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Economic Trends

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Contents

In Brief

Articles

This month we feature two articles.

Simon Humphries of the ONS introduces the geographical breakdown of the UK international investment position. A geographical breakdown of the income earned from investments abroad and income paid on foreign investments in the UK is published in the Balance of Payments quarterly *First Release* and annual *Pink Book*. This article presents a geographical breakdown of the International Investment Position (IIP), or stock of external assets and liabilities from which the income is earned. This is the first geographical analysis of the UK IIP, and data is presented for end-2001 positions only.

Alwyn Pritchard of the ONS discusses understanding government output and productivity. First, government output is defined and the estimation of aggregate output and productivity discussed. Next, the article takes a more detailed look at government input and output by function. This involves extending the analysis into some new areas, taking on the latest data to 2001, identifying remaining shortcomings in the methods and data sources, and explaining the work that needs to be carried out to further improve the accuracy and usefulness of the results.

Recent economic publications

Quarterly
Consumer Trends: 2003 quarter 1. Available for downloading from the National Statistics website **www.statistics.gov.uk/products/p242.asp**
United Kingdom Economic Accounts: 2003 quarter 1. TSO, ISBN 0 11 621639 5. Price £26. Also available for downloading from the National Statistics website **www.statistics.gov.uk/products/p1904.asp**
UK Trade in Goods analysed in terms of industries (MQ10): 2003 quarter 1. Available for downloading from the National Statistics website **www.statistics.gov.uk/products/p731.asp**

Monthly
Financial Statistics: June 2003. TSO, ISBN 0 11 621597 6. Price £23.50.
Focus on Consumer Price Indices: May 2003. Available for downloading from the National Statistics website **www.statistics.gov.uk/products/p867.asp**
Monthly Review of External Trade Statistics (MM24): May 2003. Available for downloading from the National Statistics website **www.statistics.gov.uk/products/p613.asp**

TSO publications are available by telephoning 0870 600 5522, fax 0870 600 5533 or online at **www.tso.co.uk/bookshop**

Correction: *Regional Economic Indicators- May 2003*

April 1999 data in Table 5 of the above article have been corrected. A corrected version of the table is now included overleaf.

5 Total average gross weekly pay[1]

Government Office Regions

£

	United Kingdom	North East	North West	Yorkshire and the Humber	East Midlands	West Midlands	East	London	South East	South West	Wales	Scotland	Northern Ireland
	DEOG	LRCO	LSHZ	DCQI	DCQH	DCQG	LRCQ	DCPI	LRCR	DCQF	DCQL	DCQM	DCQN
1993 Apr	316.0	286.2	299.1	287.6	285.5	292.6	312.2	408.8	328.9	298.8	281.5	297.6	282.4
1994 Apr	324.7	294.6	307.7	297.0	292.5	300.1	322.8	420.6	339.4	306.9	290.5	301.9	286.5
1995 Apr	336.7	299.2	317.7	306.0	306.4	311.3	331.5	441.5	348.1	313.9	302.1	313.4	300.2
1996 Apr	350.2	315.2	329.5	316.8	318.5	323.9	347.7	455.0	367.1	325.3	313.3	325.2	306.2
1997 Apr	366.3	327.4	345.6	330.6	333.1	337.3	362.2	480.1	382.6	342.6	330.2	336.9	319.7
1998 Apr	383.1	338.7	363.3	345.2	350.3	359.8	380.3	504.5	406.3	354.6	342.8	350.0	332.6
1999 Apr	399.8	349.7	373.7	360.7	362.5	375.8	397.3	524.7	423.6	365.4	354.1	370.1	344.9
2000 Apr	418.1	368.0	389.0	375.1	374.4	387.2	416.2	561.7	443.3	380.6	368.4	383.0	360.4
2001 Apr	442.3	379.7	408.2	391.7	393.4	417.4	438.0	595.6	472.5	408.3	381.6	404.8	375.0
2002 Apr	462.6	399.3	426.8	409.9	413.0	427.3	459.6	624.1	496.7	421.7	399.7	427.0	390.1

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, National Statistics; Department of Economic Development, Northern Ireland

Economic Update - July 2003

Rhys Herbert, Macroeconomic Assessment - Office for National Statistics

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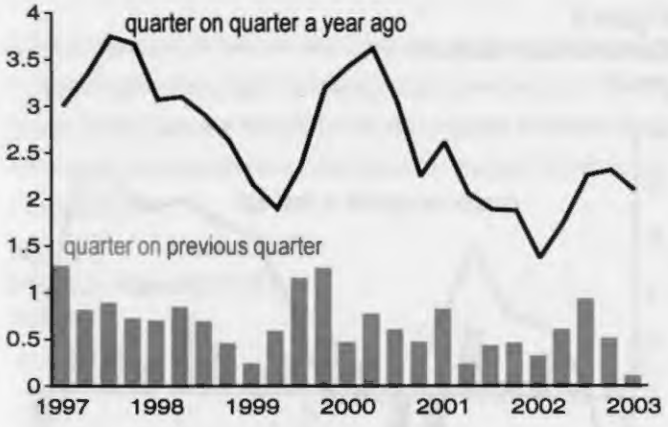
Overview

GDP growth slowed significantly in the first quarter of 2003. This reflected a fall in construction and in service sector output. External indices of output have been even weaker of late and have only improved slightly since the start of the war in Iraq. Consumer spending weakened significantly in the first quarter but may have stabilised in the second quarter. Private investment demand seemed to plateau during 2002 but has fallen further in the first quarter of 2003. While the financial position of the corporate sector has improved, the level of indebtedness is nevertheless still high. Government spending is currently a significant contributor to economic growth but the public sector finances are falling further into deficit. Export performance has improved significantly in early 2003 even before the beneficial impact of a weaker pound. Overall labour market aggregates remain fairly stable, and private sector wage pressures are minimal. Producer prices have as fallen back as the oil price has peaked and disinflationary pressures have reasserted themselves. The RPIX measure of consumer prices remains above target but the HICP measure of inflation remains at a low level.

GDP activity – overview

Gross domestic product (GDP) is now estimated to have grown by 0.1 percent in the first quarter of 2003, a slight downward revision of 0.1 percent from the estimate published last month. This is considerably slower than the 0.5 per cent recorded in the fourth quarter of 2002 and 0.9 per cent in the third quarter (figure 1), although the latter was somewhat distorted by the Jubilee holiday. The annual rate of growth in the first quarter, at 2.1 per cent, was also slightly below the 2.3 per cent recorded in the last two quarters of 2002.

Figure 1
GDP
growth

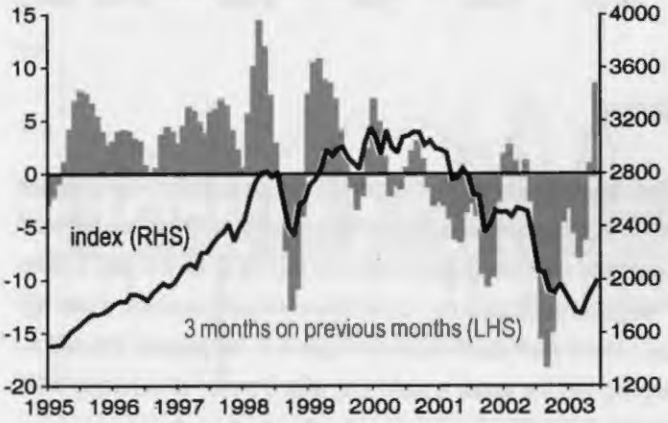


Revisions to GDP data mean that we now have a somewhat different picture of the slowdown than that painted by an earlier vintage of the data. Construction activity is now revealed to have fallen significantly in quarter one, as did activity in agriculture, mining and electricity. In contrast, while the growth in service sector output slowed it nevertheless remained positive and manufacturing production actually rose slightly.

Overall, movements in the UK economy are similar to those around the world. The recovery in the main industrial economies in early 2002 lost momentum in the second half and dwindled further during the first quarter of 2003. In the case of some countries it has even gone into reverse. Much of the recovery was export led, and exports have subsequently fallen back but domestic activity has clearly slowed as well. What is yet to be clarified is how much of this deceleration is merely due to the extreme uncertainty generated by the lead up to war in the first part of the year and how much it represents other underlying forces. The limited data that is available for the second quarter of 2003 suggests that while economic activity abroad may have started to stabilise there is as yet no real evidence of a pronounced rebound.

Financial Market activity

Figure 2
FTSE - all share price index, end month



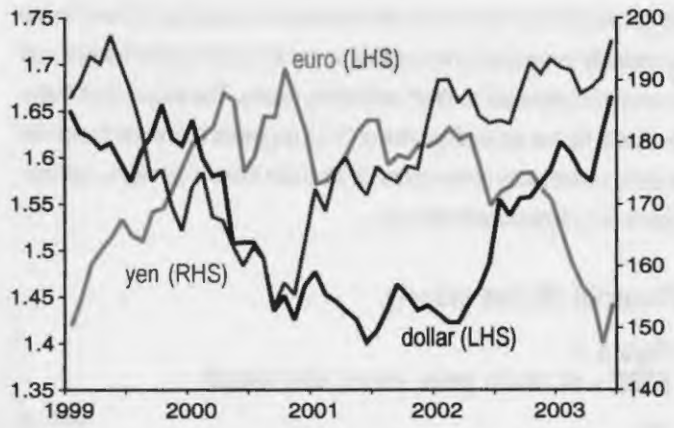
2003 has so far seen substantial volatility in world stock markets but most of these are now up significantly for the year to date. The UK FTSE all share index for instance continued to decline in early 2003, adding further to the fall of the last three years that has seen the value of the market

nearly halve. However, from April the market has rallied appreciably and as of late June it was up about 5% on the year to date and some 14% above its lows (figure 2).

International bond markets, including those of the UK have also risen this year. These gains have been led by government bonds, which have probably benefited from investors looking for safe returns in an uncertain environment. The low level of yields now available on government stock however, has also encouraged investors to look at other investments as well and the yields on corporate bonds have also declined recently.

It is the currency market though that has seen possibly the most significant price movements in recent months. While sterling has strengthened slightly through June, it still remains substantially down in calendar 2003 to date. Since the start of 2003, sterling has fallen by almost 7% versus the Euro. As a result, even though the pound has appreciated a little against a weak US dollar, the trade weighted exchange rate index is down by some 5% this year (Figure 3).

Figure 3
Exchange rates
£1=

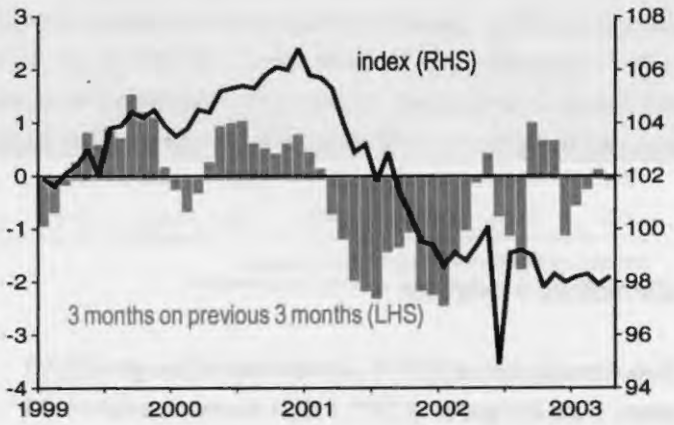


Output

Preliminary figures indicate that manufacturing production rose by 0.3 per cent in April. As a result activity in the last three months is now flat when compared with three months ago and slightly up on the year to date. Production is still down by 1.2 per cent when compared with a year ago but nevertheless there does now appear to be genuine grounds for arguing that the sector is stabilising after a period of extremely weak activity (figure 4).

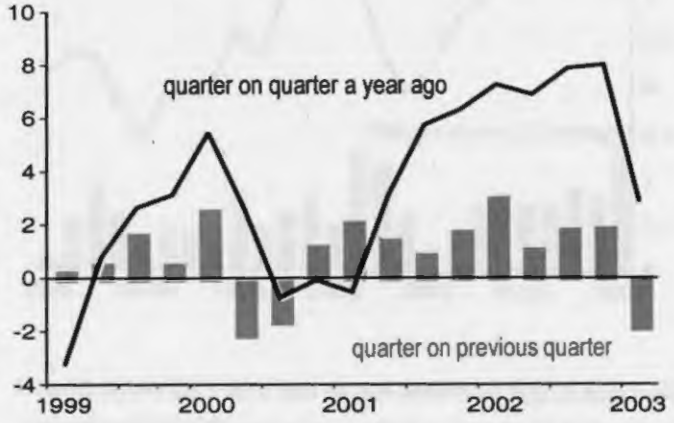
This slightly optimistic picture is reinforced by an examination of the detail behind recent figures. The source of the weakness in manufacturing since early 2000 has been the fall in ICT industries. This decline slowed during 2002, and output rose between November 2002 and January 2003, and this area of activity now appears to be stabilising. Particularly encouraging is the fact that output in the investment goods industries rose by 1.1 per cent over the last three months, providing some evidence that the investment decline of the past couple of years may have now run its course.

Figure 4
Index of manufacturing
growth



In stark contrast, recent figures have raised the possibility that construction activity has now peaked. Construction has been a considerable support to the economy over the last year or so. Last year, it rose by 7.5 per cent following on 3.6 per cent in 2001. The picture so far this year however is somewhat different. In the first quarter output in this sector fell by almost 2 per cent, a considerable revision on the initial estimate leaving activity up only 2.8 percent when compared with twelve months ago (figure 5).

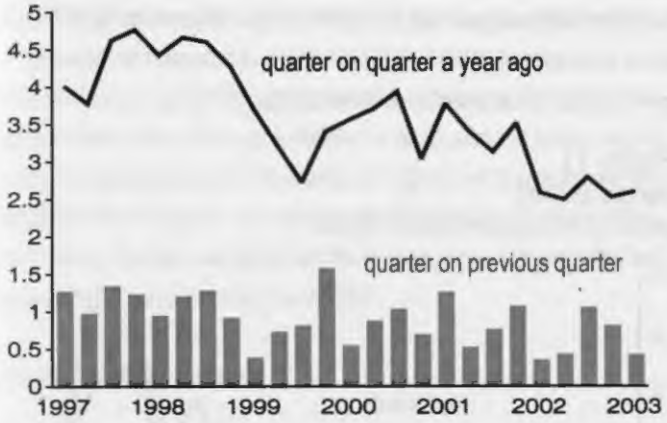
Figure 5
Construction output
growth



Output in the service sector has slowed since the third quarter of 2002. Comparing output with that of the previous quarter shows growth of 0.4 per cent in the first quarter of 2003, down on the growth of 0.8 per cent in

the last quarter of 2002, and substantially so on the growth of 1.0 per cent in the third quarter. When compared with the same quarter a year ago annual growth was 2.6 per cent in the first quarter of 2003, the same as in the last quarter of 2002 (figure 6).

Figure 6
Services output
growth



A broad industrial breakdown shows that in 2001 there was a shift in the drivers of growth from 'business services and finance' and 'transport, storage and communications' to 'distribution, hotels and catering, and repairs' and 'government and other services'. In the last quarter of 2002 and the first quarter of 2003 the general slowdown in the service sector has been due to lower growth in all service industries.

External measures of output

External measures for both the manufacturing and service sectors were consistent with a more significant weakening in the economy in the first quarter of 2003 than were reflected in the official figures. Moreover, those that have come out for the period since the war in Iraq point to only a small rebound at best.

Figure 7
External Manufacturing
balances

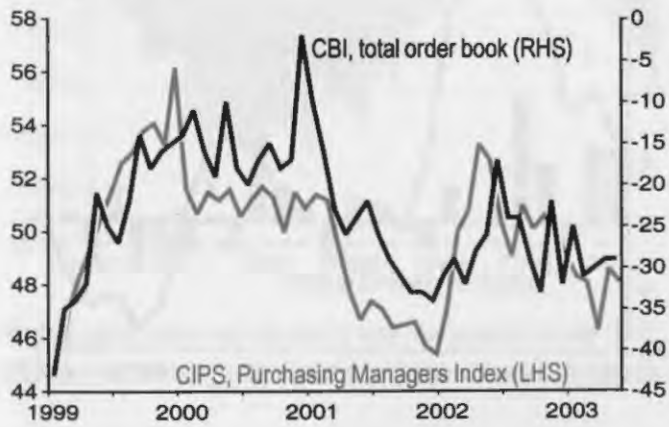


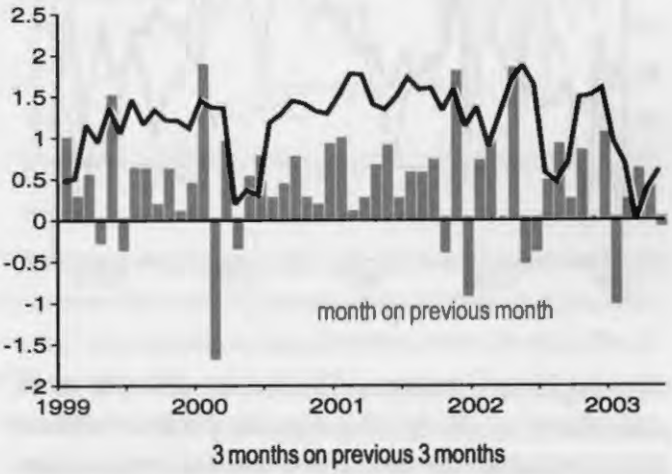
Figure 7 contains information from both the CBI's industrial trends survey and the Chartered Institute of Purchasing and Supply (CIPS) survey of manufacturing. Neither of these points to a significant renewed rise in activity. The latest CBI survey reported no sign of a recovery in orders or output and said that firms expected output to decline modestly over the next four months. The CIPS survey presented a similar story, showing that May saw a further deterioration in both output and new orders.

Household demand

National Accounts figures for the first quarter of 2003 show a slowdown in consumer spending growth to only 0.2 per cent when compared with the previous quarter and 3.1 per cent on a year ago. This is an abrupt deceleration from 2002, which saw fourth quarter growth of 1.0% and 3.7% for last year as a whole. The question now is whether this is just a temporary downward blip or the start of a long term adjustment in consumer spending. There are mixed signals on this.

So far at least retail sales data for the second quarter certainly does not point to a further deceleration in spending but equally they cannot be described as signalling a renewed pick up. Sales declined slightly in May, by 0.1 per cent but this followed a rise of 0.4 per cent in April. For the latest three months as a whole against the previous three months growth stands at 0.6 per cent and compared with a year ago it is 3.3 per cent. The pace of growth has clearly slowed from last year, when the annual rate of growth for December was 6 per cent but could still fairly be described as moderate rather than weak (figure 8).

Figure 8
Retail Sales
growth

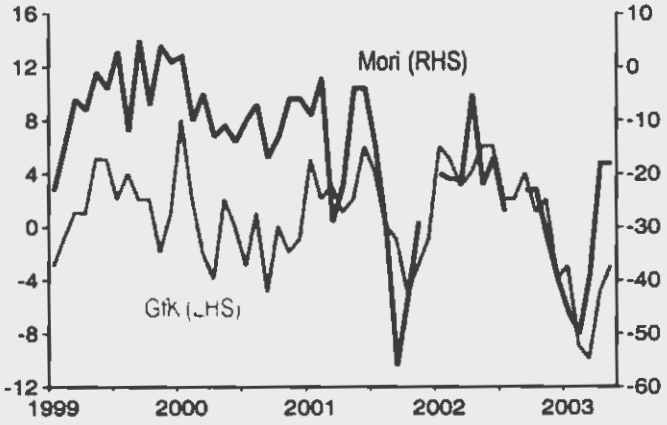


3 months on previous 3 months

Support for the idea that consumer spending is stabilising rather than collapsing is provided by the consumer confidence figures. These are sharply lower this year but have showed signs of recovering over the

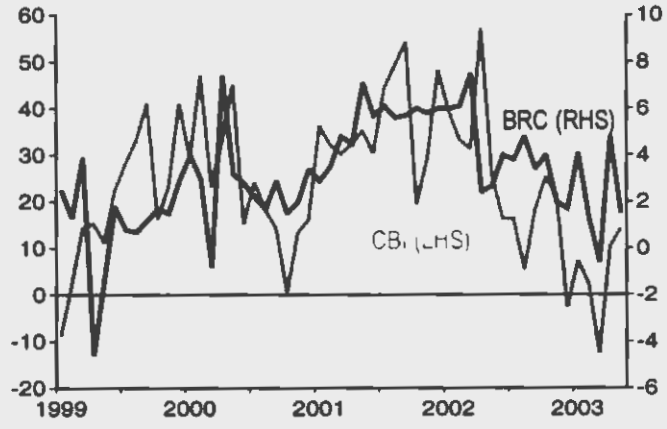
past couple of months. Care has to be used in analysing these, as there seems to be a pronounced war effect upon confidence but overall the message seems to be that while confidence is currently lower than last year it is still quite high when compared with all but the very recent past (figure 9).

