OFFICE FOR NATIONAL STATISTICS

Economic Trends

No. 519
January/February 1997

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London: The Stationery Office

Contents

Introduction

Economic Trends brings together all the main economic indicators. It contains three regular sections of tables and charts illustrating trends in the UK economy.

'Economic Update' is a feature giving an overview of the latest economic statistics. The content and presentation will vary from month to month depending on topicality and coverage of the published statistics. The accompanying table on main economic indicators is wider in coverage than the table on selected monthly indicators appearing in previous editions of *Economic Trends*. Data included in this section may not be wholly consistent with other sections which will have gone to press earlier.

An article on international economic indicators appears monthly and an article on regional economic indicators appears every March, June, September and December. Occasional articles comment on and analyse economic statistics and introduce new series, new analyses and new methodology.

Quarterly information on the national accounts and the balance of payments appears in *UK Economic Accounts* which is published every January, April, July and October by The Stationery Office.

The main section is based on information available to the ONS on the date printed in note 1 below and shows the movements of the key economic indicators. The indicators appear in tabular form on left hand pages with corresponding charts on facing right hand pages. Colour has been used to aid interpretation in some of the charts, for example by creating a background grid on those charts drawn to a logarithmic scale. Index numbers in some tables and charts are given on a common base year for convenience of comparison.

The section on cyclical indicators shows the movements of four composite indices over 20 years against a reference chronology of business cycles. The indices group together indicators which lead, coincide with and lag behind the business cycle, and a short note describes their most recent movements. The March, June, September and December issues carry further graphs showing separately the movements in all of the 27 indicators which make up the composite indices.

Economic Trends is prepared monthly by the Office for National Statistics in collaboration with the statistics divisions of Government Departments and the Bank of England.

Notes on the tables

1. All data in the tables and accompanying charts is current, as far as possible, to 27 January 1997.

2. The four letter identification code at the top of each column of data (eg, DJDD) is ONS's own reference to this series of data on our database. Please quote the relevant code if you contact us requiring any further information about the data.

3. Some data, particularly for the latest time period, is provisional and may be subject to revisions in later issues.

4. The statistics relate mainly to the United Kingdom; where figures are for Great Britain only, this is shown on the table.

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

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

7. A line drawn across a column between two consecutive figures indicates that the figures above and below the line have been compiled on different bases and are not strictly comparable. In each case a footnote explains the difference.

8. 'Billion' denotes one thousand million.

9. There is no single correct definition of *money*. The Government has set monitoring ranges for two aggregates:

M0, the narrowest measure, consists of notes and coin in circulation outside the Bank of England and bankers' operational deposits at the Bank.

M4 comprises notes and coin in circulation with the public, together with all sterling deposits (including *certificates of deposit*) held with UK banks and building societies by the rest of the private sector.

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

10. Symbols used:
   .. not available
   - nil or less than half the final digit shown
   + alongside a heading indicates a series for which measures of variability are given in the table on page T87
   † indicates that the data has been revised since the last edition; the period marked is the earliest in the table to have been revised
   * average (or total) of five weeks.

If you have any comments or suggestions about *Economic Trends,* please write to Michael Byrne, Technical Editor, Office for National Statistics, Zone D4/16, 1 Drummond Gate, London, SW1V 2QQ.

Marketing and Customer Service Division
Office for National Statistics

February 1997

ONS Databank

The data in this publication can be obtained in computer readable form via the ONS Databank service which provides macro-economic time series data on disc. For more details about the availability of this and other datasets, prices or to place your order please telephone, write or fax the Sales Office, Marketing and Customer Service Division, Office for National Statistics, Zone B1/06, 1 Drummond Gate, London, SW1V 2QQ. Telephone: 0171 533 5678 or fax 0171 533 5689. The ONS does not offer direct on-line access for these data but a list of host bureaux offering such a facility is available on request from the ONS.

In brief

Important change to *Economic Trends* publication date

In response to the findings of the recent customer questionnaire included in *Economic Trends*, it has been decided to change the publication date so that the most timely national accounts data can be included. From the January 1997 edition onwards, *Economic Trends* will now be published at around the end of the first week of each month. The January edition, titled 'January/ February 1997' was published on **Friday 7th February.** The March edition will follow on **Friday 7th March**. Customer subscriptions will be extended so that annual subscribers will still receive 12 editions.

Articles

This month six articles feature. Richard Cameron presents provisional estimates of gross domestic product for standard statistical regions for 1995 and regional estimates of gross domestic fixed capital formation to 1994 for part 1 of our annual Regional Accounts articles. Sanjiv Mahajan describes recent and future development of UK input-output balances in the balancing GDP article. Our annual Budget articles summarize the Chancellor's proposed changes in taxation and national insurance together with recent developments and prospects for the economy. There are also articles by Derek Baskerville of the ONS on extending the publication of service sector statistics and Bill Cave of the DTI reviewing the President of the Board of Trade's task force for improving service sector statistics.

The annual articles on the effects of taxes and benefits upon household income and employment in the public and private sectors will appear in the March edition.

Cyclical indicators for the United Kingdom economy

As announced in December, the Office for National Statistics will cease to compile and publish Cyclical Indicators for the UK Economy after this edition of *Economic Trends*. This decision has been taken because of the need to find resources to take forward development work for the changes to the national accounts which take place in 1998 - particularly the new European System of Accounts and the five-yearly rebasing of the accounts. Key users have recently been consulted about their priorities for national accounts products, and their view was that cyclical indicators are the least valuable of these. For more information ring John Bundey on 0171-533 5940.

Recent ONS publications

Social Trends 27, 1997 edition. ISBN 0 11 620838 4, price £37.50. ONS's annual comprehensive guide to UK society today including chapters on population, households and families, education and training, the labour market, income, wealth and expenditure and lifestyles. An article on official projections is also included.

Annual Abstract of Statistics, 1997 edition. ISBN 0 11 620778 7, price £37.50. A compendium of data on almost every aspect of economic, social, financial and industrial life in the United Kingdom.

Annual Employment Survey 1995. Volume 1: Results for Great Britain, ISBN 1 85774 227 3. Volume 2: Results for counties and local authority districts, ISBN 1 85774 229 X. Volume 3: Other analyses for government office region, TEC/LEC area and local unit size analysis. ISBN 1 85774 230 3. Price £35.95 per volume. The main source of information about the numbers employed in local areas by detailed categories throughout Great Britain.

UK Input-Output Balances Methodological Guide, 1997 edition. ISBN 1 85774 234 6, price £25. Describes the recent and future development of United Kingdom input-output balances, structure, sources of data used and the annual balancing process.

UK Economic Accounts: 1996 quarter 3. ISBN 0 11 620854 6, price £22.50.
Consumer Trends: 1996 quarter 3. ISBN 0 11 620832 5, price £45.

All of these publications are available from the ONS Sales Office. Tel 0171-533 5678 or fax 0171-533 5689.

United Kingdom Macro-Economic Statistics Publications

Annual Publications

- UK National Accounts (Blue Book)
- UK Balance of Payments (Pink Book)
- Input/Output Balances
- Economic Trends Annual Supplement
- Share Ownership
- Public Finance Trends
- Financial Statistics Explanatory Handbook

Quarterly Publications

- UK Economic Accounts
- Consumer Trends
- Overseas trade analysed in terms of industry

Monthly Publications

- Retail Prices Index
- Producer Price Indices
- Economic Trends
- Financial Statistics
- Monthly Review of External Trade Statistics

First Releases

Annual

- Profitability of UK companies

Quarterly

- UK Balance of Payments
- UK National Accounts
- UK Output, Income & Expenditure
- GDP Preliminary estimate
- Capital Expenditure*
- Stocks*
- Institutional Investment
- Govt Deficit & Debt under the Treaty

Monthly

- UK Trade in goods
- Public Sector Borrowing Requirement
- Cyclical Indicators of the UK economy
- Retail Prices Index
- Producer Prices

* is a News Release

Other publications: - Retail Prices 1914-1990 - Input/Output Tables - Labour Market Statistics - Family Spending - Sector Classification Guide

Articles

Page

Articles published in *Economic Trends*

Cyclical indicators for the United Kingdom economy. An article showing individual indicators is published every March, June, September and December.

International economic indicators. Commentary, figures and charts are published monthly.

Regional economic indicators. Commentary, figures and charts are published every March, June, September and December.

United Kingdom national accounts and **balance of payments** quarterly figures are published in *UK Economic Accounts* every January, April, July and October.

Other Articles

1995

April	Testing for bias in initial estimates of economic indicators. Quarterly national accounts in the United Kingdom; overview of UK approach.
May	Regional Accounts 1993; part 2. Changing the Blue Book.
July	Testing for bias in initial estimates of the components of GDP. The National Lottery in the National Accounts.
August	Research and experimental development statistics 1993.
September	Fully reconciled UK national and sector accounts for 1991-1994.
October	Geographical analysis of the current account of the balance of payments. Quartely GDP - process and issues.
November	Taxes and social security contributions: an international comparison 1983-1993. The inter-departmental business register.
December	The effects of taxes and benefits upon household income 1994-95. Regional Accounts 1994; part 1.

1996

January	The Budget: 28 November 1995. The economy: recent developments and prospects.
February	Employment in the public and private sectors.
March	A vision for ONS. Managing the nation's economy: the conduct of monetary and fiscal policy. A monthly indicator of GDP. Cyclical indicators for the UK economy. Regional Accounts 1994: Part 2.
April	Geographical analysis of the current account of the Balance of Payments. Testing for bias in initial estimates of key economic indicators. Environmental accounts - valuing the depletion of oil and gas reserves.
May	Regional Accounts 1994: Part 3.
June	Measuring real growth; index numbers and chain linking. The United Kingdom's input-output balances.
July	Producer prices for services: development of a new price index. Time use from a national accounts perspective.
August	Research and experimental development (R & D) statistics 1994. The pilot United Kingdom enviromental accounts. Testing for bias in initial estimates of the components of GDP.
September	A framework for social accounting matrices.
October	The use of quarterly current price output data in the national accounts. Innovation in small and medium sized enterprises 1995. Geographical analysis of the United Kingdom balance of payments.
November	An international comparison of taxes and social security contributions 1984-1994. Overseas trade in services: development of monthly estimates. Charities' contribution to GDP: the results of the 1996 ONS survey of charities.
December	Revisions to the United Kingdom Balance of Payments. Developments in United Kingdom company securities statistics. How far should economic theory and economic policy affect the design of national accounts?

For articles published in earlier issues see the list in issue 509 (March 1996) of *Economic Trends*. Copies of articles may be obtained from the Publications Unit, Marketing and Customer Service Division, Office for National Statistics, Zone B1/12, 1 Drummond Gate, London SW1V 2QQ, on payment of £2.00 per copy for articles within the last year, and £4.00 per copy for articles prior to this. The appropriate remittance should accompany each order. Cheques, etc, should be made payable to Office for National Statistics.

Economic update - January/ February 1997

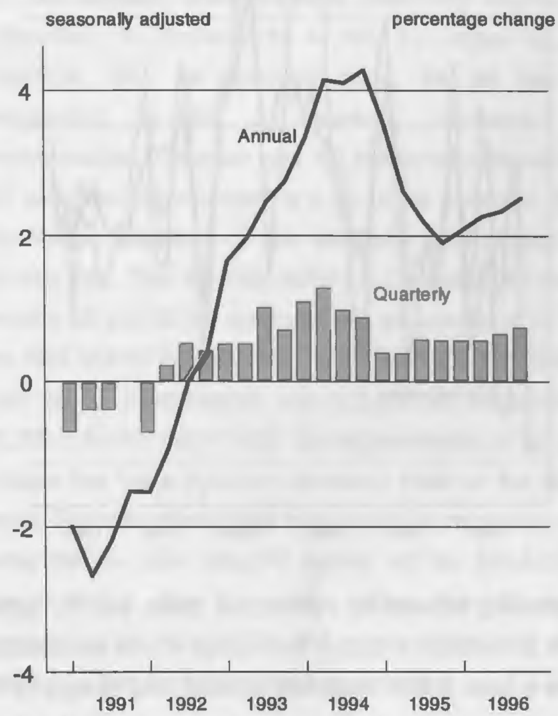
By Adrian Richards and Philip Blackburn, Economic Assessment - Office for National Statistics

Overview

Gross domestic product (GDP) growth accelerated in the fourth quarter driven by strong growth in services. Production output in the three months to November showed encouraging growth as growth in manufacturing output continued. Manufacturers have responded to the increased demand from consumers which is continuing as shown by continued strong demand for credit and housing. The latest falls in the growth of retail sales and in money growth, however, suggest the pace of increasing consumer demand slowed in December. The labour market is showing signs of strength as seen by large falls in claimant unemployment and strong continued demand for employment. It is difficult to assess the magnitude of the changes in the labour market, however, due to the implementation of the Job Seekers' Allowance. Inflationary pressures in the economy remain subdued as growth in retail prices fell and underlying costs, shown by factory gate prices and earnings, remain stable. The economy's trade balance remains stable, but sterling's appreciation is showing signs of impacting on external demand.

Chart 1

Gross domestic product at factor cost



Activity

1. Growth in GDP at factor cost accelerated in the fourth quarter to 0.8% from 0.7% in the third quarter. GDP was affected by two temporary effects. The bumper harvest in the third quarter boosted overall growth by around 0.1% and has therefore reduced growth by a similar margin when this was no longer applicable in the fourth quarter. The other temporary effect was the colder than average weather which boosted energy extraction and supply. Production grew at close to its growth rate in the three months to November. Construction growth, reflecting improved market conditions, accelerated and made a significant contribution to GDP growth. However GDP growth continued to be driven by growth in services with particularly strong growth in business and financial services. The first estimate of annual growth for 1996 is 2.3%, a deceleration on growth of 2.6% in 1995. Chart 1 shows the steady GDP growth path in 1996.

Output and expectations

2. The index of **industrial production**, seasonally adjusted, rose by 0.6% in the three months to November compared with the previous three months. Within this, **manufacturing output** rose by 0.4%. Production of durable goods increased by 0.6%, as output of cars accelerated, whilst production of non-durables decreased by 0.6%. Output of intermediate goods, the largest category, grew strongly. As can be seen in Chart 2, growth in output of intermediate goods, although volatile, is the main driving force in periods of strong growth in production. **Mining and quarrying output,** including oil and gas extraction rose strongly by 0.8%, as production of coal picked-up, and output of the **electricity, gas and water supply** industries also rose strongly by 1.7%.

3. Manufacturers' are becoming less confident of the future, but expectations remain high. The CBI Monthly Trends Enquiry in **manufacturing** reported the output expectations balance in the next 4 months, seasonally adjusted by the ONS, falling from 21% in December to 18% in January.

Chart 2
Index of Industrial Production

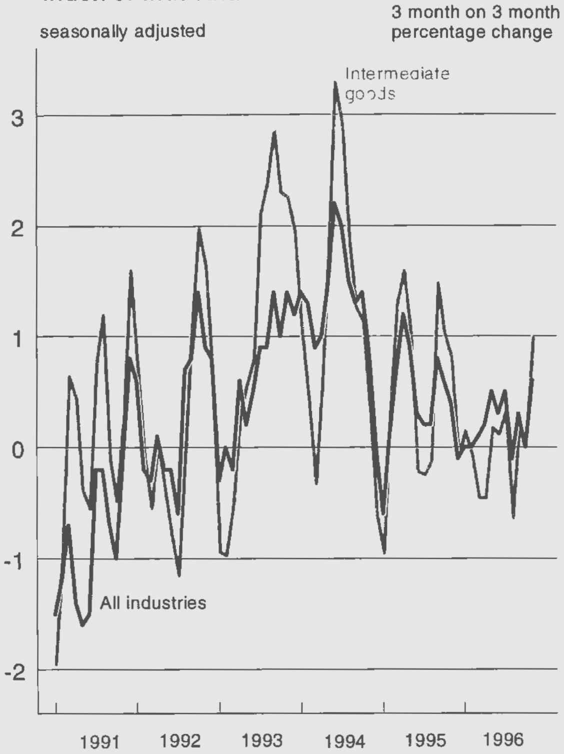
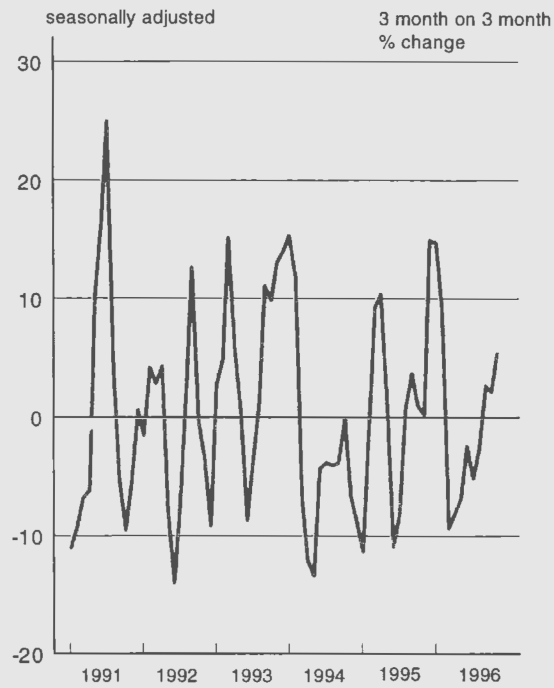


Chart 3
Volume of new orders for new construction work in GB



4. Increasing demand for construction bodes well for further growth in construction output. The volume of new **construction orders** in Great Britain, seasonally adjusted, rose strongly by 4% in the three months to November compared with the three months to August. Chart 3 illustrates the upward trend in growth of new orders from the start of 1996. Private housing and private industrial orders, were significantly stronger over the period, whereas private commercial, and public and association housing, despite the overall growth in orders, still remained weak.

Indicators of domestic demand

5. In 1996 Q4, the volume of **retail sales** was 0.9% higher than in 1996 Q3 and 3.6% up on 1995 Q4. Strong sales in 1996 Q4 occured in textile, clothing and footwear, and household goods stores.

6. Strong demand for personal borrowing continued in the three months to November. Total **net personal borrowing**, seasonally adjusted, rose strongly from £7.4 billion in the three months to August to £8.2 billion in the three months to November. **Net borrowing secured on dwellings**, seasonally adjusted, rose from £4.6 billion to £5.1 billion over this period, as the demand for housing continued to grow. **Net consumer credit,** seasonally adjusted, continued to rise strongly, up from £2.8 billion to £3.0 billion.

Prices and wages

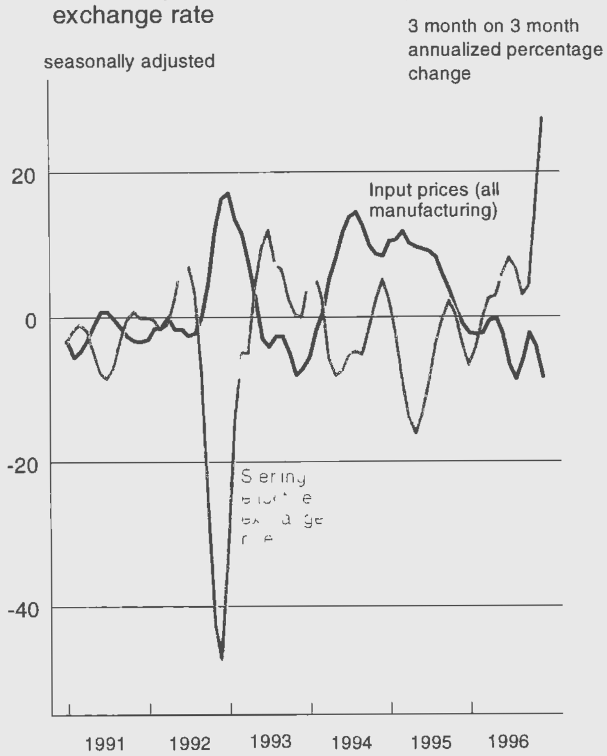
7. Underlying inflation fell in December. The 12-month rate of increase of the **retail prices** index **(RPI)** fell to 2.5% in December. Excluding mortgage interest payments (RPIX) the 12-month rate fell to 3.1%, and further excluding indirect taxes, the rate fell to 2.7%. Falling prices for petrol and non-seasonal food, both due to intense competition, over the year, offset higher housing costs and higher prices for alcohol.

8. Factory gate price rises were stable in December, but the downward trend in the price of materials and fuels continued. The three month on three month annualized percentage growth in the **output price** index for manufactured products (home sales), seasonally adjusted and excluding excise duties, edged lower from 2.5% in November to 2.4% in December. Over the same period the annualized change in **input prices** (all manufacturing), seasonally adjusted, fell sharply from deflation of 4% to deflation of 8.3%. Input prices fell across most categories with a discernable impact of the strong appreciation in sterling as is illustrated in Chart 4.

9. There were less **expectations of rising prices** in January. The CBI Monthly Trends Enquiry for manufacturing showed a balance of 8% (down from 10% in December), seasonally adjusted by the ONS, expecting to raise prices in the next four months.

Chart 4

Producer prices and the sterling effective exchange rate



10. Earnings growth remained stable in November. The annual rise in underlying whole economy **average earnings** for Great Britain in November was 4%, unchanged from October. Production sector and manufacturing earnings growth were unchanged at 4¼% and 4½% respectively. Service sector earnings growth was 3¾%, down ¼% from October, widening the gap between services and the national average. However, the fall is small with rounding exaggerating the impact.

Labour Market

11. The **UK workforce in employment**, seasonally adjusted, rose by 200,000 between 1996 Q2 and 1996 Q3 to 26.076 million. Increasing employment in services (up 98,000) and of self-employed (up 92,000) were responsible for the overall rise.

12. Although manufacturing output growth accelerated in the three months to November, manufacturers reduced employment by 7,000 in Great Britain in the three months to November and by 13,000 in the twelve months to November. Employment in the rest of the production industries rose by 4,000 in the three months to November, but fell by 33,000 in the twelve months to November.

13. **LFS employment** for Great Britain, seasonally adjusted, rose strongly by 130,000 between the Summer 1996 and Autumn 1996 surveys to stand at a total of 25.8 million. All of the quarterly rise was in full-time employment. Significant rises were recorded (not seasonally adjusted) in banking, finance and insurance (30,000) the manufacturing sector (29,000) and transport and communications (27,000).

14. **UK claimant unemployment**, seasonally adjusted, fell substantially in December by 45,100, the largest fall since December 1994. As discussed below, the fall has been exaggerated by the Job Seekers' Allowance (JSA) implementation. There are now 1.9 million unemployed in the UK using the claimant count or 6.7% of the workforce. This is the lowest proportion of the workforce unemployed since January 1991. Over the three months to December, the average monthly fall was 62,000 compared with an average of 26,500 in the three months to September. In the second half of 1996, the total fall in unemployment was 265,600 as compared with 85,200 in the first half of 1996. The implementation of the JSA in October has had a significant downward effect on the claimant count. The main effects have been delays in processing claims using the new JSA computer system and the introduction of means testing after six months (rather than 12 months) encouraging job seeking. The JSA means testing may also be acting as a deterent against fraudulent claims.

15. The Autumn 1996 Labour Force Survey (LFS) (September to November) also showed a fall in **ILO unemployment (GB)**, seasonally adjusted, of 32,000 to stand at 2.230 million. As shown in Chart 4, this quartely fall is significantly less than the equivalent fall in the claimant count. The ILO measure has also been affected by the JSA. There is an outflow effect from unemployment due to means testing applying after six months, and there is an inflow effect on unemployment from the transfer of some previously economically inactive who now qualify for the JSA.

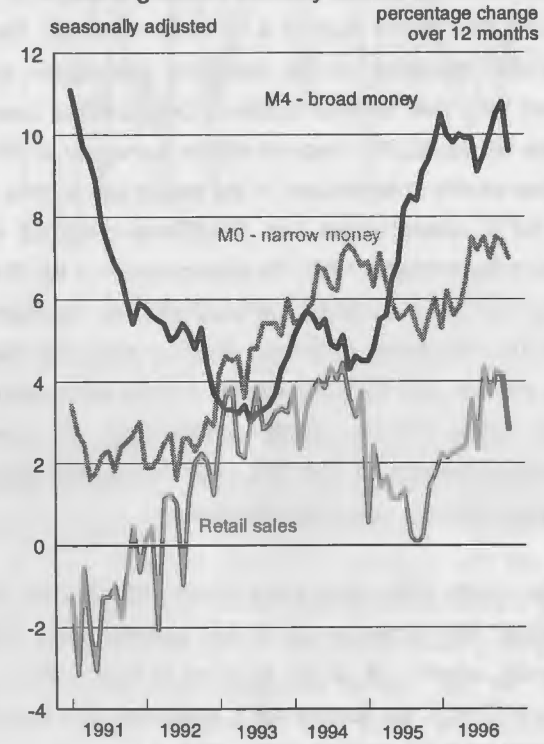
16. **Jobcentre vacancies** in the UK fell by 1,200 in December to be at a total of 267,500. In the three months to December, the average monthy rise was 4,600 compared with 11,600 in the three months to September. Rises in vacancies in the months prior to December may have been overestimated following the introduction of a new computing system, which restricted placements.

17. There were 159,000 working days lost to **labour disputes** in the UK in November, a rise of 120,000 days compared to October. In November, 72% of the days lost were in education.

Monetary indicators

18. The annual growth of **narrow money (M0)**, seasonally adjusted, decelerated from 7.4% in November to 7.0% in December. Annual growth of **broad money (M4)**, seasonally adjusted, fell from 10.8% in November to 9.6% in December. Chart 5 illustrates the latest fall in money was reflected in lower growth in retail sales.

Chart 5
Annual growth of money and sales



Balance of Trade

19. The deficit on **the balance of UK trade in goods** remained stable at £2.9 billion in the three months to November as in the three months to August. Over this period the **volume of total exports, excluding oil and erratics**, rose by 2.1%. On the same basis **imports** rose at a similar rate, by 2.4%. Recent trade prices show evidence of the effect of the recent appreciation of sterling. As shown in Chart 6, export and import prices of goods excluding oil and erratics fell by 1.3% and 1.7% respectively, suggesting exporters are lowering prices to remain competitive and imports are becoming cheaper.

20. More timely data on **trade with non-EU countries** shows that the deficit narrowed from £2.2 billion in the three months to September to £2.0 billion in the three months to December. As illustrated in Chart 7, over this period, **export volumes, excluding oil and erratics** fell by 1.7% compared with the previous three months, suggesting the appreciation of sterling is dampening demand for exports. On the same basis **import volumes**, remained unchanged. Exports of erratics have picked up, however, strengthening overall external demand .

Chart 6
UK trade price indices (excluding oil & erratics)

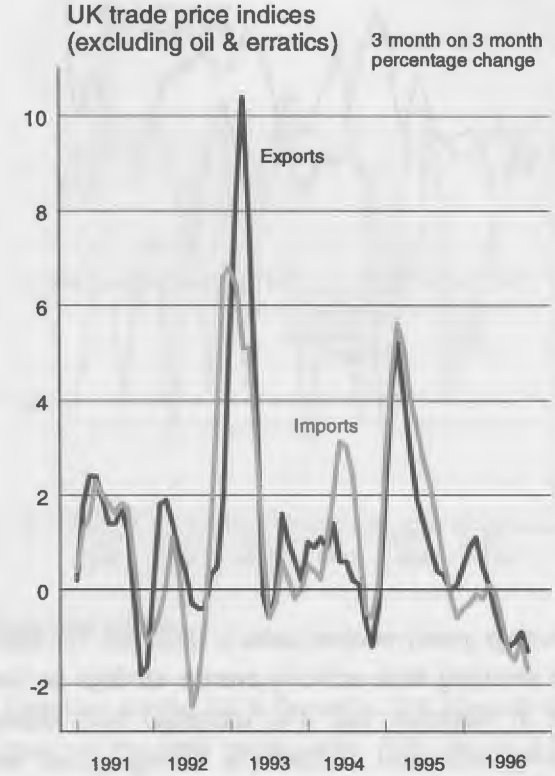
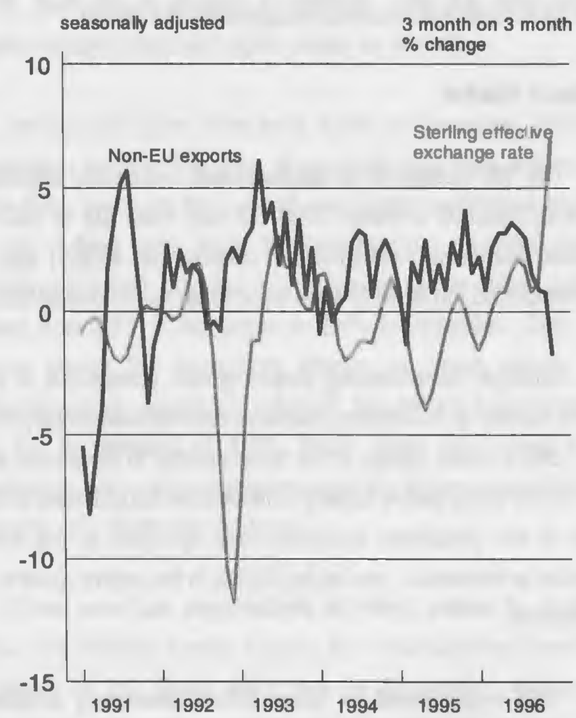


Chart 7
Volume of exports and the exchange rate



Forecast for the UK Economy

A comparison of independent forecasts, January 1997.

The tables below are extracted from HM Treasury's "FORECASTS FOR THE UK ECONOMY" and summarise the average and range of independent forecasts for 1997 and 1998, updated monthly.

	Independent Forecasts for 1997		
	Average	Lowest	Highest
GDP growth (per cent)	3.4	2.8	4.3
Inflation rate (Q4)			
- RPI	3.5	2.2	5.3
- RPI excl MIPS	2.9	2.0	4
Unemployment (Q4, mn)	1.72	1.40	1.91
Current Account (£bn)	-4.6	-12.0	5.0
PSBR (1997-98, £bn)	20.1	12.7	24.0

	Independent Forecasts for 1998		
	Average	Lowest	Highest
GDP growth (per cent)	2.8	1.5	4.2
Inflation rate (Q4)			
- RPI	3.5	1.8	5.0
- RPI excl MIPS	3.4	2.0	4.8
Unemployment (Q4, mn)	1.58	1.22	1.88
Current Account (£bn)	-7.8	-19.9	0.1
PSBR (1998-99, £bn)	15.0	7.0	27.0

Memo item: The latest independent average for the 1996-97 PSBR (£bn) is 25.8, with a range of 22.0 - 28.4.

NOTE: "FORECASTS FOR THE UK ECONOMY" gives more detailed forecasts, covering 24 variables and is published monthly by HM Treasury, available on annual subscription, price £75,. Subscription enquiries should be addressed to Miss Jehal, Publishing Unit, Room 53a, HM Treasury, Parliament Street, London SW1P 3AG (0171 270 5607).

International Economic Indicators

by Kevin Madden, Economic Assessment - Office for National Statistics

Overview

In 1996 Q3 growth weakened in the United Kingdom and the United States. Despite inflation moving upwards in the G7 price pressures feeding through to retailers remained subdued. Producer price inflation was moderate and wage inflation declined. Latest estimates on world trade indicated that there was a significant acceleration in trade outside of the Organisation of Economic Co-operation and Development's (OECD) countries 1996 Q1.

Activity

2. Latest estimates of **gross domestic product (GDP) at constant market prices** showed that growth rates, on a quarterly basis, weakened in the United Kingdom and the United States between 1996 Q2 and 1996 Q3. In the United States quarterly growth fell sharply after particularly strong growth in the second quarter. Where higher imports made a negative contribution to growth in the third quarter. Chart 1 shows the annual growth rates.

3. New data shows that growth in **industrial production** accelerated by 0.6% in the United Kingdom in November in the three month on three months measure.

4. **Retail sales** continue to show difficulties in the Japanese and French economies. Here retail sales fell by 1.3% and 0.4% respectively. The data has, however, been highly erratic in both countries with strong growth in the first quarter followed thereafter by declines. Latest data for the United Kingdom showed that retail sales growth accelerated in December, on a three month on three month basis, after strong growth in November.

Inflation

5. **Consumer price inflation** among the G7 moved higher among all the G7 economies in October except Italy, where it fell and the United States where it remained constant. In the United Kingdom inflation fell back in December to 2.5%. These developments can be observed in chart 2.

Chart 1
Gross domestic product

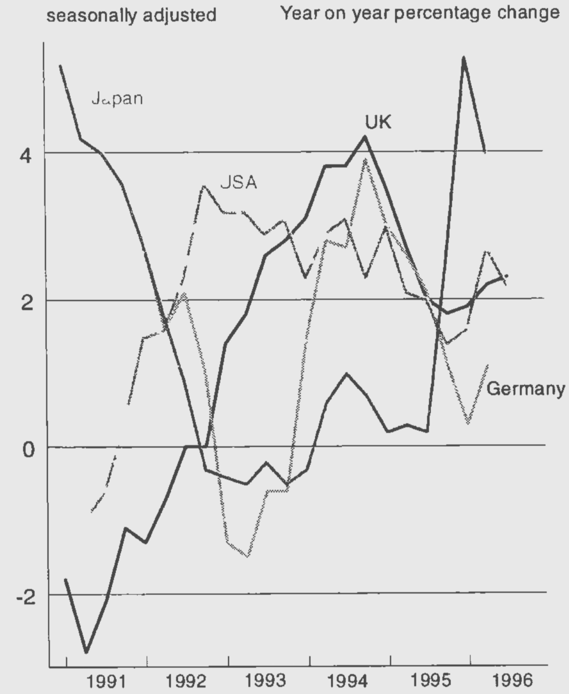


Chart 2
Consumer price inflation

6. **Producer price** inflation edged up in the United States and is now significantly in excess of all other G7 economies. France, Japan and Canada actually experienced deflation over this period. In the United Kingdom factory gate inflation stabilised at 0.8% in December.

7. Since 1995 **average wage earnings** have oscillated between a band of 2.8% and 3.5% in the G7. Against a background of high unemployment Italian wage growth fell in October to produce the lowest wage inflation among the G7. Wage growth fell back for the second successive month, in the United States and Japan, where earnings growth declined by 0.5 percentage points.

