Economic Trends

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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.

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 24 March 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 T75

† 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 or e-mail Michael.Byrne@ONS.Gov.UK

Office for National Statistics
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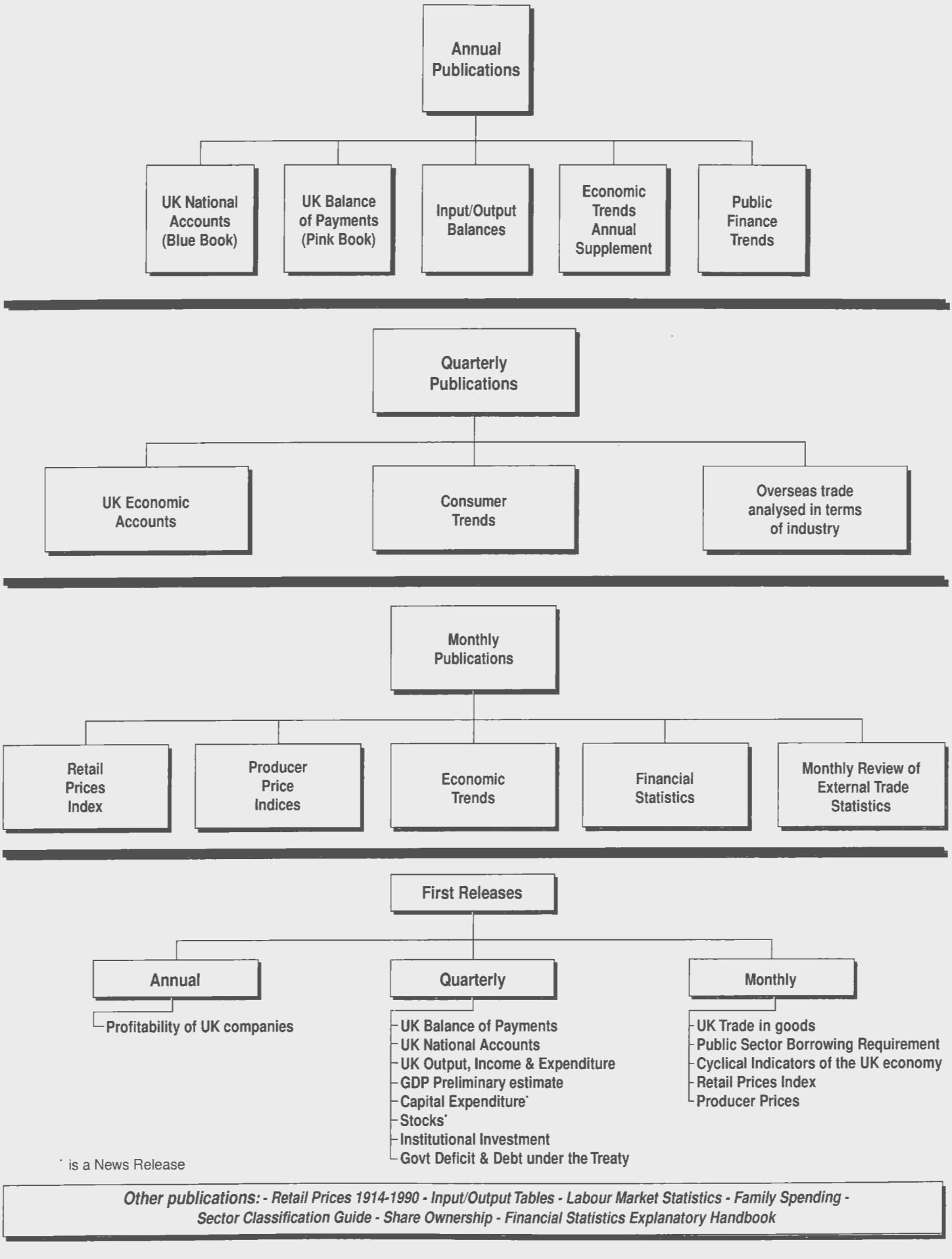
United Kingdom Macro-Economic Statistics Publications



* is a News Release

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

Articles

Page

Articles published in *Economic Trends*

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

Regional economic indicators. Commentary, figures and charts are published every January, April, July and October.

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

Other Articles

1996

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?

1997

January &	Regional Accounts 1995: Part 1.
February	Balancing GDP: United Kingdom annual input-output balances.
	The Budget: 26 November 1996.
	The economy: recent developments and prospects.
	ONS plans to extend publication of service sector statistics.
	The president's task force on service sector statistics.
March	Employment in the public and private sectors.
	The effects of taxes and benefits upon household income 1995-1996.
	Quarterly integrated economic accounts: the United Kingdom approach.
	International comparisons of GDP per head over time.

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 - April 1997

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

Overview

Gross domestic product (GDP) growth rose in the fourth quarter driven by strong growth in services. Production output also grew strongly as energy extraction and supply grew strongly and manufacturing continued to recover. Output in the fourth quarter responded to increased domestic demand. Consumers' expenditure continued to grow strongly and strong retail sales in January and February along with consistent strong demand for credit, suggest the pace of consumer demand remains strong. Investment growth also "picked up" in the fourth quarter. Demand in the labour market showed signs of increasing as claimant unemployment fell substantially in February, employment grew strongly in the fourth quarter and annual earnings growth rose to 5%. Although earnings growth is accelerating, other indicators suggest little inflationary pressure in February. Headline inflation (RPI) fell, and prices of production materials and factory gate prices continued to fall. Net exports contribution to GDP increased but the trade deficit remained stable.

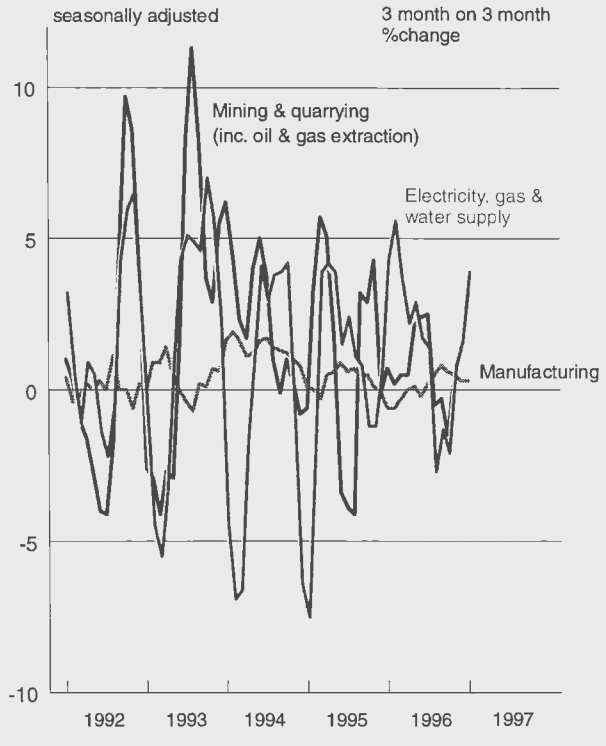
GDP Activity

1. Latest estimates show growth in GDP at factor cost (including and excluding oil and gas extraction) rose in to 0.8% in the fourth quarter from 0.7% in the third quarter. Between the fourth quarter 1995 and fourth quarter 1996, GDP grew by 2.6%.

Output

2. Growth in **production** in the three months to January was strong due to significant increases in oil and gas extraction and output of energy, which rose strongly following the overall colder than average temperatures. Manufacturing output rose less strongly, by 0.3% in the three months to January compared with the three months to October. Chart 1 shows the growth in output of the production industries. Sectorally, production of durable goods increased strongly as output of cars accelerated in the three months to January in line with demand. Output of intermediate goods, the largest category, continues to drive growth in manufacturing output. **Construction** output grew strongly in the second half of 1996, contributing to GDP growth. However, GDP growth continues to be driven by strong growth in services particularly in business and financial services, and transport and communications. The temporary effect of the bumper harvest on **agricultural** growth in the third quarter significantly reduced growth in agricultural output in the fourth quarter contributing a downward effect to GDP growth.

Chart 1
Output of the production industries



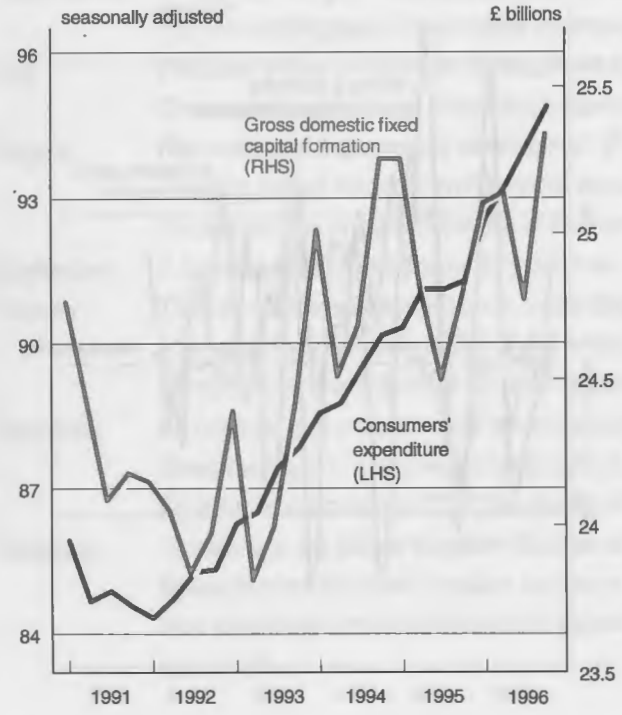
3. Construction output continues to grow strongly, responding to increased demand for private housing and commercial buildings. The volume of new **construction orders** in Great Britain, seasonally adjusted, rose strongly by 8.4% in the three months to January compared with the three months to October. Private sector commercial and industrial orders and private housing were significantly stronger over the period. Public sector orders still remained weak (despite the overall growth in orders).

4. Manufacturers' are becoming more confident of the future. The CBI Monthly Trends Enquiry in **manufacturing** reported the output expectations balance in the next 4 months, seasonally adjusted by the ONS, rising from 10% in February to 16% in March.

Domestic demand

5. **Total domestic demand**, at constant prices, rose strongly by 0.9% in the fourth quarter and by 2.2% in the four quarters to 1996 Q4. Strong growth in consumers' expenditure has been driving the growth in domestic demand, but growth in investment, although strong in the fourth quarter, has been significantly weaker over the year. Growth in investment is erratic by nature as highlighted by chart 2.

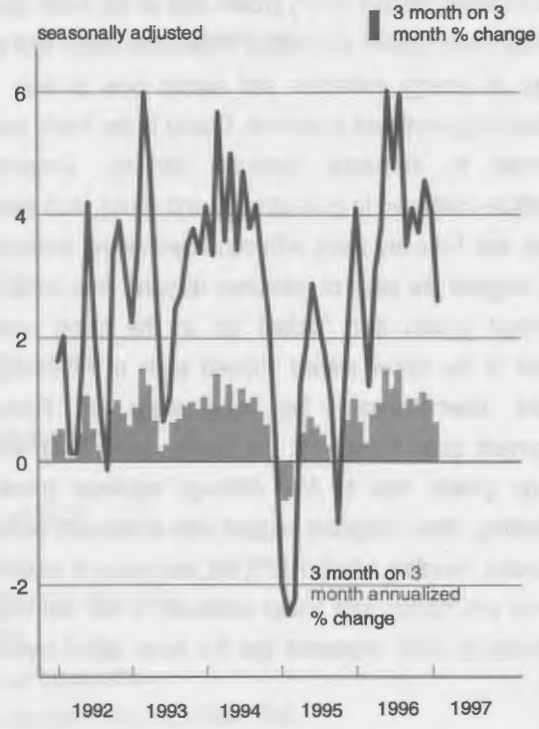
Chart 2
GDP Expenditure components at constant prices



6. Consumers' expenditure accelerated by 0.9% in the fourth quarter as spending on durables grew strongly across both categories. Expenditure on non-durables remained constant, but strong demand for transport and communications and monetary services led to strong growth for expenditure on services as a whole. Gross domestic fixed capital formation growth "picked-up" in the fourth quarter as investment in vehicles, ships and aircraft increased sharply. Over the year investment grew only moderately, with investment in housing driving this growth. There was no growth contribution from stock building in the fourth quarter as the alignment adjustment removed the slight increase.

7. Chart 3 shows the volume of **retail sales** was 0.6% higher in the three months to February than in three months to November, and 4.0% up on the same period a year ago. Strong sales occured in non-specialised and household goods stores.

Chart 3
Volume of retail sales



8. Strong demand for personal borrowing continued in the three months to January 1997. Total **net personal borrowing**, seasonally adjusted, rose from £8.3 billion in the three months to October to £8.4 billion in the three months to January. **Net borrowing secured on dwellings**, seasonally adjusted, rose from £5.3 billion to £5.5 billion over this period. However, **net consumer credit**, seasonally adjusted, stabilised at £2.9 billion following weaker demand in January, despite strong growth in retail sales in that month.

External demand

9. The **net exports** contribution to GDP expenditure increased in the fourth quarter, although the UK continued to show a deficit.

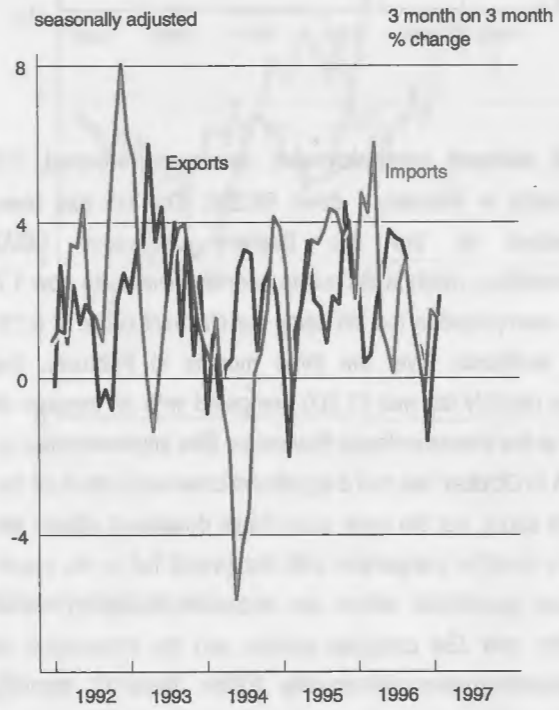
10. The deficit on **the balance of UK trade in goods** remained stable at £2.5 billion in the three months to January. Over this period the **volume of total exports**, **excluding oil and erratics**, fell by 0.4%. On the same basis **imports** rose strongly by 2.5%. The weak growth in exports, due to consecutive falls in

November and December, occured at a time when sterling continued to appreciate.

11. Recent trade **prices** show evidence of the effect of the recent appreciation of sterling. Export and import prices of goods excluding oil and erratics fell by 2.1% and 3.8% respectively in the three months to January, suggesting exporters are lowering sterling export prices to moderate the impact of sterling's appreciation on prices in foreign currencies.

12. More timely data on **trade with non-EU countries** shows that the deficit narrowed from £1.8 billion in the three months to November 1996 to £1.5 billion in the three months to February 1997. As illustrated in chart 4, over this period, **export volumes, excluding oil and erratics** grew strongly by 2.1% compared with the previous three months, suggesting the appreciation of sterling has not yet affected the supply of non-EU exports. On the same basis **import volumes**, grew by 1.5%.

Chart 4
Volume of exports and imports with non-EU countries (excluding oil and erratics)



Income

13. Increases in average earnings and employment in the fourth quarter led to strong growth in income from employment. Total personal disposable income grew strongly - by 1.3%, driven by strong growth in wages and salaries and other income. Consumers' expenditure growth in the fourth quarter was slightly higher than disposable income, edging the savings ratio down. Despite numerous boosts, the savings ratio has remained relatively stable throughout 1996. Growth of GDP at current prices was also boosted by increased gross trading profits of companies which emanated within the industrial and commercial companies sector, particularly Continental Shelf companies as profits were boosted by higher oil prices and output.

Prices and wages

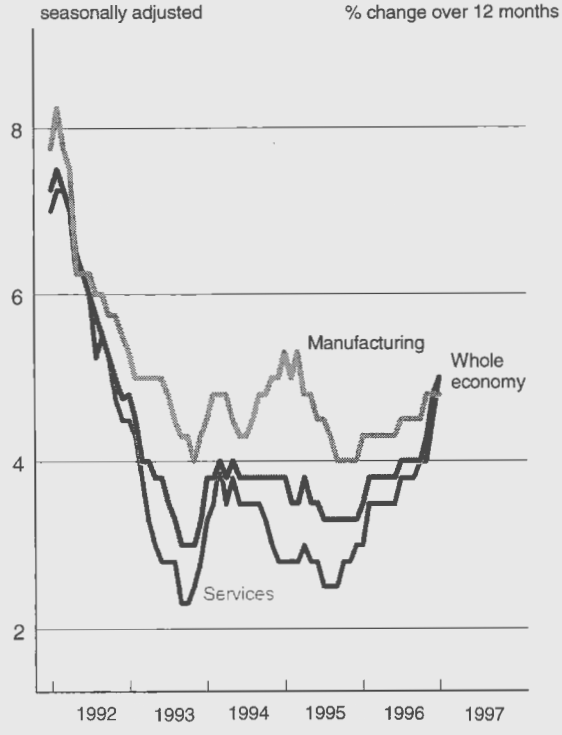
14. Factory gate price rises fell sharply in February 1997, and the strong downward trend in the price of materials and fuels continued. The 12 month rate of increase in input prices (all manufacturing) fell to deflation of 6.6% in February, the fourth successive monthly fall. Imports of materials and fuels on the whole have become significantly cheaper following the strong appreciation of sterling. Lower input costs to manufacturers appears to be feeding through to lower product prices. The **output price** index for manufactured products (home sales), not seasonally adjusted, over the same period, fell to 1.3%. A sharper fall is shown by output prices, excluding excise duties, and seasonally adjusted, which increased by only 0.7% over the 12 months to February.

15. **Expectations of rising prices** from manufacturers remained relatively low in March. The CBI Monthly Trends Enquiry for manufacturing showed a balance of 4% (up from 2% in February), seasonally adjusted by the ONS, expecting to raise prices in the next four months.

16. Earnings growth increased in January, following a ½ pecentage point upward revision to December's growth. The annual rise in underlying whole economy **average earnings** for Great Britain in January was 5%, up ¼% from December. Service sector earnings growth increased strongly up by ½% to 5%, boosted by high bonus payments, and production sector growth increased by ¼% to 5%. Manufacturing earnings growth was stable and is no longer above the national average. The sectoral split for earnings is shown in chart 5.

Chart 5

Whole economy underlying earnings in GB



17. Headline inflation fell back in February. The 12-month rate of increase of the **retail prices** index **(RPI)** fell to 2.7% in February 1997. Excluding mortgage interest payments (RPIX) the 12-month rate fell to 2.9%, and further excluding indirect taxes, the rate fell to 2.5%. The fall in the headline rate was caused by significantly lower seasonal food prices as compared with the same time in 1996. Other less significant downward effects in the index came from lower price rises for household goods and personal goods and services. Higher costs for housing and motoring continued to exert upward pressure on the index.

Labour Market

18. The UK **worforce in employment**, seasonally adjusted increased by 47,000 in the fourth quarter to stand at 26.1 million. Within this, male employment rose by 59,000 and female employment fell by 11,000. Over the year, employment increased by 222,000, the majority of the rise being in female employment as illustrated in chart 6.

18. Following moderate growth in manufacturing output in the three months to January, manufacturers increased employment by 7,000 in Great Britain over this period and by 11,000 over the year. Employment in the rest of the production industries rose by 2,000 in the three months to January 1997 and fell by 28,000 over the year.

Chart 6

U.K.workforce in employment

19. **UK claimant unemployment**, seasonally adjusted, fell substantially in February - down 68,200. The fall has been exaggerated by the Job Seekers' Allowance (JSA) implementation, which is difficult to quantify. There are now 1.7 million unemployed in the UK using the claimant count or 6.2% of the workforce. Over the three months to February, the average monthly fall was 61,200 compared with an average of 59,600 in the three months to November. The implementation of the JSA in October has had a significant downward effect on the claimant count, but the main quantifiable downward effects are relatively small in comparison with the overall fall in the count. The main quantifiable effects are 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. In February, inflows and outflows of the claimant count were realtively unchanged from January.

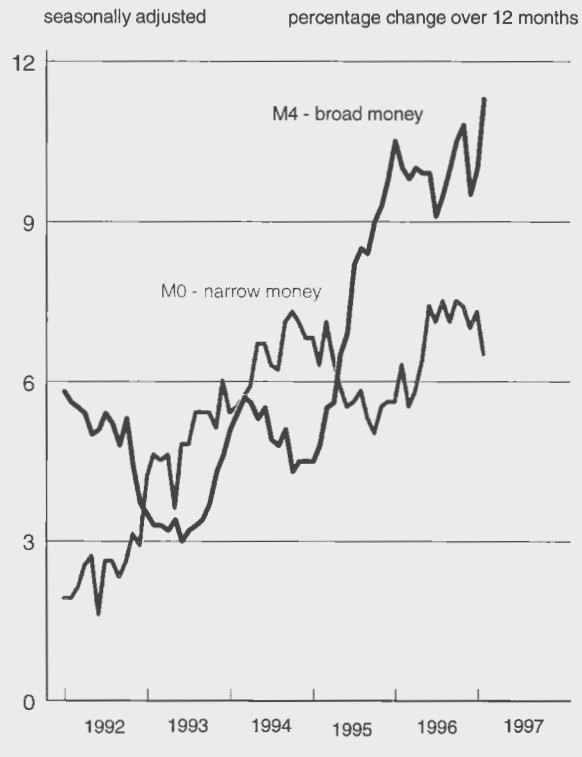
20. The stock of vacancies increased in January following three successive monthly falls. **Jobcentre vacancies** in the UK rose by 7,800 in February to be at a total of 270,900. In the three months to February, the average monthy rise was 700 compared with 10,600 in the three months to November. Rises in

vacancies in the months prior to December have been overestimated following the introduction of a new computing system, which restricted placements.

Monetary indicators

22. Chart 7 shows, the annual growth of **narrow money (M0),** seasonally adjusted, decelerated from 7.3% in January to 6.5% in February 1997. Annual growth of **broad money (M4)**, seasonally adjusted, accelerated from 10.0% in January to 11.3% in February, the highest rate since December 1990.