Figure 9
Consumer Confidence
index



Other external figures such as the CBI and British Retail Consortium (BRC) surveys fail to clarify the picture, as they have both been quite volatile and sometimes contradictory of late. For example, while the CBI distributive trends survey was quite strong in May, the BRC retail sales monitor reported a weakening trend to sales over the month (figure 10).

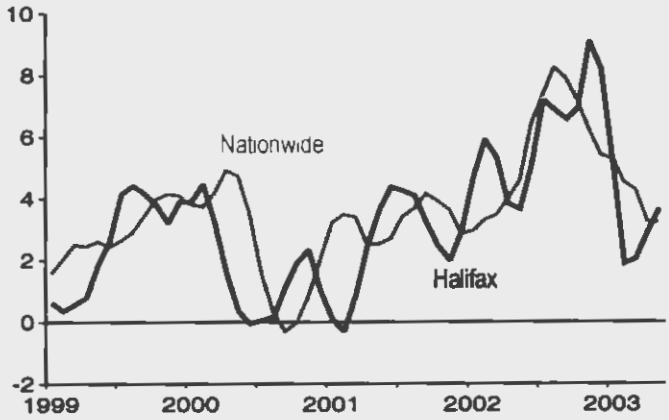
Figure 10
External retailing
Balance
Like for like increase



The prolonged period of high growth in consumer credit shows that the present level of consumer demand is supported by continued addition to the stock of household debt. Debt to income ratios remain at historic highs. As a result household demand is at least partly dependent on banks and building societies' willingness to lend and on households continuing to be willing to take on more debt and to be able to meet the interest payments on previous and new borrowing. Many emphasise though that with interest rates low these debt servicing costs continue to remain relatively low.

Part of this continued willingness to take on additional debt appears to be related to the very strong growth of house prices through 2002. The Halifax figures for example show annual inflation in the year to May of at 22.7 per cent down from 23.6 per cent in the previous month and the Nationwide figures show a similar rate of deceleration, 22.1 per cent in the year to May respectively. So far the market appears to be cooling rather than collapsing but is likely to be less of a support to consumer spending than it has been in recent years (figure 11).

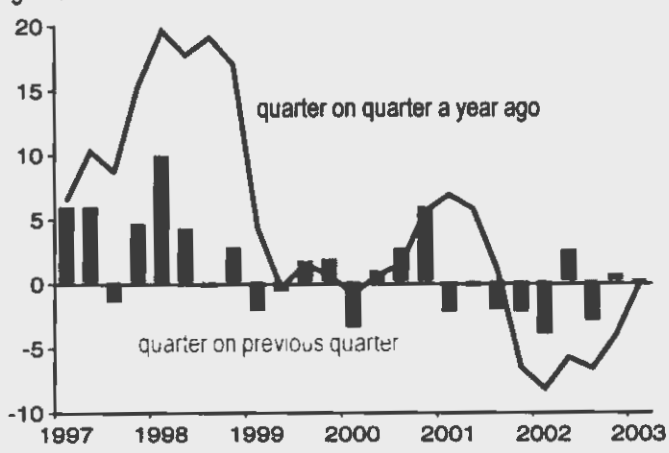
Figure 11
House prices
growth:3 months on previous 3 months



Business demand

Business investment seemed to have stabilised in 2002 after substantial declines in 2001. The first quarter of 2003 saw fixed investment stagnate both compared with the last quarter of 2002 and with the same quarter a year ago (Figure 12).

Figure 12
Business investment
growth



Disaggregated investment figures show that falls in investment, relative to a year ago reflect a by now familiar picture. Weakness is still primarily due to cut backs in machinery and equipment spending, which has been partially offset by positive growth in transport equipment and by strong growth in construction both of new dwellings and of other buildings. The quarterly growth rates for quarter one however, hint at a turnaround in this trend as investment in construction activity shows signs of weakening, while machinery and equipment investment is falling by less than before. External indices as yet though show no pick up in investment intentions.

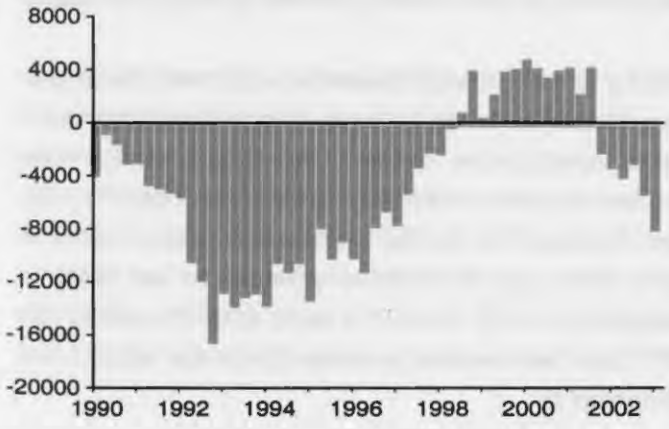
The financial situation of the private non-financial corporation (PNFC) sector is recovering although it still faces a large, albeit shrinking level of debt. The latest figures for first quarter of 2003 shows the sector with net liabilities of £1019 billion. This resumed the downward trend in indebtedness, after what now seems to have been a temporary setback in the last quarter of last year, from a peak in 1999.

Government demand

Government demand continues to grow at a relatively robust pace, posting 2.5 per cent constant price growth in the first quarter of 2003, a higher figure than given in the initial estimate. Compared with the first quarter of 2002, government demand was also up 2.5 per cent. In cash terms government expenditure has grown by 9.5 per cent in the year to the first quarter.

The ongoing growth in government expenditure has come as revenue growth is slowing, reflecting the slowdown in the economy. The effect is that the central Government sector has returned to net borrowing for five consecutive quarters, following thirteen quarters of net lending.

Figure 13
Central Government Net Lending
£m



Monthly public sector net borrowing data now extends to May 2003. May saw net borrowing of £6.4bn, a slightly higher number than for the same month of last year. As the April figure was also revised up this leaves borrowing for the fiscal year to date at £7.8 billion, compared with a total of £7.4 billion at this stage in 2002-03. The return to net borrowing is clearly shown in figure 13.

Imports

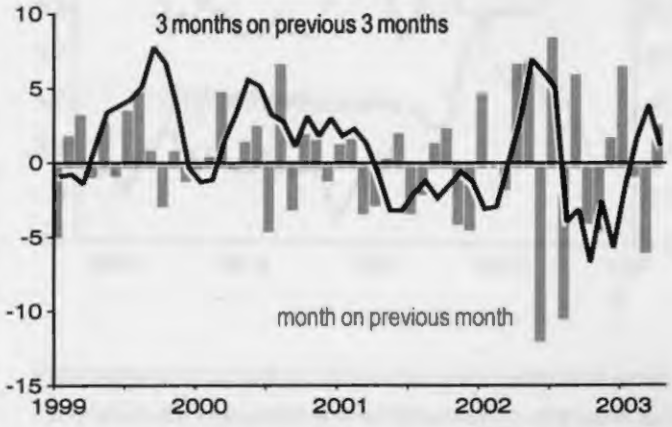
Total imports rose at a 0.7 per cent quarterly rate in the first quarter of 2003, adding up to another substantial drag upon GDP.

Monthly goods figures are available up to April. These show that imports from the EU fell in the first quarter of 2003 then staged a partial recovery in April, but the latest 3 months are still only up by 0.4 per cent when compared with a year ago. Imports from outside the EU fell again in April and for the latest 3 months are down 0.7 per cent when compared with a year ago.

Overseas Demand

After strengthening in the first half of last year, exports subsequently fell back in the second half. The first quarter of 2003 has however, seen some signs of a recovery. Exports are now estimated to have grown by 2.2 percent over the quarter leaving them up 0.9 per cent on the first quarter of last year (figure 14).

Figure 14
Goods export (volume)
growth



The improved export picture was largely due to trade outside the EU. In the three months to April exports (excluding erratics) to non-EU countries rose by 7.8 per cent when compared with the previous three months and 12.5 per cent when compared with a year ago. In contrast exports (excluding erratics) to the EU region fell 4.3 per cent over the same three month period and by 11.1 per cent compared with a year ago. It remains to be seen, whether sterling's recent performance of being weak against the euro but relatively strong against other currencies makes a substantial difference to this pattern.

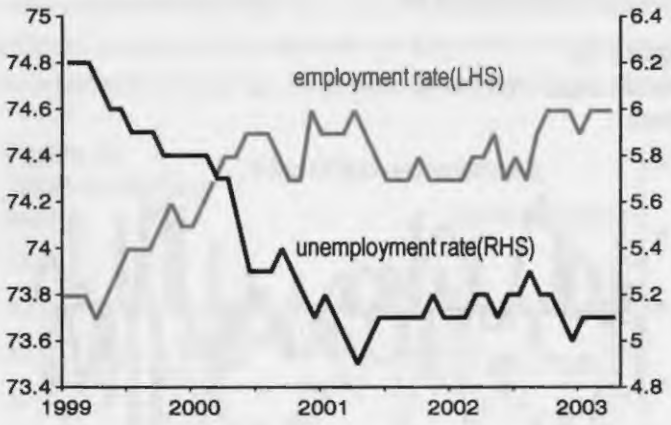
The UK current account of the balance of payments was in surplus in the first quarter of 2003, the first quarter of surplus since 1998. This surplus reflected a deficit on the balance of trade in goods and services, being more than offset by a large rise in the net income from overseas. This rise on the quarter seems to be particularly associated with an improved profit performance by oil companies.

Labour Market

Headline labour market statistics continue to remain fairly stable.

From the perspective of employment, the labour force survey (LFS) employment rate was 74.6 per cent in Feb-Apr little changed over the quarter, while the LFS count of employment increased by 51,000 over the same period. Similarly employer survey 'workforce jobs' data has shown a modest rise of 45,000 in March 2003 compared with December. From the perspective of unemployment, the ILO rate was 5.1 per cent in Feb-Apr (figure 15), the same as a year ago, and the claimant count rate, at 3.1 per cent in May, has been unchanged for more than a year.

Figure 15
Labour Force Survey



Full-time employment has grown less quickly than part-time employment of late. In the three months to April full time employment actually fell by 0.3 percent leaving it up only 0.1 per cent compared with a year ago, while part-time employment rose by 1.7 per cent leaving it up 3.1 per cent on the year.

The industry dis-aggregation from 'workforce jobs' figures shows that the manufacturing sector continues to lose jobs, whilst echoing the output data the main sources of job creation have been 'public administration, health and education', construction and 'distribution, hotels and restaurants'. In the year to March manufacturing lost 125,000 jobs, whilst services gained 208,000 of which 157,000 were in been 'public administration, health and education' and 63,000 in 'distribution, hotels and restaurants'.

Many recent job gains continue to be in self-employment. According to workforce jobs data, over the year to April, self-employed jobs have increased by 185,000 and 'employee jobs' rose by 82,000.

The average earnings index points to continued weakness in wage gains. In April 2003 the headline rate was 3.2 per cent, down on the figure of around 3.8 per cent that was the case for much of 2002 and well below the 4.5 per cent figure that the Bank of England consider broadly consistent with their inflation target.

Prices

Producer price inflation declined further from its recent peak in March. Output prices were flat on the month following a 0.3 per cent fall in April, this leaves them up only 1.3 per cent when compared with the same month in the previous year. Input prices also fell marginally by 0.3 per cent on the month, following a much bigger fall of 2.5 per cent in April, leaving them up 1.1 per cent compared with a year ago. The slide in input price inflation from its peak is largely explained by the dip in oil prices. Excluding this input prices were up slightly on the month and underlying input prices (i.e. excluding food, beverages, tobacco and petroleum) are still up 2.4 per cent compared with a year ago. Lower out-turns for output price inflation compared with input price inflation suggests that profit margins are still under pressure, although the slide in the pound may help to partially alleviate this.

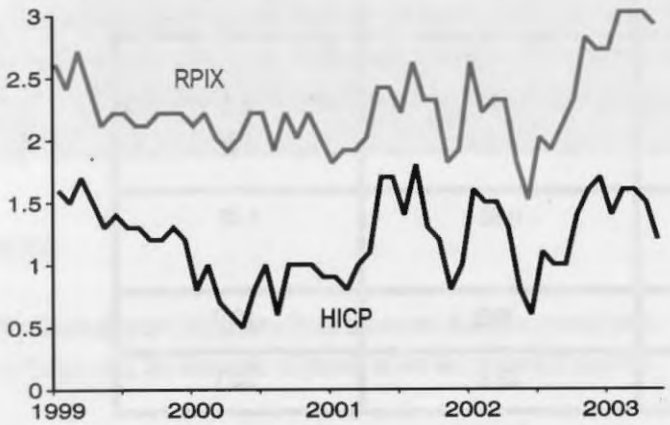
Consumer price inflation has also picked up a little in recent months, but the latest data for May seems to confirm that this too is now on the wane. The Government's current target measure RPIX was 2.9 per cent in May, down by 0.1 per cent when compared with April's rate, while the RPI was also down 0.1 per cent at 3.0 per cent. The fact that RPI inflation failed to pick up further despite hefty rises in council taxes suggests that there is little in the way of underlying inflationary pressure in the economy.

Much of the recent increases has been due to increases to the depreciation of housing component that are due to house price increases and to effects from oil price rises. The former effect case can be seen by comparing the recent performance of the harmonised index of consumer prices (HICP) with the RPIX. The HICP is an alternative measure of consumer price inflation, originally developed by Eurostat and used as a target measure by the ECB. The HICP for the UK is currently well below the RPIX and in May the annual percentage change stood at only 1.2 per cent (figure 16).

While there are a number of differences between the RPIX and the HICP the biggest single contributor to the difference between the two at present

is that the HICP does not contain a measure for house price inflation. The government recently announced that subject to confirmation in the November Pre-Budget Report it intends to adopt the HICP as its preferred target measure of inflation.

Figure 16
Prices
growth, month on a year ago



Forecasts for the UK Economy

A comparison of independent forecasts, June 2003

The tables below are extracted from HM Treasury's "FORECASTS FOR THE UK ECONOMY" and summarise the average and range of independent forecasts for 2003 and 2004, updated monthly.

	Independent Forecasts for 2003		
	Average	Lowest	Highest
GDP growth (per cent)	1.8	0.4	2.5
Inflation rate (Q4: per cent)			
- RPI	2.6	1.8	3.8
- RPI excl MIPs	2.6	1.9	3.5
Unemployment (Q4, mn)	0.98	0.86	1.09
Current Account (£ bn)	-18.1	-39.3	-10.0
PSNB *(2003-04, £ bn)	30.4	23.8	35.1

	Independent Forecasts for 2004		
	Average	Lowest	Highest
GDP growth (per cent)	2.4	-0.6	3.1
Inflation rate (Q4: per cent)			
- RPI	2.7	1.7	4.0
- RPI excl MIPs	2.3	1.5	3.0
Unemployment (Q4, mn)	1.01	0.74	1.30
Current Account (£ bn)	-18.2	-40.9	-2.0
PSNB* (2004-05, £ bn)	32.6	26.0	43.5

NOTE: "FORECASTS FOR THE UK ECONOMY" gives more detailed forecasts, covering 27 variables and is published monthly by HM Treasury, available on annual subscription, price £75. Subscription enquiries should be addressed to Claire Coast-Smith, Public Enquiry Unit 2/S2, HM Treasury, 1 Horse Guards Road, London SW1A 2HQ (Tel: 020-7270 4558). It is also available at the Treasury's internet site: http://www.hm-treasury.gov.uk.

* PSNB: Public Sector Net Borrowing.

International Economic Indicators - July 2003

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Overview

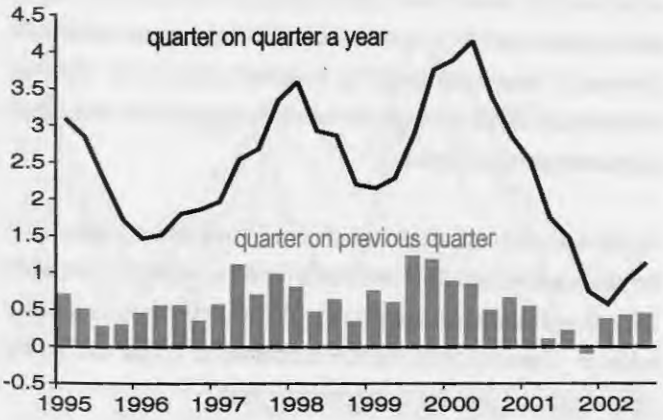
Output contracted in Germany and Italy in the first quarter driven mainly by low or falling investment and negative contributions from trade. The Japanese economy stalled in quarter one, while growth in the US was fairly subdued. Consumer demand is still weak in most major economies although it made modest contributions to quarterly GDP. Trade also slowed from a strong quarter two in 2002 and investment demand is still at best weak or in decline in most major economies. The decline in industrial output was reversed in most major economies in quarter one. Unemployment is flat or inching up in most economies and employment growth is weakening. Inflationary pressure has lessened in major economies as oil prices fell in April.

EU15

The latest data for 2002 quarter three shows that the EU economy grew by 0.4 per cent, the same rate of growth as the two preceding quarters.

EU GDP has been subdued since the start of 2001(figure 1). The main drivers of this in 2001 had been falls in investment and exports. In 2001 quarter four GDP declined for the first time since 1993 quarter one. A demand breakdown shows a strengthening in consumer expenditure and exports over the last two quarters. Investment demand also made a modest contribution to quarterly GDP after six consecutive quarters of contraction.

Figure 1
GDP: EU15
growth



As with GDP, industrial production in the EU has been subdued since 2001, when the index grew by just 0.1 per cent. For 2002 as a whole, the index fell by 1.0 per cent. In 2003 quarter one, the index grew by 0.5 per cent following strong monthly changes in January and February, partially offset by a fall in March. This growth came after a contraction in the index in the previous quarter also of 0.5 per cent.

Consumer price inflation rose in the EU in the last quarter of 2002, with growth reaching 2.5 per cent in December up from 1.8 per cent in June. April 2003 figures show consumer price inflation slowing slightly to 2.3 per cent from 2.4 per cent in the previous month. Prices at the factory gate were falling for the first half of 2002, but started rising in the second half of 2002. However annual growth in the index slowed considerably in April to 1.0 per cent from 1.9 per cent in the previous month.

EU employment figures continue to show growth, although at a lower rate. Annual growth in the year to the third quarter was 0.5 per cent. The unemployment rate however is inching up with 8.1 per cent of the workforce unemployed as of April up from a trough of 7.3 per cent in the second quarter of 2001.

Annual earnings showed growth in the year to the third quarter, of 3.3 per cent, following growth in the second quarter of 2.5 per cent and 3.4 per cent in the first quarter; the figures are volatile.

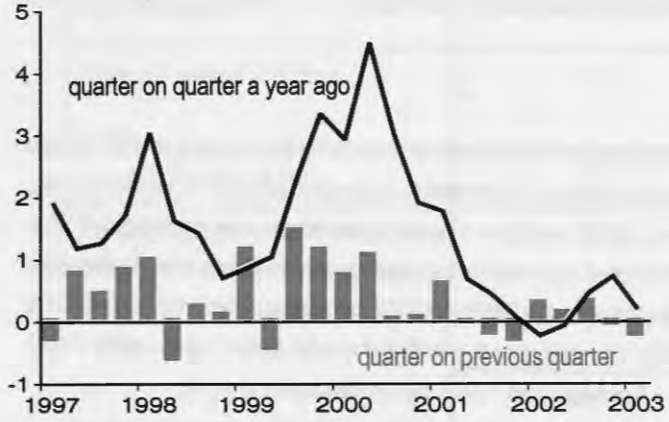
Germany

The German economy contracted by 0.2 per cent in the first quarter of 2003, having posted no growth in the previous quarter (figure 2). Overall GDP grew by just 0.2 per cent for 2002 as a whole compared with 0.8 per cent in 2001.

The negative GDP in 2003 quarter one was mainly due to negative contributions from trade (as imports grew faster than exports) and investment, which have been the main causes of the global slowdown in 2001/2002, partially offset by a modest increase in private consumption. More generally however there had been a lack of any appreciable domestic momentum in the German economy. Household consumption made a negative contribution of 0.3 per cent in 2002 and investment

expenditure has been in decline, showing contractions in annual growth in both 2001 and 2002. Government demand has made only small contributions in recent years and did not make any contribution to GDP in quarter one. The impetus that came mainly from exports in 2002 quarters two and three has slowed considerably in the last two quarters. Germany's growth rate remains below the EU average with quarterly GDP being below the quarterly GDP growth rate of the EU as a whole in every quarter of 2002.

