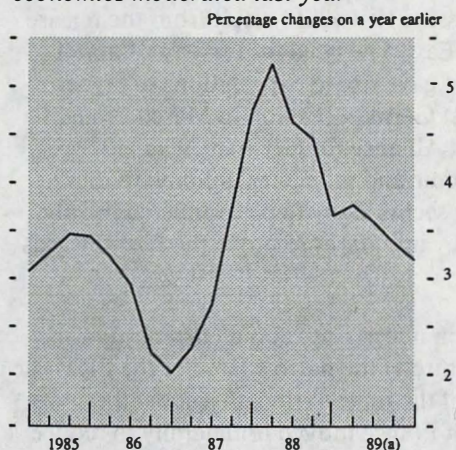


Economic commentary

- *The developed world continues to experience strong growth, the balance of which is shifting towards Europe.*
- *UK exports are now responding well to growth abroad and are sustaining output growth here, albeit at a slower rate.*
- *German unification has important implications for resource flows there and creates further trading opportunities for other countries.*
- *Meanwhile, the previous policy tightening in the United Kingdom is continuing to establish a better balance between domestic supply and demand, with corporate as well as household spending now being constrained.*
- *Weakness in non-oil commodity prices is coming to an end but oil prices have fallen back.*
- *UK inflation is proving stubborn and in the short term the rate of growth of the RPI is expected to rise; it is important that domestic cost pressures are contained to limit damage to our competitiveness.*

GNP/GDP growth in the six major economies moderated last year



(a) 1989 Q4 estimated.

The balance of growth internationally shifts towards Europe . . .

Growth in the major overseas economies remained strong in 1989 although below the previous year's cyclical peak. The balance of growth shifted markedly towards Europe, particularly in the fourth quarter, and in the European Community exceeded that of the United States in the year as a whole. Aggregate consumer price inflation moderated in the latter half of 1989, but several factors have contributed to its rise since the turn of the year. The continued strength of domestic demand accompanied by tight labour markets has caused some increase in inflationary pressure in Japan; and while the strength of the deutschemark in the fourth quarter helped to contain price inflation in West Germany, similar pressures may arise there, particularly if capacity constraints are encountered. The stimulus to growth that German unification will provide should not, however, be confined solely to West Germany and an improvement in other countries' trade performance might be expected.

Consumer price inflation in the major industrial economies was moderated during the fourth quarter by the continued fall in non-oil commodity prices which started in March 1989. Prices were weakened by the collapse of international agreements, including those for coffee and cocoa, weaker industrial demand for metals and a partial alleviation of metal supply disruptions in the second half of 1989. However, they showed a recovery in February and March, although the Economist index of non-oil commodity prices at the end of March remained 14% lower than its average level in the first quarter of 1989. The recovery was led by an increase in metal prices, and with stocks for most metals at historically low levels, prices remain sensitive to even minor supply disruptions. Oil prices have continued to fall from their

end-year peak owing to high levels of production and weak demand. OPEC continues to over-produce but, should production be cut back in the near future, the downward pressure seen on prices in early April might be reversed.

... while pressure on interest rates is upwards in Germany and Japan ...

The outstanding feature of the foreign exchange markets in the first quarter was the continued weakness of the yen. A rise in the official discount rate in Japan had been widely expected following the LDP's re-election in February, and its absence may have been a factor in the yen's further weakening. Bond prices fell amid inflationary fears that were fuelled by the yen's weakness and its implication for interest rates. Equity prices fell sharply, coinciding with weakness in bond and currency markets and prompted by a growing perception that prices, which had risen sharply towards the end of 1989, were out of line with fundamentals. The Official Discount Rate was raised by a full percentage point on 20 March in the fourth rise since last May but the increase, to 5.25%, had been largely discounted by the market and the yen failed to respond. The economy is now seen to be experiencing some erosion of the advantages of a strong currency and low inflation which accompanied the period of low interest rates following the Louvre Accord.

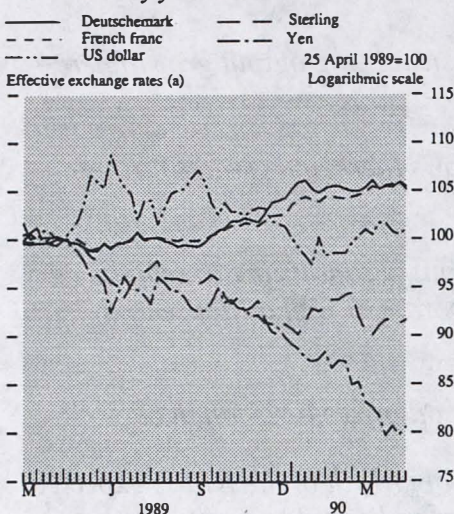
Political pressures for union and concerns about the effects of continued migration from East to West Germany led to the formation of a joint East and West German Committee of Experts early in February. The Committee is preparing the way for currency union between the two economies which it is hoped will encourage people to remain in the East. Deutschemark bond yields rose sharply on the news, reflecting heightened uncertainty about the inflationary pressure that could result from the release of savings balances in the East. The need for increased capital investment in the East also gave rise to expectations of higher real interest rates. The East German election in March brought a victory for the centre-right Alliance for Germany who are committed to rapid economic and monetary union with the West; currency union now seems likely to be completed in July and will be accompanied by initiatives to move the East towards a market-based economy.

The deutschemark eased on uncertainty about currency union and traded towards the centre of the narrow band of the ERM, or below. Taking advantage of the franc's strength against the deutschemark, the Bank of France moved unilaterally to reduce its official rates by 0.5% in April. Despite this, and the subsequent easing in money-market rates, the franc appreciated within its ERM band. The two-tier exchange rate system for the currencies of Belgium and Luxembourg, which has been regarded as an obstacle to the development of the single European market in financial services, has been removed, as have several exchange controls in Spain. The remaining Italian exchange controls are to be removed in May.

... and progress against inflation in the United States and Japan is proving difficult

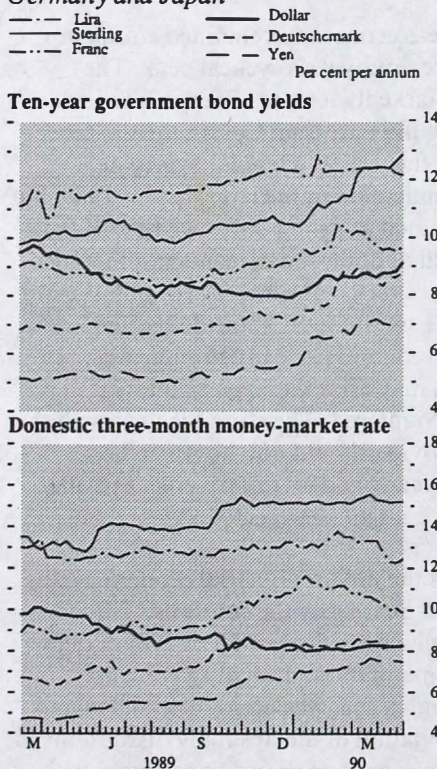
The considerations governing US monetary policy have been evenly balanced, with the danger of precipitating a recession

Foreign exchange markets have been dominated by yen weakness



(a) Bank of England index.