Chart 7
Annual growth of money aggregates



Government finances

23. In February 1997, the **public sector borrowing requirement (PSBR)** was £3.6 billion. For the first eleven months of the financial year of 1996-97, the PSBR was £14.1 billion compared with £22.2 billion in the same period last year. **Excluding privatisation proceeds** the figures in the eleven months to February were £18.3 billion and £24.5 billion respectively.

Forecast for the UK Economy

A comparison of independent forecasts, March 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)	3.3	2.5	4.3
Inflation rate (Q4)			
- RPI	3.2	2.2	5.0
- RPI excl MIPS	2.7	2.1	4.0
Unemployment (Q4,mn)	1.64	1.00	1.84
Current Account (£,bn)	-4.9	-12.0	3.4
PSBR (1997-98,£ ,bn)	19.6	12.0	24.0

	Independent Forecasts for 1998		
	Average	Lowest	Highest
GDP growth (per cent)	2.7	1.5	4.2
Inflation rate (Q4)			
- RPI	3.4	2.0	4.8
- RPI excl MIPS	3.2	2.1	4.2
Unemployment (Q4, mn)	1.53	1.21	1.86
Current Account (£,bn)	-8.1	-19.9	10.5
PSBR (1998-99,£,bn)	14.9	5.0	27.0

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

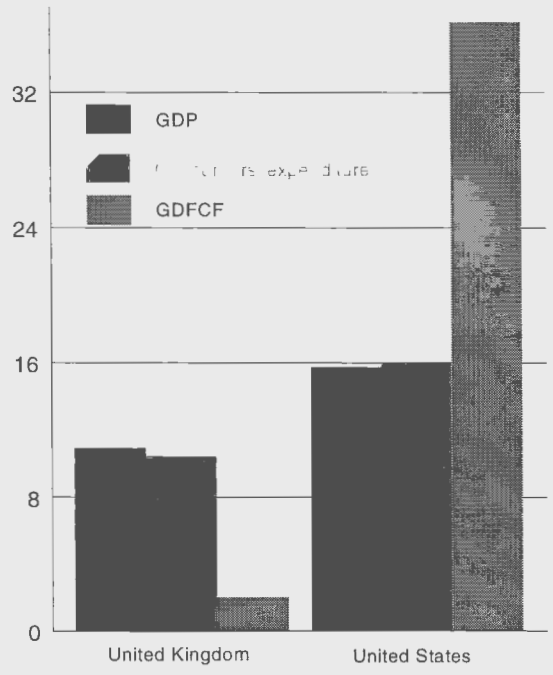
In the United States economy there was strong quarterly growth in 1996 Q4. Its acceleration over the previous quarter was underpinned by a rise in investment expenditure. Despite this bouyancy, price pressures in the United States appeared to be constrained by a rising dollar exchange rate and a weakening demand for labour. Consequently, the latest estimates in the United States have shown that there were large falls in consumer and producer prices as well as wage inflation. In this period, other G7 economies also expanded but not at the American rates. Elsewhere inflation remained significantly lower. However, earnings which in the United Kingdom rose remained the highest among the G7 economies.

Activity

2. Growth in **gross domestic product (GDP) at constant market prices** in the United States accelerated in the fourth quarter assisted by an increase in investment expenditure, although spending on machinery and equipment fell slightly. France and Canada both slowed, though the former's deterioration was more pronounced (retail sales growth provided a major injection which enabled some advance in the French economy). Chart 1 shows the varying impact of consumers' and investment expenditure on the United Kingdom's and United States economies.

Chart 1
Gross domestic product - 1991 to 1996 growth

seasonally adjusted



3. Growth in **Industrial production** in the G7, on a quarterly basis, gained increasing momentum towards the end of 1996, led by strong results from Japan and the United States. While monthly data showed that both the United Kingdom and United States failed to grow at all in January 1997. In Germany and Japan growth advanced strongly but the latter's monthly series has been highly erratic.

4. In the United Kingdom latest estimates of **retail sales** showed growth remained strong in February. In the previous month, there was a strong pick up in growth in France and Japan.

Inflation

5. **Consumer price inflation** remained unchanged in the G7 in January 1997 but has had a slight upward trend throughout 1996. Price pressures appeared to have eased in the United States, where the sharp rise of the previous month was fully reversed. In February inflation fell in the United Kingdom, France and Italy. But in Italy where price rises have been weak, inflation declined by 0.3 percentage points to 2.4%.

6. **Producer price** inflation has continued to fall throughout the G7. There has been a considerable fall since mid 1995 in the United Kingdom, which has stabilised at 0.6% in February. As shown in chart 2 the two consecutive rises in the United States were halted as the rate fell 0.5 percentage points in January 1997.

Chart 2
Producer price inflation

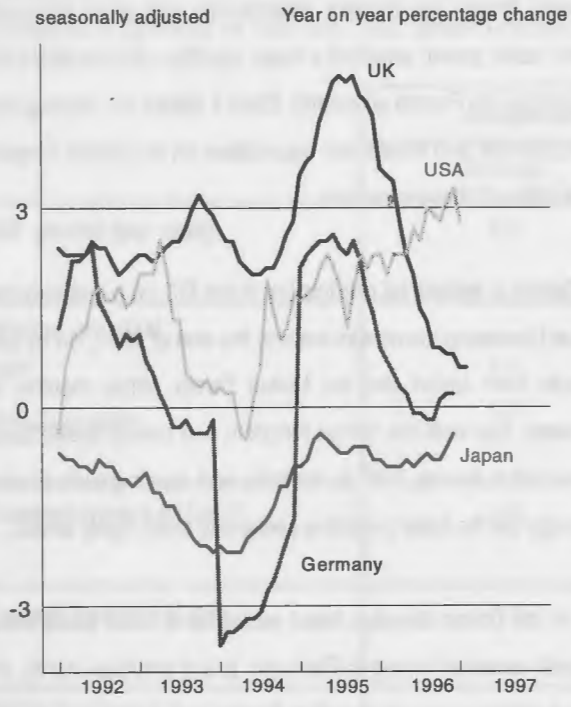
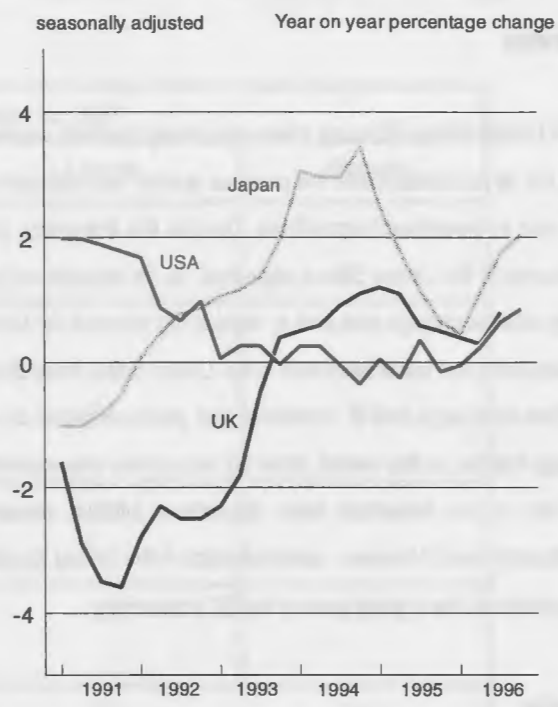


Chart 3
Employment growth



7. **Earnings** growth fell back in the United States in January 1997 more than reversing the rise of the previous month. In the United Kingdom where earnings growth is the highest in the G7 the rate rose sharply to 5.1% in December. In the same period there were falls in the rate in Japan and Canada.

Labour market

8. In the United States and Japan the demand for labour shrank in January. Between 1996 Q3 and 1996 Q4 **employment** also fell in Italy and Canada - sharply in the case of the latter. Chart 3 compares employment growth rates of the United Kingdom, the United States and Japan.

9. **Standardised unemployment rates** (ILO based) rose in the G7 in January. The largest rise occurred in Germany, where more than 500,000 were added to the unemployment register. By contrast, the sustained fall in the rate in the United Kingdom continued. In the United States fluctuations around 5.3% continued into February.

Trade

10. The **current account** in Canada returned to deficit in Q4 following the surpluses in Q2 and Q3; its trade surplus falling by C$3 billion. In Q3 both France and Italy's respective current accounts improved markedly, where both have been in surplus since 1992.

Notes

12. The series presented here are taken from the OECD's Main Economic Indicators, except for the United Kingdom. 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	3.8	2.3	1.9	2.6	2.6	3.7	4.4	4.8	3.5	3.4
1990	0.4	5.9	2.5	2.1	2.9	1.3	5.1	–0.3	2.4	2.7
1991	–1.9	..	0.8	1.1	3.0	–1.0	4.0	–1.8	1.4	1.3
1992	–0.5	1.8	1.2	0.6	0.9	2.7	1.0	0.8	1.8	1.8
1993	2.0	–1.1	–1.4	–1.1	–0.6	2.3	0.1	2.2	1.0	0.9
1994	3.8	2.9	2.8	2.1	2.8	3.4	0.7	4.1	2.8	2.7
1995	2.5	2.1	2.2	2.9	2.5	2.1	1.3	2.3	2.0	2.0
1996	2.2	..	1.3	..	..	2.5	..	1.5	..	..
1996 Q1	1.9	0.3	1.0	1.3	1.4	1.6	4.8	0.6	2.0	2.0
Q2	2.2	1.1	0.7	0.8	1.5	2.7	3.5	1.3	2.3	2.6
Q3	2.3	1.9	1.4	0.7	1.8	2.3	3.3	1.8	2.2	2.5
Q4	2.5	..	2.1	..	..	3.1	..	2.2	..	..
Percentage change, latest quarter on previous quarter										
	ILGH	ILGI	ILGJ	ILGK	ILGL	ILGM	ILGN	ILGO	ILGP	ILGQ
1995 Q1	0.5	0.4	0.6	1.5	0.7	0.2	–0.1	0.4	0.3	0.5
Q2	0.4	0.7	0.2	0.2	0.5	0.2	1.0	–0.3	0.4	0.2
Q3	0.4	–	0.2	0.7	0.3	0.9	0.3	0.4	0.6	0.6
Q4	0.6	0.1	–0.5	0.1	0.2	0.1	1.4	0.2	0.3	0.4
1996 Q1	0.6	–0.4	1.1	0.4	0.4	0.5	2.0	0.3	0.7	0.8
Q2	0.7	1.4	–0.2	–0.4	0.5	1.2	–0.3	0.5	0.6	0.6
Q3	0.4	0.8	0.9	0.6	0.6	0.5	0.1	0.8	0.5	0.5
Q4	0.8	..	0.2	..	..	0.9	..	0.6	..	..

1 Data available for unified Germany since 1991
2 GNP

2 Total industrial production

	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	5.6	5.0	0.7	1.2	3.3	1.6	3.6	5.6	2.8	3.0
1990	–0.3	5.2	1.5	0.2	2.1	–	4.3	–3.3	1.5	1.7
1991	–3.7	3.7	0.3	–0.9	–0.2	–1.8	1.9	–4.2	–0.4	–0.4
1992	–0.1	–2.6	–0.1	–0.2	–1.2	3.4	–5.7	1.1	–0.3	–0.2
1993	2.1	–7.2	–2.7	–2.4	–3.2	3.5	–4.3	4.5	–0.5	–0.5
1994	5.0	3.6	3.8	5.2	4.6	5.8	1.2	6.5	4.4	4.7
1995	2.6	1.2	1.5	5.4	3.4	3.4	3.3	4.0	3.1	3.0
1996	1.1	1.0	–2.9	–1.6	0.7	1.6	2.7	1.8	1.4	1.6
1996 Q3	0.7	1.7	–3.9	–2.5	1.1	1.5	3.7	2.7	1.6	2.0
Q4	1.5	1.9	1.9	–4.5	0.8	3.9	4.7	3.8	2.9	3.0
Percentage change, latest quarter on previous quarter										
	ILHB	ILHC	ILHD	ILHE	ILHF	ILHG	ILHH	ILHI	ILHJ	ILHK
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	0.1	1.2	–3.4	–0.7	0.4	0.5	0.4	0.2	0.2
Q2	0.3	1.2	0.1	–0.3	0.6	1.6	–0.2	0.4	0.8	0.8
Q3	0.5	1.1	1.4	–0.2	1.1	0.8	1.3	2.1	0.9	1.2
Q4	0.6	–0.5	–0.8	–0.7	–0.2	1.1	3.0	0.7	1.0	0.7
Percentage change: latest month on previous month										
	ILKB	ILKC	ILKD	ILKE	ILKF	ILKG	ILKH	ILKI	ILKJ	ILKK
1996 Dec	0.6	0.1	0.6	0.1	0.4	–1.3	–	–1.1	0.3	0.3
1997 Jan	–	1.3	..	..	..	–	4.9	..	..	..

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	0.8	8.5	0.8	–1.6	2.4	0.7	5.3	–2.4	1.7	1.8
1991	–1.5	5.7	–	–3.4	0.8	–2.4	2.0	–10.1	–1.0	–0.8
1992	0.8	–2.0	0.1	5.3	–0.1	3.4	–3.0	1.0	1.3	1.1
1993	3.0	–4.2	0.4	–2.3	–1.8	5.3	–4.8	3.0	1.8	1.0
1994	3.6	–1.8	–	–5.8	–1.0	6.2	–1.3	8.2	3.0	2.7
1995	1.1	0.5	–0.3	–4.8	0.8	4.1	6.1	0.4	2.7	3.2
1996	3.0	..	–	..	..	..	0.9	0.3	..	..
1996 Q3	3.4	..	–2.5	..	–0.7	1.4	–1.4	–0.3	0.3	–0.1
Q4	3.8	–1.0	2.5	..	..	..	1.5	1.8	..	..
Percentage change, latest quarter on previous quarter										
	ILHV	ILHW	ILHX	ILHY	ILHZ	ILIA	ILIB	ILIC	ILID	ILIE
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	1.0	4.1	..	1.6	0.8	2.6	0.4	1.4	1.2
Q2	1.4	0.7	–2.2	..	0.4	–0.6	–2.1	–0.6	–0.3	–0.6
Q3	0.8	0.3	–0.4	..	–	0.6	–1.3	0.7	–	–
Q4	1.1	–3.0	1.0	..	..	..	2.4	1.3	..	..
Percentage change, latest month on previous month										
	ILKL	ILKM	ILKN	ILKO	ILKP	ILKQ	ILKR	ILKS	ILKT	ILKU
1997 Jan	0.7	..	2.4	..	..	..	3.0	..	..	..
Feb	0.5	..	..	..	..	..	..	..	..	..

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	1.6	2.0	3.9	2.5	3.0	0.5	1.5	2.2	4.9
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	2.4	4.3	2.6	2.8	0.4	1.4	2.2	5.1
Q3	2.1	1.5	1.8	3.5	2.4	3.0	0.8	1.4	2.2	4.6
Q4	2.6	1.4	1.7	2.9	2.3	3.3	1.0	2.0	2.3	4.6
1996 Nov	2.7	1.4	1.6	2.9	2.2	3.2	1.1	2.0	2.4	4.6
Dec	2.5	1.4	1.7	2.8	2.2	3.7	1.1	2.1	2.4	4.6
1997 Jan	2.8	1.4	1.8	2.7	2.4	3.2	1.1	2.2	2.4	4.3
Feb	2.7	..	1.6	2.4	..	..	..	..	..	..

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	2.0	0.2	–2.8	1.7	..	2.6	..	0.4	..	..
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	–3.7	0.1	–0.2	2.8	–0.8	–0.2	1.0	7.1
Q4	0.8	0.2	–3.0	0.5	..	3.1	..	–0.4	..	..
1996 Nov	0.8	0.2	–3.0	0.6	..	3.1	–0.6	–0.5	..	..
Dec	0.8	0.2	–2.8	0.5	..	3.3	..	–0.5	..	..
1997 Jan	0.6	..	..	..	..	2.8	..	–0.5	..	..
Feb	0.6	..	..	..	..	..	..	..	..	..

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
1996	4.3	..	2.8	2.4	..	3.3	2.4	2.8	..	..
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
Q4	4.6	..	3.4	1.8	..	3.6	2.8	3.9	..	..
1996 Nov	4.7	..	..	1.9	..	3.6	2.9	4.4	..	..
Dec	5.1	..	..	1.9	..	4.0	2.8	3.2	..	..
1997 Jan	..	..	..	..	..	3.5	..	..	..	..

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	1.0	–0.1	0.5	0.5	2.0	0.7	2.9	1.3	1.3
1990	0.6	2.5	1.0	1.5	–1.6	–0.5	–1.9	0.7	1.2	1.1
1991	–2.9	1.8	0.1	1.3	–0.1	–0.8	1.9	–1.9	–0.1	–0.1
1992	–2.6	0.4	–0.6	–1.1	–1.2	0.6	1.1	–0.5	0.2	–0.2
1993	–1.1	–1.7	–1.2	–2.4	–2.3	1.4	0.2	1.3	–	–0.2
1994	0.9	–7.8	0.5	–1.7	–0.5	3.2	0.1	2.2	1.3	1.1
1995	0.8	–0.4	0.7	–0.6	0.7	1.5	0.1	1.6	0.8	1.0
1996	..	..	..	0.4	..	1.4	0.5	1.3	..	..
1996 Q3	0.8	–1.1	–0.3	0.3	0.4	1.8	0.7	1.1	0.9	0.9
Q4	..	..	..	0.2	..	2.1	0.9	1.4	..	..
Percentage change,latest quarter on quarter										
	ILIP	ILIQ	ILIR	ILIS	ILIT	ILIU	ILIV	ILIW	ILIX	ILIY
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	–	–0.3	–0.7	0.1	–0.2	–1.2	–2.5	–0.5	–0.5
1996 Q1	0.1	–1.5	0.1	–1.3	–0.9	–1.2	–1.6	–1.8	–1.4	–1.2
Q2	–0.1	0.1	–	1.2	0.7	2.0	3.2	3.5	1.9	1.7
Q3	0.5	0.3	–0.1	1.2	0.5	1.2	0.5	2.0	0.9	0.9
Q4	..	..	..	–0.8	..	0.1	–1.0	–2.3	..	..
Percentage change, latest month on previous month										
	ILKV	ILKW	ILKX	ILKY	ILKZ	ILLA	ILLB	ILLC	ILLD	ILLE
1996 Dec	..	..	..	..	..	–0.2	–0.7	–0.5	..	..
1997 Jan	..	..	..	..	..	–1.2	–0.6	..	..	..

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	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	5.6	6.1
1991	8.8	4.2	9.5	9.9	8.5	6.8	2.1	10.3	6.4	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
1996	8.2	9.0	12.3	..	10.7	5.4	3.3	9.7	6.8	7.5
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
Q4	7.8	9.2	12.4	..	10.8	5.3	3.3	9.9	6.8	7.5
1996 Dec	7.5	9.3	12.4	..	10.8	5.3	3.3	9.7	6.7	7.5
1997 Jan	7.3	9.6	12.4	..	10.8	5.4	3.3	9.7	6.8	7.5
Feb	..	..	..	..	..	5.3	..	9.7	..	..

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

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
1996	..	..	..	..	..	..	–0.2
1994 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	–0.7	1.7	2.0	–1.9	1.3	–0.9
Q2	0.3	–1.4	0.8	3.8	–2.0	1.3	0.6
Q3	–	–0.4	1.3	4.6	–2.5	1.6	0.3
Q4	..	..	..	..	..	..	–0.8

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 Economic Indicators

by Philip Blackburn, Economic Assessment - Office for National Statistics

Summary

- Regional shares of GDP in 1995 remained relatively stable from 1994. GDP per head grew strongest in the West Midlands.

- Claimant unemployment continued to fall across all regions in the three months to February with a narrowing of the differential between the highest and lowest regional rates. Employment grew in most regions in the fourth quarter and over the year as a whole.

- Output conditions improved for manufacturers in the majority of regions, but more manufacturers in most regions expect weaker domestic and external demand orders.

- the supply of housing increased across most regions over the year. Consistent growth in house prices over the year across all regions, except East Anglia, reflects the regional-wide increase in demand.

... GDP per head growth was strongest in the West Midlands

Gross domestic product at factor cost in the UK increased by £24.1 billion in 1995. Regional shares of nominal GDP remained relatively stable in 1995 from 1994. There were increases to percentage shares of the UK total of 0.1% in Yorkshire and Humberside, the East Midlands, the South West, and the West Midlands and decreases of 0.2% in Scotland and of 0.1% in Greater London and the Rest of the South East. Chart 1 illustrates the regional percentage shares of GDP.

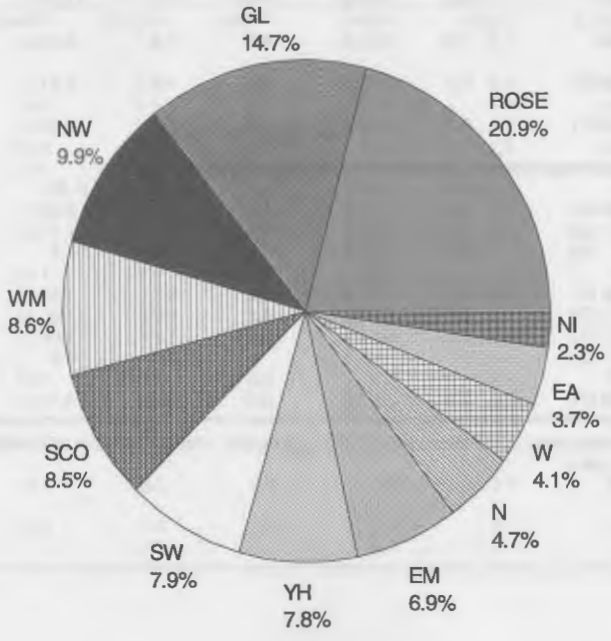
GDP at factor cost per head in 1995 was highest in Greater London (23% above the national average) and lowest in Northern Ireland (17% below the national average). The differential increased narrowly in current prices per head, although in percentage terms, Northern Ireland's GDP per head grew more strongly than Greater London's GDP per head. GDP growth per head was strongest in the West Midlands at 6% and weakest in Scotland at 2.3%. Since 1991, the West Midlands have enjoyed the strongest GDP per head growth of any region, whilst Wales had the slowest growth.

... average household income and expenditure rise strongly in Wales and the North

Average weekly **household disposable income** in 1995/96 ranged from £349.87 in Greater London to £244.14 in Northern Ireland. The UK average was £306.80. There were large increases on 1994/95 to the average in Wales and the North, and large decreases in Northern Ireland and Scotland.