Figure 2
GDP: Germany
growth



The IOP on the other hand grew strongly in quarter one by 1.4 per cent rebounding from a 0.5 per cent contraction in the previous quarter. This was dominated by a very large monthly increase in January of 2.6 per cent. Growth in the index has been subdued since 2001, when it grew by only 0.5 per cent, compared to growth of 6.2 per cent in 2000. Overall in 2002, the index fell by 1.1 per cent

The CPI shows consumer prices growing by 0.9 per cent in the year to April lower than the 1.2 per cent increase in prices in March. This is the smallest increase in the index since October 1999. Germany has the lowest consumer price inflation of the large Euro economies. Figures for the PPI for the same period show prices at the factory gate increasing by 1.6 per cent in the year to April, a slight reduction of 0.1 percentage points over the previous month. The deceleration in the growth of both indices may reflect the fall in oil prices.

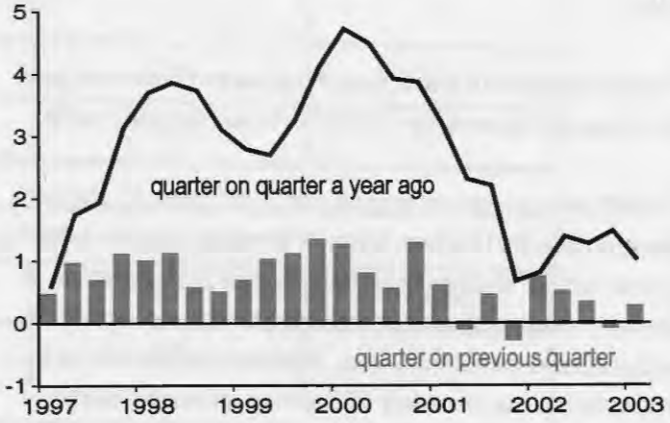
Unemployment in Germany continues to increase steadily, with the rate in April at 9.4 per cent, the highest rate since April 1998 and up from 8.0 per cent at the start of 2002. There has been a gradual increase in the unemployment rate from the recent trough of 7.6 per cent in quarter one 2001. Similarly employment growth contracted for the fifth consecutive quarter in the last quarter of 2002, with annual growth figures for the quarter showing a decline of 0.9 per cent, accelerating from a decline of 0.7 per cent in the previous quarter.

Having hovered between 1.0 per cent and 1.1 per cent between 2001 quarter three and 2002 quarter two and despite the increase in unemployment, earnings growth has picked up in the year to the fourth quarter, growing by 2.4 per cent, the largest growth in earnings since 2000 quarter four.

France

GDP growth in the first quarter of 2003 was 0.3 per cent having contracted by 0.1 per cent in the previous quarter (figure 3). Overall in 2002, the economy grew by 1.2 per cent, the lowest growth rate since 1996.

Figure 3
GDP: France
growth



The French economy has slowed significantly over the last two years, in line with global trends, although it outperformed the EU in the first two quarters of 2002. France's performance has been helped by recent income tax cuts, which has underpinned growth in disposable income and consumer spending. In quarter one, GDP was supported by small increases in household spending, investment and stocks. However falling exports meant that trade did not add to quarterly GDP and neither did government consumption.

As with Germany, industrial production in France grew considerably in the latest quarter, by 0.9 per cent due to significant monthly increases in January and February. It was also strongly influenced by energy output in March. Overall in 2002, the IOP contracted by 1.0 per cent having expanded by 1.1 per cent in the previous year.

Consumer price inflation has risen steadily since the second half of 2002 and this has continued into the first half of 2003. However inflation slowed in April to 2.0 per cent from 2.6 per cent in the previous month. This slowdown reflects a fall in oil prices offset by a rise in fresh food products and services. Producer prices have also been rising since the second half of 2002, having fallen in the first half of the year. Producer price inflation increased from 0.7 per cent in February to 0.9 per cent in March.

The French unemployment rate, like that in most major economies has also been rising steadily over the past year. It now stands at 9.1 per cent of the workforce in April. This is the same as the previous month and the highest rate since August 2000. Employment growth also continued its slowdown in the fourth quarter of 2002, with an annual rate of 0.4 per cent, well down on growth of 2.3 per cent at the start of 2001.

Following on from the labour market conditions, annual earnings growth continued to ease, slowing from 4.1 per cent in the fourth quarter of 2001 to 3.4 per cent in the fourth quarter of 2002.

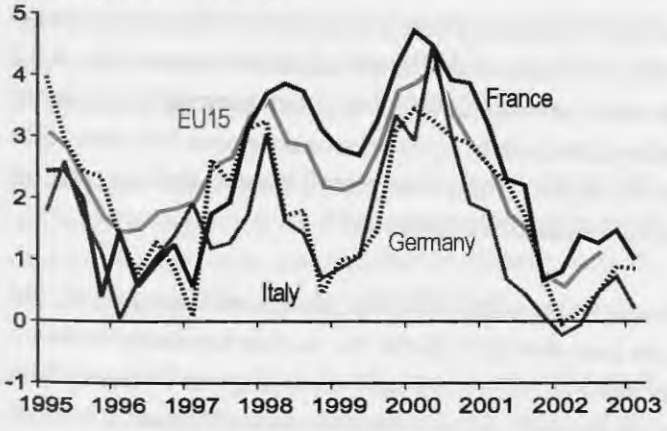
Italy

Data for 2003 quarter one shows the Italian economy contracting by 0.1 per cent after growing by 0.4 per cent in the previous quarter. Overall in 2002, the economy grew by 0.3 per cent compared to growth of 1.8 per cent in the previous year and 3.2 per cent in 2000.

Although a breakdown of the components of quarterly GDP are not available with this dataset, data from other sources show a fall in investment, the pace of growth in household expenditure slowed from the previous quarter. A fall in exports saw trade make a negative contribution to quarterly GDP. These contributions are offset slightly by government spending. More generally, Italy has had one of the lowest annual growth rates in EU15 over the last few years (figure 4).

The IOP contracted in the first quarter of 2003 by 0.6 per cent making two consecutive quarters of contraction in the index. Industrial production contracted for all four quarters of 2001. Annual figures show that for 2002 as a whole, the index contracted by 1.4 per cent, following a fall of 1.0 per cent in the previous year. More generally, the IOP has declined in Italy in three years out of the last five.

Figure 4
GDP: EU15, Germany, France & Italy
growth, quarter on a year ago



Inflation in Italy was 2.7 per cent in April, the same as the previous month, up slightly on February's 2.6 per cent. The fall in oil prices is likely to have impacted on the latest figure. A similar fall can also be seen in producer prices with the PPI at 2.0 per cent in April down from 2.8 per cent in the previous month.

Figures on the Italian labour market show unemployment in 2002 broadly flat at 9.0 per cent, but an improvement on 9.5 per cent in 2001. Employment growth was 0.8 per cent in the year to the first quarter of 2003 down from growth of 0.9 per cent in the year to quarter four of 2002.

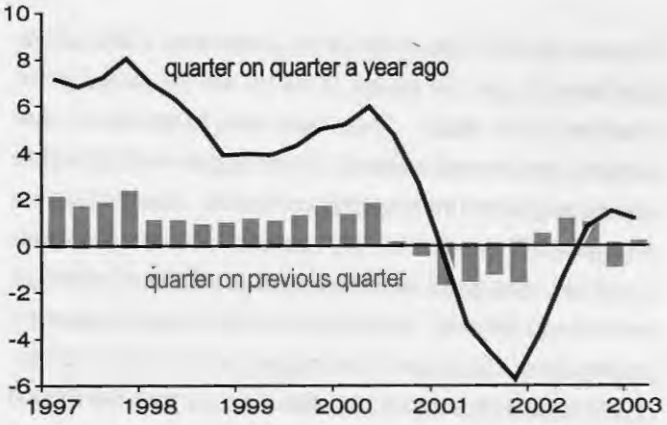
Earnings growth picked up in the year to the fourth quarter of 2002 to 2.8 per cent, but has now fallen back a touch in the first quarter of 2003 to 2.5 per cent but the figures are volatile from quarter to quarter.

USA

The latest figures for the US economy for 2003 quarter one show the economy growing by 0.5 per cent, following growth in the previous quarter of 0.3 per cent.

Growth in 2003 quarter one was driven by personal consumption, which was also the main driver throughout 2002. Growth was also impacted positively by the substantial decline in imports, which had been fairly strong especially in 2002 quarter two. However all other contributors to quarterly GDP growth were weak or negative and the impetus of the early quarters of 2002 seems to have stalled. More generally, quarterly GDP growth in 2002 has been well below growth rates seen in the 1990s although performance has been better than in every quarter in 2001 except quarter four. Overall, growth in 2002 was 2.4 per cent, driven mainly by strong consumer spending (stimulated in part by interest free credit on car deals) and strong government demand.

Figure 5
IOP : USA
growth



The index of production which contracted in 2002 quarter four by 0.9 per cent unlike the other quarters of that year has expanded slightly in quarter one due mainly to fairly strong growth in the index in January of 0.6 per cent (figure 5). Overall in 2002, the index contracted by 0.8 per cent which although negative is an improvement over the previous year's 3.5 per cent contraction.

Inflationary pressures had remained subdued since January 2002 and only started increasing in October. This increase has been more marked since January 2003. Inflation rose from 2.6 per cent in January to 3.1 per cent in March, the highest rate since June 2001. However the inflation rate fell considerably in April to 2.2 per cent as the effect of previous high oil prices drops out. Similarly, producer prices growth have fallen substantially from 4.6 per cent in March (the highest rate since June 2000) to 1.9 per cent in April.

The US saw a sharp increase in unemployment in 2001 from 4.1 per cent in January to 5.8 per cent in December. The deterioration stopped in the first three months of 2002, but the volatility in the figures since then offers no clear signs of recovery. The latest data shows the unemployment rate rising to 6.0 per cent in December, falling back slightly in the first three months of 2003 and then returning to 6.0 per cent in April. Annual figures show that for 2002, unemployment was 5.8 per cent, up from 4.8 per cent in the previous year.

Average earnings growth in the year to the first quarter was 2.7 per cent, the same as the previous quarter but down from growth of 4.0 per cent at the start of 2002. Earnings growth has declined continuously since the start of 2002 possibly due to the deterioration in labour market conditions, which began in 2001.

Japan

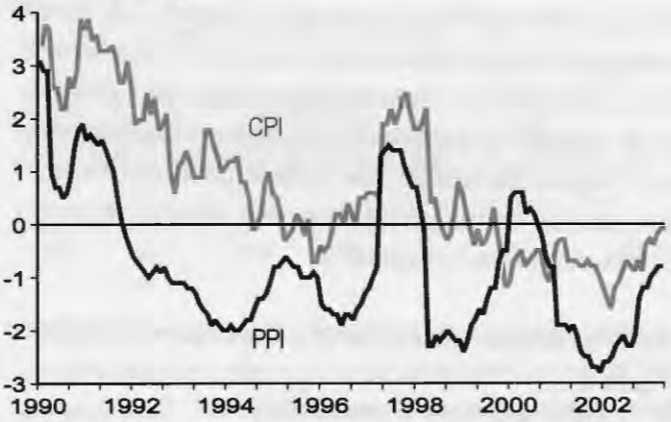
The Japanese economy did not grow in the first quarter of 2003. This followed growth of 0.5 per cent in the fourth quarter of 2002.

Components of GDP growth for the first quarter show a fall in exports (due largely to poor car exports to the US and the general global slowdown) and in stocks. These were offset by positive but slow consumer spending and investment. Growth in government expenditure was unchanged from the preceding two quarters. Japan has had low or negative GDP growth since 1997 (except in 2000 when growth was 2.8 per cent, although this was still below the growth rates of most major economies for that year). Annual figures for 2002 shows the economy growing by just 0.2 per cent. The stronger growth in the later quarters of 2002 has been driven by a combination of stronger consumer demand (although this fell back again in 2002 quarter four), substantial stockbuilding in quarters two and three and a fairly strong rebound in exports.

The index of production grew by 0.4 per cent in quarter one following growth of 0.5 per cent in the previous quarter. The index has grown in every quarter since the last quarter of 2001. This performance is a significant improvement over 2001 when the index contracted in all four quarters. Overall in 2002, the index contracted by 1.3 per cent, which, although negative, is a substantial improvement over the previous year's contraction of 6.2 per cent.

Consumer and producer price falls continue the deflation that began in mid-1998, although price falls have been slowing down since the beginning of 2003 (figure 6). Figures for the year to April show the consumer prices index declining by 0.1 per cent the same as the previous month. Producer prices also show a similar story.

Figure 6
CPI & PPI: Japan
month on a year ago



The slight improvement in the unemployment rate in February was reversed in March and April with the rate now 0.2 percentage points higher at 5.4 per cent of the workforce. Recent rates of unemployment are very high by historical standards for Japan (unprecedented since 1960 when OECD records began). Employment growth is negative, declining by 0.8 per cent in the year to 2003 quarter one.

Despite the present unemployment situation, earnings growth declines have been reversed in quarter four to show a moderate increase in earnings of 0.1 per cent in the year to the fourth quarter. This is a significant improvement over the previous quarter when earnings were 2.2 per cent lower than in the same quarter of the previous year.

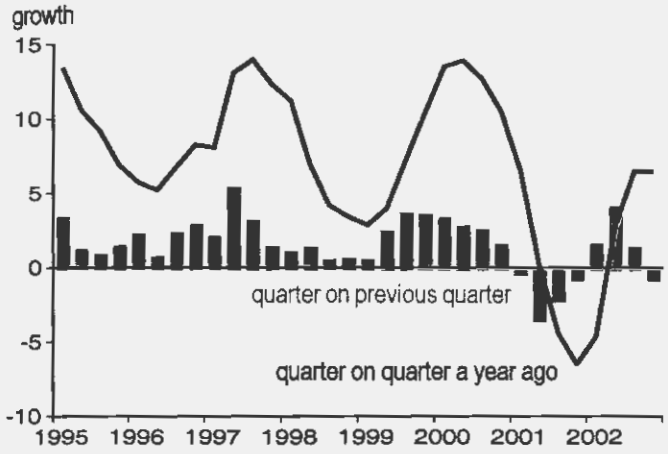
World Trade

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

of 2002.

Manufacturing exports of OECD countries contracted by 0.7 per cent compared to growth of 1.3 per cent in the previous quarter. While import of manufactured goods into the OECD area slowed considerably from a quarterly growth rate of 1.9 per cent in quarter three to 0.7 per cent in quarter four.

Figure 7
OECD exports of manufactures



Notes

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

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

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

1 European Union 15

	GDP	Contribution to change in GDP: PFC	GFC	GFCF	ChgStk[1]	Exports	less Imports	IoP	Sales	CPI	PPI	Earnings	Empl	Unempl
Percentage change on a year earlier	ILGB	HUDS	HUDT	HUDU	HUDV	HUDW	HUDX	ILGV	ILHP	HYAB	ILAI	ILAR	ILIJ	GADR
1998	2.9	1.9	0.3	1.3	0.4	2.1	3.1	3.8	2.9	1.7	–0.4	2.8	1.9	9.4
1999	2.8	2.1	0.4	1.1	–0.2	1.8	2.4	1.8	1.9	1.2	–	2.7	1.9	8.7
2000	3.6	1.8	0.4	1.0	–0.1	4.3	3.9	4.6	2.3	2.4	4.6	3.3	1.9	7.8
2001	1.6	1.3	0.4	–	–0.4	0.9	0.6	0.1	2.4	2.4	1.3	3.0	1.3	7.4
2002	..	..	..	..	..	..	..	–1.0	0.9	2.1	0.2	..	..	7.7
1999 Q4	3.8	2.1	0.4	1.2	–	3.3	3.4	4.2	2.5	1.6	2.2	2.7	1.8	8.4
2000 Q1	3.9	1.8	0.4	1.1	–0.1	4.3	3.7	4.3	2.3	2.1	4.1	3.6	1.7	8.1
Q2	4.1	2.2	0.4	1.2	–	4.4	4.1	5.5	3.5	2.1	4.6	3.6	1.9	7.9
Q3	3.4	1.8	0.4	1.0	–	4.3	4.1	4.6	2.1	2.5	4.9	2.6	1.8	7.7
Q4	2.9	1.5	0.4	0.9	–0.2	4.2	3.9	4.2	1.6	2.6	4.9	3.5	2.1	7.5
2001 Q1	2.5	1.4	0.4	0.5	–0.3	3.1	2.6	4.2	3.3	2.4	3.2	2.6	1.9	7.4
Q2	1.8	1.2	0.3	0.2	–0.2	1.5	1.3	0.5	2.4	2.8	2.4	3.4	1.4	7.3
Q3	1.5	1.2	0.4	–0.1	–0.4	0.2	–0.2	–0.7	2.5	2.5	0.8	3.4	1.2	7.4
Q4	0.8	1.2	0.4	–0.4	–0.7	–1.1	–1.4	–3.5	1.4	2.0	–0.9	2.5	0.8	7.4
2002 Q1	0.6	0.7	0.5	–0.6	–0.1	–1.1	–1.2	–3.1	0.4	2.2	–0.6	3.4	0.7	7.5
Q2	0.9	0.7	0.6	–0.7	–0.3	0.2	–0.4	–1.0	0.6	1.9	–0.3	2.5	0.7	7.6
Q3	1.1	0.8	0.5	–0.4	–0.1	1.1	0.8	–0.4	1.2	1.9	0.3	3.3	0.5	7.7
Q4	..	..	..	..	..	..	..	0.8	1.5	2.4	1.2	..	..	7.8
2003 Q1	..	..	..	..	..	..	..	0.7	0.5	2.5	1.9	..	..	8.0
2002 May	..	..	..	..	..	..	..	–1.0	0.9	1.9	–0.4	..	..	7.6
Jun	..	..	..	..	..	..	..	–1.3	–	1.8	–0.4	..	..	7.7
Jul	..	..	..	..	..	..	..	0.1	1.8	1.9	0.2	..	..	7.7
Aug	..	..	..	..	..	..	..	–1.3	0.9	1.9	0.4	..	..	7.7
Sep	..	..	..	..	..	..	..	–0.2	0.9	1.9	0.5	..	..	7.7
Oct	..	..	..	..	..	..	..	0.9	3.6	2.2	1.0	..	..	7.8
Nov	..	..	..	..	..	..	..	1.7	0.9	2.5	1.1	..	..	7.8
Dec	..	..	..	..	..	..	..	–0.2	–	2.5	1.4	..	..	7.8
2003 Jan	..	..	..	..	..	..	..	0.8	1.8	2.4	1.6	..	..	7.9
Feb	..	..	..	..	..	..	..	1.6	1.8	2.6	2.0	..	..	8.0
Mar	..	..	..	..	..	..	..	–0.1	–1.8	2.4	1.9	..	..	8.0
Apr	..	..	..	..	..	..	..	..	..	2.3	1.0	..	..	8.1

Percentage change on previous quarter	ILGL	HUDY	HUDZ	HUEA	HUEB	HUEC	HUED	ILHF	ILHZ	ILIT
1999 Q4	1.2	0.6	0.1	0.3	0.3	1.0	1.0	1.5	1.2	0.1
2000 Q1	0.9	0.5	0.1	0.2	–0.2	1.2	1.0	0.2	–0.3	–0.4
Q2	0.8	0.5	0.1	0.3	–	1.0	1.0	2.0	0.9	1.3
Q3	0.5	0.2	0.1	0.2	–0.1	1.0	0.9	0.9	0.3	0.7
Q4	0.6	0.2	0.1	0.2	0.1	0.9	0.9	1.1	0.6	0.4
2001 Q1	0.5	0.5	0.1	–0.1	–0.3	0.1	–0.2	0.2	1.4	–0.6
Q2	0.1	0.3	0.1	–0.1	–	–0.5	–0.3	–1.6	–	0.8
Q3	0.2	0.2	0.1	–0.1	–0.3	–0.3	–0.6	–0.3	0.4	0.6
Q4	–0.1	0.2	0.2	–0.1	–0.2	–0.4	–0.3	–1.7	–0.4	–
2002 Q1	0.4	–	0.1	–0.2	0.3	–	–0.1	0.6	0.4	–0.6
Q2	0.4	0.3	0.1	–0.1	–0.1	0.8	0.5	0.4	0.3	0.8
Q3	0.4	0.3	0.1	0.1	–0.1	0.6	0.6	0.3	0.9	0.3
Q4	..	..	..	..	..	..	..	–0.5	–	..
2003 Q1	..	..	..	..	..	..	..	0.5	–0.6	..

Percentage change on previous month	ILKF	ILKP
2002 May	–	–
Jun	–0.1	–
Jul	0.4	0.9
Aug	0.1	–
Sep	–0.2	–
Oct	–0.3	0.9
Nov	0.4	–0.9
Dec	–1.1	–0.9
2003 Jan	1.0	0.9
Feb	0.8	0.9
Mar	–1.0	–3.5
Apr	..	..

