UK trade—long-term trends and recent developments

By Andrew Dumble of the Bank's Structural Economic Analysis Division.

This article examines why UK trade performance matters; in particular, it considers the factors which determine whether or not a current account deficit provides grounds for concern. It also looks at a number of longer-term trends in UK trade performance, and at the evidence of a structural improvement in manufacturing export performance from the mid-1980s onwards. These opening sections provide the context for an analysis of the impact on recent UK trade performance of two major developments— sterling's depreciation following the suspension of UK membership of the exchange rate mechanism, and the recession affecting the United Kingdom's main export markets in other EU states. The article concludes by examining some elements in the outlook for UK trade in the short term.

Introduction

The recorded current account deficit for the United Kingdom in 1992—at the trough of the recent recession—was 1.7% of GDP; the deficit for trade in non-oil goods and services was 1.8% of GDP. At the corresponding point in the previous cycle—in 1981—there was a current account *surplus* of 2.7% of GDP, and a surplus for trade in non-oil goods and services of 1.5% of GDP. The comparison led a number of commentators to express their concerns that the United Kingdom was running a deficit at the trough of the recession.

Since 1992, however, the balance of trade in non-oil goods and services has been broadly stable—in contrast to its sharp decline after the 1979–81 recession. By 1984, the deficit on trade in non-oil goods and services was 2.5% of GDP; in 1993, it was 1.7% of GDP.

Movements in the trade and current account balances depend chiefly—at least in the short term—on movements in the exchange rate and, more importantly, on the different rates of growth in demand in the United Kingdom and elsewhere. Between 1988 and 1991, for example, the trade deficit declined significantly, as UK demand fell by around 1% and world demand rose by over 8% (see Chart 1). In the last two years or so, there have been two major developments. First, a number of continental European economies, which together account for over 50% of the UK export market, entered into recession. There were particularly strong downturns in domestic demand in Italy and in Germany —the United Kingdom's largest export market, according to 1993 data. Second, following the suspension of its membership of the exchange rate mechanism, sterling's effective exchange rate index—its nominal value against a UK trade weighted basket of world currencies—fell by more than 12% between 1992 Q3 and 1992 Q4.

Before examining the impact of these two developments on recent UK trade performance, this article looks at why UK

Chart 1
Relative domestic demand and the UK trade balance
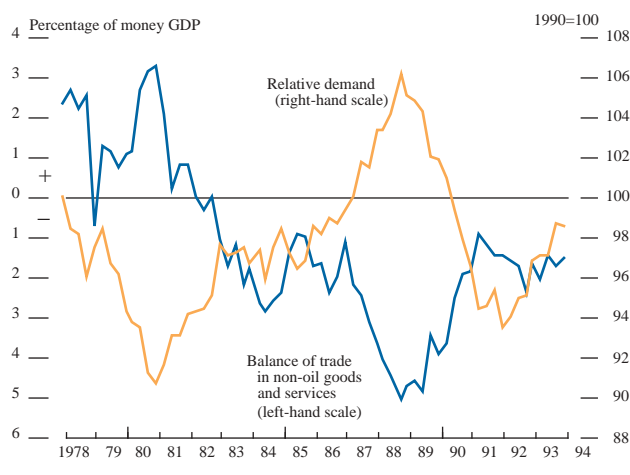
trade performance matters. It then considers long-term trends in UK visible trade, including its changing composition by region and by commodity since the late 1970s, and asks whether the improvement in manufacturing export performance seen since the mid-1980s can be explained by such compositional factors. After looking at UK trade performance in the last couple of years, the article concludes with a discussion of the outlook for the evolution of the UK trade and current account balances over the next few years.

UK trade performance—some issues

To assess the importance of movements in the current account, two main questions need to be answered. First, how are sizable current account deficits financed? And second, what are the limits to this financing?

So far as the financing of deficits is concerned, international capital markets provide a means of financing imbalances between domestic savings and investment. The world's stock of international assets has been estimated at around

$7,540 billion at the end of 1988,[1] over 450 times the United Kingdom's current account deficit in 1993. As the comparison suggests, only minor shifts in the allocation of international portfolios would be required to finance far larger deficits over a long period.

Despite capital market liberalisation, financing large current account deficits over long periods may lead to difficulties. Continued deficits will prove difficult to finance if there are expectations of an indefinitely-rising trend in the ratio of net external debt to national income, since this would mean continuing increases in the share of national income being devoted to payments of interest, profits and dividends abroad, and a steady decline in the proportion of national income accounted for by domestic consumption.

Judgments about financing must be applied to the *long-run* position. In the short term, there are a number of reasons why a current account deficit may be financed comfortably in a given year even if the associated capital inflows imply a rate of increase in external debt above that in nominal GDP. First, the recorded current account deficit (and the associated recorded net capital inflows) may not accurately measure the increase in debt. For example, the recorded current account deficit includes the interest payments, but not the changes in the capital values, of external assets and liabilities. As the United Kingdom is a net creditor in equity, the effects of capital gains on the United Kingdom's assets would be expected, at least in part, to offset the impact of current account deficits.