Average weekly **household expenditure** in 1995/96 ranged from £327.5 in Greater London to £258.2 in the North. Averages in Wales and the North increased as household income rose, but by proportionately less. In Northern Ireland and Scotland, average weekly expenditure fell as household income fell, but by proportionately less.

Chart 1
Percentage regional shares of
UK Gross domestic product in 1995



... unemployment falls continue across all regions

Claimant unemployment fell sharply in all regions of the UK in the three months to February, with the largest fall in Northern Ireland. The differential between the highest regional unemployment rate (in Northern Ireland) and the lowest (in Rest of the South East) narrowed over the period.

Long-term claimant unemployment as a percentage of the workforce fell in all regions between October 1996 and January 1997. Northern Ireland still have the highest long-term unemployment rate of 5%, despite a fall of 0.6 percentage points over the period.

... employment rises in the majority of regions

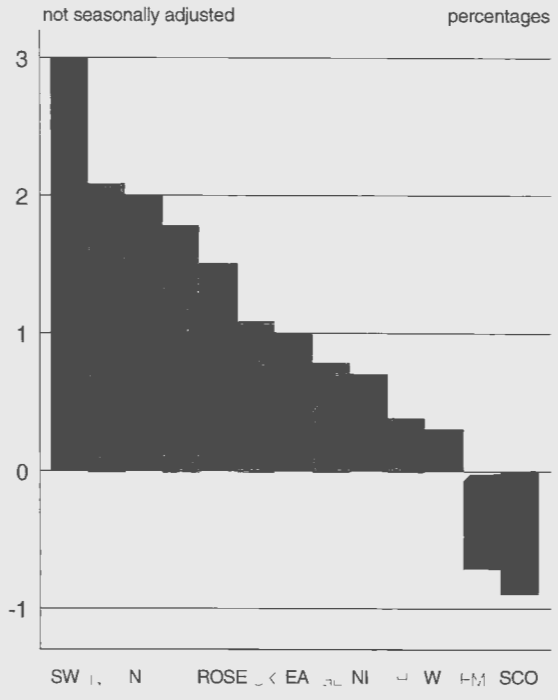
The number of **employees in employment** in the UK, not seasonally adjusted, rose by 0.6% between September 1996 and December 1996. As shown in chart 2, employment rose in all regions, except in Wales and Scotland. Between December 1995 and December 1996, employment rose by 1.1% in the UK as a whole, and in all regions except Scotland and East Anglia. The fall in Scotland was concentrated in construction and the electricity gas and water supply industries, whilst large falls in manufacturing employment and employment in electricity, gas and water supply accounted for the fall in East Anglia. Over the period, the highest growth in employment occurred in the South West (in hotels and restaurant and real estate renting), the North West (in transport and communications and real estate renting) and the North (in health and social work).

The **ILO unemployment** rate, as a percentage of the economically active, in the UK fell to 8% in Autumn 1996 from 8.6% in Autumn 1995. The rate fell in all regions over this period, except Yorkshire and Humberside and East Anglia. The most significant falls occurred in the North West and the North. Greater London had the highest unemployment rate in the Autumn and the Rest of the South East, the lowest.

Total employment in the UK, as measured by the Labour Force Survey, increased by 1.2% between Autumn 1995 and Autumn 1996. Employment rose in all regions except Yorkshire and Humberside, Scotland and East Anglia. The strongest increase was in the North West.

Chart 2

Change in employees in employment between December 1995 and December 1996



.... the CBI quarterly survey reports more manufacturers in most regions expect growth in new orders to slow

Output conditions improved for manufacturers in the majority of regions, but more manufacturers in most regions expect weaker domestic and external demand. All regions, except Northern Ireland, the North West and the North, reported positive **output** balances (firms reporting rises in output less those reporting falls) in the four months to January 1997. Manufacturers in Wales had the highest output balances compared with the previous four months. Strong growth in output in Wales was reflected in a large fall in the number of firms working below capacity. In Northern Ireland and the North West there was a large fall in the number of manufacturers reporting growth in output compared with the four months to October. Conditions are expected to deteriorate in these regions as more manufacturers identify decreasing demand as the factor constraining output in the next 4 months.

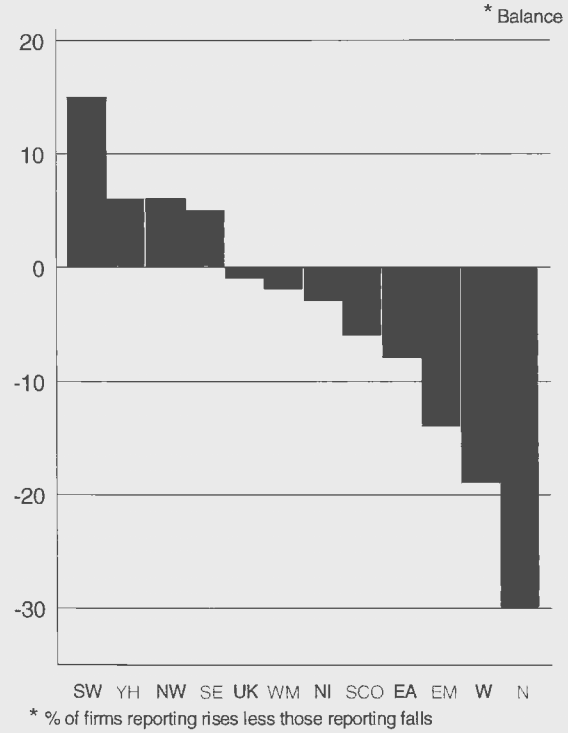
The largest rises in firms working below capacity was reported in East Anglia and the East Midlands, yet growth in output in these regions has not slowed. Expectations of rising output on the whole are mixed. More firms in the majority of regions have scaled down their expectations especially in the South East.

More manufacturers in most regions expect **domestic demand** to slow in the next four months. Significantly more manufacturers the South West, the South East, East Anglia, Wales and Northern Ireland expect their domestic orders to increase much slower than they did four months previously. Yorkshire and Humberside and the West Midlands and the North West were the only regions expecting orders to increase at a faster rate.

As chart 3 shows, more manufacturers reported lower export orders in the majority of regions in the past four months. Demand for exports fell most significantly in the North, Wales and the East Midlands. **External demand** is expected to weaken further in the majority of regions, and most severely in South West, the South East and the North West. Overall, more manufacturers expect external demand to weaken at a faster rate than domestic demand. Unusually, more manufacturers in East Anglia expect rising growth in export orders offsetting falling growth of domestic orders.

Chart 3

CBI - Manufacturing volume of new export orders in 4 months to January 1997



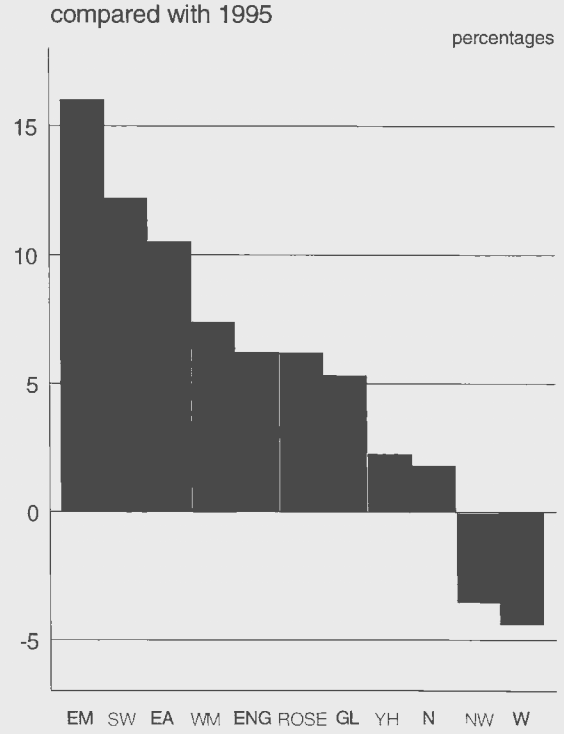
* % of firms reporting rises less those reporting falls

... demand for housing increases with variation across regions

The supply of housing compared with last year has increased significantly as housebuilders anticipate strengthening demand. **Dwellings started** in England during 1996 Q4 increased by 35.3% compared with 1995 Q4. The increase was mirrored in all regions, except Wales, with the strongest increases in Greater London, the South West, and Rest of the South East. Looking at 1996 as a whole, the increase in demand is less significant. As chart 4 shows, housing starts grew by 6.2% in England as compared with 1995. Within England, over this period, growth was highest in the East Midlands and starts actually fell in the North West. Housing starts also fell in Wales. Housing completions have remained sluggish, reflecting the earlier slowdown in housing starts. In 1996 Q4 **dwellings completed** in England rose slightly by 0.8% on 1995 Q4. Housebuilders in the West Midlands and the South West North completed significantly more houses in 1996 Q4 than in 1995 Q4, but housebuilders in Greater London completed significantly less. There was an increase in completions in only three regions in 1996 as compared with 1995 with two of the regional increases being marginal. Only in the North West was there significant growth in completions (up 11%). Increased demand for housing has driven up house prices over the year. The Department of the Environment's all dwellings **house prices** index for the UK rose by 5.6% between 1995 Q4 and 1996 Q4. All regions, except East Anglia, experienced rises over this period, the largest being in Northern Ireland and Wales.

Chart 4

Growth of dwellings started in 1996 compared with 1995



1 Gross domestic product at factor cost: current prices

£ million and percentages

	United Kingdom[1] (£m)	Percentage of the UK[1]										
		North	Yorks & Humber	East Midlands	East Anglia	Greater London	Rest of South East	South West	West Midlands	North West	Wales	Scotland	Northern Ireland
	DCIX	DCJF	DCJD	DCJC	DCIZ	LRAD	LRAE	DCJA	DCJB	DCJE	DCJG	DCJH	DCJI
1985	289 444	*5.1*	*8.2*	*6.8*	*3.5*	14.6	20.2	*7.5*	*8.4*	*10.6*	*4.1*	*8.7*	*2.2*
1986	319 584	*4.9*	*8.2*	*6.8*	*3.6*	14.8	20.4	*7.6*	*8.4*	*10.5*	*4.2*	*8.5*	*2.2*
1987	351 151	*4.9*	*8.0*	*6.8*	*3.5*	14.9	20.5	*7.6*	*8.4*	*10.4*	*4.3*	*8.5*	*2.1*
1988	394 374	*4.8*	*7.9*	*6.7*	*3.6*	14.8	20.9	*7.7*	*8.4*	*10.4*	*4.3*	*8.4*	*2.1*
1989	435 006	*4.8*	*7.9*	*6.8*	*3.6*	14.8	21.0	*7.7*	*8.4*	*10.2*	*4.3*	*8.3*	*2.1*
1990	472 056	*4.7*	*7.9*	*6.8*	*3.6*	14.8	21.0	*7.7*	*8.5*	*10.0*	*4.3*	*8.5*	*2.2*
1991	490 259	*4.8*	*7.9*	*6.8*	*3.6*	14.8	20.9	*7.8*	*8.4*	*9.9*	*4.3*	*8.6*	*2.3*
1992	511 737	*4.8*	*7.8*	*6.8*	*3.7*	14.8	20.7	*7.8*	*8.5*	*9.9*	*4.2*	*8.7*	*2.3*
1993	540 293	*4.7*	*7.8*	*6.8*	*3.6*	15.0	20.7	*7.8*	*8.4*	*9.9*	*4.1*	*8.7*	*2.3*
1994	569 995	*4.7*	*7.7*	*6.8*	*3.7*	14.8	21.0	*7.8*	*8.5*	*9.9*	*4.2*	*8.7*	*2.3*
1995	594 091	*4.7*	*7.8*	*6.9*	*3.7*	14.7	20.9	*7.9*	*8.6*	*9.9*	*4.1*	*8.5*	*2.3*

1 UK *less* continental shelf and statistical discrepancy.

Source: Office for National Statistics

2 Gross domestic product at factor cost: £ per head

£

	United Kingdom[1]	North	Yorks & Humber	East Midlands	East Anglia	Greater London	Rest of South East	South West	West Midlands	North West	Wales	Scotland	Northern Ireland
	DCJJ	DCJR	DCJP	DCJO	DCJL	LRAF	LRAG	DCJM	DCJN	DCJQ	DCJS	DCJT	DCJU
1985	5 104	4 740	4 809	5 055	5 170	6 244	5 606	4 801	4 702	4 829	4 268	4 907	3 995
1989	7 584	6 745	6 950	7 450	7 696	9 455	8 575	7 152	7 009	6 950	6 553	7 104	5 843
1990	8 201	7 208	7 483	7 960	8 336	10 191	9 266	7 753	7 670	7 427	7 044	7 865	6 412
1991	8 481	7 534	7 765	8 294	8 553	10 519	9 516	8 058	7 865	7 614	7 228	8 242	6 955
1992	8 882	7 917	8 002	8 583	9 004	10 973	9 804	8 426	8 242	7 920	7 394	8 715	7 243
1993	9 285	8 252	8 360	9 000	9 366	11 712	10 340	8 838	8 623	8 375	7 686	9 163	7 637
1994	9 761	8 581	8 772	9 460	9 905	12 068	10 977	9 243	9 104	8 840	8 197	9 654	8 050
1995	10 137	8 932	9 166	9 926	10 226	12 503	11 310	9 663	9 649	9 181	8 440	9 872	8 410

1 UK *less* continental shelf and statistical discrepancy.

Source: Office for National Statistics

3 Total personal disposable income: £ per head

£

	United Kingdom	North	Yorks & Humber	East Midlands	East Anglia	Greater London	Rest of South East	South West	West Midlands	North West	Wales	Scotland	Northern Ireland
	DCSD	DCSM	DCSK	DCSJ	DCSG	DCSF	DCWI	DCSH	DCSI	DCSL	DCSN	DCSO	DCSP
1984	3 958	3 633	3 672	3 814	4 000	4 805	4 206	3 919	3 654	3 754	3 535	3 885	3 433
1989	6 141	5 542	5 778	6 031	6 257	7 376	6 675	6 066	5 780	5 753	5 364	5 762	5 296
1990	6 573	5 946	6 182	6 348	6 614	7 853	7 054	6 372	6 241	6 154	5 786	6 509	5 762
1991	7 020	6 484	6 619	6 706	7 118	8 387	7 390	6 827	6 715	6 529	6 322	7 024	6 396
1992	7 497	6 909	7 023	7 015	7 670	8 917	7 875	7 394	7 187	6 979	6 697	7 630	6 853
1993	7 861	7 213	7 309	7 423	7 840	9 553	8 323	7 675	7 514	7 283	6 840	7 921	7 231
1994	8 101	7 423	7 473	7 686	8 190	9 677	8 539	7 942	7 733	7 572	7 245	8 210	7 536

Source: Office for National Statistics

4 Household disposable income: £ per head

£

	United Kingdom	North	Yorks & Humber	East Midlands	East Anglia	Greater London	Rest of South East	South West	West Midlands	North West	Wales	Scotland	Northern Ireland
	DEPZ	DEQA	DEQB	DEQC	DEQD	DEQE	DEQF	DEQG	DEQH	DEQI	DEQJ	DEQK	DEQL
1990	6 627	5 992	6 216	6 366	6 806	7 668	7 230	6 720	6 127	6 166	6 018	6 540	5 645
1991	7 053	6 561	6 620	6 740	7 197	8 107	7 571	7 157	6 613	6 571	6 428	7 033	6 211
1992	7 506	6 975	7 068	7 103	7 756	8 556	7 977	7 640	7 012	7 039	6 864	7 705	6 518
1993	7 755	7 213	7 225	7 354	7 906	9 033	8 264	7 773	7 279	7 230	6 977	7 919	6 828
1994	7 983	7 445	7 482	7 672	8 193	9 034	8 388	8 072	7 512	7 543	7 381	8 201	7 241

Source: Office for National Statistics

5 Consumers' expenditure: £ per head

£

	United Kingdom	North	Yorks & Humber	East Midlands	East Anglia	Greater London	Rest of South East	South West	West Midlands	North West	Wales	Scotland	Northern Ireland
	DCVD	DCVM	DCVK	DCVJ	DCVG	DCVE	DCWD	DCVH	DCVI	DCVL	DCVN	DCVO	DCVP
1984	3 519	3 049	3 146	3 290	3 412	4 405	3 937	3 460	3 235	3 297	3 126	3 399	2 809
1989	5 707	4 908	5 079	5 298	5 704	7 219	6 346	5 781	5 280	5 422	4 993	5 211	4 715
1990	6 038	5 177	5 293	5 748	6 025	7 508	6 670	6 174	5 578	5 724	5 406	5 597	5 122
1991	6 314	5 531	5 603	5 943	6 343	7 681	6 991	6 475	5 815	5 999	5 736	5 843	5 461
1992	6 581	5 872	6 036	6 106	6 599	7 997	7 345	6 601	5 914	6 217	5 968	6 141	5 696
1993	6 968	6 313	6 529	6 480	6 797	8 469	7 747	6 810	6 291	6 618	6 148	6 655	5 920
1994	7 331	6 569	6 856	6 864	7 121	8 792	8 128	7 135	6 878	7 023	6 352	6 970	6 264

Source: Office for National Statistics

6 Average weekly household disposable income and expenditure

£

	United Kingdom	North	Yorks & Humber	East Midlands	East Anglia	Greater London	Rest of South East	South West	West Midlands	North West	Wales	Scotland	Northern Ireland
Average weekly disposable household income													
	DCXQ	DCXR	DCXS	DCXT	DCXU	DCXV	DCXW	DCXX	DCXY	DCXZ	DCYA	DCYB	DCYC
1995/96	306.80	280.40	277.01	317.38	285.96	349.87	343.41	317.95	286.31	292.05	296.04	275.11	244.14
Average weekly household expenditure													
	DCYD	DCYE	DCYF	DCYG	DCYH	DCYI	DCYJ	DCYK	DCYL	DCYM	DCYN	DCYO	DCYP
1995/96	289.86	258.20	270.69	306.15	272.16	327.05	319.09	281.01	275.69	286.08	265.53	267.94	265.83

Source: Family Expenditure Survey, Office for National Statistics

7 Total average gross weekly pay[1]

£

	United Kingdom	North	Yorks & Humber	East Midlands	East Anglia	Greater London	Rest of South East	South West	West Midlands	North West	Wales	Scotland	Northern Ireland
	DEOG	DCQK	DCQI	DCQH	DCQE	DCPI	DEOH	DCQF	DCQG	DCQJ	DCQL	DCQM	DCQN
1991 Apr	283.80	258.00	257.90	261.30	268.90	361.10	295.30	265.60	261.10	267.10	252.20	265.30	245.90
1992 Apr	303.80	282.30	277.30	276.10	288.40	385.30	315.60	283.10	279.90	285.50	270.90	286.70	269.60
1993 Apr	316.00	288.60	287.40	285.70	292.20	408.00	328.70	298.40	291.90	298.80	281.20	296.80	282.40
1994 Apr	324.70	297.00	298.60	293.50	302.70	415.50	339.10	308.70	301.40	307.50	291.40	300.80	286.50
1995 Apr	335.30	299.10	305.00	305.50	308.60	439.50	346.40	313.80	311.00	317.50	301.30	313.40	300.20
1996 Apr	350.20	315.60	316.40	317.80	325.50	455.50	365.60	326.50	324.30	330.00	313.00	324.90	306.20

1 Average gross weekly earnings of full-time employees on adult rates whose pay for the survey pay-period was not affected by absence.