GDP = Gross Domestic Product at constant market prices
PFC = Private Final Consumption at constant market prices
GFC = Government Final Consumption at constant market prices
GFCF = Gross Fixed Capital Formation at constant market prices
ChgStk = Change in Stocks at constant market prices
Exports = Exports of goods and services
Imports = Imports of goods and services
IoP = Industrial Production
Sales = Retail Sales Volume
CPI = Consumer Prices, measurement not uniform among countries
PPI = Producer Prices (manufacturing)
Earnings = Average Wage Earnings (manufacturing), definitions of coverage and treatment vary among countries
Empl = Total Employment not seasonally adjusted
Unempl = Standardised Unemployment rates: percentage of total labour force

Source: OECD - SNA93

1 This series has been discontinued

2 Germany

	Contribution to change in GDP													
	GDP	PFC	GFC	GFCF	ChgStk	Exports	less Imports	IoP	Sales	CPI	PPI	Earnings	Empl[1]	Unempl
Percentage change on a year earlier														
	ILFY	HUBW	HUBX	HUBY	HUBZ	HUCA	HUCB	ILGS	ILHM	HVLL	ILAF	ILAO	ILIG	GABD
1998	1.7	0.9	0.4	0.5	0.3	1.8	2.2	4.2	1.0	1.0	–0.4	1.8	1.5	9.1
1999	1.9	2.0	0.2	0.8	–0.4	1.5	2.3	1.5	0.4	0.6	–1.0	2.6	0.9	8.4
2000	3.1	0.9	0.2	0.7	0.2	4.4	3.3	6.2	1.4	1.5	3.4	2.7	0.6	7.8
2001	0.8	0.9	0.2	–1.1	–0.6	1.8	0.4	0.5	1.1	1.9	2.9	1.5	0.4	7.8
2002	0.2	–0.3	0.3	–1.4	–	0.9	–0.7	–1.1	–2.5	1.5	–0.4	1.7	–0.6	8.6
1999 Q4	3.3	1.9	0.2	1.2	–0.2	3.3	3.0	4.3	0.7	1.0	0.6	3.0	0.8	8.2
2000 Q1	2.9	0.5	0.2	0.8	–0.1	4.4	2.8	5.1	–0.2	1.5	2.3	2.8	0.5	7.9
Q2	4.5	1.9	0.3	0.9	0.2	4.2	2.9	6.7	4.4	1.1	2.6	2.4	0.8	7.8
Q3	3.0	1.1	0.1	0.6	0.2	4.0	3.0	7.1	1.6	1.3	3.7	3.3	0.5	7.7
Q4	1.9	0.3	0.4	0.4	0.3	4.9	4.4	5.8	–0.1	1.8	4.5	2.4	0.8	7.6
2001 Q1	1.8	1.1	0.2	–0.4	–0.3	3.4	2.3	6.0	2.3	1.7	4.8	2.0	0.7	7.6
Q2	0.7	0.8	0.2	–1.0	–0.3	2.3	1.4	1.4	0.4	2.5	4.7	2.0	0.6	7.7
Q3	0.4	0.8	0.2	–1.5	–1.0	1.8	–0.1	–1.3	1.5	2.2	2.6	1.1	0.2	7.9
Q4	0.1	0.9	–	–1.6	–0.9	–0.2	–1.8	–3.7	0.2	1.6	0.3	1.0	–0.1	8.1
2002 Q1	–0.2	–0.3	0.2	–1.4	–0.8	–	–2.0	–3.7	–4.5	1.9	–0.2	1.1	–0.2	8.3
Q2	–0.1	–0.7	0.4	–1.8	0.1	0.6	–1.3	–1.9	–2.5	1.3	–0.9	1.0	–0.5	8.5
Q3	0.5	–0.4	0.4	–1.4	0.5	1.3	–	–0.3	–1.5	1.1	–1.0	2.1	–0.7	8.6
Q4	0.7	–0.1	0.2	–1.0	0.4	1.8	0.6	1.5	–1.5	1.2	0.5	2.4	–0.9	8.8
2003 Q1	0.2	0.7	0.1	–0.9	1.0	1.9	2.5	2.0	0.5	1.2	1.7	..	..	9.2
2002 May	..	..	..	..	..	..	..	–3.1	–2.9	1.2	–0.9	..	..	8.5
Jun	..	..	..	..	..	..	..	–1.2	–3.2	1.0	–1.1	..	..	8.7
Jul	..	..	..	..	..	..	..	–	–2.2	1.2	–1.0	..	..	8.6
Aug	..	..	..	..	..	..	..	–0.4	–1.7	1.2	–1.0	..	..	8.6
Sep	..	..	..	..	..	..	..	–0.5	–0.8	1.1	–0.9	..	..	8.7
Oct	..	..	..	..	..	..	..	0.8	1.9	1.3	0.3	..	..	8.7
Nov	..	..	..	..	..	..	..	3.8	–3.6	1.2	0.4	..	..	8.8
Dec	..	..	..	..	..	..	..	–	–2.7	1.2	0.9	..	..	8.9
2003 Jan	..	..	..	..	..	..	..	1.7	1.4	1.1	1.6	..	..	9.0
Feb	..	..	..	..	..	..	..	2.6	0.7	1.2	1.9	..	..	9.2
Mar	..	..	..	..	..	..	..	1.5	–0.7	1.2	1.7	..	..	9.3
Apr	..	..	..	..	..	..	..	..	..	0.9	1.6	..	..	9.4
Percentage change on previous quarter														
	ILGI	HUCC	HUCD	HUCE	HUCF	HUCG	HUCH	ILHC	ILHW				ILIQ	
1999 Q4	1.1	0.5	0.1	–0.1	0.2	0.7	0.3	1.5	1.9				0.6	
2000 Q1	0.7	–	0.1	0.3	–	1.4	1.0	0.7	–				–1.8	
Q2	1.1	0.8	–0.1	0.2	–	0.9	0.8	2.6	1.2				1.1	
Q3	–	–0.1	–0.1	0.2	–	0.9	0.8	2.1	–1.4				0.7	
Q4	0.1	–0.3	0.4	–0.2	0.3	1.6	1.7	0.3	0.2				0.9	
2001 Q1	0.6	0.8	–0.1	–0.6	–0.6	–	–1.0	0.9	2.4				–1.9	
Q2	–	0.5	–	–0.3	–	–0.2	–0.1	–1.8	–0.7				1.0	
Q3	–0.2	–0.1	–	–0.4	–0.7	0.4	–0.7	–0.6	–0.4				0.3	
Q4	–0.3	–0.3	0.2	–0.3	0.4	–0.3	–	–2.2	–1.1				0.6	
2002 Q1	0.3	–0.4	0.1	–0.4	–0.5	0.2	–1.3	0.9	–2.4				–2.0	
Q2	0.1	0.1	0.1	–0.7	0.8	0.4	0.6	–	1.5				0.7	
Q3	0.3	0.2	–	–	–0.3	1.1	0.7	1.1	0.6				0.1	
Q4	–	–	–0.1	0.2	0.3	0.1	0.6	–0.5	–1.1				0.4	
2003 Q1	–0.2	0.3	–	–0.4	0.1	0.3	0.6	1.4	–0.4				..	
Percentage change on previous month														
								ILKC	ILKM					
2002 May								–1.2	–0.1					
Jun								1.8	–1.0					
Jul								–0.1	0.8					
Aug								1.2	0.4					
Sep								–1.2	0.6					
Oct								–0.4	0.8					
Nov								2.1	–3.4					
Dec								–3.0	–0.5					
2003 Jan								2.6	1.0					
Feb								0.6	0.4					
Mar								–0.7	–0.7					
Apr								..	..					

GDP = Gross Domestic Product at constant market prices
PFC = Private Final Consumption at constant market prices
GFC = Government Final Consumption at constant market prices
GFCF = Gross Fixed Capital Formation at constant market prices
ChgStk = Change in Stocks at constant market prices
Exports = Exports of goods and services
Imports = Imports of goods and services
IoP = Industrial Production
Sales = Retail Sales volume
CPI = Consumer Prices measurement not uniform among countries
PPI = Producer Prices (manufacturing)
Earnings = Average Earnings (manufacturing), definitions of coverage and treatment vary among countries
Empl = Total Employment not seasonally adjusted
Unempl = Standardised Unemployment rates: percentage of total workforce

Source: OECD - SNA93

1 Excludes members of armed forces

3 France

	GDP	Contribution to change in GDP: PFC	GFC	GFCF	ChgStk	Exports	less Imports	IoP	Sales	CPI	PPI[1]	Earnings	Empl[2]	Unempl
Percentage change on a year earlier	ILFZ	HUBK	HUBL	HUBM	HUBN	HUBO	HUBP	ILGT	ILHN	HXAA	ILAG	ILAP	ILIH	GABC
1998	3.6	2.0	–	1.3	0.8	2.1	2.6	5.2	2.6	0.8	–0.9	2.2	2.0	11.4
1999	3.2	1.9	0.3	1.6	–0.3	1.1	1.5	1.9	2.4	0.5	–1.6	2.5	2.2	10.7
2000	4.2	1.6	0.7	1.7	0.5	3.5	3.8	3.6	0.5	1.7	2.1	5.2	2.8	9.3
2001	2.1	1.6	0.6	0.4	–0.7	0.6	0.4	1.1	–0.2	1.7	1.5	4.2	1.7	8.5
2002	1.2	0.8	0.9	–0.3	–0.4	0.3	0.2	–1.0	–	1.9	0.1	3.6	0.5	8.7
1999 Q4	4.1	1.9	0.6	1.7	–	2.2	2.3	4.2	2.1	1.0	–	3.4	2.5	10.2
2000 Q1	4.7	2.1	0.6	1.9	0.3	3.1	3.2	3.9	1.9	1.5	1.2	5.2	2.6	9.8
Q2	4.5	1.7	0.7	1.8	0.2	3.9	3.7	3.8	1.4	1.5	2.1	5.4	2.9	9.4
Q3	3.9	1.4	0.8	1.4	1.0	3.4	4.1	3.7	0.1	1.9	2.7	5.2	2.8	9.1
Q4	3.9	1.2	0.7	1.5	0.5	3.8	4.0	2.9	–1.3	1.9	2.4	5.0	2.7	8.8
2001 Q1	3.2	1.5	0.6	1.0	–0.3	2.7	2.4	2.9	1.1	1.2	2.5	4.3	2.3	8.6
Q2	2.3	1.5	0.6	0.5	–	0.8	0.9	1.8	–0.4	2.1	1.8	4.2	1.9	8.5
Q3	2.2	1.7	0.7	0.4	–1.0	0.1	–0.3	1.6	–0.7	1.9	1.1	4.2	1.4	8.5
Q4	0.7	1.5	0.7	–0.2	–1.4	–1.4	–1.5	–1.9	–0.8	1.4	0.6	4.1	1.1	8.5
2002 Q1	0.8	0.9	0.9	–0.3	–0.4	–0.9	–0.6	–1.6	–1.6	2.2	–0.2	3.9	0.7	8.6
Q2	1.4	0.9	1.0	–0.1	–0.8	0.5	0.1	–0.7	–0.6	1.6	–0.1	3.9	0.5	8.7
Q3	1.3	0.6	0.9	–0.3	–0.1	0.7	0.5	–1.9	1.0	1.8	0.3	3.5	0.5	8.8
Q4	1.5	0.8	0.9	–0.4	–0.1	1.1	0.7	0.1	1.0	2.2	0.3	3.4	0.4	8.9
2003 Q1	1.0	1.0	0.6	–0.3	–0.2	0.4	0.5	0.9	–0.8	2.4	0.7	..	..	9.0
2002 May	..	..	..	..	..	..	..	–0.7	2.0	1.5	–0.1	..	..	8.7
Jun	..	..	..	..	..	..	..	–1.0	–3.1	1.5	–0.1	..	..	8.7
Jul	..	..	..	..	..	..	..	–1.8	1.7	1.7	0.3	..	..	8.8
Aug	..	..	..	..	..	..	..	–2.8	2.7	1.8	0.4	..	..	8.8
Sep	..	..	..	..	..	..	..	–1.1	–1.3	1.8	0.4	..	..	8.8
Oct	..	..	..	..	..	..	..	–0.4	3.0	1.9	0.4	..	..	8.8
Nov	..	..	..	..	..	..	..	0.9	2.1	2.2	0.3	..	..	8.9
Dec	..	..	..	..	..	..	..	–0.3	–1.8	2.3	0.4	..	..	8.9
2003 Jan	..	..	..	..	..	..	..	0.7	3.0	2.0	0.5	..	..	9.0
Feb	..	..	..	..	..	..	..	1.8	–0.7	2.6	0.7	..	..	9.0
Mar	..	..	..	..	..	..	..	0.5	–4.6	2.6	0.9	..	..	9.1
Apr	..	..	..	..	..	..	..	..	2.1	2.0	..	..	..	9.1

Percentage change on previous quarter	ILGJ	HUBQ	HUBR	HUBS	HUBT	HUBU	HUBV	ILHD	ILHX	ILIR
1999 Q4	1.3	0.5	0.3	0.4	0.6	0.6	1.0	2.2	1.0	0.7
2000 Q1	1.2	0.4	0.2	0.6	0.1	1.0	1.1	–0.3	–0.2	0.8
Q2	0.8	0.2	0.2	0.4	–0.1	1.1	1.0	0.6	–0.7	0.7
Q3	0.5	0.2	0.1	0.1	0.4	0.7	1.0	1.2	–	0.6
Q4	1.3	0.3	0.2	0.5	0.1	1.0	0.9	1.4	–0.4	0.6
2001 Q1	0.6	0.7	0.1	0.1	–0.7	–0.1	–0.4	–0.3	2.3	0.4
Q2	–0.1	0.2	0.1	–0.2	0.2	–0.8	–0.5	–0.4	–2.2	0.3
Q3	0.4	0.5	0.3	–	–0.7	0.1	–0.2	1.0	–0.3	0.2
Q4	–0.3	0.1	0.1	–0.1	–0.2	–0.5	–0.3	–2.2	–0.5	0.3
2002 Q1	0.7	0.1	0.3	–	0.3	0.4	0.4	–	1.4	–
Q2	0.5	0.2	0.3	–0.1	–0.2	0.5	0.2	0.5	–1.2	0.1
Q3	0.3	0.2	0.2	–0.1	0.1	0.3	0.2	–0.2	1.3	0.1
Q4	–0.1	0.2	0.2	–0.2	–0.3	–0.1	–0.1	–0.3	–0.5	0.2
2003 Q1	0.3	0.3	–	0.1	0.2	–0.2	0.2	0.9	–0.4	..

Percentage change on previous month	ILKD	ILKN
2002 May	–0.3	1.4
Jun	–0.1	–2.4
Jul	–0.2	3.1
Aug	0.3	1.0
Sep	–	–3.8
Oct	–0.6	2.8
Nov	0.9	–
Dec	–1.1	–2.7
2003 Jan	1.0	4.1
Feb	0.8	–1.9
Mar	–0.4	–3.9
Apr	..	4.9

GDP = Gross Domestic Product at constant market prices
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Exports = Exports of goods and services
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Sales = Retail Sales volume
CPI = Consumer Prices, measurement not uniform among countries
PPI = Producer Prices (manufacturing)
Earnings = Average Wage Earnings (manufacturing), definitions of coverage and treatment vary among countries
Empl = Total Employment not seasonally adjusted
Unempl = Standardised Unemployment rates: percentage of total workforce
IoP=Index of Production

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

Source: OECD - SNA93

4 Italy

	GDP	PFC	GFC	GFCF	ChgStk	Exports	less Imports	IoP	Sales	CPI	PPI	Earnings	Empl	Unempl
		Contribution to change in GDP												
Percentage change on a year earlier														
	ILGA	HUCI	HUCJ	HUCK	HUCL	HUCM	HUCN	ILGU	ILHO	HYAA	ILAH	ILAQ	ILII	GABE
1998	1.8	1.9	–	0.7	0.3	1.0	2.1	1.3	1.0	2.0	0.1	2.8	1.1	11.7
1999	1.7	1.6	0.2	1.0	0.3	–	1.4	–0.2	0.8	1.7	–0.2	2.3	1.2	11.3
2000	3.2	1.7	0.3	1.4	–1.1	3.3	2.4	4.1	–0.8	2.5	6.0	2.0	1.9	10.4
2001	1.8	0.7	0.6	0.6	–	0.3	0.3	–1.0	–0.1	2.7	1.9	1.8	2.0	9.5
2002	0.3	0.2	0.3	0.1	0.4	–0.3	0.4	–1.4	–0.6	2.5	0.2	2.8	1.4	9.0
1999 Q4	3.1	1.4	0.2	1.5	–0.1	2.1	2.1	3.0	2.2	2.1	2.2	1.9	1.4	11.0
2000 Q1	3.4	1.5	0.2	1.6	–1.3	4.0	2.6	3.6	–1.9	2.4	4.7	2.0	1.0	10.9
Q2	3.3	1.9	0.2	1.6	–0.9	3.0	2.6	5.7	–	2.6	6.2	2.5	1.6	10.5
Q3	3.0	1.7	0.3	1.6	–1.4	3.6	2.6	3.6	1.3	2.6	6.7	2.0	2.1	10.3
Q4	2.9	1.6	0.4	0.9	–0.8	2.6	1.8	3.8	–2.5	2.6	6.5	1.9	2.8	9.9
2001 Q1	2.5	1.2	0.5	0.8	–0.5	1.8	1.2	3.0	1.6	2.9	4.7	1.8	3.2	9.7
Q2	2.3	0.9	0.6	0.6	–0.2	1.5	1.1	–0.4	–0.3	3.0	3.2	1.2	2.0	9.5
Q3	1.7	0.4	0.6	0.4	0.8	–0.8	–0.4	–1.9	–1.0	2.8	1.1	2.2	1.8	9.4
Q4	0.7	–	0.6	0.4	–0.2	–1.0	–0.8	–5.0	–0.6	2.5	–1.1	2.3	1.2	9.2
2002 Q1	–	–0.2	0.5	–0.3	1.5	–3.0	–1.5	–3.8	–0.3	2.4	–1.0	2.4	1.7	9.0
Q2	0.2	–0.2	0.4	–0.3	0.6	–0.7	–0.4	–2.1	–1.0	2.2	–0.6	3.4	1.9	9.0
Q3	0.5	0.5	0.3	0.3	–0.4	1.2	1.4	–0.3	–1.3	2.4	0.5	2.4	1.3	9.0
Q4	0.9	1.0	–	0.8	–	1.3	2.2	0.8	–	2.7	1.7	2.8	0.9	8.9
2003 Q1	0.9	..	..	..	..	..	..	–0.5	–0.6	2.7	2.6	2.5	0.8	..
2002 May	..	..	..	..	..	..	..	–1.6	–1.0	2.3	–0.4	3.4	..	9.0
Jun	..	..	..	..	..	..	..	–1.7	–1.0	2.2	–0.4	3.5	..	9.0
Jul	..	..	..	..	..	..	..	–0.2	–1.0	2.2	0.4	2.4	..	9.0
Aug	..	..	..	..	..	..	..	–0.8	–1.0	2.4	0.5	2.4	..	9.0
Sep	..	..	..	..	..	..	..	0.2	–1.9	2.6	0.8	2.5	..	9.0
Oct	..	..	..	..	..	..	..	–	–	2.7	1.6	2.9	..	8.9
Nov	..	..	..	..	..	..	..	1.9	–	2.8	1.5	2.8	..	8.9
Dec	..	..	..	..	..	..	..	0.6	–	2.8	2.0	2.8	..	8.9
2003 Jan	..	..	..	..	..	..	..	0.6	–1.0	2.8	2.4	2.9	..	9.0
Feb	..	..	..	..	..	..	..	–0.8	–	2.6	2.8	3.0	..	..
Mar	..	..	..	..	..	..	..	–1.2	–1.0	2.7	2.8	1.7	..	..
Apr	..	..	..	..	..	..	..	..	..	2.7	2.0	1.8	..	..

Percentage change on previous quarter														
	ILGK	HUCO	HUCP	HUCQ	HUCR	HUCS	HUCT	ILHE	ILHY				ILIS	
1999 Q4	1.1	0.4	–	0.6	0.1	1.1	1.1	1.4	2.6				–0.1	
2000 Q1	1.1	0.6	0.1	0.4	–0.6	1.6	1.1	0.3	–4.1				–1.2	
Q2	0.3	0.4	–	0.4	0.2	–0.5	–	1.7	2.3				1.6	
Q3	0.5	0.3	0.1	0.2	–1.0	1.3	0.3	0.2	0.6				1.9	
Q4	0.9	0.4	0.2	–0.1	0.7	0.1	0.3	1.6	–1.3				0.6	
2001 Q1	0.7	0.1	0.2	0.4	–0.4	0.9	0.5	–0.6	–				–0.8	
Q2	–	0.1	0.1	0.2	0.5	–0.8	–	–1.6	0.3				0.4	
Q3	–	–0.2	0.1	–	–	–1.0	–1.2	–1.3	–				1.7	
Q4	–	–	0.2	–0.1	–0.3	–0.1	–0.2	–1.6	–1.0				–	
2002 Q1	–	–0.2	0.1	–0.3	1.4	–1.1	–0.2	0.7	0.3				–0.4	
Q2	0.2	0.1	–	0.1	–0.5	1.5	1.0	0.2	–0.3				0.6	
Q3	0.3	0.5	–	0.6	–1.0	1.0	0.7	0.5	–0.3				1.1	
Q4	0.4	0.6	–0.1	0.4	0.1	–	0.6	–0.6	0.3				–0.4	
2003 Q1	–0.1	..	..	..	..	..	..	–0.6	–0.3				–0.5	

Percentage change on previous month		
	ILKE	ILKO
2002 May	1.7	–
Jun	–0.5	–
Jul	1.0	–
Aug	–1.2	–
Sep	0.5	–1.0
Oct	–0.6	1.0
Nov	0.4	–
Dec	–0.4	–
2003 Jan	–0.1	–1.0
Feb	–0.4	2.0
Mar	–0.4	–1.9
Apr	..	..