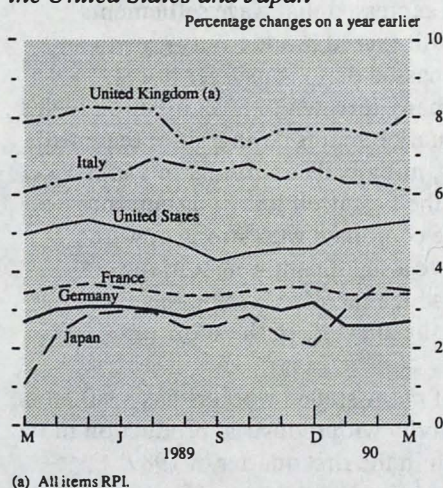
Long bond yields have risen in Germany and Japan



balanced against that of adding to inflationary pressure. Growth in the fourth quarter slowed from the third, largely owing to a slowdown in manufacturing activity, but the much larger service sector remained relatively strong and net exports also grew strongly. Manufacturing was particularly affected by the Boeing strike and the San Francisco earthquake. Recent data have also been distorted by several factors including the unseasonal weather in December and January and lay-offs in the car industry. The underlying course of activity is therefore more difficult to assess. However, while weakness in some sectors remains, the underlying trends in orders suggest some stabilisation of overall manufacturing activity, and export orders in particular are holding up well. While the weather brought forward employment gains in January and February, the first quarter average of employment indicates modest growth, while unemployment remains flat. The picture is therefore one of strength in the services sector but of weaknesses in manufacturing. Preliminary data for the first quarter therefore indicate that growth was around its trend rate, but below potential. This, together with modest wage settlements, suggests that underlying consumer price inflation is unlikely to accelerate above 4%–5%, the higher figures in the first quarter having been caused partly by seasonal factors. Reductions in the rate of inflation may, however, be difficult to achieve given that the core rate (excluding food and energy) rose sharply in the first quarter, and that legislative changes to social security taxation and the minimum wage may add to inflationary pressure.

Japanese growth in 1989 remained strong, fuelled by consumption and business investment. However, there was some slowdown in the fourth quarter, with net external demand making a negative contribution to growth as imports rose strongly. In January and February, industrial output remained virtually unchanged from November, and in February was accompanied by some growth of inventories. However, orders remain strong. There is some evidence that the labour market has stopped tightening although labour shortages are still widespread. Settlements of just under 6% have been negotiated in the spring Shunto wage round but the effect of this on consumer price inflation will depend both on the strength of productivity growth and the extent to which the higher costs are absorbed in profit margins. While unit labour costs in manufacturing were lower in 1989 than 1988, each quarter showed an increase on the last and the rise in the fourth quarter was accompanied by a slowdown in productivity growth. Further pressure on consumer prices may stem from the strength of oil prices in the latter part of 1989 and the weakness of the yen. Although reflected in imported wholesale price inflation, these factors have not, as yet, been fully seen in consumer prices. However, while the yen has continued to weaken, the fall in oil prices seen in the first quarter should offset last year's rise to some extent. Twelve-month consumer price inflation was above 3% throughout the first quarter, boosted by unseasonably high food prices, but when the effects of last year's consumption tax drop out of the calculation in April the rate will fall.

Consumer price inflation has risen in the United States and Japan



In Germany, unification brings further pressures . . .

Growth in West Germany remained strong around the turn of the year, with mild winter weather enabling a high level of

construction activity. Recent data on output and orders are volatile and difficult to interpret, but orders appear to remain buoyant. Retail sales figures indicate a pick-up in demand resulting from the tax cuts worth DM 25 billion which were implemented in January and also from additional consumption by immigrants. However, this element has not been as strong as previously expected partly because of the tendency among immigrants to send earnings back to their families in the East rather than to spend them in the West. There has not as yet been strong evidence of the switch from external to domestic demand that is expected to result from immigration, and in the longer term from unification with East Germany. Immigration, which reached nearly three quarters of a million ethnic and East Germans last year, accelerated in January and February but slowed significantly following the elections in East Germany. Most of last year's resettlers have been absorbed into the labour force or found places on training courses and this has helped to alleviate labour shortages in West Germany (although at the expense of shortages in East Germany).

A supplementary budget was approved in March to cover the immediate costs of developments in East Germany but this may have to be increased to cover the costs of initiating economic reforms in East Germany which will begin immediately after currency union, scheduled to take place on 2 July this year. West Germany will in addition have to finance a social security system in the East. Further attempts to stem the flow of immigration have been announced, with certain allowances paid to resettlers to be discontinued and entry to resettlement camps to be stopped. Resettlement allowances, which replaced unemployment benefit, will not be affected. These measures will probably be effective from the time of currency union.

Twelve-month consumer price inflation has fallen from the rates seen in the fourth quarter last year, partly because last January's expenditure tax increase dropped out of the calculation but also because of the fall in import and wholesale prices associated with the stronger deutschemark and weaker commodity prices. However, concern has been expressed that wage settlements currently being negotiated will exceed productivity growth and that increased costs will be passed on to consumer prices. Developments in East Germany threaten to push inflation higher again, even if the deutschemark remains strong, since there will be added demand pressures, initially from immigrants in the West and then from within the East itself following currency union. These are likely to be combined with strong upward pressure on rents, which have a significant weight in the consumer price index, and which increased residential construction will only partially alleviate in the short run.

In East Germany, the loss of many skilled workers has resulted in a fall in output and productivity with industrial production in the first quarter 4.7% lower than in the first quarter of 1989. Production was also affected by reduced demand for East German goods, as consumers increasingly switched to West German and other imported western goods. Many firms may therefore find it difficult to compete with their West German counterparts following currency union. The heavily-indebted state-owned industrial combines are additionally liable to face severe debt-service burdens following currency union.

... investment elsewhere in Europe has been strong ...

Western Europe has been undergoing an investment boom. The French economy is estimated to have grown by 3.2% in 1989, fuelled by strong investment demand. This rate of growth has been sustained, in part, by imports of capital equipment and this accounts to a large extent for the deterioration in the underlying trade balance. The deficits in January and February were reduced to levels below the average of previous months by exports of aircraft and defence equipment. Twelve-month consumer price inflation remained at 3.4% during the first quarter, reflecting continued strong food prices and resilience in service sector inflation. In Italy, preliminary estimates suggest that, as in France, activity remains buoyant although below its cyclical peak. Investment may remain strong this year, fuelled by expectations of strong domestic and export demand. A similar picture emerges in the Netherlands, where growth in 1989 was a little over 4%, fuelled by strong investment and export growth. With capacity utilisation high and orders and profitability strong, investment in plant and equipment is expected to continue in 1990.

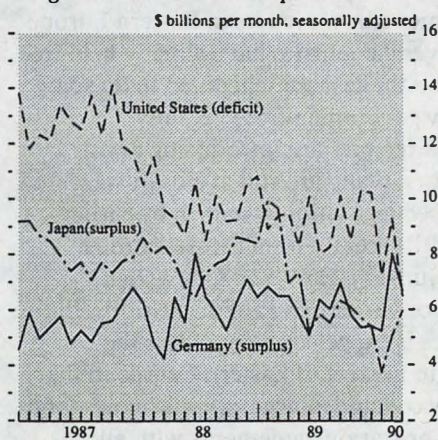
... trade imbalances persist ...

Trade figures in the major overseas economies have been volatile again, with movements in dollar exchange rates further distorting the picture in terms of dollar-denominated balances. In the case of Japan in particular exchange rate movements will not help to foster a long-run reduction in the trade surplus.

Recent trade data in the United States have been affected by a rebound in exports following the Boeing strike and large weather-related movements in imported oil prices and volumes. While sharp falls in the deficit were registered in December and February, January's deficit was more in line with earlier figures and, although export orders currently remain a source of strength, imports also remain resilient. The deficit with Japan in particular remains high, accounting for nearly half of February's shortfall. However, much of 1989's trade gain was with Europe, through higher exports of consumer and capital goods, and further growth in this area may be expected, particularly following the dollar's depreciation against the continental European currencies since September.

The continued weakness of the yen, both against the dollar and in effective terms, will serve to increase the Japanese trade surplus in the longer term, but in the shorter term may help to reduce it. The latest trade data show a rebound from December's exceptionally low surplus but indicate a high volume of imports especially of oil, which reflects the unseasonal weather at the turn of the year. Steel exports fell as production was absorbed domestically, and car exports to the United States fell as demand weakened and production at Japanese plants in the United States came on stream. These effects may be expected to continue for some time. While the trade surplus fell in 1989 from 1988, the surplus with the United States fell only marginally. This will lend urgency to the Structural Impediments Initiatives talks between the United States and Japan, which aim to open up the Japanese economy to imports. In an interim report, Japan has agreed to make reforms to the distribution and land use systems, industrial practices and investment patterns.