Labour market

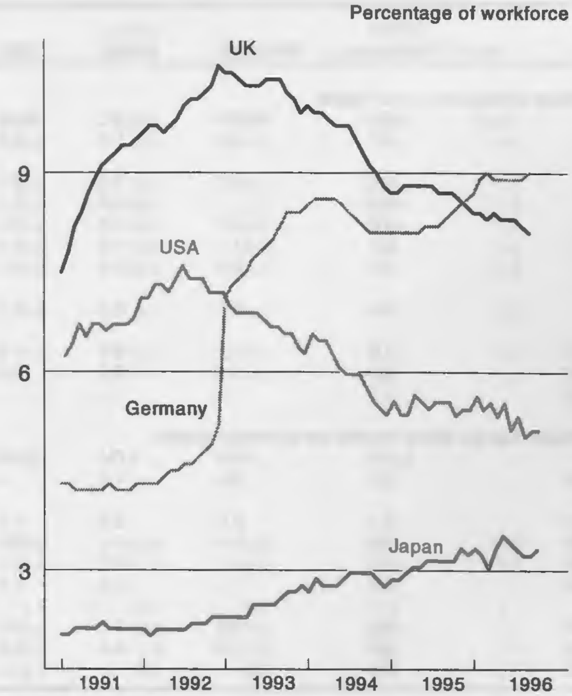
8. **Employment** growth rebounded strongly in the United Kingdom following the contraction in the previous period. There were falls in the rate of employment growth, in the United States, Japan and Canada.

9. **Standardised unemployment rates** (ILO based) moved upwards in the G7 economies excluding the United States and the United Kingdom. These trends are shown in chart 3. In Japan the decline in the previous period was partly offset by the rise in the rate to 3.4% in October. Germany and France both showed rises of 9.0% and 12.5% respectively in September. The rate steadied in the United States in October after falls in earlier quarters.

Trade

10. The **current account** as a percentage of GDP improved markedly in Japan from 1.3% in 1996 Q2 to 1.6% in 1996 Q3, led by a increase in net income from abroad. The trade balance itself improved slightly, as the yen appreciated against the American dollar. In Canada, despite an improvement in the trade balance, the current account deteriorated due to widening deficits on services and net investment income. In the United Kingdom the current account balance fell as the rise in investment income (which had been rising since 1995 Q1) fell back sharply.

Chart 3
Standardised unemployment rates



11. The growth in **world trade** in manufactures and goods accelerated in 1996 Q1 following the slowdown in 1995. Countries outside the OECD continued to provide a stimulus to the world economy with exceptionally rapid import growth exceeding strong export growth.

Notes

12. The series presented here are taken from the OECD's Main Economic Indicators, except for the United Kingdom where several of the series are inclusive of publication up to 28 January 1997. The series shown are for each of the G7 economies and for the European Communities (EC) and OECD countries in aggregate. **Data for unified Germany is added to the article as it becomes available.** Footnotes to the tables explain the commencement or otherwise of the data.

13. Comparisons of indicators over the same period should be treated with caution as the length and timing of these cycles varies across countries.

1 Gross domestic product at constant market prices

	United Kingdom	Germany[1]	France	Italy	EC	United States	Japan[2]	Canada	Major 7	OECD
Percentage change on a year earlier										
	ILFX	ILFY	ILFZ	ILGA	ILGB	ILGC	ILGD	ILGE	ILGF	ILGG
1985	3.7	2.2	1.9	2.6	2.5	3.7	4.3	4.7	3.5	3.4
1990	0.4	5.9	2.6	2.1	3.0	1.3	5.2	–0.3	2.4	2.6
1991	–2.0	..	0.8	1.1	3.0	–1.0	4.0	–1.8	1.3	1.3
1992	–0.5	1.8	1.2	0.6	0.9	2.7	1.0	0.8	1.8	1.8
1993	2.1	–1.1	–1.4	–1.1	–0.6	2.3	0.1	2.1	1.0	1.0
1994	3.9	2.9	2.9	2.1	2.9	3.5	0.6	4.2	2.8	2.7
1995	2.4	2.1	2.2	2.9	2.4	2.0	0.9	2.3	2.0	1.9
1996 Q1	1.9	0.3	0.9	1.3	1.3	1.6	5.3	0.6	2.1	2.1
Q2	2.2	1.1	0.5	0.8	1.3	2.7	4.0	1.2	2.3	2.5
Q3	2.3	..	..	..	..	2.2	..	..	..	..
Percentage change, latest quarter on previous quarter										
	ILGH	ILGI	ILGJ	ILGK	ILGL	ILGM	ILGN	ILGO	ILGP	ILGQ
1994 Q4	0.8	0.6	1.1	–	0.7	0.7	–1.1	1.2	0.5	0.4
1995 Q1	0.5	0.4	0.6	1.5	0.7	0.2	0.2	0.4	0.3	0.5
Q2	0.4	0.8	0.1	0.2	0.5	0.2	0.6	–0.3	0.4	0.2
Q3	0.4	0.1	0.2	0.7	0.4	0.9	0.6	0.4	0.6	0.6
Q4	0.6	–	–0.5	0.1	0.1	0.1	1.2	0.2	0.2	0.4
1996 Q1	0.6	–0.5	1.1	0.4	0.4	0.5	2.9	0.4	0.9	0.9
Q2	0.7	1.5	–0.4	–0.4	0.5	1.2	–0.7	0.3	0.5	0.5
Q3	0.4	..	..	..	..	0.4	..	..	..	..

1 Data available for unified Germany since 1991
2 GNP

2 Total industrial production: index numbers

	United Kingdom	Germany[1]	France	Italy	EC	United States	Japan[2]	Canada[3]	Major 7	OECD[4]
Percentage change on a year earlier										
	ILGR	ILGS	ILGT	ILGU	ILGV	ILGW	ILGX	ILGY	ILGZ	ILHA
1985	5.5	5.0	0.6	1.1	3.3	1.7	3.6	5.6	2.9	3.0
1990	–0.3	5.3	1.5	0.2	2.0	–	4.3	–3.3	1.5	1.7
1991	–3.7	3.6	0.3	–0.9	–0.1	–1.7	1.9	–4.2	–0.4	–0.4
1992	–0.1	–2.6	–0.1	–0.2	–1.2	3.5	–5.7	1.0	–0.3	–0.1
1993	2.2	–7.2	–2.6	–2.4	–3.2	3.4	–4.3	4.5	–0.5	–0.6
1994	5.0	3.5	3.8	5.2	4.6	5.9	1.2	6.5	4.4	4.7
1995	2.6	0.8	2.3	5.3	3.2	3.3	3.3	3.9	3.1	3.0
1996 Q2	1.1	0.1	–5.1	–0.8	0.2	3.3	0.9	0.7	1.7	1.9
Q3	0.7	..	..	..	..	3.6	3.6	..	..	..
Percentage change: average of latest three months on previous three months										
1996 Oct	–	..	..	..	..	..	..	..	..	..
Nov	0.6	..	..	..	..	..	..	..	..	..
Percentage change, latest quarter on previous quarter										
	ILHB	ILHC	ILHD	ILHE	ILHF	ILHG	ILHH	ILHI	ILHJ	ILHK
1994 Q4	–0.1	1.9	–0.1	2.0	1.5	1.6	1.4	1.7	1.4	1.3
1995 Q1	0.8	–2.0	0.9	–1.2	–0.2	1.0	1.1	0.9	0.4	0.4
Q2	0.4	1.2	0.6	1.8	0.9	–0.3	0.2	–0.5	0.1	–
Q3	0.8	–0.4	0.3	1.7	0.3	0.8	–1.3	0.3	0.3	0.4
Q4	–	–1.9	–3.0	1.4	–0.3	0.2	2.1	–0.4	0.2	0.3
1996 Q1	0.1	1.0	–2.5	–3.6	–0.4	0.7	0.4	0.4	0.4	0.3
Q2	0.3	1.4	–	–0.3	0.6	1.6	–0.2	0.4	0.8	0.9
Q3	0.3	..	..	..	..	1.1	1.2	..	..	..

1 Data available for Unified Germany from 1991
2 Not adjusted for unequal number of working days in a month
3 GDP in industry at factor cost and 1986 prices
4 Some countries excluded from area total

3 Retail Sales (volume)

	United Kingdom	Germany	France	Italy	EC	United States	Japan	Canada	Major 7	OECD
Percentage change on a year earlier										
	ILHL	ILHM	ILHN	ILHO	ILHP	ILHQ	ILHR	ILHS	ILHT	ILHU
1985	..	0.6	0.9	4.3	2.3	4.4	1.5	7.5	3.4	3.3
1990	0.7	8.5	0.6	–1.7	2.5	0.7	5.3	–2.2	1.7	1.9
1991	–1.3	5.7	0.1	–3.4	0.8	–2.4	2.0	–10.4	–1.0	–0.8
1992	0.7	–2.0	0.2	5.2	–0.1	3.4	–2.9	1.3	1.3	1.1
1993	3.0	–4.2	–	–2.4	–1.8	5.4	–4.8	3.0	1.8	1.0
1994	3.7	–1.8	0.5	–5.8	–1.0	6.2	–1.4	8.1	2.9	2.7
1995	1.2	0.5	–0.6	–4.6	0.9	4.1	6.1	0.4	2.7	3.2
1996 Q2	2.8	..	–0.9	..	–	2.1	1.1	–0.1	1.4	0.9
Q3	3.4	..	–2.5	..	..	..	–1.4	–0.3	..	..
Percentage change: average of latest three months on previous months										
1996 Nov	0.8	..	..	..	..	..	..	..	..	..
Dec	0.9	..	..	..	..	..	..	..	..	..
Percentage change, latest quarter on previous quarter										
	ILHV	ILHW	ILHX	ILHY	ILHZ	ILIA	ILIB	ILIC	ILID	ILIE
1994 Q4	0.1	–1.5	–2.6	–6.0	–1.6	2.4	–1.1	2.0	0.6	0.2
1995 Q1	–0.6	..	1.5	3.7	2.7	–0.1	6.7	–1.5	1.1	1.9
Q2	0.8	..	–0.5	–2.7	–0.3	0.8	–1.0	–0.6	–	0.2
Q3	0.2	..	1.2	2.0	0.7	1.3	1.2	0.9	1.1	1.0
Q4	0.7	..	–3.8	–9.9	–2.7	0.6	–0.6	–0.8	–0.8	–0.7
1996 Q1	0.5	..	4.1	..	1.6	0.8	2.6	0.4	1.4	1.2
Q2	1.4	..	–2.2	..	0.4	–0.6	–2.1	–0.6	–0.3	–0.6
Q3	0.8	..	–0.4	..	..	..	–1.3	0.7	..	..

4 Consumer prices[1]

	United Kingdom	Germany[2]	France	Italy	EC	United States	Japan	Canada	Major 7	OECD[3]
Percentage change on a year earlier										
	FRAN	HVLL	HXAA	HYAA	HYAB	ILAA	ILAB	ILAC	ILAD	ILAE
1985	6.1	2.2	5.8	8.6	6.1	3.5	2.0	4.0	4.0	7.0
1990	9.5	2.7	3.5	6.5	5.7	5.4	3.1	4.8	5.0	6.8
1991	5.9	3.5	3.2	6.5	5.2	4.2	3.3	5.6	4.3	6.1
1992	3.7	4.0	2.4	5.3	4.5	3.0	1.6	1.5	3.1	5.0
1993	1.6	0.7	2.1	4.2	3.6	3.0	1.1	1.9	2.7	4.3
1994	2.4	–2.0	1.7	3.9	3.1	2.6	0.5	0.2	2.2	4.4
1995	3.5	1.2	1.8	5.3	3.1	2.8	–0.3	2.2	2.4	5.5
1996	2.4	..	..	..	..	..	..	..	..	..
1995 Q1	3.4	0.4	1.7	4.4	3.0	2.8	–0.1	1.5	2.4	5.3
Q2	3.5	0.8	1.6	5.5	3.2	3.1	–0.1	2.7	2.6	5.6
Q3	3.7	1.8	1.8	5.7	3.1	2.6	–0.3	2.4	2.4	5.6
Q4	3.2	1.8	1.9	5.7	3.0	2.6	–0.6	2.0	2.3	5.5
1996 Q1	2.8	1.8	2.1	5.0	2.8	2.8	–0.4	1.4	2.2	5.6
Q2	2.2	1.7	2.3	4.3	2.6	2.8	0.1	1.4	2.3	5.6
Q3	2.1	1.5	1.8	3.5	2.4	3.0	0.2	1.4	2.2	5.0
Q4	2.6	..	..	..	..	..	..	..	..	..
1996 Oct	2.7	1.5	1.8	3.0	2.4	3.0	0.5	1.8	2.3	4.7
Nov	2.7	..	..	..	..	..	..	..	..	..
Dec	2.5	..	..	..	..	..	..	..	..	..

1 Components and coverage not uniform across countries
2 Data available for Unified Germany from 1991
3 OECD data includes 'higher inflation' countries (Mexico and Turkey)

5 Producer prices (manufacturing)

	United Kingdom	Germany[1]	France[2]	Italy	EC	United States	Japan	Canada	Major 7	OECD[3]
Percentage change on a year earlier										
	EUAA	ILAF	ILAG	ILAH	ILAI	ILAJ	ILAK	ILAL	ILAM	ILAN
1985	5.7	2.1	4.5	7.8	4.9	0.9	–0.8	2.7	1.9	4.9
1990	5.8	1.5	–1.1	4.1	2.4	5.0	1.6	0.3	3.3	4.7
1991	4.8	2.2	–1.2	3.3	2.2	2.2	1.1	–1.0	1.9	3.3
1992	2.3	1.6	–1.4	1.9	1.3	1.3	–0.9	0.5	0.9	2.3
1993	2.6	–	–2.6	3.8	1.2	1.3	–1.6	3.3	0.7	2.1
1994	2.3	–2.9	1.1	3.7	2.1	0.6	–1.7	5.7	0.8	3.3
1995	4.4	2.2	6.4	7.9	4.7	1.9	–0.6	8.1	2.6	7.1
1996	2.1	..	..	..	..	..	..	..	..	..
1995 Q1	3.7	2.3	7.5	6.5	4.8	1.7	–0.7	9.9	2.5	6.7
Q2	4.6	2.5	8.8	8.8	5.4	2.2	–0.5	9.0	3.0	7.3
Q3	5.0	2.4	6.6	9.0	5.1	1.6	–0.7	7.7	2.7	7.2
Q4	4.6	1.8	2.7	7.2	3.6	2.2	–0.7	5.8	2.4	7.2
1996 Q1	3.5	0.7	–1.2	4.8	1.9	2.2	–0.9	1.7	1.5	6.7
Q2	2.3	0.1	–3.2	1.4	0.7	2.5	–0.9	0.5	1.2	6.8
Q3	1.2	–0.2	..	0.1	–0.2	2.8	–0.8	–0.2	1.0	7.1
Q4	0.9	..	..	..	..	..	..	..	..	..
1996 Sep	0.9	–0.2	–3.8	0.2	–0.2	2.9	–0.8	–	1.0	7.4
Oct	1.0	..	–3.3	..	–	3.0	–0.8	–0.3	1.1	7.8
Nov	0.8	..	..	..	..	..	..	..	..	..
Dec	0.8	..	..	..	..	..	..	..	..	..

1 Data available for Unified Germany from 1991
2 Producer prices in intermediate goods
3 OECD includes 'higher inflation' countries (Mexico and Turkey)

6 Average wage earnings in manufacturing[1]

	United Kingdom[2]	Germany[3]	France	Italy	EC	United States	Japan	Canada	Major 7	OECD
Percentage change on a year earlier										
	ILAY	ILAO	ILAP	ILAQ	ILAR	ILAS	ILAT	ILAU	ILAV	ILAW
1985	9.1	4.0	6.1	11.2	7.1	3.8	3.3	3.7	4.5	4.5
1990	9.3	5.7	4.4	7.3	6.9	3.3	5.0	4.7	5.1	5.0
1991	8.2	6.2	4.3	9.8	7.1	3.3	3.5	4.7	4.9	4.9
1992	6.6	–3.6	3.7	5.5	5.6	2.4	1.3	3.5	3.2	3.2
1993	4.5	3.0	2.4	3.7	4.5	2.5	0.5	2.1	2.6	2.6
1994	4.8	3.4	1.8	3.4	3.8	2.8	2.3	1.6	3.0	3.0
1995	4.5	3.3	2.3	3.1	3.8	2.5	3.1	1.5	3.0	3.0
1994 Q4	5.3	2.5	1.6	3.0	3.5	2.5	3.1	1.9	3.2	3.2
1995 Q1	5.0	1.7	1.8	2.5	3.2	2.3	4.0	0.5	2.8	2.8
Q2	4.7	4.1	2.2	2.3	3.9	2.4	2.6	0.9	2.7	2.7
Q3	4.4	3.3	2.6	3.6	4.0	2.8	3.0	2.3	3.5	3.5
Q4	3.9	4.1	2.6	3.9	4.2	2.6	2.6	2.1	3.2	3.2
1996 Q1	4.4	..	2.6	3.2	..	2.7	1.9	1.7	3.3	3.3
Q2	4.1	..	2.5	2.5	..	3.5	1.3	1.6	2.8	3.0
Q3	4.1	..	2.6	2.0	..	3.5	3.5	3.9	3.4	3.7
1996 Aug	3.8	..	..	1.9	..	3.6	3.1	3.1	3.5	4.3
Sep	4.6	..	..	2.0	..	3.4	3.2	4.9	3.3	3.4
Oct	..	..	..	1.5	..	3.3	2.7	..	..	..

1 Definitions of coverage and treatment vary among countries
2 Figures for Great Britain refer to weekly earnings; others are hourly
3 Western Germany (Federal Republic of Germany before unification)

7 Total employment [1]

	United Kingdom	Germany[2,3]	France[3]	Italy	EC	United States[3]	Japan	Canada[3]	Major 7	OECD
Percentage change on a year earlier										
	ILIF	ILIG	ILIH	ILII	ILIJ	ILIK	ILIL	ILIM	ILIN	ILIO
1985	1.1	–6.0	–0.1	0.5	0.5	2.0	0.7	2.9	1.3	1.3
1990	0.6	2.6	1.0	1.4	1.6	0.5	1.9	0.7	1.2	1.1
1991	–2.9	1.9	–	1.3	–0.1	–1.0	2.0	–1.9	–0.1	–0.1
1992	–2.6	0.9	–0.6	–0.6	–1.2	1.0	1.0	–0.6	0.2	–0.2
1993	–1.1	–1.8	–1.2	–4.8	–2.4	1.0	–	1.3	–	–0.2
1994	0.9	–1.6	0.2	–2.0	–0.5	3.0	1.0	2.2	1.3	1.1
1995	0.8	–0.2	1.1	–0.1	0.7	1.9	–1.0	1.6	0.8	1.0
1996 Q2	0.3	–1.0	–0.1	0.3	0.2	1.2	0.3	1.3	0.4	0.5
Q3	0.8	..	..	..	..	1.8	0.7	1.1	..	..
Percentage change, average of three months on previous three months										
1996 Oct	..	..	..	..	..	0.4	–0.3	–0.3	..	..
Nov	..	..	..	..	..	–0.3	..	..	..	..
Percentage change,latest quarter on quarter										
	ILIP	ILIQ	ILIR	ILIS	ILIT	ILIU	ILIV	ILIW	ILIX	ILIY
1994 Q4	0.4	0.3	–0.5	–1.5	–0.3	0.4	–0.8	–2.2	–0.1	–0.2
1995 Q1	0.2	–1.2	0.3	–1.6	–0.2	–1.0	–1.7	–2.3	–1.2	–1.0
Q2	–	0.4	0.4	1.6	0.8	1.2	2.9	3.5	1.6	1.5
Q3	–	0.4	0.2	1.2	0.3	0.7	0.1	2.1	0.4	0.5
Q4	0.3	0.2	0.1	–0.7	–0.1	–	–1.2	–2.4	–0.4	–0.4
1996 Q1	0.1	–2.1	0.1	–1.3	–0.8	–1.5	–1.6	–1.9	–1.4	–1.3
Q2	–0.1	0.5	–0.5	1.2	0.8	2.1	3.1	3.5	1.8	1.7
Q3	0.5	..	..	..	..	1.2	0.5	2.0	..	..

1 Not seasonally adjusted except for the United Kingdom
2 Data available for Unified Gemany from 1991
3 Excludes members of armed forces

8 Standardised unemployment rates: percentage of total labour force[1]

	United Kingdom	Germany[2]	France	Italy	EC[3]	United States	Japan	Canada	Major 7	OECD
	GABF	GABD	GABC	GABE	GADR	GADO	GADP	GADN	GAEQ	GADQ
1985	11.2	7.1	10.3	9.6	10.5	7.1	2.6	10.5	7.2	7.9
1990	6.9	4.8	8.9	10.3	8.1	5.5	2.1	8.1	5.7	6.1
1991	8.8	4.2	9.5	9.9	8.5	6.8	2.1	10.3	6.3	6.8
1992	10.1	4.6	10.4	10.5	9.3	7.4	2.2	11.3	6.9	7.4
1993	10.4	7.9	11.7	10.2	10.9	6.8	2.5	11.2	7.2	8.0
1994	9.6	8.4	12.3	11.1	11.4	6.0	2.9	10.3	7.0	7.9
1995	8.7	8.2	11.7	12.2	11.0	5.5	3.1	9.5	6.8	7.5
1994 Q4	9.0	8.1	12.0	3.8	11.2	5.5	2.9	9.7	6.7	7.6
1995 Q1	8.8	8.1	11.8	4.1	11.1	5.5	2.9	9.6	6.7	7.5
Q2	8.8	8.1	11.7	4.1	11.0	5.6	3.1	9.5	6.8	7.6
Q3	8.7	8.2	11.6	..	11.0	5.6	3.2	9.5	6.8	7.5
Q4	8.6	8.5	11.8	..	10.9	5.5	3.3	9.4	6.8	7.5
1996 Q1	8.4	8.9	12.1	12.0	10.7	5.6	3.3	9.5	6.8	7.5
Q2	8.3	8.9	12.2	12.0	10.7	5.4	3.5	9.6	6.8	7.6
Q3	8.2	8.9	12.4	..	10.7	5.2	3.3	9.7	6.8	7.5
1996 Oct	..	..	..	..	..	5.2	3.4	..	..	..

1 Uses an ILO based measure of those without work, currently available for work, actively seeking work or waiting to start a job already obtained
2 Data available on Unified Germany from January 1993
3 Excludes Denmark, Greece and Luxembourg

9 Balance of payments current account as percentage of GDP

	United Kingdom	Germany[1,2]	France	Italy	United States[1]	Japan[1]	Canada
	ILAZ	ILBA	ILBB	ILBC	ILBD	ILBE	ILBF
1985	0.6	2.7	–0.1	–0.9	–3.1	3.6	–1.3
1990	–3.4	3.1	–0.8	–1.3	–1.7	1.2	–3.8
1991	–1.4	–1.2	–0.5	–2.1	–0.1	2.1	–4.1
1992	–1.7	–1.2	–0.3	–2.3	–1.1	3.2	–3.9
1993	–1.7	–1.1	0.7	1.1	–1.6	3.1	–4.3
1994	–0.4	–0.9	0.7	1.5	–2.2	2.8	–3.3
1995	–0.4	–0.7	1.1	2.5	–2.1	2.2	–1.7
1994 Q3	–0.1	–2.3	0.7	1.9	–2.3	2.4	–2.0
Q4	–0.2	–1.3	0.7	1.8	–2.5	2.6	–1.4
1995 Q1	0.2	–	1.9	1.0	–2.3	2.5	–3.7
Q2	–0.5	–0.1	1.3	3.0	–2.5	2.2	–2.6
Q3	–0.6	–0.8	0.3	3.2	2.1	2.3	–1.2
Q4	–0.7	–1.4	0.9	2.6	–1.7	1.9	–0.2
1996 Q1	–0.6	–0.1	0.9	2.0	–0.5	1.3	–0.9
Q2	0.3	–0.2	0.4	1.2	–0.5	1.3	0.6
Q3	–	..	..	..	..	1.6	0.3

1 Balance as percentage of GNP
2 Data available for Unified Germany from July 1990

10 World trade[1]

	Export of manufactures			Import of manufactures			Export of goods			Import of goods			World trade	
	World	OECD	Other	World	OECD	Other	World	OECD	Other	World	OECD	Other	manufactures	goods
Percentage change on a year earlier														
	ILIZ	ILJA	ILJB	ILJC	ILJD	ILJE	ILJF	ILJG	ILJH	ILJI	ILJJ	ILJK	ILJL	ILJM
1985	5.0	5.5	2.5	4.1	7.1	–1.9	3.9	3.9	4.9	1.0	3.5	5.6	4.5	3.7
1990	5.2	5.0	6.1	4.4	5.3	2.2	5.0	5.0	4.9	5.3	5.2	4.8	4.8	5.1
1991	3.1	2.3	6.2	4.2	3.4	6.3	3.6	3.6	3.2	4.3	3.8	3.1	3.6	3.7
1992	4.6	4.7	4.3	6.2	6.2	6.3	5.9	5.9	5.1	2.4	4.3	6.0	5.4	5.1
1993	5.0	1.9	17.0	4.0	0.9	12.0	4.6	4.6	2.8	14.9	6.0	1.1	4.7	5.2
1994	9.9	9.5	11.2	10.5	11.5	8.0	8.2	8.2	8.7	7.5	8.8	9.6	10.0	8.6
1995	7.3	7.9	5.3	7.2	8.7	3.3	6.7	6.7	7.0	6.2	6.0	6.6	7.2	6.4
1995 Q4	5.0	5.0	5.0	4.2	4.7	2.8	4.5	4.0	5.9	3.5	3.2	4.4	4.6	4.0
1996 Q1	6.7	5.2	12.0	7.2	4.8	13.5	6.1	4.3	10.5	6.7	4.3	12.9	7.0	6.4
Percentage change, latest quarter on previous quarter														
	ILJN	ILJO	ILJP	ILJQ	ILJR	ILJS	ILJT	ILJU	ILJV	ILJW	ILJX	ILJY	ILJZ	ILKA
1994 Q2	3.5	3.9	2.0	3.1	3.8	1.5	3.3	3.4	1.4	2.6	3.2	1.1	3.3	2.7
Q3	2.4	2.1	3.4	2.9	2.7	3.4	5.6	1.9	3.5	2.5	2.3	2.9	2.7	2.4
Q4	2.9	3.5	0.8	3.5	4.7	0.6	8.8	3.5	0.5	2.6	3.5	0.3	3.2	2.6
1995 Q1	1.2	1.6	–0.2	0.5	1.1	–1.1	6.8	1.3	1.3	0.7	0.7	0.6	0.8	1.0
Q2	0.6	0.8	0.1	0.7	1.0	–0.1	5.0	0.5	0.2	0.6	0.9	–0.1	0.6	0.5
Q3	2.0	1.1	5.2	1.8	1.0	4.1	3.6	1.1	4.3	1.6	0.8	3.8	1.9	1.8
Q4	1.1	1.4	–	1.1	1.6	–0.1	5.9	1.1	0.1	0.5	0.7	–0.1	1.1	0.7
1996 Q1	2.9	1.8	6.4	3.4	1.1	9.3	4.6	1.6	5.7	3.8	1.9	8.9	3.1	3.3

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

Regional Accounts 1995: Part 1

Richard Cameron, Office for National Statistics

This article presents provisional estimates of Gross Domestic Product (GDP) for standard statistical regions for 1995, together with regional estimates of Gross Domestic Fixed Capital Formation (GDFCF) up to 1994.

The latest figures published in this article show that:

- in 1995, the South East accounted for over 35 per cent of UK GDP - this proportion has been stable during the 1990's.

- Northern Ireland GDP per head, indexed to UK=100, is at the highest level for over two decades, although it is still the lowest of all regions within the UK.

Gross domestic product by region

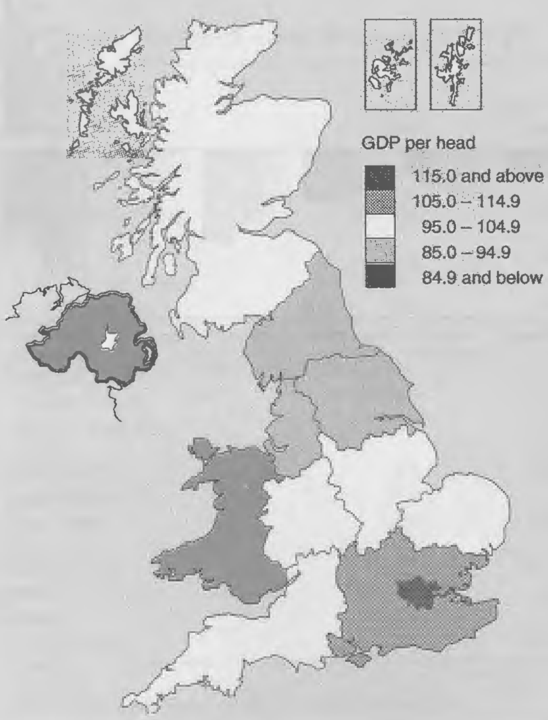
Latest figures and recent trends

In 1995, total UK GDP is estimated to have been £604 billion including £10 billion attributed to the continental shelf. The South East is by far the most populous region, and its share of this total is over a third. Within the South East, Greater London alone has 15 per cent of the national total, whilst the South East excluding Greater London has over 20 per cent. (See Table A and Chart B).

Chart A

GDP per head 1995

Index (UK=100)



There are wide variations in GDP per head between the regions, with Greater London having the highest level, around £12,500 per person in 1995 followed by the Rest of the South East at £11,300. Northern Ireland and Wales had the lowest GDP per head in 1995 at £8,400. (see Table A and Chart A). The English region with the lowest GDP per head in 1995 is the North at £8,900. The only region outside the South East that has GDP per head above £10,000 in 1995 is East Anglia at £10,200. This is just above the UK average of £10,100.

Between 1994 and 1995 GDP per head grew fastest in the West Midlands. The East Midlands, Yorkshire and Humberside, South West, Northern Ireland and the North of England also performed better than the UK average (see Appendix Table 1).

Table A Regional GDP, 1995[1]

Region	Total £ bn	Share of UK (%)	Per head £	Per head index UK=100
United Kingdom[2]	594.1	100.0	10,137	100.0
North	27.6	4.7	8,932	88.1
Yorks and Humberside	46.1	7.8	9,166	90.4
East Midlands	40.9	6.9	9,926	97.9
East Anglia	21.7	3.7	10,226	100.9
South East	211.8	35.7	11,775	116.2
Greater London	87.6	14.7	12,503	123.3
Rest of South East	124.2	20.9	11,310	111.6
South West	46.6	7.9	9,663	95.3
West Midlands	51.2	8.6	9,649	95.2
North West	58.8	9.9	9,181	90.6
England	504.9	85.0	10,324	101.8
Wales	24.6	4.1	8,440	83.3
Scotland	50.7	8.5	9,872	97.4
Northern Ireland	13.9	2.3	8,410	83.0

1 *Provisional.*
2 *Excluding the Continental Shelf and the statistical discrepancy.*

Regional GDP is compiled as the sum of five factor incomes: income from employment; income from self employment; gross trading profits and surpluses; stock appreciation; and rent. Appendix Table 2 shows that for all regions income from employment is by far the largest factor, accounting for around two-thirds of GDP. However, gross trading profits and surpluses has seen the most variation both between years and between regions. In 1995 the proportion of Greater London's GDP that came from this factor was below 10 per cent, around half the level for the North and Wales in that year.

Trends over time

Chart B and Appendix Table 1 show the regions' shares of GDP over the period 1985 to 1995. Although there is much variation in year to year movements, some longer term patterns can be seen. The Rest of the South East, the South West, East Anglia and the West Midlands have all shown some gradual improvement in their GDP shares over the decade to 1995. For the South West and East Anglia this progress was relatively uniform. However, for the Rest of the South East, growth in

Chart B
Regional shares of UK GDP, 1985-95

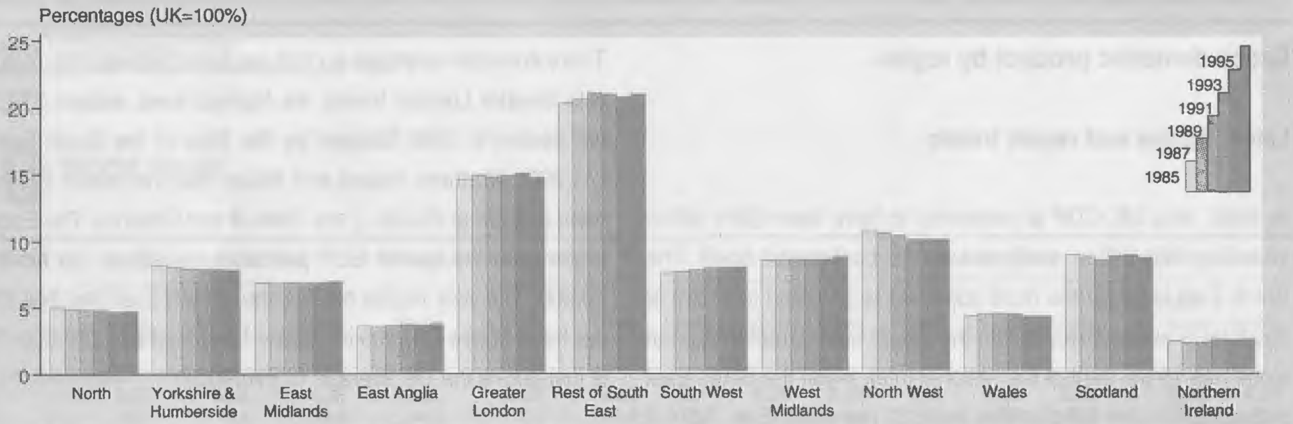
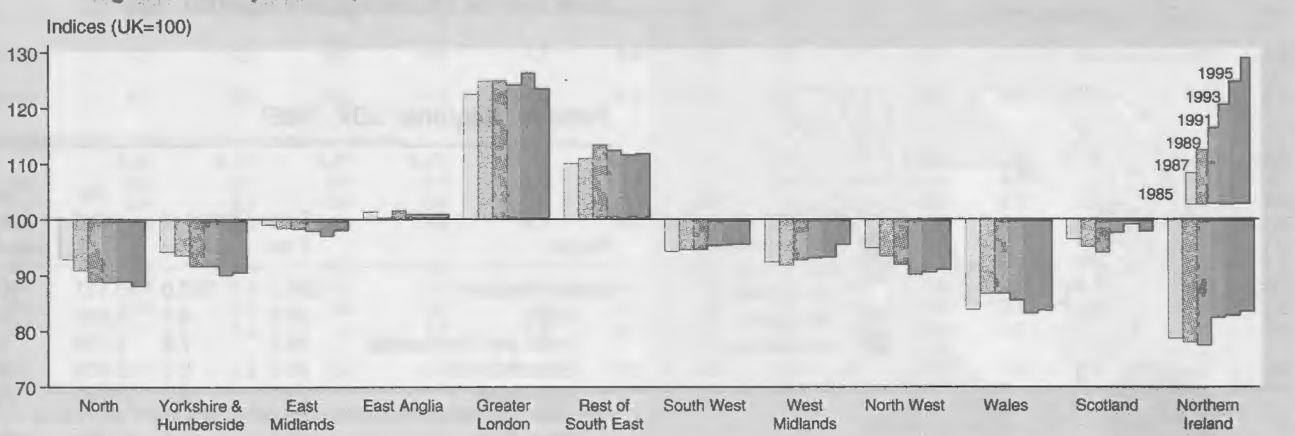


Chart C
Regional GDP per head, 1985-95



GDP was well above average in the late 1980's, but this was followed by average or slightly below average performance during the 1990's. The West Midlands, conversely, has seen all of its improvement in the 1990s; its share of national GDP was relatively static during the 1980s.