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

8 Claimant unemployed as a percentage of total workforce

Seasonally adjusted

	United Kingdom	North	Yorks & Humber	East Midlands	East Anglia	Greater London	Rest of South East	South West	West Midlands	North West	Wales	Scotland	Northern Ireland
	DCKH	DCKP	DCKN	DCKM	DCKJ	DCRA	DEOB	DCKK	DCKL	DCKO	DCKQ	DCKR	DCPL
1992	*9.7*	*11.1*	*9.9*	*9.0*	*7.6*	*10.5*	*8.2*	*9.2*	*10.3*	*10.6*	*10.0*	*9.4*	*13.8*
1993	*10.3*	*11.9*	*10.2*	*9.5*	*8.1*	*11.6*	*9.0*	*9.5*	*10.8*	*10.7*	*10.3*	*9.7*	*13.7*
1994	*9.3*	*11.6*	*9.6*	*8.7*	*7.1*	*10.7*	*7.7*	*8.1*	*9.9*	*10.0*	*9.3*	*9.3*	*12.6*
1995	*8.2*	*10.6*	*8.8*	*7.7*	*6.2*	*9.7*	*6.5*	*7.0*	*8.4*	*8.8*	*8.5*	*8.2*	*11.4*
1996	*7.5*	*9.6*	*8.1*	*6.9*	*5.7*	*8.0*	*5.6*	*6.2*	*7.5*	*8.1*	*8.1*	*7.9*	*10.9*
1996 Mar	*7.8*	*10.1*	*8.4*	*7.3*	*5.8*	*9.2*	*6.0*	*6.5*	*7.9*	*8.4*	*8.3*	*8.0*	*11.0*
Apr	*7.8*	*10.1*	*8.4*	*7.3*	*5.8*	*9.1*	*5.9*	*6.5*	*7.8*	*8.4*	*8.4*	*8.1*	*11.1*
May	*7.7*	*10.0*	*8.3*	*7.2*	*5.8*	*9.0*	*5.9*	*6.4*	*7.8*	*8.3*	*8.3*	*8.1*	*11.1*
Jun	*7.7*	*9.8*	*8.2*	*7.1*	*5.8*	*9.0*	*5.8*	*6.4*	*7.7*	*8.3*	*8.2*	*8.1*	*11.2*
Jul	*7.6*	*9.7*	*8.1*	*7.0*	*5.8*	*8.9*	*5.7*	*6.3*	*7.6*	*8.2*	*8.1*	*8.0*	*11.2*
Aug	*7.5*	*9.6*	*8.1*	*6.9*	*5.8*	*8.8*	*5.6*	*6.2*	*7.5*	*8.2*	*8.1*	*8.0*	*11.3*
Sep	*7.4*	*9.4*	*7.9*	*6.8*	*5.7*	*8.7*	*5.5*	*6.1*	*7.4*	*8.0*	*8.0*	*7.9*	*11.1*
Oct	*7.2*	*9.1*	*7.8*	*6.6*	*5.5*	*8.5*	*5.3*	*5.9*	*7.2*	*7.9*	*7.9*	*7.8*	*10.7*
Nov	*6.9*	*8.7*	*7.5*	*6.3*	*5.3*	*8.1*	*5.0*	*5.6*	*6.9*	*7.5*	*7.5*	*7.5*	*9.8*
Dec	*6.7*	*8.6*	*7.3*	*6.1*	*5.2*	*8.0*	*4.8*	*5.5*	*6.7*	*7.4*	*7.4*	*7.3*	*9.6*
1997 Jan	*6.5*	*8.3*	*7.1*	*5.8*	*4.9*	*7.7*	*4.6*	*5.3*	*6.4*	*7.1*	*7.1*	*7.1*	*9.2*
Feb[1]	*6.2*	*8.1*	*6.8*	*5.6*	*4.7*	*7.4*	*4.4*	*5.0*	*6.2*	*6.9*	*6.9*	*7.0*	*8.8*

1 Provisional

Source: Office for National Statistics

9 Long-term claimant unemployed as a percentage of total workforce (those out of work for 12 months or more)

Percentages

	United Kingdom	North	Yorks & Humber	East Midlands	East Anglia	Greater London	Rest of South East	South West	West Midlands	North West	Wales	Scotland	Northern Ireland
	DCKS	DCLA	DCKY	DCKX	DCKU	DCRB	DCKT	DCKV	DCKW	DCKZ	DCLB	DCLC	DCLD
1996 Apr	*2.9*	*3.9*	*3.0*	*2.5*	*1.8*	*4.0*	*2.0*	*2.1*	*3.1*	*2.9*	*2.7*	*2.6*	*6.0*
Jul	*2.8*	*3.7*	*2.9*	*2.4*	*1.8*	*3.9*	*1.9*	*2.0*	*2.9*	*2.8*	*2.7*	*2.5*	*5.8*
Oct	*2.6*	*3.6*	*2.7*	*2.3*	*1.7*	*3.7*	*1.8*	*1.9*	*2.8*	*2.7*	*2.6*	*2.4*	*5.6*
1997 Jan	*2.5*	*3.4*	*2.5*	*2.1*	*1.6*	*3.4*	*1.7*	*1.8*	*2.5*	*2.5*	*2.5*	*2.3*	*5.0*

Source: Office for National Statistics

10 ILO unemployed as a percentage of the economically active, not seasonally adjusted

Percentages

	United Kingdom[1]	North	Yorks & Humberside	East Midlands	East Anglia	Greater London	Rest of South East	South West	West Midlands	North West	Wales	Scotland	Northern Ireland
	LRAH	LRAI	LRAJ	LRAK	LRAL	LRAM	LRAN	LRAO	LRAP	LRAQ	LRAR	LRAS	LRAT
Spring 1993	10.3	11.3	10.0	9.1	8.4	13.2	8.5	9.2	11.8	11.1	9.6	10.2	12.5
Summer 1993	10.6	12.7	11.1	9.0	9.0	13.8	8.8	8.4	11.6	10.8	10.0	10.4	..
Autumn 1993	10.3	12.0	10.0	8.3	8.1	14.4	8.4	8.6	11.4	10.6	9.8	9.7	..
Winter 1993	10.2	11.8	10.0	8.0	8.8	19.4	8.0	8.3	11.0	11.0	10.3	10.3	..
Spring 1994	9.6	11.8	9.9	8.3	7.4	13.1	7.6	7.5	10.0	10.4	9.3	10.0	11.7
Summer 1994	9.8	11.6	10.4	9.1	7.9	13.0	7.6	8.1	9.8	10.9	9.9	9.9	..
Autumn 1994	9.1	11.2	9.0	8.1	8.0	12.0	7.1	7.9	9.1	9.7	9.9	8.9	..
Winter 1994	8.9	11.6	8.8	7.5	7.4	11.7	7.3	7.7	8.6	9.2	9.6	8.5	11.4
Spring 1995	8.6	10.8	8.6	7.4	7.1	11.5	6.8	7.8	9.0	9.1	8.8	8.3	11.0
Summer 1995	8.9	11.0	9.1	7.1	7.0	12.3	7.1	7.3	8.9	9.6	8.4	9.2	11.2
Autumn 1995	8.6	10.5	8.2	6.9	7.2	11.8	6.7	7.5	8.7	9.3	8.3	9.1	10.7
Winter 1995	8.3	10.5	7.9	7.4	6.8	11.0	6.5	7.2	8.5	8.5	8.9	8.9	9.7
Spring 1996	8.2	10.2	8.1	7.4	6.5	11.3	6.0	6.3	9.2	8.5	8.3	8.7	9.7
Summer 1996	8.3	10.1	8.5	7.1	6.7	11.5	6.5	6.4	9.0	8.6	8.5	8.6	10.3
Autumn 1996	8.0	9.2	8.7	6.8	7.3	11.4	5.9	6.6	7.8	7.6	8.2	8.8	9.9

1 Prior to Winter 1994, data for Northern Ireland were only collected annually, in the Spring quarters. Figures shown for non-Spring quarters prior to Winter 1994 therefore include the Spring estimates for Northern Ireland.

Source: Labour Force Survey, Office for National Statistics

11 Total in employment[1], not seasonally adjusted

Thousands

	United Kingdom[2]	North	Yorks & Humberside	East Midlands	East Anglia	Greater London	Rest of South East	South West	West Midlands	North West	Wales	Scotland	Northern Ireland
	LRAU	LRAV	LRAW	LRAX	LRAY	LRAZ	LRBA	LRBB	LRBC	LRBD	LRBE	LRBF	LRBG
Spring 1993	25 511	1 283	2 203	1 865	976	3 052	5 068	2 126	2 274	2 676	1 155	2 229	604
Summer 1993	25 689	1 276	2 205	1 882	966	3 027	5 107	2 174	2 307	2 722	1 172	2 247	..
Autumn 1993	25 679	1 281	2 208	1 877	981	3 000	5 115	2 142	2 318	2 716	1 183	2 254	..
Winter 1993	25 532	1 263	2 194	1 856	978	2 990	5 104	2 137	2 318	2 686	1 151	2 252	..
Spring 1994	25 697	1 264	2 180	1 858	994	3 013	5 137	2 180	2 343	2 681	1 177	2 266	604
Summer 1994	25 945	1 272	2 191	1 858	999	3 047	5 186	2 199	2 378	2 716	1 200	2 293	..
Autumn 1994	25 963	1 272	2 215	1 874	996	3 076	5 190	2 199	2 359	2 711	1 191	2 277	..
Winter 1994	25 831	1 249	2 202	1 890	996	3 074	5 133	2 174	2 362	2 692	1 176	2 272	609
Spring 1995	25 973	1 264	2 224	1 896	1 004	3 076	5 205	2 188	2 347	2 672	1 189	2 285	623
Summer 1995	26 272	1 283	2 240	1 930	1 016	3 100	5 260	2 229	2 373	2 703	1 203	2 307	628
Autumn 1995	26 265	1 292	2 247	1 935	1 014	3 112	5 268	2 222	2 385	2 676	1 192	2 282	640
Winter 1995	26 179	1 285	2 239	1 926	1 001	3 111	5 243	2 209	2 383	2 702	1 180	2 252	650
Spring 1996	26 219	1 282	2 223	1 926	1 005	3 110	5 294	2 216	2 348	2 728	1 195	2 252	641
Summer 1996	26 507	1 301	2 230	1 961	1 018	3 122	5 325	2 252	2 388	2 742	1 225	2 289	654
Autumn 1996	26 568	1 304	2 224	1 967	1 009	3 133	5 359	2 253	2 398	2 786	1 216	2 262	656

1 Includes employees, the self-employed, participants on Government-supported employment and training schemes and unpaid family-workers.
2 Prior to Winter 1994, data for Northern Ireland were only collected annually, in the Spring quarters. Figures shown for non-Spring quarters prior to Winter 1994 therefore include the Spring estimate for Northern Ireland.

Source: Labour Force Survey, Office for National Statistics

12 Redundancies

Rates[1]

	Great Britain	North	Yorks & Humber	East Midlands	East Anglia	Greater London	Rest of South East	South West	West Midlands	North West	Wales	Scotland
	DCXD	DCXE	DCXF	DCXG	DCXH	DCXI	DCXJ	DCXK	DCXL	DCXM	DCXN	DCXO
Spring 1993	12.3	16.5	13.1	13.9	–[2]	11.2	11.2	12.5	13.9	12.4	11.4	11.3
Summer 1993	11.2	14.1	12.4	11.9	–[2]	12.6	10.1	10.7	11.3	10.6	15.6	8.5
Autumn 1993	9.6	13.8	9.1	8.3	–[2]	11.0	9.4	7.2	10.4	7.5	12.0	10.9
Winter 1993	10.6	13.1	11.2	11.1	14.1	10.2	8.3	11.5	10.6	11.2	12.1	10.7
Spring 1994	9.6	12.7	11.0	9.7	–[2]	9.3	9.1	8.8	10.7	8.9	10.8	9.5
Summer 1994	9.0	11.4	10.4	10.2	–[2]	7.7	8.9	7.9	7.9	9.6	–[2]	9.5
Autumn 1994	8.8	11.6	8.5	12.6	–[2]	8.0	7.2	7.9	8.3	9.7	–[2]	8.6
Winter 1994	5.5	–[2]	5.6	7.4	–[2]	4.6	6.7	–[2]	–[2]	5.4	–[2]	–[2]
Spring 1995	10.2	9.8	10.1	11.5	13.7	9.9	8.2	9.6	11.1	10.9	14.7	9.2
Summer 1995	9.7	15.4	9.2	11.6	–[2]	11.7	8.1	7.6	9.6	9.8	10.1	8.0
Autumn 1995	9.7	13.0	8.4	10.9	–[2]	9.5	10.2	7.7	9.6	9.0	11.2	10.0
Winter 1995	10.2	14.2	9.8	9.5	15.1	11.3	8.9	9.1	8.1	9.8	9.6	12.5
Spring 1996	9.4	9.9	8.1	7.8	–[2]	8.1	8.7	9.6	10.7	10.8	11.3	10.6
Summer 1996	9.4	11.1	9.9	9.8	–[2]	6.0	8.8	8.8	9.4	10.6	12.7	11.4
Autumn 1996	8.3	–[2]	10.6	8.7	–[2]	8.0	8.1	8.0	7.1	7.9	–[2]	10.9

1 Redundancies per 1,000 employees.
2 Sample size too small to provide a reliable estimate.

Source: Labour Force Survey, Office for National Statistics

13 Employees in employment (all industries)

June 1990 = 100

	United Kingdom	North	Yorks & Humber	East Midlands	East Anglia	Greater London	Rest of South East	South West	West Midlands	North West	Wales	Scotland	Northern Ireland
	DCLE	DCLM	DCLK	DCLJ	DCLG	DCRC	DCLF	DCLH	DCLI	DCLL	DCLN	DCLO	DCLP
1995	98.4	94.4	97.5	98.7	98.2	91.6	94.9	97.9	95.8	95.3	95.5	99.9	106.4
1996	99.4	96.1	98.4	99.2	99.7	92.3	96.0	100.6	97.4	96.5	96.8	99.2	107.0
1996 Mar	98.3	94.7	97.6	98.8	98.5	91.4	95.0	98.1	96.3	95.5	95.4	98.3	106.6
Jun	99.3	96.1	98.7	98.9	99.5	91.9	95.7	100.7	97.1	95.9	97.5	99.3	106.4
Sep	99.8	96.3	98.6	99.5	100.0	92.6	96.2	101.8	97.4	96.4	98.0	100.0	106.7
Dec	100.4	97.3	98.8	99.7	100.8	93.2	97.2	101.8	98.8	98.2	96.1	99.1	108.4

Source: Office for National Statistics

14 Index of industrial production

Seasonally adjusted 1990 = 100

	United Kingdom	Wales	Scotland	Northern Ireland
	DVZI	DEOL	DEOM	DEPY
1986	90.1	92.3	90.2	86.1
1987	93.7	98.5	89.9	86.5
1988	98.2	104.8	95.4	91.8
1989	100.3	102.8	97.6	97.5
1990	100.0	100.0	100.0	100.0
1991	96.3	96.4	98.6	98.8
1992	96.2	98.1	99.1	99.5
1993	98.3	100.2	102.0	102.4
1994	103.2	101.8	106.8	109.2
1995	105.9	108.4	109.0	113.6
1995 Q4	106.4	109.2	110.9	114.1
1996 Q1	106.6	107.2	111.7	114.6
Q2	106.9	108.6	113.3	114.3
Q3	107.4	109.8	113.3	116.0
Q4	108.0	..	..	..

Sources: Office for National Statistics; Welsh Office; The Scottish Office; Department of Economic Development, Northern Ireland

15 Manufacturing industry: optimism about business situation

Balance[1]

	United Kingdom	North	Yorks & Humber	East Midlands	East Anglia	South East	South West	West Midlands	North West	Wales	Scotland	Northern Ireland
	DCMO	DCMW	DCMU	DCMT	DCMQ	DCMP	DCMR	DCMS	DCMV	DCMX	DCMY	DCMZ
1996 Apr	–3	–33	–15	–2	–16	5	–31	–14	4	–8	–2	10
Jul	8	–6	7	9	–9	4	–	–2	19	22	–2	26
Oct	8	–9	4	–	29	5	17	4	3	5	23	–4
1997 Jan	9	–	–1	3	2	8	20	6	8	17	5	–6

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

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

16 Manufacturing industry: volume of output

Balance[1]

	United Kingdom	North	Yorks & Humber	East Midlands	East Anglia	South East	South West	West Midlands	North West	Wales	Scotland	Northern Ireland
Past 4 months												
	DCLQ	DCLY	DCLW	DCLV	DCLS	DCLR	DCLT	DCLU	DCLX	DCLZ	DCMA	DCMB
1996 Apr	–	–20	–5	32	3	3	6	–9	3	–15	10	24
Jul	6	2	–5	5	4	9	1	–5	10	–1	–6	34
Oct	12	–8	–10	8	–2	17	3	4	14	17	13	27
1997 Jan	11	–1	11	17	3	7	24	10	–2	26	6	–5
Next 4 months												
	DCMC	DCMK	DCMI	DCMH	DCME	DCMD	DCMF	DCMG	DCMJ	DCML	DCMM	DCMN
1997 Jan	14	–12	25	14	14	7	4	24	18	24	20	3

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

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

17 Manufacturing industry: volume of new orders

Balance[1]

	United Kingdom	North	Yorks & Humber	East Midlands	East Anglia	South East	South West	West Midlands	North West	Wales	Scotland	Northern Ireland
Past 4 months												
	DCNA	DCNI	DCNG	DCNF	DCNC	DCNB	DCND	DCNE	DCNH	DCNJ	DCNK	DCNL
1996 Apr	–	–6	–25	37	–9	1	–1	–8	–3	–30	10	–7
Jul	8	–6	–10	22	4	9	21	–3	15	–9	–21	51
Oct	15	5	–3	–3	12	6	–1	8	9	35	11	34
1997 Jan	8	–17	2	–1	4	4	34	14	3	15	–3	7
Next 4 months												
	DCNM	DCNU	DCNS	DCNR	DCNO	DCNN	DCNP	DCNQ	DCNT	DCNV	DCNW	DCNX
1997 Jan	16	–1	26	11	16	11	4	21	15	21	18	2

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

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

18 Manufacturing industry: volume of new export orders

Balance[1]

	United Kingdom	North	Yorks & Humber	East Midlands	East Anglia	South East	South West	West Midlands	North West	Wales	Scotland	Northern Ireland
Past 4 months												
	DCNY	DCOG	DCOE	DCOD	DCOA	DCNZ	DCOB	DCOC	DCOF	DCOH	DCOI	DCOJ
1996 Apr	1	–14	–23	24	18	–1	7	2	3	–18	16	3
Jul	3	–10	–19	9	4	23	8	–2	4	–5	–14	28
Oct	3	–8	4	3	–23	3	19	–6	10	6	5	32
1997 Jan	–1	–30	6	–14	–8	5	15	–2	6	–19	–6	–3
Next 4 months												
	DCOK	DCOS	DCOQ	DCOP	DCOM	DCOL	DCON	DCOO	DCOR	DCOT	DCOU	DCOV
1997 Jan	6	–2	21	–6	22	–7	3	10	–6	9	–2	10

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

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

19 Manufacturing industry: firms working below capacity

Percentages

	United Kingdom	North	Yorks & Humber	East Midlands	East Anglia	South East	South West	West Midlands	North West	Wales	Scotland	Northern Ireland
	DCOW	DCPE	DCPC	DCPB	DCOY	DCOX	DCOZ	DCPA	DCPD	DCPF	DCPG	DCPH
1996 Apr	*52*	*68*	*53*	*47*	*62*	*55*	*43*	*56*	*51*	*65*	*49*	*39*
Jul	*53*	*60*	*52*	*53*	*22*	*54*	*58*	*59*	*49*	*63*	*55*	*40*
Oct	*51*	*58*	*54*	*36*	*52*	*54*	*45*	*59*	*48*	*55*	*50*	*58*
1997 Jan	*52*	*52*	*37*	*61*	*84*	*47*	*38*	*61*	*47*	*43*	*47*	*65*

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

20 Permanent dwellings started

Numbers

	United Kingdom	North	Yorks & Humber	East Midlands	East Anglia	Greater London	Rest of South East	South West	West Midlands	North West	Wales	Scotland	Northern Ireland
	DEOI	DCRZ	DCRX	DCRW	DCRT	DCRR	DCWL	DCRU	DCRV	DCRY	BLIA	BLFA	BLGA
1995	177 776	7 536	13 772	13 290	8 498	11 433	35 265	14 806	13 166	18 173	9 222	22 836	9 779
1996	..	7 673	14 082	14 821	9 394	12 043	37 436	16 615	14 138	17 338	8 816	..	..
1995 Q3	44 330	1 859	3 456	3 101	2 128	2 815	9 644	3 554	2 671	4 332	2 271	5 958	2 541
Q4	34 550	1 461	2 842	2 659	1 684	1 994	6 232	2 647	2 652	3 772	1 987	4 626	1 994
1996 Q1	..	1 938	3 462	3 492	2 092	2 332	7 836	3 522	3 189	4 116	1 871	..	2 364
Q2	..	1 968	3 582	3 926	2 596	3 101	10 925	4 012	3 890	4 279	2 456	..	2 761
Q3	..	2 042	4 042	4 268	2 550	3 189	9 560	4 816	3 846	4 458	2 562	..	2 854
Q4	..	1 725	2 996	3 735	2 156	3 421	9 115	4 265	3 213	4 485	1 927[1]	..	..

1 Provisional

Sources: Department of the Environment; Welsh Office; The Scottish Office; Department of the Environment, Northern Ireland

21 Permanent dwellings completed

Numbers

	United Kingdom	North	Yorks & Humber	East Midlands	East Anglia	Greater London	Rest of South East	South West	West Midlands	North West	Wales	Scotland	Northern Ireland
	DEOJ	DCVZ	DCVX	DCVW	DCVT	DCVR	DCWM	DCVU	DCVV	DCVY	BLII	BLFI	BLGI
1995	197 997	8 988	15 242	16 517	9 239	16 278	38 765	17 097	15 554	18 832	8 952	24 095	8 438
1996	..	8 261	14 272	15 227	9 348	13 323	37 320	16 338	14 755	18 941	9 935	..	..
1995 Q3	49 072	1 975	3 872	3 705	2 223	4 113	9 255	4 415	3 772	4 202	2 179	7 215	2 146
Q4	49 586	2 142	3 861	4 199	2 379	4 073	9 726	4 308	3 738	4 984	2 610	4 834	2 732
1996 Q1	..	1 831	3 323	4 021	2 279	3 556	9 335	3 948	3 599	4 709	2 201	..	2 186
Q2	..	2 114	3 726	3 633	2 165	2 816	8 869	3 671	3 170	4 541	2 652	..	..
Q3	..	2 166	3 578	3 637	2 312	3 696	8 894	3 837	3 678	4 943	2 491	..	..
Q4	..	2 150	3 645	3 936	2 592	3 255	10 222	4 882	4 308	4 748	2 591[1]	..	..

1 Provisional

Sources: Department of the Environment; Welsh Office; The Scottish Office; Department of the Environment, Northern Ireland

22 House prices[1]

1993 = 100

	United Kingdom	North	Yorks & Humber	East Midlands	East Anglia	Greater London	Rest of South East	South West	West Midlands	North West	Wales	Scotland	Northern Ireland
	LRBH	LRBI	LRBJ	LRBK	LRBL	LRBM	LRBN	LRBO	LRBP	LRBQ	LRBR	LRBS	LRBT
1995	103.2	99.2	98.6	102.4	104.0	106.2	104.2	104.1	103.2	100.8	99.4	102.2	116.0
1996	107.0	102.9	103.2	108.4	105.4	108.9	108.4	108.1	106.4	102.5	103.8	105.8	125.1
1995 Q4	102.8	100.5	98.6	102.7	106.9	105.0	103.5	102.9	102.4	99.5	96.2	103.6	118.2
1996 Q1	104.3	101.5	95.3	102.5	105.1	104.3	106.7	109.4	102.8	98.1	105.0	108.1	118.7
Q2	104.4	100.4	103.1	106.2	101.8	103.5	106.5	105.2	106.8	98.7	102.9	101.6	126.3
Q3	108.5	104.9	104.2	111.6	106.9	110.2	110.9	109.7	105.5	105.8	102.0	105.8	126.1
Q4	108.6	103.2	106.4	109.9	106.5	113.1	108.3	108.7	108.8	105.0	105.6	107.9	129.8

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

Source: Department of the Environment

23 VAT registrations and deregistrations[1]: net change[2]

Thousands

	United Kingdom	North	Yorks & Humber	East Midlands	East Anglia	Greater London	Rest of South East	South West	West Midlands	North West	Wales	Scotland	Northern Ireland
	DCYQ	DCYS	DCYT	DCYU	DCYV	DEON	DEOK	DCYX	DCYY	DCYZ	DCZA	DCZB	DCZC
1994	–1.3	–0.5	–0.8	–	–0.2	3.7	–0.4	–1.3	–0.2	–1.1	–1.3	0.2	0.7
1995	–9.3	–1.3	–2.2	–0.9	–0.3	4.1	–1.5	–2.8	–1.3	–1.9	–1.2	–0.7	0.7

1 Figures published in 1996 relating to 1994 and 1995 for VAT registrations and deregistrations are for VAT based enterprises. These replace estimates using VAT legal units previously published.
2 Registrations *less* deregistrations.