Large trade imbalances persist



West Germany continues to run a large trade surplus although in 1989 it was slightly smaller than in 1988. January's surplus was, however, above 1989's average, with both export and import volumes rising strongly. The initial effects of the deutschemark's fourth quarter strength will also be to raise the surplus. Around half of West Germany's trade was with the rest of the EC and all of last year's surplus can be accounted for in Europe. This reflects the strength of exports of capital goods, as investment remained strong. However, West German production, especially of capital goods, is likely to be diverted increasingly towards East Germany, reducing their ability to satisfy demand in the rest of Europe. Given that much of the investment has been in new capacity, the rest of Europe may benefit from the increased consumer demand from Germany where capacity constraints are tightest; although constraints in the West German consumer goods sector may bind less strongly than in the capital goods sector, it is expected that a significant proportion of the increased consumer demand in Germany will be met by imports. One of the effects of the unification process may therefore be to reduce trade imbalances within Western Europe.

. . . and reform in Eastern Europe gathers pace

The democratic and economic reform process in Eastern Europe continues to gather pace. Several countries have already held free national or local elections and the rest are scheduled to do so by mid-June. Although few new governments are yet fully functioning, interim and new regimes are introducing a wide range of economic reform laws; many are still at a draft stage, but in most countries the proposed legislation is radical by earlier standards. Assistance has until recently been focused almost exclusively on Poland and Hungary. However, following a number of exploratory missions and rounds of discussions, the Group of 24 OECD countries is expected to announce the extension of its programme to the rest of Eastern Europe in the near future. The EC has now concluded negotiations on new and more generous trade and co-operation agreements with all countries in the area and has made available the first \$400 million tranche of a \$1 billion medium-term adjustment loan facility to Hungary. Agreement has also been reached on almost all points concerning the establishment of the European Bank for Reconstruction and Development. Some forty countries will contribute to its capital, with EC member-states and institutions holding 51%. Its lending will be concentrated primarily on the private sector.

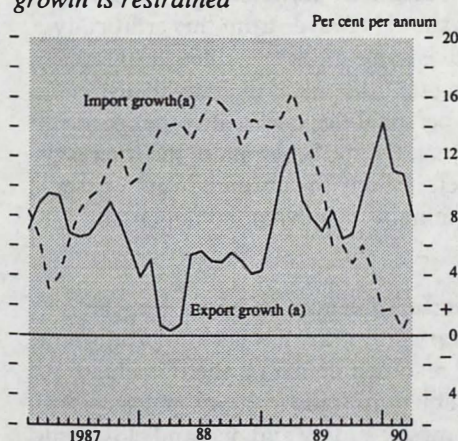
East European trade and debt prospects are likely to be significantly affected in the medium term by the growing disintegration of the Council for Mutual Economic Assistance (COMECON) trading and co-operation mechanisms. Almost all parties wish to move away from the Transferable Rouble intra-COMECON trading system towards one based on world prices and convertible currencies. Such a move would allow greater trade flexibility and improved resource allocation as well as reducing other COMECON countries' dependence on the Soviet Union. In the short term, however, the dislocation resulting from a switch to hard currency trading could have a very serious impact.

Developing countries face tougher conditions

The external environment for non-oil developing countries became less favourable during 1989, as slower export market growth and worsening terms of trade contributed to a deterioration in the overall trade balance. Export and import volume growth was weaker in many countries, following the rapid growth seen in 1988, but the falls in 1989 were led by a sharp slowdown in trade volume growth in the newly industrialised economies (NIEs) in Asia, which account for a little under a half of total developing country exports. In the case of the NIEs, export volume growth was restricted by capacity constraints and loss of competitiveness, the latter being caused by increased labour costs in the case of South Korea, and by currency appreciation. Weaker domestic demand in the NIEs also contributed to the slower import volume growth.

Non-NIE developing countries have been affected by substantial falls in primary commodity prices during 1989 which have been only partially offset by a recovery in the first quarter of this year. African nations have been most affected by the fall in commodity prices, their exports being more specialised in primary commodities (particularly coffee and cocoa) and this has caused their trade deficit to worsen. In Latin America, inflationary problems persist in Argentina and Brazil. In Argentina, President Menem's economic reform package has not prevented high rates of inflation from re-emerging and this has eroded both domestic demand and import volumes, whereas strong domestic demand in Brazil caused the trade surplus to decline in 1989, although a recent economic package announced in March by the new president contains measures designed to tighten the fiscal and monetary stance severely and curtail import volume growth. Import liberalisation measures in Mexico during 1989 contributed to a growth in the current account deficit. The Chinese authorities have responded to inflationary pressures and external financing constraints by re-imposing controls on imports and the allocation of raw materials to state enterprises, thereby stabilising the current account deficit around last year's level. However, the continuing absence of significant foreign investment and official or private foreign financing renders China's foreign exchange position and ability to secure non-inflationary expansion of the economy more difficult. The Chinese authorities are cautiously relaxing monetary policy, but if credit restrictions are eased too far inflationary pressures could be revived.

UK exports gather pace, while import growth is restrained

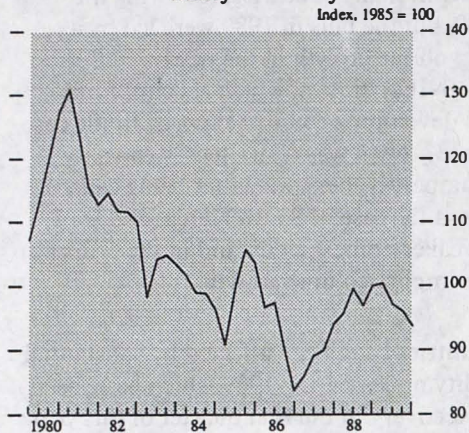


(a) The annual rates of growth of the three-month average of non-oil exports and imports, excluding erratics.

UK exports respond to buoyant activity abroad, while the trend in imports is flat . . .

Strong growth in the economies of our major trading partners has helped provide a base for expansion of UK non-oil exports. These have been gathering pace since early 1988, the three-month moving average growth rate reaching nearly 15% last December; since then growth has moderated but remains strong. CBI survey data confirm this sustained improvement and strong order books point to its continuing, with exporters doing particularly well in the large and buoyant markets of the United States and West Germany. Larger firms with established distribution channels are more optimistic than smaller firms for whom initial marketing costs and exchange rate fluctuations can be a deterrent.

Manufacturing relative unit labour costs^(a) are now lower than for most of the last decade



(a) Relative unit labour costs in manufacturing expressed in common currency; a fall in the index indicates improved UK competitiveness.

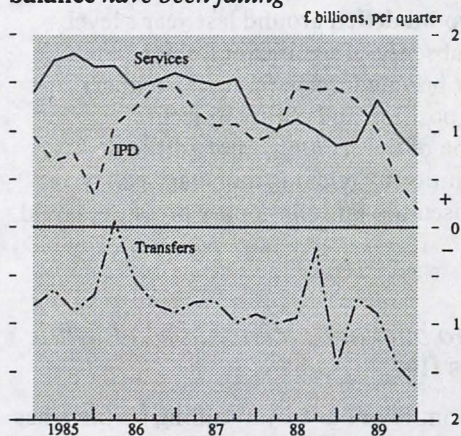
Depreciation of sterling last year has led to a substantial increase in manufacturing competitiveness which should help this year to reinforce favourable movements in trade volumes. Relative unit labour costs in sterling terms are now lower than in most of the period since 1980 apart from 1986–87. Trends in the underlying cost position, however, are less encouraging. Although UK manufacturing productivity grew slightly more quickly last year than that of our major competitors, earnings grew much more quickly. If the relative productivity differential were to narrow or reverse, UK companies would face increasing pressure to contain unit wage costs. Indications of this pressure can be seen in the squeezing of exporters' margins in the fourth quarter of last year, suggesting that weakening domestic demand was forcing companies to compete more strongly in export markets in order to sustain output levels.