Relative movements in regions' GDP shares are partly explained by changes in their populations - in the longer term at least, relative movements in GDP tend to move in line with relative population growth. As we would expect, therefore, changes in the GDP per head indices are generally less marked than changes for overall GDP shares. Chart C shows this to be the case: in terms of GDP per head, no regions have consistently improved their position over the decade to 1995. The South West, West Midlands, Scotland and Northern Ireland have all shown general improvement since the late eighties, whilst the North, Yorkshire and Humberside, East Midlands and Wales have all shown declines. The difference between movements in GDP share and GDP per head can be seen for East Anglia where GDP per head relative to the UK average, has been fairly flat between 1985 and 1995 despite the growth in overall share of national GDP. This is a reflection of East Anglia's population growth which has been greater than the increase in GDP over the period.

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; the North West has the smallest area, but the second largest population. The South East is densely populated; with 18.0 million people, it has three times the population of any other region. At the other extreme, Northern Ireland has only a population of 1.6 million. These large variations in the regions' populations are reflected in the size of regions' 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 (25 per cent of the population was aged under 16 in 1995 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[1]

Region	Area 1994	Population 1995	Civilian Workforce June 1995	GDP[2] 1995	Consumers' Expenditure 1994	Personal Income 1994	Household Income 1994
	sq km	million	million	£ billion	£ billion	£ billion	£ billion
United Kingdom (=100%)	241,752	58.6	27.8	594.1	428.1	594.9	564.1
North	6.4	5.3	5.0	4.7	4.8	4.8	4.8
Yorks and Humberside	6.4	8.6	8.3	7.8	8.0	7.8	7.9
East Midlands	6.5	7.0	6.9	6.9	6.6	6.6	6.6
East Anglia	5.2	3.6	3.8	3.7	3.5	3.6	3.7
South East	11.3	30.7	32.6	35.7	35.0	35.0	34.7
Greater London	0.7	12.0	14.2	14.7	14.3	14.7	14.3
Rest of South East	10.6	18.7	18.3	20.9	20.7	20.3	20.4
South West	9.9	8.2	8.3	7.9	8.0	8.0	8.2
West Midlands	5.4	9.1	8.9	8.6	8.5	8.6	8.4
North West	3.0	10.9	10.3	9.9	10.5	10.1	10.1
England	53.9	83.4	84.1	85.0	84.9	84.5	84.4
Wales	8.6	5.0	4.5	4.1	4.3	4.3	4.4
Scotland	31.9	8.8	8.7	8.5	8.4	8.8	8.8
Northern Ireland	5.6	2.8	2.7	2.3	2.4	2.4	2.4

1 *Provisional.*
2 *Excluding the Continental Shelf and the statistical discrepancy.*

Industrial breakdown of regional GDP

Part of the explanation for the wide variation in regional GDP per head and changes therein lies in the marked differences in the industrial structures of the regions (see Appendix Table 3). Very significant but short term factors, such as changes in the sterling price of oil, may affect industries, and therefore regions, very differently. Appendix Table 3 gives a detailed industrial analysis of regions' GDP. These show that manufacturing GDP grew rapidly in both 1994 and 1995, which was reflected most strongly in the output of traditional manufacturing regions, notably the North, East and West Midlands, and Wales. A sharp rise in agriculture, forestry and fishing in 1995 similarly had a beneficial effect on Scotland, East Anglia, the South West and Northern Ireland.

Public administration and defence, which has contributed a declining proportion of UK GDP over time is by its nature more evenly spread throughout the regions. Northern Ireland is however exceptional in deriving twice as high a proportion of its GDP from this sector compared to most regions.

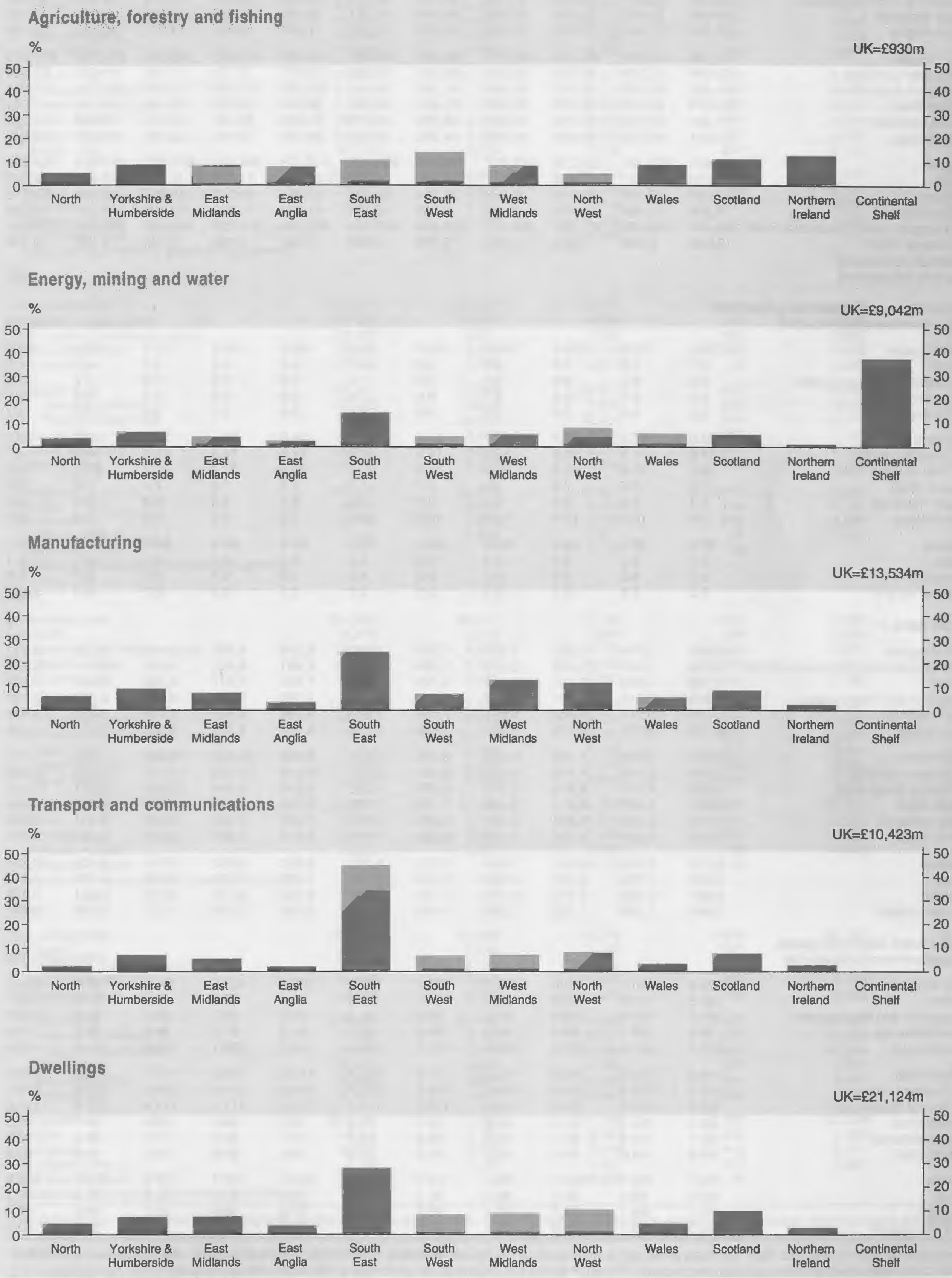
Gross Domestic Fixed Capital Formation

The charts on the next page give regional estimates of GDFCF in 1994 for the following industries: agriculture, forestry and fishing; energy, mining and water; manufacturing; transport and communications; and dwellings. There is insufficient data available to provide regional estimates for other industries. Appendix Table 4 shows the figures for the above industries from 1988 to 1994.

Investment in dwellings, which is the largest sector, saw increases across all regions in 1994 compared to the previous year, to a UK total of over £21 billion. The South East accounted for over 28 per cent of this total. Manufacturing investment which had been flat between 1992 and 1993, increased sharply in 1994 particularly in the West Midlands and the South East where investment returned to the levels of the early 1990's. Energy, mining and water investment fell overall by a sixth in 1994. Only in Wales was there a significant increase in this sector.

Chart **D**

Regional shares of GDFCF for selected industries, 1994



1 Gross domestic product, factor cost : current prices

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995[1]
Total GDP											*£ million*
United Kingdom	307,902	328,272	360,675	401,428	441,759	478,886	496,253	518,132	548,025	579,177	604,259
North	14,649	15,583	17,269	18,942	20,795	22,253	23,294	24,535	25,600	26,600	27,648
Yorkshire and Humberside	23,598	26,081	28,262	31,126	34,394	37,134	38,690	40,026	41,918	44,085	46,099
East Midlands	19,695	21,615	23,875	26,540	29,756	31,951	33,468	34,865	36,746	38,810	40,935
East Anglia	10,162	11,401	12,422	14,108	15,732	17,156	17,807	18,805	19,611	20,857	21,709
South East	100,929	112,509	124,268	140,814	155,642	168,952	174,740	181,631	193,242	203,768	211,812
Greater London	42,399	47,204	52,212	58,214	64,281	69,836	72,477	75,762	81,197	84,075	87,608
Rest of South East	58,529	65,305	72,057	82,601	91,361	99,115	102,263	105,869	112,045	119,692	124,204
South West	21,673	24,183	26,760	30,247	33,440	36,391	38,016	39,993	42,141	44,344	46,641
West Midlands	24,424	26,724	29,380	33,263	36,736	40,266	41,412	43,497	45,614	48,204	51,200
North West	30,811	33,702	36,481	40,868	44,253	47,362	48,700	50,686	53,704	56,686	58,848
England	245,940	271,797	298,719	335,907	370,749	401,465	416,128	434,037	458,575	483,353	504,893
Wales	11,993	13,531	15,086	17,117	18,802	20,272	20,900	21,431	22,338	23,878	24,618
Scotland	25,207	27,268	29,813	32,986	36,206	40,128	42,094	44,547	46,917	49,548	50,713
Northern Ireland	6,304	6,988	7,533	8,364	9,249	10,191	11,138	11,722	12,463	13,216	13,868
United Kingdom less Continental Shelf	289,444	319,584	351,151	394,374	435,006	472,056	490,259	511,737	540,293	569,995	594,091
Continental Shelf	18,458	8,688	9,524	7,054	6,753	6,830	5,994	6,395	7,732	9,182	10,348
Statistical discrepancy (income adjustment)	-	-	-	-	-	-	-	-	-	-	-180
Regional Shares of United Kingdom GDP UK less Continental Shelf =100											*Percentage (UK=100%)*
United Kingdom	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
North	5.1	4.9	4.9	4.8	4.8	4.7	4.8	4.8	4.7	4.7	4.7
Yorkshire and Humberside	8.2	8.2	8.0	7.9	7.9	7.9	7.9	7.8	7.8	7.7	7.8
East Midlands	6.8	6.8	6.8	6.7	6.8	6.8	6.8	6.8	6.8	6.8	6.9
East Anglia	3.5	3.6	3.5	3.6	3.6	3.6	3.6	3.7	3.6	3.7	3.7
South East	34.9	35.2	35.4	35.7	35.8	35.8	35.6	35.5	35.8	35.7	35.7
Greater London	14.6	14.8	14.9	14.8	14.8	14.8	14.8	14.8	15.0	14.8	14.7
Rest of South East	20.2	20.4	20.5	20.9	21.0	21.0	20.9	20.7	20.7	21.0	20.9
South West	7.5	7.6	7.6	7.7	7.7	7.7	7.8	7.8	7.8	7.8	7.9
West Midlands	8.4	8.4	8.4	8.4	8.4	8.5	8.4	8.5	8.4	8.5	8.6
North West	10.6	10.5	10.4	10.4	10.2	10.0	9.9	9.9	9.9	9.9	9.9
England	85.0	85.0	85.1	85.2	85.2	85.0	84.9	84.8	84.9	84.8	85.0
Wales	4.1	4.2	4.3	4.3	4.3	4.3	4.3	4.2	4.1	4.2	4.1
Scotland	8.7	8.5	8.5	8.4	8.3	8.5	8.6	8.7	8.7	8.7	8.5
Northern Ireland	2.2	2.2	2.1	2.1	2.1	2.2	2.3	2.3	2.3	2.3	2.3
GDP per head, £											£
United Kingdom	5,430	5,774	6,327	7,023	7,702	8,320	8,585	8,932	9,418	9,918	10,314
United Kingdom less Continental Shelf	5,104	5,621	6,160	6,900	7,584	8,201	8,481	8,822	9,285	9,761	10,137
North	4,740	5,049	5,601	6,151	6,745	7,208	7,534	7,917	8,252	8,581	8,932
Yorkshire and Humberside	4,809	5,316	5,761	6,326	6,950	7,483	7,765	8,002	8,360	8,772	9,166
East Midlands	5,055	5,516	6,062	6,691	7,450	7,960	8,294	8,583	9,000	9,460	9,926
East Anglia	5,170	5,721	6,170	6,936	7,696	8,336	8,553	9,004	9,366	9,905	10,226
South East	5,857	6,498	7,155	8,093	8,918	9,627	9,908	10,260	10,875	11,402	11,775
Greater London	6,244	6,938	7,678	8,598	9,455	10,191	10,519	10,973	11,712	12,068	12,503
Rest of South East	5,606	6,213	6,819	7,772	8,575	9,266	9,516	9,804	10,340	10,977	11,310
South West	4,801	5,303	5,811	6,499	7,152	7,753	8,058	8,426	8,838	9,247	9,663
West Midlands	4,702	5,143	5,634	6,363	7,009	7,670	7,865	8,242	8,623	9,104	9,649
North West	4,829	5,293	5,737	6,433	6,950	7,427	7,614	7,920	8,375	8,840	9,181
England	5,213	5,741	6,290	7,052	7,755	8,365	8,632	8,972	9,449	9,924	10,324
Wales	4,268	4,799	5,325	5,998	6,553	7,044	7,228	7,394	7,686	8,197	8,440
Scotland	4,907	5,323	5,831	6,476	7,104	7,865	8,242	8,715	9,163	9,654	9,872
Northern Ireland	3,995	4,460	4,782	5,300	5,843	6,412	6,955	7,243	7,637	8,050	8,410
GDP per head, United Kingdom UK less Continental Shelf=100											*Index (UK=100)*
United Kingdom	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
North	92.9	89.8	90.9	89.1	88.9	87.9	88.8	89.7	88.9	87.9	88.1
Yorkshire and Humberside	94.2	94.6	93.5	91.7	91.6	91.2	91.6	90.7	90.0	89.9	90.4
East Midlands	99.0	98.1	98.4	97.0	98.2	97.1	97.8	97.3	96.9	96.9	97.9
East Anglia	101.3	101.8	100.2	100.5	101.5	101.6	100.9	102.1	100.9	101.5	100.9
South East	114.8	115.6	116.2	117.3	117.6	117.4	116.8	116.3	117.1	116.8	116.2
Greater London	122.3	123.4	124.6	124.6	124.7	124.3	124.0	124.4	126.1	123.6	123.3
Rest of South East	109.8	110.5	110.7	112.6	113.1	113.0	112.2	111.1	111.4	112.5	111.6
South West	94.1	94.3	94.3	94.2	94.3	94.5	95.0	95.5	95.2	94.7	95.3
West Midlands	92.1	91.5	91.5	92.2	92.4	93.5	92.7	93.4	92.9	93.3	95.2
North West	94.6	94.2	93.1	93.2	91.6	90.6	89.8	89.8	90.2	90.6	90.6
England	102.1	102.1	102.1	102.2	102.3	102.0	101.8	101.7	101.8	101.7	101.8
Wales	83.6	85.4	86.4	86.9	86.4	85.9	85.2	83.8	82.8	84.0	83.3
Scotland	96.1	94.7	94.7	93.9	93.7	95.9	97.2	98.8	98.7	98.9	97.4
Northern Ireland	78.3	79.3	77.6	76.8	77.0	78.2	82.0	82.1	82.3	82.5	83.0

Comparisons of GDP shares and GDP per head given above are based on UK figures excluding GDP not allocatable to regions. This comprises the GDP of the Continental Shelf and the statistical discrepancy. The GDP for the Continental Shelf comprises profits and stock appreciation which cannot be assigned to regions. The statistical discrepancy is the difference between the average estimate (the definitive measure of gross domestic product), and the income-based estimate.

1 Provisional.

2 Factor incomes in the gross domestic product, factor cost : current prices

£ million

	Income from employment	Income from self-employment	Gross trading profits and surpluses	Less stock appreciation	Rent[1]	Gross domestic product
1992						
United Kingdom	342,015	57,149	64,423	1,778	56,323	518,132
North	16,383	2,209	3,836	117	2,225	24,535
Yorkshire and Humberside	26,858	4,457	5,255	170	3,626	40,026
East Midlands	22,466	4,037	5,064	170	3,468	34,865
East Anglia	11,930	2,831	2,109	66	2,001	18,805
South East	123,269	19,744	16,028	300	22,890	181,631
Greater London	51,585	7,775	5,570	39	10,872	75,762
Rest of South East	71,684	11,969	10,458	261	12,018	105,869
South West	25,674	5,828	3,896	100	4,694	39,993
West Midlands	29,154	4,538	5,402	237	4,640	43,497
North West	34,252	4,739	6,748	242	5,188	50,686
England	289,985	48,383	48,338	1,401	48,732	434,037
Wales	13,853	2,533	3,066	98	2,077	21,431
Scotland	30,536	4,575	5,316	207	4,327	44,547
Northern Ireland	7,641	1,657	1,308	71	1,187	11,722
Continental Shelf	..	..	6,395	-	..	6,395
Statistical discrepancy (income adjustment)	..	..	..	..	..	..
1993						
United Kingdom	351,819	60,461	78,467	2,350	59,628	548,025
North	16,690	2,330	4,340	141	2,380	25,600
Yorkshire and Humberside	27,597	4,431	6,102	166	3,953	41,918
East Midlands	23,273	4,329	5,624	149	3,669	36,746
East Anglia	12,136	2,784	2,631	32	2,091	19,611
South East	127,317	21,689	20,623	631	24,245	193,242
Greater London	53,083	9,020	7,866	241	11,468	81,197
Rest of South East	74,234	12,668	12,756	390	12,776	112,045
South West	26,356	5,961	4,985	189	5,027	42,141
West Midlands	29,803	4,836	6,566	297	4,706	45,614
North West	35,110	5,085	8,360	313	5,463	53,704
England	298,283	51,445	59,231	1,918	51,535	458,575
Wales	14,121	2,461	3,684	119	2,191	22,338
Scotland	31,462	4,874	6,235	244	4,589	46,917
Northern Ireland	7,953	1,681	1,611	95	1,313	12,463
Continental Shelf	..	..	7,706	-26	..	7,732
Statistical discrepancy (income adjustment)	..	..	..	..	..	..
1994						
United Kingdom	364,946	64,021	91,188	4,034	63,056	579,177
North	16,819	2,445	5,014	238	2,560	26,600
Yorkshire and Humberside	28,408	4,959	6,771	400	4,345	44,085
East Midlands	24,020	4,662	6,558	363	3,933	38,810
East Anglia	12,651	3,121	3,087	193	2,192	20,857
South East	132,737	22,409	24,335	1,090	25,377	203,768
Greater London	55,150	8,899	8,778	399	11,647	84,075
Rest of South East	77,587	13,510	15,557	691	13,730	119,692
South West	27,093	6,340	5,728	281	5,464	44,344
West Midlands	31,302	5,091	7,439	448	4,820	48,204
North West	36,478	5,321	9,575	470	5,781	56,686
England	309,508	54,348	68,507	3,483	54,472	483,353
Wales	14,672	2,770	4,280	195	2,351	23,878
Scotland	32,421	5,076	7,466	278	4,863	49,548
Northern Ireland	8,344	1,827	1,763	88	1,370	13,216
Continental Shelf	..	..	9,172	-10	..	9,182
Statistical discrepancy (income adjustment)	..	..	..	..	..	..
1995[2]						
United Kingdom	377,895	67,685	96,274	4,902	67,487	604,259
North	17,149	2,616	5,397	287	2,773	27,648
Yorkshire and Humberside	29,153	5,421	7,143	443	4,825	46,099
East Midlands	25,448	4,885	6,809	404	4,196	40,935
East Anglia	12,948	3,352	3,278	178	2,308	21,709
South East	138,084	23,442	24,400	1,307	27,192	211,812
Greater London	57,625	9,127	8,701	474	12,628	87,608
Rest of South East	80,460	14,315	15,699	833	14,564	124,204
South West	28,073	6,929	6,146	378	5,871	46,641
West Midlands	32,978	5,334	8,491	559	4,957	51,200
North West	37,670	5,417	10,091	566	6,236	58,848
England	321,503	57,397	71,756	4,122	58,358	504,893
Wales	14,780	2,797	4,743	232	2,530	24,618
Scotland	32,892	5,604	7,518	413	5,111	50,713
Northern Ireland	8,720	1,887	1,901	127	1,487	13,868
Continental Shelf	..	..	10,356	8	..	10,348
Statistical discrepancy (income adjustment)	..	..	..	..	..	-180

The GDP for the Continental Shelf comprises profits and stock appreciation which cannot be assigned to regions. The statistical discrepancy is the difference between the average estimate (the definitive measure of gross domestic product), and the income-based estimate.

1 Including imputed charges for consumption of non-trading capital.

2 Provisional.

3 Gross domestic product by industry groups, factor cost : current prices[1]

	1992	1993	1994	1995[2]	1992	1993	1994	1995[2]
	North				Yorkshire and Humberside			
Agriculture, hunting, forestry and fishing	521	548	478	552	824	844	882	1,011
Mining, quarrying inc oil and gas extraction	521	375	244	240	907	670	371	346
Manufacturing	6,927	7,310	7,898	8,403	10,227	10,823	11,376	11,852
Electricity, gas, water	526	570	700	792	1,226	1,168	1,164	1,208
Construction	1,594	1,511	1,468	1,602	2,339	2,473	2,612	2,664
Distribution, hotels and catering; repairs	3,103	3,355	3,409	3,405	6,097	6,247	6,724	7,085
Transport, storage and communication	1,710	1,808	1,851	1,887	2,973	3,347	3,533	3,756
Financial and business services[3]	4,616	4,745	4,960	5,082	7,787	8,211	9,275	9,994
Public administration and defence[4]	1,700	1,851	1,773	1,806	2,482	2,610	2,664	2,881
Education, social work and health services	3,092	3,288	3,680	3,696	5,352	5,626	5,953	5,939
Other services	847	858	892	947	1,360	1,460	1,536	1,549
Adjustment for financial services	-622	-619	-752	-765	-1,547	-1,560	-2,005	-2,187
Total	24,535	25,600	26,600	27,648	40,027	41,918	44,085	46,099
	East Midlands				East Anglia			
Agriculture, hunting, forestry and fishing	945	1,075	1,047	1,195	964	1,018	1,012	1,150
Mining, quarrying inc oil and gas extraction	1,044	722	420	346	114	134	156	151
Manufacturing	9,811	10,446	11,291	12,175	3,948	4,183	4,603	4,938
Electricity, gas, water	1,179	1,287	1,223	1,179	502	574	603	643
Construction	2,110	2,042	2,191	2,277	1,197	1,024	1,111	1,161
Distribution, hotels and catering; repairs	5,037	5,461	5,620	6,047	2,599	2,660	2,881	2,907
Transport, storage and communication	2,264	2,513	2,627	2,797	1,926	1,965	2,045	2,187
Financial and business services[3]	6,811	7,137	8,060	8,124	4,167	4,534	4,821	4,905
Public administration and defence[4]	1,822	1,845	1,870	2,048	1,403	1,407	1,369	1,378
Education, social work and health services	3,810	4,039	4,517	4,830	2,154	2,290	2,521	2,533
Other services	985	1,125	1,113	1,150	668	650	702	739
Adjustment for financial services	-953	-947	-1,169	-1,234	-837	-828	-967	-980
Total	34,865	36,746	38,810	40,934	18,805	19,611	20,857	21,709
	South East				Greater London			
Agriculture, hunting, forestry and fishing	1,288	1,378	1,394	1,593	51	57	63	59
Mining, quarrying inc oil and gas extraction	452	489	760	737	152	167	240	230
Manufacturing	28,195	29,316	31,997	33,393	9,994	10,668	10,568	11,380
Electricity, gas, water	4,049	4,294	4,029	3,972	1,419	1,497	1,322	1,235
Construction	9,911	9,428	9,741	10,497	3,411	3,089	3,213	3,468
Distribution, hotels and catering; repairs	26,586	28,525	29,646	30,565	11,185	11,848	12,278	12,670
Transport, storage and communication	19,197	20,385	21,951	22,324	8,819	9,179	9,941	9,996
Financial and business services[3]	61,757	66,696	72,781	76,268	30,354	33,015	36,020	37,780
Public administration and defence[4]	13,305	13,929	14,134	14,094	5,038	5,502	5,491	5,652
Education, social work and health services	20,316	21,379	21,611	23,206	8,340	8,729	8,737	9,417
Other services	7,925	8,448	9,421	9,972	4,047	4,326	4,841	5,133
Adjustment for financial services	-11,350	-11,024	-13,698	-14,811	-7,048	-6,882	-8,637	-9,411
Total	181,631	193,242	203,768	211,812	75,762	81,197	84,076	87,608
	Rest of South East				South West			
Agriculture, hunting, forestry and fishing	1,237	1,321	1,331	1,534	1,477	1,417	1,473	1,730
Mining, quarrying inc oil and gas extraction	300	322	520	507	454	500	593	686
Manufacturing	18,201	18,648	21,430	22,014	7,455	8,033	8,540	8,988
Electricity, gas, water	2,630	2,796	2,708	2,737	1,457	1,538	1,617	1,724
Construction	6,500	6,339	6,528	7,029	2,412	2,343	2,475	2,693
Distribution, hotels and catering; repairs	15,400	16,678	17,368	17,895	5,992	6,375	6,570	6,834
Transport, storage and communication	10,379	11,206	12,011	12,329	2,708	2,831	2,895	3,073
Financial and business services[3]	31,402	33,681	36,761	38,488	9,498	10,234	11,472	11,898
Public administration and defence[4]	8,267	8,427	8,643	8,442	4,023	4,153	3,996	4,113
Education, social work and health services	11,977	12,650	12,875	13,789	5,022	5,203	5,673	5,769
Other services	3,877	4,121	4,580	4,839	1,384	1,429	1,439	1,572
Adjustment for financial services	-4,301	-4,142	-5,061	-5,399	-1,889	-1,915	-2,400	-2,440
Total	105,869	112,046	119,693	124,204	39,993	42,141	44,343	46,641

See footnotes on next page.

3 Gross domestic product by industry groups, factor cost : current prices (cont'd)[1]

	1992	1993	1994	1995[2]	1992	1993	1994	1995[2]
	West Midlands				North West			
Agriculture, hunting, forestry and fishing	938	921	923	1,079	527	517	567	657
Mining, quarrying inc oil and gas extraction	326	204	158	160	107	59	75	82
Manufacturing	12,498	13,153	14,215	16,001	14,023	14,784	15,444	16,098
Electricity, gas, water	1,118	1,405	1,398	1,516	1,262	1,372	1,503	1,617
Construction	2,418	2,466	2,540	2,582	2,702	2,798	2,907	2,970
Distribution, hotels and catering; repairs	6,293	6,625	7,077	7,294	7,750	8,302	8,228	8,615
Transport, storage and communication	3,008	3,097	3,163	3,448	4,242	4,463	4,905	5,043
Financial and business services[3]	9,418	9,921	10,581	10,907	11,175	11,859	13,030	13,496
Public administration and defence[4]	2,408	2,432	2,469	2,578	2,866	3,062	3,087	3,241
Education, social work and health services	5,231	5,531	6,015	6,032	6,401	6,718	7,522	7,587
Other services	1,333	1,380	1,530	1,663	1,765	1,893	1,977	2,075
Adjustment for financial services	-1,493	-1,520	-1,866	-2,060	-2,133	-2,121	-2,558	-2,632
Total	43,497	45,615	48,205	51,200	50,686	53,704	56,686	58,848
	England				Wales			
Agriculture, hunting, forestry and fishing	7,484	7,717	7,777	8,968	485	529	588	604
Mining, quarrying inc oil and gas extraction	3,924	3,151	2,777	2,749	222	180	185	209
Manufacturing	93,086	98,048	105,364	111,849	5,578	5,882	6,507	6,930
Electricity, gas, water	11,319	12,207	12,237	12,651	612	769	750	860
Construction	24,683	24,086	25,043	26,446	1,241	1,202	1,286	1,295
Distribution, hotels and catering; repairs	63,456	67,552	70,154	72,752	3,060	3,058	3,316	3,271
Transport, storage and communication	38,027	40,408	42,970	44,515	1,444	1,526	1,563	1,590
Financial and business services[3]	115,228	123,336	134,980	140,674	3,788	3,945	4,319	4,499
Public administration and defence[4]	30,009	31,289	31,362	32,139	1,712	1,744	1,733	1,819
Education, social work and health services	51,378	54,074	57,493	59,591	3,141	3,351	3,537	3,487
Other services	16,266	17,243	18,610	19,667	731	774	827	837
Adjustment for financial services	-20,823	-20,534	-25,414	-27,109	-583	-619	-732	-783
Total	434,038	458,577	483,354	504,892	21,431	22,339	23,879	24,618
	Scotland				Northern Ireland			
Agriculture, hunting, forestry and fishing	1,251	1,307	1,345	1,646	518	542	625	678
Mining, quarrying inc oil and gas extraction	1,078	1,174	1,227	1,187	55	59	72	82
Manufacturing	8,931	9,312	9,937	10,173	2,214	2,430	2,531	2,707
Electricity, gas, water	1,214	1,452	1,615	1,868	348	375	380	408
Construction	3,139	2,942	3,131	3,310	733	701	695	763
Distribution, hotels and catering; repairs	6,290	6,516	6,945	6,876	1,460	1,561	1,645	1,807
Transport, storage and communication	3,686	3,754	4,046	4,030	620	632	676	700
Financial and business services[3]	9,181	9,833	10,513	10,664	1,930	2,095	2,288	2,387
Public administration and defence[4]	3,304	3,520	3,577	3,692	1,749	1,824	1,831	1,860
Education, social work and health services	6,529	6,942	7,482	7,583	1,953	2,071	2,317	2,310
Other services	1,760	1,982	2,091	2,160	462	503	560	590
Adjustment for financial services	-1,818	-1,816	-2,362	-2,477	-319	-331	-404	-425
Total	44,547	46,917	49,548	50,713	11,722	12,463	13,216	13,868
	United Kingdom excluding the Continental Shelf							
Agriculture, hunting, forestry and fishing	9,739	10,094	10,334	11,896				
Mining, quarrying inc oil and gas extraction	5,279	4,564	4,261	4,227				
Manufacturing	109,809	115,672	124,339	131,658				
Electricity, gas, water	13,493	14,802	14,983	15,787				
Construction	29,796	28,930	30,156	31,815				
Distribution, hotels and catering; repairs	74,266	78,687	82,060	84,706				
Transport, storage and communication	43,777	46,321	49,255	50,835				
Financial and business services[3]	130,128	139,209	152,101	158,224				
Public administration and defence[4]	36,774	38,377	38,502	39,510				
Education, social work and health services	63,001	66,437	70,829	72,972				
Other services	19,219	20,502	22,089	23,255				
Adjustment for financial services	-23,543	-23,299	-28,912	-30,794				
Total	511,738	540,296	569,997	594,091				

1 Gross domestic product is shown for each industry after deducting stock appreciation. See Appendix notes.
2 Provisional.
3 Financial intermediation, real estate, renting, business activities, including rent on dwellings.
4 Public administration, national defence and compulsory social security.