More fundamentally, the composition of the current account deficit is important. Even if a deficit were increasing rapidly (and, notwithstanding the above statistical complications, net external debt were increasing faster than nominal GDP), this might, for example, reflect a rapid increase in domestic investment that would lead to faster GDP growth in the medium term. Between 1987 and 1989, when the current account deficit rose from 2.7% of GDP to 4.8% of GDP, domestic investment increased from 17.7% to 20.3% of GDP.

There are other criteria for judging whether a current account deficit provides grounds for concern. For example, a given current account profile may be consistent with a stable ratio of net external debt to GDP in the long run, but be the result of a private sector financial surplus being more than offset by a high public sector financial deficit. The reasons for being concerned about high public sector deficits have been well-rehearsed.[2] Briefly, public sector deficits may 'crowd out' private sector spending, which may reduce efficiency and therefore output. High public sector deficits may also increase inflation expectations, as a result of the perceived incentive for the government to monetise its debt at some time in the future; this would increase the costs, in terms of output in the short term, associated with achieving a given inflation target.

So if a current account deficit is associated with a weak public sector financial position, it is likely to be a matter of concern.

When a current account deficit is associated with a private sector financial deficit—as it was in the late 1980s (see Chart 2)—the conclusions are less clear-cut. By definition, if the public sector is in balance, the private sector can only run a financial deficit if overseas investors, based on their

Chart 2
Financial balances of main sectors(a)
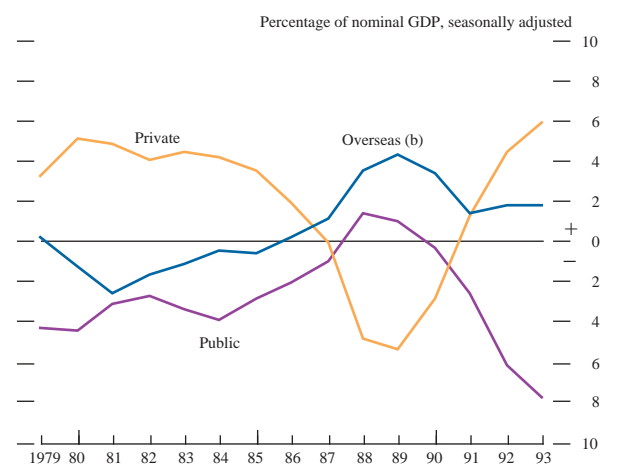
(a) Balances may not sum to zero because of the difference between the totals of the expenditure and income components of gross domestic product.
(b) Overseas financial surplus/deficit (equal and opposite to UK current account surplus/deficit).

assessment of the future returns, are willing to finance it. But there have been times when a current account deficit has reflected borrowing by the private sector based on expectations that were subsequently revised. This seems to have been the case in the late 1980s, when the significant increase in debt reflected overoptimism about continued growth.

Finally, a rapid rise in the trade and current account deficits may indicate a rise in inflationary pressures, and so the need to tighten monetary policy. In the late 1980s, for example, rising inflation was the result of domestic demand increasing much more rapidly than supply; Chart 3 shows that a rapid rise in the trade deficit—as both domestic and overseas tradable producers increased their supply to the UK market—was an early indicator of future capacity constraints and rising prices.

But this does not mean that a given level of the trade deficit (or of its size relative to GDP) should be seen mechanically as a 'trigger' for rising inflation. What determines inflationary pressure in the short term is the pressure of demand on the available resources within the economy: this has no stable relationship with the trade balance. For given levels of domestic and foreign supply, rising inflationary pressures may be associated with a trade *surplus*, as demand pressures from abroad lead to increased UK exports and capacity constraints.

(1) Source: 'Report on the measurement of international capital flows', International Monetary Fund, September 1992.
(2) See, for example, Buiter, W H (1985), 'A guide to public sector debt and deficits,' *Economic Policy*.

Chart 3
Balance of trade and inflation

(a) Retail Price Index excluding mortgage interest payments.
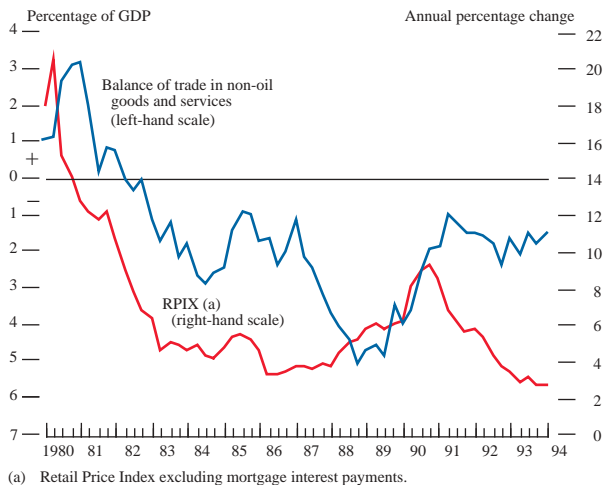
Trends in UK trade

This section looks at longer-term trends in UK imports and exports of goods,[1] particularly in the 20 years or so to the start of this decade. It considers changes in the composition of UK trade, both by region and commodity, and assesses whether these changes can explain the changes in the United Kingdom's share of world exports. In particular, it examines the improvement from the mid-1980s onwards in the UK share of main manufacturing countries' exports of manufactures—a development which has attracted the attention of a number of economists. It looks at whether the increase in share can be explained by the composition of UK export markets—that is whether it merely reflects higher-than-average growth in the markets for the types of goods exported by the United Kingdom or in the regions to which it exports.