Weakening domestic demand has also restrained import growth, which has fallen sharply over the last year and the trend of import volume now appears to be broadly flat: individual monthly figures have nevertheless been distorted by erratic items. The slowdown started earlier for semi-manufactured goods where volume has been flat from the beginning of 1989. The volume of manufactured goods imports continued to grow until the third quarter, though within that capital goods appear to have peaked about a quarter earlier.

... but oil and invisibles have been less helpful to the current balance

To these improving trends in non-oil trade volumes must be added the somewhat erratic path of the oil surplus, affected by production disruptions and maintenance work, and of invisibles. The oil surplus fell sharply in 1989 and, with domestic demand restrained by slow economic growth, a modest recovery is expected in 1990, although short-term swings such as that between the fourth quarter of last year and the first of this may distort the trend. Within invisibles the three main components have been behaving in different ways. The transfers balance was unusually depressed towards the end of last year as payments to the EC in respect of VAT and import duties increased and their timing changed; a slowing down of economic activity in the United Kingdom relative to other Community countries should tend to reduce net transfer debits this year. Recent poor performance in services has been attributable to an increased deficit in travel and depressed insurance earnings owing to heavy payouts in connection with disasters, particularly in the United States. Insurance earnings should recover from this erratically bad experience, while there is some evidence of lower overseas holiday bookings suggesting that the travel deficit will also improve, especially if real personal disposable incomes come under more pressure this year. On the other hand, the interest, profits and dividends deficit is likely to continue to get worse while the current account remains in substantial deficit and UK interest rates remain high.

All three components of the invisible balance have been falling



The net effect of these adverse influences on invisibles, part structural and part temporary or erratic, has been to produce in the fourth quarter the first recorded deficit on the invisibles account. Thus the improvement in trade in goods and services, which has helped bring domestic supply and demand closer into balance, has not been fully reflected in improvements in the

current balance. In the first quarter of this year the transfers balance is expected to improve with a lower net EC contribution and invisibles are projected to be in balance.

Output has continued to grow, if more slowly . . .

Domestic supply has held up relatively well, with output continuing to grow, albeit at a moderating pace. In the fourth quarter, GDP grew by $\frac{3}{4}$ % (seasonally adjusted) and was 2% above its level a year earlier. Within the fourth quarter rise there were three rather differently performing sectors. Output of the energy and water supply industries rose by 1%, largely driven by the continued recovery of North Sea oil production from earlier setbacks (though more recently recovery has paused). The service sector, which accounts for more than half of total output, grew by $\frac{3}{4}$ %, in line with the total. Manufacturing output, whose weight in the total is under 25%, was flat overall in the fourth quarter but within the quarter fell in November and December, this fall continuing into February. Over the latest four months for which figures are available, manufacturing production has fallen altogether by over 1%.

The subdued state of manufacturing output is echoed in the monthly CBI trends survey. The balance of respondents expecting to raise output has been close to zero for seven months and an increasing balance of firms are reporting below normal order books (though within this, export orders are buoyant). The pattern of responses emerging is more pessimistic than at any time since 1982.

. . . but the slowdown is taking time to affect the labour market . . .

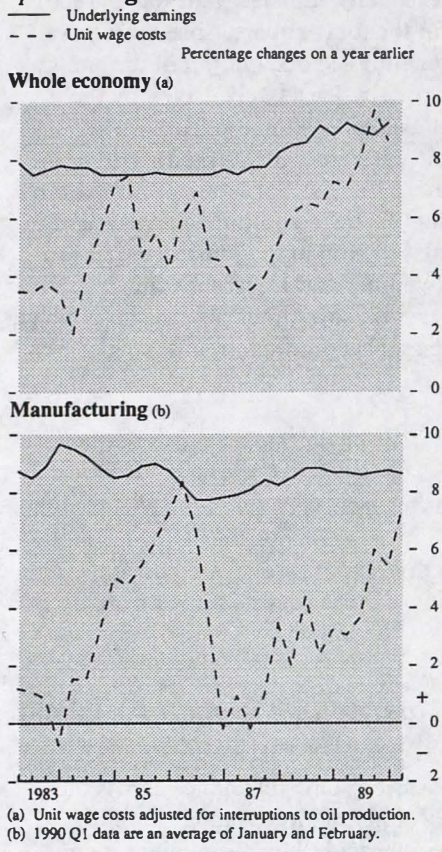
Until quite recently there has been some reluctance across the economy as a whole to make adjustments to labour input to match the slowdown in output growth. Unemployment is still falling, although in the first three months of this year it fell by just 31,000, one quarter of the fall in the same period last year. Where adjustment is now starting to take place, regional disparities are being narrowed. Unemployment is now rising in the East Midlands and the South (apart from Greater London) where the rates are lowest and generally below 5%, while in Northern Ireland, Scotland and the North, where rates are still above 8%, falls in unemployment are greatest.

The workforce in employment continued to grow throughout last year, in total by 730,000 or 2.8%. This increase, two thirds of which was of workers in full-time employment, was nearly twice as big as the fall in unemployment. Self-employment is estimated to account for some 200,000; the rest was more than accounted for by the service sector, while employment in manufacturing fell by 25,000. These estimates incorporate new information and represent substantial upward revisions to previously published figures for the first three quarters of 1989.

. . . and productivity overall is falling . . .

The strong rise in employment last year—faster apparently than the growth of output—means that productivity (output per head) for the whole economy fell slightly last year. Most of this overall productivity fall can be attributed to supply disruptions

Falling productivity growth has pushed up unit wage costs



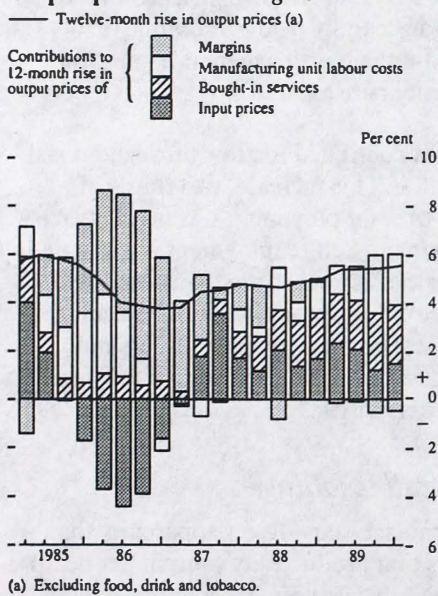
in North Sea oil. In contrast, in manufacturing, where employment fell during 1989, with the fall continuing into this year, productivity has continued to grow, albeit at a slowing rate; in the year to the fourth quarter of 1989 it increased by 3%, contributing to the competitiveness of UK manufactures and helping to sustain trade. With productivity flat in the non-oil sector, and manufacturing productivity rising, therefore, the implication is that productivity in the rest of the economy (predominantly the service sector) must have fallen, though problems of measuring output—and the increase in part-time workers—in some parts of the services sector of the economy caution against making too much of this conclusion.

... though manufacturers have been more successful in containing costs

Earnings growth for the whole economy, having been steady at around 7½% per annum in the mid-1980s, has been rising since early 1987 and with productivity growth falling unit wage costs have been accelerating rapidly (see chart—upper panel). In manufacturing, earnings growth had been higher than for the whole economy up to mid-1988 but productivity growth had been rapid; at its best in early 1987 unit wage costs were growing hardly at all. Since then productivity growth has declined and unit wage costs have accelerated but have grown at a slower rate than for the economy as a whole (lower panel). In manufacturing there has been considerable flexibility of labour input with overtime hours rising by 10% between early 1987 and late 1988 and falling by a similar amount since; numbers of employees in manufacturing also rose in 1987–88 by 125,000 before resuming their trend decline.