4 Gross domestic fixed capital formation by selected industry groups

£ million

	Total of industries shown	Agriculture, forestry and fishing	Energy, mining and water[1]	Manufacturing	Transport and communication[2]	Dwellings
1988						
United Kingdom	48,921	1,420	6,655	12,415	7,504	20,927
North	2,734	74	192	1,326	234	907
Yorkshire and Humberside	3,993	120	543	1,229	499	1,602
East Midlands	3,194	119	404	801	418	1,452
East Anglia	1,951	112	154	424	200	1,061
South East	15,372	158	1,349	3,032	3,500	7,334
South West	3,919	191	380	774	574	2,001
West Midlands	3.878	113	349	1,202	533	1,682
North West	4,578	51	412	1,580	578	1,956
England	39,619	937	3,783	10,368	6,535	17,996
Wales	2,286	104	245	786	234	917
Scotland	3,841	255	523	1,023	555	1,485
Northern Ireland	1,204	124	133	238	180	530
Continental Shelf[3]	1,970	..	1,970	..	..	..
1989						
United Kingdom	55,785	1,485	7,998	14,248	9,066	22,988
North	3,146	79	279	1,407	319	1,063
Yorkshire and Humberside	4,498	125	676	1,254	599	1,845
East Midlands	3,748	123	481	895	500	1,749
East Anglia	2,098	115	230	477	234	1,042
South East	16.670	157	1,476	3,469	4,186	7,382
South West	4,641	198	529	759	769	2,386
West Midlands	4,705	118	444	1,480	709	1,954
North West	5,304	53	443	2,029	670	2,109
England	44,811	967	4,557	11,771	7,986	19,530
Wales	2,917	125	294	1,056	279	1,164
Scotland	4,201	256	478	1,158	601	1,707
Northern Ireland	1,337	136	151	263	200	587
Continental Shelf[3]	2,519	..	2,519	..	..	..
1990						
United Kingdom	55,187	1,368	9,442	14,227	8,711	21,439
North	3,251	76	359	1,439	329	1,050
Yorkshire and Humberside	4,347	118	655	1,304	552	1,718
East Midlands	3,618	112	525	963	480	1,539
East Anglia	1,845	107	263	451	255	769
South East	15,742	144	1,668	3,224	4,060	6,646
South West	4,074	194	525	750	686	1,919
West Midlands	4,392	113	478	1,361	619	1,821
North West	5,645	49	463	2,260	651	2,222
England	42,916	913	4,936	11,752	7,632	17,684
Wales	3,155	99	437	1,129	304	1,185
Scotland	4,497	234	624	1,035	591	2,013
Northern Ireland	1,298	121	125	311	184	557
Continental Shelf[3]	3,321	..	3,321	..	..	..
1991						
United Kingdom	52,718	1,063	11,566	13,183	8,405	18,501
North	3,157	56	398	1,439	339	925
Yorkshire and Humberside	3,996	89	736	1,171	569	1,432
East Midlands	3,629	99	598	1,116	451	1,365
East Anglia	1,636	94	242	341	241	718
South East	14,263	123	1,846	3.267	3,788	5,240
South West	3,598	147	531	653	616	1,651
West Midlands	4,104	87	555	1,200	602	1,661
North West	4,877	37	431	1,731	688	1,990
England	39,260	730	5,336	10,918	7,294	14,981
Wales	2,451	76	347	790	302	937
Scotland	4,849	175	833	1,171	626	2,044
Northern Ireland	1,238	81	130	304	184	540
Continental Shelf[3]	4,919	..	4,919	..	..	..

See footnotes on next page.

4 Gross domestic fixed capital formation by selected industry groups (cont'd)

£ million

	Total of industries shown	Agriculture, forestry and fishing	Energy, mining and water[1]	Manufacturing	Transport and communication[2]	Dwellings
1992						
United Kingdom	52,702	1,070	12,108	12,433	8,357	18,734
North	2,860	60	357	1,136	366	942
Yorkshire and Humberside	4,175	103	764	1,280	603	1,424
East Midlands	3,813	107	578	1,237	495	1,396
East Anglia	1,727	100	242	400	253	732
South East	14,230	131	2,315	2,611	3,708	5,465
South West	3,536	130	423	715	578	1,690
West Midlands	3,941	78	440	1,163	565	1,695
North West	5,174	51	773	1,743	662	1,946
England	39,456	760	5,892	10,284	7,231	15,289
Wales	2,474	83	294	768	281	1,048
Scotland	4,619	132	904	1,082	639	1,861
Northern Ireland	1,224	94	90	299	205	536
Continental Shelf[3]	4,928	..	4,928	..	..	..
1993						
United Kingdom	53,501	1,167	10,814	12,410	9,136	19,974
North	2,694	66	381	895	368	983
Yorkshire and Humberside	4,251	113	623	1,269	644	1,602
East Midlands	4,006	109	555	1,172	554	1,616
East Anglia	1,881	102	265	433	259	821
South East	14,572	134	1,776	2,860	4,103	5,700
South West	3,885	156	558	814	611	1,746
West Midlands	4,326	93	445	1,381	622	1,785
North West	5,253	57	780	1,589	695	2,132
England	40,869	831	5,384	10,413	7,856	16,385
Wales	2,436	99	412	661	298	965
Scotland	4,598	136	661	1,028	728	2,045
Northern Ireland	1,333	101	93	308	253	578
Continental Shelf[3]	4,265	..	4,265	..	..	..
1994						
United Kingdom	55,053	930	9,042	13,534	10,423	21,124
North	2,711	51	380	876	296	1,109
Yorkshire and Humberside	4,434	83	600	1,296	780	1,676
East Midlands	3,845	78	417	1,041	608	1,700
East Anglia	1,911	74	252	483	262	840
South East	15,464	98	1,333	3,357	4,682	5,994
South West	4,068	129	426	936	730	1,847
West Midlands	4,978	76	489	1,749	758	1,906
North West	5,473	44	737	1,564	850	2,277
England	42,884	634	4,634	11,302	8,965	17,349
Wales	2,715	79	497	766	355	1,018
Scotland	4,665	102	474	1,137	807	2,146
Northern Ireland	1,444	115	94	329	296	611
Continental Shelf[3]	3,342	..	3,342	..	..	..

1 Includes extraction of mineral oil and natural gas, mining and quarrying, gas, electricity and water.
2 Excluding sea and air transport.
3 Oil and natural gas extraction only.

BACKGROUND NOTES

General

1. The regional accounts presented in this article are, in general, consistent with the national accounts published in the *United Kingdom National Accounts (Blue Book) 1996 edition*, which also defines the terms used.

2. The methodology employed in producing the original items of the regional accounts was described in *Regional Accounts (Studies in Official Statistics No 31)* published in 1978 and updated in the publication *Methods Used to Compile Regional Accounts (Eurostat, 1984).* Brief descriptions of the sources and methods used to compile the estimates of GDP are given below.

Accuracy

3. As with the national accounts, the regional estimates, although calculated as reliably as possible, cannot be regarded as accurate to the last digit shown.

4. The regional GDP estimates are partly based on sample surveys and the quality of the results therefore vary 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 and county estimates was published in *Economic Trends, November 1990.*

Regional gross domestic product - concepts and definitions

5. In this article regional GDP is measured as the total of all incomes earned from the production of goods and services in the region. Insufficient information is available to estimate GDP using either the production or expenditure approaches.

6. As mentioned above, regional GDP is defined as the sum of incomes earned from productive activity in the region, so that the income of commuters should be included in the region where they work. However, the estimates of regional GDP are not compiled on this basis; they include regional estimates of income from employment on a residence basis, because this is the basis of the most reliable data source (the one per cent sample of Department of Social Security (DSS) records). This has a significant effect on the estimates for Greater London and the Rest of the South East, but is assumed not to introduce any significant distortion for the other regions.

7. Estimates of regional GDP are compiled at factor cost. They measure the income of factors of production and exclude the taxes on expenditure, such as VAT, but include subsidies.

8. All the items 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 which 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.

9. 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 and area. 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.

Revisions

10. All items in the regional accounts are subject to revision when better information becomes available, either from the national accounts for the UK, from regional data sources, or from improvements to regional accounts methodology. Revisions to one year frequently suggest the need for revisions to other years, and all regional series apart from the GDFCF series have previously been maintained back to 1971, with no comparable data for earlier years being available. However changes to the region by industry series due to the introduction of the *Standard Industrial Classification, Revised 1992* (SIC(92)), have only been taken back to 1982, with earlier data continuing to be available on a SIC(80) basis.

11. The change from SIC(80) to SIC(92) was described in articles in the October 1992 and February 1993 issues of *Economic Trends*. Its adoption leads to a change in the definition of manufacturing, which now includes coke ovens, mineral oil processing and nuclear fuel production; these industries were previously classified as energy industries. The change in the regional analysis by industry to SIC(92) was initially implemented

in the December 1993 article; in some cases the source data used in the compilation of the regional accounts did not become available on the new basis until 1995. The technical note to the December 1995 article listed the main data sources used in the compilation of the regional accounts and when they had moved onto the new standard.

12. 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. From the *1993 Blue Book*, this general principle has been extended to Rent income, which is now allocated by industry according to the main activity of each rent-receiving unit.

Provisional estimates of GDP

13. The estimates of GDP for 1995 given in this article are based on a less complete set of data than estimates for earlier years, and projections are employed where necessary. These provisional estimates are particularly subject to revision when more data for 1995 become available e.g. from the one per cent sample of pay records by DSS, from the Agriculture departments and from the national accounts.

Continental Shelf

14. Gross domestic product for the Continental Shelf region consists only of profits and surpluses less stock appreciation, which cannot be allocated to standard regions. It does not include income from employment, which is allocated to the region of residence of the employee; there is no resident population in the Continental Shelf region. Since GDP per head cannot be calculated for the Continental Shelf region, it is excluded from the United Kingdom total in the calculation of the national average used in comparisons of regional GDP per head. Continental Shelf GDP incorporates profits of both UK and foreign contractors.

European Community definition of regional GDP

15. The treatment of the adjustment for financial services (or interest) in the accounts differs from the approach used by the Statistical Office of the European Community (Eurostat). In the UK regional accounts the adjustment for financial services is deducted from the GDP of the region providing the service and receiving the interest payment (pro-rata employment in banking, finance and insurance). The treatment used by Eurostat is to deduct the interest from the GDP of the region paying the interest. It is assumed that the interest paid is proportional to GDP. The effect on regional GDP is to increase the level of the South East and reduce that of other regions.

16. There are also two other very minor adjustments to the regional distribution of GDP. The GDP of UK embassies is added to the Continental Shelf region or Extra-Regio and the GDP of foreign embassies in the UK is deducted from the GDP of the South East. The GDP of UK forces stationed abroad is also included in the Extra-Regio.

Government Offices of the Regions (GORs)

17. The figures published in this article relate to the Standard Statistical Regions (SSRs). However, the Government Statistical Service has taken the decision to adopt the Government Office Regions (GORs) for the standard presentation of regional data from April 1997 onwards. Future estimates of Regional Accounts will, therefore, be published on a GOR basis, with data continuing to be available on request on the SSR basis for some time.

18. The main differences between SSRs and GORs are that:

- Cumbria moves from the North SSR to the North West GOR
- Essex, Bedfordshire and Hertfordshire are merged with East Anglia to form the new Eastern GOR
- The new South East GOR therefore excludes the above three counties, and London
- London becomes a separate GOR

19. In addition, Merseyside, which is a separate GOR, will be combined with the North West GOR for most regional statistical purposes, due to the relatively small size of the area. However, wherever statistics are available for Merseyside, they will be provided.

Gross Domestic Fixed Capital Formation by Selected Industries

20. Regional estimates of GDFCF are given in Table 4. These estimates are only made for a few industries, namely agriculture, energy, manufacturing, dwellings and transport and communications industries. There are insufficient data available to provide estimates for other industries.

Personal Income, Household Income and Consumers' Expenditure

21. Regional estimates of personal income, personal disposable income, household income and consumers' expenditure in 1995 will be published in the May 1997 issue of *Economic Trends.* The 1994 estimates for these as well as estimates for GDP, household income and household disposable income by county for 1993, were published in *Economic Trends, May 1996.* The 1994 estimates for household income and household disposable income by county will also be published in *Regional Accounts 1995 part 2.*

Regional Trends and other products

22. A wider range of statistics for the regions and counties of the United Kingdom can be found in *Regional Trends 1996, (HMSO)* price £35.95 net. The topics covered in *Regional Trends* include population, housing, transport, environment, health, crime, education, employment, industry and agriculture.

23. The *Regional Focus* series, which will eventually cover all regions, aims to meet the increasing demand for more easily accessible information on smaller geographic areas. *Focus on the East Midlands* was published in 1995, *A Statistical Focus on Wales* (in both English and Welsh) was published during 1996, and *Focus on London '97* became available in December 1996. All are available through *The Stationery Office.*

24. *GEOSTAT™ for Windows™* introduces the concept of an integrated software tool for manipulating spatially referenced statistical information, and presenting it in graphical form such as charts and map images. A generalised economic dataset is available which includes variables from the regional accounts, ACOP, and size analysis of UK businesses.

25. *Regional Statistics: A Brief Guide to Official Sources, 1993 edition* provides useful information on sources and contact points, and is available from the address at the end of these notes.

The regional accounts database

26. This article necessarily presents only a summary of the regional accounts for recent years. Longer time series and in some cases additional detail can be made available on payment of a fee either on paper or on floppy disk. Requests should be addressed to Mr Bob Cooper, Regional Accounts Branch, Office for National Statistics, B3/09, 1, Drummond Gate, London SW1V 2QQ.

Balancing GDP : UK Annual Input-Output Balances

Sanjiv Mahajan, Current Price Input-Output Branch, ONS

Introduction

This article briefly describes the development of UK Input-Output balances in recent years together with future developments to be pursued over the next few years. This paper also outlines the annual Input-Output balancing process.

Readers requiring more information on the structure of an I-O balance and sources of data used should refer to *UK Input-Output Balances : Methodological Guide 1997* available from the ONS Sales Desk, details as given at the end of this article.

For further information on the quarterly national accounts process, readers should refer to:

(1) Philip Turnbull - *"The UK sector accounts" Economic Trends* No.479, HMSO, September 1993.
(2) Ian Cope - *"Quarterly National Accounts in the UK" Economic Trends* No.498, HMSO, April 1995.
(3) David Caplan and Sharon Lambert - *"Quarterly GDP, Process and Issues" Economic Trends* No.504, HMSO, October 1995.
(4) David Daniel - *"The use of quarterly current price output data in the National Accounts" Economic Trends* No.516, TSO, October 1996.

Brief history and background

The Office for National Statistics (ONS) (formed by the merger of the Central Statistical Office with the Office of Population, Censuses and Surveys in April 1996) uses each of the three basic approaches, income, expenditure and output, to measure Gross Domestic Product (GDP) in the United Kingdom (UK).

In 1991 the ONS began a process to merge the traditional annual exercise to determine the single best GDP estimate with the production of Input-Output (I-O) balances. The I-O framework is the natural link between the three measures of GDP, and for the years 1989 to 1994, annual UK GDP at current prices has been estimated in this way. This approach superseded the simple averaging of the alternative estimates built up from the income and expenditure approaches at current prices, and publishing differences as a statistical discrepancy.

Uses and links of I-O balances within the UK national accounts

The main aim of input-output work in ONS now is to provide a framework for the detailed reconciliation of the components of GDP at current market prices, and setting the level of current price GDP, both at market prices and factor cost.

Furthermore, information from the annual I-O balances is used to form the basis of other statistics compiled in ONS. For example, the weights for the base year, presently 1990, used in compiling quarterly estimates of constant price value added are derived from the I-O balance compiled at current prices for 1990. Also, the purchasing structures within the I-O balances are used to form the weighting patterns used in compiling manufacturers' producer price input indices.

In addition, the "Combined Use" matrix from the I-O balance provides the only detailed analyses of the production account for the whole UK economy, on an annual basis at current prices. Due to a lack of information, the only sectoral production account compiled in the ONS covers the public corporations' sector.

Nevertheless, the ONS does compile detailed current price quarterly and annual estimates, by institutional sector, for the following accounts;

- income and expenditure account;
- capital account; and
- financial account.

These accounts are fully integrated on a quarterly and annual basis, but a balancing item is also shown reflecting the difference between the financial surplus and deficit for each sector, and the corresponding borrowing and lending.

The sectoral split compiled by the ONS covers the following sectors:

- central government
- local authorities
- public corporations
- personal sector
- financial companies
- industrial & commercial companies
- overseas sector

The UK is continuing to work towards the construction of a more integrated national accounts data system. The detailed I-O balancing plays its full part, but without disregarding any of the complete set of quarterly and annual output, income and expenditure estimates that have been used for many years. Using this approach, the ONS is continuing to develop more robust national accounts estimates.

Development of I-O balances in the UK since 1991

I-O balances are now produced annually. The first was compiled in 1991/92 for the year 1989, a summary appearing in the 1992 ONS Blue Book.

The value of I-O is enhanced by the timely production of the balances. The timetable for producing I-O balances was bought forward by a year in 1994 when the 1991 and 1992 balances were produced together, such that the first balance for the year (t-2) is now produced eighteen months after the end of the year (t-2), where (t) denotes the year of the ONS Blue Book.

As already mentioned, for years where an I-O balance is available, up to and including year (t-2), the annual current price level of GDP is derived using the I-O framework. For subsequent periods, the current price levels of quarterly GDP estimates are carried forward using movements in the income and expenditure totals, informed by growth rates of constant price output.

Although an I-O framework is not presently used for the year (t-1), estimates of current price value added, using the output based approach, for the year (t-1) are compiled separately and are used to inform the setting of the annual current price level of GDP for that year.

The I-O framework is not used to balance GDP at constant prices for any year, although current price and constant price information are considered together to inform the setting of the current price level of GDP.

Since 1992, the production of the I-O balances has been as follows:

Year	I-O balances completed
1992	1989 based on Standard Industrial Classification 1980 (SIC(80)) using 102 I-O industry and product groups.
1993	1990 based on SIC(80) - including the re-working of 1989 to include revisions, methodological changes and the expansion of the number of I-O groups from 102 to 123.
1994	1991 and 1992 based on SIC(80) - including revisions to the 1989 and 1990 balances.
1995	1992 and 1993 based on SIC(92) (the UK version of NACE REV 1), see Annex A - including the conversion of balances for 1989, 1990 and 1991 onto SIC(92) and including revisions to these balances, all achieved to a substantially reduced timetable.
1996	The compilation of balances for 1992, 1993 and 1994 based on SIC(92), including revisions to earlier years, has been completed to a further reduced timetable.

Publication of I-O balances

The full I-O balances consistent with the ONS National Accounts Blue Book are published each year as separate publications and are also available in electronic form. The full "Combined Use" matrix together with a number of articles on I-O balances have been published in the ONS Economic Trends and a summary 11 by 11 (industry by product) version is published in the ONS Blue Book each year. For example, Section 2.1 in the 1996 ONS Blue Book shows a summary of the "Combined Use" matrix for 1992, 1993 and 1994.

Annex B at the end of this article shows a complete list of the UK I-O publications.

Future developments

The rapid development of I-O balancing over the past five years will continue over the next few years. Particular areas being pursued are described below:

- The conversion of national accounts, and therefore the I-O balances and tables, onto the new European System of Accounts 1995 (ESA95) in time for the 1998 ONS Blue Book. This will include the compilation of production accounts, showing intermediate purchases, value added and gross output for each sector.

- New data on a consistent basis will be collected through ONS annual inquiries for 1996, covering production, construction, distribution and, where data for I-O balances are weakest, the service trades industries. The I-O branch and survey compilers have worked continually and successfully on survey form design to achieve these improvements. This effort will be further advanced through the development of a new Annual Business Inquiry in ONS.

- The development of constant price I-O balances will be added to the I-O analytical framework. This will provide a mechanism for the comparison of prices data, the provisional estimation of GDP by double deflation methods and for moving GDP to a chain-linked base.

- The production of an I-O framework based on the balance for the year (t-2), in order to assist the annual balancing of year (t-1) to be available six months into the year (t).

- Further expansion of the number of I-O industry and product groups, aiming to expand the number of groups covering the service sector relative to the manufacturing sector.

- Development of Social Accounting Matrices (SAMs) and environmental accounts, with a view to extending the framework for ensuring coherence of economic statistics in new areas. Although their role in GDP balancing, if any, is yet to be determined.

The I-O balancing process has led to an agreed best estimate of GDP for each year from 1989 to 1994. Six years of consecutive I-O balances has allowed the analysis of time series to be established and this should maintain, and continue to improve, the coherence of the national accounts estimates. The balances have confirmed that a good degree of congruence already exists between the main national accounts data sources.

The I-O balancing process will continue to develop as a useful and important tool for validating and proving UK GDP statistics.

Traditional role of input-output tables in the United Kingdom

It is worth noting, prior to the recent development of I-O balances, ONS traditionally compiled the theoretical I-O tables, also known as the 'derived tables', (product by product matrices, Leontief Inverse etc.) once every five years. The first of these was for the year 1954, followed by tables for the years 1963, 1968, 1974, 1979, 1984 and 1990.

Despite I-O tables being compiled as early as the 1950's in the UK, they were seen as an interesting extension to the accounts, rather than a diagnostic tool underpinning them. The main aim in compiling the input-output tables was to provide a base for economic modelling and planning.

These I-O tables did not play a significant role in the compilation of GDP estimates, mainly due to the lack of timeliness, being compiled about four years after the event.

The I-O tables were drawn up to be consistent with the aggregate income and expenditure estimates agreed in the previous year's ONS Blue Book, except for the 1990 tables. The 1990 I-O tables were constrained to the 1990 I-O balance, which was used in determining the single best estimate of GDP for that year. These tables were published in 1995, following publication in 1993 of the corresponding balance.

The compilation of the theoretical I-O tables will continue on a five yearly basis, the next of which is planned for the year 1995 to be completed in 1998/9, based on the new European System of Accounts 1995 (ESA95), and consistent with the I-O balance for that year. Thereafter, these tables will be compiled annually.

Quarterly supply modelling

The structure of the 1990 I-O tables at producers' prices, originally on the SIC(80), after being adjusted for the SIC(92), forms the basis of quarterly supply modelling in the ONS.

Briefly, the ONS has developed supply-based models using different assumptions, which are used to inform quarterly national accounts. These models use the structures in the 1990 I-O tables in conjunction with quarterly estimates of domestic output and international trade to draw up estimates of the supply of different products for final consumption, in particular fixed investment.

Also, ONS compiles specific satellite industry balanced accounts based on the 1990 I-O tables. These presently cover aerospace, vehicles, oil and construction.

Expansion of the number of I-O groups

The number of I-O industry and product groups used in the I-O tables (and the I-O balances) has undergone gradual expansion. The 1954 I-O tables were compiled using forty-six I-O groups, expanding to the one hundred and twenty-three groups, based on the SIC(80), as used in the 1990 I-O tables.

The current I-O balances also use one hundred and twenty-three groups but based on the SIC(92) as shown in Annex A.

Table A : 1996 I-O timetable for compilation of the 1993 & 1994 I-O balances

Time period	Description of particular phase/stage in the I-O process
Jan 1995 to Feb 1996	Collection, collation and validation of annual ONS survey data - predominately carried out by the Business Statistics Group based in Newport.
Sep-Oct 1995	Agree timetable and specific delivery dates with respective national accounts and survey data compilers.
Nov-Dec 1995	Survey data compilers provide I-O branch with provisional results for 1993 and 1994.
Jan-Feb 1996	National accounts data compilers provide I-O branch with provisional data for 1993 and 1994.
Jan-Feb 1996	Assemble I-O data, compile provisional I-O balances for 1993 and 1994 and circulate first set of results to compilers.
Feb 1996	First meeting to discuss total GDP for 1993 and 1994.
Feb-Mar 1996	Survey data compilers provide I-O branch with final results for 1993 and 1994.
Mar-Apr 1996	National accounts data compilers provide I-O branch with final data for 1993 and 1994.
Apr 1996	I-O branch assemble data, compile I-O balances for 1993 and 1994 and circulate 'final' set of value added estimates by industry. The supply and demand for products are not balanced at this stage.
May 1996	Meeting to discuss and agree definitive levels of GDP for 1993 and 1994.
May-Jun 1996	I-O branch finalise estimates of value added by industry, fully resolve product imbalances and balance Supply and "Combined Use" matrices.
Jul 1996	I-O branch compile the I-O publication and the "Combined Use" matrices for 1993 and 1994 in the ONS Blue Book, both published in August. Both Supply based information and the "Combined Use" matrices at the 123 I-O group level are now available.

On-going activities throughout the I-O process
Comparisons of value added for each industry from 1989 using the income & output approaches.
Comparisons of the components of supply and demand for each type of product.
Comparisons of growth rates, net to gross ratios, changes in GDP weights, taxes and margins etc.
Consistency over time of individual series, within I-O balance and compilers' own detail series.
Consistency over time of aggregated series.
Assessment of the impact of current price estimates on the deflators and constant prices.
Use of external economic and business indicators.
Use of current and constant price information from the ONS' quarterly supply models.
Use of information from other monthly or quarterly ONS based inquiries.
Assessment of revisions, quality of source data and comparisons with previously published data.
Comparisons with the constant price industry value added estimates using the output approach.

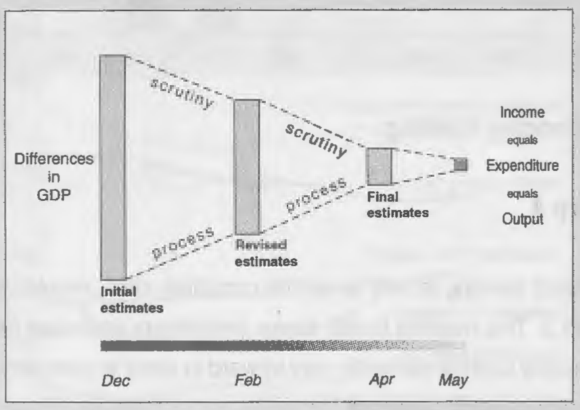
Input-Output balancing process

The process of balancing involves a number of steps. These may start as independent steps or interlinked with others, culminating with an iterative type of process converging as shown in Chart 1 and Table A.

The result of this process is a single GDP estimate, supported by income, output and expenditures reconciled and balanced in the same framework, and credible time-series of the detail underlying the I-O balance. Consequently, there is no need for a statistical discrepancy as shown in the subsequent quarterly and annual GDP estimates. This discrepancy represents the difference between the sum of the components and average GDP, where an I-O framework has not been used for balancing.

Chart 1

Input-Output balancing process



The main core of the I-O balancing process extends from December to May each year, although the entire exercise runs from October to early July. The process relies heavily on the effective co-operation, teamwork and problem solving skills of all the national accounts and survey compilers involved.

This ensures that the quality of aggregate GDP and the underlying detail, in terms of congruency and consistency, is of a high degree, and that the aggregate level of GDP is much more firmly based on expenditure, income and output estimates.

Table A should be referred to as a guide to the steps described in this section:

Preparatory work - form design and timetables

Step 1

The first step is to design the questions, notes and the layout of the annual forms which are sent to businesses at the beginning of January of each year. These forms collect information on employment, turnover, purchases of goods and services, changes in stocks and capital expenditure covering the production, construction, distribution and service trades industries, for the calendar year just completed.

The form design, selection, sampling, grossing and estimation work for these inquiries is carried out within the ONS. The results from these inquiries feed into the I-O process in two phases in line with agreed delivery dates. Initial (provisional) results are received in November/December and final results in February/March.

The I-O branch (at present, a team of 10 people compared to 7 in 1991/2) uses results directly from the following inquiries carried out by the ONS:

- Annual Census of Production and Construction (ACOP/C)
- Purchases Inquiry
- PRODCOM
- Motor Trades Inquiry
- Wholesale and Dealing Inquiry
- Retailing Inquiry
- Catering and Allied Trades Inquiry
- Service Trades Inquiries
- Quarterly Turnover Inquiries

In addition, a number of other ONS inquiries such as the Quarterly Profits Inquiry, Index Of Production, Intrastat and the Overseas Trade in Services Inquiries are used by national accounts compilers, who in turn provide estimates to I-O branch.

Step 2

A timetable for the annual exercise is compiled and circulated to all survey data compilers (in Newport) and national accounts compilers (in London) in September/October.

On release of this timetable, I-O branch negotiates and agrees definitive delivery dates for provisional, final and revised results with all its data suppliers, both in London and Newport. These dates take into consideration requirements for data supplied to ONS compilers by other government departments and other sources.

Compilation of initial estimates

Step 3

As shown in Table A, I-O branch gathers initial estimates from annual surveys and national accounts compilers in line with previously agreed deadlines. These estimates cover a number of years. For example, the 1996 exercise involved gathering data for 1993 and 1994, as well as any revisions to earlier periods going back to 1989 for the purposes of I-O balances.

Using these data, estimates of the components of supply and demand for products are prepared, together with the estimates of industry outputs and inputs, thus value added, using a single uniform framework of industry and product classifications at the I-O group level.

In some cases, for example PRODCOM, estimates are aggregated from the 5-digit SIC(92) sub-class level to the I-O group level. At the I-O group level, one hundred and twenty-three industries and products are identified separately, as defined in Annex A.

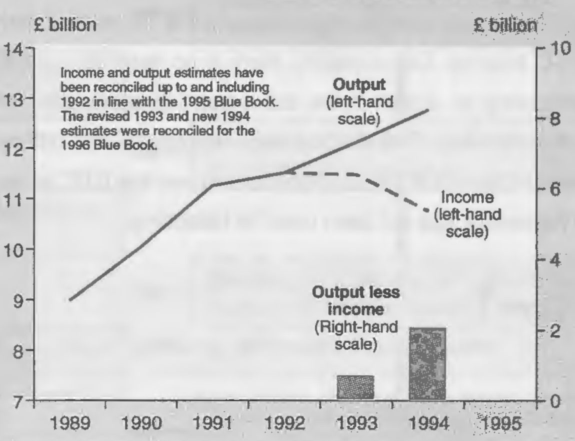
Output based estimates of current price value added by industry are compiled by I-O Branch. More complete description of this is available on request from the contact given at the end of this article. The output based estimate of value added is then compared with the expenditure and income measures. The compilation of other data such as gross output and intermediate purchases used in the I-O balance is described in *UK Input-Output Balances : Methodological Guide 1997*.

In compiling these estimates various types of adjustments are required and, in the light of the information available, particular judgements are made. For example, allowances for under-coverage of an industry and for mis-recording of data on inquiry forms returned by businesses. Any adjustments made by the I-O branch are fed back to the survey or national accounts compilers, as appropriate. This may lead to further investigations.

I-O branch carries out various comparisons, checks and analyses on data it receives, resolving queries with respective compilers, which often result in changes and re-delivery of compilers' estimates. This extends the validation checks already carried out by suppliers. For example, comparisons between ACOP and PRODCOM lead to investigations and subsequent changes affecting both product supply and value added.

In parallel with the above, alternative estimates of value added for each of the one hundred and twenty-three industries are prepared using the income based data.

Chart 2
Telecommunication services value added



Balancing meeting

Step 4

A short meeting is held for all the compilers after completion of step 3. This meeting briefly covers preliminary estimates but is primarily used to clarify the way forward in order to complete the annual balancing exercise.

Assessment of estimates

Step 5

Using the initial estimates, various tables of analyses, charts and graphs are produced showing the coherence of these estimates. These show:

- comparisons of value added for each industry using the income and output based approaches, as shown in chart 2, from 1989 to the latest period, and

- comparisons of the components of supply and demand for each type of product, as shown in Charts 4 and 5.

Several other analyses in the form of time series are also compiled to aid the balancing process, showing:

- growth rates;

- value added to gross output ratios, as shown in the chart 3;
- changes in the composition of GDP weights, and
- taxes and margins as a proportion of supply and demand.

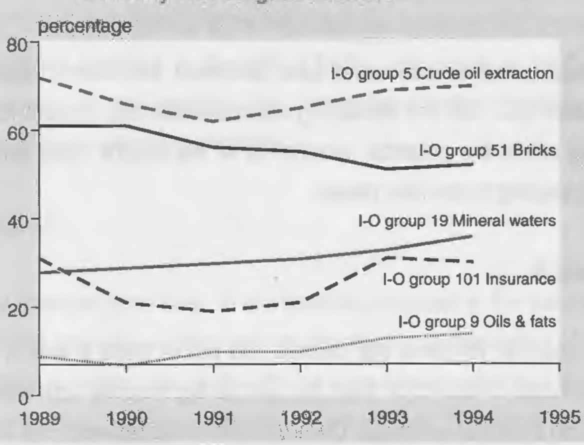
Step 6

Having compiled initial estimates at this stage, income, output and expenditure aggregates will typically show different profiles over time.

This begins an on-going iterative process of scrutiny and validation, checking the plausibility and coherence of estimates across all industries and products. Bilateral meetings involving appropriate compilers are held as necessary to resolve particular issues.

Chart 3

Industry net to gross ratios



This assessment exercise is driven by two underlying themes, which are linked:

- Reconciliation of estimates of industry value added between the income based and output based approaches, and
- Reconciliation of supply and demand for each product, essentially matching output and expenditure.

These 'reconciliation' themes must ensure that consistency and coherency over time is also achieved. This includes:

- Consistency over time of individual series, both within the I-O balance and compilers' own detail series;
- Consistency over time of aggregated series; and
- Considering the consistency of current price estimates and constant price estimates in terms of implied deflators, both at the aggregate and component level.

When assessing the above, the impact of revisions to earlier years and the quality of the relative data sources is also taken into account.

Judgements made during the preparation of the first set of estimates are re-assessed in the light of any discrepancies shown in the analyses prepared in step 5.

Chart 4

I-O 77 Vehicles: Components of supply

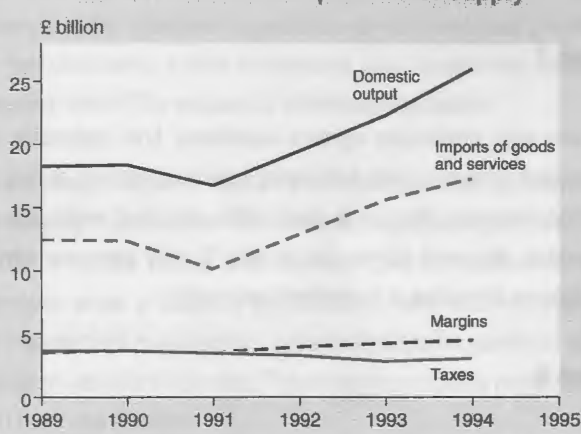
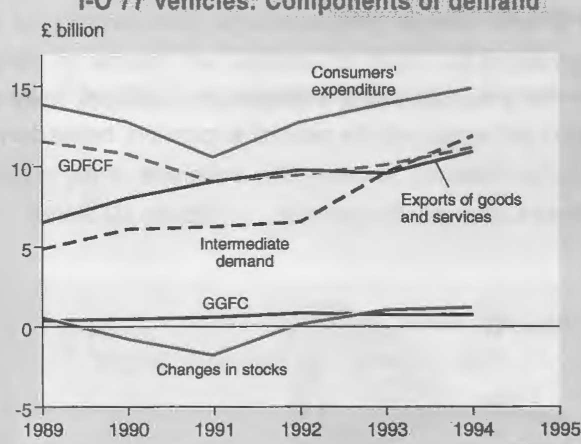


Chart 5

I-O 77 Vehicles: Components of demand



At the same time, other sources of information are utilised, as appropriate, depending upon the specific industry or product, such as:

- Company Annual Reports and Accounts;
- Information from monthly/quarterly ONS based inquiries, for example, Quarterly Turnover Inquiries, Index of Production and Retail Sales Inquiries;

- Information from ONS' quarterly supply models - providing both current price and constant price information, and

- External economic and business indicators.