As Chart 4 shows, *import* penetration—the proportion of total final demand constituted by imports of goods and

Chart 4
Import penetration at constant prices(a)
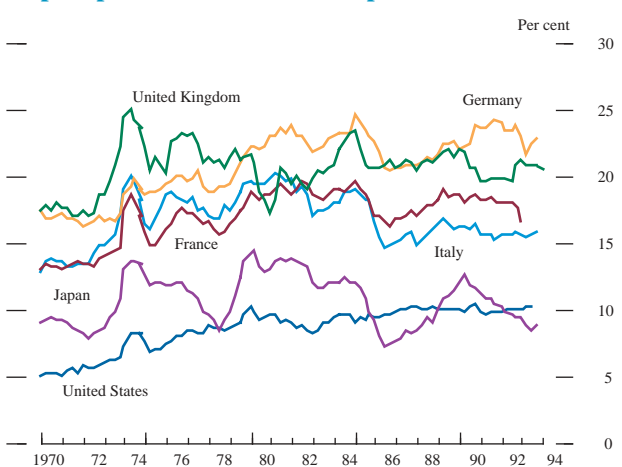
(a) Import penetration is defined as imports of goods and services as a proportion of total final expenditure.

services—has increased moderately in the main EU economies in recent decades, as international trade has grown more rapidly than domestic demand and economies have grown more specialised. Import penetration in the United States and Japan has remained at much lower levels than in the United Kingdom and the other large European economies, though import penetration in the European Union as a whole is slightly below that for the United States and Japan, reflecting the extent of intra-regional trade within the Union. The relationship between the growth in imports and in GDP in the United Kingdom has been broadly in line with that in other major EU economies.

By contrast, UK *export* performance over the post-war period has been poor in comparison with its main competitors, and it has been this historical trend which has attracted considerable attention. As Chart 5 shows, the UK share of the total *manufacturing*[2] exports of the main

Chart 5
UK share of main manufacturing countries' exports of manufactures

manufacturing countries[3] has fallen fairly steadily over recent decades, both in value and volume terms. But its share began to stabilise in the mid-1980s and, as the chart indicates, then rose—by $^1/_2$ percentage point in volume terms—between 1985 and 1991.

A clearer picture of the factors behind the changes in UK export share is discernible by looking at export figures disaggregated by destination and commodity composition. These can clarify whether a recorded increase in UK export share reflects the relatively strong growth of those overseas markets to which the United Kingdom predominantly exports, or of the types of commodity that it exports. Movements in export share that cannot be attributed to the composition of UK exports—ie changes in share across all goods and all markets—could be the result of any factor which increases the demand for and supply of UK products; for example, increased foreign direct investment that leads to an increased supply of tradable goods. Before constructing

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(1) Trade in (ie imports and exports of) *goods* constituted almost 80% of trade in goods and services in 1993; excluding oil, the figure was around 75%.
(2) UK manufacturing exports constituted almost 90% of non-oil good exports in 1993.
(3) Includes the United Kingdom, Belgium, Luxembourg, France, Germany, Italy, the Netherlands, Sweden, Switzerland, the United States, Canada and Japan.

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measures of UK export markets on a disaggregated basis, however, the next sections examine how the regional and product composition of UK exports and imports has changed in the last 20 or so years.

Trends in the regional composition of UK trade

The pie charts in Charts 6 and 7 show how the regional breakdown of UK visible imports and exports, in value terms, has changed since 1975. Both imports to, and exports from, the European Union have increased significantly: by 1993, 50% of UK imports came from other EU countries, compared with 39% in 1975; and 53% of UK exports were

Chart 6
Percentage of UK imports

1975 / 1993
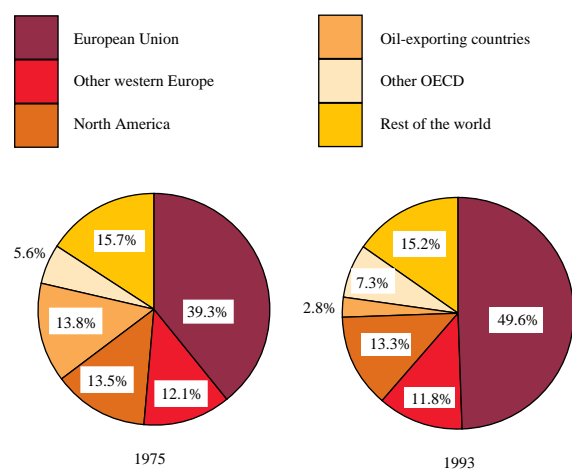
Chart 7
Percentage of UK exports