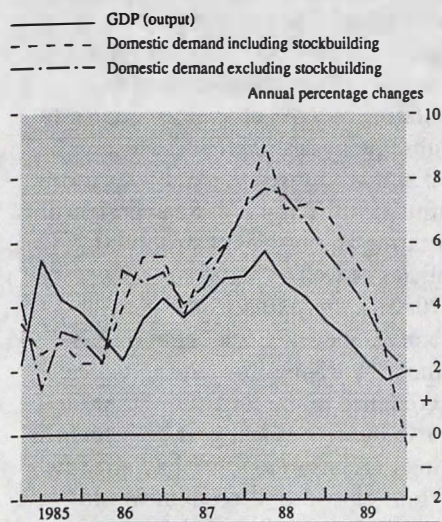
Besides their own accelerating unit wage costs, manufacturers' costs have also been affected by the poorer performance of the service sector of the economy (see chart). On the other hand, they have been helped by weak material input (particularly metals) prices which increased by only a little over 1% in the year to March, notwithstanding the roughly 10% fall in sterling's effective exchange rate over this period. Nevertheless, in keeping the growth of their output prices at a steady 5%–5½% over the last year (though recent figures suggest this may now be edging upwards) manufacturers have had to accept some erosion of margins.

The cost of bought-in services is increasing pressure on manufacturers' output prices - and margins



Continuation of the relative success of manufacturers in containing unit wage costs, and improvement on it, may prove crucial for the competitiveness, and therefore the health, of this sector in the face of sagging domestic demand, since the benefits of weak material prices are not expected to persist. There are already signs of recovery in metals prices, and strong growth in the main industrial economies is likely to add to inflationary pressure on primary product prices, the supply of which in the short term is inelastic. It is to be hoped that manufacturers can maintain and capitalise on the cost advantage they have, to increase exports further and reverse the recent fall in output. On the other hand, any success that manufacturers achieve could be undermined if costs are not also contained in those parts of the economy that are less subject to the pressures of international competition but which nevertheless impinge on manufacturers' costs.

A better balance is being restored between domestic supply and demand



A better balance between domestic supply and demand was restored in the fourth quarter . . .

With output continuing to grow, if more slowly, restoration of a better balance between domestic supply and demand was helped in the fourth quarter by a cutback in domestic demand, which fell by 1% and was $\frac{1}{2}$ % lower than a year earlier. A sharp reduction in corporate spending was responsible; consumption continued to grow (by $1\frac{1}{4}$ %) during the quarter. Although fixed investment fell by $\frac{1}{2}$ %, the main retrenchment was in stockbuilding which turned from over £1 billion stock accumulation in the third quarter to destocking of £0.6 billion in the fourth. More than a little uncertainty surrounds this reversal as measured stocks rose substantially in the fourth quarter following a small rise in the third. The figures that appear in the accounts, and more particularly the change of direction, are wholly determined by the CSO's statistical adjustments introduced to give greater coherence to the accounts as a whole. There are nevertheless independent reasons to support the path of stocks posited by the CSO, even if the precise timing of the reversal and its magnitude may remain in doubt (see below).

. . . in response to earlier policy tightening . . .

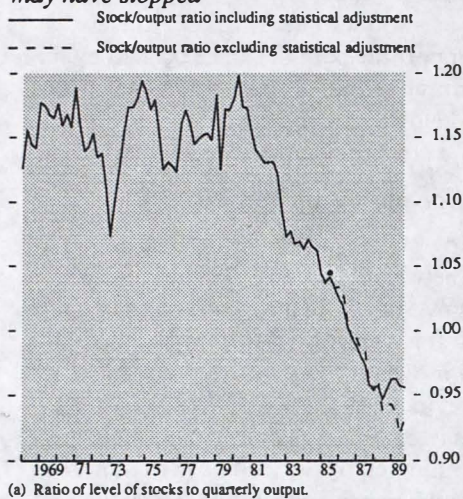
The imbalances that are now starting to be corrected arose out of growth rates that built up between 1985 and 1988; domestic demand grew at rates that by early 1988 are now seen to be more than three times their historic average, and to accommodate this the external trade account moved heavily into deficit. Reasons for this exceptional expansion are discussed in the Governor's Durham lecture (see pages 215–20). As is pointed out there the authorities' response was hindered by difficulties in determining at the time how fast demand had been expanding. Since the first estimates for the calendar year 1987 were published in March 1988, estimates of the growth of domestic demand in that year have been revised up from 4.2% to 5.5%, with consumption growth up from 5.2% to 6.0% and fixed investment from 3.5% to 8.6%.

Policy was tightened by a series of interest rate rises starting in mid-1988, bank base rates rising from $7\frac{1}{2}$ % in May to 13% in November of that year and continued in two further steps to 15% by October 1989. Demand has responded. From mid-1988 onwards the growth rates of both consumption and fixed investment were reduced from 6.8% per annum and 12.2% per annum respectively in the previous eighteen months to 4.0% per annum and 3.4% per annum in the latest eighteen months. Nevertheless, for the latest eighteen-month period as a whole these rates were still above the 2.8% per annum rate of growth of domestic output even though convergence was being achieved as policy tightened and its effects were felt.

. . . and on past experience destocking should continue to assist adjustment

The imbalance between domestic demand and output was reflected in a sharp increase in stockbuilding. In the five quarters following the initial interest rate rise in mid-1988 stockbuilding totalled £7 billion, or 10.5% of average quarterly GDP (though some £4 billion of this was statistical adjustment). This was a fairly normal cyclical response, and, if it is appropriate to allocate

The trend fall in the stock/output ratio^(a) may have stopped



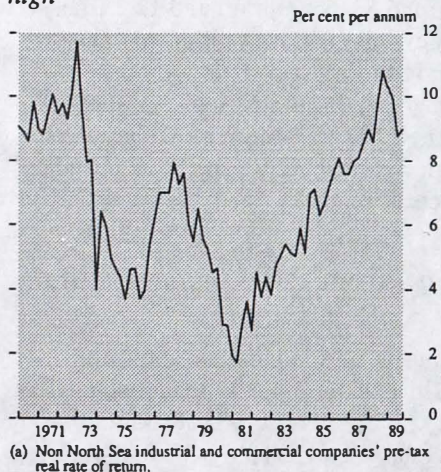
as much as £4 billion of the statistical adjustment to this item, fully in line with experience following periods of tightening in the middle and late 1970s. Following the upturn in interest rates in July 1973, stockbuilding was positive for six quarters, cumulating to 9.7% of average quarterly GDP, and this was followed by six quarters of destocking in which two thirds of the previous build-up was run off. In 1978–79 interest rates rose over a more protracted (two-year) period and stockbuilding was positive throughout that period, cumulating to 9.4% of average quarterly GDP. On that occasion the subsequent destocking was also spread over a two-year period and amounted to some 12% more than the previous stock accumulation. The 1978–81 experience is generally regarded as incorporating an important structural change in corporate stock policies as well as being a more severe recession than in the mid-1970s and this explains the heavier subsequent destocking. The consistency of stock behaviour is nevertheless striking and, if the part arising from the statistical adjustment is reliable, lends credence to the turnaround that the CSO have assumed in the fourth quarter of last year, by which point cumulative stockbuilding in relation to GDP had already exceeded that in the two previous episodes. Precedent would suggest that a sustained period of destocking should follow, reducing domestic demand and helping to improve the trade balance. There is certainly no justification for the £7 billion increase in terms of stock levels needed to support the rise in final demand. The involuntary nature of this stockbuilding is further indicated by survey evidence, such as the CBI industrial trends survey, which has shown a substantially higher balance of firms looking to reduce stock levels over the last 15 months. On the other hand, stock/output ratios, even allowing for the statistical adjustment, are lower now than at the height of the two previous cyclical peaks, reflecting advances that have occurred in stock control technology.