In parallel with the above, investigations of the underlying source data for possible errors and inconsistencies are also carried out. Where such errors are discovered, appropriate corrections are made. For example, reconciliation of individual companies' data with their respective annual report and accounts, can lead to changes to the inquiry based data, where it has been identified the business has incorrectly completed the ONS inquiry form.

Final estimates

Step 7

In line with previously agreed deadlines, final estimates are provided by survey and national accounts compilers during the period February through to April. Although 'final' estimates are provided, the work carried out in step 6, may generate several additional deliveries of compilers' estimates.

Step 8

As final estimates are received, steps 5 and 6 are continually repeated. Further discussions are held with appropriate compilers via bilateral meetings, electronic e-mail and telephone calls, resulting in further deliveries.

Any changes to compilers' estimates are negotiated by the I-O branch and agreed with the respective compilers, before delivery of further datasets. However, the ownership of the resulting estimates rests with the compilers, not with the I-O branch.

Chart 6

1993 Expenditure, income & output

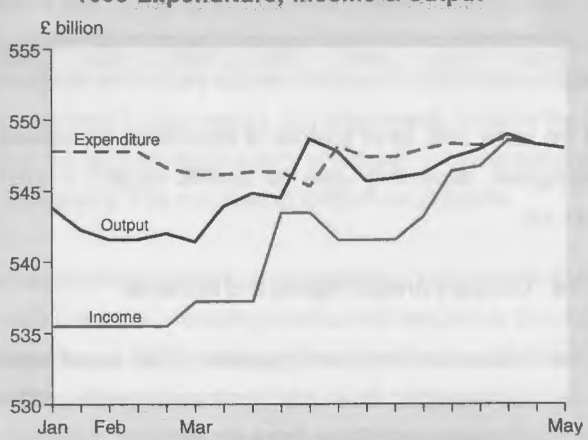
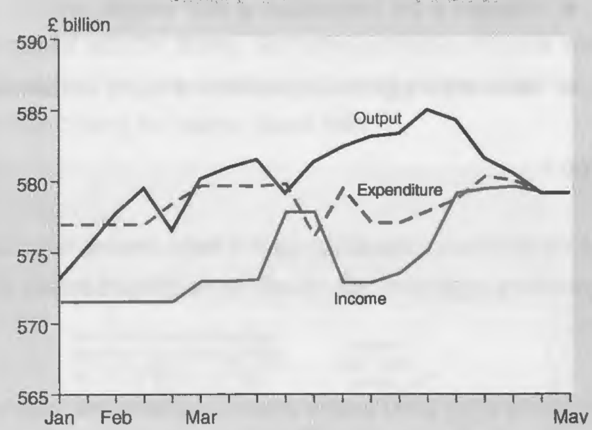


Chart 7

1994 Expenditure, income & output



This process continues to reduce inconsistencies between supply and demand, and between output and income based value added estimates at the one hundred and twenty-three I-O group level, resulting in converging aggregate totals, as illustrated in charts 6 and 7, for the 1996 ONS Blue Book.

If total convergence has not been achieved, we return to Step 5, unless and until the remaining discrepancies are thought to be well within the potential uncertainty of the source data, before proceeding to the next phase.

Step 9

In practice, following the method laid out in steps 5 and 6, the estimates of total GDP from the various approaches converge to within a very small range. Once the difference between the three measures of GDP is sufficiently small (between £0.5 billion and £1.0 billion compared to a total of around £500 billion), further small adjustments are made in order to achieve an agreed single best GDP estimate.

This single best estimate will reflect the relative merits of the output, income and expenditure estimates at the aggregate level. This is achieved by considering each aggregate's:

- Revisions performance;

- Quality of the source data, and

- Specific estimation problems for each year in question.

A number of other assessments providing different perspectives are also taken into consideration, for example:

- Effect on current and constant price expenditure growth rates;
- Impact on the expenditure deflator and its component deflators;
- Assessment of the output based constant price value added aggregate in relation to the current price aggregate derived from the I-O balances; and
- Comparisons with previously published estimates.

Balancing meeting

Step 10

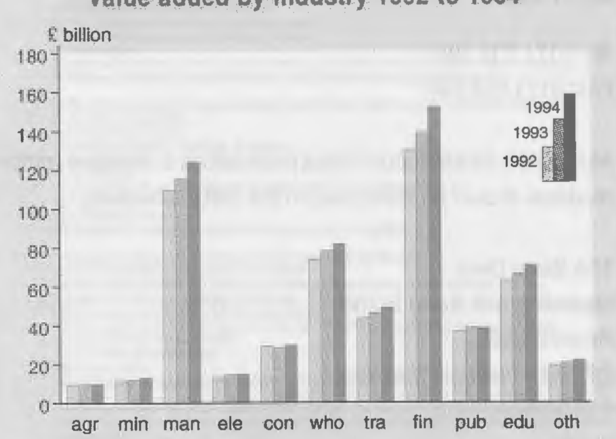
Then, having completed the process up to and including step 9, a meeting is held for all compilers to assess the agreed estimate of GDP, its components and the impact of the revisions incorporated during the exercise. In the light of further discussion of the GDP components, the meeting may recommend further changes to improve the overall aggregates.

Step 11

Any changes from step 10 are then incorporated in the balance, and industry value added is fixed after the full reconciliation of the income based components with the output based estimate at the one hundred and twenty-three I-O group level. The value added weights (in parts per 1000) are also fixed.

Chart 8

Value added by industry 1992 to 1994



Completion of the product balances

Step 12

Product supply and demand still differ, mainly reflecting the approximations in transforming source data to I-O group level. Further adjustments are made at this stage to address these imbalances.

There are some important parts of the balance where it is necessary to estimate component figures for a wider estimate because of the lack of detailed source data. Foremost amongst these are distributors' trading margins and the analysis of purchases by the distribution and service trades industries. Another example is the allocation to products of other services provided by manufacturers, where compliance cost constraints on ONS inquiries restrict the amount of information available.

These areas, together with all the industries and final demand purchasing structures, are reviewed. Appropriate adjustments are made to reduce supply and demand product imbalances. For example, when a business purchases a manufacturing product for intermediate consumption, reflected within the purchase price will be an associated service. These may cover partly professional and business services.

Similarly, the purchases of capital expenditure items as recorded in the ONS inquiries will also include some service costs. Within the I-O process, small adjustments are made to allow for this aspect, by reducing the purchases of goods and increasing by the same amounts the purchases of such services.

Chart 9

1990 weights in parts per 1000 of GDP (O)

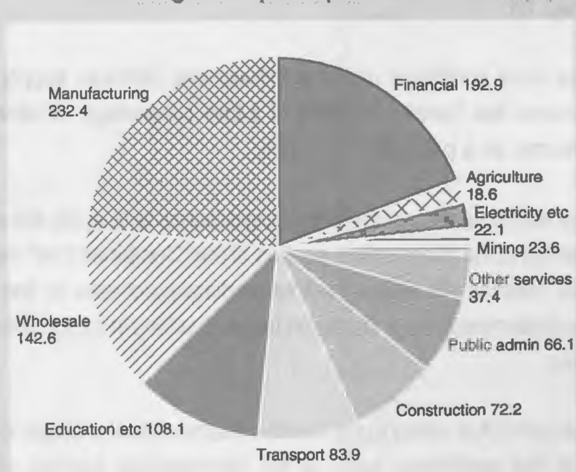


Chart **10**

1992 weights in parts per 1000 of GDP (O)

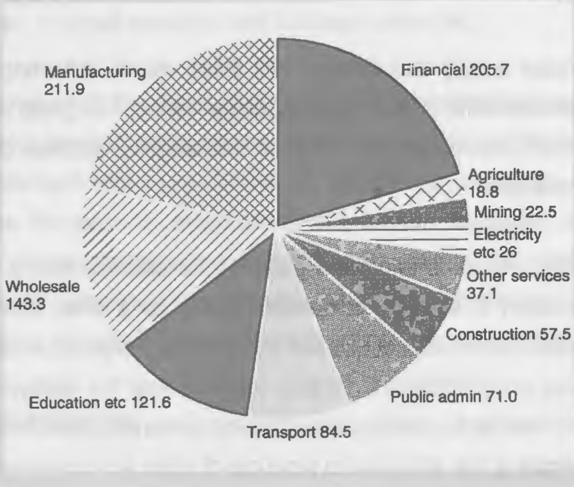
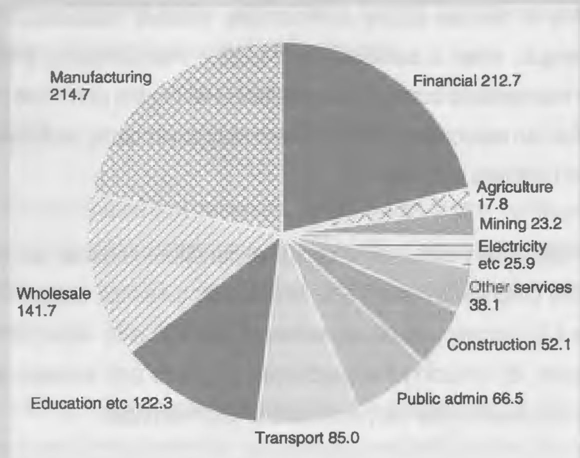


Chart **11**

1994 weights in parts per 1000 of GDP (O)



Step 13

This work continues until the imbalances between supply and demand are 'small', in terms of either percentage or absolute amounts as a proportion of supply.

The very final step in the balancing process is to apply the r.A.s. method to the intermediate section of the "Combined Use" matrix. This process will adjust the intermediate purchases in line with pre-determined row and column totals, resulting in a fully balanced table.

The term r.A.s. refers to the iterative mathematical process, where A is the coefficient form of the intermediate section of the "Combined Use" matrix. A is pre-multiplied by a diagonal matrix, with the vector r of replacement factors forming the diagonal, and post-multiplied by a diagonal matrix with the substitution vectors forming the diagonal.

A single iteration applies the above process for each row and then for each column. After each iteration the replacement factors are changed appropriately and repeated until a desired balance has been achieved. The end result of this process is that supply equals demand for each product.

Publication

Step 14

Having completed the balancing of industries and products, the full I-O publication and a consistent summary 11 x 11 version of the "Combined Use" matrix to be published in the ONS Blue Book are prepared. Both the I-O publication and the ONS Blue Book are published at the same time in early August.

Acknowledgements

The author is grateful for comments and assistance provided by members of the Input-Output Branch and various compilers in ONS.

Contacts

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Fax: 0171 533 5937

All requests for any Input-Output publications and data in computer readable should be addressed in the first instance to:

The Sales Desk
Marketing and Sales Branch
Room B1/06
Office for National Statistics
1 Drummond Gate
London
SW1V 2QQ

Tel: 0171 533 5678

Annex A : Classification of 123 Input-Output industry/product groups by SIC(92)

Industry/product group	SIC(92) Sub-classes
1 Agriculture, hunting and related service activities	1
2 Forestry, logging and related service activities	2
3 Fishing, operation of fish hatcheries and fish farms; service activities incidental to fishing	5
4 Mining of coal and lignite; extraction of peat	10
5 Extraction of crude petroleum and natural gas; service activities incidental to oil and gas extraction	11 + 12
6 Mining of metal ores	13
7 Other mining and quarrying	14
8 Production, processing and preserving of meat and meat products	15.1
9 Processing and preserving of fish and fish products; fruit and vegetables	15.2 + 15.3
10 Vegetable and animal oils and fats	15.4
11 Dairy products	15.5
12 Grain mill products, starches and starch products	15.6
13 Prepared animal feeds	15.7
14 Bread, rusks and biscuits; manufacture of pastry goods and cakes	15.81 + 15.82
15 Sugar	15.83
16 Cocoa; chocolate and sugar confectionery	15.84
17 Other food products	15.85 to 15.89
18 Alcoholic beverages	15.91 to 15.97
19 Production of mineral waters and soft drinks	15.98
20 Tobacco products	16
21 Preparation and spinning of textile fibres	17.1
22 Textile weaving	17.2
23 Finishing of textiles	17.3
24 Made-up textile articles, except apparel	17.4
25 Carpets and rugs	17.51
26 Other textiles	17.52 to 17.54
27 Knitted and crocheted fabrics and articles	17.6 + 17.7
28 Wearing apparel; dressing and dying of fur	18
29 Tanning and dressing of leather; manufacture of luggage, handbags, saddlery and harness	19.1 + 19.2
30 Footwear	19.3
31 Wood and wood products, except furniture	20
32 Pulp, paper and paperboard	21.1
33 Articles of paper and paperboard	21.2
34 Publishing, printing and reproduction of recorded media	22
35 Coke, refined petroleum products and nuclear fuel	23
36 Industrial gases, dyes and pigments	24.11 + 24.12
37 Other inorganic basic chemicals	24.13
38 Other organic basic chemicals	24.14
39 Fertilisers and nitrogen compounds	24.15
40 Plastics and synthetic rubber in primary forms	24.16 + 24.17
41 Pesticides and other agro-chemical products	24.2
42 Paints, varnishes and similar coatings, printing ink and mastics	24.3
43 Pharmaceuticals, medicinal chemicals and botanical products	24.4
44 Soap and detergents, cleaning and polishing preparations, perfumes and toilet preparations	24.5
45 Other chemical products	24.6
46 Man-made fibres	24.7
47 Rubber products	25.1
48 Plastic products	25.2
49 Glass and glass products	26.1
50 Ceramic goods	26.2 + 26.3
51 Bricks, tiles and construction products, in baked clay	26.4
52 Cement, lime and plaster	26.5
53 Articles of concrete, plaster and cement; cutting, shaping and finishing of stone; manufacture of other non-metallic products	26.6 to 26.8
54 Basic iron and steel and of ferro-alloys; manufacture of tubes and other first processing of iron and steel	27.1 to 27.3
55 Basic precious and non-ferrous metals	27.4
56 Casting of metals	27.5
57 Structural metal products	28.1
58 Tanks, reservoirs and containers of metal; manufacture of central heating radiators and boilers; manufacture of steam generators	28.2 + 28.3
59 Forging, pressing, stamping and roll forming of metal; powder metallurgy; treatment and coating of metals	28.4 + 28.5
60 Cutlery, tools and general hardware	28.6
61 Other fabricated metal products	28.7
62 Machinery for the production and use of mechanical power, except aircraft, vehicle and cycle engines	29.1
63 Other general purpose machinery	29.2
64 Agricultural and forestry machinery	29.3
65 Machine tools	29.4
66 Other special purpose machinery	29.5
67 Weapons and ammunition	29.6
68 Domestic appliances not elsewhere classified	29.7
69 Office machinery and computers	30
70 Electric motors, generators and transformers; manufacture of electricity distribution and control equipment	31.1 + 31.2
71 Insulated wire and cable	31.3
72 Electrical equipment not elsewhere classified	31.4 to 31.6
73 Electronic valves and tubes and other electronic components	32.1
74 Television and radio transmitters and line for telephony and line telegraphy	32.2
75 Television and radio receivers, sound or video recording or reproducing apparatus and associated goods	32.3
76 Medical, precision and optical instruments, watches and clocks	33
77 Motor vehicles, trailers and semi-trailers	34
78 Building and repairing of ships and boats	35.1
79 Other transport equipment	35.2 + 35.4 + 35.5
80 Aircraft and spacecraft	35.3
81 Furniture	36.1
82 Jewellery and related articles; manufacture of musical instruments	36.2 + 36.3
83 Sports goods, games and toys	36.4 + 36.5
84 Miscellaneous manufacturing not elsewhere classified; recycling	36.6 + 37
85 Production and distribution of electricity	40.1
86 Gas; distribution of gaseous fuels through mains	40.2 + 40.3
87 Collection, purification and distribution of water	41
88 Construction	45
89 Sale, maintenance and repair of motor vehicles, and motor cycles; retail sale of automotive fuel	50
90 Wholesale trade and commission trade, except of motor vehicles and motor cycles	51
91 Retail trade, except of motor vehicles and motor cycles; repair of personal and household goods	52
92 Hotels and restaurants	55
93 Transport via railways	60.1
94 Other land transport; transport via pipelines	60.2 + 60.3
95 Water transport	61
96 Air transport	62
97 Supporting and auxiliary transport activities; activities of travel agencies	63
98 Post and courier activities	64.1
99 Telecommunications	64.2
100 Financial intermediation, except insurance and pension funding	65
101 Insurance and pension funding, except compulsory social security	66
102 Activities auxiliary to financial intermediation	67
103 Real estate activities with own property; letting of own property, except dwellings	70.1 + 70.2(pt)
104 Letting of dwellings, including imputed rent	70.2(pt)
105 Real estate activities on a fee or contract basis	70.3
106 Renting of machinery and equipment without operator and of personal and household goods	71
107 Computer and related activities	72
108 Research and development	73
109 Legal activities	74.11
110 Accounting, book-keeping and auditing activities; tax consultancy	74.12
111 Market research and public opinion polling; business and management consultancy activities; management activities	74.13 to 74.15
112 Architectural and engineering activities and related technical consultancy; technical testing and analysis	74.2 + 74.3
113 Advertising	74.4
114 Other business services	74.5 to 74.8
115 Public administration and defence; compulsory social security	75
116 Education	80
117 Human health and veterinary activities	85.1 + 85.2
118 Social work activities	85.3
119 Sewage and refuse disposal, sanitation and similar activities	90
120 Activities of membership organisations not elsewhere classified	91
121 Recreational, cultural and sporting activities	92
122 Other service activities	93
123 Private households with employed persons	95

Annex B : List of UK I-O publications

List of Input-Output Tables for UK

Studies in Official Statistics: No.8 Input-Output Tables for the United Kingdc.m 1954
Published by HMSO 1961 S.O.Code No. 63-166

Studies in Official Statistics: No.16 Input-Output Tables for the United Kingdom 1963
Published by HMSO 1970 SBN 11 630077 9

Studies in Official Statistics: No.22 Input-Output Tables for the United Kingdom 1968
Published by HMSO 1973 SBN 11 630111 2

Business Monitor PA1004 Input-Output Tables for the United Kingdom 1970
Published by HMSO 1974 ISBN 0 11 511356 8

Business Monitor PA1004 Input-Output Tables for the United Kingdom 1971
Published by HMSO 1975 ISBN 0 11 511642 7

Business Monitor PA1004 Input-Output Tables for the United Kingdom 1972
Published by HMSO 1976 ISBN 0 11 511778 4

Business Monitor PA1004 Input-Output Tables for the United Kingdom 1974
Published by HMSO 1981 ISBN 0 11 512700 3

Business Monitor PA1004 Input-Output Tables for the United Kingdom 1979
Published by HMSO 1983 ISBN 0 11 513187 6

Input-Output Tables for the United Kingdom 1984
Published by HMSO 1988 ISBN 0 11 620299 8

Input-Output Tables for the United Kingdom 10th Edition containing 1990 tables
Published by HMSO 1995 ISBN 0 11 620664 0

Other Input-Output articles that have appeared in ONS Economic Trends:

Economic Trends No. 489 July 1994 (containing Input-Output Tables for the United Kingdom 1990) - Published by HMSO 1994 ISSN 0013 0400

Economic Trends No. 512 June 1996 (containing United Kingdom's Input-Output Balances) - Published by HMSO 1996 ISSN 0013 0400

Economic Trends No. 519 January 1997 (containing Balancing GDP : UK Annual Input-Output Balances) - Published by TSO 1997 ISSN 0013 0400

List of Input-Output balances for UK

Economic Trends No. 467 September 1992 (containing Input-Output Balance for the United Kingdom 1989) - Published by HMSO 1992 ISSN 0013 0400

Economic Trends No. 480 October 1993 (containing Input-Output Balance for the United Kingdom 1990) - Published by HMSO 1993 ISSN 0013 0400

Economic Trends No. 492 October 1994 (containing Input-Output Balance for the United Kingdom 1991) - Published by HMSO 1994 ISSN 0013 0400

The following balances are available on request from ONS sales desk tel. 0171 533-5678

1992 and 1993 consistent with the 1995 edition of the Blue Book

1992, 1993 and 1994 consistent with the 1996 edition of the Blue Book

Summary balances are also published in UK National Accounts (Blue Book) as follows (HMSO ISSN 0267 8691);

1989 balance as Chapter 18 in the 1992 edition

1990 balance as Table 2.1 in the 1993 edition

1991 and 1992 balances as Table 2.1 in the 1994 edition

1992 and 1993 balances as Table 2.1 in the 1995 edition

1992, 1993 and 1994 balances as Table 2.1 in the 1996 edition

The following publication(s) are also available on request from ONS sales desk tel. 0171 533-5678

UK Input-Output Balances : Methodological Guide 1997 - Published by ONS 1 85774 234 6

THE BUDGET - 26 NOVEMBER 1996

The following are the proposed changes in taxation and national insurance as set out in the *Financial Statement and Budget Report 1997-98* (The Stationery Office November 1996, ISBN 0 10 262797 5, Price £17.90)

Note: Figures in brackets refer to the appropriate line of the Revenue effects of Budget measures table which follows the article, where the yield or cost of each proposal is shown. The symbol "-" in brackets means that the proposal has no effect; the symbol "*" in brackets means that it has negligible revenue effects of less than £3 million a year.

Objectives

The Government's overall objectives for the tax system are to:

- keep the overall tax burden as low as possible, through firm control over public spending;
- reduce marginal tax rates on income and business profits, to sharpen incentives to work and create wealth through enterprise and investment;
- maintain a broad tax base, which helps to keep tax rates low and avoids distorting decisions;
- shift the balance from taxes on income to taxes on spending;
- simplify the administration of the tax system and minimise the burdens which compliance places on the taxpayer;
- apply it fairly and evenly, closing loopholes so that commercial decisions are not distorted by attempts to avoid tax;
- use the tax system to enable markets to work better, for example by making decision makers aware of the external costs of their decisions;
- raise revenue in ways which do least harm to the economy and take account of the competitive position of UK business.

This Budget furthers the Government's overall objectives for the tax system by:

- continuing to keep the overall tax burden low, through firm control over **public spending**, and only making tax cuts which it believes are sustainable;
- cutting the **basic rate of income tax** and the **small companies' corporation tax rate**
- cutting **inheritance tax** to allow more wealth to pass between generations;
- maintaining and strengthening a broad tax base, by phasing out **tax relief for profit related pay**, which has done the pump-priming job for which it was intended; and taking a range of direct and indirect tax measures, especially in respect of **VAT**, to close loopholes and to ensure that the tax system is applied evenly and fairly;
- including a number of measures to simplify the **administration of the tax system**;
- including a package of measures designed to **improve the environment**;
- seeking to raise the revenues necessary to provide public services in ways which are least distortionary and take account of the current strong position of UK business.

Personal taxation

Income

The Budget takes a further step towards a 20 per cent basic rate of **income tax** by cutting the basic rate of income tax from 24 per cent to 23 per cent (7); and widens the 20 per cent lower rate band by £200 in total, £100 more than indexation (5).

The Budget also proposes:

- increasing the main personal allowances by £280, £200 more than indexation (1);
- increasing the personal allowance for the elderly by £310, also £200 more than indexation (2);

- increasing the married couple's allowance, the additional personal allowance, the widow's bereavement allowance and relief for maintenance payments (3), the income limit for age related allowances (4), and the basic rate limit (6) in line with statutory indexation (based on the 2.1 per cent increase in the RPI in the year to September 1996);

- increasing the blind person's allowance to 1,280, and legislating for future statutory indexation (*).

The rate applicable to trusts will remain unchanged at 34 per cent (-).

These measures will:

- cut tax for all income tax payers, including over 3 million pensioners;

- reduce marginal rates for 16.6 million people;

- by widening the 20 pence band, ensure that over a quarter of all taxpayers continue to pay tax at a marginal rate of no more than 20 per cent; and

- take 410,000 out of income tax altogether, relative to indexation.

Number of income tax payers (millions)

Year	Lower rate	Basic rate	Higher rate	Total
1991-92	-	24.1	1.6	25.7
1992-93	4.2	19.4	1.7	25.4
1993-94	5.4	17.9	1.7	25.0
1994-95	5.2	18.2	2.0	25.3
1995-96[2]	5.6	17.9	2.2	25.7
1996-97[2]	7.1	16.4	2.1	25.6
1997-98[2,3]	7.2	16.2	2.2	25.6

1 From 1993-94 onwards a number of taxpayers with taxable income in excess of the lower rate limit pay tax only at the lower rate. This is because it is their dividend income and (from 1996-97) their savings income which take their taxable income above the lower rate limit, and such income is chargeable to tax at the lower rate and not the basic rate.

2 Provisional.

3 After taking account of Budget measures.

The income tax measures mentioned above cost £2.2 billion against an indexed base in 1997-98, rising to £3.3 billion in 1998-99 and £3.4 billion in 1999-2000.

The cut in the basic rate of income tax furthers the Government's objective of reducing marginal tax rates on income. The 23 per cent rate will be the lowest basic or standard rate of tax for nearly 60 years.

The new allowances and bands of taxable income are:

Income tax allowances (£)	**1996-97**	**1997-98**	**Increase**
Personal allowance	3 765	4 045	280
Married couple's allowance[1], additional personal allowance[1], widow's bereavement allowance[1]	1 790	1 830	40
For people aged 65-74:			
personal allowance	4 910	5 220	310
married couple's allowance[1]	3 115	3 185	70
For people aged 75 and over:			
personal allowance	5 090	5 400	310
married couple's allowance[1]	3 155	3 225	
Income limit for age related allowances	15 200	15 600	400
Blind person's allowance	1 250	1 280	30

1 Tax relief for these allowances is restricted to 15 per cent.

Band of taxable income (£)		**1996-97**	**1997-98**	**Increase**
Lower rate	- 20 per cent	0 - 3 900	0 - 4 100	200
Basic rate	- 24 per cent	3 901 - 25 500		
Lower rate	- 23 per cent		4 101 - 26 100	
Higher rate	- 40 per cent	over -25 500	over -26 100	600

The current **rent a room threshold** of £3,250 a year below which no tax is paid on rent received from a lodger in the landlord's own home will be increased by £1,000 to £4,250 from 6 April 1997 (8).

The scales for **assessing the benefit of free fuel** provided by employers for private use in company cars will be increased by 13 per cent for petrol cars and 15 per cent for diesel cars, in line with changes in fuel prices, from 6 April 1997 (9). The scales are also used for **employers' national insurance contributions** (51) and **VAT** (31).

The rules on **travel expenses** will be changed to give relief for travelling expenses incurred by site based employees and to make fairer and less complex the treatment of triangular travel. This will come into effect from April 1998(10).

The maximum level of earnings for which pension provision may be made with tax relief **(the "earnings cap")** will be increased in line with statutory indexation to £84,000 (-).

Capital

The Government is committed to reducing and eventually abolishing inheritance tax and capital gains tax when resources allow. This Budget contains a further step towards that objective on inheritance tax.

Inheritance tax is currently charged at 40 per cent on the value of estates in excess of £200,000. The threshold for inheritance tax will be increased to £215,000. The increase is £10,000 more than indexation, allowing more wealth to be passed between generations free of tax. This follows an increase of £46,000 in the last Budget (11).

The **capital gains tax** annual exempt amount will be increased in line with statutory indexation by £200 from £6,300 to £6,500 for individuals, and by £100 to £3,250 for most trusts (-).

Changes will be made to **CGT reinvestment relief**. Investment in company groups with a non-resident element may now qualify for relief and the rules governing the structure of their activities will be relaxed (12).

Business taxation

Direct tax

The main rate of corporation tax will remain unchanged at 33 per cent, lower than in any major industrialised country.

The income tax package benefits some 3 million self-employed business people.

The **small companies' rate of corporation tax** will be reduced from 24 per cent to 23 per cent from 1 April 1997, cutting the marginal rate of tax for 350,000 companies (13).

The cut in the small companies' rate of corporation tax furthers the Government's objective of reducing marginal tax rates on business profits to create wealth through enterprise and investment in this key sector of the economy.

Two small amendments will be made to the **Venture Capital Trust** (VCT) legislation to give VCTs added flexibility to develop further. Similar amendments will be made to the Enterprise Investment Scheme and CGT reinvestment relief (*).

Inheritance tax agricultural relief will be extended to cover farmland dedicated to wildlife habitats (*).

An extra-statutory concession governing **relief for employers' Class 1A national insurance contributions** when computing profits for tax purposes will be legislated for (-).

Business rates

The 1994 Budget introduced a scheme to limit the real increases in business rates bills to 10 per cent for large properties, 7 1/2 per cent for small properties and 5 per cent for mixed domestic/non-domestic properties (such as shops with flats above). For 1996-97 these maximum real increases were reduced to 7 1/2 per cent, 5 per cent and 2 1/2 per cent respectively. Under both schemes, to part-finance them, those who "gained" from the revaluation had their real reductions limited to 5 per cent each year (10 per cent for small businesses).

This Budget provides small businesses with substantial extra help with their 1997-98 rates bills. Properties whose rates bills are already falling in real terms will have those reductions accelerated. Rates bills for other properties will be frozen in cash terms. From 1998-99, real changes in rates bills will revert to the values previously announced (48).

The table overleaf shows the cost of transitional schemes since the 1995 revaluation.

Cost of business rate transitional schemes: £ million

	1995-96	1996-97	1997-98	1998-99	1999-2000
Cost of existing schemes	600	505	34	270	200
Additional costs of 1996 Budget measure	115	100	80		

The rate poundage for 1997-98 will be increased by 2.1 per cent in line with the RPI for the year to September 1996.

Measures to secure the tax base

The Budget contains a number of measures designed to secure the tax base, through blocking loopholes and phasing out or scaling back special reliefs. Additional resources are also being provided to increase the compliance activities of the Inland Revenue and Customs and Excise.

Direct tax

Tax relief for profit-related pay (PRP) was introduced in the 1987 Budget to help get PRP schemes off the ground. These schemes were intended to stimulate closer participation by employees in the profitability of their business and to encourage greater pay flexibility. Tax-relieved schemes made a slow start over the first few years. But, since the relief was doubled in 1991, PRP has become widely recognised as a normal element of remuneration in many businesses. The Government sees PRP as an important way of maintaining pay flexibility, but believes that it is now well established, and with the cost to the Exchequer rising substantially, the time has come to phase out its specially favourable tax treatment.

The income tax relief for PRP will be progressively reduced over a three to four year period, and then withdrawn altogether. For profit periods beginning before 1 January 1998, there will be no change in the present annual limit of £4,000 on the amount of PRP which may attract tax relief. For profit periods beginning between 1 January 1998 and 31 December 1998, the limit will be reduced to £2,000; for periods beginning between 1 January 1999 and 31 December 1999 it will be reduced to £1,000. No relief will be available for profit periods beginning on or after 1 January 2000 (14).

This Budget has also introduced a range of other direct tax measures with the aim of further securing the tax base.

The **tax treatment of machinery and plant** with an expected working life of more than 25 years will be brought more into line with the commercial accounting practice. The rate at which capital allowances are given on such assets purchased new on or after Budget day will be reduced from 25 per cent to 6 per cent per annum. The change will not apply to such investment up to 2010 in ships or railways (15).

Legislation will be introduced to counter avoidance schemes which turn **interest earnings of finance lessors into capital receipts** and to align the recognition of finance lessors' income more closely with commercial accounting practices (16).

The 100 per cent corporation tax deduction for **intangible costs of drilling most production oil wells** will be withdrawn. These costs will now only be eligible for mineral extraction capital allowances at 25 per cent on a reducing balance basis. The change applies to expenditure incurred on or after Budget day, except for expenditure to which a company was committed before Budget day and which will be incurred within the next year (17).

Measures will be introduced to ensure that, from Budget day, capital gains will remain chargeable where the **tax status of a security alters**, and to legislate for an extra-statutory concession so that it works as intended (18).

A **stamp duty reserve tax charge** will be introduced from Budget day to counter abuse of the stamp duty exemption for bearer securities issued in foreign currency by UK companies (19).

New measures will be introduced to counter **contrived claims to double taxation relief** (20).

Certain payments made under **life insurance policies** will be treated, with unlimited retrospection, as capital payments for the purposes of the special tax regime applicable to gains on policies of life insurance (*).

Changes will be made to clarify the rules preventing avoidance of income tax by UK residents from **the transfer of assets abroad** in relation to income arising on or after Budget day (*).

Employers who pay their employees in shares in their own company will, with effect from midnight on Budget day, be obliged to account for income tax under PAYE when the payment is made, unless the shares are provided under a scheme approved by the Inland Revenue. Such payments are currently treated as benefits in kind on which employees pay income tax after the end of the tax year. This measure does not apply to shares under options granted but not exercised before Budget day. Parallel measures will be applied to national insurance contributions (21).

Legislation will be introduced allowing the Department of Social Security to pass information to the **Inland Revenue** and **Customs and Excise** to assist those departments perform their duties, from Royal Assent (-).

VAT

To strengthen the tax base and combat VAT avoidance, a range of **specially targeted measures** will be introduced to collect VAT where and when it should properly be paid, and to protect future revenues. They will be reinforced by an extension of recently developed methods under the "spend to save" package, to control higher risk traders more effectively.

The main VAT anti-avoidance and revenue protection measures are to:

- restrict the availability of the **special schemes used by retailers** to account for VAT to businesses which cannot account for VAT in the normal way, from a current date as Customs discuss the issue with individual retailers; and withdraw the standard method of calculating gross takings (under which traders can delay accounting for VAT on in-house credit sales), from 1 March 1997 (25);

- counter tax avoidance by VAT groups on the **purchase of international supplies**, from Budget day (*);

- restrict further the option to charge VAT on **supplies of property**, so that it applies only to property used mainly for VATable business purposes. The measures take effect from Royal Assent, but will not affect supplies made after that date under leases executed before Budget day (27);

- **tax at a 17.5 per cent rate of insurance premium tax** certain insurance sold with other goods or services (for example mechanical breakdown insurance, travel insurance, and insurance sold with TV and car hire), unless bought direct from the insurer when it will be taxed at 4 per cent. The change is being made because some providers have avoided VAT by inflating the charge for the (VAT-exempt) insurance element liable to insurance premium tax. It will take effect from 1 April 1997 (42);

- prevent manipulation of the **bad debt relief provisions**. The main provision, for recovering input tax on supplies where no payment has been made and the supplier has lodged a claim for bad debt relief, affects supplies made after midnight on Budget day. The time at which bad debt relief can be claimed will be changed from six months from the time of supply to six months from the time payment is due, from 17 December 1996. Other provisions, which drop the requirement for a transfer of title to goods before entitlement to bad debt relief and repeal legislation relating to the "old scheme" for bad debt relief, take effect from Royal Assent (26).