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

Source: OECD - SNA93

5 USA

	Contribution to change in GDP													
	GDP	PFC	GFC	GFCF	ChgStk	Exports	less Imports	IoP	Sales	CPI	PPI	Earnings	Empl[1]	Unempl
Percentage change on a year earlier														
	ILGC	HUDG	HUDH	HUDI	HUDJ	HUDK	HUDL	ILGW	ILHQ	ILAA	ILAJ	ILAS	ILIK	GADO
1998	4.3	3.2	0.2	2.0	0.2	0.3	1.6	5.6	7.1	1.6	–1.1	2.5	1.5	4.5
1999	4.1	3.3	0.4	1.6	–0.2	0.4	1.6	4.2	8.8	2.1	1.8	2.9	1.5	4.2
2000	3.8	2.9	0.4	1.2	–	1.1	2.0	4.7	5.5	3.4	4.1	3.5	2.5	4.0
2001	0.3	1.7	0.5	–0.6	–1.4	–0.7	–0.5	–3.5	4.8	2.8	0.7	3.2	–	4.8
2002	2.4	2.2	0.6	–0.4	0.7	–0.2	0.6	–0.8	5.3	1.5	–0.6	3.2	–0.3	5.8
1999 Q4	4.3	3.3	0.5	1.3	0.1	0.6	1.7	5.0	8.2	2.6	3.2	3.6	1.5	4.1
2000 Q1	4.2	3.4	0.4	1.6	–0.4	1.0	2.0	5.2	7.8	3.2	4.6	4.2	2.8	4.0
Q2	4.9	3.0	0.6	1.4	0.7	1.3	2.2	6.0	5.8	3.3	4.4	3.3	2.8	4.0
Q3	3.7	2.9	0.4	1.0	0.2	1.4	2.2	4.8	5.2	3.5	3.9	2.9	2.3	4.1
Q4	2.3	2.4	0.3	0.7	–0.4	0.9	1.7	2.7	3.5	3.4	3.3	3.5	2.3	3.9
2001 Q1	1.5	1.9	0.5	0.1	–0.8	0.4	0.8	–0.2	2.9	3.4	2.1	2.6	0.8	4.2
Q2	–0.1	1.6	0.4	–0.5	–1.6	–0.4	–0.2	–3.4	4.5	3.4	2.1	3.5	0.1	4.5
Q3	–0.4	1.2	0.5	–0.9	–1.4	–1.3	–1.2	–4.6	3.8	2.7	0.6	3.4	–	4.8
Q4	0.1	1.9	0.7	–1.0	–1.7	–1.4	–1.4	–5.7	7.9	1.8	–1.5	3.4	–0.8	5.6
2002 Q1	1.4	2.0	0.7	–0.9	–	–1.1	–0.7	–3.8	5.9	1.2	–1.8	4.0	–1.2	5.6
Q2	2.2	2.1	0.7	–0.6	0.7	–0.4	0.4	–1.3	5.5	1.3	–1.7	3.4	–0.5	5.8
Q3	3.3	2.6	0.6	–0.2	0.9	0.3	1.1	0.8	7.0	1.5	–0.6	2.8	0.1	5.8
Q4	2.9	1.9	0.6	0.2	1.3	0.4	1.6	1.5	3.0	2.2	1.6	2.7	0.3	5.9
2003 Q1	2.1	1.7	0.5	0.1	0.4	0.3	0.9	1.1	4.5	2.9	4.0	2.7	1.0	5.8
2002 May	..	..	..	..	..	..	..	–1.3	4.4	1.2	–2.2	3.4	–0.5	5.8
Jun	..	..	..	..	..	..	..	–0.3	6.2	1.1	–1.6	3.3	–0.5	5.8
Jul	..	..	..	..	..	..	..	0.6	6.9	1.5	–0.6	2.5	–0.5	5.8
Aug	..	..	..	..	..	..	..	0.6	6.5	1.8	–0.7	3.3	0.4	5.8
Sep	..	..	..	..	..	..	..	1.2	7.6	1.5	–0.5	2.5	0.4	5.7
Oct	..	..	..	..	..	..	..	1.0	0.3	2.1	1.5	3.3	0.5	5.8
Nov	..	..	..	..	..	..	..	1.8	3.5	2.2	1.5	2.5	0.2	5.9
Dec	..	..	..	..	..	..	..	1.5	5.3	2.3	1.9	2.4	0.3	6.0
2003 Jan	..	..	..	..	..	..	..	1.6	5.5	2.6	3.2	3.3	1.3	5.7
Feb	..	..	..	..	..	..	..	1.4	2.6	3.0	4.3	2.4	0.7	5.8
Mar	..	..	..	..	..	..	..	0.5	5.3	3.1	4.6	2.4	0.9	5.8
Apr	..	..	..	..	..	..	..	–0.4	5.1	2.2	1.9	2.4	1.1	6.0
Percentage change on previous quarter														
	ILGM	HUDM	HUDN	HUDO	HUDP	HUDQ	HUDR	ILHG	ILIA				ILIU	
1999 Q4	1.7	0.8	0.2	0.2	0.5	0.4	0.4	1.6	2.0				0.3	
2000 Q1	0.6	0.9	–0.1	0.6	–0.5	0.2	0.5	1.3	2.2				0.7	
Q2	1.2	0.5	0.3	0.2	0.5	0.4	0.7	1.7	–0.4				1.2	
Q3	0.1	0.6	–	–	–0.3	0.3	0.5	0.1	1.3				0.1	
Q4	0.3	0.3	0.1	–0.1	–	–0.1	–0.1	–0.4	0.4				0.3	
2001 Q1	–0.2	0.4	0.2	–	–0.9	–0.2	–0.3	–1.6	1.6				–0.7	
Q2	–0.4	0.2	0.1	–0.4	–0.3	–0.4	–0.3	–1.5	1.2				0.5	
Q3	–0.1	0.2	0.1	–0.4	–	–0.6	–0.5	–1.2	0.5				–	
Q4	0.7	1.0	0.3	–0.2	–0.4	–0.3	–0.2	–1.5	4.3				–0.5	
2002 Q1	1.2	0.5	0.1	0.1	0.8	0.1	0.3	0.4	–0.2				–1.1	
Q2	0.3	0.3	0.1	–0.1	0.4	0.4	0.8	1.1	0.8				1.1	
Q3	1.0	0.7	0.1	–	0.1	0.1	0.1	0.9	2.0				0.6	
Q4	0.3	0.3	0.2	0.2	0.1	–0.2	0.3	–0.9	0.4				–0.4	
2003 Q1	0.5	0.4	–	–	–0.1	–	–0.3	0.1	1.2				–0.4	
Percentage change on previous month														
								ILKG	ILKQ				ILLA	
2002 May								0.3	–0.7				0.5	
Jun								0.3	1.6				0.5	
Jul								0.7	1.4				0.3	
Aug								–0.2	0.4				–0.2	
Sep								–0.1	–1.5				0.1	
Oct								–0.6	0.2				0.1	
Nov								0.2	0.8				–0.6	
Dec								–0.8	1.8				–	
2003 Jan								0.6	0.4				–0.5	
Feb								0.1	–2.1				0.4	
Mar								–0.5	2.2				0.3	
Apr								–0.5	0.6				0.5	

GDP = Gross Domestic Product at constant market prices
PFC = Private Final Consumption at constant market prices
GFC = Government Final Consumption at constant market prices
GFCF = Gross Fixed Capital Formation at constant market prices
ChgStk = Change in Stocks at constant market prices
Exports = Exports of goods and services
Imports = Imports of goods and services
IoP = Industrial Production
Sales = Retail Sales volume
CPI = Consumer Prices, measurement not uniform among countries
PPI = Producer Prices (manufacturing)
Earnings = Average Earnings (manufacturing), definitions of coverage and treatment vary among countries
Empl = Total Employment not seasonally adjusted
Unempl = Standardised Unemployment rates: percentage of total workforce

Source: OECD - SNA93

1 Excludes members of armed forces

6 Japan

	Contribution to change in GDP													
	GDP	PFC	GFC	GFCF	ChgStk	Exports	less Imports	IoP[1]	Sales	CPI	PPI	Earnings[2]	Empl	Unempl
Percentage change on a year earlier														
	ILGD	HUCU	HUCV	HUCW	HUCX	HUCY	HUCZ	ILGX	ILHR	ILAB	ILAK	ILAT	ILIL	GADP
1998	–1.2	–	0.3	–1.1	–0.6	–0.2	–0.6	–5.9	–6.0	0.7	–1.5	–0.9	–0.6	4.1
1999	0.2	0.1	0.7	–0.2	–0.3	0.1	0.2	0.6	–2.6	–0.3	–1.5	–0.7	–0.8	4.7
2000	2.8	0.5	0.7	0.7	0.3	1.3	0.7	5.1	–1.1	–0.7	0.1	1.7	–0.3	4.7
2001	0.4	1.0	0.4	–0.3	–	–0.7	–	–6.2	–1.2	–0.7	–2.3	–	–0.5	5.0
2002	0.2	0.7	0.4	–1.2	–0.4	0.9	0.2	–1.3	–3.1	–1.0	–2.0	–1.0	–1.3	5.4
1999 Q4	–0.5	–0.9	0.7	0.2	–0.2	0.7	0.8	4.4	–1.1	–1.0	–0.6	–0.3	–0.2	4.6
2000 Q1	1.3	0.3	0.6	–	–0.1	1.2	0.7	3.5	–2.2	–0.6	0.6	1.9	–0.5	4.8
Q2	1.9	0.2	0.9	0.2	0.1	1.4	0.8	6.3	–1.5	–0.7	0.4	2.1	–0.4	4.7
Q3	2.8	–	0.8	1.0	0.5	1.3	0.8	5.4	–0.4	–0.6	–	1.7	–0.4	4.7
Q4	5.2	1.5	0.8	1.9	0.6	1.2	0.8	5.1	–0.4	–0.8	–0.7	1.1	0.2	4.7
2001 Q1	3.5	1.1	0.6	1.2	1.0	0.2	0.7	1.5	2.3	–0.5	–1.9	0.3	0.5	4.7
Q2	1.1	1.1	0.4	0.3	0.1	–0.6	0.2	–4.4	–1.1	–0.7	–2.0	0.5	–0.4	4.9
Q3	–0.6	0.8	0.3	–0.4	–0.4	–1.0	–0.2	–9.1	–2.6	–0.8	–2.5	–0.2	–0.8	5.1
Q4	–2.4	0.8	0.4	–2.3	–0.6	–1.2	–0.6	–12.3	–3.4	–1.0	–2.8	–0.6	–1.3	5.4
2002 Q1	–2.8	0.5	0.4	–2.2	–1.6	–0.3	–0.5	–9.2	–4.4	–1.4	–2.6	–1.5	–1.5	5.3
Q2	–0.3	0.5	0.4	–1.6	–0.5	0.8	–	–3.6	–2.6	–0.9	–2.2	–0.8	–1.6	5.4
Q3	1.6	1.2	0.5	–1.1	0.3	1.1	0.5	2.7	–2.7	–0.8	–2.2	–2.2	–1.0	5.4
Q4	2.5	0.8	0.3	0.2	0.2	1.8	0.8	5.9	–2.7	–0.5	–1.2	0.1	–1.1	5.4
2003 Q1	2.5	0.8	0.4	0.5	0.5	1.2	0.8	5.7	–1.2	–0.2	–0.9	..	–0.8	5.4
2002 May	..	..	..	..	..	..	..	–1.6	–2.3	–0.9	–2.2	–0.4	–1.9	5.4
Jun	..	..	..	..	..	..	..	–1.7	–3.4	–0.7	–2.1	–1.8	–1.4	5.4
Jul	..	..	..	..	..	..	..	0.7	–4.5	–0.8	–2.3	–4.9	–1.2	5.4
Aug	..	..	..	..	..	..	..	2.3	–1.1	–0.9	–2.3	–2.8	–1.1	5.5
Sep	..	..	..	..	..	..	..	5.1	–2.3	–0.7	–2.1	1.3	–0.7	5.4
Oct	..	..	..	..	..	..	..	5.2	–2.3	–0.9	–1.4	1.0	–0.8	5.5
Nov	..	..	..	..	..	..	..	6.8	–2.3	–0.4	–1.2	0.5	–1.3	5.3
Dec	..	..	..	..	..	..	..	5.4	–3.5	–0.3	–1.2	–1.3	–1.1	5.5
2003 Jan	..	..	..	..	..	..	..	8.0	–2.3	–0.4	–1.0	1.2	–1.0	5.5
Feb	..	..	..	..	..	..	..	4.9	–	–0.2	–0.9	1.7	–0.9	5.2
Mar	..	..	..	..	..	..	..	4.4	–1.2	–0.1	–0.8	..	–0.5	5.4
Apr	..	..	..	..	..	..	..	3.6	–3.5	–0.1	–0.8	..	–0.4	5.4
Percentage change on previous quarter														
	ILGN	HUDA	HUDB	HUDC	HUDD	HUDE	HUDF	ILHH	ILIB				ILIV	
1999 Q4	–1.0	–0.9	0.1	–	–	0.2	0.3	1.4	–0.7				–0.6	
2000 Q1	2.0	0.9	0.2	0.3	0.1	0.6	–	0.6	–0.7				–2.1	
Q2	1.1	0.1	0.4	0.2	0.2	0.3	0.3	2.6	0.4				2.3	
Q3	0.6	–0.1	0.2	0.4	0.2	0.2	0.2	0.7	0.8				–	
Q4	1.3	0.5	0.1	0.9	0.1	0.1	0.3	1.1	–0.7				–	
2001 Q1	0.4	0.5	–	–0.4	0.5	–0.4	–0.1	–2.9	1.9				–1.8	
Q2	–1.2	0.1	0.1	–0.6	–0.6	–0.4	–0.2	–3.3	–2.9				1.4	
Q3	–1.1	–0.3	0.1	–0.4	–0.4	–0.3	–0.2	–4.3	–0.8				–0.4	
Q4	–0.5	0.4	0.2	–1.0	–0.1	–0.2	–0.2	–2.5	–1.5				–0.5	
2002 Q1	–	0.2	0.1	–0.3	–0.4	0.6	0.1	0.5	0.8				–2.0	
Q2	1.3	0.2	–	0.1	0.5	0.7	0.3	2.8	–1.2				1.3	
Q3	0.7	0.4	0.1	0.1	0.4	–	0.2	2.0	–0.8				0.2	
Q4	0.5	–	0.1	0.3	–0.2	0.5	0.1	0.5	–1.6				–0.6	
2003 Q1	–	0.2	0.1	0.1	–0.2	–0.1	0.1	0.4	2.4				–1.7	
Percentage change on previous month														
								ILKH	ILKR				ILLB	
2002 May								3.9	–				0.3	
Jun								–1.1	–1.2				0.3	
Jul								1.0	–1.2				–	
Aug								0.3	2.4				–	
Sep								0.6	–1.2				–0.3	
Oct								0.1	–1.2				–	
Nov								–0.1	1.2				–0.1	
Dec								–0.2	–3.5				–0.9	
2003 Jan								1.7	3.7				–1.3	
Feb								–1.7	2.4				–0.2	
Mar								0.1	–2.3				1.1	
Apr								–1.0	–2.4				0.7	

GDP = Gross Domestic Product at constant market prices
PFC = Private Final Consumption at constant market prices
GFC = Government Final Consumption at constant market prices
GFCF = Gross Fixed Capital Formation at constant market prices
ChgStk = Change in Stocks at constant market prices
Exports = Exports of goods and services
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Sales = Retail Sales volume
CPI = Consumer Prices, measurement not uniform among countries
PPI = Producer Prices (manufacturing)
Earnings = Average Earnings (manufacturing), definitions of coverage and treatment vary among countries
Empl = Total Employment not seasonally adjusted
Unempl = Standardised Unemployment rates: percentage of total workforce
IoP=Index of Production