Strong fixed investment may prove more durable

Past cyclical experience provides less help in interpreting the current behaviour of fixed investment. In general, total investment has responded only slowly to tightening of monetary conditions and the sluggishness of response has tended to persist for longer than with other components of demand. This reflects the long-term nature of the decisions involved and the fact that short-term interest rates on their own are rarely critical to these decisions. Perhaps more important in determining the response of investment are medium-term prospects for total demand—domestic plus exports. Nevertheless, since the end of 1988 the CBI industrial trends survey has shown a sharply increased proportion of firms reporting the cost of finance as a factor likely to limit capital expenditure.

The financial position of companies may on this occasion be a more potent influence on investment. The financial deficit of industrial and commercial companies (ICCs) rose sharply last year to a quite unprecedented £23 billion. Although deficits of this size are well outside previous experience, there are features that indicate that in reality most companies may not be in such a difficult state as these figures might suggest. Profitability of non North Sea ICCs has remained high, around levels not seen since the early 1970s, despite a 6% fall in gross trading profits between the first and second half of 1989. Dividend payments have also

Company profitability^(a) has remained high



risen sharply over the past two years and this, and the strength of profits, have been reflected in rising tax payments. Furthermore, expenditure on fixed investment continued to rise until the third quarter of last year and the nearly 3% cutback in the fourth was modest, leaving the total still 8% above that in the fourth quarter of 1988. Indeed, ICCs' fixed investment in 1989 represented a higher proportion of GDP than at any time since the early 1960s, even when major construction projects and investment by privatised industries are excluded. Although income gearing has also increased sharply in response to interest rate rises and heavy bank borrowing (particularly in the third quarter when much of it was associated with takeover activity) on past occasions the rise has coincided with sharp falls in profitability.

Inflation is slow to respond and in the short-term will rise further . . .

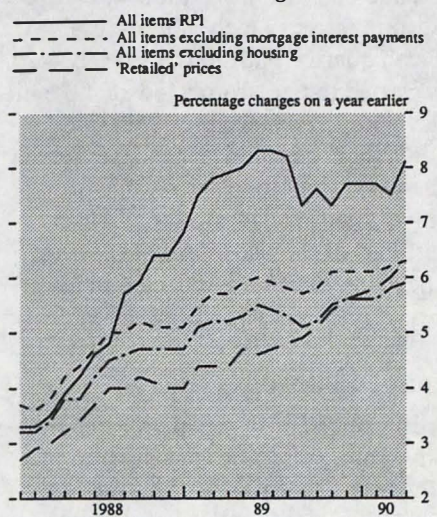
Inflation, as measured by the twelve-month rise in the all-items RPI, was 8.1% in March compared with 7.5% in February. This rise was largely due to the latest increase in mortgage interest rates, which started to take effect in March. For the first quarter of this year as a whole, the average rate of inflation was 7.8%, which compares with an average rate of 7.6% in the fourth quarter of 1989. The RPI excluding mortgage payments has been rather less volatile, the twelve-month rise increasing to 6.3% in March and has been on an upward trend since the middle of 1989: the first quarter's average rate (6.2%, compared with 6.1% in the fourth quarter of 1989) was the highest quarterly rate since 1983. The rate of increase in 'retailed' prices (the prices of goods sold in shops) was 6.3% in the year to March, reflecting unusually large increases in the prices of food (8.7%).

A number of considerations suggest that retail inflation (measured with or without mortgage interest payments) will increase further in the second quarter. In particular, several administered prices that were raised in April will have pushed up the rate substantially: the indexation—unlike last year—of excise duties (announced in the Budget), rises in utility prices and the higher cost to households in England and Wales of the community charge compared to earlier levels of domestic rates. In addition, private sector prices will have been subject to upward pressure from increasing unit labour costs, while the restraint imposed by competing imports will have lessened as the exchange rate weakened last year, although this effect has been partly offset by importers' willingness to cut their margins. While rising labour costs stemming from both high settlements and falling productivity have been partially accommodated by falls in retail margins, the retail sector still appears to be passing on some of its cost increases, in spite of the slowdown in retail sales.

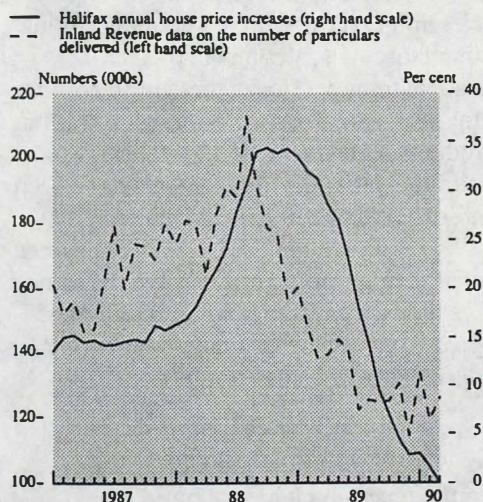
. . . but consumption has responded . . .

The response of consumption to the tightening of policy up to the third quarter of last year was satisfactory. The strongest and most direct effects of high interest rates have acted through the housing market, where turnover has contracted by 35%—probably even more in the more depressed South East—and the annual rate of growth of house prices as measured by the Halifax index has fallen from 34% at the end of 1988 to nil in March this year (see chart). The impact of a depressed housing market has been felt

Measures of underlying retail price inflation have been rising



Housing turnover and house price rises have fallen dramatically



most particularly in expenditure on items associated with moving house such as carpets, furniture and furnishings, and durable goods. Expenditure on vehicles has also fallen, possibly also as a direct effect of higher interest rates. Altogether, durable goods expenditure fell by nearly 6% in the second half of last year.

On the other hand, real personal disposable income has been rising strongly, by nearly 4% in the year to the fourth quarter. The underlying growth in average earnings edged back up to 9¼% in the fourth quarter of 1989 after a period in mid-year when it was half a percentage point lower and may have risen further since then. Other personal income has also been buoyant, with high dividend payments in the fourth quarter and depositors benefiting from high bank and building society interest rates. Changes in National Insurance contributions last October will also have added to disposable income.

In the main, the rise in RPDI and cutback in spending on durables had not been reflected in faster growth of non-durable spending which, until the fourth quarter, had slowed sharply. Instead, the saving ratio has started to rise, from a low of 4.0% in the second half of 1988—a level not seen since the 1950s—to 5.7% in the second half of 1989. Such a response is to be expected given the erosion that will have occurred to the real value of personal net wealth as a result of rising inflation, static house prices and falling bond prices. Part of the rise in private savings reflects take-up of personal pensions which are reflected in lower social security contributions.

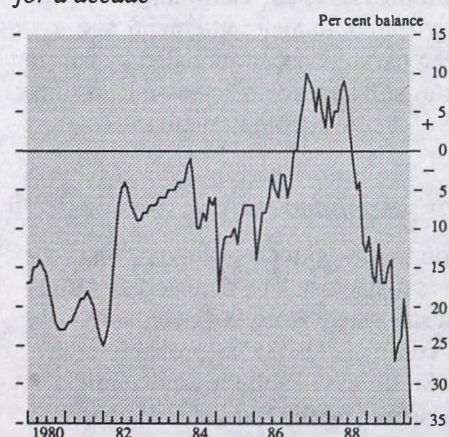
... despite reports of renewed buoyancy

The apparent strength of consumption in the fourth quarter and the buoyancy of retail sales in February do not fit easily into this picture. Particularly surprising is the 2.4% rise in spending on services (excluding rent, rates and water charges) in the fourth quarter when the output of services in the whole economy rose by only 0.7% and stock adjustment or imports are unlikely to have provided significant explanations for the difference.

The strength of retail sales in December and February could be the result of retailers' attempts to move stocks, following a generally bad year for sales in 1989; lack of supporting evidence in retailers' stock figures cannot be taken as conclusive refutation of this possibility given the size of overall statistical adjustments to stockbuilding, and there is certainly support in the CBI distributive trades survey to suggest both that stocks have been too high in relation to sales and that they have been reduced this year. To the extent that buoyant retail sales have reflected exceptional efforts by retailers to move stocks there is no conflict with the picture of slowing aggregate demand, although if this has been achieved by price inducements the news may be less reassuring. Another possibility is that the inducements have been made through retailers absorbing some of the cost of credit, which would explain the recent pick-up in measures of consumer credit; in this case, their withdrawal would not involve the same consequences for the price index. The March fall in retail sales, which leaves the level of sales just ½% higher than a year earlier, tends to suggest that underlying growth may not be strong.