- counter schemes using non-EC suppliers to supply **VAT-free telecommunications services** to customers in the UK, from a date to be agreed by all member states (28);

- ensure that the existing zero rates for **the sale of donated goods** cannot be used to allow organisations who make VAT-exempt supplies to obtain items of equipment free of VAT, with effect from Budget day (*);

- specify the conditions under which **charitable providers of institutional or domiciliary care or treatment** will be entitled to purchase a specified range of "relevant goods" at the zero rate. This will take effect from Budget day (*);

- strengthen the rules to prevent the **artificial separation of businesses** to get below the VAT registration threshold, from Royal Assent (*);

- ensure that **businesses hiring out staff** have to account for VAT on the salary costs of the staff, even where these are met direct by the client business, with effect from 1 April 1997. Customs will be consulting those affected with a view to allowing the present VAT treatment to continue for genuine secondments (*).

As announced on 18 July 1996 (31), **a three year limit is being introduced for refunds of VAT** and other indirect taxes and associated statutory interest, where appropriate. There will also be changes to the provision on "unjust enrichment" to seek to prevent windfall profits to refund recipients. The three year limit applies from 18 July 1996 for VAT, but will apply from Royal Assent for other indirect taxes. From the same dates, Customs' power to assess for underpayments of VAT and other indirect taxes is being reduced from six years' arrears to three (29).

Simplification and deregulation

In line with the Government's tax objectives and the direction of previous Budgets, this Budget includes a range of measures intended to help to simplify the tax system and to ease the administrative burdens it places on business.

Direct tax

A stamp duty exemption will be introduced for certain demutualisations of insurance businesses, subject to conditions (23).

Mergers between authorised unit trusts will be exempted from stamp duty and stamp duty reserve tax (SDRT) if they take place between Royal Assent to the Finance Bill and 30 June 1999. The stamp duty regime for repurchases of units by unit trust managers will be simplified (*).

Companies owned by charities will be allowed to make covenanted donations to the parent charity after the end of the accounting period in which the donation fell due, but still get relief in that accounting period. The new rules will apply to donations made in accounting periods beginning on or after 1 April 1997 (*)

Tax relief for **vocational training** will be extended from 1 January 1997 to those receiving career development loans and "access funding". Administrative procedures for vocational training relief will be simplified. The extra-statutory concession exempting the benefit of employer-funded training will be modernised and enacted (22).

The requirement to deduct income tax at source from rental payments in respect of electric, telegraphic, or telephone wires or cabling (**wayleave payments**) will be abolished (24).

The National Savings Bank's continuing ability to pay interest on deposits without deducting tax will be ensured (-).

Indirect tax

Customs and Excise **debt recovery legislation** will be rationalised and consolidated. The measures will simplify the law and introduce common rules for debt recovery for all the Department's taxes, from Royal Assent (44).

Simplification and deregulatory changes to VAT will include:

- the **annual turnover threshold** above which traders must register for VAT will rise from 47,000 to 48,000 from midnight on Budget day, and the deregistration threshold will rise from 45,000 to 46,000. The registration and deregistration thresholds for acquisitions from other Member States will increase from 47,000 to 48,000 on 1 January 1997 (30);

- consultation with business is to take place on a review of the **capital goods scheme**, with any consequential changes to take effect as soon as possible after the end of the consultation period (-);

- limited retrospection will be allowed for changes to the composition of **VAT groups** and the effects of group treatment on bodies with special status (for example, charities) will be clarified, from midnight on Budget day (32);

- statutory cover for an existing extra-statutory concession will be provided from Royal Assent, by extending the registration provisions in Schedule 1 of the VAT Act 1994 to allow **businesses making specified exempt supplies** to register (-);

- statutory cover for the existing extra-statutory concession, relating to the **conversion of commercial property** to residential dwellings, will be provided from Royal Assent (-);

- VAT law is to be amended from 1 January 1997 so that professional services performed by **registered pharmacists** and supplied through partnerships or limited companies will be exempt from VAT. The measure brings VAT law into line with existing practice (-);

- businesses in the payments on account scheme for large VAT payers will be able to **appeal to a VAT Tribunal** if Customs refuse to allow them to pay on account the actual monthly liability instead of preset amounts calculated by Customs. This measure will take effect from shortly after Royal Assent (-);

- measures are to be introduced to revise and clarify the VAT exemption for the **supply of insurance and related services**, with effect from Royal Assent (-).

Changes are to be made to the structure and administrative arrangements for **gaming licence duty**, following consultation with the casino industry. From 1 October 1997 the duty will be renamed gaming duty and some of the requirements used in the control of casinos will be relaxed (*).

From 1 January 1997, the annual **Intrastat threshold** above which traders must provide Customs and Excise with detailed statistics on trade within the European Union will be increased from 160,000 to 195,000 (-).

Statutory cover will be provided for an existing extra-statutory concession, which allows certain **insurance premiums charged to UK banks** or financial institutions to be treated as exempt from insurance premium tax where the insurance covers the risk of non-repayment of a loan made to an overseas customer to finance a non-UK transaction. This will take effect from Royal Assent (-).

The present extra-statutory concession, which simplifies the administrative arrangements for **insurance premium tax on healthcare** insurance premiums deducted from employees' pay, will be extended and given legal effect. This will take effect from Royal Assent (-).

Excise duties

From Royal Assent, the assessment mechanism for **excise duty provisions** contained in Section 12 of the Finance Act 1994 will be extended to cover circumstances where there has been an overclaim or other form of irregularity (*).

Tobacco

The Government is committed to increasing tobacco duties each year by at least 3 per cent in real terms so as to improve the nation's health. This year it has decided to go a little further than this. Duties on **most tobacco products** will be increased by 5 per cent in real terms, 7.1 per cent nominal, from 6pm on Budget day. Duty on hand-rolling tobacco will be increased in line with inflation (36).

Fuel

The taxes (duty plus VAT) on **petrol and diesel** will rise by 3p per litre from 6pm on Budget day, in line with the Government's commitment to increase duty on average by at least 5 per cent a year in real terms (37). Duties on gas oil and fuel oil will rise by 0.17 pence and 0.13 pence per litre respectively (40).

Air quality package

In addition to continuing to meet the commitment to increase petrol and diesel duties, the Budget contains a package of measures designed to **improve the environment** by attacking particulate and other harmful vehicle emissions. The three elements of this package are:

- from a date to be announced, the duty on ultra low sulphur diesels which meet certain environmental standards will be reduced by 1 penny per litre, so as to move towards equalisation of pump prices with conventional diesel (38);

- from 6pm on Budget day, the duty on road fuel gases (liquefied petroleum gas and compressed natural gas) will be cut by 25 per cent (39);

- and a VED reduction of up to 500 for lorries which meet a low emissions standard will be introduced from early 1998, following consultation on the implementation details. This will encourage the fitting of particulate traps or conversion to gas power (47).

Alcohol

For the second Budget running, **duties on beer, most wine and most cider and perry** will remain unchanged (33). Duty on spirits will be reduced by 4 per cent from 6pm on Budget day (34).

From 1 January 1997 there will be an increase in the duty rates applicable to the two duty bands for coolers (wine and made wine, including **"Alcopops"**, of strengths not exceeding 4 per cent and 5.5 per cent alcohol by volume (abv), which will be aligned with the rates due for beer at 4.0 per cent abv and 5.5 per cent abv respectively (35).

From 1 January 1997 the duty rate on **sparkling wine** or sparkling made-wine of strengths exceeding 5.5 per cent abv but not exceeding 8.5 per cent abv will be reduced to 195.63 per hectolitre, and the duty rate for sparkling cider and perry of similar strength will be increased to 36.45 per hectolitre (*).

Excise duty changes

	Changes in duty (per cent)	Effect on tax[1] of typical item (pence)	Unit
Alcohol			
Beer	0	0	pint
Most wines	0	0	75cl bottle
Spirits	-4	-26	70cl bottle
Most ciders and perry	0	0	pint
Tobacco			
Cigarettes	7.2	15	packet of 20
Cigar	7.1	7	packet of 5
Hand-rolling tobacco	2.1	5	25g
Pipe tobacco	7.1	8	25g
Fuel			
Leaded petrol	6.5	3	litre
Unleaded petrol	7.5	3	litre
Superunleaded petrol	6.8	3	litre
Diesel[3]	7.5	3	litre
Gas oil	7.3	0.17 (exc VAT)	litre
Fuel oil	7.2	0.13 (exc VAT)	litre
AVGAS	6.5	1.5	litre
Road fuel gas	-25	-8	kg

1 Tax refers to duty plus VAT unless otherwise stated.
2 Specific duty up by 5.5 per cent. Rate of ad valorem duty up by one percentage point.
3 At a date to be announced, duty on ultra low sulphur diesel will be reduced by 1 penny per litre.

Air passenger duty

The rates will be increased from £5 to £10 for flights within the UK, or from the UK to states within the European Economic Area, and from 10 to 20 for flights elsewhere, with effect from 1 November 1997 (43).

Betting, gaming and lottery

The levels of amusement machine licence duty are unchanged (*), in common with other duty rates for betting, gaming and the lottery (-).

Insurance premium tax

The **insurance premium tax** rate will rise from 2 1/2 per cent to 4 per cent on most general insurance from 1 April 1997 (41).

Vehicle Excise Duty (VED)

VED on private/light goods vehicles (PLG), chiefly cars, taxis and vans, will rise by 5 to 145 from 27 November 1996, broadly in line with inflation. Rates for motorcycles over 250cc will also rise by 5 to 60, while rates for other size motorcycles will be unchanged (45).

Duty on lorries will be frozen, the seventh successive Budget freeze for most rates of lorry VED (46).

A number of minor changes will be made to:

- place on a statutory basis a current extra-statutory VED exemption for disabled people undergoing long-term treatment in hospital (*);
- bring the enforcement and administration of licences for vehicles which are exempt from VED (**"nil" licences**) into line with licences on which duty is payable (*);
- enable enforcement of VED payments made by methods such as direct debit, in order to allow major vehicle fleet operators and others to purchase licences by direct debit via computer links (*);
- enable unlicensed vehicles to be removed **without prior clamping**, in certain special circumstances (for example, if they have formerly been subject to illegal removal of a clamp) (*).

Direct/indirect tax balance

The tax measures in this Budget collectively take further the Government's objective of shifting the balance of taxation from taxes on income to taxes on spending. Chart 4 illustrates how the balance has changed from 1978-79 to Budget projections for 1997-98.

National insurance contributions

From April 1997, the main rate of employer NICs will be reduced from 10.2 per cent to 10 per cent, as announced in the 1995 Budget. This Budget increases the lower earnings limit from 61 to 62 a week, in line with the single person's rate of retirement pension, and increases the upper earnings limit from 455 to 465 a week (50). The earnings thresholds for the employers' lower rate bands will remain unchanged (49). So the structure of contributions for 1997-98 will be:

Structure of national insurance contributions 1997-98

	Percentage NIC rate	
Weekly earnings	Employees	Employers
Below £62	0	0
£62 to £109.99	2% of £62	3
£110 to £154.99	plus 10%	5
£155 to £209.99	of earnings	7
£210 to £465	between £62	10
Above £465	and £465	10

Treasury grant not exceeding 4 per cent of contributory benefit expenditure will be made available to the National Insurance Fund in 1996-97. The Government Actuary will report on the likely effect of the changes on the Fund.

Revenue effects of Budget measures

	£ million yield (+)/cost (-) of measure			
	Changes from a non-indexed base	Changes from an indexed base		
	1997-1998	1997-1998	1998-1999	1999-2000
INLAND REVENUE				
Personal taxation				
1 Personal allowance - up by £280	-1 160	-840	-1 250	-1 300
2 Age related allowances - up by £310	-120	-80	-120	-120
3 Married couple's allowance - indexed	-50	0	0	0
4 Income limit for age related allowances - indexed	-10	0	0	0
5 Lower rate band - up by £200	-120	-60	-140	-160
6 Basic rate limit - indexed	-140	0	0	0
7 Basic rate - reduced to 23 per cent	-1 250	-1 250	-1 800	-1 800
8 Rent a room threshold increased	*	*	-5	-5
9 Car fuel scales increased	30	30	30	30
10 Changes to the rules on travel and subsistence expenses	0	0	-5	
Capital				
11 Inheritance tax threshold - up 10,000 over indexation	-45	-30	-55	-65
12 CGT reinvestment relief extended	-5	-5	-10	-15
Business measure				
13 Small companies' corporation tax rate cut to 23 per cent	0	0	-80	-110
Measures to secure the tax base				
14 Tax relief for profit related pay - phased out	100	100	700	1 700
15 Capital allowances - long life assets	45	45	325	675
16 Finance leasing of assets	80	80	150	150
17 Relief for drilling production oil wells	*	*	150	200
18 CGT: treatment of securities	5	5	15	20
19 SDRT bearer securities	50	50	50	50
20 Countering contrived claims to double taxation relief	*	*	50	50
21 PAYE/NICs avoidance: payment in "own company" shares	110	110	30	30
Simplification and deregulation				
22 Extension of vocational training relief	*	*	*	-5
23 Stamp duty: demutualisation of insurance companies	-10	-10	-5	-5
24 Abolition of deduction of tax at source from wayleaves	-5	-5	*	*
CUSTOMS AND EXCISE				
Value added tax: measures to secure the tax base				
25 Changes to special accounting schemes for retailers	360	360	25	25
26 Bad debt relief	120	120	175	165
27 Land and property	70	70	110	120
28 Telecommunications and similar services	10	10	10	10
Value added tax: other measures				
29 "Unjust enrichment" and statutory interest	-100	-100	-100	-100
30 Registration threshold - indexed	-15	0	0	0
31 Car fuel scales increased	20	20	25	25
32 Group treatment	-5	-5	-5	-5

Revenue effects of Budget measures (continued)

	£ million yield (+)/cost (-) of measure			
	Changes from a non-indexed base	Changes from an indexed base		
	1997-1998	1997-1998	1998-1999	1999-2000
Excise duties on:				
33 Beer, most wine, cider and perry unchanged	0	-95	-100	-105
34 Spirits cut by 4 per cent	-35	-50	-50	-50
35 Coolers less than 5.5 per cent alcohol by volume - increased	5	5	10	10
36 Tobacco up by 5 per cent real, but hand-rolling tobacco indexed[1]	140	140	150	155
37 Petrol and diesel up by 3p per litre (including VAT)[1]	15	15	15	15
38 Ultra low sulphur diesel 1p differential from ordinary diesel	-15	-15	-15	-15
39 Road fuel gas cut by 25 per cent	*	*	-5	-10
40 Fuel and gas oil up by 5 per cent in real terms	20	15	15	20
Other measures				
41 Insurance premium tax from 2.5 per cent to 4 per cent	325	325	455	470
42 Insurance premium tax to 17.5 per cent on insurance sold with certain goods and services	160	160	235	260
43 Air passenger duty from £5/10 to £10/20	125	120	385	415
44 Debt recovery: rationalisation of law	5	5	0	0
VEHICLE EXCISE DUTY				
45 Car VED etc increased by £5	120	50	50	50
46 Lorry VED unchanged	0	-10	-10	-10
47 Reductions for lorries meeting low emissions	*	*	-5	-10
BUSINESS RATES				
48 Extend transitional scheme so no cash increases for small properties in 1997-98	-115	-115	-100	-80
NATIONAL INSURANCE CONTRIBUTIONS				
49 Employer NICs - freeze the three intermediate earnings thresholds	0	100	100	100
50 All other NICs thresholds - indexed	-65	*	*	*
51 Car fuel scales increased	0	0	10	10
Total	-1 350	-735	-590	780

* = *Negligible.*

[1] *Tax increases previously announced and at a minimum confirmed in this Budget*

5 per cent real increase in road fuel duties	*1 210*	*850*	*935*	*1 030*
3 per cent real increase in tobacco duties	*400*	*235*	*245*	*260*
Total	*1 610*	*1 085*	*1 180*	*1 290*

Annex A - Explaining the costings

This annex explains how the effects of Budget measures on tax yield are calculated.

The general approach

The revenue effect of a Budget measure is the difference between the tax yield from applying the pre-Budget and post-Budget tax regimes to the levels of total income and spending at factor cost expected after the Budget. The estimates do not therefore include any effect the tax changes themselves may have on overall levels of income and spending. They do however take account of other effects on behaviour where they are likely to have a significant effect on the yield, and any consequential changes in receipts from related taxes. For example, the estimated yield from increasing the excise duty on tobacco includes the change in the yield of VAT on that duty, and the change in the yield of VAT and other excise duties resulting from the new pattern of spending. Where the effect of one tax change is affected by the implementation of others the measures are costed in the order in which they appear in the Revenue effects of Budget measures table.

The non-indexed base column in Table 1 shows the costs of allowances, thresholds and rates of duty which applied before this Budget (including any measures, such as the real increases in fuel and tobacco duties, previously announced but not yet implemented). The indexed base columns strip out the effects of inflation by increasing the allowances, thresholds and rates of duty in line with prices in this and in future Budgets (again taking account of measures previously announced but not yet implemented). Measures announced in this Budget are assumed to be indexed in the same way in future Budgets.

In calculating the indexed base it is assumed that each year excise duties rise in November (January for alcohol) and allowances and thresholds rise in April, in line with the assumed increase in the RPI over 12 months to the previous September. The increase in the year to September 1996 was 2.1 per cent. The commitments for real increases in fuel and tobacco duties of 5 and 3 per cent respectively are also built in. The RPI assumptions are 2 1/2 per cent, 2 per cent and 2 per cent for September 1997, 1998 and 1999 respectively.

Notes on individual Budget measures

The numbers below refer to lines in the Revenue effects of Budget measures table.

Inland Revenue taxes

The costs of the following measures in a full year, against an indexed base, are:

1 £1,140 million
2 £110 million
5 £70 million
7 £1,700 million.

3,4 The increases in allowances and limits are rounded according to statutory rules after being increased in line with the rise in the all items Retail Prices Index in the year to September 1996.

14 The yield in 2000-01 is £3,100 million.

15 The yield increases over the next 10 to 20 years. The actual amounts depend on future investment levels.

17 The yield in future years is likely to be less than £200 million per year.

18 to 21 The yields represent the estimated direct effect of the measures with the existing level of activity. Without these measures there could be a more significant loss of revenue in the future.

Customs and Excise taxes

28 Costings assume an implementation date of 1 May 1997; the effective date however depends on EC agreement on the necessary derogation.

38 Costings assume an implementation date of 15 May 1997; the effective date however depends on EC agreement on the necessary derogation.

Revenue effects in 1996-97

A number of Budget measures have non-negligible revenue effects in the current financial year, 1996-97. These are summarised below:

Measures in 1996 Budget which have non-negligible revenue effects in the current year

		£ million yield (+)/cost (-) of measure
		Changes from an indexed base
		1996-1997
26	VAT: bad debt relief	30
29	VAT: "unjust enrichment" and statutory interest	-60
33	Beer, wine and cider	-15
34	Spirits	-10
36	Tobacco	30
37	Petrol and diesel	35
40	Minor oils	35
Total		-15

Annex B - Tax changes announced before the Budget

Revenue effects of measures announced since the 1995 Budget

	£ million yield (+)/cost (-) of measure			
	Changes from a non-indexed base	Changes from an indexed base		
	1997-1998	1997-1998	1998-1999	1999-2000
Inland Revenue taxes				
1 Stamp duty/SDRT relief for intermediaries	-25	-25	-50	-50
2 Capital allowances for fixtures[1]	*	*	25	50
3 Purchase of own shares and special dividends	200	200	400	400
4 Interest on late payments and tax overpaid	75	75	75	75
5 Repayment supplement - changes to the rules	-5	-5	-5	-5
Customs and Excise taxes				
6 VAT: Concession on option to tax buildings sold for residential development	-	-100	-110	-120
7 VAT: Exemption for cultural admission charges	-5	-5	-5	-5
8 Ending VAT avoidance on fuel and power	25	25	25	25
9 VAT on vouchers and promotional schemes	-20	-20	-20	-20
Vehicle excise duty				
10 Exemption for non-business HGV's over 25 years old	*	*	*	*
Total	**150**	**150**	**325**	**340**

[1] *The yield may rise to 100 million per annum in future years.*

* *= Negligible.*

Inland Revenue taxes

The present stamp duty and stamp duty reserve tax (SDRT) reliefs for market-makers and broker-dealers will be replaced by a relief for intermediaries, from a date to be appointed by HM Treasury (1).

It was announced on 24 July 1996 that changes would be made to the rules for giving capital allowances on fixtures in buildings. The changes, which will apply to expenditure incurred on or after the date of announcement, limit allowances to the original cost of the fixture, prevent the acceleration of allowances and remove allowances from fixtures leased to non-taxpayers under equipment leases. Further changes will be made to simplify the operation of the rules (2).

The payable tax credits on purchases by companies of their own shares and certain special dividends were removed for distributions made on or after 8 October 1996, to counter tax avoidance (3).

It was announced on 11 November 1996 that the Treasury would be laying regulations in January to amend the way that interest rates on late and overpaid income and capital gains tax are calculated. The changes will result in a higher rate of interest being charged for overdue tax and a lower rate of interest being paid for tax overpaid (4).

A supplement on repayments of overpaid income tax and CGT under self assessment will be calculated for 1996-97 and subsequent years from the date the tax was paid instead of from the later of the due date or the date of payment (5).

On 14 November 1996, the Government announced amendments to the tax rules for corporate loan relationships to correct certain technical defects in the legislation. These measures will align the rules with Parliament's original intentions and will apply from the date of announcement (*).

Non-stamp duty restrictions on equity lending will be removed. Legislation about stock lending and manufactured payments will be simplified (*).

On 18 November 1996, it was announced that regulations would be made next year to extend and simplify the arrangements for paying gilt interest gross to overseas investors (*).

On 12 July 1996, the Government announced a measure to pre-empt the use of artificial derivative transactions to turn interest-like income into capital gains (*).

Existing rules allow a group that is selling all of its North Sea licence interests to transfer unused petroleum revenue tax (PRT) reliefs to the buyer. From 23 July 1996, claims for these reliefs made by the buyer will only be allowed if they would have been allowed on a claim by the seller. This puts beyond doubt that the existing rules cannot be manipulated. This will protect substantial amounts of PRT(-).

Customs and Excise taxes

With effect from 12 February 1996, Customs and Excise made an extra-statutory concession allowing vendors of commercial property for conversion to residential dwellings to opt to charge VAT on the sale. This allowed them to recover any associated VAT they had incurred in connection with the property. The VAT charged on the sale of the building would normally be recoverable by the developer, so that there would be no hidden VAT reflected in the price of the dwellings when they are sold (6).

A new exemption from VAT for admission charges to certain cultural places and events was introduced from 1 June 1996 (7).

A measure was enacted to end VAT avoidance whereby some organisations had been able to avoid VAT on fuel and power by exploiting the zero rate for supplies of water. It took effect from midnight on 26 June 1996 (8).

The European Court of Justice issued rulings on 24 October 1996 in two cases involving vouchers. The rulings were that businesses should only account for tax on the sum received for vouchers sold at a discount and that manufacturers should be able to reduce their output tax when making payments to retailers accepting vouchers (9).

Vehicle Excise duty

A change to VED was enacted during the passage of the 1996 Finance Bill to extend the exemption for vehicles over 25 years old to include vehicles such as preserved steam and agricultural vehicles, preserved road rollers, ex-commercial and ex-military vehicles and fire engines (10).

Measures announced in 1995 Budget or earlier which take effect after the 1996 Budget

	£ million yield (+)/cost (-)			
	Changes from a non-indexed base	Changes from an indexed base		
	1997-1998	1997-1998	1998-1999	1999-2000
Inland Revenue taxes				
1 Gilt Strips	-540	-540	-190	-130
2 Construction industry scheme	0	0	0	300
Customs and Excise taxes				
3 5 per cent real increase in road fuel duties	1585	1110	2170	3405
4 3 per cent real increase in tobacco duties	505	295	570	865
National insurance contributions				
5 Employer NICs	-505	-505	-600	-635
Vehicle excise duty				
6 Off road notification scheme	5	5	15	20

Inland Revenue taxes

The November 1995 Budget announced the intention to proceed with a gilt strips market and make directions to the effect that all holdings of strippable gilt issues would pay interest gross once the strips market became operational. On 13 August 1996, HM Treasury issued directions that all current and future issues of strippable gilts will pay interest gross from June 1997 (1).

The changes to the construction industry scheme are expected to take effect no earlier than August 1999 (2).

Customs and Excise taxes

The Chancellor said in the November 1993 Budget that road fuel duties would be increased on average by at least 5 per cent in real terms in future Budgets (3).

The Chancellor said in the November 1993 Budget that tobacco duties would be increased on average by at least 3 per cent in real terms in future Budgets (4).

National insurance contributions

The main rate of employer NICs will be reduced from 10.2 per cent to 10 per cent from April 1997, to offset the revenue from the landfill tax (5).

Vehicle Excise duty

It was announced in the 1995 Budget that an off road notification scheme is going to be introduced for all cars, vans, tricycles and motorcycles. It has since been decided to extend this scheme to lorries as well. Keepers of vehicles will be required to notify the Driver and Vehicle Licensing Agency (DVLA) when a vehicle excise licence is not to be renewed because the vehicle is taken off the road, sold or scrapped. This will enhance DVLA's enforcement effort, reduce duty evasion and improve the vehicle record. This new system will be phased in starting in early 1997. The figures for the off road notification scheme are revised estimates, which differ from those in the Financial Statement and Budget Report 1996-97 (6).

The economy: recent developments and prospects

Summary

The economy is well into its fifth year of healthy growth. GDP rose at an annual rate of around 2 1/2 per cent over the first three quarters of 1996, which is probably close to its long-run trend. Over the year to October, claimant unemployment fell by a further 235,000, and is now almost 1 million below its peak in December 1992. Underlying retail price inflation has remained at around 3 per cent over the past year. The current account was in broad balance over the first half of 1996.

Final demand has been rising strongly since the start of this year. Until mid-year, output growth was held back by an adjustment in stocks, following excess accumulation in 1995. But output growth appears to have quickened in the second half of this year.

GDP is forecast to grow by 3 1/2 per cent in 1997. Consumer demand is likely to remain strong, reflecting high personal wealth, rising real incomes and improved consumer confidence. Surveys of investment intentions point to a further acceleration in business investment over the coming year. Exports have grown more strongly this year, and should benefit from improving European markets.

Higher import costs were tending to push up inflation in 1995. This pressure has now eased, and producer output price inflation has fallen from 4 1/2 per cent at the end of last year to under 1 per cent in October. Underlying retail price inflation is forecast to fall from around 3 per cent in the fourth quarter of this year to 2 1/2 per cent by the second quarter of next year, as lower import and producer prices gradually work through to prices in the shops.

Table 1 Summary of forecast

		Forecast		
	1995	1996	1997	1998
Real GDP growth (per cent)	2 1/2	2 1/2	3 1/2	3
Inflation (RPI excluding MIPs, Q4)	3	3	2 1/2	2 1/2[1]
Current account (billion)	-4	-2 1/4	-4 1/4	-4 3/4[2]

1 Q2.
2 At an annual rate.

The economy in the short term

The world economy

Summary

G7 growth continued at around trend in the first half of 1996, but the pattern varied markedly across countries, with continuing weakness in Europe offset by strength in the US and Japan. There are now signs that the recovery in Europe expected for the second half of this year is underway. The US economy grew faster than trend in the first half of the year, but growth is now slowing to a more sustainable rate. Japan has finally started to emerge from recession: growth was erratically strong in the first half of the year, but should continue at a more modest pace from now on. Overall, G7 growth is expected to average 2 1/4 per cent in 1996. With recovery firming in Europe, growth across the G7 may converge next year, while still averaging around 2 1/4 per cent.

Table 2 The world economy

	Percentage changes on a year earlier			
		Forecast		
	1995	1996	1997	1998 H1
Major seven countries[1]				
Real GDP	2	2 1/4	2 1/4	2 1/2
Domestic demand	2	2 1/2	2 1/4	2 1/4
Industrial production	3	2 1/4	2 3/4	2 3/4
Consumer price inflation[2]	2 1/4	2 1/4	2 1/4	2 1/4
World trade in manufactures	10 1/2	6 1/2	7 1/4	7 3/4
UK export markets[3]	9 3/4	6	6 1/2	7 1/4

1 G7: US, Japan, Germany, France, Italy, UK and Canada.
2 Final quarter of each period. For UK, RPI excluding mortgage interest payments.
3 Other countries' imports of manufactures weighted according to their importance in UK exports.

World trade has grown more slowly than in 1995, partly reflecting a weakening of Asian trade growth. Oil prices have increased sharply in recent months, but non-oil commodity prices have weakened. World inflationary pressures remain subdued.

Europe

The activity picture in Europe has brightened a little since the early summer. In Germany, growth was stronger than expected in the second quarter. However, a considerable part of the 1 1/2 per cent increase in GDP reflected special factors, and growth is expected to stabilise at a slower rate in the second half of the year. Although fiscal policy is set to be tightened significantly, the currently low level of interest rates, rising exports and some pick-up in investment should see the recovery continue in 1997.

In France, GDP fell by nearly 1/2 per cent in the second quarter, following a strong rise in the first quarter. All the components of expenditure eased back, but this partly reflected one-off factors. The third quarter should see some rebound, following strong consumption growth over the summer. The low level of interest rates should help underpin the recovery, but growth for 1996 as a whole is still likely to be very subdued. As in Germany, prospects for next year and beyond look better.

After holding up well until the fourth quarter of last year, activity in Italy has since weakened. But with inflation at record low levels and recent interest rate cuts, prospects for 1997 seem brighter. The situation in the rest of Europe generally reflects that in the larger countries, with relatively low growth rates likely for 1996 but a pick-up expected next year. For the European Union as a whole, growth is expected to be around 1 1/2 per cent this year, rising to 2 1/4 per cent in 1997.

United States

Growth in the US was faster than trend through the first half of 1996, at an annual rate of 3 1/4 per cent. But growth slowed to an annual rate of 2 1/4 per cent in the third quarter, with a marked slowdown in consumer spending and housing investment. Growth is expected to continue at around its trend rate of 2 to 2 1/4 per cent from now on.

Japan

In Japan, recovery now looks to be firmly established, but the take-off has not been smooth. Growth, at an annual rate of 6 per cent in the first half of the year, was inflated both by public spending and the leap year effect. With public investment set to fade, growth should start to slow in the second half of the year, but the average for 1996 as a whole should still be the strongest for five years. Private sector demand is slowly taking over as the main engine of growth. Residential investment has led the way, but business investment and consumer demand have started to follow suit. The drag from net exports is also starting to fade. Despite next year's fiscal consolidation, growth is likely to continue, although at rates significantly slower than the 4 per cent averaged over the 1980s.

World trade

Growth in world trade in manufactures slowed from over 11 per cent at an annual rate in the first half of 1995 to 7 1/2 per cent in the second half, reflecting the slowdown in Europe and the US. It is estimated to have slowed further, to around 6 per cent, in the first half of 1996, as European activity remained weak and Asian trade growth slowed. World trade growth is forecast to pick up in 1997 and the first half of 1998 as European activity strengthens and Asian exports recover from their slump in 1996. UK export markets are forecast to continue growing more slowly than world trade in 1997 and the first half of 1998, reflecting faster growth in developing countries and strong intra-regional trade in Asia.

Commodity prices

Oil prices have risen sharply in recent months, and are now above their earlier peak in the spring. It is difficult to explain this increase, although low stock levels and continuing uncertainty over the return of Iraq to the oil market have been contributory factors. The fundamentals of supply and demand generally seem to point to lower prices, but recent volatility means that any assumption about oil prices is very uncertain. For the purpose of the forecast, Brent oil prices are assumed to remain relatively high over the course of next year, averaging $21 per barrel for the year as a whole.

By contrast, non-oil commodity prices have weakened recently. Metals prices remain low following the collapse in copper prices over the summer, and grain prices have dropped sharply since the spring. The short-term outlook for raw materials prices remains weak and, with G7 growth projected to be around trend next year, non-oil commodity prices are unlikely to be a source of world inflationary pressure.

Inflation

G7 consumer price inflation has been steady at around 2 1/2 per cent since the middle of 1995. Some have pointed to an inflation risk in the US, where unemployment is now below the level at which inflation has picked up in the past. But there is little evidence of inflationary pressures to date and, with growth now slowing, underlying inflation is not expected to pick up significantly from the rates seen over the past two years. Some margin of spare capacity is likely to continue to exert downward pressure on inflation in Japan and Europe. Overall, G7 consumer price inflation is forecast to remain at around 2 1/4 per cent in 1997 and the first half of 1998.

Interest rates

Official short-term interest rates have been unchanged since January in the US and since September 1995 in Japan, but there has been some recent mild easing in continental Europe. Following a cut in the Bundesbank's repo rate in late August, most other European central banks have reduced short-term interest rates.

Following some unsteadiness over the summer, G3 long-term interest rates have fallen slightly in recent months. But the rise in long rates in the US at the start of the year has been sustained. As German long rates have drifted down since the early summer, yields in the rest of Europe have also fallen. Long-term interest rates in Japan remain low.

The UK economy

Demand and output

Demand growth slowed in 1995, partly in response to the slowdown in activity in continental Europe. The impact on output was cushioned by an accumulation of excess stocks, and GDP grew at an annual rate of around 2 per cent for much of the year. Consumer demand has strengthened since the beginning of 1996, and exports have also grown more strongly. After little growth in 1995, business investment was up substantially in the first three quarters of this year.

Despite this strengthening of final demand, GDP growth did not pick up in the first half of 1996, as firms ran off their excess stocks. However, there are now clear signs that stronger demand is feeding through to output, and GDP grew at an annual rate of over 3 per cent in the third quarter.