1975 / 1993
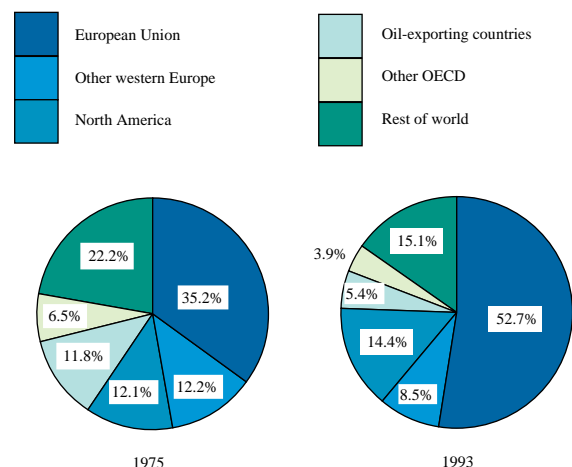
to other EU countries, compared with 35% in 1975. Although in *total* both imports and exports have increased as a percentage of GDP, the increase in EU imports and exports as a percentage of GDP has occurred at the expense of most of the other main regions with which the United Kingdom trades—as Table A shows. This suggests that closer European integration has led both to trade creation and to trade diversion. Within the European Union, the proportion of UK trade that is with the other major economies—Germany, Italy and France—has increased over

Table A
UK visible exports and imports by region

Visible exports by region as a percentage of UK GDP

	1973	1983	1993
European Union	5.8	9.2	10.1
Rest of Western Europe	2.0	1.9	1.6
North America	2.6	3.1	2.8
Oil exporters	1.1	2.0	1.0
Other OECD	1.2	0.7	0.7
Rest of world	3.5	2.9	2.9

Visible imports by region as a percentage of UK GDP

	1973	1983	1993
European Union	7.6	10.5	10.9
Rest of Western Europe	2.9	2.9	2.6
North America	3.2	3.0	2.9
Oil exporters	2.0	0.9	0.6
Other OECD	1.5	1.5	1.6
Rest of world	4.0	2.8	3.3

the period, as shown in Table B. The Benelux countries (the Netherlands, Belgium and Luxembourg) accounted for around the same percentage of UK exports as Germany in 1993.

Table B
Visible exports to EU countries as a percentage of UK GDP

	1973	1983	1993
Germany	1.1	2.0	2.5
France	0.9	1.9	1.9
Italy	0.5	0.7	1.0
Netherlands	0.8	1.8	1.3
Belgium/Luxembourg	0.6	0.8	1.1
Denmark	0.4	0.4	0.3
Republic of Ireland	0.8	1.0	1.0
Greece	0.1	0.1	0.1
Portugal	0.2	0.1	0.2
Spain	0.3	0.4	0.7

Trends in the commodity composition of UK trade

In the visible goods sector, exports of fuels have fluctuated markedly; but excluding fuels, export shares by category of commodity have been relatively stable (see Table C). Within visible imports, finished manufactured goods now constitute around 54% of UK imports, compared with 25% in 1970. This increase is mirrored by a sharp fall in the proportion of UK imports accounted for by primary products: food, beverages, and tobacco; basic materials; and fuels. Changes in import volumes, rather than prices, accounted for most of these changes in share: the volume

Table C
UK visible exports and imports by category

Visible exports; percentage by value

	Food, beverages and tobacco	Basic materials	Fuels	Semi-manufactures	Finished manufactures	Others
1970	6.2	3.4	2.6	34.0	50.6	3.2
1980	6.8	3.2	13.6	29.4	44.6	2.4
1990	6.9	2.2	7.7	28.3	52.7	2.2
1992	8.1	1.8	6.4	28.4	53.4	1.9
1993	7.5	1.9	6.9	29.2	53.1	1.4

Visible imports; percentage by value

	Food, beverages and tobacco	Basic materials	Fuels	Semi-manufactures	Finished manufactures	Others
1970	22.4	14.8	8.5	28.4	24.8	1.1
1980	12.0	7.7	14.3	27.4	36.9	1.7
1990	9.6	4.6	6.2	26.2	51.9	1.5
1992	10.5	3.8	5.5	25.9	52.9	1.4
1993	9.9	3.8	5.2	25.6	54.4	1.1

increase in imports of manufactures was much greater than their price rise over the period, and primary products' share of imports fell *despite* price increases for food, beverage and tobacco and basic materials far in excess of volume increases. One statistic illustrates well the changing structure of UK visible trade (and particularly of imports): in 1970, exports of finished manufactures were around twice the level of imports, but by 1993 there was a deficit in finished manufactures.

Shift-share analysis

How can the significance of these trends in UK trade by region and commodity be *quantified*? One possible explanation for the post-war decline in the UK share of world trade might be that, compared with its main trading partners, the United Kingdom was initially exporting goods the demand for which was growing relatively slowly. Or the explanation might be linked to the regional composition of UK exports, so that UK export growth was limited by continued close trading links with relatively slow-growing economies.