Source: Department of Trade and Industry

Methodology series for UK National Accounts

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1985

Commodity Flow Accounts for the United Kingdom
Astin, J and Brady, N (Economic Trends, May 1985)

The Central Statistical Office's Commodity Flow Accounts (CFAs) are a unique set of tables matching supply and demand for some forty different commodity groups covering the whole economy. As such, they provide a link between the quinquennial Input-Output tables and the quarterly national accounts. The level of disaggregation they provide helps provide an understanding of the reasons for discrepancies between the measures of Gross Domestic Product. They also provide a tool for disaggregated economic analysis, in particular as an input to forecasting models. This paper aims to put on record for the first time detailed information about what the accounts are and how they are compiled, and illustrates their usefulness for industry as a tool for economic analysis through a description of the work currently being carried out by the British Steel Corporation. Such is their value that this year, for the first time, CFAs will be produced with the aid of finance from a group of users outside government.

1987

A New UK Definition of the High Technology Industries
Butchart, R (Economic Trends, February 1987)

Nobody doubts the significance of high-technology industries. However, what is less clear is what exactly qualifies as a high-technology industry. The existing definition uses an absolute measure whereby the intensity of an industry's expenditure on Research and Development (R&D) is the sole criteria. This paper explores the problem of categorisation and presents a new definition, a comparative measure which reflects the intensity of R&D expenditure supported by indicators of the proportion of scientists, engineers and technicians in the labour force. The paper also recognises the importance of re-assessing the definition at regular intervals to ensure its continuing relevance against a background of rapid technological advance.

1988

Rebasing the National Accounts: the Reasons and the Likely Effects
Lomas, E (Economic Trends, March 1988)

Constant price (volume) estimates of Gross Domestic Product (GDP) are one of the most important statistics produced within the UK national accounts. At present, volume measures are expressed in average 1980 prices or as an index series with a 1980 base. This year, all estimates will be rebased on 1985. This paper explains the need for rebasing, describes the processes involved in the exercise and considers the likely effects on published estimates. For most types of expenditure the theoretical effect of rebasing is to reduce slightly the estimated volume growth, reflecting the normal price elasticities. Provisional calculations suggest that the effects of this rebasing will be no exception. The opportunity is also being taken to review the component series of GDP and, where possible, to improve coverage, sources and methodology.

PSBR: New Data on Notes and Coin
Economic Trends, July 1988

The Public Sector Borrowing Requirement (PSBR) indicates the extent to which the public sector borrows from other sectors of the economy and overseas to finance the balance of expenditure and

receipts arising from its various activities. It should include estimates of changes in holdings of public corporations' notes and coin though this has not been possible due to the absence of regular, timely and accurate data. However, this problem has now been overcome and estimates dating back to 1976/77 have been obtained and included in the published figures. This paper presents the effects of this change on the published figures, and the effects on the financial accounts and measures of money supply.

1989

The Effects of Rebasing on the Estimates of Gross Domestic Product

Bryant, C and Daniel, D (Economic Trends, January 1989)

The purpose of constructing constant price estimates in the UK national accounts is to measure changes in the volume of goods and services produced or sold. It is important that the base period used reflects the price structure of the period over which volumes are being compared as closely as possible. Therefore regular rebasing of the figures is essential to keep abreast of changing price structures. In September 1988 the base period was changed from 1980 to 1985. This paper details the effects of this rebasing on each major component of the expenditure and output measures of Gross Domestic Product. Rebasing reduced the growth rate for all measures, especially the output measure, and in all cases these reductions more than cancelled out the increased growth rates which resulted from data and methodological changes made earlier in the year.

An Investigation Into Balancing the UK National and Financial Accounts, 1985-1987

Economic Trends, February 1989

In recent years the balancing items of each sector in the UK national accounts have been unacceptably large. This has prompted the Central Statistical Office (CSO) to embark upon an investigation into the advantages of balancing the accounts. Balanced accounts would eliminate the residual error (the difference between the expenditure and income measures of Gross Domestic Product) and sector balancing items by adjusting the elements of the accounts which are known to be most uncertain or where it is suspected that there may be deficiencies in coverage. This paper presents a progress report on experimental work carried out to produce balanced national and financial accounts for the period 1985-1987, explains the ways in which balancing has been approached and presents some preliminary results. To date there have been enough positive aspects of the work to encourage the CSO to continue with the experiment, whilst giving consideration to a number of ways in which the work might be developed and improved. The CSO is also inviting others to comment on the approach and more generally on the quality of the accounts and how they might be improved.

The Rebased Index of Production

Kingaby, S (Economic Trends, February 1989)

The Index of Production measures the output of the energy and manufacturing industries. In September 1988 a rebased index was introduced replacing 1980 base weights with weights which reflect the 1985 contribution of each industry to the total production industries value added. The opportunity was also taken to review the methodology and data coverage. This paper gives an outline of the way in which the Index of Production is currently compiled, and details some of the changes resulting from rebasing and the methodology review.

A Technical Note on the Treatment of the Community Charge and Non-Domestic Rates in the National Accounts

Economic Trends, August 1989

Under the terms of the Abolition of Domestic Rates Etc. Act in 1987 and the Local Government Finance Act in 1988 the domestic rate is to be abolished throughout Great Britain and replaced by the Community Charge. This change took effect on 1 April 1989 in Scotland and will occur on 1 April 1990 in England and Wales. At the same time non-domestic rates are being reformed with the introduction of a national non-domestic rate in England and Wales which the government proposes to extend to Scotland. This paper discusses how these various changes will be handled in the national accounts. It examines the current classification of government receipts, concluding that the Community Charge should be treated as a special category which reduces the disposable income of the personal sector, unlike domestic rates which are treated as tax on expenditure. It then examines the impact of the abolition of rates and the introduction of the Community Charge on estimates of Gross Domestic Product (GDP), noting a reduction in GDP at current market prices whilst GDP at current factor cost is not effected. Finally the paper explains the treatment of non-domestic rates as a central government tax on expenditure under the new arrangements.

1990

The Welsh Index of Production and Consumption

Economic Trends, June 1990

The Welsh Index of Production and Consumption provides a measure of the movements in Welsh industrial output and is an important guide to its economy. It was first published in 1969. This paper begins with a brief history of the index and an outline of the concepts involved and then describes the methods used to compile the index. There then follows a report on the most important recent developments introduced to counter a number of problems which arise in constructing the index. The paper closes with an account of recent movements in Welsh output and compares these with those of the UK as a whole.

Estimates of the Distribution of Wealth
Good, F (Economic Trends, October 1990)

The Inland Revenue has published estimates of the distribution of personal wealth annually since 1962. The methodology used has been substantially revised in recent years. This paper describes the current methods used to estimate the distribution of the marketable wealth of individuals, and provides revised series for these estimates over the period 1976-88. It also compares these revised estimates with previously published figures, details the reconciliation process between the Inland Revenue estimates and the Central Statistical Office's balance sheet of personal wealth, and assesses the relative importance of each of the changes in methodology.

1991

Improving Economic Statistics - The Chancellor's Initiative
Economic Trends, February 1991

Since the mid-1980s the national accounts have been subject to considerable criticism in government, Parliament and elsewhere due to the existence of significant discrepancies between the three measures of Gross Domestic Product (GDP); large balancing items in the sector accounts; and large revisions up to two or three years after the reference period. The Pickford Review, an efficiency scrutiny set up in 1988 to examine these deficiencies, identified a number of areas where improvements were needed or further work necessary. In May 1990 the Chancellor of the Exchequer announced a package of measures to improve economic statistics. These were aimed at improving the measurement of three key areas: services; companies; and Balance of Payments. This paper describes the individual initiatives in the package and reports on progress to date. These initiatives include expanded coverage of existing inquiries, replacement of existing voluntary inquiries by statutory inquiries, and the use of more efficient sampling methods. The paper also outlines measures to be taken in other government departments which will impact on the quality of national accounts.

Assets on Finance Leases - a Switch in Recording
Economic Trends, October 1991

Historically, assets acquired for finance leasing have been classified in the national accounts to the industries or sectors of the owners, a system referred to as the "owner" basis. As from the 1991 Blue Book, however, such assets are classified to the industries or sectors of the users (the "user" basis). As the users are in effect the "economic owners" of assets on finance leases, this is generally more appropriate for economic analysis, and is in line with modern company accounting procedure. This paper briefly describes the changes, and notes how the required adjustments to the accounts have been made. It also highlights some possible future work in the area.

The Use of Supply Side Estimates in the National Accounts
Lynch, R and Caplan, D (Economic Trends, December 1991)

Supply-side estimates provide a way of estimating the components of expenditure from statistics of industrial output and international trade. Benchmark Input-Output tables determine the proportions in which the supply of products is allocated to demand, by individual industry groups. This paper details the two models which have been developed to compile the supply-side estimates: the specific model used for industries producing capital goods; and the general model which encompasses all economic activity. The Central Statistical Office presently makes extensive use of supply-side estimates as an aid to reconciling national accounts. This role is to continue and will expand over the next few years, with the aim of reconciling the national accounts completely on an annual basis. Associated models will also continue to be used to assist in compiling a coherent set of quarterly national accounts.

1992

Improving Economic Statistics
Caplan, D and Daniel, D (Economic Trends, February 1992)

In May 1990 and November 1991 the Chancellor of the Exchequer announced two series of measures to improve the reliability of economic statistics. These became known as Phases One and Two of the Chancellor's Initiatives. This paper gives a brief account of some of the achievements of Phase One and details the projects of Phase Two. The first phase had three key objectives: to reduce revisions to estimates of Gross Domestic Product (GDP) and the overseas current account; to improve the coherence and accuracy of GDP estimates; and to reduce the size of sectoral balancing items in the national accounts. These were to be achieved through increased use of quarterly inquiries, the replacement of existing voluntary inquiries with statutory inquiries, and the launching of new inquiries. It is too early to make a full evaluation, but there is already evidence of a significant impact on quality. Phase Two aims to carry forward the work of Phase One through further improvements to survey coverage and quality, and the establishment of new surveys in some areas. The full impact of these initiatives will take some time to feed through. However, the results will contribute substantially to improvements to economic statistics in future years.

Sectoral Analysis of Banking Statistics:- A Joint Bank of England/CSO Study
Economic Trends, March 1992

One of the projects announced by the Chancellor of the Exchequer to improve economic statistics in May 1990 was a study of the potential inaccuracies in the sectorisation of bank deposits and lending. Such inaccuracies were thought to be a potentially major source of error of the sector financial accounts and of the resulting

sector balancing items. The study was carried out during the period October 1990 to April 1991 by the Central Statistical Office and the Bank of England. This paper summarises the findings of this report and the recommendations made.

The Inter-Departmental Business Register
Economic Trends, April 1992

The Central Statistical Office and Employment Department currently use different registers of businesses for their statistical inquiries which results in inconsistencies in output measures and inefficiencies in maintenance. To address this problem the two have recently agreed to create a new common register, the Inter-Departmental Business Register (IDBR), which will make a major contribution to the drive for better economic statistics. This paper details the history of moves towards a central register and outlines the existing systems used at present. It describes the main features of the IDBR, some of the issues involved in its development, the programme of implementation and costs involved. The register will be used for both national accounts and labour market statistics, as well as providing basic information on the structure of the economy. It will also satisfy the demands of current Eurostat proposals to harmonise statistics within the European Community.

Producer Price Indices - Present Practice, Future Developments and International Developments
Walker, C and Richards, D (Economic Trends, July 1992)

Producer Price Indices are a series of economic indicators which measure price movements of goods bought and sold by UK manufacturers. They have a number of uses. These include use as a measurement of inflation for manufacturing and individual industrial sectors, use as deflators for many economic series, and use by industry for contract price adjustments. In November 1991 the existing inquiries used to compile the indices became statutory. This paper summarises the improvements in coverage resulting from this and its effects on the quality of the Index of Production figures and Gross Domestic Product estimates. The paper also outlines a number of future developments to improve the quality of the indices which are currently being considered including hedonic price indices, export price indices, current weighting and chain linking.

The New United Kingdom Standard Industrial Classification of Economic Activities - SIC(92)
Mears, K (Economic Trends, October 1992)

The Standard Industrial Classification (SIC) was first introduced in 1948 for use in classifying business establishments and other statistical units by the type of economic activity in which they are engaged. In order for the classification to remain accurate revisions are necessary as new products and industries emerge. In 1990 the European Community (EC) passed a regulation to introduce a new common standard classification of economic activities in the EC, known as NACE Rev 1. This would generate comparability between national and EC classifications and therefore between national and EC statistics. Adoption of NACE Rev 1 made it obligatory for the UK to introduce a new classification, SIC(92). This paper gives details of the programme for transition to SIC (92) from the current system SIC (80). Full transition is not something than can easily be achieved, as use of the new classification is dependent on a number of factors, including the recoding of the main business register and revisions to national accounts. It is intended that the register reclassification be incorporated in the creation of a new Inter-Departmental Business Register planned to be operational from early 1994, and that a full transition to the new classification be incorporated in the 1995 Blue Book.

Environmental Issues and the National Accounts
Bryant, C and Cook, P (Economic Trends, November 1992)

Concern for the environment is increasing on a global scale. Some environmentalists have suggested that the national accounts should take into account the interactions between the economy and the environment. The United Nations has recently proposed that all its member states establish integrated economic and environmental accounts at the earliest date and this paper attempts to apply these guidelines to the UK context. It also reviews the nature of the physical environmental accounts and the advantages and difficulties involved in placing monetary values on environmental concerns. It also examines some of the environmental data already available in the UK that can be used in environmental accounts, and the areas where, perhaps, different data are required. Finally, it shows the construction of some simplified and experimental environmental accounts for the UK.

Developments in Balance of Payments Statistics: Problems and Some Solutions, 1987 -1992
Buckingham, B (Economic Trends, December 1992)

During the first half of the 1980s the UK had a current account surplus. Interest in Balance of Payment statistics was consequently at a relatively low ebb and the resources devoted to them were reduced. This relaxed attitude began to be queried in 1987 as the current account fell into deficit and the balancing items became the largest for several years. These events prompted two reviews of current account statistics. These reviews recommended a number of changes in the sources and methods used to compile the current account, including greater centralisation of data collection at the Central Statistical Office (CSO); more quarterly reporting; more comprehensive coverage of existing inquiries and greater use of statutory inquiries; and more integration of

information. This programme of work is well underway and has contributed to substantial reductions in balancing items, and should yield further improvements in the coming years. There remains more to done to ensure the achievement of more stable and yet more coherent figures in terms of frequency, timeliness, availability of geographical data, and comprehensive data. Moreover, all future developments must take place alongside a CSO policy placing growing emphasis on statistical targets and the introduction of a new system for recording intra-EC visible trade.

1993

Improving Macro-Economic Statistics

Wroe, D (Economic Trends, January 1993)

Over the past few years a number of measures have been taken to improve the quality of official statistics on the UK economy following the recommendations of the Pickford Review of November 1988 and the package of improvements announced by the Chancellor of the Exchequer in May 1990 and November 1991. This paper details some of the measures taken and the results achieved so far. The measures have included greater use of statutory powers, more reliance on monthly and quarterly inquiries, better coverage of services, financial transactions and balance of payments, and reductions in some inquiries to minimise form-filling burdens on businesses. The paper also looks at other developments, such as a possible move from quinquennial rebasing of the national accounts to a chain-linked system, and those closely associated with European Community initiatives, such as the adoption of Intrastat, Prodcom, and a new harmonised system of industrial classification. Such developments will almost certainly increase the interest in national accounts methodology shown by many users and will strengthen the drive towards adherence to international standards.

Intrastat

Jenkinson, G (Economic Trends, January 1993)

The method which has been used to compile visible trade statistics for centuries, using Customs declarations, was discontinued at the beginning of this year within the European Community (EC). It is being replaced by Intrastat, a new but basically simple system. This paper describes the changes that are occurring and explains their implications. Change was necessitated by the completion of the single market which removed the need for Customs documents for intra-EC trade. Under Intrastat traders are now asked to report the total value of their exports and imports to other EC member states as part of their VAT returns. With the development of the Prodcom system which will use the same production classification system it will be possible to link trade and production data much more closely than before. The EC views Intrastat as a transitional system, because the method of collecting VAT is due to be reviewed by the end of 1996.

A Technical Note on the Treatment of the Council Tax in the National Accounts

MacLeay, I (Economic Trends, January 1993)

On 1 April 1993 the Council Tax replaces the Community Charge within England, Scotland and Wales. This paper discusses how the new tax will be handled within the national accounts. It describes the nature of the new tax, and concludes that the tax should be classified in the same way as the Community Charge. Consequently the introduction of the Council Tax will have no impact on estimates of Gross Domestic Product and no revisions or adjustments to long run data series should be necessary.

Transition to the New Standard Industrial Classification (SIC(92))

Walker, C (Economic Trends, February 1993)

In October 1990 the European Community (EC) passed a regulation to introduce a new standard classification of economic activities in the EC, known as NACE Rev 1. This regulation made it obligatory for the UK to introduce a new Standard Industrial Classification, SIC (92), based on NACE Rev 1. This paper gives details of the latest plans for transition to SIC (92) from the current system SIC (80), and the compilation of back data on the new classification. It is not practicable to make the full transition this year, as the use of the new classification is dependent on a number of factors, including the recoding of the main business register and the needs of the national accounts. Consequently there will be presentational changes in the 1993 Blue Book followed by a full transition in 1995. Dates of the compilation of back data will vary depending on the series concerned. Other government departments are also planning a changeover. Details vary but all intend to make the full transition before or during 1995.

Rebasing the National Accounts: The Reasons and the Likely Effects

Caplan, D (Economic Trends, February 1993)

In August 1993 the constant price estimates of the national accounts and other economic statistics will be rebased to 1990. This paper explains what is meant by rebasing, why it is needed, and describes the process involved in rebasing and gives early estimates of the effects of this year's rebasing on published national accounts estimates. Rebasing is expected to increase the estimates of output growth between 1986 and 1991 but the revisions will be small. The Central Statistical Office is also to undertake a study which may lead to annual rebasing which could result in less revision to growth rates.

Prodcom

Lynch, R (Economic Trends, March 1993)

Prodcom is a European Community (EC) initiative which is required

by regulation. It consists of a list of product descriptions and associated codes, which will be used as the basis for new annual and quarterly inquiries into the value and volume of the sales of products. This will replace the current system of annual and quarterly sales inquiries. This paper describes the background to and the reasons for the introduction of Prodcom, the main differences between Prodcom and the current system of inquiries and the effects on users. The statistics will be collected at detailed product level with an expanded list of products and harmonised with the International Trade Classification System. For the first time ever it will be possible to look at detailed product statistics for each country in the EC on a completely harmonised basis. The potential for analysis of market penetration, and analysis and monitoring of industrial performance is very powerful.

Measuring the Contribution of Financial Institutions to GDP
Begg, I, Weale, M, and Wright, S (Economic Trends, May 1993)
In the national accounts, banks and other financial institutions are assumed to earn some of their income from charging higher interest rates to borrowers and paying lower rates to depositors. This "hidden" charge is known as the imputation for financial intermediation service charged (IFISC). Currently it is allocated to intermediate demand with no impact on final demand and therefore no impact on Gross Domestic Product (GDP). The United Nations System of National Accounts proposes to allocate this charge to sectors of the economy deemed to be paying the charge. The Department of Applied Economics at Cambridge University have carried out a research project aimed at devising a method of doing this. This paper presents their findings. Initial estimates imply that the revised methodology would result in an adjustment to GDP which rises from 1.5% of GDP at current factor cost in 1980 to 2.1% in 1991. The bulk of this change is due to adjustments to consumers' expenditure. The project did raise some doubts concerning the availability and quality of data to make adjustments at a level of detail needed for the Blue Book. For these reasons a satellite account presentation of IFISC may be preferable until the data and methodology have been sufficiently developed, rather than an immediate move to implement the new proposals in full.

A Review of CSO Cyclical Indicators
Moore, B (Economic Trends, July 1993)
The CSO produces four composite series which comprise the cyclical indicators for the UK. These predict and monitor changes in the economy, and in particular those termed as leading indices provide early indications of cyclical turning points in economic activity. During the late 1980s the indices did not perform well in predicting the timing of economic turning points and it became evident that the system was clearly in need of review. This paper presents details of that review. Findings suggest that the underlying methodology, introduced in 1983, remains broadly sensible and comprehensible and should be retained for the time being. However, modifications will be made to the methodology to take account of special events, modifications will be made to the scaling process used in constructing the indices, and an examination of the series currently in use will take place in order to identify those which perform well in predicting or revealing turning points. These improvements will be incorporated from the October First Release. The system will be kept under constant review and further changes in both the indicators and methodology used can be expected.

The UK Sector Accounts
Turnbull, P (Economic Trends, September 1993)
This paper presents and explains the UK system of sector accounts and demonstrates that they provide an essential framework of the integrated economic accounts of the nation. It explains the UK system of compiling the integrated economic accounts on a quarterly basis, details of improvements made since 1989, and sets out the Central Statistical Office's plans for further integration and improvements over the next few years. Though the basic structure is well established and soundly based two important aspects of the UK financial accounts need to be developed, namely balance sheets where work is in progress to develop a full set of reconciliation accounts, and the use of international standard classifications with the UK's adoption of the European System of Accounts (ESA) from 1995 onwards which will greatly improve international comparability and the ability to meet increasing requirements for harmonisation from the European Community. Other improvements planned include the signing of "firm agreements" with key data suppliers, the introduction of an Inter-Departmental Business Register, and better commentary and presentation of economic statistics. Such measures will all contribute to providing a better quality, more coherent and timely product.

Statistical Indicators of Innovation
Doudeyns, M and Hayman, E (Economic Trends, September 1993)
Innovation is the translation of new ideas into marketable new products, new processes or new services. This paper provides an introduction to and overview of some of the statistical indicators of innovation in the business enterprise sector of the economy, and in science and technology. Both indicators in common use and those being developed are discussed.

The Definition of the PSBR
Ritchie, A and Lawton, D (Economic Trends, September 1993)
The Public Sector Borrowing Requirement (PSBR) is the bottom line of public sector finances presented to Parliament in the annual

Financial Statement and Budget Report. It's use as a measure of the government's financial position dates back to the 1960s. It represents the extent to which the public sector has to raise cash by financial transactions such as borrowing in order to finance that part of its expenditure not covered by revenue. This paper, a summary version of a new Treasury Working Paper, explains how the PSBR is defined and the way it is measured. Both definition and measurement are the joint responsibility of the Central Statistical Office and the Treasury.