It is mainly service sector output that has strengthened this year, growing at an annual rate of over 3 1/2 per cent in both the second and third quarters. Manufacturing output remained broadly flat over the year to the second quarter, held back by stock adjustment. However, it then rose by 0.7 per cent in the third quarter, and business surveys suggest that it will strengthen further in the coming months. After showing little change for over a year, construction output also rose in the third quarter.

Prospects

Stock adjustment may largely have run its course. Consumers' expenditure is likely to continue to expand quickly in response to higher incomes and wealth and rising consumer confidence. With capacity utilisation rising and company balance sheets strong, this should be accompanied by a continued recovery in business investment. And exports should benefit from a strengthening of activity elsewhere in Europe. Against this background of rising demand, GDP is forecast to grow at an annual rate of almost 3 1/2 per cent over the next 18 months.

Personal sector and the housing market

Consumers' expenditure

Consumers' expenditure has strengthened since the end of last year, growing at an annual rate of almost 4 per cent over the first three quarters of 1996, compared with growth of 2 per cent in 1995 as a whole. The pattern of spending has also changed. While services accounted for much of the growth in spending in the first half of 1995, it is spending on durable goods which has led the way so far this year. This is consistent with rising consumer confidence, strong growth in consumer credit and a recovering housing market.

Monthly indicators suggest that consumer spending has continued to grow strongly. Retail sales in the three months to October were 4 per cent higher than a year earlier, while the CBI Distributive Trades Survey shows the most buoyant annual sales growth for over eight years. New car registrations in the three months to October were up 3 1/2 per cent on a year earlier. Consumer credit rose by 16 per cent over the year to September, and the EC/GfK index of consumer confidence has risen to its highest levels since the late 1980s.

Real personal disposable income is forecast to grow by 3 3/4 per cent this year. Dividend payments, which increased by a quarter in 1995, are unlikely to rise as much this year; but real earnings are now growing more quickly, and the income tax cuts which took effect in April have added over 1/2 per cent to disposable incomes. Taking account of the tax changes announced in this Budget, real disposable incomes are projected to grow by 2 1/4 per cent next year.

Net financial wealth has grown by over 25 per cent in the past 18 months as a result of strong share prices and high personal saving. Total wealth is also being boosted by rising house prices.

With rising wealth and consumer confidence, low inflation, a shift in the balance of income growth from dividend income to wages and salaries, and further consumer windfalls from pay-outs associated with building society conversions, the saving ratio is likely to fall over the next two years. It is assumed to decline from around 12 per cent in the first half of this year to around 8 $^{3}/_{4}$ per cent by the first half of 1998, although this is still relatively high in comparison with previous periods of low inflation. With real incomes rising and the saving ratio falling, consumers' expenditure is forecast to grow by 4 $^{1}/_{4}$ per cent in 1997.

Housing market

The recovery in the housing market is now well established. According to both the Halifax and Nationwide indices, prices have been rising since the middle of 1995, and in October were over 7 per cent higher than a year earlier. Rising house prices have helped to reduce the number of households in negative equity to less than half the peak level at the end of 1992.

Activity has also been increasing. In the third quarter of this year, the number of mortgage loans approved by banks and building societies was up by 28 per cent on a year earlier, and in the three months to October turnover (as measured by particulars delivered at the Land Registry) was up by 19 per cent on a year earlier.

Low mortgage rates, rising real incomes and a low house price-earnings ratio mean that houses are very affordable, and the number of first-time buyers is now increasing. A relative shortage of certain types of property on the market has tended to push up prices. However, supply should increase in the course of the next 18 months, as rising prices encourage last-time sellers or those trading down to put their houses on the market and the recent increase in new housing starts feeds through to higher completions. This increase in supply should help to moderate the increase in house prices.

Housing investment

Private housing investment, which includes both new housebuilding and improvements to existing properties, is forecast to grow only slightly this year. The pick-up in housing starts in recent months, as housebuilders have responded to the recovery in the market, should be reflected in stronger housing investment in 1997.

Financial position

As housing investment rises next year and the saving ratio falls, the personal sector's financial surplus is projected to fall from over 6 per cent of income in 1996 to around 2 $^{3}/_{4}$ per cent of income in the first half of 1998.

Corporate sector and investment

Profits

Profits increased by around a third between 1992 and 1994. They grew more slowly from the beginning of 1995 as productivity growth temporarily slowed. But both profits and the rate of return on capital remain high by historical standards.

The financial surplus of industrial and commercial companies has fallen from around 2 per cent of GDP in 1994 to under 1 per cent of GDP in the first half of this year. However, company liquidity remains high, and the balance of firms in the CBI survey citing a shortage of internal finance as a constraint on investment eased in October to its lowest level for over seven years. The balance of firms citing a lack of external finance as a constraint on investment remains at very low levels. Companies should therefore have little difficulty in financing higher expenditure on fixed investment and stocks.

Investment

Business investment remained little changed as a percentage of GDP between 1993 and 1995, but it has increased sharply so far this year. Although the quarterly profile has been erratic, in the first three quarters of 1996 it was on average 6 per cent higher than a year earlier.

Manufacturing investment grew strongly in 1994 and early 1995, but then fell from the fourth quarter of 1995 to the second quarter of 1996. However, investment intentions in both the CBI and BCC surveys remain substantially positive, and manufacturers may have postponed rather than cancelled investment. Manufacturing investment rose by 1 per cent in the third quarter. Non-manufacturing business investment fell in the third quarter from an exceptionally high second-quarter level, which was boosted by a large delivery of aircraft. However, it was still almost 8 per cent higher in the third quarter than a year earlier and the BCC survey reports that investment intentions in services have strengthened.

Overall, business investment is forecast to increase by 6 per cent this year and by 9 1/4 per cent next year. This takes full account of the substantial investment planned under the Private Finance Initiative, which offsets planned reductions in directly-financed public investment. Whole economy investment is projected to increase by 3 per cent this year and by 6 1/4 per cent next year.

Table 3 Gross domestic fixed capital formation

	Percentage changes on a year earlier			
		Forecast		
	1995	1996	1997	1998 H1
Business[1]	1	6	9 1/4	7 3/4
Private dwellings and land[2]	-1	4 1/2	9 1/4	3 3/4
General government[3]	-3 3/4	-9 3/4	-10 3/4	0
Whole economy	- 1/4	3	6 1/4	5 3/4

[1] *Includes investment by public corporations (except National Health Service Trusts) and investment under the Private Finance Initiative.*

[2] *Includes net purchases of land and existing buildings for the whole economy.*

[3] *Excludes net purchases of land and existing buildings; includes National Health Service Trusts.*

Stockbuilding

Stockbuilding was heavy during most of 1994 and 1995. Stockbuilding in distribution was particularly heavy in 1994, and probably reflected expectations of strong demand. The large build-up of manufacturing stocks did not begin until the turn of 1995 and was probably largely involuntary, as firms failed to anticipate the slowdown in final demand.

Stock adjustment has been underway in manufacturing since the beginning of this year, and this held back manufacturing output at a time when demand was strengthening. Whole economy stockbuilding fell sharply in the second quarter, taking almost 1 percentage point off GDP growth, but it changed little in the third quarter.

Stock-output and sales ratios remain high in both manufacturing and retailing. With consumer demand strengthening, there should be little incentive for retailers to run off stocks. Destocking in retailing and wholesaling in the third quarter probably reflected stronger than expected demand. Business surveys indicate that there could be some further stock adjustment in manufacturing, but this is likely to be modest. It is assumed that the stock adjustment is complete by the end of this year, and movements in stockbuilding make little contribution to the forecast of GDP growth next year.

Trade and the balance of payments

Competitiveness

Cost competitiveness tends to fluctuate with the exchange rate in the short term. It is likely to have deteriorated as sterling has appreciated this year, reversing the improvement associated with the depreciation of sterling in 1995. However, to the extent that firms adjust profit margins, temporary fluctuations in cost competitiveness need not be fully reflected in export price competitiveness. Export profit margins have been healthy in recent years.

Export volumes of goods

The slowdown in Europe does not appear to have held back UK exports this year as much as had been feared. The volume of non-oil goods exports to European Union countries grew at an annual rate of 5 3/4 per cent in the first half of the year, and rose further in July/August. Exports to other countries were 11 1/2 per cent higher in the third quarter than a year earlier. Exports of cars have been particularly buoyant - in the three months to August they were around a third higher than a year earlier. Exports are expected to continue to grow quite strongly as the recovery in continental Europe gathers pace. Exports of manufactures are projected to grow broadly in line with UK export markets.

Import volumes of goods

Imports of goods have also been rising more quickly this year, and in the three months to August were 8 per cent higher than a year earlier. Imports of basic materials have been weak because of lower stockbuilding, but imports of consumer goods have picked up sharply in recent months. With domestic demand strengthening, import volumes are expected to continue to grow fairly quickly next year.

Balance of trade in goods

The deficit on trade in non-oil goods widened a little last year as the terms of trade worsened, but changed little in the first half of this year. The overall trade deficit is forecast to widen a little in 1997, an increase in the surplus on oil partly offsetting a widening in the non-oil deficit.

Table 4 Trade in non-oil goods

	Percentage changes on a year earlier					£ billion
	Volumes		Prices[1]			
	Exports	Imports	Exports	Imports	Terms of trade	Non-oil balance
1995	8 1/4	4 3/4	5 1/4	8	-2 1/2	-15 3/4
Forecast						
1996	7 1/4	8 1/4	1/4	- 1/4	1/2	-18
1997	6 1/4	7 3/4	-2	-3 1/2	1 1/2	-18 3/4
1998 H1	7	7 3/4	1/2	1/2	0	-20 1/4[3]

1 *Average value indices.*
2 *Ratio of export to import prices.*
3 *At an annual rate.*

Trade in services

Following the record figure in 1995, the surplus on services continued at a high level in the second quarter of this year. Export volumes of services have grown strongly over the past two years. They rose by 2 1/2 per cent in the second quarter, although this partly reflected expenditure by foreign visitors to the UK during the European football championships. The strong growth of exports of goods this year may have boosted exports of transport and business services. Import volumes of services grew rapidly in 1994. They slowed in the first half of 1995, but have picked up since and were 5 per cent higher in the first half of 1996 than a year earlier. The services surplus is forecast to remain at around its current level for the remainder of the year - giving a surplus of £6 1/2 billion for the year as a whole. It is forecast to increase to £7 3/4 billion in 1997.

Investment income

The surplus on investment income increased from £7 3/4 billion in 1995 to £12 billion (at an annual rate) in the first half of this year. With profits on heavy foreign direct investment in the UK in recent years beginning to build up and interest rates relatively low abroad, the surplus could fall back a little next year, while remaining historically high.

Current account

The current account deficit narrowed to just £1/2 billion in the first half of this year. With continuing high surpluses on services and investment income and a fallback in net transfers abroad from last year's exceptionally high level, a small current account deficit of £2 1/4 billion is forecast for 1996 as a whole. Given stronger economic growth in the UK than in the rest of the world, the current account deficit is projected to widen a little in 1997, but remain small at around 1/2 per cent of GDP.

Table 5 The current account

	£ billion						
	Manu-factures	Oil	Other goods	Services	Total goods services	Transfer and IPD[1]	Current balance
1994	-7 1/2	4	-7 1/4	4 3/4	-6	3 3/4	-2 1/2
1995	-8	4 1/4	-7 3/4	7	-4 3/4	3/4	-4
Forecast							
1996	-8 1/4	5 1/4	-9 3/4	6 1/2	-6	4	-2 1/4
1997	-8 3/4	5 1/2	-10	7 3/4	-5 1/2	1 1/4	-4 1/4
1998 H1[2]	-10	5 1/4	-10 1/4	8 1/2	-6 1/2	1 3/4	-4 3/4

1 *Interest, profits and dividends (net investment income).*
2 *At an annual rate.*

Overseas assets

The sterling value of the UK's stock of net overseas assets is estimated to have been around £38 billion at the end of 1995, up from around £34 billion a year earlier. This small increase largely reflects the revaluation of existing assets and liabilities. The stock of netoverseas assets is provisionally estimated to have risen to around £55 billion, or 7 1/2 per cent of GDP, in the first half of 1996, its highest level since 1989. This partly reflects favourable revaluations, but also a recorded increase in net capital outflows. However, difficulties in measuring certain capital flows - reflected in the large balancing item in the overseas account - means that estimates of net overseas assets are subject to a wide margin of error.

Pattern of financial balances

With the current account projected to remain roughly in balance over the next two years, the continuing fall in the public sector deficit is mirrored mainly by a decline in the private sector (and in particular the personal sector) financial surplus from 5 per cent of GDP in 1995 to under 2 per cent in the first half of 1998.

Labour market

Unemployment

Unemployment has continued to fall. The Labour Force Survey (LFS) measure fell by more than 150,000 over the year to the summer quarter (June to August). Claimant unemployment fell by almost 180,000 over the same period, and by a further 80,000 between August and October, suggesting that the rate of decline has gathered pace recently. In October, the claimant count was over 950,000 below its peak in December 1992.

Employment

According to the LFS, employment rose by 210,000 over the year to the summer quarter, which is greater than the fall in unemployment. The employer-based survey shows a smaller rise, but the LFS data seem more consistent with other labour market indicators.

Productivity

Growth in productivity (output per head) appears to have been comparatively slow over the past two years, particularly in manufacturing. This partly reflects the fact that a high proportion of the growth in employment last year was in part-time jobs - measured in terms of 'hours worked' rather than 'heads', productivity growth would be stronger. Firms are also likely to have hoarded labour to some extent in anticipation that demand would strengthen, and productivity is likely to accelerate as output growth picks up.

Financial developments

Sterling

The sterling exchange rate index, which measures the sterling exchange rate against a basket of currencies, has risen by almost 10 per cent since the summer, taking it above its end-1994 level. It has appreciated against the Deutschmark and the Yen and, to a lesser extent, against the US dollar. The forecast is based on the conventional assumption that sterling remains close to recent levels.

Interest rates

Against a background of moderate growth and little sign of inflationary pressures, base rates were reduced in four $^1/_4$ percentage point steps - from 6 $^3/_4$ per cent at the time of last year's Budget to 5 $^3/_4$ per cent in June. Mortgage rates fell by a similar amount over the same period. Although inflationary pressures remain weak, base rates were increased by $^1/_4$ percentage point at the end of October in response to mounting evidence of strengthening activity.

Long rates rose during the first half of the year, largely reflecting a rise in world bond yields, particularly in the US. UK yields initially rose by more than those of other G7 countries, but they have been falling back recently, and the differential, particularly with US yields, has narrowed. Yields on ten-year gilts, which peaked at around 8 $^1/_4$ per cent at the end of May, are now around 7 $^1/_2$ per cent. The inflation expectations implicit in gilt yields increased in the first few months of the year, but have been declining recently.

Asset prices

Developments in asset prices are consistent with rising confidence and profit expectations. Equity prices rose by almost 20 per cent during 1995, and they have risen by a further 7 per cent since the beginning of this year. House prices have been rising since the middle of last year. Capital and rental values in the commercial property market, which fell back in 1995, are now rising again.

Monetary aggregates

Despite the strengthening of retail sales this year, there appears to have been little underlying increase in M0 growth. It picked up during the summer months, but this was due partly to spending associated with the European football championships. Shorter-run measures have now fallen back: the three-month annualised growth rate of notes and coin in October was 6 $^1/_4$ per cent, in line with its average rise since 1993.

The 12-month growth rate of M4 has risen from around 4 per cent in late 1994 to 10.3 per cent in October this year, above the top of its medium-term monitoring range. Both corporate and personal liquidity have increased sharply. The underlying strength of corporate sector M4 partly reflects takeover and merger activity, but may also foreshadow higher investment spending.

Strengthening personal sector liquidity is consistent with the forecast increase in consumption.

Inflation

The 12-month rate of increase in the RPI excluding mortgage interest payments (MIPs) remained around 3 per cent for most of this year. Although retail prices were unchanged between September and October, the 12-month rate of inflation rose from 2.9 to 3.3 per cent, as the exceptional price falls in October 1995 were not repeated.

Retail goods price inflation fell from 3 1/2 per cent at the end of last year to 2 3/4 per cent in September. It rose to 3 per cent in October because of higher petrol prices and the drought-related sharp fall in seasonal food prices last October dropping out of the 12-month calculation. Excluding petrol and food, the 12-month rate of goods price inflation was unchanged from September. The increase in petrol prices, reflecting the sharp rise in oil prices in recent months, added 0.3 percentage points to the 12-month RPI inflation rate in September and October.

Retail services price inflation increased from around 2 per cent at the turn of the year to 2 1/2 per cent in September. The rise to 3 per cent in October largely reflected insurance prices levelling out after the large falls over the past two years, particularly last October.

Import costs

The weakening in non-oil commodity prices and the appreciation of sterling are feeding through to import prices, which levelled out in mid-1995 and have fallen in recent months. Despite the recent increase in oil prices, import prices are likely to remain weak as further effects of the recent sterling appreciation come through to producer input prices, which have fallen sharply since the end of last year. Although the latest monthly data suggest that producer input prices may now have stopped falling, in October they were still 5 1/2 per cent lower than a year earlier. This has, in turn, fed through to the 12-month rate of producer output price inflation, which has fallen from a peak of 5 per cent last summer to just 0.9 per cent in October, the lowest rate for nearly thirty years.

Earnings

Despite continuing falls in unemployment, wage pressures have remained subdued. Manufacturing earnings growth has risen only a little over the past year. Earnings growth in the service sector has picked up from a low level, but whole economy underlying average earnings growth has now remained at or below 4 per cent for over three years. Settlements have been fairly flat, suggesting that the difference between earnings growth and settlements (reflecting payments such as overtime and bonuses) has widened a little, after being squeezed last year.

Demand pressures

Despite some pick-up recently in capacity utilisation, the latest CBI survey suggests that inflationary pressures in manufacturing remain subdued. However, retail goods price inflation has so far fallen much less than producer output price inflation, despite lower import prices of consumer goods. Retailers are likely to have taken the opportunity offered by stronger sales to undertake some rebuilding of margins. However, with competition in retailing remaining fierce, a large pick-up in margins seems unlikely.

Inflation prospects

The 12-month rate of producer output price inflation is forecast to remain below 1 1/2 per cent. Lower import prices and producer output price inflation will continue to feed through to retail prices over the next few months. With, in addition, earnings growth remaining subdued and strong retail competition restraining margins, RPI ex MIPs inflation is forecast to fall from 3 per cent at the end of this year to 2 1/2 per cent by the second quarter of 1997.

Table 6 Retail and producer output price inflation

	Percentage changes on a year earlier				
		Forecast			
	1995 Q4	1996 Q4	1997 Q2	1997 Q4	1998 Q2
RPI excluding MIPs	3	3	2 1/2	2 1/2	2 1/2
Producer output prices[1]	4 1/2	3/4	1/2	1	1 1/4

[1] *Excluding the food, beverages, tobacco and petroleum industries.*

GDP deflator

The GDP deflator is projected to increase by 2 1/2 per cent in the current financial year and by 2 per cent in 1997-98, a little more slowly than the RPI ex MIPs in both cases, continuing the pattern of the past two years.

Forecast errors and revisions

As an indication of the margins of error around the forecasts, Table 9 shows average errors from Treasury forecasts over the past ten years. Errors usually increase the further ahead the forecast looks, while errors on any individual forecast may be smaller or larger than the historical averages.

The forecast of GDP growth for this year is unchanged from the Summer Economic Forecast, and 1/2 percentage point lower than in last year's Budget forecast. GDP growth in 1997 is now forecast to be slightly stronger than in the summer. RPI excluding MIPs inflation is forecast to be higher in the fourth quarter of this year than expected at the time of both the Summer Economic Forecast and the last Budget, mainly reflecting the effects of the sharp rise in oil prices since the summer. The forecast of the current account deficit for this year has been revised down since the summer. The PSBR is now expected to be 4 billion lower in 1997-98 than forecast in the summer.

Table 7 Recent Treasury Forecasts

Percentage changes on a year earlier unless otherwise stated

		1995 Budget	1996 Summer Economic Forecast	1996 Budget
Gross domestic product	1996	3	2 1/2	2 1/2
	1997	-	3 1/4	3 1/2
RPI excluding mortgage interest payments	1996 Q4	2 1/2	2 1/2	3
	1997 Q4	-	2 1/4	2 1/2
Current account (£billion)	1996	-5	-3 1/2	-2 1/4
	1997	-	-1 1/2	-4 1/4
	1996-97	22 1/2	27	26 1/2
	1997-98	15	23	19

The Panel of Independent Forecasters

Table 8 summarises the forecasts of the Chancellor of the Exchequer's Panel of Independent Forecasters. For example, the Panel's forecasts of growth in 1997 range from 3 to 4 1/4 per cent, while their forecasts of inflation at the end of 1997 range from 2 1/4 to 3 1/4 per cent. The Treasury forecasts of growth and inflation are both the same as the Panel average for 1997.

Table 8 Budget and Independent Panel Forecasts

Percentage changes on a year earlier unless otherwise stated

	1996			1997		
	Budget	Independent Panel		Budget	Independent Panel	
		Average	Range		Average	Range
Gross domestic product	2 1/2	2 1/4	2 1/4 to 2 1/2	3 1/2	3 1/2	3 to 4 1/4
RPI excluding mortgage interest payments (Q4)	3	3	2 1/2 to 3 1/4	2 1/2	2 1/2	2 1/4 to 3 1/4
Current account (£billion)	-2 1/4	-2	-5 1/2 to 1 3/4	-4 1/4	5 1/2	-10 1/4 to 0
PSBR (financial year, £billion)	26 1/2	26	24 to 27 3/4	19	21 1/2	18 to 25 1/2

Table 9 Summary of short-term economic prospects

Percentage changes on a year earlier unless otherwise stated

	1995	Forecast 1996	Forecast 1997	Average errors from past forecasts[3]
Output at constant prices[2]				
Gross domestic product (GDP)	2 1/2	2 1/2	3 1/2	1 1/2
Non-North Sea GDP	2 1/2	2 1/2	3 1/2	1 1/2
Manufacturing output	2 1/4	1/4	3	2
Expenditure components of GDP at constant prices[2]				
Domestic demand	1 1/2	2 1/4	3 3/4	1 3/4
Consumers' expenditure	2	3	4 1/4	1 3/4
General government consumption	1 1/2	1	3/4	1 1/4
Fixed investment	-1/4	3	6 1/4	4
Change in stockbuilding[4]	0	-1/2	0	1/4
Exports of goods and services	7 3/4	6 1/4	5 3/4	2
Imports of goods and services	4	7	6 3/4	3
Balance of payments current account				
£ billion	-4	-2 1/4	-4 1/4	8
per cent of GDP	-1/2	-1/4	-1/2	1
Inflation				
RPI excluding mortgage interest payments (fourth quarter)	3	3	2 1/2	1
Producer output prices (fourth quarter)[5]	4 1/2	3/4	1	1
GDP deflator at market prices (financial year)	2 1/2	2 1/2	2	1 1/4
Money GDP at market prices (financial year)				
£ billion	708	746	787	15 3/4
percentage change	4 3/4	5 1/4	5 1/2	2
PSBR (financial year)				
£ billion	31 1/2	26 1/2	19	11
per cent of GDP	4 1/2	3 1/2	2 1/2	1 1/2

1 Data in this chapter are consistent with the output, income and expenditure estimates and other series for the period to the third quarter of 1996 released by the Office for National Statistics on 21 November 1996.
2 Further detail on GDP and its components is given in Table 10.
3 Average absolute errors in autumn forecasts over past ten years; they apply to forecasts for 1997 unless otherwise indicated. The average errors for the current account and the PSBR are calculated as a percent of GDP. The billion figures are calculated by scaling the errors as a percent of GDP by money GDP.
4 Per cent of GDP.
5 Excluding the food, beverages, tobacco and petroleum industries.

Table 10 Gross domestic product and its components

£ billion at 1990 prices, seasonally adjusted

	Consumers' expenditure	General government consumption	Total fixed investment	Stock-building	Domestic demand	Exports of goods and services	**Total final expenditure**	*Less* imports of goods and services	*Less* adjustment to factor cost	*Plus* statistical discrepancy[1]	**GDP at factor cost**
1995	363.7	119.2	99.2	3.3	585.4	167.4	752.8	169.2	75.5	0.3	508.4
1996	374.8	120.3	102.1	1.1	598.3	177.7	776.0	181.1	76.8	2.6	520.7
1997	390.7	121.1	108.4	1.0	621.2	188.0	809.2	193.4	80.0	2.8	538.7
1995											
1st half	181.2	59.5	50.0	0.8	291.4	82.5	373.9	83.2	37.8	0.0	252.9
2nd half	182.5	59.8	49.2	2.5	293.9	84.9	378.9	86.0	37.7	0.3	255.5
1996											
1st half	185.6	59.8	50.9	0.9	297.1	87.8	384.9	89.7	38.1	1.1	258.2
2nd half	189.2	60.6	51.2	0.2	301.2	89.9	391.0	91.3	38.7	1.4	262.5
1997											
1st half	193.4	60.6	53.4	0.4	307.8	92.5	400.3	94.9	39.6	1.4	267.2
2nd half	197.3	60.5	55.0	0.6	313.4	95.5	408.9	98.4	40.4	1.4	271.4
1998											
1st half	200.4	60.7	56.5	0.5	318.1	98.6	416.7	101.4	41.1	1.4	275.5
Percentage changes on a year earlier[2]											
1995	2	1 1/2	-1/4	0	1 1/2	7 3/4	2 3/4	4	2 1/4	0	2 1/2
1996	3	1	3	-1/2	2 1/4	6 1/4	3	7	1 3/4	1/2	2 1/2
1997	4 1/4	3/4	6 1/4	0	3 3/4	5 3/4	4 1/4	6 3/4	4 1/4	0	3 1/2
1998											
1st half	3 3/4	0	5 3/4	0	3 1/4	6 1/2	4	6 3/4	3 3/4	0	3

1 Expenditure adjustment.
2 For stockbuilding and the statistical discrepancy, changes are expressed as a percent of GDP.

The economy in the medium term

The assumptions for output growth and inflation which underlie the medium-term fiscal projections in are set out in Table 11.

Table 11 Output growth and inflation

	Percentage changes on previous financial year[1]					
	1996-1997	1997-1998	1998-1999	1999-2000	2000-2001	2001-2002
Output (GDP)	2 3/4	3 1/2	3	2 1/2	2 1/2	2 1/2
Prices						
GDP deflator	2 1/2	2	2	2	2	2
RPI ex MIPs	3	2 1/2	2	2	2	2
Money GDP	5 1/4	5 1/2	5	4 1/2	4 1/2	4 1/2

[1] *Forecasts for 1996-97 and 1997-98 and assumptions thereafter.*

Output

The rate at which the economy can grow over the medium term without putting upward pressure on inflation depends on the rate of growth of productive capacity (trend output growth) and the current margin of spare capacity (the output gap).

Spare capacity

While productive capacity probably grows fairly steadily, actual output growth varies more. Output fell well below its trend level in the early 1990s recession. Growth was probably significantly faster than trend during 1993 and 1994, and the output gap therefore began to narrow. However, growth was slower in 1995 and the first half of 1996, and the output gap is unlikely to have narrowed much further over this period.

Business surveys suggest that capacity utilisation is relatively high in some sectors. The CBI survey shows capacity utilisation in manufacturing above its 30 year average, and the BCC survey suggests that capacity utilisation in services may now be back to its 1989 levels. But these measures do not cover the whole economy and take little account of the degree of slack in the labour market. There is little evidence of shortages of skilled labour emerging and wage pressures have remained very moderate.

Given this rather mixed evidence, there is a large margin of uncertainty over the degree of spare capacity in the economy as a whole. But it seems plausible to assume that there is still a negative output gap of between 0 and 3 per cent of GDP. This range encompasses most of the estimates given by the Panel of Independent Forecasters in their special report in June on the output gap.

Trend growth

The trend rate of growth can be broken down into three components: the trend in productivity, trends in labour supply, and changes in the rate of unemployment. In other words, economic growth depends on how productive each worker is, how many workers are available, and how fully this labour force can be employed without putting upward pressure on inflation.

Quantitatively, trend productivity growth is the most important of these elements. Supply-side reforms, which have strengthened competition and sharpened incentives, have contributed to the substantially faster rates of productivity growth achieved since the 1970s, particularly in manufacturing. It is assumed that this improved performance is sustained over the rest of this decade, and trend productivity growth is in the range 1 3/4 to 2 per cent, in line with performance over the 1980s.

The labour supply contracted during the early 1990s, reflecting the rapid expansion of numbers in further and higher education, earlier retirement, and continued growth in the number of Invalidity Benefit claimants. However, the labour supply is probably now expanding again. The population of working age is projected to grow by between 1/4 and 1/2 per cent a year over the rest of the decade, and participation in the labour market is likely to increase as a result of continued improvement in job prospects and a levelling off in the numbers entering higher and further education.

An improvement in labour market performance is also likely to contribute to the economy's ability to supply extra output without leading to higher inflation. After rising steeply from the late 1960s to the early 1980s, the rate of unemployment that would be consistent with low, stable inflation appears to have declined significantly since the mid-1980s. In the last recession, unemployment peaked at a lower level than in the previous cycle for the first time since the 1960s, whilst wage inflation has remained historically low, despite steadily falling unemployment over the past four years.

Much of the fall in unemployment can be credited to reforms begun in the early 1980s, for example labour market deregulation, trade union reform, competition policy, and tax and benefit changes to improve incentives. A further wide ranging programme of labour market measures, including enhanced training and job placement services, has continued in the 1990s. There is much evidence that the labour market is more flexible: working patterns are more varied, wage determination has become more decentralised, the links between pay and performance are stronger and regional differentials in unemployment have narrowed.

A steep fall in the number of long-term unemployed, who tend to be more detached from the jobs market, should also help to reduce the rate of unemployment consistent with continuing low inflation.

Taking all these factors into account, it is reasonable to assume that trend output growth over the rest of the 1990s will be around 2 1/2 per cent per annum. This is similar to the average growth rate achieved over the post-war period as a whole. It is also similar to the average of estimates made by the Panel of Independent Forecasters in their special report in June. It is quite possible that trend growth will be higher; for example, the impact on productivity growth of the recent expansion in higher and further education or of supply side reforms could be greater than allowed for. But in planning for the public finances it is sensible to err on the side of caution.

Projections

Table 11 shows the economy growing at 3 1/2 per cent in 1997-98 and 3 per cent in 1998-99, which brings output back towards its trend level. Thereafter, the economy grows at around its trend rate.

The existence of spare capacity means that the economy should be able to grow somewhat faster than its trend rate for a time without putting upward pressure on inflation. RPI ex MIPs inflation is assumed to fall to 2 per cent by 1998-99 and remain constant at this level.

Changes since the last Budget

Table 12 compares the medium-term economic projections with those in the 1996-97 FSBR. Output growth has been slightly slower than expected this year, but is projected to be slightly faster in 1997-98 and 1998-99. By the end of the decade, the level of output is the same as that in the 1995 Budget projections. GDP deflator inflation is expected to be slightly lower in the short term than in the 1995 Budget projections. This leaves both the price level and the level of money GDP lower throughout.

Table 12 Differences from 1995 Budget projections

	Percentage points				
	1996-1997	1997-1998	1998-1999	1999-2000	2000-2001
Real GDP growth	-1/4	1/2	1/4	-1/4	-1/4
Inflation (GDP deflator)	-1/4	-1/2	-1/4		0
Money GDP growth	-3/4	0	0	-1/4	-1/4

Note: All references to producer input and output prices exclude the food, beverages, tobacco and petroleum industries.

ONS plans to extend publication of Service Sector Statistics

Derek Baskerville

Introduction

Over recent years interest in service sector statistics has increased rapidly. The services sector (including government provided services) now accounts for some two thirds of GDP and some three-quarters of employees in employment. There is also increasing world trade in services and an associated interest in changes in both output and productivity in services. Improved and more timely data on services are essential if we are to monitor changes effectively. This has led to increasing resources being devoted, by the ONS, to this sector. ONS samples 35,000 service sector businesses, as against 10,000 manufacturing businesses, to measure short term trends and samples 54,000 service sector businesses, as against 21,000 manufacturing/construction businesses, to provide detailed structural information on an annual basis.

These developments have not been without difficulties. One of the characteristics of services has been the larger number of businesses offering services (1.2 million) compared with those engaged in production (170 thousand). The sector is also more dynamic. There is a wide diversity of activities ranging through government, distribution, financial, personal, business and transport services as well as communication and tourism. To measure the activities of these businesses and provide detailed information by size and industry has required significant resources. Initially, Chancellor's Initiatives[1] supported developments but more recently improvements have been achieved through efficiency savings and by balancing compliance costs.

There are many users of service sector statistics. The primary customers for the statistics collected by the Business Statistics Group of the ONS are those internal customers compiling the National Accounts, but there are other users. DTI needs detailed information to enable it to monitor competitiveness and productivity. This requires not only good data for domestic businesses but also comparable information from other countries. The needs of DTI and other Government Departments that sponsor service industries are set out in the article on the work of the President's Task Force on Service Sector Statistics (in this edition) which was established to propose improvements in service sector statistics. The Statistical Office of the European Communities (Eurostat) requires information to monitor activity in Member States and this is needed by size of business and region within groups of activities. Other users include academics, businesses, the "City" and the media as well as other government departments.

Despite resource problems, substantial improvements have been made to the quality of service sector statistics over recent years, and there are more in the pipeline. Nevertheless there is still a perception that statistics for services are of lower quality than for production industries. This, in part, reflects the less regular and detailed publication of service sector statistics but also reflects the fact that there are, as yet no service sector equivalents of the monthly releases on industrial production, producer prices and trade in goods.

The following paragraphs describe some of the changes made with reference to particular inquiries, the use to which the data collected are put, and outlines the ONS's programme for the publication of service sector statistics.

Annual Inquiries (excluding financial services)

The coverage of the annual inquiries has changed significantly over the past ten years. In 1985 the inquiries covered distribution together with road transport, business and miscellaneous services, but for the 1996 inquiries they should cover most if not all of services traded on the open market. The most recent development is the inclusion in 1996, for the first time, of inquiries directed at air, sea and rail transport. The amount of detail collected in the inquiries has also increased. Since 1992, in order to strengthen the input-output balances and to improve the coherence of GDP estimates, the inquiries have collected employment costs and detailed purchases data.