Using a technique known as *shift-share analysis,* it is possible to quantify the extent to which the commodity and regional composition of UK trade has affected export performance. The results of a shift-share analysis, based on a fairly disaggregated data set covering manufacturing exports within the OECD area, are given in Table D. (A description of the technique and of the data used is given in the Appendix.)

Table D
UK export performance

US$ millions; manufactured goods

	Product composition effect	Regional composition effect	Residual effect	Total (a) effect
1970–85	-407	-1,017	-7,108	-8,532
1985–90	373	6,912	3,719	11,004

(a) The total effect is the sum of the three other effects. A positive figure represents an increase in market share.

The *product composition effect* shows the impact of the commodity composition of UK exports in the relevant starting year: if over the relevant period the growth in OECD imports of the types of goods exported by the United Kingdom was greater than the average growth of OECD imports of all commodities, the product composition effect would be positive. The *regional composition effect* shows the effect of the regional composition of UK exports in the relevant starting year: if the growth of the United Kingdom's OECD export markets was greater over the period than the average growth of OECD markets, then the regional composition effect would be positive. The *residual effect* is the change in total UK export share over a given period which cannot be attributed to either the product or the regional composition effect. If, for example, UK exports as

a share of OECD imports remained unchanged over a period but the sum of the product and regional composition effects was positive, then by definition the residual effect would be negative. So the residual effect comprises all factors which can explain UK export share but are not directly related to the regional or commodity composition of exports.

Table D shows that between 1970 and 1985 the decline in the UK share of other OECD countries' manufacturing imports was in part the result of the slower-than-average growth in the markets for the types of goods exported by the United Kingdom and in the regions to which it exported in 1970. Most of the decline, however, was the result of the residual effect—the United Kingdom lost market share across all goods and across all regions. Between 1985 and 1990, the increase in UK export market share was partly the result of faster-than-average growth in both the markets for the types of goods exported by the United Kingdom and—in particular—in the regions to which it exported in 1985. But in addition, around a third of the increase, according to the results of the shift-share analysis, was accounted for by the residual effect. The next section examines this further.

Manufacturing exports in the 1980s

As already noted, a number of economists have examined the improvement in the UK share of main manufacturing countries' manufacturing exports which has taken place since the mid-1980s (see Chart 5 above). In particular, they have looked at whether this change in export share can be explained by movements in demand abroad and/or by movements in UK relative costs and prices (ie the measured real exchange rate). If these factors do not account for the change, then there may have been a *structural improvement* in the United Kingdom's export performance.

The shift-share analysis in the previous section suggested that not all of the increase in the UK share could be explained by the growth of demand abroad, whether of the types of goods exported by the United Kingdom or of the regions to which it exported.[1]

Another possible explanation is a change in relative costs and prices. In theory, an increase (or decrease) in one country's share of world trade could, other things being equal, be associated with a decrease (increase) in relative prices or costs: a fall in relative prices could lead to an increase in demand for a country's goods; and a fall in relative costs could increase the supply of exports. As Chart 8 shows, however, UK relative costs and prices did not fall in the second half of the 1980s, though the delayed effect of the fall in relative costs and prices in the first half of the 1980s is likely to have had an impact.

A number of econometric studies[2] have confirmed that UK manufacturing export performance in the late-1980s cannot

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(1) The shift-share analysis was based on value data, but changes in the UK share of manufacturing exports based on values and volumes have tended to move together, particularly during the time periods examined in the shift-share analysis (as Chart 5 shows).
(2) See, for example, Church, K (1992), 'Properties of the fundamental equilibrium exchange rate in models of the UK economy,' *National Institute Economic Review*, August, pages 62–70.

Chart 8
UK relative prices and costs in a common currency(a)
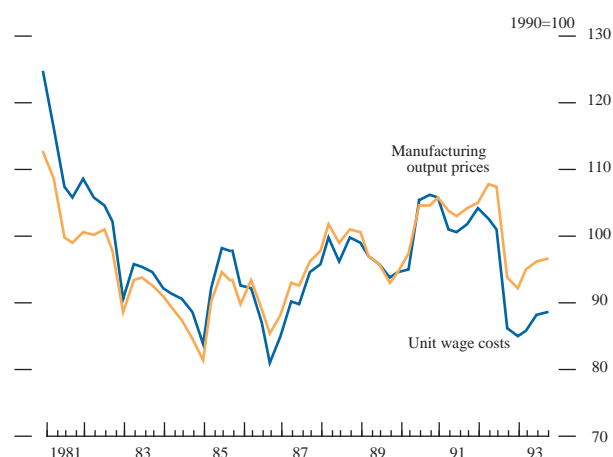
(a) UK manufacturing costs/prices relative to those in the other G7 countries adjusted for exchange rate movements.

be fully explained by standard export equations relating export volumes to relative costs and prices (or the measured real exchange rate) and overseas demand.

One possible explanation for these results—one that encompasses both the conclusions of Muellbauer and Murphy,[1] that UK exports in the 1980s benefited from a fall in the growth of world trade relative to output, and Landesmann and Snell's finding[2] of a worsening trend share of world trade for Japan and the United States in the same period—is that the United Kingdom may have been a beneficiary of bilateral trade barriers between the United States and Japan.