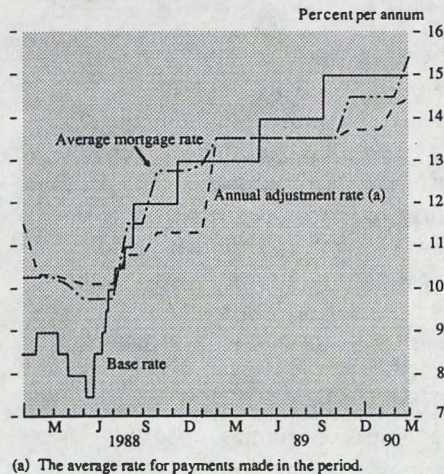
Adding further support to the view that recent upturns in retail sales and consumption may prove erratic is the EC/Gallup indicator of consumer confidence, which has followed a

Consumer confidence^(a) is at its lowest for a decade



(a) The EC/Gallup measure of the balances of positive and negative answers to five questions concerned with households' finance and their assessment of economic conditions.

The impact of interest rate changes on mortgage payments involves lags



(a) The average rate for payments made in the period.

downward path since policy started to tighten in mid-1988 and is currently lower than at the depth of the 1981-82 recession. There may also be a further effect of interest rate rises yet to be felt, as well as the impact of the community charge and other administered charges which will reduce disposable income. The impact of mortgage rate rises on personal budgets tends to lag behind announced changes (see chart) which in turn tend to lag market rate changes. Whereas building society rises announced in February now probably fully reflect last October's rise in base rates, for some borrowers their impact will not be felt for a period, varying up to almost a year. It is not possible to be sure, in the face of erratic individual figures, that consumption has recently been following the path of slower growth established last year, but on balance these factors seem likely to exert a restraining influence in the months ahead, provided they are not fully offset in pay awards.

The Budget was directed towards savers

With the economy now responding as expected to monetary tightening and the role of fiscal policy seen as primarily operating to improve supply side conditions in the medium term, the Chancellor framed his Budget for 1990/91 around a PSDR of some £7 billion, little changed from the then expected outturn for 1989/90. The outturn, which is now estimated at £8 billion, was considerably less than had been expected at the time of the 1989 Budget, largely for reasons unconnected with economic slowdown, namely lower privatisation proceeds, higher personal pension rebates and a sharp rise in local authority capital spending. The need for caution thus meant that changes to taxes on income and spending were essentially limited to indexation of allowances and revalorisation of indirect taxes.

More significantly for the longer term, the Chancellor announced a range of measures to benefit savers. None of these comes into effect immediately, and the net addition to savings that they will generate will be less than gross flows into the new savings vehicles as there will undoubtedly be switching between existing assets. Nevertheless, the overall effect is likely to be positive, both directly and through the change in the climate of opinion towards saving that they are framed to bring about. Tax Exempt Special Savings Accounts (TESSAs), to be introduced from January 1991, will extend to deposits the benefits hitherto available only through personal equity plans. The abolition of composite rate tax in 1991/92 will increase the return on saving for non-taxpayers, albeit at the cost of reducing the return on certain types of saving for taxpayers; it will reduce the incentive for non-taxpayers to move funds offshore. Abolition of stamp duty on securities transactions will reduce the cost of buying and selling, thereby increasing the liquidity of securities markets and the attractiveness of these investments. It will also pre-empt any loss of competitiveness of UK securities markets that might otherwise have resulted from removal of transactions taxes in other financial centres. Increases in the limits and exemptions on various other taxes and schemes above those needed to offset inflation should further assist savers.

World economic prospects—latest Bank forecasts⁽¹⁾

The dramatic changes in Eastern Europe in recent months will have a significant impact on economic developments in the major overseas economies. The expected rapid moves towards the unification of Germany should give a stimulus to the industrial economies as consumer and capital goods are supplied to the GDR to help restructure the economy and to support living standards during a difficult adjustment period. Immigrants to the West will also need transitional support. Although much of the additional demand will fall on West German supply, adding to inflationary pressures there, some of the stimulus should spill over to other countries, particularly in Western Europe. Over a longer horizon the opening up of the other Eastern European economies will give a further boost to world growth and trade but, with the restructuring process likely to prove quite painful in the near term and with financial support from the West relatively limited, the impetus to the world economy from these countries over the next three years will be relatively minor.

The additional boost to demand growth from the unification process comes at a time when the major economies are already facing inflationary pressures as a result of sustained growth in recent years. Although growth was somewhat slower in 1989, particularly in North America, capacity utilisation levels in the major economies remain high and markets for skilled labour tight. While the surge in industrial investment in the last two years has added to capacity for future growth, in several countries the recovery followed a period of rather poor investment performance in the early and mid-1980s. Given the threat of a renewed rise in inflation, interest rates may rise further over the coming months. Interest rates are likely to remain high for some time as demand growth remains strong and the authorities maintain their firm monetary policy stance.

Table A
Demand and output in the major overseas economies^(a)

	Percentage changes over previous year			
	Estimate 1989	Forecast		
		1990	1991	1992
Domestic demand	3.4	3.4	2.8	2.6
of which:				
Private consumption	2.8	3.0	2.7	2.6
Business fixed investment	7.7	5.8	4.4	4.0
Public expenditure	1.9	1.9	1.1	0.9
Stockbuilding ^(b)	-0.1	—	—	—
Net external demand ^(b)	0.1	-0.1	0.2	0.1
GNP/GDP	3.5	3.3	3.0	2.7

(a) Canada, France, Germany, Italy, Japan and the United States.

(b) Percentage contribution to GNP/GDP growth.

Fuelled by developments in Germany and by signs in some other countries of rather greater momentum than expected in the autumn, GNP growth in the major six overseas economies as a group is expected to average 3½% in 1990, a similar outturn to last year if the effects of the catch-up after the North American drought are excluded. Growth may then slow a little in 1991 and 1992, to between 2½% and 3% per annum, in response to further policy tightening (Table A). Growth this year and next in the major economies is thus expected to be around half a

Table B
Prices in the major overseas economies

	Percentage changes over previous year			
	Estimate 1989	Forecast		
		1990	1991	1992
Whole-economy unit labour costs	3.7	4.2	4.4	4.1
Import prices (a)	4.5	1.8	3.4	3.2
Consumer prices (b)	3.8	3.9	4.1	3.9

(a) Weighted average of individual countries' local currency average value indices for imports.

(b) Consumers' expenditure deflator.

percentage point higher than projected in the autumn.⁽²⁾ Consumer price inflation in the major overseas economies is projected to remain around 4% throughout the forecast period, similar to the outturn in 1989 (Table B), whereas the autumn projection was for some easing. Taking the major countries together, inflationary pressures are largely domestically generated in the forecast period, with whole-economy unit labour costs rising to 4½% this year from 3½% in 1989, and drifting down only marginally thereafter.

The West German economy has grown rapidly in the last two years, in contrast to the sluggish performance earlier in the decade. External demand has proved a major source of growth, with German capital goods manufacturers well placed to meet the global surge in business investment; last year the current account surplus rose to 4½% of GNP. Strong growth has led to rising capacity utilisation, which is at its highest level for twenty years, and increased domestic inflationary pressure, with consumer price inflation around 2½%, even though the effects of last year's expenditure tax increases have now dropped out of the calculation. The third stage of the tax reform implemented in January injected income tax reductions worth around 1% of GNP into the economy. Even before the stimulus from the influx of immigrants and moves towards unification, the West German economy was beginning to show some signs of strain.

(1) These forecasts have been produced by the Bank's world economic forecasting team and country analysts using the Global Econometric Model supplied by the National Institute of Economic and Social Research.

