDP estimates for all years in the forthcoming publication must be considered as provisional.

References

1. Clifton-Feamside, A. Regional Accounts 1999: Part 1. *Economic Trends* no. 568. TSO (London: 2001).
2. *European Classification of UK Geographic Areas*. Office for National Statistics News Release - ONS(98)199, (ONS: 29 June 1998).
3. Vincent, D. Regional Accounts 1998: Part 1. *Economic Trends* no. 561. TSO (London: 2000).
4. Lacey, D. UK Regional Gross Domestic Product: Methodological Guide. *Economic Trends* no. 565. TSO (London: 2000).
5. *Introducing the European System of Accounts 1995*. TSO (London: 1998).
6. *Regional Accounts Methods*. Office for the Official Publications of the European Communities (Luxembourg: 1995).