Handling Revisions in the National Accounts
Wroe, D (Economic Trends, October 1993)

The Central Statistical Office aims to provide timely, reliable and coherent national accounts. These objectives can conflict with one another, notably in the area of revisions. This paper describes the procedures for incorporating revisions into the national accounts and the ways in which these procedures derive from the methodology and sources of information used to compile the accounts. In practice a balance has to be struck between the need to take account of revisions to component series and the need for coherent accounts. In the UK there has traditionally been a tendency to take in revisions more readily than in many other countries' accounts, and this remains so.

The Retail Sales Index and its use in Consumers' Expenditure
Gooding, P (Economic Trends, November 1993)

The monthly Retails Sales Index (RSI) is one of the key indicators of progress of the economy and is a major focus of attention for retailers, economists and analysts. It is used directly by government as an early indicator of how the economy is performing, and used indirectly to calculate quarterly consumer spending on retail goods and the output of the retail sector for the national accounts compilation. The index has been subject to criticisms due to revisions to data and problems of non-response. As a result major improvements have been made over the past two years as part of the package of measures to improve the quality of economic statistics announced by the Chancellor of the Exchequer in November 1991. This paper describes the improvements made to the RSI and outlines further initiatives designed to improve the estimates of consumer spending. The RSI is now compulsory, has a redesigned sample in order to be more representative of retailers, and an expanded coverage of retailers. Improvements have also been made to the format, content and timeliness of the index, enabling publication to be made earlier without a major loss in quality.

Measuring the Accuracy of the National Accounts
Rizki, U (Statistical Methods and Quality Report MQ001, December 1993)

In September 1991 the National Accounts Group of the Central Statistical Office approved a work programme to set up a system to measure the accuracy of the national accounts. It was hoped that the net result of this programme would be to propose a model to calculate a total error figure which would show the impact on Gross Domestic Product. This paper gives a brief account of the progress made so far and suggests how the work should continue in the future. The paper recommends that the current procedure of thorough investigations into the design and workings of each national accounts survey should not be continued due to a lack of resources and a lack of obvious benefits to be gained from doing so. Instead resources should be concentrated more on defining the methodology for calculations of sampling and non-sampling errors, proposing a model to calculate the total error and laying down standard mechanics in order for these calculations to be implemented for each survey. It is suggested that the work on modelling for the calculations of sampling and non-sampling errors be contracted out to an "academic expert" who has both the resources and expertise necessary for the task.

1994

Improvements to Economic Statistics
Cook, P (Economic Trends, January 1994)

In May 1990 and November 1991 two sets of measures aimed at improving the reliability of economic statistics were announced by the Chancellor of the Exchequer, known as Phases One and Two of the Chancellor's Initiative. This paper explains the measures taken by the Central Statistical Office (CSO) to improve the quality and reliability of its economic statistics and assesses their impact. At this stage it is difficult to evaluate the full impact of the improvements due to insufficient data. However, the paper indicates areas where improvements will show, for example the Index of Production, Balance of Payments, Gross Domestic Product, and sector balancing items, and highlights evidence to suggest that improvements are already apparent. The CSO will also continue to further enhance the quality of the service it provides.

Developments in Sources and Methods of Measuring Overseas Trade in Non-Financial Services
Balance of Payments and Current Account Branches, Central Statistical Office (Economic Trends, March 1994)

In response to the Chancellor's Initiative on Economic Statistics the Central Statistical Office has been undertaking a programme to improve statistics on overseas trade in services since 1990. This paper focuses on a major element of this programme: the

compilation of statistics on "other" non-financial services, a group of services outside the traditional Balance of Payments categories. Doubts on the coverage of this category arose from a reliance in part on non-official information, and suspicions that new service activities were not well-covered and that smaller enterprises and those importing services were under-represented. This paper details the main features of this project, including the launch of new official inquiries to reduce the use of non-official information, the restructuring of existing inquiries to ensure improved coverage and a substantial increase in quarterly reporting to ensure the availability of up-to-date indicators and to minimise revisions. Some aspects remain to be brought to full fruition but enough progress has been made to conclude that the statistics are now much more securely based. During the coming year further work will be undertaken to link all existing overseas trade in services inquiries with an enhanced Inter-Departmental Business Register and provide a yet firmer basis for future estimates.

RSI Grossing Studies

Watts, D (Statistical Methods and Quality Report MQ002, May 1994)

This paper summarises the results from a simulation model developed to compare the behaviour of indices resulting from three alternative methods of grossing in the Retail Sales Inquiry (RSI): register-based grossing; month on previous month grossing; and month on twelve months ago grossing. A range of scenarios have been investigated. The main conclusion is that some form of register-based grossing is likely to produce a better outcome, in terms of the accuracy and stability of the resulting index, than either of the previous RSI grossing methods.

The Use of Income Tax and Corporation Tax Information as a Data Source for the National Accounts

Cope, I and Davis, I (GNP Exhaustiveness Report, June 1994)

The task of ensuring that Member States estimates of Gross National Product (GNP) are reliable, comparable and exhaustive is a high priority for the European Commission. In February 1994 a decision was adopted which set a work programme to be undertaken by each of the then twelve Member States to help verify the exhaustiveness of GNP estimates. This paper provides a response to one element of this programme: a report on the use of the UK tax system as a data source for the UK national accounts. It is structured into four main parts: an overview of the UK income tax system; an explanation of the Pay As You Earn (PAYE) scheme and National Income Statistics Project which provides estimates of wages and salaries for the national accounts; an overview of the system for taxation of self-employment and the Survey of Personal Incomes which is used for national accounts estimates taxation of company profits, and the use of corporation tax for national accounts estimates.

Treatment of Income in Kind in Tax and in the National Accounts

Cope, I and Davis, I (GNP Exhaustiveness Report, June 1994)

The task of ensuring that Member States estimates of Gross National Product (GNP) are reliable, comparable and exhaustive is a high priority for the European Commission. In February 1994 a decision was adopted which set a work programme to be undertaken by each of the then twelve Member States to help verify the exhaustiveness of GNP estimates. This paper provides a response to one element of this programme: a documentation of the UK's national tax rules concerning income in kind; a description of the procedures used to ensure that these incomes are recorded in the national accounts; and a description of the calculations made in respect of tips or gratuities. It is found that the Central Statistical Office makes allowances for nearly all specified items of income in kind. However, the investigation carried out has raised some methodological issues on which the views of others would be welcome, such as the valuation of goods and services which have negligible marginal cost. In addition, the UK would welcome information on the methods used by other member states for dealing with company cars and beneficial loans. Further work is also planned to improve the measurement of tips.

The Use of Information from Fiscal Audits for Improving the Exhaustiveness of GNP : Customs and Excise Audits

Cope, I and Davis, I (GNP Exhaustiveness Report, June 1994)

The task of ensuring that Member States estimates of Gross National Product (GNP) are reliable, comparable and exhaustive is a high priority for the European Commission. In February 1994 a decision was adopted which set a work programme to be undertaken by each of the then twelve Member States to help verify the exhaustiveness of GNP estimates. This paper provides a response to one element of this programme: a report on the feasibility of using information from the audits of VAT returns carried out by Customs and Excise to validate the national accounts estimates and therefore improve the exhaustiveness of GNP estimates. It provides an overview of the VAT system in the UK; details of how the Central Statistical Office (CSO) uses the information from VAT returns; and a description of the audit procedure. The paper concludes that the CSO already takes on board the results of tax audit investigations in the grossing of survey results. Customs and Excise procedures for ensuring compliance with the tax laws are focused on returns that represent a threat to tax revenue. Therefore, attempts to use the information to adjust the national accounts for hidden economic activity would be biased. There is no legislation preventing a random selection of accounts for inspection, but the Department has no plans to introduce such a system at present.

The Use of Information from Fiscal Audits for Improving the Exhaustiveness of GNP : Inland Revenue Audits

Cope, I and Davis, I (GNP Exhaustiveness Report, June 1994)

The task of ensuring that Member States estimates of Gross National Product (GNP) are reliable, comparable and exhaustive is a high priority for the European Commission. In February 1994 a decision was adopted which set a work programme to be undertaken by each of the then twelve Member States to help verify the exhaustiveness of GNP estimates. This paper provides a response to one element of this programme: a report on the feasibility of using information from the audits of direct tax returns carried out by Inland Revenue to validate the national accounts estimates and therefore improve the exhaustiveness of GNP estimates. It describes the components of the income approach to measuring Gross Domestic Product which make use of Inland Revenue data; examines the type of audits that are carried out by Inland Revenue; considers how the information from the audits of direct tax returns could be used by the Central Statistical Office; and looks at what information might be available in the future and how it may be used. The report concludes that the Inland Revenue's selective examination of accounts procedures is focused on threats to tax revenue and the Inland Revenue is currently prevented from carrying out any random selection of accounts for inspection, though changes announced in the 1993 budget means that it will be possible from 1996/97. This will make it feasible for the UK to use random audits to verify, to some extent, the evasion adjustments currently made to estimates of self-employment income and gross trading profits in the national accounts.

Adjustments to the Expenditure Measure of GNP

Cope, I and Davis, I (GNP Exhaustiveness Report, June 1994)

The task of ensuring that Member States estimates of Gross National Product (GNP) are reliable, comparable and exhaustive is a high priority for the European Commission. In February 1994 a decision was adopted which set a work programme to be undertaken by each of the then twelve Member States to help verify the exhaustiveness of GNP estimates. This paper provides a response to one element of this programme: a description of the adjustments made to the expenditure measure of Gross Domestic Product (GDP) to ensure exhaustiveness. It outlines the sources of data used and describes the adjustments made to each major component of the expenditure measure: Consumers' Expenditure; Gross Domestic Fixed Capital Formation; and Trade in Goods and Services. The description and investigation of the adjustments made to the expenditure measure of GNP/GDP has not identified any further adjustments which need to be made for absence, evasion or exemption. Indeed, the UK expenditure approach to measuring GDP already contains large numbers of adjustments to ensure exhaustiveness, with great care taken to make sure that all relevant expenditure is accounted for.

Adjustments to the Income Measure of GNP

Cope, I and Davis, I (GNP Exhaustiveness Report, June 1994)

The task of ensuring that Member States estimates of Gross National Product (GNP) are reliable, comparable and exhaustive is a high priority for the European Commission. In February 1994 a decision was adopted which set a work programme to be undertaken by each of the then twelve Member States to help verify the exhaustiveness of GNP estimates. This paper provides a response to one element of this programme: a description of the adjustments made to the income measure of Gross Domestic Product (GDP) to ensure exhaustiveness. The income measure is heavily reliant on data derived from the tax system, and this paper details the adjustments made to the estimates of Income from Employment and Self-Employment; and Gross Trading Surpluses of Enterprises. Tables and annexes provide detailed information on the methodologies used and the scale of the figures involved. The paper concludes that the description and investigation of the adjustments made to the income measure of GNP/GDP has not identified any further adjustments which need to be made for absence, evasion or exemption.

Adjustments to the Output Measure of GNP

Cope, I and Davis, I (GNP Exhaustiveness Report, June 1994)

The task of ensuring that Member States estimates of Gross National Product (GNP) are reliable, comparable and exhaustive is a high priority for the European Commission. In February 1994 a decision was adopted which set a work programme to be undertaken by each of the then twelve Member States to help verify the exhaustiveness of GNP estimates. This paper provides a response to one element of this programme: a description of the adjustments made to the output measure of Gross Domestic Product (GDP) to ensure exhaustiveness. It provides a background to the investigations carried out, a description of the Sources and Methods used to compile GDP using the output approach, and details the adjustments presently made. The paper concludes that the description and investigation of the adjustments made to the output measure of GNP/GDP has not identified any further adjustments which need to be made for absence, evasion or exemption.

Validation of Employment Underlying Present GNP Estimates

Cope, I and Davis, I (GNP Exhaustiveness Report, June 1994)

The task of ensuring that Member States estimates of Gross National Product (GNP) are reliable, comparable and exhaustive is a high priority for the European Commission. In February 1994 a decision was adopted which set a work programme to be undertaken by each of the then twelve Member States to help verify the exhaustiveness of GNP estimates. This paper provides a response to one element of this programme: a comparison of

the estimates of employment which underlie estimates of GNP with alternative estimates of employment available in demographic data sources. In the UK this took the form of an investigation of the employment and self-employment numbers derived from tax-based sources which underlie the 1991 income estimates of GNP/GDP, and a comparison of these estimates with figures derived from the 1991 Population Census and 1991 Labour Force Survey (LFS). After adjusting to obtain comparable coverage, the tax-based total of employees plus self-employed underlying the 1991 GDP estimates is found to be 26 million, compared with figures of 26.48 million derived from the LFS and between 25.2 million and 26.1 million derived from the Population Census. Given the margins of error attached to all statistical sources (including demographic sources), the small differences in totals and between industrial sectors obtained are insignificant. This study provides reassurance that the employment estimates underlying the income measure of GDP are consistent with UK employment estimates from demographic sources.

United Kingdom Domestic Occupied Population

Cope, I and Davis, I (GNP Exhaustiveness Report, June 1994)

The task of ensuring that Member States estimates of Gross National Product (GNP) are reliable, comparable and exhaustive is a high priority for the European Commission. In February 1994 a decision was adopted which set a work programme to be undertaken by each of the then twelve Member States to help verify the exhaustiveness of GNP estimates. This paper provides a response to one element of this programme: an explanation of the adjustments necessary to ensure that estimates of employment and self-employment derived from demographic sources comply with a single definition of employment, the Domestic Occupied Population as set out in the European System of Accounts (ESA). The paper provides a definition of the Domestic Occupied Population and considers in turn each item from the Labour Force Survey (LFS) and Population Census which should be included or excluded in order to comply with this definition. The majority of adjustments identified in this paper are very small, the only significant ones being necessary for both surveys for service personnel stationed outside the UK, and adjustments to the LFS for employees in institutional establishments.

National Accounts Chain Weighted Price Indicators

Cresswell, J (Economic Trends, June 1994)

This paper presents the results of work done by the Central Statistical Office to construct a set of quarterly Chain Weighted Price Indicators (CWPIs) based on national accounts data and to compare these with existing national accounts implied deflators. The work demonstrates that there are no major divergences between the two. It is felt that the differences are not sufficient to justify the regular production of the CWPIs in addition to the implied deflators. However, if the CWPIs could be produced on a more frequent (monthly) and more timely basis they would represent a valuable addition to existing indicators used to monitor price movements. Further work is in hand to achieve this.

Potential Imputation Methods for the Monthly Sales and Retails Sales Inquiries

Watts, D (Statistical Methods and Quality Report MQ003, July 1994)

Imputation for missing sample responses is an important part of the estimation process in the Monthly Sales Inquiry (MSI) and Retail Sales Inquiry (RSI). Doubts about the bias resulting from the previous MSI imputation methodology had been raised by an accuracy study carried out last year. As a result a further study has been carried out looking into potential alternative imputation methodologies, principally for the MSI, the results of which are presented in this paper. Results indicate that two almost equivalent variants of the previous methodology, which give much less weight to rapidly changing businesses in the imputation process, perform significantly better in both mean square error and bias terms than any of the other twelve methods compared. Similar results were also obtained from grouped RSI data. An investigation of composite imputation estimators indicates that giving the majority of weight to imputation links based on the previous calendar month and the remaining weight to seasonal links yields promising results.

Rich or Poor? Purchasing Power Parities and International Comparisons

Davis, I (Economic Trends, July 1994)

Since the late 1960s a growing interest has developed for international comparisons of real economic performance. Since 1990 the Statistical Office of the European Community (Eurostat) has carried out an annual programme, calculating Purchasing Power Parities (PPPs) in order to produce comparisons of real Gross Domestic Product (GDP) for all twelve member states of the Community. Essentially a PPP is the exchange rate necessary to purchase the same quantity of an equivalent range of goods and services in another country. This paper looks at the history and use of PPPs, how they calculated, and some of the problems associated with these calculations. The paper concludes that care must be taken when interpreting the published figures of real GDP comparison based on existing PPP methodology. Broad comparisons can be made using PPPs, but small differences should be ignored due to problems associated with the collection of representative prices. Eurostat are aiming to overcome these problems through developing the PPP methodology.

The Measurement of Output in the Estimation of GDP

Sharp, P (The United Kingdom National Accounts CSO Methodological Paper No. 1, August 1994)

An industry's contribution to Gross Domestic Product (GDP) is its net output, that is the value of gross output less any goods or services it has acquired from other industries or has imported. The total of the net output of all industries is the GDP of the country measured at factor cost. This paper describes the output approach to GDP measurement, providing details for the production industries (mining, quarrying, manufacturing, electricity, gas and water supply) and non-production industries (agriculture, construction and services). It also explains the general concepts and aspects of output measurement and identifies the indicator series and weights used in compilation.

Investigation of Alternative Estimation Methods for the Retail Sales Inquiry - Second Stage Study

Watts, D (Statistical Methods and Quality Report MQ004, August 1994)

This paper describes the results of the second stage of an investigation into alternative estimation methods for the Retail Sales Inquiry (RSI). The first stage, summarised in paper MQ002 (May 1994), used artificially generated data and a simplified non-stratified structure to compare the performance of different estimation methods. This second stage concentrates on a comparison of existing estimation methods with register-based alternatives using real RSI and register data with suitable stratification. It also aims to provide a similar comparison of the old RSI estimation method with register-based methods. The existing estimation method relies on "matched pairs" estimates of the ratio of sales from month to consecutive month which is then applied to a population estimate for the first month. In practical situations the estimate of the first month's population is likely to deteriorate over time, so a retention of the current methodology cannot be recommended. Results from this stage of the investigation indicate that generally register-based methods produce less bias than the RSI model and perform consistently better in terms of Mean Standard Errors. Comparisons between the old RSI methodology and register-based estimation methods produce similar results.

Purchases Inquiry

Smith, P (Statistical Methods and Quality Report MQ005, September 1994)

The 1989 Purchases Inquiry (PI) used mostly cut-off sampling techniques. This paper assesses the potential impact of two sampling methods which are being considered for the 1994 PI: a thin-spread approach across all industries, and a sample concentrated on certain industries with coverage rotated over several inquiries. Several measures are shown to assess the variability of the proportions of purchases among SIC (80) industries that are shown by the two methods. The paper concludes that there is a trade-off between accuracy and timeliness. The sooner the information is required (for all industries) the thinner the resulting sample and lower the accuracy of estimates of proportions will be. If the thin-spread approach is used there is likely to be a 50% increase in the coefficients of variation of proportions of purchases from various Input-Output groups. Maintaining the variability of proportions achieved in the 1989 PI would require a two-year oscillating sample. A longer period for complete coverage would allow more accurate measurement.

Population Units in the Major Business Surveys

Jones, T (Statistical Methods and Quality Report MQ006, November 1994)

This paper sets out the results of a study into business survey population units. It examines the current practices and assesses the implications for data quality. It then makes recommendations for corporate policy with regard to the classification and use of such units in the light of national accounting and other needs and the compliance costs to businesses. The current approach is found to treat production and non-production activity inconsistently, therefore a consistent approach is deemed essential in order to eliminate possible double-counting and omissions. Whilst the paper endorses enterprise reporting as appropriate for most purposes, disaggregated data is required for large multi-activity units. For this purpose Kind-Of-Activity Units (which group all parts of an enterprise contributing to the performance of an activity) must be set up and maintained. The paper also recommends that small dedicated units be set up to carry through this task and ensure that the Central Statistical Office's approach to these complex units is consistent across the board.

1995

SIC92, IDBR and GDP Discontinuities

Smith, P (Statistical Methods and Quality Report MQ007, January 1995)

During the period 1993-95 there were several updates to the sampling frames used by inquiries to businesses. These included moving CSO inquiries from the old register to the Inter-Departmental Business Register, and reclassifying businesses to a new Standard Industrial Classification (SIC92). This paper summarises the discussions that have taken place on the discontinuities arising from these changes, which have impacted on the different sectors of the economy in varying degrees. The two areas of particular importance for the output measure of Gross Domestic Product (GDP) are the production and distribution sectors. The paper recommends a list of possible actions

necessary to provide estimates of the extent of the discontinuities, which should be pursued where possible in order to inform the discussions on the level of GDP and how any discontinuities should be treated.

A Compilers' Guide to the 1993 SNA : A Notebook to aid Implementation of International Guidelines in the United Kingdom System of National Accounts
The United Kingdom National Accounts CSO Methodological Paper No. 2 (February 1995)

This notebook provides guidance on the classifications and terminology used in the 1993 United Nations System of National Accounts (SNA). These international guidelines use different terms to describe entries in the economic accounts from those currently used in the United Kingdom National Accounts. It is strongly recommended that, as the CSO incorporates the new internationally recommended recording practices into its national accounts, it should also adopt the full 1993 SNA terminology. This will facilitate international reporting of statistics and make for easier understanding of discussion in international documents and meetings.

Data Sources for the Quarterly National Accounts
Cope, I (The United Kingdom National Accounts CSO Methodological Paper No. 3, April 1995)

This paper outlines the processes behind the compilation of the quarterly UK National Accounts. It details existing publication practices, the relationship between annual and quarterly Gross Domestic Product, Input-Output tables, the three approaches to GDP measurement and the methodology and data sources involved, and the compilation of the sector accounts for current, capital and financial transactions for the seven institutional sectors.

Quarterly National Accounts in the United Kingdom: Overview of UK Approach
Cope, I (Economic Trends, April 1995)

The Central Statistical Office has recently published a methodology paper on "Data sources for the quarterly national accounts". This paper provides an overview of the main points from that paper.

CSO Sampling Methods
Pont, M and Slater, E (Statistical Methods and Quality Report MQ009, June 1995)

This paper describes the results of a review by the Statistical Methods and Quality (SMQ) branch of the Central Statistical Office (CSO) into the sampling methods currently in use in the organisation. The review aimed to make recommendations for standard practice in order to improve consistency and coordination between surveys, and thus reduce burdens on individual businesses, whilst maintaining acceptable standards of accuracy. The review resulted from the findings of the CSO's Efficiency Scrutiny which highlighted the variety of sampling methods currently in use and recommended that all surveys be moved to the Inter Departmental Business Register (IDBR). This paper endorses the view that the IDBR should be used for sampling where possible, though recognises that this is not feasible for certain surveys, in which cases further analysis is required. Whilst standardisation may slightly increase sampling errors, the resulting cost savings can be used to improve other aspects of survey methodology such as the rate of non-sampling errors. Standardisation also offers opportunities for cross-survey analysis.