(2) See the November 1989 *Bulletin*, pages 490-92.

Assumptions on the effects of the unification process are hazardous and subject to wide margins of error, although the broad macroeconomic implications are clearer. In the short run the large inflow of immigrants from the GDR as well as from other parts of Eastern Europe may put strains on the West German social security system and put pressures on the housing market, where there is already a significant shortage. The West German authorities clearly hope that the recent slower pace of immigration from the GDR will continue, both to limit the absorption problem in the West and to improve prospects for restructuring the GDR economy. In order to facilitate this process, West Germany may have to give significant public sector financial support to the GDR in the early stages, to provide support to the GDR welfare system and to improve the infrastructure.

The absorption of immigrants is currently providing a strong stimulus to the West German economy. There is already a shortage of housing: pressures on the rental market are likely to be very strong, and the construction sector is expected to be exceptionally buoyant. Although higher inflation and higher interest rates may lead to a rise in the saving ratio, personal consumption is expected to pick up significantly from last year reflecting much stronger wage growth, tax cuts and strong employment growth. With domestic business investment increasing by perhaps 10% as capacity pressures remain tight, domestic demand could rise by over 6% in 1990. This growth is too high to be met by domestic supply, and GNP growth may be limited to 4½%. Growth may be slower through 1991 and 1992, as assumed fiscal tightening restrains growth in real personal disposable income and consumer spending, while business investment growth eases back somewhat reflecting cyclical factors and perhaps the start of a shift of private capital investment from the FRG to the GDR.⁽¹⁾ The appreciation of the deutschemark in the second half of last year and the fall in non-oil commodity prices have helped to contain inflationary pressures but, with domestic growth so strong, and with marked pressures in the rental market and a pick-up in wages growth, consumer price inflation is likely to rise further this year and next. Despite the marked negative external contribution to GNP growth this year, the current account surplus may fall only a little in relation to GNP as the terms of trade would be likely to improve. The surplus may, however, fall sharply next year as West German savings are used to finance the greater investment opportunities in East Germany.

Prospects for faster growth elsewhere in Europe have been enhanced by the German stimulus, with opportunities improving on both sides of the current border. However, following two years of relatively rapid growth in continental Europe, some countries are beginning to run up against capacity constraints, and there is a risk that in those countries the additional demand will boost inflation. On the other hand, interest rates are likely to remain high, limiting the pressure somewhat.

GNP growth in France is expected to continue at around 3¼% in 1990 with business investment remaining the main engine. Profitability has improved in France in recent years and following a period of sluggish performance in the early and mid-1980s business investment has recovered; growth may average around 9% per annum over the forecast period. In contrast, consumer spending has been more sluggish recently as employment growth has been relatively muted and real wage growth low. Employment grew strongly in 1988 and 1989 and this trend is expected to continue. Higher growth in real personal disposable income, together with a gradual reduction in interest rates through 1991 and into 1992 as consumer price inflation stabilises at around 3%, is forecast to lead to an acceleration in consumer spending from 2½% this year to over 3% by 1992. This is the major factor underlying the projected pick-up in GNP growth to 3¼% in 1992 after a slight dip in 1991. Despite the boost from faster export market growth, the net external contribution to GNP growth is likely to remain slightly negative. The loss in competitiveness associated with the appreciation of the ERM currencies in the second half of last year is likely to dampen export growth this year, although it remains close to 7%. Faster growth is likely thereafter, as France begins to benefit from lower inflation than many competitors, although with domestic demand growth averaging 3½% imports are also likely to be very buoyant. A strong improvement in the terms of trade this year is expected to lead to an improvement in the current balance, despite the adverse volume trends. A deterioration is likely thereafter, but even by 1992 the deficit is only ¾% of GNP.

In response to the tightening of monetary policy in 1988 and early 1989, GNP growth in the United States slowed markedly last year. Steady GNP growth of around 2¼% per annum is expected over the forecast period. Consumer spending is projected to rise by around 2½% per annum as rather slower growth in employment and continued relatively subdued real wage growth slow down real personal disposable income growth from last year's 4% increase to around 2¼% per annum. Business investment is expected to grow by only 1%–2% a year as policy remains quite tight, keeping profits under pressure. Such a poor investment performance will do little to improve the sluggish growth in productivity in the United States. The service sector is likely to continue to be the most buoyant sector of the economy, although manufacturers concentrating on exports may fare quite well given the strong rise in demand in their export markets, particularly once the effect of the loss in competitiveness in 1989 has worked through. As a result, a positive net external contribution of ¼%–½% per annum is expected over the forecast period. The current account deficit is forecast to fall to 1½% of GNP by 1992, reflecting continued fiscal restraint as well as growth in export markets. Despite output growth below potential and steadily decelerating whole-economy unit labour costs, consumer price

(1) For the purposes of this forecast, the FRG and the GDR are treated as separate economies.

inflation is expected to remain in the region of 4½% over the forecast period.

Although the Japanese economy has slowed down in recent months, the extent of the decline is difficult to judge. While domestic demand growth remains very strong, rising almost 6% last year, an increasing proportion was met from imports and GNP growth slowed to just under 5% overall. The forecast assessment remains that there is still considerable momentum in the economy, with the sharp depreciation of the yen providing a stimulus to the traded goods sector. Offsetting this have been the further increases in interest rates and the correction in the stock market. The latter has reduced measured wealth and also increased the cost, and in the short run limited the availability, of new equity capital for industrial and financial companies. Consumer spending is forecast to rise by 4% this year before slowing modestly through 1991 and 1992 as the economy cools in response to this year's rise in interest rates. Business investment growth is projected to slow through the forecast period but still averages almost 9% per annum. This would result in a share of business investment in GNP of over 27% in 1992, an increase of almost 10% of GNP from the level in 1985. This augurs well for continued strong Japanese growth. In total, domestic demand is expected to slow from 5% growth in 1990 to 4% in 1991 and 1992. GNP growth follows a similar path although it weakens to under 3½% in 1992 as the external sector makes a negative contribution of around 1%. Although there are clear signs of structural changes in Japanese trade performance in the last few years, reflecting growing import penetration and a reduced emphasis on export promotion, the depreciation of over 20% in effective terms in the last 15 months is likely to lead to a recovery in the trade and current account surplus. The trend decline in services may continue, but with a rising trade account and growing IPD

receipts on rising net external assets, the current account surplus may rise to 2¾% of GNP this year from 2% in 1989. The weakness in the yen has led to a marked rise in import prices and with wages growth continuing to edge up consumer price inflation is forecast to rise to 2½% this year, even after the sales tax increase comes out of the index. In addition, it is estimated that revisions to the coverage of the tax could result in as much as ½% off the inflation rate. The rise in price inflation this year may give a push to wages in 1991 and despite a moderation in the pressure from import prices, inflation is likely to remain in the 2½%–3% range in 1991 and 1992.

The growth of world trade, as measured by import volumes, is projected to slow to 6% this year, from 8% in 1989, before accelerating to an average of 7½% in 1991 and 1992, fuelled by strong growth in Europe. Growth in the Asian NIEs (Korea, Taiwan, Hong Kong and Singapore) is expected to continue to slow over the forecast period. Reflecting the loss in competitiveness associated with currency appreciation in Singapore and Taiwan and higher labour costs in all four Asian NIEs, their exports may in aggregate fail to maintain market share as in 1989, although volume growth is still likely to average over 5% per annum. Import volume growth will be much stronger at around 8½%; the combination is expected to lead to a decline in the total NIE current account surplus from around \$25 billion in 1989 to \$8 billion by 1992. Reflecting the tight financing constraint and a loss in the terms of trade of almost 5% this year, import volume growth in Latin America is forecast to slow markedly, averaging under 4% per annum between 1990 and 1992, compared with around 12% per annum in the last two years. Prospects for Africa are likely to deteriorate further, with an expected loss in the terms of trade totalling almost 20% in 1989 and 1990 together, with producers of beverages the most adversely affected.