Alternatively, research by Owen and Wren-Lewis[3] suggests that movements in the UK share of world trade can be explained by changes in the ratio of cumulative UK investment to cumulative investment abroad (this ratio increased in the latter half of the 1980s), as well as by changes in world trade and in sterling's real exchange rate. Their explanation of the link between investment and exports is the following. As a country's supply capability increases, firms produce new varieties of products (since doing this is more profitable than contesting existing export markets). Because consumer demand for differentiated products increases as incomes rise, this increased *supply* will then be associated with higher export *demand*.

Recent developments

A structural improvement in UK export performance would mean an increased level of demand for and supply of UK-produced manufactured goods at *given levels* of the exchange rate and of aggregate demand. But in the short term, the actual levels of the exchange rate and demand conditions at home and abroad are the main factors determining imports and exports.

Over the last few years, UK trade—and particularly export—performance has been affected mainly by the recession in continental Europe and sterling's depreciation after the suspension of UK ERM membership.

Exchange rate movements

Table E shows changes in sterling's exchange rate against the currencies of all other countries, other EU countries and countries outside the European Union. The depreciation

Table E
Movements in the sterling exchange rate

Percentage change in the exchange rate

	1992–93	1992 Q3–92 Q4
Against world currencies (a)	-9.2	-12.2
Against EU currencies (b)	-6.1	-10.4
Against non-EU currencies (b)	-13.1	-14.6

(a) Sterling effective exchange rate index.
(b) Bank estimates based on EU/non-EU trade weights in sterling effective exchange rate index.

between 1992 and 1993 in sterling's effective exchange rate (ie the weighted sterling exchange rate against the currencies of the United Kingdom's most important trading partners) was the largest since 1976. And the change in value was far more rapid: the depreciation of sterling between 1992 Q3 and 1992 Q4 was larger than any quarterly change during the

Chart 9
Real exchange rate(a)
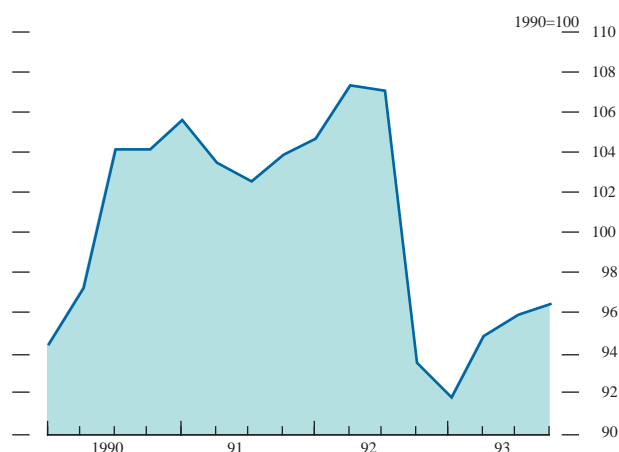
(a) UK manufacturing prices relative to those in the other G7 countries adjusted for exchange rate movements.

1975–76 period. The effect of the *nominal* exchange rate movements on the *real* exchange rate—measured by relative prices—is illustrated in Chart 9.
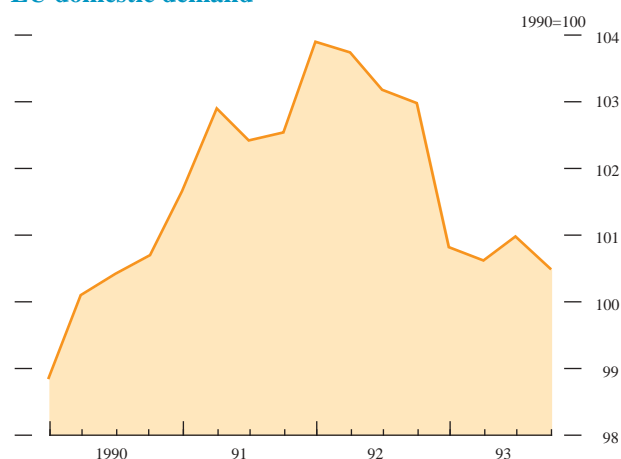
Movements in EU demand

As shown in Chart 10, demand within the rest of the European Union fell by almost 3% between 1992 Q2 and

(1) Muellbauer, J and Murphy, A (1990), 'Is the UK balance of payments sustainable?,' *Economic Policy*, October, pages 348–82.
(2) Landesmann, M and Snell, A (1993), 'Structural shifts in the manufacturing export performance of OECD economies,' *Journal of Applied Econometrics*, Vol. 8, pages 149–62.
(3) Owen, C and Wren-Lewis, S (1992), 'Variety, quality and UK manufacturing exports,' July, Strathclyde University.

Chart 10
EU domestic demand(a)

(a) Consists of Germany, France, Italy and Spain weighted by their share of UK exports.

1993 Q1. And as Table F shows, demand in Germany—the United Kingdom's largest single export market—fell by 2% between 1992 and 1993.