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

Source: OECD - SNA93

7 World trade in goods[1]

	Export of manufactures			Import of manufactures			Export of goods			Import of goods			Total trade	
	Total	OECD	Other	Total	OECD	Other	Total	OECD	Other	Total	OECD	Other	manufactures	goods
Percentage change on a year earlier														
	ILIZ	ILJA	ILJB	ILJC	ILJD	ILJE	ILJF	ILJG	ILJH	ILJI	ILJJ	ILJK	ILJL	ILJM
1992	4.5	3.3	9.5	5.6	4.2	9.7	4.3	3.6	6.3	5.3	4.2	8.7	5.0	4.8
1993	4.1	2.2	12.2	3.8	0.7	12.8	3.7	2.2	8.1	3.4	0.7	11.1	4.0	3.6
1994	11.5	9.9	17.3	12.0	12.3	11.3	10.3	9.3	13.0	10.9	11.0	10.7	11.7	10.6
1995	10.2	9.9	11.2	10.6	10.1	12.0	9.4	9.3	9.1	9.9	9.0	12.4	10.4	9.6
1996	6.6	6.5	6.9	8.0	8.0	7.9	6.8	6.5	7.6	7.1	7.2	6.6	7.3	6.9
1997	12.1	11.9	12.9	11.7	11.3	12.7	11.2	11.0	11.7	10.3	9.7	11.9	11.9	10.8
1998	5.1	6.3	1.2	6.1	9.5	–2.5	4.8	5.6	2.2	5.5	8.1	–1.2	5.6	5.1
1999	6.4	6.1	7.2	7.9	10.8	–0.3	5.6	5.7	5.4	6.5	9.0	–0.5	7.2	6.1
2000	14.3	12.6	20.4	14.8	13.9	17.3	12.6	12.1	13.9	12.6	12.2	14.0	14.5	12.6
2001	–1.4	–1.2	–2.3	–0.2	–1.2	2.6	–0.3	–0.5	–0.2	0.4	–0.6	3.6	–0.8	–
2002	..	2.6	..	..	2.7	..	..	–1.2	..	..	–1.6	..	..	..
1996 Q3	6.9	6.7	7.3	8.1	8.8	6.3	7.1	6.6	8.3	6.8	7.7	4.6	7.5	6.9
Q4	8.6	8.2	9.7	9.0	8.9	9.4	9.2	8.9	9.9	8.3	8.5	7.8	8.8	8.7
1997 Q1	9.0	8.0	12.3	9.3	8.2	12.2	8.8	7.7	11.7	8.3	7.3	10.8	9.2	8.5
Q2	13.4	13.0	14.5	12.8	12.2	14.3	12.6	12.4	13.0	11.3	10.5	13.3	13.1	11.9
Q3	13.9	14.0	13.6	12.9	12.5	14.0	12.6	12.9	11.9	11.3	10.5	13.3	13.4	11.9
Q4	12.1	12.3	11.4	11.8	12.3	10.6	10.8	11.1	10.2	10.4	10.4	10.3	11.9	10.6
1998 Q1	10.1	11.2	6.4	10.0	12.6	3.6	9.5	10.8	6.0	9.0	11.0	4.1	10.0	9.2
Q2	5.7	6.9	1.7	6.6	9.7	–1.1	5.2	6.2	2.4	6.0	8.2	0.1	6.2	5.6
Q3	2.9	4.2	–1.3	4.2	8.0	–5.2	2.5	3.3	0.4	4.0	6.9	–3.5	3.6	3.2
Q4	2.2	3.4	–1.8	3.7	8.0	–7.0	2.0	2.7	0.2	3.3	6.6	–5.2	3.0	2.6
1999 Q1	1.9	2.9	–1.2	3.9	7.7	–6.3	1.7	1.8	1.3	3.3	6.2	–4.2	2.9	2.5
Q2	3.8	4.0	3.3	6.1	9.6	–3.3	3.7	3.7	3.7	5.1	7.9	–2.5	5.0	4.4
Q3	8.1	7.2	11.0	9.1	11.6	1.9	7.2	7.2	7.3	7.3	9.7	0.4	8.6	7.2
Q4	11.6	10.4	15.8	12.4	14.3	7.0	9.8	10.0	9.4	10.2	12.1	4.6	12.0	10.0
2000 Q1	15.5	13.5	22.5	14.7	15.0	13.7	13.5	13.4	13.7	12.5	13.3	10.2	15.1	13.0
Q2	16.1	13.9	24.2	15.7	15.1	17.8	13.8	13.1	15.7	13.4	13.2	14.0	15.9	13.6
Q3	14.4	12.6	20.3	16.1	14.7	20.3	12.7	12.0	14.6	13.9	12.9	16.9	15.2	13.3
Q4	11.5	10.4	15.3	12.6	11.1	17.4	10.5	10.1	11.6	10.8	9.5	14.7	12.1	10.6
2001 Q1	6.6	6.6	6.6	7.3	6.2	10.8	6.2	6.3	5.9	6.7	5.8	9.5	6.9	6.4
Q2	–0.1	0.1	–1.0	1.0	–0.1	4.2	0.6	0.7	0.5	1.4	0.2	4.9	0.4	1.0
Q3	–4.9	–4.4	–6.3	–3.7	–4.5	–1.2	–3.0	–3.1	–2.9	–2.5	–3.6	1.0	–4.3	–2.7
Q4	–6.8	–6.5	–7.8	–5.0	–5.8	–2.3	–4.9	–5.3	–4.0	–3.4	–4.5	–0.4	–5.9	–4.2
2002 Q1	–3.9	–4.7	–1.3	–2.5	–3.7	1.0	–2.7	–3.8	0.4	–1.9	–3.1	1.9	–3.2	–2.3
Q2	3.6	2.8	6.1	2.9	2.2	5.0	3.4	2.6	5.7	2.6	1.9	4.6	3.2	3.0
Q3	7.7	6.4	11.7	..	5.9	..	6.6	5.5	9.6	..	5.1	..	..	..
Q4	..	6.4	..	..	6.8	..	..	..	..	..	..	..	..	..
2003 Q1	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Percentage change on previous quarter														
	ILJN	ILJO	ILJP	ILJQ	ILJR	ILJS	ILJT	ILJU	ILJV	ILJW	ILJX	ILJY	ILJZ	ILKA
1996 Q3	2.5	2.3	3.4	2.7	2.8	2.3	2.6	2.3	3.4	2.3	2.5	2.1	2.6	2.5
Q4	2.9	2.8	3.2	2.7	2.2	3.9	3.0	3.0	2.9	2.5	2.0	3.7	2.8	2.7
1997 Q1	2.4	2.0	3.8	2.8	2.0	4.6	1.7	1.1	3.2	2.0	1.2	4.2	2.6	1.8
Q2	4.9	5.3	3.5	4.2	4.7	2.7	4.8	5.5	3.0	4.0	4.5	2.7	4.5	4.4
Q3	3.0	3.1	2.5	2.8	3.0	2.1	2.7	2.8	2.3	2.3	2.5	2.1	2.9	2.5
Q4	1.3	1.3	1.2	1.7	2.0	0.8	1.3	1.3	1.3	1.7	2.0	0.9	1.5	1.5
1998 Q1	0.6	1.0	–0.9	1.1	2.3	–2.0	0.4	0.9	–0.7	0.8	1.7	–1.6	0.8	0.6
Q2	0.8	1.3	–1.1	1.0	2.1	–1.8	0.7	1.1	–0.5	1.1	1.9	–1.2	0.9	0.9
Q3	0.3	0.5	–0.5	0.4	1.4	–2.2	0.1	–	0.3	0.4	1.2	–1.6	0.3	0.2
Q4	0.6	0.6	0.6	1.2	2.0	–1.2	0.8	0.7	1.1	1.0	1.7	–0.9	0.9	0.9
1999 Q1	0.3	0.5	–0.2	1.2	2.0	–1.2	0.1	–	0.4	0.8	1.3	–0.6	0.8	0.5
Q2	2.6	2.4	3.4	3.2	3.9	1.3	2.7	3.0	1.8	2.8	3.6	0.5	2.9	2.7
Q3	4.4	3.6	7.0	3.2	3.2	3.0	3.4	3.3	3.8	2.5	2.9	1.3	3.8	3.0
Q4	3.8	3.5	4.9	4.3	4.5	3.8	3.3	3.3	3.1	3.8	3.9	3.3	4.1	3.5
2000 Q1	3.8	3.3	5.6	3.2	2.7	5.0	3.5	3.2	4.3	2.9	2.3	4.7	3.5	3.2
Q2	3.2	2.8	4.8	4.2	3.9	4.9	3.0	2.7	3.7	3.6	3.5	4.0	3.7	3.3
Q3	2.8	2.5	3.7	3.5	2.9	5.2	2.4	2.3	2.7	2.9	2.6	3.9	3.1	2.7
Q4	1.3	1.5	0.5	1.2	1.2	1.3	1.3	1.6	0.5	0.9	0.8	1.4	1.2	1.1
2001 Q1	–0.8	–0.3	–2.4	–1.6	–1.8	–0.9	–0.6	–0.4	–1.0	–0.9	–1.2	–	–1.2	–0.7
Q2	–3.3	–3.4	–2.7	–2.0	–2.2	–1.3	–2.4	–2.7	–1.6	–1.5	–1.9	–0.4	–2.6	–2.0
Q3	–2.1	–2.2	–1.8	–1.3	–1.7	–0.3	–1.3	–1.5	–0.8	–1.0	–1.3	–	–1.7	–1.1
Q4	–0.8	–0.7	–1.1	–0.1	–0.2	0.2	–0.7	–0.8	–0.6	–0.1	–0.1	–	–0.4	–0.4
2002 Q1	2.3	1.6	4.5	0.9	0.3	2.5	1.8	1.2	3.4	0.7	0.2	2.3	1.6	1.2
Q2	4.2	4.1	4.6	3.4	3.8	2.5	3.8	3.8	3.7	3.0	3.2	2.3	3.8	3.4
Q3	1.8	1.3	3.4	..	1.9	..	1.7	1.3	2.9	..	1.7	..	..	..
Q4	..	–0.7	..	..	0.7	..	..	..	..	..	..	..	..	..
2003 Q1	..	..	..	..	..	..	..	..	..	..	..	..	..	..

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

Source: OECD - SNA93

Geographical breakdown of the UK International Investment Position

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Introduction

The ONS routinely publishes a geographical breakdown of the Balance of Payments current account in the quarterly First Release and annual *Pink Book*. These analyses include a geographical breakdown of the income earned from investments abroad (credits) and income paid on foreign investments in the UK (debits). This article presents a geographical breakdown of the International Investment Position (IIP), or stock of external assets and liabilities, from which the income is earned. This is the first geographical analysis of the UK IIP and data is presented for end-2001 positions only at this stage.

Reliability

The UK's International Investment Position is primarily compiled on a global basis and not all data sources fully distinguish assets and liabilities on a full country basis – although the majority do. Where individual country information are not reported, estimates are made by using the geographical detail for a related category; for example, the geographical breakdown of bank's loans and deposits is used to allocate securities dealers' loans and deposits data.

Data compiled on a regional basis for stocks of financial assets and liabilities should be geographically allocated on the basis of the issuer principle. That is, financial claims of the UK are allocated according to the country of residence of the non-resident debtor (or issuer), and liabilities are allocated to the country of residence of the non-resident creditor (or holder). However, geographical breakdowns of portfolio investment are particularly difficult to allocate correctly to the actual country either owning or issuing the security as the transactions are often made through financial intermediaries in a third country.

Given these conceptual and practical limitations, these estimates should be seen as a very broad indication of the economic relationships between the UK and rest of world economies. They will be more reliable and more meaningful in terms of broad geographical areas and major partner countries than for smaller partners. Estimates are currently only available for 2001, as more detailed and comprehensive information is available for this year. It is intended to continue to develop and present this information on an annual basis to supplement the detailed Balance of Payments datasets.

Data Sources

Foreign Direct Investment

Geographical breakdowns of levels of foreign direct investment abroad (UK assets) and foreign direct investment in the UK (liabilities) are derived from the annual inquiries to outward and inward direct investors in the UK. The analysis of foreign direct investment in the UK, or inward investment, is based on the country of the immediate foreign parent company, except for banks where the information relates to the country of residence of the ultimate owner. For non-banks therefore, where foreign investment in the UK is channelled through holding companies in a third country, the underlying level of investment from this country is overstated and the level from originating countries is understated. Data for the Netherlands are particularly affected. The country analysis of foreign direct investment abroad, or outward investment, is based on the country of residence of the foreign affiliate. Information in respect of 2001 is based on the 2001 annual *Foreign Direct Investment* Business Monitor MA4. (Office for National Statistics, 2001).

Portfolio Investment

Portfolio investment consists of holdings of equity securities and debt securities, in the form of bonds and notes and money market instruments. Information on the geographical breakdown of UK holdings of portfolio investment assets are broadly based on the UK contribution to the IMF's 2001 Co-ordinated Portfolio Investment

Survey (CPIS) exercise. Banking data were obtained from existing Bank of England quarterly surveys that include a geographical analysis of portfolio investment assets. For non-banks, collection of a geographical breakdown of portfolio investment assets was added to existing quarterly and annual surveys collecting total portfolio investment assets.

Deriving a geographical breakdown of portfolio investment liabilities is the most problematic area, as except for registered securities, it is impossible for the issuer to keep track of the beneficial owner. With the expansion of the IMF's CPIS and co-ordination of results for end-2001, an important new data source is now available. A separate article detailing the background and results from this survey was published in the May 2003 edition of *Economic Trends* (Humphries, 2003).

Information on the geographical breakdown of UK portfolio investment liabilities has been based on other countries' participation in the CPIS exercise. The IMF act as a central clearing house for the compilation of aggregate data from countries that have participated in the CPIS and disseminate the information to BoP compilers. That is the UK receives information from the 70 participating countries on their holdings of UK-issued securities, which has been checked and found to be broadly comparable to published estimates of total UK portfolio investment liabilities. The counterpart information has been used to derive the geographical breakdown of UK liabilities, with some assumptions made to account for non-participants in the CPIS exercise.

Other Investment

Geographical breakdowns of UK banks' deposits abroad and loans made abroad are derived from banking data supplied by the Bank of England. This information is also used to apportion securities dealers' deposits abroad. Country breakdowns of UK private sector (excluding banks and securities dealers) deposits with banks abroad are derived from the banking statistics of countries in the BIS reporting area from the Bank for International Settlements.

Geographical breakdowns of foreign deposits with UK banks are derived from banking data, with foreign loans made to securities dealers apportioned in the same way. Country breakdowns of UK private sector (excluding banks and securities dealers) loans from abroad are derived from the banking statistics of countries in the BIS reporting area from the Bank for International Settlements.

Figure 1

Geographical breakdown of external assets

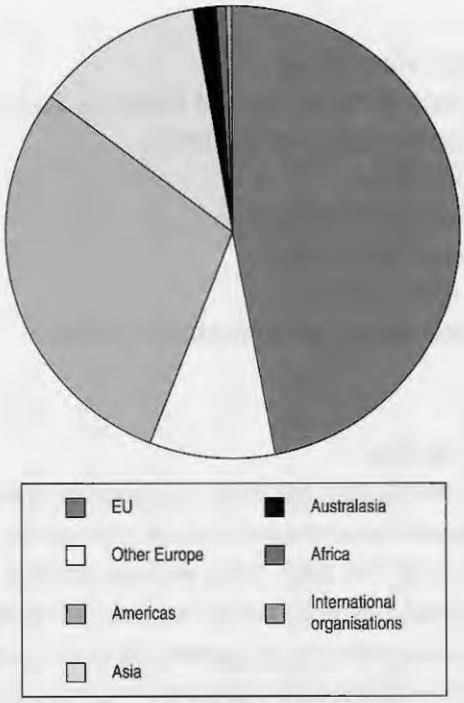
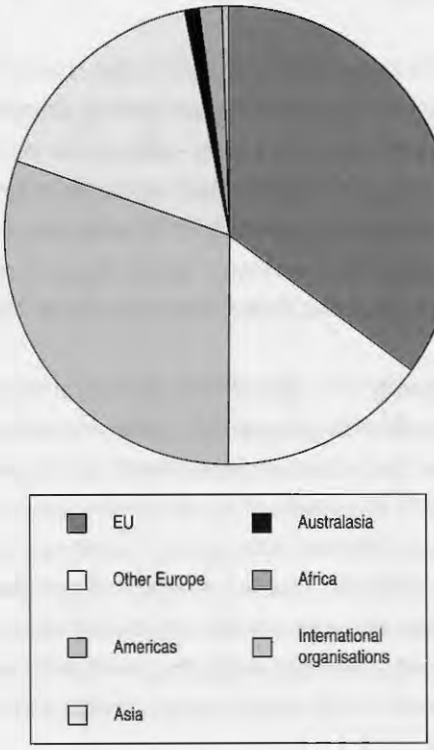


Figure 2

Geographical breakdown of external liabilities



Analysis of 2001 data

Table IIP presents the geographical breakdown of total UK external assets and liabilities as at end-2001. Of total reported assets of £3,188.5 billion (excluding reserve assets), nearly half reflected UK investments in the EU. The USA was the most important single country for UK investment abroad, with total assets of £740 billion,

or nearly a quarter of the UK's total external assets. Around 12 per cent of UK assets consisted of investments in Asia, while investments in Australasia, Africa and International Organisation together, accounted for less than 3 per cent of total assets.

UK liabilities are also highly concentrated in the EU and USA. Of total reported liabilities of £3,237.4 billion, just over a third reflected EU investments in the UK, while around a quarter reflected US investments in the UK. Asian countries' investments in the UK totalled £537 billion or around 16 per cent of total liabilities. Australasia, Africa and International Organisations investment together accounted for around 3 per cent of total liabilities.

On balance, the UK had a net asset position with the EU, Europe and Australasia, but net liability positions with the Americas, Asia and Africa.

By analysing the geographical breakdown of assets and liabilities alongside the geographical breakdown of the income that is earned and paid on those investments, it is possible to derive regional rates of return. In 2001, the UK earned a 4.44 per cent rate of return on its external assets and paid out a 3.87 per cent rate of return on its external liabilities. By broad geographical area, the rates of return on assets and liabilities are shown in Table 1.

Table 1 - Rates of return analysis

	External assets (per cent)	External liabilities (per cent)
European Union	*4.32*	*4.22*
Europe	*4.30*	*4.13*
USA	*4.31*	*3.62*
Asia	*4.55*	*3.81*
World	*4.44*	*3.87*

The UK earns a higher rate of return both globally and with its main partners. This explains why the UK has earned an investment income surplus in 2001, from an overall net liability position on its International Investment Position statement.

Future direction

In future, as the Co-ordinated Portfolio Investment Survey becomes an annual exercise, the vast majority of data sources will be available to enable the production of an annual geographical breakdown of the UK International Investment Position. It is intended to continue to produce the geographical analysis of the IIP and to extend the detail to include a geographical breakdown by type of investment, into direct, portfolio and other investment.

The author would welcome any comments users may have on the content of this article.

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IIP International Investment Position 2001

£ billion

	Assets	Liabilities	Net
Europe			
European Union (EU)			
Austria	16.8	16.7	0.1
Belgium and Luxembourg	189.1	144.4	44.7
Denmark	21.1	21.0	0.1
Finland	20.5	5.7	14.8
France	232.2	176.2	56.0
Germany	309.1	264.8	44.3
Greece	18.1	13.6	4.6
Ireland	98.6	109.1	–10.5
Italy	137.8	67.8	70.1
Netherlands	310.5	208.4	102.1
Portugal	20.5	6.3	14.2
Spain	59.4	35.5	23.9
Sweden	52.2	28.5	23.7
European Central Bank	–	–	–
EU Institutions	13.6	36.8	–23.2
Total EU	1 499.6	1 134.9	364.7
European Free Trade Association (EFTA)			
Iceland	1.1	0.5	0.6
Liechtenstein	0.8	12.0	–11.1
Norway	18.2	15.9	2.4
Switzerland	158.5	237.7	–79.2
Total EFTA	178.7	266.0	–87.4
Other Europe			
Albania	–	0.1	–0.1
Belarus	–	0.1	–0.1
Bulgaria	0.3	0.5	–0.2
Croatia	0.6	0.8	–0.2
Czech Republic	2.7	3.3	–0.6
Estonia	0.3	0.1	0.1
Hungary	4.2	0.7	3.5
Latvia	–	0.2	–0.2
Lithuania	0.2	0.1	–
Poland	5.5	4.4	1.1
Romania	0.5	0.9	–0.3
Russia	7.7	9.3	–1.6
Slovakia	0.4	0.4	–
Slovenia	0.5	1.1	–0.6
Turkey	7.5	3.3	4.2
Ukraine	0.1	2.0	–1.9
Yugoslavia	–	1.6	–1.6
Other	75.6	193.7	–118.2
Total Other Europe	106.1	222.7	–116.7
Total Europe	**1 784.4**	**1 623.7**	**160.7**
America			
Argentina	5.2	0.5	4.7
Brazil	11.5	3.2	8.3
Canada	47.6	32.9	14.7
Chile	3.3	1.0	2.3
Colombia	2.1	1.3	0.8
Mexico	10.8	6.1	4.7
United States of America	742.6	792.7	–50.1
Uruguay	0.3	0.5	–0.2
Venezuela	1.8	1.5	0.3
Other Central America	109.3	128.7	–19.4
Other	0.5	7.4	–6.9
Total America	**935.1**	**975.7**	**–40.6**
Asia			
China	6.8	8.0	–1.3
Hong Kong	35.7	79.7	–44.0
India	5.5	17.4	–11.9
Indonesia	3.4	2.5	0.9
Iran	1.1	6.4	–5.3
Israel	1.6	6.8	–5.2
Japan	212.7	216.4	–3.7
Malaysia	5.6	5.4	0.2
Pakistan	1.2	6.1	–4.9
Philippines	2.6	1.3	1.3
Saudi Arabia	6.0	24.4	–18.4
Singapore	46.1	65.6	–19.5
South Korea	11.9	4.4	7.6
Taiwan	9.5	11.6	–2.1
Thailand	3.6	4.9	–1.3
Residual Gulf Arabian Countries	23.1	55.0	–31.8
Other Near & Middle East Countries	1.2	9.1	–8.0
Other	5.1	11.6	–6.5
Total Asia	**382.6**	**536.6**	**–154.0**
Australasia & Oceania			
Australia	44.2	25.4	18.8
New Zealand	5.3	2.9	2.5
Other	0.6	4.7	–4.1
Total Australasia & Oceania	**50.1**	**32.9**	**17.2**
Africa			
Egypt	2.2	6.6	–4.4
Morocco	0.6	1.6	–1.0
South Africa	12.5	17.5	–5.0
Other North Africa	0.6	5.3	–4.7
Other	7.4	22.1	–14.8
Total Africa	**23.2**	**53.0**	**–29.8**
International Organisations	13.1	15.4	–2.3
Reserve Assets	25.6		
World Total	**3 214.1**	**3 237.4**	**–23.2**

Understanding government output and productivity

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Executive Summary

Government output is measured by the volume of goods and services provided by government to individuals or the population at large, either free of charge or at a nominal cost. It is an important component of the gross domestic product. This article presents some figures and commentary showing how government activities are portrayed in the national accounts, both in aggregate and for a number of different government functions. The estimates of aggregate government output in GDP are now well established as National Statistics, though development work is in hand to extend and refine measures of quality change. The remaining analysis in the article – on inputs and productivity – is experimental. Table 2 contains a first experimental estimate of overall government productivity.

Even though the gross domestic product is a closely followed indicator, measuring government's contribution to GDP – its outputs – is not the only possible way to measure the benefits flowing from government activity. Government is also striving to achieve stated *outcomes* – which may be achieved in part through its *output*. For example, government might establish a goal of curtailing the number of fires and making them less destructive. This could be achieved in one or more ways including: better fire fighting; fire inspections and other prevention activities; recommending the use of smoke alarms; and improving building standards. Only the first two of these are related to the *output* of the fire service; but all contribute to the *outcome* of less fire damage. Similarly, improved exam results is an outcome which might result from better teaching, the existence of the internet, better public libraries or more support from parents; only the first of these is related to the *output* of education.

Another way in which government chooses to assess its own efficiency is through performance measures. These have played a significant role in providing publicly available measures of what government produces in a form readily associated with recognisable services and activities, and in a way which contrasts with traditional input cost measures.

Nevertheless, efficient use of resources is central to good economic management: comparing the outputs with the inputs which produced them yields a productivity measure. But this is an approach best suited for use as background information rather than directly as a management tool for those running 'government industries'.

Using government's contribution to GDP, output growth lagged behind the increase in inputs used during the period 1995 to 2001, implying, on the new experimental measure, a fall in productivity. This suggests that, over time, resources were being used less efficiently. However, there are other possible explanations for this development:

- the increases in spending may have been used on things which will increase the capacity to produce more output in the future;
- the spending may have been on things which improve outcomes but do not contribute to output as measured for national accounts;
- the output measures used may not have monitored all the outputs being produced;
- the output measures may have failed to reflect all the quality improvements made in the outputs as a result of rising consumer expectations and the more demanding standards set for service delivery.