The National Lottery in the National Accounts
Doggett, E (Economic Trends, July 1995)

The UK is unique in that no other European country with a national lottery involves private enterprise in its operation. This paper describes the operation of the lottery with reference to the UK national accounts, and the national accounts treatment of the bodies concerned, and their transactions.

An Interim Report on Using Selective Editing in CSO inquiries
Cruddas, M (Statistical Methods and Quality Report MQ010, July 1995)

The Efficiency Scrutiny into the Central Statistical Office's business inquiries showed that data editing accounts for the largest proportion of total inquiry staff costs. Authors reported that current editing practices sometimes lead to re-checking data with contributors, which rarely leads to changes to figures but places an extra load on businesses and reduces the timeliness of inquiries. Subsequently the Statistical Methods and Quality branch was asked to undertake a methodological study of selective data editing, whereby the number of recontacts with respondents is reduced in such a way that the effect on resulting estimates is constrained to be acceptably small. This paper details the results of this study. Exercises carried out for the Monthly Sales Inquiry (MSI) and Quarterly Turnover Inquiry (QTI) revealed recontact rates which were not of a sufficient magnitude to make selective editing practicable. This indicates that in short term inquiries, asking essentially one question, recontacts are not a large problem. The paper uses QTI data to illustrate selective editing techniques, with results indicating that there might be scope for successfully applying the methods to other inquiries with more complicated questionnaires, and thus higher recontact rates, such as the Overseas Direct Investment Inquiry.

A Strategy for Business Survey Methodology

Jones, T (Statistical Methods and Quality Report MQ012, July 1995)

The vision of the Statistical Methods and Quality (SMQ) branch of the Central Statistical Office (CSO) is "to ensure that the CSO uses, and is known to use, the best possible statistical methodology, and that it measures the quality of its outputs". This paper attempts to identify how this vision can best be achieved, addressing some of the issues at stake and identifying actions for both SMQ and survey managers. Areas under discussion include data quality; documentation and review of methods; data analysis; use of the Inter Departmental Business Register; appropriate sampling and estimation; imputation for non-response; and identification and treatment of outliers.

Regional Statistics

SEO/G7 LMP Group 9 (Statistical Methods and Quality Report MQ013, September 1995)

There has been an interest in regional data of both an economic and social nature since data collection began. The most consistent sources of regional data have been the Censuses of Production, which began in 1908, and its successor the Annual Census of Production (ACOP) which began in the early 1970s. Movement of ACOP onto a new computer system created a number of difficulties. This, along with proposed European Community legislation for increased regional coverage of service sector statistics led to the formulation of a project as part of the Central Statistical Office's Leadership and Management Programme (LMP) which aimed "to investigate the production of regional statistics and associated errors in CSO business surveys with minimal additional compliance costs for contributors". This paper summarises the findings of this project. It provides evidence of the demand for regional statistics through consultation with government regional offices, and also identifies other potential and actual users. The ACOP data demonstrates that with current sampling schemes and compliance costs restrictions, the CSO cannot produce regional data which are as accurate as national aggregates. However, for fairly large regions, there are figures which can be produced to a publishable quality without increasing sample sizes, and the CSO should look to provide this information wherever possible, whilst making users aware of any shortcomings of the estimates provided.

Quarterly GDP - Process and Issues

Caplan, D and Lambert, S (Economic Trends, October 1995)

The Central Statistical Office aims to produce credible, timely, and integrated quarterly accounts which meet the needs of users. The full national accounts are produced quarterly and are regarded as the key national accounts product. This paper provides a background to the current systems, describes the current practices and explains some of the current issues including the adjustment and alignment processes, and revisions and performance targets.

The Inter-Departmental Business Register

Perry, J (Economic Trends, November 1995)

Previously the Central Statistical Office (CSO) and Employment Department (ED) held separate registers of businesses. This effected the quality of productivity and unit wage cost statistics and the consistency of Gross Domestic Product estimates. Between 1993 and April 1995 the CSO and ED developed a central register of businesses for their statistical inquiries, the Inter-Departmental Business Register (IDBR). The IDBR is expected to make a major contribution to the drive for better economic statistics, covering over 98% of the United Kingdom's economic activity (excluding private households and extra-terrestrial bodies). Though primarily serving the CSO the IDBR is used by a number of other government departments. It is expected to offer the opportunity to reduce survey respondent load through better coordination of surveys and more direct use of administrative data.

1996

Using Selective Editing in CSO Inquiries

Cruddas, M and Davies, P (Statistical Methods and Quality Report MQ018, January 1996)

This paper provides an update of the study of selective editing carried out by the Statistical Methods and Quality (SMQ) Branch which was detailed in an earlier paper (MQ010, July 1995). An analysis of recontacts made in the Overseas Direct Investment Inquiry showed a higher recontact rate than the Monthly Sales Inquiry and Quarterly Turnover Inquiry, but the small size of the inquiry meant that the number of recontacts was small, again making selective editing unnecessary. SMQ plan to proceed with the study through examining an inquiry with a large sample size and complicated questionnaire. Work carried out thus far does not support the use of selective editing, so a further study is also proposed to examine the suitability and efficiency of current editing rules.

Sampling Errors in the Overseas Direct Investment Quarterly Inquiry

Davies, P (Statistical Methods and Quality Report MQ015, February 1996)

The Overseas Direct Investment Inquiry (ODI) identifies companies with overseas direct investment links and estimates the value of their earnings, transactions and stocks of investment. This paper presents sampling errors for estimates made for the 1995 Quarter 1 inquiry. A test is described which compares the current practice of a ratio estimation of totals with a number-raised estimation process in terms of statistical efficiency. Sampling errors are

calculated through both methods, and the number of outliers in the various selection strata and post-stratified strata is shown and discussed. Conclusions are reached and several recommendations made.

Sampling Errors in the Overseas Direct Investment Annual Inquiry

Davies, P (Statistical Methods and Quality Report MQ019, February 1996)

This paper follows on from the paper looking into the Overseas Direct Investment (ODI) Quarterly Inquiry (MQ015, February 1996) and estimates sampling errors for the total estimates made for the 1994 Annual Inquiry, using both ratio and number-raised estimation processes. A brief estimation of the estimation methodology is given in the appendices and some conclusions arising from this work are given for consideration. Recommendations include work on current selection strata boundaries to determine whether these are the most efficient estimation purposes; and implementation of a scheme for detecting outliers.

A Monthly Indicator of GDP

Yeend, C and Pottier, A (Economic Trends, March 1996)

In the early 1990s the Treasury began to look at the possibility of constructing a monthly indicator of Gross Domestic Product (MIGDP) in order to aid economic analysis. A research contract was awarded to the Department of Applied Economics at Cambridge University who proposed an innovative use of regression models. This paper details how the Central Statistical Office has developed their research to produce a monthly indicator at constant prices which is a combination of existing published monthly series, such as the Index of Production, and modelled series. It also presents some of the results produced in simulation testing carried out. Thus far these have indicated Gross Domestic Product (GDP) growth on a monthly basis to be very close to quarterly GDP estimates published later. This has encouraged the Office for National Statistics to continue using MIGDP for economic assessment.

Cyclical Indicators for the UK Economy

Yeend, C (Economic Trends, March 1996)

Cyclical indicators are used in economic analysis as a simple predictive tool of economic behaviour. This paper looks at recent development work in the area and presents conclusions from a research project carried out for the Central Statistical Office by the Department of Applied Economics at Cambridge University (DAE). It details the existing cyclical indicators system, whose methodology is based on a technique established in the late 1940s, and some of the criticisms levelled at it by the DAE. It then looks briefly at a proposed new indicator and suggests an approach to improving the identification of economic turning points. The Office for National Statistics believes that the research indicates promising alternatives to traditional cyclical indicators methodology though in the meantime it is to continue production of the traditional indicators. User needs have to be established before taking the development of new indicators further and the paper therefore invites comments and views on the proposals and the value of cyclical indicators in general.

Operational Aspects of the IDBR

Kokic, P and Brewer, K (Statistical Methods and Quality Report MQ017, April 1996)

The structure, use and maintenance of the Office for National Statistics' Inter Departmental Business Register (IDBR) are of central concern to the operation of a large number of its business surveys. The key requirements in selecting samples from the IDBR are that a fair and even spread of survey response burden across enterprises of similar size and type is achieved, and that operational procedures for the selection and burden sharing processes are as simple as possible, whilst at the same time preserving the integrity of the statistical output. This paper details how these requirements can best be met, focusing on several issues including sample rotation and the sampling unit; deaths and births of sample units; stability of sample membership and reclassification of units; and the possible consequences of duplication on the IDBR. A number of recommendations are arrived at which would, to a certain degree, restrict the possible design options that could be adopted in surveys run from the IDBR but lead to a simplification of operational procedures and consistency in sampling procedures between surveys.

Environmental Accounts: Valuing the Depletion of Oil and Gas Reserves

Vaze, P (Economic Trends, April 1996)

There is no internationally agreed procedure for creating an environmental satellite account. This paper considers one of the methodological issues involved in creating such an account which is how the national income should be adjusted to place a value on the depletion of natural resources. The United Nations has set out a System for Integrated Environmental and Economic Accounts in a guidance manual which describes several different approaches to valuing depletion allowances. Three approaches are discussed here: user cost, net price and present value, and the depletion allowance according to each one is computed. The Office for National Statistics' preferred approach will be to use the present value method to adjust net income.

An Investigation into the Change in the CAPEX Inquiry Sample Design

McKenzie, R (Statistical Methods and Quality Report MQ027, June 1996)

Prior to 1996 the Quarterly Capital Expenditure (CAPEX) Inquiry used a Probability Proportional to Size (PPS) sample design. A sample redesign of the survey was recently performed and from the first quarter of 1996 a Stratified Random Sampling (SRS) design was implemented. This paper presents the findings of an investigation into whether the change in sample design would have an effect on estimates produced by the inquiry. Unfortunately a large number of uncontrollable factors seriously effected the reliability of the analysis and thus any interpretations made from assessing the results had to be treated with extreme caution. Nonetheless, there was sufficient evidence in the results from the analysis to suggest that two points need to be carefully considered. Firstly, the relationship between CAPEX to employment as employment increases needs to be properly assessed as the different approaches used by the PPS and SRS designs in imputing for units below the sampling cut-off may lead to systematic differences in estimates from the two designs. Secondly, it needs to be noted that the relationship between CAPEX to turnover and CAPEX to employment may differ markedly for some industries. Consequently the change from using turnover in the PPS design to employment in the SRS design as the auxiliary variable for service industries may cause a break in the series for some industries' estimates.

Measuring Real Growth: Index Numbers and Chain Linking

Lynch, R (Economic Trends, June 1996)

This paper presents the issues which the Office for National Statistics (ONS) will consider with regard to the introduction of chainlinked estimates of real growth in the UK National Accounts as recommended by the United Nations System of National Accounts 1993. It sets out the fundamental properties of the index numbers conventionally used in the national accounts. It describes the annual chainlinking process and gives a hypothetical example which illustrates the kinds of effects that annual chainlinking and use of a superlative index (the Fisher Ideal Index) can have on growth estimates. It then sets out some of the major benefits and drawbacks of chainlinked growth estimates. The ONS has no firm plans as to how and when to introduce a chainlinked system though a feasibility study is to be carried out with a view to publishing provisional estimates in Autumn 1997.

Time Use from a National Accounts Perspective

Neuburger, H (Economic Trends, July 1996)

There are growing concerns that the present production boundary for the national accounts may lead to a distortion in measuring the economy due to its exclusion of a large amount of activity, including unpaid work in the home and community. The United Nations System of National Accounts 1993 makes provision for the construction of satellite accounts, which will cover areas beyond the production boundary. This paper describes the development of satellite accounts in the UK, their design and data sources, and focuses in particular on plans for a household satellite account constructed through time use surveys. This is followed by a broader discussion of time use as a basis for welfare measurement.

Producer Prices for Services: Development of a New Price Index

Price, J (Economic Trends, July 1996)

There is currently less statistical information available on the service sector than for production industries despite the fact that the services now account for approximately two-thirds of Gross Domestic Product. The Office for National Statistics (ONS) is working to address this problem through improving its coverage of the sector. This paper details the development of a new index of producer prices for the service industries which will meet the needs of both government and the wider community. It outlines some of the obstacles to be overcome in measuring service outputs, the proposed areas of data coverage and the programme of work that lies ahead. The ONS proposes the regular production of indices for five industries from December 1996 and an expansion in coverage to the bulk of the sector by the end of 1998.

A Guide to Estimation in the Steel Stocks Inquiry

Cruddas, M (Statistical Methods and Quality Report MQ020, July 1996)

This paper attempts to describe in a non-technical way how the Steel Stocks estimation system currently works. It details the statistical principles involved and the approaches used in the Steel Stocks Inquiry, including estimations of stockholder's stock change; preliminary deliveries from stockholders; and imports and usage.

Redesigning the Prodcom inquiry

Chambers, R and Cruddas, M (Statistical Methods and Quality Report MQ021, July 1996)

The UK Prodcom inquiry collects values (sales invoiced) and volumes (units and/or weights) of product data from UK manufacturers for the most commonly manufactured products within the European Community. The nature of the inquiry leads to a large number of zero responses which renders the use of a standard ratio estimator of product totals inappropriate. This paper provides a general framework for an alternative method of estimation, which uses the zero returns in the sample to predict zero returns in the non-sampled units in order to produce estimates of product totals. The model is then used to provide a two stage

method of allocating a sample of fixed size to industry by size strata based on minimising the average variances of the individual product totals relative to size.

The Treatment of Outliers in ONS Business Surveys
Kokic, P and Cruddas, M (Statistical Methods and Quality Report MQ023, July 1996)

Outliers are particularly common in business surveys, due to the skewed distributions of economic variables. They occur where businesses sampled provide correct responses, but the values may be extreme or have large sampling weights and therefore exert undue influence on the population estimates. This paper details initial work carried out on a long term study to develop a systematic approach to outlier estimation for the Office for National Statistics' business surveys. It gives a brief overview of approaches to the problem that have been proposed in the literature, making reference to the current ONS practice, which is normally a method of weight reduction for outliers. It then examines an alternative method of outlier treatment known as Winsorization (value modification). Though Winsorization has distinct advantages over weight reduction methods its implementation would create other difficulties. This paper attempts to provide some guidance for dealing with these and where appropriate develops suitable theoretical results.

Financial Assets and Liabilities Survey (FALS)
Cruddas, M (Statistical Methods and Quality Report MQ024, July 1996)

The primary purpose of the Financial Assets and Liabilities Survey is to provide data on UK industrial and commercial companies' financial assets and liabilities, in the form of holdings of and transactions in various financial instruments, for use in the financial accounts. It is also used to provide estimates of the liquidity of large companies, which are published quarterly in the Company Liquidity Bulletin. This paper details the current design of the survey and proposes an approach to a redesign of the survey.

Statistical Investigations for the Purchases Inquiry
McKenzie, R (Statistical Methods and Quality Report MQ026, July 1996)

This paper details an analysis of the 1994 Purchases Inquiry (PI) data which was undertaken to investigate two main areas. Firstly a test was carried out into whether the purchasing pattern of the 10-19 sizeband significantly differs from that of the 20-49 sizeband which is currently used to estimate for it. Secondly, the PI currently uses the same 1:1 bands as the Annual Census of Production (ACOP) which often contains a large number of units for some industries. If sampling in these bands could be achieved with a minimal loss of accuracy then more sample would be available to select a greater number of industries for the PI. A test was carried out into the feasibility of this proposal. The preliminary results from these investigations were discussed at the Purchases Inquiry Working Group and decisions were made for the conduct of the 1996 PI and further work that needed to be carried out. This paper details the decisions, conclusions and recommendations resulting from the meeting and analysis.

The Pilot United Kingdom Environmental Accounts
Vaze, P and Balchin, S (Economic Trends, August 1996)

This paper presents the pilot UK Environmental Accounts. It details atmospheric emissions disaggregated by household and industry, provides data on the depletion and stock of oil and gas reserves, and disaggregated data on environmental expenditure by the major spenders (the manufacturing, extraction and electricity industries). The bulk of the data relates to 1993. The accounts are accompanied by an Input-Output combined use matrix to facilitate analysis of the interactions between the economy and the environment. The paper sets out the methodologies involved and highlights some of the issues which need to be addressed. It also details future work planned by the Office for National Statistics, including the extension of the atmospheric emissions accounts backwards in time and the inclusion of radioactive waste and water emissions in next year's account.

A Framework for Social Accounting Matrices
Hughes, D (Economic Trends, September 1996)

A key responsibility of the Office for National Statistics (ONS) is to bring together economic and social statistics into a more integrated framework. One means towards achieving this is through the development of Social Accounting Matrices (SAMs), a matrix presentation of the national accounts which adds a social focus by disaggregating the household sector. This paper presents a framework for a UK SAM and suggests a strategy for its development. The main current activity is the reconciliation of various household data sources with national accounts data. The work is being taken forward by a team from various parts of the ONS and Government Statistical Service.

The Use of Quarterly Constant Price Output Data in the National Accounts
Daniel, D (Economic Trends, October 1996)

This paper summarises an Office for National Statistics (ONS) project that was completed about a year ago to develop quarterly estimates of output at current factor cost with associated quarterly output-based deflators. These estimates are now used as checks against the other estimates of current price Gross Domestic Product (GDP) and the GDP deflator before the estimates for production are finalised. The ONS also plans a system for

reconciling the quarterly current price output estimates of GDP with current price expenditure estimates through quarterly supply-use tables. This will result in a deflator based on reconciled output and expenditure estimates, which should improve the quality of the GDP deflator, which is a widely used measure of domestically generated inflation. It should also improve the whole process of achieving coherence within the quarterly estimates of GDP at constant and current prices.

Developments in UK Company Securities
O'Donoghue, J (Economic Trends, December 1996)

UK company securities are a major component of financial balance sheets and transactions accounts which are compiled as part of the quarterly national accounts process. A major methodological review of the way estimates of securities were compiled took place during 1993 and 1994 which identified a number of weaknesses in both sources and methods and recommended ways in which both could be improved. Of particular importance was the need to take into account the recommendations of the new 1995 European System of Accounts (ESA95). This paper details recent changes made to the compilation process which resulted from the review. These include the compilation of securities as three separate sub-instruments, compatible with the requirements of ESA95; the introduction of new sources for issues of quoted securities, based on data from the London Stock Exchange; further development of existing sources, and the elimination of some errors and omissions; closer matching of assets and liabilities for particular types of investments; closer matching of flows and balance sheet levels; and the introduction of a revised methodology for estimating interest flows for bonds. Estimates for the new financial instruments have been compiled back to the start of 1990. They have been published in both Blue Book 1996 and Financial Statistics. There have been substantial revisions, effecting most sectors, compared with previously published estimates. Overall, these changes have helped to improve the consistency and coherence of the sector accounts.

How Far Should Economic Theory and Economic Policy Affect the Design of National Accounts?
Neuburger, H (Economic Trends, December 1996)

This paper explores the relationships between economic theory, economic policy and national accounts design. It reviews policy use of national accounts tracing it through formal publications and more discursive description; looks at national accounts role in policy, and other links between economic policy and accounts; looks at the role of theory; and looks at some notorious cases of unreliability in computing national accounts and their consequences. The paper concludes that the roles of economic theory and economic policy in the evolution of national accounts have been very different. Economic policy has not had a direct and immediate impact on the design of the accounts, with the possibly significant exception of the Radcliffe Report, a 1959 enquiry into the monetary system which influenced the development of the financial accounts and Public Sector Borrowing Requirement. Policy makers, however, seem to have found something in the accounts to use for their purposes. Economic theory has had an impact on the accounts which is hard to trace, describe systematically or evaluate. The links between economic policy-making and the design of the accounts in the UK are felt to be in need of regular review.

1997

Balancing GDP: UK Annual Input Output Balances
Mahajan, S (Economic Trends, January/February 1997)

In 1991 the former Central Statistical Office began a process to merge the traditional annual exercise to determine the single best Gross Domestic Product (GDP) estimate with the production of Input-Output (I-O) balances, which form a natural link between the three measures of GDP. The UK's GDP has since been estimated in this way for the years 1989 to 1994, with detailed reconciliations of GDP components at current market prices, and levels of current price GDP set at both market prices and factor cost. The information has also been used to form the basis of other statistics compiled by the Office for National Statistics. This paper outlines the development of I-O balances since 1991 and plans for further development over the next few years. It details the structure of I-O balances, the sources of data used, and the lengthy balancing process which takes place in order to achieve an agreed single best GDP estimate ready for publication.

Deflation of Trade in Goods Statistics
Derivation of Price and Volume Measures from Current Price Values

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Summary - The benefits of the change in methodology

In May 1996 the Office for National Statistics introduced a significant change to its methodology for the derivation of price and volume indices for the UK's trade in goods which puts these figures on a much sounder basis. The United Kingdom is relatively advanced in adopting this new methodology which is supported by Eurostat and follows the practices in other countries at the forefront of statistical developments such as the USA, Japan and Germany. The system produces a much smoother set of data which, while it is reacting to changes in the trade in goods statistics, is much less volatile than the previous system. Revisions still need to be made, for example, for changes in the current price values reported for trade in goods, but these no longer have the same level of impact as before. The ONS intends to develop this methodology further and will be working with Eurostat to try and harmonise deflation practices across the EU. The article covers the background and provides details of the impact of the change in methodology both to the statistics on the United Kingdom's trade in goods and other related macro-economic data.

Background

A review in 1992 of the methodology used in the then Central Statistical Office to produce volume and unit value indices for trade in goods identified several problems. Most of these related to the use of value and quantity statistics on trade in goods from the Customs & Excise system as the source of derived "price" information. What was recorded in the Customs based data were large month to month fluctuations in price and volume series that were not representative of true underlying changes in such series. Added to this, the use of the Customs & Excise data resulted in what were quite frequently large revisions to the monthly figures. This was due to a small extent to changes to the basic data for the value of trade, but more significantly to revisions to the data for the quantity of goods. The introduction of the Intrastat system for the recording of trade with EU countries made the situation worse as revisions increased due to late returns and estimates for non-response were included for the first time. For example, data for January 1995 could expect to be revised more than 15 times before being closed to further changes.