Table F
Movements in EU demand

Percentage change in demand

	1992–93	1992 Q4–93 Q1
European Union (a)	-2.6	-2.1
Germany	-2.0	-2.3
France	-1.9	-1.1
Italy	-5.0	-3.8

(a) Consists of Germany, France, Italy and Spain weighted by their share of UK exports.

The impact on trade prices

The major influence on export and import prices over the last few years has been the depreciation of the sterling exchange rate. To the extent that goods are traded in perfectly competitive markets, a nominal depreciation would normally lead to a proportionate increase in sterling import and export prices. Between 1992 Q3 and 1994 Q1, the prices[1] of exports of goods other than oil increased by 15.7%, compared with an increase in non-oil import prices of 12.6%. Over the same period, the sterling effective exchange rate depreciated by 10.6%. In the past, however, exchange rate changes have prompted a greater reaction from import prices than from export prices. So, notwithstanding the revisions which followed the CSO's recent quality audit of the Intrastat system (the system used since the beginning of 1993 to collect EU trade statistics), it is possible that export prices were overstated (and export volumes understated) in last year's trade figures.

The impact on trade volumes

Movements in the exchange rate and in demand would usually both be expected to have a significant impact on import and export volumes. The effect of a change in either the real exchange rate or demand depends, as well as on the size of the initial change, on the responsiveness of trade volumes to any change: technically, it is the estimated *elasticities* of trade volumes with respect to the real exchange rate and demand that are important.[2]

There are a number of uncertainties associated with quantifying the impact of movements in the real exchange rate and demand over the last few years. In particular, estimates of the elasticities of UK import and export volumes with respect to demand and to the real exchange rate (measured by either relative prices or costs, expressed in a common currency) vary widely. In addition, the impact of changes is likely to feed through with long and variable lags.

It is possible, however, to offer a broad indication of the effects of the EU recession and the depreciation of the real exchange rate on export and import volumes. UK costs fell by around 12% relative to those of the other members of the G7 between 1992 and 1993. If the elasticity of import and export volumes with respect to the real exchange rate is around a third,[3] then the long-run effect of the 1992–93 movement in the exchange rate would be to increase export volumes and reduce import volumes by around 4%. EU demand fell by around $2^1/_2$% between 1992 and 1993. Assuming that the elasticity of export volumes with respect to EU demand is around one,[3] then export volumes to the European Union would fall by around $2^1/_2$% in response.[4]

The drop in EU demand and the fall in the United Kingdom's real exchange rate have not, of course, been the only developments to have influenced trade volumes since 1992. The increase, for example, in UK domestic demand —which rose by around 2% between 1992 and 1993—has provided an offsetting influence to the downward impact of lower UK relative costs on import volumes. In addition, the trend towards economies becoming more specialised in production has continued gradually to increase trade as a proportion of output.

The impact on the trade balance

The effect of recent movements in trade prices and volumes on the balance of trade in non-oil goods and services is summarised in Table G.[5] Over the two years to 1994 Q1, the deficit in non-oil goods and services increased by £0.3 billion. The increase resulted from movements in net trade volumes: between 1992 Q1 and 1994 Q1, the volume of non-oil goods imported increased by 15%, while the volume of exports rose by 9.9%. Movements in the terms of trade (the ratio of export prices to import prices, both expressed in sterling) have, in part, offset this volume effect—between 1992 Q1 and 1994 Q1, the prices of non-oil

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(1) Unit value indices, using weights determined according to the pattern of 1990 trade.
(2) The elasticity of export volumes with respect to overseas demand, for example, is the proportionate change in export volumes divided by the proportionate change in demand; if a 1% increase in overseas demand were estimated to lead to a 0.5% increase in export volumes, then the estimated elasticity would be 0.5.
(3) A figure within the range implied by most econometric estimates.
(4) The effect on aggregate export volumes would be a reduction nearer to $1^1/_2$%, given that the European Union accounts for around 55% of UK exports.
(5) The price effect estimates the change in the balance which occurred solely as a result of movements in export and import prices (ie assuming import and export volumes had remained unchanged). The volume effect calculates the change in the balance which occurred solely as a result of changes in import and export volumes (ie assuming import and export prices had remained unchanged).

goods imported rose by 10.5%, compared with a rise in the prices of non-oil good exports of 15.9%.[1]

Table G
Contribution of movements in volumes and prices to trade balance

£ millions

	Exports	Imports	Balance
Non-oil goods:			
1992 Q1	24,566	27,748	-3,182
Change resulting from:			
Price effect	2,933	2,064	869
Volume effect	2,433	4,159	-1,726
Residual	280	335	-55
1994 Q1	30,212	34,306	-4,094
Services:			
1992 Q1	8,281	7,243	1,038
Change resulting from:			
Price effect	737	573	164
Volume effect	590	201	389
Residual	57	20	37
1994 Q1	9,665	8,037	1,628
Non-oil goods and services:			
1992 Q1	32,847	34,991	-2,144
Change resulting from:			
Price effect	3,670	2,637	1,033
Volume effect	3,023	4,360	-1,337
Residual	337	355	-18
1994 Q1	39,877	42,343	-2,466