It is not, at present, possible to disentangle the separate effects of these various explanations. However, ONS is continuing to work to measure the possible impact of the last two.

I Introduction

This article provides a detailed update on the work in progress at the Office for National Statistics to measure government output and productivity. Earlier reports on this work are described in brief at the end of the article. As the work is not yet complete, the results shown here are illustrative. The purpose of the article is:

- to provide an update on the progress made since last year's report on measuring government output and productivity;
- to extend the analysis into some new areas, taking on the latest data and adding information for 2001;
- to identify remaining shortcomings in the methods and data sources used; and
- to explain the work which needs to be carried out to further improve the accuracy and usefulness of the results.

II Government output – what is it?

Government output is a component of gross domestic product. An estimate of aggregate government output is published regularly as part of the national income and expenditure accounts: there, it is labelled as general government final consumption expenditure at constant prices. The published aggregate series represents reality acceptably well – and better than any alternative approach that is open to us. It meets the criteria for designation as a National Statistic. All National Statistics are produced to the high professional standards set out in the National Statistics Code of Practice. They undergo regular quality assurance reviews to ensure that they meet customer needs.

Government output is the volume of goods and services provided by government to individuals or to the population at large, either free of charge or at a price which is not intended to cover the cost of production. An increase in this output results from more of the goods and services becoming available or from an improvement in their quality. Services such as the provision of healthcare treatments, schooling and defence are easily recognisable as government outputs. But it also includes the running of prisons, courts and many other functions. An important output is the administration of the social security system – but not the cash payments paid out: when government makes cash payments (or transfers) to individuals who are then free to spend the money as they wish, the national accounts record this resulting expenditure as part of the consumption expenditure of households rather than as government output. In the UK, government output currently accounts for around 19 per cent of the gross domestic product as measured by final expenditure.

The approach used to measure government output is based on identifying what is consumed – which in turn identifies what is produced. Implicit in the approach is the idea that increasing the quality of the output itself represents more output – and hence more consumption. In the market situation, people spending their own money equate more cinema tickets, more holidays, better quality food, etc with more welfare – and they bring pressure on producers to operate as efficiently as possible by exercising consumer choice. Government output creates welfare just as market output does: the fact that the consumer pays no price for it – or just a nominal price – does not alter that. More or better education generates more welfare. And so do more healthcare treatments so long as there are patients in need of them. But the work of the courts, prisons and the police service are a different matter: we regard that as output not because individuals want more of it but because society as a whole deems it necessary.

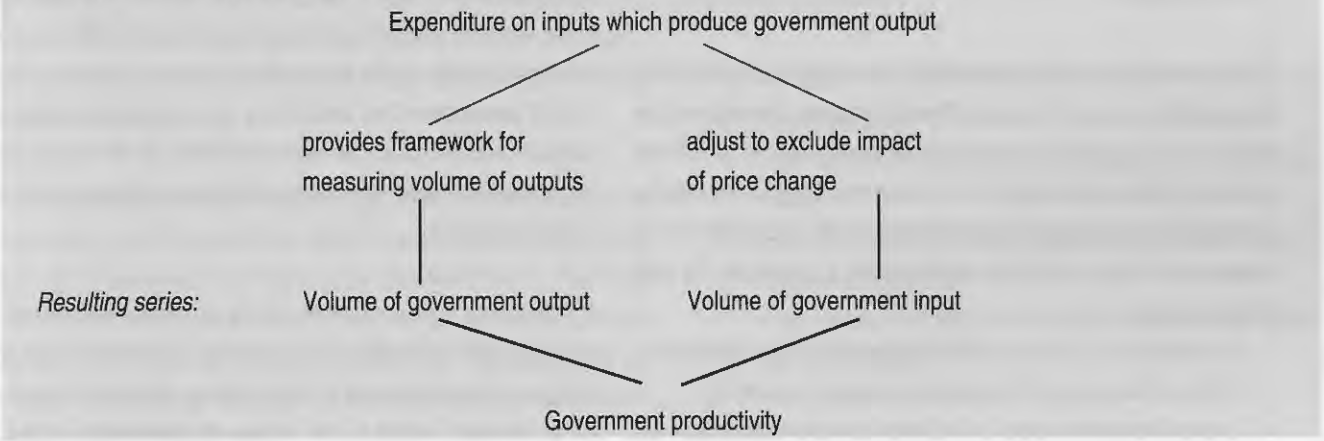
There is an important distinction to be drawn between *outputs* and *outcomes*. It is outputs which are measured in the national accounts. *Outcomes* may not be directly connected with *outputs*. For example a trend towards fewer and less destructive fires may arise in a number of ways including: better fire fighting; fire inspections and other prevention activities; more money on advertisements about smoke alarms etc; and improved building standards. Only the first two of these are related to the *output* of the fire service; but all contribute to the *outcome* of less fire damage. This outcome is the goal sought by government and by individuals. Similarly improved exam results is an outcome which might result from better teaching, use of the internet, better public libraries or more support from parents; only the first of these is related to the *output* of education.

Measuring government productivity is linked to the measurement of government output. Physical productivity, the concept illustrated in this article, relates a volume measure – government output produced in a given period – to the inputs used to produce them. To take an example, an increase in the amount of outputs produced while keeping the level of physical inputs constant generates, by definition, an improvement in the level of physical productivity. Note that this is a broad measure of productivity, taking account of the effectiveness of the use of all inputs, and is not restricted to the productivity of labour as in ONS's *Labour Market Statistics* First Release.

This article will explain how both government output and productivity are measured. If the beginning of the chain is seen as government spending and the end of the chain as a productivity measure, the order of events – and the intermediate series which have to be created – are as follows:

Figure 1

Expenditure on inputs which produce government output



III Estimating aggregate government output and productivity

Volume of government output, expenditure on government output

The expenditure on the production of goods and services which constitute government output is a component of the gross domestic product as measured by the expenditure approach. It is part of the component 'final consumption expenditure' which currently accounts for around 86 per cent of GDP. What is final consumption expenditure?

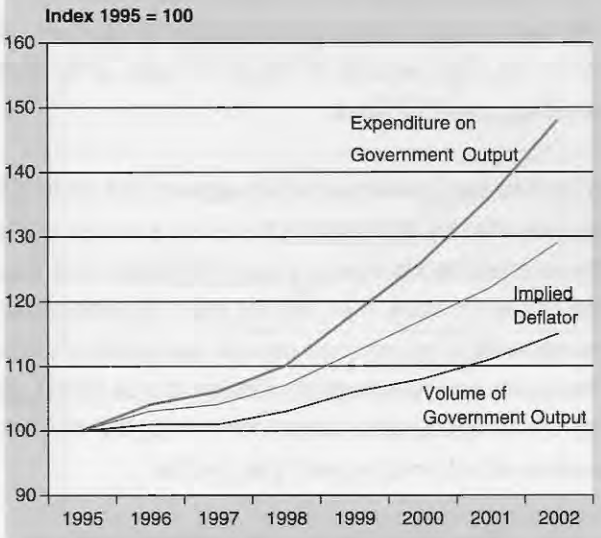
- It represents the value of the goods and services which meet individual or communal needs.
- It is made up almost entirely of expenditure by households and government.
- The expenditure by households goes to buy goods and services from businesses, e.g. retailers and suppliers of services in the market sector. This meets about 77 per cent of the needs of households.
- Their other needs – 23 per cent of them – are met through government output. These can be consumed collectively by everyone (as with defence) or by individuals (as with education and healthcare).

Figure 2 brings together two key National Statistics series:

- Expenditure on the inputs purchased by government to produce its outputs; this is usually referred to in ONS publications as general government final consumption expenditure **at current prices.**
- Government output, which represents the volume of goods and services produced by government and consumed either by individuals in households or collectively. This includes items procured by government on behalf of individuals. This is usually referred to in ONS publications as general government final consumption expenditure **at constant 1995 prices**.

Figure 2

General Government: Expenditure on Government Output, Volume of Government Output, Implied Deflator 1995–2002



To distinguish clearly between the concepts used here, we will refer to these two series as 'expenditure on government output' and 'volume of government output' in the remainder of this note. The national accounting term 'general government' is used to denote all levels of government taken together.

An increase in expenditure between any two years could be the result of one of the following scenarios:

- more inputs were bought (e.g. more staff);
- the prices of the inputs bought went up (e.g. the pay rates of staff went up or better, more expensive staff were employed).

But more likely it will be some combination of these, that is:

- a change in the amount of inputs bought, together with a change in their price.

The volume of government output need not move hand in hand with the expenditure on it. They are different concepts. The expenditure has paid for the inputs; the output is what was created as a result of bringing these inputs together. The volume of output is a volume concept and is measured independently of the expenditure: it is measured in terms of what is produced for a consumer. To take some examples:

- the volume of output of health treatments can be measured in terms of the number of treatments provided to patients;
- and the volume of output of education can be measured by the number of lessons provided to students.

These examples make it easier to understand how the volume of output does not necessarily track the expenditure on producing it. A simple illustration is the arrival of an extra pupil in a class of 10: this does not add 10 per cent to expenditure but it will add 10 per cent to the output produced so long as the quality of the education provided remains the same.

A list of the main government outputs appears in the Annex. It is not an exhaustive list: in the construction of any economic aggregate, the usual practice is to measure a range of variables which, together, are believed to move in line with the whole. Government outputs cannot easily be reduced to the common denominator of money, as they usually have no selling price. If they need to be added together, this can be done by using weights derived from information on the relative costs of producing each type of output.

In some cases, particularly for collective services like defence, it may not be possible to develop volume of output measures at all. In these cases we have to make the artificial assumption that the output of these services is identical to the volume of inputs. We are trying to minimise the use of this assumption, because it carries with it the implicit assumption that productivity cannot change. Independent output indicators have now been developed for almost 70 per cent of government output and are included, in an aggregate form, in the national accounts.

If the volume of output produced by government does not vary precisely with expenditure, its unit cost of production would not remain constant but go up or down. Hence, the ratio of expenditure on government output to the volume of government output is of interest. This ratio is often referred to as the 'implied deflator': it measures the cost per unit of output. It is akin to a price index and is sometimes interpreted as a measure of public sector inflation. However, it differs from price indices such as the retail prices index in one important respect – it is not a measure of market prices and cannot be observed or measured directly.

Analysis

Table 1 shows that, between 1995 and 2002, expenditure on government output increased by 48 per cent. Growth was modest in the early years – in the region of 2 per cent to 4 per cent year on year. Most of the growth in spending came after 1998: in this period, annual growth was in the 6 per cent to 9 per cent range, reaching a high point of 9.1 per cent by 2002.

Table 1 General Government: expenditure on/ volume of government output and implied deflator

£ million

	1995	1996	1997	1998	1999	2000	2001	2002	% change 1995–2002
All functions									
Expenditure on government output *	141,031	146,779	149,147	154,881	166,614	177,801	191,506	208,936	*48*
Annual change (per cent)		*4*	*2*	*4*	*8*	*7*	*8*	*9*	
Volume of government output at 1995 prices *	141,031	142,702	142,779	144,991	149,419	152,524	156,361	162,251	*15*
Annual change (per cent)		*1*	*0*	*2*	*3*	*2*	*3*	*4*	
Implied deflator*	100.0	102.9	104.5	106.8	111.5	116.6	122.5	128.8	

* These series are National Statistics.

Over the period, the volume of government output rose by 15 per cent. Immediately after 1995, there was very little growth. In 1999, growth began to accelerate reaching a high point of just under 4 per cent in 2002. It is interesting to note that this acceleration began one year later than the acceleration in the growth in expenditure on government output.

The implied deflator increased by 29 per cent. In effect, the cost of producing a unit of government output has gone up by 29 per cent, the rate of increase being higher after 1998 than before. That says nothing about how efficiently resources are being transformed into output. And it says nothing about whether unit costs are going up faster than they are in other sectors. Over the same period, the GDP deflator rose by 21 per cent.

The component parts of output and expenditure are examined in detail in Section IV.

Government productivity

We argued above that the cost per unit of output is not an ideal measure of efficiency nor of success or good practice.

- As it is expressed in money terms, it will reflect changes in the prices of inputs as well as changes in the efficiency with which they are converted into outputs.
- It is perfectly possible that, even when costs per unit of output are rising, resources can be used more efficiently year by year – and vice versa.
- Efficiency in the use of physical resources can only be isolated if we measure inputs excluding the effect of price changes.

We need a measure which relates outputs to the inputs that created them. Productivity measurement is one solution, as is illustrated in the following example:

- An increase in the volume of government output between any two years can result from any of the following scenarios:
  - x per cent more output is produced using x per cent more inputs; or
  - x per cent more output is produced using less than x per cent more inputs; or
  - x per cent more output is produced using more than x per cent more inputs.

Figure 3

General Government: Volume of Government Input, Volume of Government Output, Indicative Index of Productivity 1995–2002

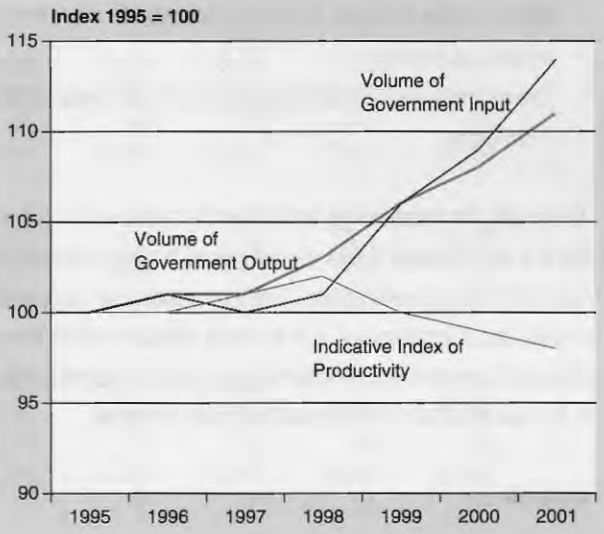


Table 2 General Government: volume of government output, volume of government input and annual productivity change indicative estimate

£ million

	1995	1996	1997	1998	1999	2000	2001	% change 1995–2001
All functions								
Volume of government output at 1995 prices*	141,031	142,702	142,779	144,991	149,419	152,524	156,361	*11*
Annual change (per cent)		*1*	*0*	*2*	*3*	*2*	*3*	
Volume of government input at 1995 prices †	141,031	142,388	141,371	142,785	149,441	153,877	160,320	*14*
Annual change (per cent)		*1*	*–1*	*1*	*5*	*3*	*4*	
Annual productivity change: indicative estimate (per cent) †		*0*	*1*	*1*	*–2*	*–1*	*–2*	

* This series is a National Statistic.

† These are experimental series.

In the first of these cases, there is no change in productivity, in the second there is an increase and in the third a fall. To measure productivity, we therefore need to know two things: output (which we have already examined) and inputs. Table 2 and Figure 3 show these series, and derive a productivity index by taking the ratio between them:

- General government final consumption expenditure **at constant 1995 prices**. This represents the volume of goods and services which are produced by government and consumed either by individuals in households or collectively. It is also known as government output. This is one of the series already encountered in Table 1.
- The volume of inputs purchased by government to produce those outputs, measured as general government final consumption expenditure with the effect of price change taken out. This is not a component of the national accounts as such but it is derived from a component – general government final consumption expenditure **at current prices** – by adjusting it to exclude the effect of price changes. It does not yet meet all the criteria to be a National Statistic.
- The productivity index is the ratio of outputs to inputs at constant 1995 prices.

To simplify the terminology, the remainder of this article will refer to the first two of these series as 'volume of government output' and 'volume of government inputs'. The third series is an approximation to total factor productivity: it is a broad measure which shows up changes in productivity, whether their source is a change in efficiency in the use of labour or intermediate inputs or capital.

Analysis

In Table 2, the analysis covers only the period 1995 to 2001; complete data for 2002 are not yet available.

- The volume of government output went up by 11 per cent between 1995 and 2001. Immediately after 1995, there was little growth. In 1999, growth began to accelerate reaching 2½ per cent in 2001 (and then, as we saw earlier, reaching just under 4 per cent in 2002).
- The volume of inputs grew very slowly or not at all in the early part of the period. In 1999, they began to move sharply upwards; from then, the annual rate of growth remained in the 4 per cent to 5 per cent range.
- It is the ratio of the volume of outputs to the volume of inputs which measures productivity. Since 1999, the volume of output has been lagging the volume of inputs, indicating a fall in productivity.

The data are not yet robust enough to report the productivity calculations for individual government functions but the determinants of productivity change are discussed in Sections IV and V.

IV A more detailed look at government input

This section examines the next stages in measuring government output and government productivity; namely:

- measuring expenditure on government output, and
- measuring the volume of government input.

At this stage, we will examine the series in more detail:

- by type of input;
- by function.

The types of input are labour, purchases of goods and services and capital consumption.

The functions examined in detail are health, education, social security, personal social services, police, courts, prisons and fire. These eight functions together account for approaching 70 per cent of the total relevant expenditure across all functions. For some functions – such as defence – it has not been possible yet to devise an output measure. The main output of defence – at least when units are not on active service – is to provide deterrence: no way has yet been found to measure this in volume terms. Other services such as housing are excluded as social housing in the UK is provided by units which are classified as market producers rather than to government: provision of housing by local authorities and by housing associations appears in the non-financial corporations sector.

Expenditure on government output

In Table 3, health is the largest single component of expenditure on government output; it accounts for 40 per cent of the total. The other major functions, in spending terms, are: education 29 per cent and personal social services 12 per cent. Below them come police 9 per cent, courts 3 per cent, social security 3 per cent, prisons 2 per cent and fire 2 per cent.

All functions show higher expenditure in 2001 than in 1995. For many functions, there was slow growth between 1995 and 1997 and an increase after that. The largest increases over the whole period were in personal social services and health (both up by 53 per cent), education (+39 per cent), police (+38 per cent), fire (+26 per cent) and prisons (+25 per cent). Social security expenditure fell after the transfer of some responsibilities to Inland Revenue. For personal social services, with increased demand from an ageing population, the increase was spread across the whole period; health on the other

Table 3 General Government: expenditure on government output, price indices and volume of government input, by function and economic category

£ million

	1995	1996	1997	1998	1999	2000	2001	% change 1995–2001
Education								
Expenditure on government output								
Labour	17,834	18,223	18,938	19,837	20,928	22,663	25,183	*41*
Goods and services	6,391	6,464	6,616	6,981	7,607	7,943	8,603	*35*
Capital consumption	1,066	1,111	1,138	1,142	1,157	1,187	1,264	*19*
Total	25,291	25,798	26,692	27,960	29,692	31,793	35,050	*39*
Price indices (1995=100)								
Labour	100.0	102.9	106.0	109.5	113.9	117.1	121.3	
Goods and services	100.0	101.2	102.6	103.9	103.1	104.7	106.6	
Capital consumption	100.0	102.4	104.7	108.9	113.3	117.9	122.1	
Volume of government input at 1995 prices								
Labour	17,834	17,711	17,872	18,123	18,370	19,347	20,753	*16*
Goods and services	6,391	6,391	6,448	6,721	7,377	7,585	8,071	*26*
Capital consumption	1,066	1,085	1,087	1,049	1,021	1,007	1,036	*–3*
All inputs	25,291	25,187	25,407	25,893	26,768	27,939	29,860	*18*
All inputs index	100	100	101	102	106	111	118	
Health								
Expenditure on government output								
Labour	3,419	2,841	2,680	2,676	2,865	2,799	3,074	*–10*
Goods and services	35,470	38,539	39,895	42,632	47,134	50,927	56,352	*59*
Capital consumption	92	86	82	83	109	117	120	*30*
Total	38,981	41,466	42,657	45,391	50,108	53,843	59,546	*53*
Price indices (1995=100)								
Labour	100.0	103.6	106.4	110.9	118.0	126.4	134.3	
Goods and services	100.0	102.9	105.1	108.6	114.1	119.7	124.8	
Capital consumption	100.0	105.7	104.8	107.4	109.3	112.9	117.1	
Volume of government input at 1995 prices								
Labour	3,419	2,743	2,519	2,412	2,427	2,214	2,289	*–33*
Goods and services	35,470	37,443	37,948	39,239	41,297	42,548	45,159	*27*
Capital consumption	92	81	78	77	100	104	102	*11*
All inputs	38,981	40,267	40,545	41,728	43,824	44,866	47,550	*22*
All inputs index	100	103	104	107	112	115	122	
Social Security								
Expenditure on government output								
Labour	1,816	1,834	1,899	1,965	1,915	1,882	1,721	*–5*
Goods and services	2,511	2,436	2,420	2,352	2,616	2,809	2,313	*–8*
Capital consumption	94	85	96	101	98	97	95	*1*
Total	4,421	4,355	4,415	4,418	4,629	4,788	4,129	*–7*
Price indices (1995=100)								
Labour	100.0	98.3	100.7	109.7	112.4	110.9	101.5	
Goods and services	100.0	101.8	103.7	106.5	108.1	110.0	112.1	
Capital consumption	100.0	105.1	109.4	111.6	109.6	112.1	115.1	
Volume of government input at 1995 prices								
Labour	1,816	1,866	1,886	1,791	1,704	1,697	1,696	*–7*
Goods and services	2,511	2,393	2,333	2,209	2,420	2,554	2,064	*–18*
Capital consumption	94	81	88	90	89	87	83	*–12*
All inputs	4,421	4,340	4,307	4,090	4,213	4,338	3,843	*–13*
All inputs index	100	98	97	93	95	98	87	