The data collected in the inquiries has been made available through various business monitors, but to date only on the basis of VAT trade codes (VTCs) which were until 1995 based on the 1968 Standard Industrial Classification (SIC (68))[2]. For a number of industries much of the data have been published in aggregate form which has considerably reduced their value to users. For example data for hairdressers, shoe repairers and funeral related activities have all been published as a composite group.

The 1995 inquiry was the first to be conducted on the basis of the 1992 Standard Industrial Classification (SIC (92)) and will also be the first for which provisional results will be published. The

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provisional results will cover only the main variables and publication is planned for January 1997. This represents an average improvement in publication time for this data over previous publication of around 4 months.

The final results for the 1995 inquiry are expected to become available from April 1997 some 16 months from the end of the reference year. This also represents an improvement on previous timetables which have been speeded up significantly since 1990 when the average delay was around 23 months. When the final results are published it is planned to expand the amount of information that can be made available. This will involve publishing, where possible, at the detailed four digit level of the industrial classification. Thus the five groupings of data currently published as "personal and miscellaneous services" could be disaggregated into as many as 18 different activities at the four digit level of SIC(92). The published data will also include explicit rather than implicit estimates of value added.

Further changes are in store. There will be some minor changes in the data collected both to meet the needs of the European System of Accounts (ESA) and to meet requirements of the European Structural Business Statistics Regulation which will become law very shortly. But more important are changes being made which should enable, for the first time, data produced from the annual inquiries to be analysed by employment size-bands and by economic region. A limitation on the dissemination of such data will, of course, be the need to maintain confidentiality in respect of contributors to the inquiries.

Short term inquiries into turnover.

Short term data on services, used for the retail sales index (RSI), were for many years limited to retailing. Quarterly turnover inquiries were introduced for a number of other services in the first quarter of 1991 with the coverage extended to a wider range of services in the following year. These inquiries were introduced to replace employment, VAT and other proxies for output measures of GDP. The proxies were considered to provide less satisfactory measures of service sector output.

To improve the quality of early estimates, around a third of the inquiries moved from a quarterly to a monthly basis from the second half of 1995. Currently some 80 per cent of private sector non-financial service industries are covered by the short term turnover inquiries and much of the data collected in these inquiries have now replaced the other indicators in the output measure of GDP. The remaining data are expected to replace existing indicators once new patterns emerging from the data series, now based on SIC (92) and including the additional businesses now on the Interdepartmental Business Register (IDBR), have been established and when any outstanding issues of quality and continuity have been resolved.

There has only been limited publication of the data obtained from these inquiries but plans are now in place to publish, on a quarterly basis, a News Release which will contain the results of the inquiries in current value terms. The first of these News Releases is planned to be published in February.

A quarterly index of services has been published for many years in the regular GDP First Releases. An additional table is expected to be included from March onwards in each Quarterly National Accounts First Release. This will highlight the overall quarterly Index of Services (IoS) and will give time-series for a number of detailed service industries which contribute to it. The table will show greater industry detail than the present output First Release table and it is planned to include a dozen series, corresponding to those now given annually in the GDP constant price industry output table of the National Accounts Bluebook. The presentation will be on an index number basis, as are the present output industry breakdowns; and the detailed series will aggregate to the overall quarterly IoS.

Service Sector price indices

Producer price indices (PPIs), which cover production, have been well established for many years. These indices have many uses including the ability to monitor prices in contracts and to monitor movements in inflation, but for the ONS the price indices perform the important task of enabling the revaluation of economic data at constant prices and the calculation of productivity indices. Until recently the availability of appropriate indices for services has been limited to components of the retail price index (RPI), some production PPIs and wage cost data. While price indices provided by the RPI are adequate for some service industries, there is a need for properly constructed corporate services price indices (CPSIs) for others.

The development of CPSIs for individual product groups started in 1991 when collection of data began, on a voluntary basis, from five service industries. The collection of data is now gradually being extended and, since 1995, has been conducted on a statutory basis. The aim is to produce indices covering the prices of services sold by businesses to business and government customers, since prices of services sold directly to private individuals are already covered by the RPI. October 1996 saw the first regular publication of data covering the first five industries (freight transport by road, industrial cleaning, waste disposal, bus and coach hire and adult educational services). These data appeared in SDQ 11 which covers selected service sector statistics on a quarterly basis. From December 1996 they will also appear alongside the monthly PPI data in Business Monitor MM22 although the figures will only be updated quarterly.

The coverage of the indices, and publication, will be extended progressively and publication of indices for at least a further five industries is planned during 1997. Eventually, data should be available for around 35 industries. Collection is initially on a quarterly basis. Monthly collection will be introduced once indices have become securely established and where sales data from the short-term turnover inquiries is also available on a monthly basis. The extension of coverage is not a simple task and indices may need to be introduced on a trial basis. This, rather than the resource limitations, is the major constraint on expansion. The eventual goal will be a top-level index covering all services sold to business customers. It is planned for the coverage to be substantially complete by the end of 1998. Publication of the top-level index will follow when the component series have been thoroughly validated. In the longer term the ONS will be exploring the possibility of combining service sector input price indices with input PPIs and data on wages and salaries to create combined cost indices for both whole sectors and individual industries.

The experience gained by the ONS in this field is being shared with other Member States of the EU who are also anxious to develop service sector indices. Eventually this will help to improve comparability of statistics across the EU and enable better international comparisons of productivity changes.

A fuller description of the work being carried out on service sector price indices can be found in the July 1996 edition of Economic Trends.

Employment

In the past a number of problems were faced by analysts relating employment data to economic data. First the data series were collected in separate inquiries. In itself this was not a serious problem but there were also differences in registers used. Economic data made use of a register based on VAT registrations while employment data was collected on a register based on PAYE sources. While most businesses appeared on both registers, each contained businesses not covered by the other. In addition, because of the way in which allocation to the industrial classification was made, it was possible for businesses common to both registers to be classified to different industries, although these differences normally applied to only smaller businesses. An additional problem existed for service industries in that until 1995 the annual structural inquiries were conducted on the basis of the VTC which is not easy to relate to later versions of the Standard Industrial Classification on which employment data was collected.

With the advent of the IDBR these differences were removed and it is now possible for the first time to carry out employment and economic surveys using the same sampling frame. This opened up the opportunity to calculate improved estimates of labour productivity. With ONS having taken responsibility for the collection of employment data in July 1995 it also became possible to consider the collection of both employment and economic data in the same inquiries and so achieve further improvements in these estimates.

From the second quarter of 1996 employment data has been collected in the short term services inquiries largely parallelling the data collection in the existing employment inquiries. This parallel run has now been completed with the acceptance by key users of the new merged employment and turnover inquiries. The advantages are obvious; a reduction in the form filling burden coupled with economic and employment data collected on exactly the same basis. The new series will replace the old in respect of data collected in the fourth quarter of 1996. This change for service statistics is mirrored by a similar change in respect of production statistics.

Plans are now being made to make comparable changes to the collection of annual employment data although implementation is still some way off. A merger of the annual production and services inquiries in respect of 1998 will also see the regular collection, for the first time, of employment data in the annual services inquiries. This will provide a major boost to the provision of good productivity data based on value added from the annual inquiries.

Trade in services

An area of increasing interest is the extent of trade in services. Trade in goods is well covered in official statistics but the detail and quality of data on trade in services is not so well developed. Statistics on trade in services are collected by ONS, the Bank of England and others in a range of annual, quarterly and some monthly inquiries.

The inquiries conducted by the Business Statistics Group of the ONS cover a range of business services. Some of these inquiries specialise in a particular sector such as film and television. In addition to the total estimates of trade in services from these inquiries, which feed into estimates of the Balance of Payments, there is great interest in transactions in particular products or transactions by individual countries or groups of countries.

A problem with trade in services is the identification of those business involved. To improve the sampling frame, contributors to the quarterly turnover inquiries were asked during the fourth quarter of 1994 whether or not they traded in services. Those that indicated that they did were then sampled to confirm their activity and asked to provide information on the value. This information was used to improve existing data by providing estimates for those service businesses not previously covered by the inquiry. This exercise is currently being repeated in respect of 1996. On the manufacturing side, where imports of services can be significant, a special survey of certain industries was undertaken successfully in respect of 1994. Further improvements are planned for the 1996 (and subsequent) inquiries.

In order to meet IMF requirements which specify that data should be produced for a standard list of 30 products, a pilot survey was undertaken during the summer of 1995 in which a breakdown of imports and exports for different products was sought. The results of the pilot were encouraging and data collection on a regular basis began in respect of the 1996 inquiries.

Plans are now also being made to extend the trade in services inquiries to collect sufficient additional information to enable the production of a geographical breakdown into around 40 countries. DTI are funding the set up costs associated with the expanded inquiry, but it is expected that after the first year any additional costs will be met by efficiency savings. Again the changes will be implemented for the 1996 inquiry.

Data emerging from the above initiatives is expected to become available in the autumn of 1997 giving detailed analyses both by product and by country. For some aggregate categories it is also planned to produce a 2 way analysis of product by country or country group. Final decisions on the detail to be published will be made when the full data are available, but as much data as possible will be published subject to confidentiality constraints.

In addition there are growing demands for monthly statistics on trade in services which would help provide a more balanced picture than the current trade monthly figures which are based only on trade in goods. ONS is developing a model, partly based on monthly data and partly based on forecasting to estimate such information. Research is also planned into the feasibility of collecting more monthly data. An article describing progress to date was published in the November 1996 issue of Economic Trends.

"The UK Service Sector" SDQ11

In addition to extending the quality and range of statistics produced by the ONS. Improvements are being made in the presentation of the results of individual inquiries. There is also a demand for compilations of statistics which bring together results of different inquiries to present a fuller picture of a particular sector of the economy. Such a publication is "The UK Service Sector" (SDQ11). This is part of a range of new publications launched by ONS in 1996 which include sector reviews of the Chemical Industry and of Printing and publishing. Altogether 12 such new publications are in the pipeline.

"The UK Service Sector" provides a selection of data from individual inquiry sources ranging from monthly to annual inquiries and brings together detail on structural data such as employment turnover, purchases, stocks and capital expenditure through to data on overseas trade, foreign investment and price indices. It also contains aggregate national accounts data and a macroeconomic summary. It is planned to continue to develop this publication and to include new service sector statistics as they arise. The views of subscribers to the development of this publication will also be actively sought.

Some other developments

Work is also being carried out which could result in the future partitioning of annual structural services data according to whether the businesses in a particular activity are UK or foreign owned. The topic is generally referred to in international bodies as Foreign Affiliates Trade Statistics or FATS. It is of particular interest in relation to monitoring the General Agreement on Trade in Services (GATS) and more generally in relation to globalisation in which interest is growing rapidly. Currently work is being carried out on a pilot study being financed by Eurostat but there are a number of issues to be resolved and agreed between Member States before it will be possible to start compiling data on a regular and consistent basis for all European countries. These issues include the way in which ownership (or indeed control) should be identified. For example, questions include whether the ownership should be based on immediate or ultimate owner and how to treat data for businesses where ownership is shared. Once these and other issues have been resolved it will be our intention to make data available by country of ownership subject only to confidentiality constraints. An initial analysis of FATS in the service sector is planned for publication in the spring of 1997.

Looking further ahead, ONS is considering with the Department of the Environment the possibility of developing facilities to provide fine area detail about the retail and service provision for use by local authorities and developers. Comprehensive information has not been available since the results of the 1971 Census of Distribution were published.

In conclusion

Further developments will no doubt continue to be planned resulting in even better statistics on services. There will always be constraints on resources and the extent to which businesses can be expected to complete inquiry forms but it may be possible to respect these and still produce more. The variety and complexity of the services activities will doubtless continue to develop. The ONS will endeavour, within available resources, to continue to monitor them and to be responsive to user needs.

Some improvements in publication of service sector data

- **Annual Inquiries** News Release planned for publication for the first time in January 1997 containing provisional results data, with the eventual aim of producing the results within 12 months of the end of the inquiry year.

  Final results to be available from 16 months of the end of the inquiry year with more industry detail.

- **Quarterly Turnover** News Release giving the results of the inquiries to be produced quarterly. First publication February 1997.

  Quarterly index of services to be given more prominence in the quarterly National Accounts First Release.

- **Service Sector Prices** New data published in SDQ11 in October 1996 and in Business Monitor MM22 in December 1996.

- **Trade in Services** Data by product and improved geographical breakdown available in Trade in Services News Releases from Autumn 1997.

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[1] *Quarterly turnover inquiries were launched in 1991 as part of an initiative by the then Chancellor of the Exchequer to improve the quality of economic statistics - in particular of the quarterly estimates of the output measure of GDP. The intention was that they should replace proxies for net output based on employment and Value added tax (VAT).*

[2] *From 1995 VAT trade codes have been based on SIC (92) at the 4 digit level.*

The President's Task Force on Service Sector Statistics

Bill Cave DTI

Background

The service industries are an important and growing sector within the economy of most developed economies. In the UK they contributed about 66%* of GDP in 1995 against about 50% in 1970. These industries currently employ over 70% of the workforce. Services have an added claim to fame in the UK in that international trade in services (TIS) invariably contributes a substantial surplus to the current account of the balance of payments, £6.9bn in 1995. Only the US and France have stronger services surpluses in the G7. On the other hand, according to IMF data, the UK share of world trade in services earnings declined from 10% in 1975 to 5.8% in 1995, giving rise to concerns about the competitiveness of the UK services sector as a whole. The UK share has stabilised since 1993. International comparisons of TIS should however be treated with caution due to differing methods of measurement.

The service sector is made up of a heterogeneous set of industries, whose common factor is that their output, by and large, is rather intangible. They include retail and wholesale distribution, hotels, catering, transport, communication, financial, real estate, business, public administration, defence, health, education, community, recreational, cultural and personal services.

Interest in the performance of the service sector is rising not just because of its size and growth but due to international agreements liberalising trade in services such as the Single Market and the General Agreement on Trade in Services.

It was clear from competitiveness work to audit the performance of UK industries that the detailed and internationally comparable information, that was available for manufacturing in a range of countries, was largely missing for services. This despite a longstanding and continuing programme of improvements in service statistics that had been pursued in the former Central Statistical Office (CSO); some of which were still in the pipeline. In July 1994 the President of the Board of Trade, then Michael Heseltine, asked for improvements to service sector statistics in order to enable an accurate assessment of their contribution to the economy and their international competitiveness. The need for credible international comparisons would be vital.

Setting up the task force

In the autumn of 1994 DTI Statisticians conducted a comprehensive analysis of the availability of eleven competitiveness related variables for each 4-digit Standard Industrial Classification code. The variables were: turnover, GDP weight, index of output, value-added, employment, productivity, trade credits, trade debits, earnings on overseas direct investment, capital expenditure, profitability.

In addition as service industries are sponsored by various Government Departments, the main sponsoring Department was identified for each industry. A parallel exercise was undertaken to try to identify the availability of international comparisons of these variables by industry.

It became clear that detail on trade in services was insufficient and productivity data were particularly poor. Measures of output were fundamental to requirements but patchy in coverage. Value-added was selected as the measure of output which would permit the greatest comparability across industries and countries.

As DTI is not a significant collector of industry data and the interests of a number of Departments were involved, the President sought the cooperation of the Central Statistical Office (now the Office for National Statistics - ONS) and the Treasury. With the agreement of the Treasury, a task force was established in May 1995, chaired by David Coates, Chief Economic Adviser at DTI, with membership including ONS, HM Treasury, Bank of England, Department of National Heritage, Department of Employment (now the Department for Education and Employment) and the Department of Transport.

Purpose

The aim of the task force was to propose improvements in services statistics in the UK and internationally, particularly those which provide indicators of comparative performance for different industries. Specially mentioned were measures of output, productivity, prices, trade and profitability. The emphasis was on making better use of existing sources and if new data had to be

* *Service industries as defined in NACE Rev 1. Under this definition imputed housing rents are nominally attached to real estate services.*

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collected then the extra costs (including the compliance costs on business) should be strictly justified by the benefits. New data collection was to anticipate likely EC requirements.

The Task Force objectives were:

A. to identify the needs and priorities of Government for service industry statistics, assess the existing quality, suitability and coverage of these statistics and to make specific proposals for additional analyses and new enquiries, taking into account the likely future requirements of Eurostat;
B. to understand and seek to influence EU plans so that they conform as far as possible to the needs of the UK Government;
C. to monitor and influence the work of other international statistical agencies and seek to speed up their work on classifications, relevant data collection and publication;
D. to review the classification detail of services in SIC 92 and develop the UK classification of activity by product in a way that is compatible with the European Classification of Products by Activity (CPA) and which would allow the construction of activity measures for industries not currently specified in SIC 92.
E. to investigate and emulate best practice in the collection of services statistics in other national statistics offices.

User needs

The principal user needs of DTI, other Government Departments and The Bank of England for additional data on service industries were identified as follows:

output data

i. annual value-added and contribution to GDP for more detailed industries to assess their contribution to the economy, growth and productivity;
ii. monthly turnover figures for service industries to improve the quality of early estimates of quarterly GDP;
iii. improved constant price turnover data to monitor growth in real output in the short term to improve early estimates of GDP and monitor sectoral growth;
iv. reductions in the use of employment data as a proxy for service industry output to improve estimates of growth;
v. better developed output data by industry and employment size-band to inform work on small firms;

productivity data

vi. annual value-added per head data by detailed industry for competitiveness assessment;
vii. annual and quarterly constant price productivity data for broader (2-digit ISIC or less) service sectors to assess productivity growth for national accounts and competitiveness purposes;

prices

viii. more business service prices to enable appropriate deflation of service sector output;

profits

ix. a quarterly profits breakdown between manufacturing and services and a more detailed annual sectoral breakdown to give a clearer view of the health and performance of service industries;
x. internationally comparable data on profitability to provide indicators of competitiveness;

international trade in services

xi. an analysis of international trade in services by partner country to identify changing markets, the customers of "City of London" services and to inform export promotion efforts;
xii. monthly data on trade in services to provide a more up to date and broader picture of short term movements in trade and also to support statistical requirements for stage 3 of European Monetary Union;
xiii. an analysis of trade in services by product to meet IMF/EU guidelines for industry sponsorship and export promotion purposes as well as to permit better international comparisons;
xiv. more detailed and internationally comparable data on levels of trade in services to provide world and country market share information as well as competitiveness measures;

foreign direct investment

xv. a more detailed industrial analysis of comparative performance of UK owned and foreign owned businesses in order to improve understanding of the contribution of foreign investment to the UK economy;

classifications and registers

xvi. new industrial sub-classes and product groups in order to obtain data on industries that cross existing industry classifications or are sub-sectors of existing industry sub-classes;

xvii. in depth studies of certain key service sectors to inform sponsorship policy;

xviii. improvements to the quality of industry classification data on businesses on the Business Register to permit more analysis by industry/region/size-band etc and more effective use of the Register in sample selection

financial services

xix. a more realistic and internationally comparable measure of the output of financial intermediation services;

xx. higher quality of financial services data on the Business Register;

xxi. internationally comparable data on output and overseas earnings by financial service product/activity to monitor the competitiveness of City related services. Industry data are insufficient given the range and overlapping of activity of large banks and insurance companies; improved and more internationally comparable and robust balance of payments data for insurance, both for competitiveness monitoring, to identify the UK's market share of internationally traded insurance and to meet IMF guidelines;improved data collection on financial auxiliaries generally and insurance brokers in particular;

international comparisons in general

xxii. more timely international data in most of the above areas on a comparable basis. The priorities are for more comparable trade in services data, structural data, short-term indicators and productivity for services.

Suppliers of data

Discussions were also held with the suppliers of service sector data mainly ONS, but also the Bank of England, British Invisibles and some national statistical institutes as well as international statistics providers such as Eurostat and OECD to look at the feasibility of desired improvements.

Raising the profile

The lack of data on the services sector leads to a lack of informed comment about the performance of the services sector. The Task Force has therefore sought to raise the profile of services industries through improvements to ONS publications, conferences and improved statistical briefing on services within Government in parallel to data improvements.

Main proposals and developments

The work of the Task Force has added impetus to ONS improvements in services statistics, which were designed primarily to meet the needs for improved and more timely data for national accounts. Significant progess has been made in identifying sources of data for users, making data more useful and widely available and commissioning new analyses. The improvements being sought in services statistics are within the context of difficult running cost pressures and reducing the overall compliance costs of Government surveys as part of deregulation policy. These have been major constraints on extra data collection and a balance between costs and benefits has to be struck. Nevertheless ONS has recently published a compliance plan which envisages a modest expansion in certain services compliance costs while ONS compliance costs overall decline by around 25% between 1994 and 1998. Other Government Departments are considering how to follow this approach.

A few examples of recent improvements by ONS are:

a) a 37 country analysis of the UK balance of payments current account including trade in services starting in 1995, see Box 1;

b) annual estimates of GDP contribution are now available for 35 service industries, see Box 2;

c) a split of the net overseas earnings of some UK service providers, including insurance firms, into credits and debits;

d) new service sector price series.

Data on services from the international agencies and other national statistical institutes are also improving. Examples of the kind of analyses that are found useful in competitiveness work include:

e) Group of 5 (G5) market shares of services imported by other countries, see Box 3;

f) indices of output for services that show comparative growth between sectors and countries. OECD are encouraging Member States to supply such indicators, see Box 4;

g) value-added and employment data by detailed industry was published for the first time by OECD in 1996.

The Task Force recognised the good progress made in international comparisons mainly in the area of classifications and definitions, which will yield results in due course, but also the inadequacy of available data. Progress in adopting common standards of data reporting is only possible by international agreement. The international developments associated with the liberalisation of trade in services are fuelling the need for data on services across the world and are driving important changes to the treatment of services statistics in the UK and elsewhere.

The tortuous progress of the EC Structural Business Statistics Regulation is a good example of the difficulties, benefits and costs of reaching international agreement. The project now includes the attraction of provision of comparable basic structural data on most market services throughout the European Economic Area. The negotiations have now brought a generally satisfactory solution for the ONS. However many difficult and challenging areas are to be the subject of pilot studies. This will provide Eurostat with a heavy work programme, which will involve most member states. The pilot studies will include collection of data on trade in goods and services, by industry.

Box 1

Geographical Breakdown of the UK's Overseas Earnings from 37 countries for 1995.

ONS have for several years published an annual analysis of UK balance of payments current account earnings from 23 countries and selected broad regions of the world. As part of the work of the President's Task Force on Service Sector Statistics, DTI commissioned ONS to undertake an extended 35 country analysis of the 1994 figures and to do a feasibility study into providing more countries in future.

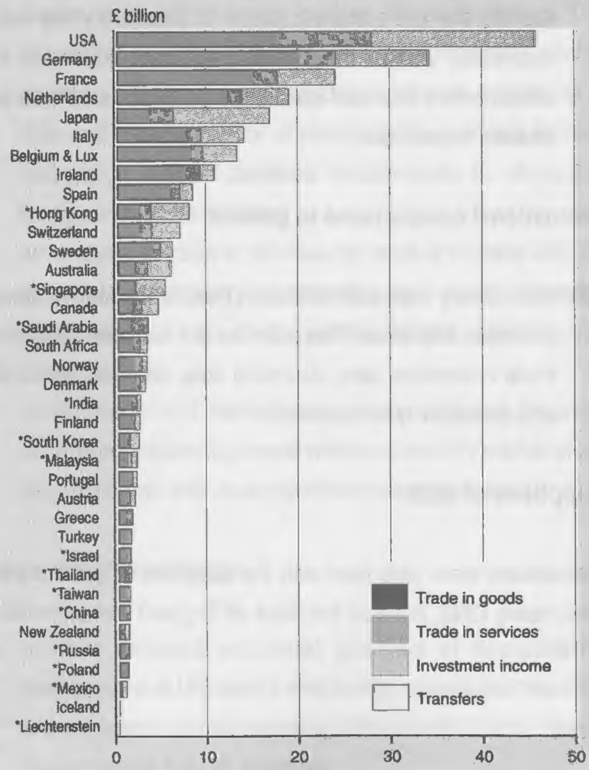
The first set of results, for 36 countries in respect of 1994, was published by ONS in an Economics Trends article in April 1996. The analysis was updated to 1995 in a subsequent article in October 1996. This article included estimates back to 1988 for these additional countries (except Russia, which did not exist until 1993). It also identified Liechtenstein separately from Switzerland, making 37 countries in all.

These data must be regarded as best estimates. At present, full geographic breakdowns are only available for about 60% of services transactions. Some of these breakdowns are based on surveys which currently have low numbers of respondents which lead to an unacceptable margin of error on the estimates for some countries. To improve the quality of these estimates for 1996 data DTI Ministers have now approved extra data collection for trade in services. This will provide a service product breakdown for our ten major trading partners and a 40 country breakdown of overall trade in services.

The breakdown of UK's exports of goods and services and other overseas earnings ranked by partner country is shown in chart A.

Chart A

Sources of UK account credits 1995 by country and component



* *Country data available for the first time.*

Source: Office for National Statistics

Box 2

% Contribution to UK GDP by Industry

DTI use the annual ONS input-output tables to derive the % contribution to UK GDP by service industry (see table below). The industries are made up of those firms whose principal activity is in that industry and do not relate to total production of products associated with that industry. Thus the advertising industry does not include media firms who sell advertising.

Service Industry	Nace Rev 1	1992	1993	1994
Motor veh distn & repair	50	2.01	2.01	1.98
Wholesale distribution	51	4.70	4.68	4.61
Retail distribution	52	4.92	4.93	4.86
Hotels, catering, pubs etc	55	2.71	2.73	2.72
Railways	60.10	0.60	0.58	0.62
Other land transport	60.2,3	2.13	2.12	2.10
Water transport	61	0.17	0.17	0.17
Air transport	62	0.56	0.60	0.66
Transport services	63	1.81	1.82	1.82
Postal services	64.10	0.95	0.94	0.94
Telecoms	64.20	2.22	2.22	2.20
Banking and finance	65	5.05	4.42	4.87
Insurance/ pension funds	66	1.34	2.12	2.00
Auxiliary financial serv	67	0.61	0.58	0.58
Own/dealing real estate	70,1,2pt	1.48	1.45	1.77
Letting of dwellings	70.2pt	7.35	7.48	7.64
Estate agent activities	70.30	0.47	0.47	0.48
Renting of machinery	71	0.82	0.83	0.85
Computing services	72	1.18	1.20	1.21
Research & development	73	0.54	0.53	0.53
Legal activities	74.11	0.97	0.99	1.00
Accountancy services	74.12	0.82	0.83	0.82
Market research	74.13-15	0.56	0.59	0.61
Architectural etc activities	74.2-3	1.64	1.59	1.55
Advertising	74.40	0.36	0.37	0.37
Other business services	74.5-8	1.92	1.95	1.98
Public administration	75	7.10	7.00	6.65
Education	80	5.46	5.44	5.49
Health/veterinary serv	85.1-2	5.11	5.05	5.07
Social work	85.30	1.60	1.63	1.67
Sanitary services	90	0.52	0.54	0.56
Membership orgs	91	0.53	0.52	0.52
Recreational services	92	1.76	1.76	1.81
Other service activities	93	0.48	0.47	0.46
Domestic services	95	0.42	0.44	0.46
Financial serv adjustmnt*		- 4.54	- 4.25	- 4.99
Total Services as % of GDP	**66.32**	**66.80**	**66.63**	

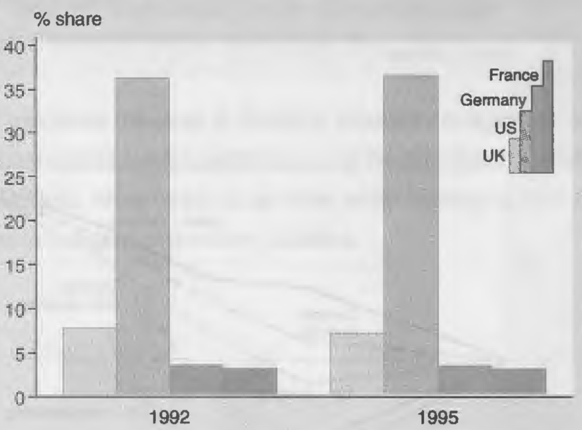
** Subtracts the net interest received by financial services firms to avoid double counting in overall GDP*

Box 3

DTI has begun to use national data sources to get a consistent estimate of the UK market share of other countries service imports. The number of countries producing such data by partner country is small but growing and so far confined to OECD countries. Two examples are shown in the charts. The first based on Bank of Japan data shows how the UK's share of Japan's service imports fell slightly between 1992 and 1995, while the US share increased.

Chart **B1**

Japan's service imports by partner country, 1992-1995

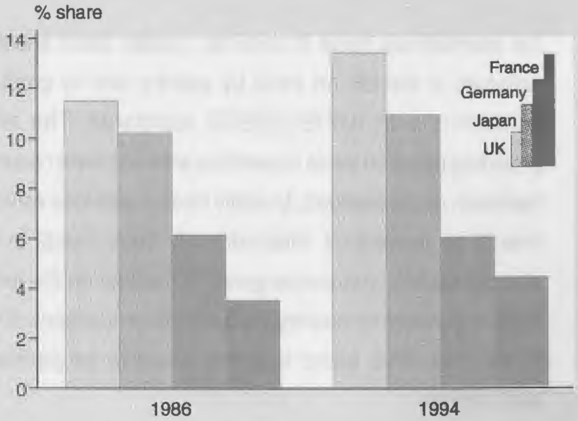


Source: Bank of Japan

The second based on data from the US "Survey of Current Business" shows how the UK, Japan and France increased their share of the USA's imported private services between 1986 and 1994.

Chart **B2**

USA's private services imports by partner country, 1986-1994



Source: Survey of Current Business

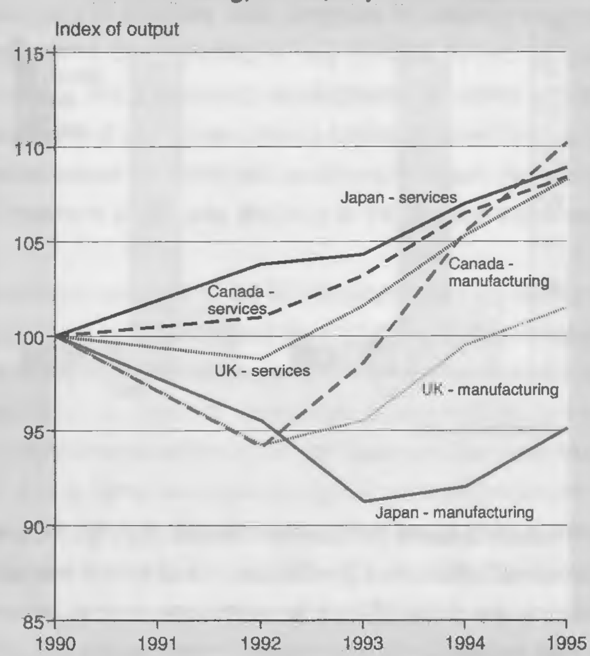
Box 4

An important indicator of competitiveness is the relative growth of output in different industries and countries. Few such comparisons for service industries exist internationally and the OECD is encouraging member countries to develop more of these indicators.

The chart below shows how services output has been growing rather steadily in three developed economies since 1990 and has been less affected than manufacturing by economic cycles.

Chart **C**

Indices of output in services and Manufacturing, in UK, Japan and Canada



Source: OECD

The summary recommendations of the Task Force are as follows:

1. On international trade in services greater detail should be collected in the UK on trade by country and by product in conformity with IMF/EU/OECD standards. The aim of providing detail on trade in services with 50 partner countries has been recommended. Monthly trade in services estimates should be developed. Internationally there needs to be a standardisation and convergence in outputs on the level of trade in services by country, as bilateral comparisons of trade in services were found in some cases to be particularly asymmetric.

2. To improve detailed estimates of output at constant prices better services deflators are needed. The ONS business service prices programme should be protected and preferably advanced.

3. The industry gaps in the coverage of measuring output of marketed services should be filled. Value-added should be published by 4-digit industry, subject to confidentiality constraints. The use of input measures as a proxy for output measures should be reduced including where possible for non-marketed services. The quality and availability of short term indicators of output should be improved in the UK and at the international level.

4. Basic productivity data should be developed, through better matching of output and employment data; value-added per head measures published by detailed industry on the same basis as for manufacturing; constant price productivity measures should be developed for broad service industries initially with the aim of developing them for 2-digit industries in due course. International organisations such as OECD should be encouraged to develop productivity methodology and series to enable better international comparisons.

5. Product and industry classification detail should be improved in the UK and internationally to meet policy needs. The most acute gap is the widespread absence of product/activity detail for many service sectors in official statistics. It is recognised that improvements will have a long time scale and need to be balanced against the compliance burden on business.

6. In order to partly address the problem of costs and compliance costs more use should be made of administrative particularly Register data. To facilitate this the quality of Register data needs to be raised. The need for in depth studies of key industries should be addressed through a small scale rolling programme.

7. Significant extra data collection has only been advocated in the areas of trade in services and intermediate services prices. New industry output data from the Annual Service Trades Inquiries are to be contained in existing compliance cost allocations by changing sample sizes to other industries.

8. Publications of service industry and trade statistics should be reviewed and upgraded to raise public understanding of the sector.

Implementation

The broad recommendations have received the support of Ministers and the Task Force has developed an action plan to implement the proposals. An ONS/DTI working group is taking the work forward.

The broad scope of the service industry work has underlined the need for cooperative ventures both between Government Departments and internationally.

Conclusion

There is a crucial need for better services statistics to support work on competitiveness, inform negotiations on trade in services and promotion of UK services overseas. The main areas for improvement are:

- product and country detail for trade in services with international standardisation on measures of the level of this trade
- expansion of collection of price data for services to business
- extending the coverage of measures of output in the service sector including the quality and availability of short-term indicators of services output
- development of basic productivity measures for services, which involves better matching of output and employment data

ONS and DTI have drawn up an action plan and much of the work falls to ONS. Some of ONS's plans for improvements are described in Derek Baskerville's article "ONS plans to extend publication of Service Sector Statistics" [in this edition].

DTI welcomes the work of Eurostat, international agencies and national statistical institutes in improving the information available on services. More needs to be done whilst bearing in mind the costs to business of providing statistics.