Standardly, economic theory analyses the effects of an exchange rate depreciation on the trade balance in terms of a 'J' curve: the trade deficit first increases—as import prices rise significantly faster than export prices—and then steadily falls, as a result of the delayed impact of the fall in relative costs and prices on export and import volumes. Following the suspension of UK membership of the exchange rate mechanism in 1992 Q3, the initial part of the 'J' curve was very short-lived: the terms of trade fell sharply in 1992 Q4 but by 1993 Q1 were back at around their 1992 Q3 level. In the year after 1993 Q1, despite the recovery in UK demand at a time when demand in other EU countries remained depressed, there was an improvement in the relative performance of non-oil export volumes compared with non-oil import volumes. Between 1992 Q1 and 1993 Q1, non-oil import volumes increased by 7.3% while non-oil export volumes increased by 3.9%; between 1993 Q1 and 1994 Q1, the respective growth rates were 7.2% and 5.8%.

Outlook

Since the United Kingdom is presently running a trade deficit, exports will have to grow faster than imports in the next few years to prevent the deficit increasing. If imports of goods and services were to increase by 4.2% this year in value terms (in line with the average growth rate in 1991–93), exports would need to increase by 4.4% just to ensure that the trade deficit in goods and services remained unchanged.

Increases in EU growth over the next few years may increase the rate of growth of demand overseas relative to UK demand; movements in relative demand would then have a more positive impact on the trade and current accounts than they have had recently. Furthermore, although it is unlikely that future changes in relative costs will be as favourable as those seen in the last few years, some residual effect of the fall in UK relative costs since 1992 will continue to provide a boost to exports and to restrain imports.

Another way of considering the prospects for the trade and current accounts is by assessing the outlook for the public and private sector (personal and corporate) financial balances—since, by accounting identity, the sum of the public and private sector balances is equal and opposite to the current account balance.

The planned reduction in the fiscal deficit will tend to lead to a reduction in the current account deficit; but this effect is likely to be offset, at least in part, by a fall in the private sector financial surplus. Two factors make a fall in that financial surplus likely. First, investment is likely to increase in the next few years, given the recent increases in the rate of return on capital and in the retained earnings of industrial and commercial companies; retained earnings rose by a third in 1993. Second, the personal sector is likely to react to the recent and planned tax increases by reducing savings in order to smooth consumption levels. In the extreme, a reduction in the public sector deficit would have no impact on aggregate savings, if the private sector were to reduce its savings commensurately in response to the reduction in the future expected debt burden. The path of the current account deficit in the next few years will depend on the speed and the extent of the increase in investment and the decline in personal sector savings.

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(1) Unit value indices; the prices used to calculate the 'price effects' in Table G are *average* value indices, which are based on current trade weights.

Appendix

UK export performance 1970–90: shift-share analysis

The main article reports the results of the use of a technique known as shift-share analysis to analyse the trends in UK manufacturing exports as a share of OECD manufacturing imports between 1970 and 1990. This appendix briefly describes the technique.

Methodology[1]

Using shift-share analysis, we can divide the United Kingdom's changing share of OECD imports between any two periods into three effects:

- **a product composition effect**—the effect of specialising in goods whose market growth has differed from the average for all commodities;

- **a regional composition effect**—the effect of concentrating in regional markets whose growth rate has differed from the average for all markets; and

- **a competitiveness effect**—the increase/decrease in market share as a result of factors other than the product and regional composition of trade. This effect can be thought of as resulting from a host of factors not connected with the regional and commodity composition of UK exports. This third component is obtained as a residual.

Three formulae[2] are used to separate the three components outlined above. For each period, the formulae are:

(i) Product composition effect =
$$\bullet_i(1+g^i)X^i_{oUK} - (1+g)X_{oUK}$$

(ii) Regional composition effect =
$$\bullet_i\bullet_j(1+g^{ij})X^{ij}_{oUK} - \bullet_i(1+g^i)X^i_{oUK}$$

(iii) Residual effect =
$$X_{tUK} - \bullet_i\bullet_j(1+g^{ij})X^{ij}_{oUK}$$

where:

g^i	= Growth in OECD imports of good i over period.
X^i_{oUK}	= UK exports of good i in base year.
X_{oUK}	= UK exports to OECD in base year.
g_{ij}	= Growth in OECD imports over period.
g^{ij}	= Growth in country j's imports of good i over period.
X^{ij}_{oUK}	= UK exports of good i to country j in base year.
X_{tUK}	= UK exports to OECD in end year.

Data
Data for the following OECD countries were used:

Canada	France	Austria	Sweden
United States	Greece	Finland	Switzerland
Japan	Germany	Portugal	Turkey
Belgium	Ireland	Iceland	United Kingdom
Luxembourg	Italy	Norway	
Denmark	Netherlands	Spain	

All the data came from the OECD's *Foreign Trade by Commodities*.

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(1) Based on Thirlwall, A P and Gibson, H, 'Balance of payments theory and the United Kingdom experience', Macmillan, London, 1992.
(2) See Magee, S P, 'Prices, income and foreign trade', *International Trade and Finance: Frontiers for Research*, ed Kenen, P B, Cambridge University Press, 1974.