Table 3 - *continued*

£ million

	1995	1996	1997	1998	1999	2000	2001	% change 1995–2001
Prisons								
Expenditure on government output								
Labour	1,090	1,124	1,131	1,093	1,191	1,244	1,241	*14*
Goods and services	516	520	593	660	715	641	754	*46*
Capital consumption	94	94	102	105	127	136	133	*42*
Total	1,700	1,738	1,826	1,858	2,033	2,021	2,128	*25*
Price indices (1995=100)								
Labour	100.0	105.1	104.4	96.9	103.8	105.6	103.8	
Goods and services	100.0	102.4	104.4	107.0	108.6	110.7	112.1	
Capital consumption	100.0	105.1	109.7	111.8	109.8	112.3	114.6	
Volume of government input at 1995 prices								
Labour	1,090	1,069	1,084	1,128	1,147	1,179	1,195	*10*
Goods and services	516	508	568	617	658	579	673	*30*
Capital consumption	94	89	93	94	116	121	116	*23*
All inputs	1,700	1,666	1,745	1,839	1,921	1,879	1,984	*17*
All inputs index	100	98	103	108	113	111	117	
Police								
Expenditure on government output								
Labour	6,705	6,942	7,244	7,625	7,729	8,041	8,415	*26*
Goods and services	925	1,059	1,081	1,114	1,204	1,456	2,119	*129*
Capital consumption	97	102	110	116	141	146	152	*57*
Total	7,727	8,103	8,435	8,855	9,074	9,643	10,686	*38*
Price indices (1995=100)								
Labour	100.0	103.7	107.6	112.1	115.7	121.7	128.5	
Goods and services	100.0	102.6	104.5	107.6	108.9	110.6	111.9	
Capital consumption	100.0	105.1	107.1	109.1	108.6	111.2	118.7	
Volume of government input at 1995 prices								
Labour	6,705	6,696	6,733	6,803	6,678	6,606	6,549	*–2*
Goods and services	925	1,032	1,034	1,035	1,106	1,317	1,893	*105*
Capital consumption	97	97	103	106	130	131	128	*32*
All inputs	7,727	7,825	7,870	7,944	7,914	8,054	8,570	*11*
All inputs index	100	101	102	103	102	104	111	
Fire								
Expenditure on government output								
Labour	1,345	1,395	1,453	1,522	1,600	1,636	1,661	*24*
Goods and services	132	114	129	136	149	186	188	*42*
Capital consumption	38	39	43	47	50	53	55	*45*
Total	1,515	1,548	1,625	1,705	1,799	1,875	1,904	*26*
Price indices (1995=100)								
Labour	100.0	103.5	108.6	113.4	115.5	118.5	119.3	
Goods and services	100.0	87.8	93.5	101.9	108.3	110.0	113.7	
Capital consumption	100.0	105.1	109.7	111.8	109.8	112.3	114.5	
Volume of government input at 1995 prices								
Labour	1,345	1,348	1,338	1,342	1,385	1,381	1,392	*4*
Goods and services	132	130	138	134	138	169	165	*25*
Capital consumption	38	37	39	42	46	47	48	*26*
All inputs	1,515	1,515	1,515	1,518	1,569	1,597	1,605	*6*
All inputs index	100	100	100	100	104	105	106	

Table 3 - *continued*

£ million

	1995	1996	1997	1998	1999	2000	2001	% change 1995–2001
Courts								
Expenditure on government output								
Labour	1,218	1,206	1,243	1,260	1,299	1,398	1,431	*18*
Goods and services	1,851	2,019	1,988	1,957	1,794	1,722	2,292	*24*
Capital consumption	40	40	44	46	50	55	53	*33*
Total	3,109	3,265	3,275	3,263	3,143	3,175	3,776	*22*
Price indices (1995=100)								
Labour	100.0	102.2	106.2	108.7	111.1	117.5	120.5	
Goods and services	100.0	102.0	103.8	106.6	107.6	109.4	110.9	
Capital consumption	100.0	105.1	108.7	110.9	109.4	112.0	115.4	
Volume of government input at 1995 prices								
Labour	1,218	1,180	1,170	1,159	1,169	1,190	1,188	*–3*
Goods and services	1,851	1,980	1,915	1,836	1,668	1,574	2,067	*12*
Capital consumption	40	38	40	41	46	49	46	*15*
All inputs	3,109	3,198	3,125	3,036	2,883	2,813	3,301	*6*
All inputs index	100	103	101	98	93	91	106	
Personal Social Services								
Expenditure on government output								
Labour	4,958	5,169	5,352	5,584	5,767	5,857	6,155	*24*
Goods and services	4,216	4,946	5,288	5,372	6,541	7,305	7,786	*85*
Capital consumption	54	61	58	60	199	213	222	311
Total	9,228	10,176	10,698	11,016	12,507	13,375	14,163	*54*
Price indices (1995=100)								
Labour	100.0	105.4	110.5	118.6	124.6	127.8	137.0	
Goods and services	100.0	100.6	102.5	104.2	105.2	106.5	106.7	
Capital consumption	100.0	105.2	104.9	106.9	107.5	110.3	122.4	
Volume of government input at 1995 prices								
Labour	4,958	4,905	4,843	4,710	4,629	4,581	4,492	*–9*
Goods and services	4,216	4,917	5,159	5,157	6,221	6,857	7,296	*73*
Capital consumption	54	58	55	56	185	193	181	*235*
All inputs	9,228	9,880	10,057	9,923	11,035	11,631	11,969	*30*
All inputs index	100	107	109	108	120	126	130	
All above functions								
Expenditure on government output								
Labour	38,385	38,734	39,940	41,562	43,294	45,520	48,881	*27*
Goods and services	52,012	56,097	58,010	61,204	67,760	72,989	80,407	*55*
Capital consumption	1,575	1,618	1,673	1,700	1,931	2,004	2,094	*33*
Total	91,972	96,449	99,623	104,466	112,985	120,513	131,382	*43*
Volume of government input at 1995 prices								
Labour	38,385	37,518	37,445	37,468	37,509	38,195	39,554	*3*
Goods and services	52,012	54,794	55,543	56,948	60,885	63,183	67,388	*30*
Capital consumption	1,575	1,566	1,583	1,555	1,733	1,739	1,740	*11*
All inputs	91,972	93,878	94,571	95,971	100,127	103,117	108,682	
All inputs index	100	102	103	104	109	112	118	
Overall implied deflator								
Labour	100.0	103.2	106.7	110.9	115.4	119.2	123.6	
Goods and services	100.0	102.4	104.4	107.5	111.3	115.5	119.3	
Capital consumption	100.0	103.3	105.7	109.3	111.4	115.2	120.3	
All other functions								
Expenditure on government output	49,059	50,330	49,524	50,415	53,629	57,288	60,124	*23*
Price index (1995=100)	100.0	103.8	105.8	107.7	108.8	112.9	116.4	
Volume of government input at 1995 prices	49,059	48,510	46,800	46,814	49,314	50,760	51,638	*5*
All functions								
Expenditure on government output	141,031	146,779	149,147	154,881	166,614	177,801	191,506	*36*
Volume of government input at 1995 prices	141,031	142,388	141,371	142,785	149,441	153,877	160,320	*14*
Implied deflator	100.0	103.1	105.5	108.5	111.5	115.5	119.5	

hand was fairly stable in the early years before growing strongly after 1998. But health is several times as large as personal social services and hence its recent growth has had an important influence on the growth of the total.

For most functions, the largest part of expenditure – in value terms goes on labour. For fire, labour accounts for nearly 90 per cent of expenditure, for police around 80 per cent and for education around 70 per cent. For social security, courts and personal social services, the share spent on labour is below 50 per cent. These percentages have not varied significantly over the period: there are suggestions of a slight fall in the labour share in some areas as expenditure on the purchases of goods and services has increased faster than that on labour. This is particularly the case in personal social services and, to a lesser extent, in prisons and police.

For health, the picture is very different. Here, purchases of goods and services are over 90 per cent of all expenditure. This arises because most health treatments paid for by government are not produced by government. Primary care trusts (which are a part of government) commission these services from hospital trusts and other healthcare providers: in the national accounts, these providers are classified as either public corporations or private producers. In summary, the central government buys healthcare treatments (goods and services) on behalf of patients but does not employ the staff who produce them.

Volume of government input

The volume series are obtained in one of two ways, depending on the suitability of the data available for the purpose:

- by direct measurement of the resources used (e.g. the number of employees), or
- by dividing the current price expenditure by an index which measures price change in the items bought.

These calculations are carried out at the most disaggregated level practicable, e.g. for each combination of function and economic category. These volume of inputs series are not components of the national accounts as such and they do not yet meet all the criteria to be National Statistics.

Looking at the price indices, the price of labour went up faster in most functions than that of the goods and services bought. The amount of the increase in the unit labour costs varies by function. It is 37 per cent for personal social services, 29 per cent for police, 21 per cent for education and courts, 19 per cent for the fire service and 4 per cent for prisons. As explained before, health is a different case. In expressing these health inputs at constant prices, account has been taken of the composition of the expenditure incurred by the producers, notably that expenditure on labour accounts for a large share of hospitals' expenditure.

For two functions – personal social services and education – labour inputs were significantly lower in 2001 than they were in 1995. One influence on this is likely to be the increasing incidence of contracting out services, including the use of private finance initiative contracts: this means that government is buying goods and services rather than labour. Given this development, a more coherent picture is obtained by observing all the inputs together: it is this, rather than the rapidly changing component series which is relevant to measuring output and productivity.

All functions except social security show a higher volume of inputs used in 2001 than in 1995. For many functions, there was relative stability (or a slight fall) between 1995 and 1997 and an increase after that. The largest increases over the whole period were in personal social services (up by 30 per cent), prisons (+17 per cent), police (+11 per cent), health (+22 per cent). The increase in personal social services was spread across the whole period; health on the other hand was fairly stable in the early years before growing strongly after 1998. But health is several times as large as personal social services and hence its recent growth has had an important influence on the total. The social security series fell sharply in 2001 after the transfer of some functions to the Inland Revenue (which is not included in these tables).

V A more detailed look at government output

This section introduces the next stage: measuring the volume of output and the rate of productivity change. These are the concepts which are most meaningful from an economic point of view. However the data are not yet robust enough to present the calculations of productivity for the individual functions of government. Nevertheless, this section illustrates the process.

Volume of government output

Section II has already introduced the concept of government outputs. When we pay for goods and services, the output we buy can easily be identified as what we receive in exchange for parting with our money. When goods and services are provided free of charge by government, we are not always aware of receiving them. We therefore need to think a little harder to identify the outputs. Some of the principles were listed in the article "Measuring Productivity Change in the Production of Public Services" in *Economic Trends*, May 2002; the annex lists a number of common government outputs. This section illustrates how individual outputs are identified and measured.

The average annual prison population rose steadily from 57,000 in 1995 to just under 72,000 in 2001 (see Table 4). If the quality of prison care remained constant, this would be a strong indication of growth in output over this period. In reality, there is anecdotal evidence that the quality of service provided has declined as prisons have become overcrowded. But at present, no means has been devised to bring the effect of that into the output measure.

Table 4 Measuring the output of prisons: prison population

Great Britain — Thousands

	Average prison population
1995	56.7
1996	61.1
1997	67.2
1998	71.3
1999	70.8
2000	70.5
2001	71.9

The fire service's main unit of output is responding to emergency events such as fires; hence the downward trend in the number of secondary fires since 1995 (see Table 5) indicates a fall in output followed by a sharp increase in 2001. Numerous other fire service outputs – such as attending road accidents – are also included in the overall measure of government output. We have no reason to believe that quality change in the fire service is significant on a year to year basis.

Table 5 Measuring the output of fire services: major components and total

Index numbers, 1995=100

	Primary fires	Secondary fires	Total output
Weights (per cent)	*49.3*	*12.6*	*100*
1995	100.0	100.0	100.0
1996	104.6	78.8	100.0
1997	102.0	65.2	95.1
1998	101.7	50.5	90.0
1999	111.1	61.9	94.6
2000	111.6	63.8	98.2
2001	116.0	79.9	105.1

In education, the unit of output is a pupil year of teaching. So output is mainly a function of the numbers in education. During this period, these pupil numbers grew at a rate of about 0.7 per cent per year. Unsurprisingly, education output – when measured in this way – changes very little over the period (see Table 6). However, there is evidence that the quality of education has improved in recent years and research is in progress to quantify this so it can be reflected appropriately in the overall measure of government output.

A large part of police work consists of investigating crimes committed. But not all crimes are the same: on average, a violent crime has much more time and resources spent on it than do other types. Investigating resource-intensive crime must be regarded as creating more output than the investigation of a crime which takes up less resources. It follows that police output is influenced by changes in the composition of crimes. Table 7 shows that there was a sharp increase in violent crime over the period and sharp falls in several types of crime which are less expensive (such as thefts from vehicles and burglaries). Weighting each type of crime according to the cost of investigating it yields an increase in police output over the period. To produce an overall measure of police output, this 'raw' measure needs to be adjusted to take account of the success of the police in solving crimes and to add in other police outputs such as time spent on patrol and attending road accidents.

In health, where each specific type of treatment is usually a different output, the changing composition of the aggregate output is an important determinant of the overall trend. Some treatments are expensive while others are not; some treatments are performed frequently, others not. The cost and the incidence of each treatment are taken into account by the Department of Health in compiling an output index. Table 8 contains this index together with the ONS measure which has wider coverage. Quality change does not yet feature in this measure. But there are areas where noticeable quality change might be suspected: an increase in success rates of treatments and survival rates after treatments perhaps being the most significant. These are not yet reflected in the overall output measure.

Table 6 Measuring education output: numbers of pupils being taught, by school type

Index numbers, 1995=100

	Nursery	Primary	Secondary	Special	Total
1995	100.0	100.0	100.0	100.0	100.0
1996	101.6	101.2	101.0	100.6	101.1
1997	102.3	102.0	102.2	101.6	102.1
1998	101.4	102.5	103.6	101.8	102.9
1999	105.1	102.2	105.7	101.7	103.8
2000	109.5	101.6	107.7	101.7	104.5
2001	107.1	101.5	108.1	101.7	104.6

Table 7 Measuring police output: recorded crimes

England and Wales — Thousands

	Weights *	1995	1996	1997	1998	1999	2000	2001
Violence against the person	30	473.9	517.6	551.2	516.6	561.5	596.0	637.8
Sexual offences	3	31.3	31.9	34.6	36.0	37.4	37.4	40.4
Robbery	5	68.7	72.5	65.7	65.9	79.9	92.4	114.8
Burglary – dwelling	8	644.3	596.1	521.7	480.4	450.3	412.9	423.5
Burglary – commercial & other	4	590.8	557.7	501.4	481.6	467.9	440.7	444.4
Theft of motor vehicle	6	517.7	479.7	418.1	394.2	379.0	347.8	330.8
Theft from vehicle	3	825.7	793.8	721.4	689.6	673.4	639.5	648.8
Theft – other	14	1,204.1	1,153.7	1,115.3	1,112.1	1,163.2	1185.7	1,268.6
All other notifiable crime	13	263.5	268.9	275.3	326.5	386.1	387.0	382.7
Criminal damage	5	977.1	988.0	928.8	886.8	929.2	956.5	1,038.4
Drug offences	10	134.2	142.9	147.8	139.2	125.4	115.6	119.4
Total	**100**	**5,731.3**	**5,603.0**	**5,281.2**	**5,129.0**	**5,253.2**	**5,211.5**	**5,449.6**
Weighted Index		100	100	98	95	100	102	107

* Relative cost of investigating each type of crime.

Table 8 Measuring health services output

Index numbers, 1995=100

	Hospital & Community Health Services (DoH index)	All Health
1995	100.0	100.0
1996	102.5	102.8
1997	104.9	105.2
1998	107.6	108.0
1999	109.4	110.4
2000	109.6	113.3
2001		116.6

Table 9 Measuring social security output: indicators of claims made / payments processed

Index numbers, 1995=100

	1995	1996	1997	1998	1999	2000	2001
Retirement pension	100.0	102.1	104.5	91.0	93.8	76.3	83.9
Widows benefit	100.0	95.0	92.5	77.5	90.0	82.5	130.0
Job seekers' allowance	100.0	93.6	90.7	85.0	84.6	78.9	75.2
Sickness benefits	100.0	100.2	93.9	81.5	80.1	78.8	69.5
Income support	100.0	96.5	94.0	97.9	97.4	98.5	100.3
Family credit	100.0	110.2	117.7	119.7	91.5	0.0	0.0
Social fund	100.0	100.5	101.9	102.8	103.2	103.2	103.2
Child & lone parent benefits	100.0	94.1	117.4	117.4	105.4	119.6	120.5
Housing benefit	100.0	100.2	97.2	93.8	89.9	84.2	81.4

In social security, the units of output are mainly claims but in some cases payments. There are many separate benefits: their incidence is shown in Table 9. For each type, the numbers of claims or payments must be weighted in proportion to the processing cost. Taken together, these results paint a picture of declining output for social security during the late 1990s, partly reflecting the period's economic prosperity but also the reorientation of the social security system. However, this decline might be an overestimate, as it does not yet take account of other output activities such as giving advice.

Government productivity

Table 2 gave an indicative measure of productivity change for government as a whole. It was calculated as the ratio of the change in the volume of outputs to the change in the volume of inputs, taking all government activities together. It is planned to make this analysis available at function level as soon as the quality of the data warrant it.

Conclusions

This article has compared the output produced by government over a year with the resources which have been used to produce it. These resources comprise a wide range of items, only some of which can be directly linked to producing a specific output. At one extreme, disposable items used in a hospital operation are, by definition, linked to that particular output. At the other extreme, activities such as training or recruitment do not produce output at the time they are carried out; their *raison d'être* is that they facilitate production in the future. In a number of cases government output is demand led (e.g. the number of fires or the number of old people) making it difficult to manage short-term fluctuations. In other cases, the decision to generate more government output may be one of policy. All these factors together suggest that we would not expect close relationships year by year between expenditure and output. A part of the increase in inputs in the past few years will go towards building an infrastructure which delivers more output – or better quality output – in future years.

This brings us to the question of whether a meaningful picture is presented by the approach used in this article. Much of the information is already included in the computation of gross domestic product and already meets the National Statistics quality criteria. For instance, the expenditure on government output is obtained from outturn reports on spending by central and local government. The output measures have been built up from information on each function and are included in GDP. The article also has a role in setting out the framework for measuring productivity change in government: future work will be consistent with this framework.

Output growth has lagged behind the increase in inputs during the period 1995 to 2001, implying, on the new experimental measure, a fall in productivity. This suggests that, over time, resources were being used less efficiently. However, there are other possible explanations for this development:

- the increases in spending may have been used on things which will increase the capacity to produce more output in the future;
- the spending may have been on things which improve outcomes but do not contribute to output as measured for national accounts;
- the output measures used may not have monitored all the outputs being produced;
- the output measures used may have failed to reflect all the quality improvements made in the outputs as a result of rising consumer expectations and the more demanding standards set for service delivery.

These factors may also affect the implied deflator (cost per unit of output). But it is not, at present, possible to disentangle the separate effects of these various explanations. However, ONS is continuing to work to measure the possible impact of the last two. We have some indication of what is missing from our figures and are working to include them. Examples include the trend to using more effective drugs, higher observed patient survival rates (both of which point to an improvement in the quality of output) and treating patients in private sector hospitals (an activity which is not yet covered by these figures). ONS will continue this work with a view to publishing estimates of productivity for each government function. To achieve this, we will improve coverage of the series included here and work to incorporate quality change into the output measures. Regular progress reports will be published.

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Presents the concepts and some of the data relevant to measuring government productivity.

Annex

Examples of some government outputs

Fire: tackling fires, attending accidents, preventing fires.

Courts: holding court cases, giving support to individuals on probation.

Police: solving crimes, attending accidents, patrolling.

Prisons: looking after prisoners.

Health: provision of treatments of various kinds in hospitals; provision of services by family doctors, opticians, pharmacists and dentists.

Education: educating pupils, delivering better quality education.

Social security: processing claims for different types of benefit; providing services of various types to the elderly, children, etc.

Personal social services: providing residential care for adults, foster placements for children, community home places for children, home help services and adoption services.