The causes of problems

The main problems seen with the use of prices derived from the statistics on trade in goods result from the fact that what is available are value:quantity ratios not true prices. As such, problems are seen with:

- **inaccuracies in the quantity data**, ranging from data being recorded incorrectly to the quantity data collected for certain products being meaningless and difficult to measure (for example, kilograms of electrical components, where the weight of the individual components is quite often significantly below the 1Kg cut-off used to record trade volumes).
- **inconsistency in the transactions covered**. For example, the same product could be sold one month to Australia, another month to India, with the sales likely to involve different companies, different markets and thus different prices being used. Thus, each month, different companies, countries and products may make up the total picture of trade, producing apparent but not true price fluctuations in the trade in goods data. This is a particular problem with Intrastat data, where the additional problem of significant revisions to data occurring through late incomplete declarations being received from companies is seen.

Even though the statistics on trade in goods are collected in terms of some 11,000 individual product headings using the Combined Nomenclature, a significant part of the product nomenclature still relates to mixes of products. For example, some 20,000 individual chemical products exist which are classified into only 500 trade product codes.

Quality differences exist within each product heading. For example, with computers, although machines differ in terms of their internal components (and thus their price) their weight may be identical.

Exchange rate movements can affect the values recorded as trade transactions since a significant proportion of both exports and imports are reported to Customs & Excise in foreign currencies.

All of these factors can lead to month-on-month fluctuations in the prices derived from the trade in goods information which do not reflect true pricing changes, but are merely artefacts of the use of the trade data. The impact of these factors will be illustrated in the main text of the article

The wider impact of the problem

The price and volume data on trade in goods feed directly into the estimates of the UK Gross Domestic Product as measured by the expenditure method, via constant price estimates for the value of trade in goods. In addition import price information in the trade in goods statistics are used to deflate imported goods within the capital expenditure and stocks components of GDP. The price information in the trade in goods statistics also feeds into the calculation of the Index of Production, through the deflation of some of the export sales data collected in value terms into volumes. As exports contribute roughly 30-40% to the total Index of Production, which in turn makes up around 28% of total GDP as measured by the output method, the impact of the problem with the trade in goods statistics was thus wider than might first be thought.The problems were of particular importance for GDP, where the trade in goods statistics are one of the earlier sets of data to become available and are among the more reliable of the GDP components available at this stage. Problems with the trade data could thus have a very significant impact.

Results of the 1992 review

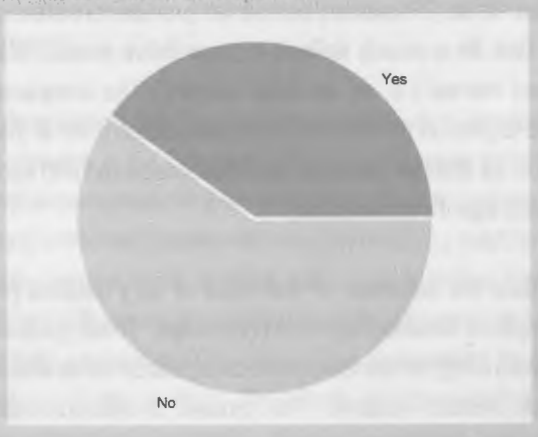
A direct result of the review was the decision to remove the effects of this source of apparent price fluctuation in the UK trade data by the introduction of "true" price indices. However, whilst price indices have existed for some time for some imported products (some raw materials and semi-manufactured goods) as part of the inputs into the calculation of producer price indices, the main area of interest for trade in goods - manufactured exports - was not previously covered by such exercises. A decision was therefore made to invest resources into setting up a large data collection exercise to collect and collate this new information on true price indices for export and import prices.

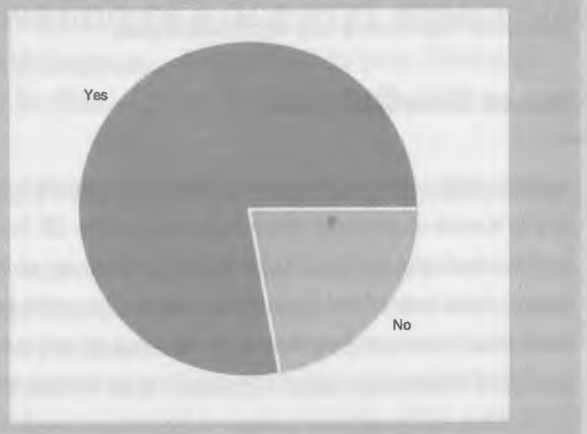
Interim change after 1992 review

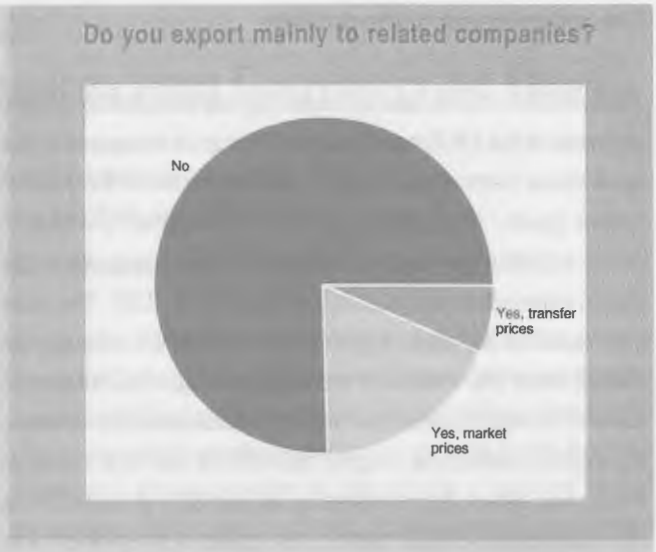
Although the decision was taken in late 1992 to start collecting trade price indices direct from companies, it was recognised that it would be some time before reliable price indices became available. It was therefore decided to introduce an interim solution which would reduce the impact of the problems of the Customs based data. The interim solution was introduced in the summer of 1993 (with backdated calculations to January 1990). The change involved the use of Producer Price Indices (PPI's) adjusted for external factors as a proxy for directly collected price indices. The PPI's used were primarily for manufactured goods, which accounted for 80% of the value of UK imported goods and 84% of the value of UK exported goods. The adjustment made to these series was to apply an overall factor to the individual PPI series to take account of likely differences in trend between the prices of goods for sale in overseas and domestic markets. The adjustment factor was derived from the relationship seen between the overall weighted sum of the movements in the detailed Customs-based indices to the overall weighted sum of movements in the PPI's. For non-manufactured goods it was decided to continue to use the value:quantity information from the trade in goods statistics.

A second best solution

The use of adjusted Producer Price Indices was a "second best" solution to the problems. A key fact was that the adjustment used to construct the proxy trade price indices relied on Customs-based data, and was thus not totally free from the problems of large month-to-month changes and revisions. In addition, research into exporter's practices in setting prices showed that movements in the PPI's, which are defined as the prices set for goods going to the home market, are not accurate indicators of movements in export prices. Research showed that the majority of companies charged







different prices for the same goods for export (irrespective of the other additional costs involved in exporting). Also when exporting goods, different prices were charged for the same goods going to different export markets. Although globalisation of trade has occurred, to a large extent exporters deal with unrelated companies. As such, there is no common pricing structure as might be seen in dealing between related companies.

Additional problems such as difficulties with seasonal adjustment of the data were caused by the introduction of the Intrastat system.

Trade price indices

Export price indices (EPI's) have been collected from UK manufacturers since the end of 1993, initially on a trial basis, but with increased coverage since 1994. They now cover around half of manufactured exports by value. Some 1,300 quotes are now being collected from around a thousand companies. The EPI's show movements in the prices which manufacturers receive for representative export items sent to specified markets overseas. They are collected and processed in a similar way to the long-standing producer price indices which measure prices to the home market. In the EPI system, companies provide consistent quotes over time for a closely defined representative product sold to a defined market (i.e. an identified country). The companies are asked to provide the normal export transaction price at the point of order (ie after all discounts have been deducted and excluding VAT and agent's commission).

The data are collected on the basis of very detailed product descriptions obtained from the companies. These products are classified using the standard trade classification nomenclature into various product headings. This process of detailed description means that although the indices used are classified to what might be a commodity coding which can cover several different products, the observed price movements relate to a specific product and thus are not affected by monthly changes in the mix of products covered. The grouping also allows a reduction of the impact of any discontinuities at the detailed product level, e.g. the recruitment of new companies reporting in the system or the removal of old companies no longer trading.

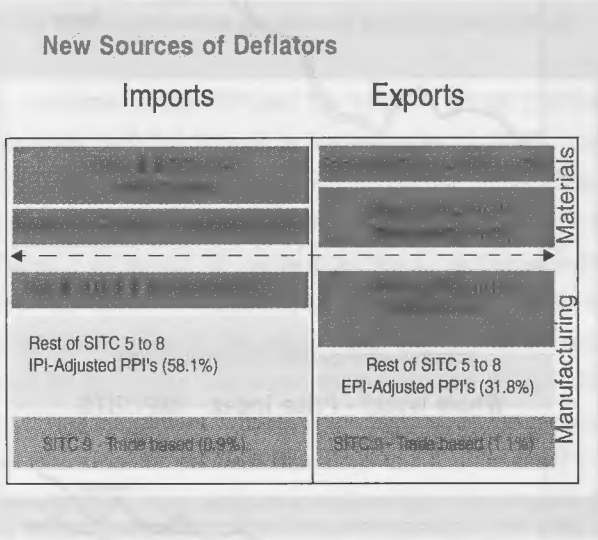
For import price indices (IPI's), where products are dealt on a world market basis (for example, some raw agricultural materials), details on the movements of the world market prices are used. For others, some 800 quotes are obtained from manufacturers for their imports. However, an important factor in the overall methodology is that there is no price information available for imported finished manufactured goods.

For both imports and exports there exist within manufactured goods headings where directly collected import or export price indices are not available. For these headings the methodology used in the interim solution was thought to be the best way of proceeding, i.e. using adjusted PPI series. However, the derivation of the adjustment of the PPI's was reviewed and revised to remove the influence of Customs-based data. It is derived by an analysis of the overall relationship seen between EPI's and PPI's in product areas where both exist. Similarly for imports, the adjustment to

PPI's is based on the relationship between IPI's and PPI's where both exist. For some commodities other than manufactured goods, for example, live animals, fish, cereal preparations, the trade-based indices are considered appropriate and continue to be used. Also, for some commodities that are traded on world markets, price information on these world markets is used for deflation of both imports and exports values.

What is used in the ONS calculations are the monthly changes in prices as indicated by the indices. This has allowed the price-relatives thus derived for use in the production of volume data to be linked onto the old series of Customs-based data.

The diagram below summarises the percentages of the total value of UK trade that are now covered by the various sources of price information. As can be seen in the new methodology that has been used since May 1996, only 4% of imports and 15% of exports by value are now deflated using price data derived directly from the statistics on trade in goods.



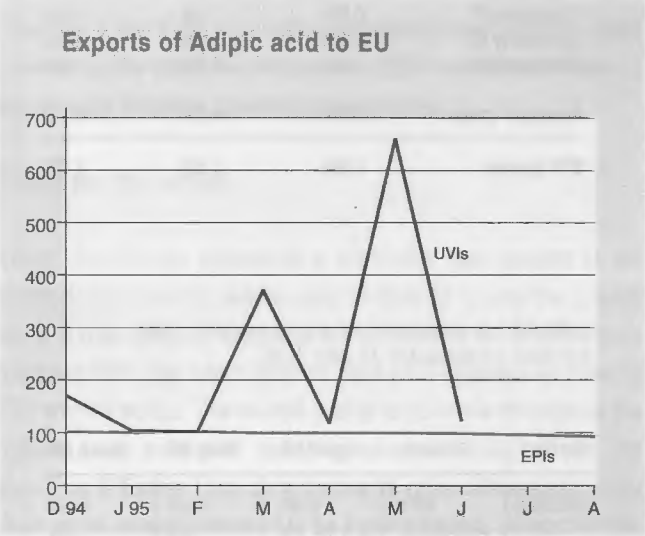
Checks on trade price indices

Due to the significant impact of the change in methodology, numerous checks and analyses were carried out before making the change. These included monitoring the performance of the new trade price indices over the period while recruitment of companies to the exercise was being fully developed, to assess whether or not the accuracy of the price indices was sufficient to allow them to be used. This checking involved analysing the returns from companies and resolving any anomalies within the data and investigating the background to the returns (involving checking with the companies the nature of the data they were providing) and checking their relationship with the information they were reporting as part of the Customs & Excise and Intrastat procedures.

The results of these checks all helped to increase confidence in the EPI and IPI data such that it was decided to carry through the change in the methodology into the deflation process.

Comparisons with trade-based data

What follows is an example of the type of checking work done carried out by ONS staff in London and Newport. Adipic acid is an organic chemical which is an important precursor in the manufacture of nylon. When comparing the export information as collected from the Customs & Excise systems and that collected as price quotes for the calculation of export price indices, the very volatile nature of the trade-based data is demonstrated



The scale of the graph necessary to accommodate the large fluctuations in the Customs-based data hides the fact that the EPI series shows a continuous slight downwards trend over the period of the graph. Investigations were made into the causes of the volatility in the Customs based data. This involved looking at the detailed data being reported under the Customs & Excise systems and comparing the value:quantity information being reported by those companies who were also providing price quotes for the EPI exercise.

The investigation into the Customs & Excise data showed up a wide variation in the individual value:quantity ratios reported by individual companies for a single product. Even though the trade heading concerned covers relatively few products, relating to the various chemical forms in which Adipic acid is traded, there are significant differences in the value:quantity ratios reported by the individual companies. The differences seen relate to quality differences in the product. This check also showed that whilst some companies consistently trade in the product every month showing relatively stable prices, there were significant "occasional"

traders that showed considerable variation from the average value:quantity ratio for the product each month. This may be due to one-off manufacturing runs of the product or of a particularly high quality product. This example illustrates quite clearly the problems with using price information from the trade in goods statistics drawn from the Customs & Excise or Intrastat systems.

Compararive prices for Adipic acid (£ pre Kg)

Customs returns	April 95	May 95	June 95
Company A	0.75	5.10	0.75
Company B	0.63	0.73	0.78
Company C	2.25	2.50	4.01
Company D	0.77	0.81	n/a
Company E	1.03	1.11	1.11
Company F	0.91	n/a	n/a
Company G	7.00	n/a	n/a
Company H	n/a	44.50	n/a
Average price	0.74	4.06	0.77
EPI quote	**1.56**	**1.56**	**1.55**

Individual companies' price returns for certain chemicals (£ pre Kg)

Code	Source	April 95	May 95	June 95
293090	EPI	6.40	6.50	6.50
	Customs	4.1 to 7.8	n/a	n/a
291590	EPI	0.82	0.83	0.84
	Customs	0.6 to 20	0.3 to 30	0.6 to 20
293339	EPI	4.9	4.9	4.9
	Customs	5.2 to 9.2	2.9 to 9.2	6.4 to 9.2
293359	EPI	2001.7	2041.5	2063.1
	Customs	523.4	738 to 25589	91 to 1702

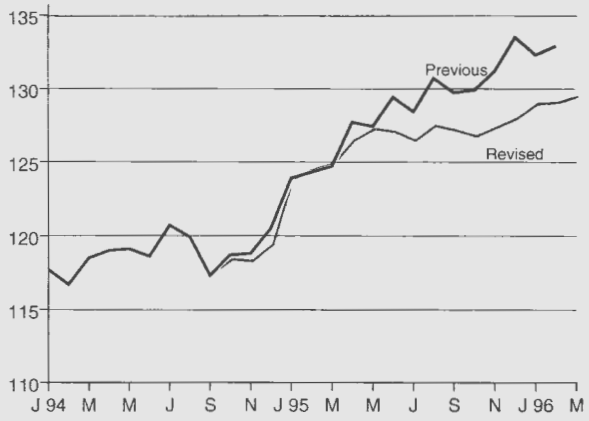
Even with the degree of work that was put into validating the EPI and IPI series, there are still some potential problems with the use of EPI's. These are mainly general problems associated with collecting such data from companies. The question of whether or not correct price information is being collected from the companies (i.e. including discounts, covering actual sales prices not list prices, etc.) can only be tackled through proper education of the companies into what is required from them. This will continue. However, there are additional problems which will need to be tackled. One particularly difficult problem will be when the system is expanded to collect information on import prices for capital products. The prices involved are often set several months ahead of the actual delivery of the goods. Thus there may be a need to build in time lags into the process to take account of this timing difference between the prices being set and the values actually appearing in the trade statistics.

Impact on published estimates

In general, the impact of the change in methodology on the derived price and volume series for 1995 has been to reduce the size of the upwards trend in prices seen in the trade in goods during 1995 under the old system, with a corresponding increase in the estimates of trade volumes during the year. Whilst this effect is present for both imports and exports of goods, it effect is much more significant for exports, as summarised below

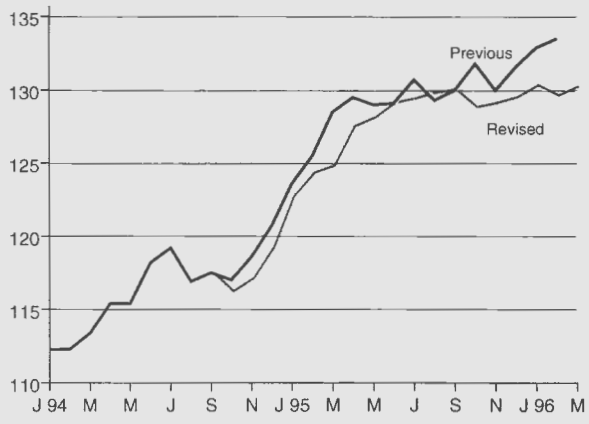
Impact of Revised Methodology

Whole World - Price Index - EXPORTS



Impact of Revised Methodology

Whole World - Price Index - IMPORTS



Although only the impact on the aggregate statistics is presented here, this pattern was generally seen across all commodities.

Percentage increases in 1995 compared with 1994 (annual averages)

	Previous price indices	Revised price indices
Imports	10.8	10.1
Exports	8.1	6.6

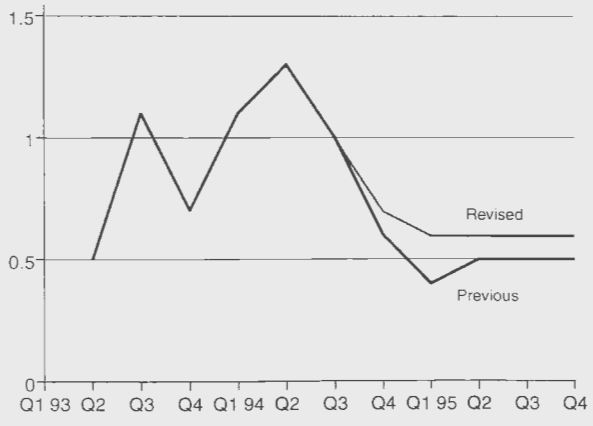
Implications for other ONS outputs

As mentioned earlier, the change in methodology for trade in goods had implications for two main ONS outputs, the Index of Production (IOP) and the estimates of Gross Domestic Product (GDP). In consequence, statisticians working in these areas were involved in the decision to revise the trade methodology.

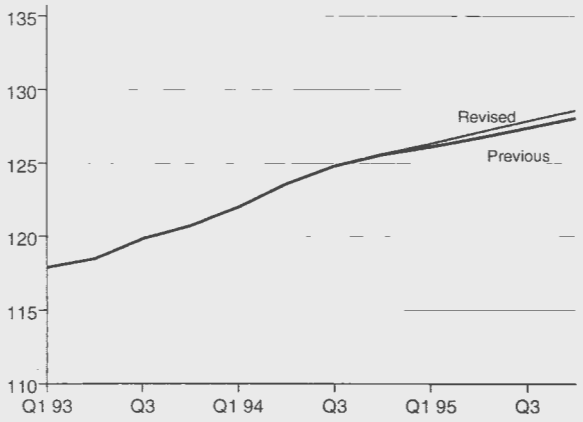
Through the use of export price information in the calculations of the IOP, the revision to the trade in goods system had a direct impact on the IOP. Once revisions to the raw data used in the calculation of the IOP for 1995 were taken into account, the net effect of the change in methodology for trade in goods was to produce revisions to the index levels of the IOP of +0.4 index points, with the equivalent annual growth rate revised by +0.29%.

The revisions to the IOP and the trade in goods statistics themselves both fed through to the estimates of GDP(O) and GDP(E). The major impact to GDP was through the revised exports data, as the revision to constant price imports is largely offset by the effect of revisions to the capital expenditure and stocks deflators to take account of the imported goods going into fixed investment and stocks. In principle the export price revision has the same impact on the output and expenditure measures of GDP. This impact was not evident in the published figures as the revisions were introduced for the 1996 Blue Book round at the same time as several other major revisions to national accounts components. As a result the overall impact on GDP growth rates was minimal.

Impact on GDP growth rates if no other revisions



Impact on GDP itself if no other revisions



However, if the trade in goods methodology had been the **sole** change to the data, the impact on GDP would have been to significantly increase quarterly growth rates.

Plans for the future

Whilst this change represents a significant step forward in the methodology used to deflate data on trade in goods, the current state of play could be improved upon. There is still a reliance on adjusted PPI data which is used as a best estimate of missing EPI and IPI series. The overall plan is to continue to improve the system, with an aim of removing wherever possible use the Customs & Excise data as a source of price information, other than where analysis shows it to be a good source. As part of this, the ONS will continue to expand the collection of EPI's, working to improve the coverage of industry sectors for which prices are already collected and also looking at gradual expansion into new industries , targeting the remaining higher value areas of trade. The possibility of starting the collection of additional import price information specifically on imports of capital goods will also be looked at. However, compliance costs and resource constraints exist which will limit how quickly such data collection can be started.

Separately from this, other possibilities are being investigated, such as using data from other countries on their trade price indices (where available) or producer price indices as a proxy for missing UK data. This may be particularly useful in providing data for missing areas of imported trade, such as capital goods.

What is clear is that the introduction of any future revisions to the system will be handled in the same way, with the impact on the IOP and GDP as well as the impact on trade in goods data being fully assessed. Also, any changes to come will be relatively minor, and it is not anticipated that any such large scale revision to historic data as seen during this initial introduction of EPI and IPI information will be necessary.