UK export performance by industry

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The United Kingdom's export market share has declined steadily for a number of years, both in aggregate and in many industries within the manufacturing sector. A major determinant of demand for an industry's exports is the price of those exports relative to the prices of international competitors. This article shows that UK export prices tend to follow the prices set by foreign competitors quite closely, when expressed in a common currency. So, for many exporters, a dominant depressing influence on market share over the past decade was the significant appreciation of the sterling exchange rate in the late 1990s. But other factors also played a role. In particular, a number of high-tech UK industries have been able to increase their market shares, perhaps reflecting a greater ability to differentiate their products from those of their competitors.

Introduction

When setting interest rates, the Monetary Policy Committee (MPC) focuses on the balance between the demand for UK goods and services, and the capacity of the UK economy to supply them. An important source of demand for UK products comes from overseas — UK exports account for over a quarter of UK GDP. So understanding the determinants of UK exports is important in order to understand the demand for UK goods and services.

A key factor that affects the demand for UK exports is world demand, and in recent years strong growth in world trade has supported UK export growth. However, over the past 25 years as a whole UK export volumes have risen less rapidly than world exports, such that ratio of UK export volumes to world import volumes has fallen by 23% since 1980 and by 15% since 1990 (**Chart 1**). This has been much more pronounced than the decline in the ratio of UK GDP to world GDP, which has fallen by 8.0% since 1980 and 6.5% since 1990.[1]

What explains these movements in the United Kingdom's export share? To some extent, global factors have been at work: advanced economies have tended to lose market share directly because of greater competition from lower-cost industrialising economies such as China, India and those in Eastern Europe. And the recent acceleration in world trade, much of which has come from Asian countries, has consisted disproportionately of intra-regional trade within Asia.[2]

There have also been UK-specific factors. Some of these have affected all UK exporters to a greater or lesser extent, notably

Chart 1 UK GDP and exports relative to world GDP and exports[a]
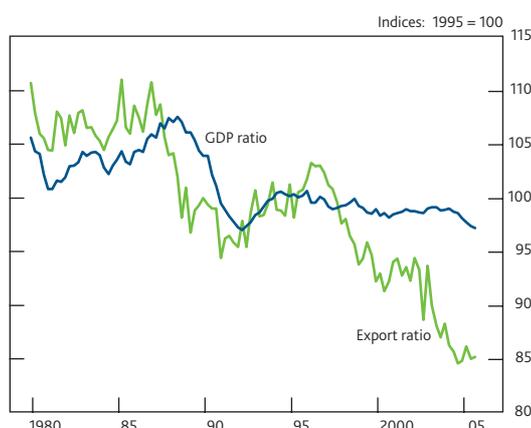
Sources: ONS and overseas national accounts data.

(a) In volume terms.

the sharp appreciation of sterling in the mid-to-late 1990s. But there have been significant differences across sectors. And there have also been differences within sectors, most notably in manufacturing, where the fall in export share has been more pronounced than in services. **Chart 2** shows movements in UK exports and world imports across manufacturing industries between 1991 and 2001,[3] and the corresponding change in UK export market shares (the red diamonds). Market share fell in many industries; but in three of the twelve UK industries —

(1) In **Chart 1**, world GDP and trade are calculated using real GDP and import volumes, and aggregated using UK export share weights. According to IMF data, the UK value share of world imports was 3.5% in 2005.
(2) See for example Bank of England (2004), pages 19–20.
(3) These were the latest industry-level data available at the time this analysis was conducted.

pharmaceuticals, computers, and communication equipment — export growth not only matched the growth in world trade, but actually exceeded it, increasing the UK market share of those industries.[1]

Chart 2 Change in export market share for manufacturing industries (1991–2001)[a]

- UK exports
- World imports
- Market share
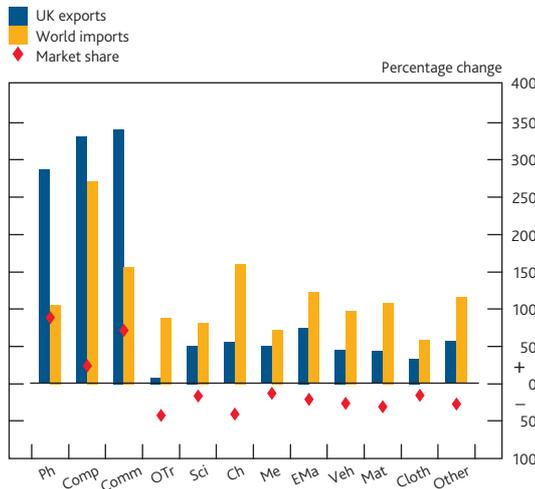
(a) In volume terms. Industry abbreviations are shown in **Table A**.

Table A Industry abbreviations

Ph	Medical and pharmaceutical
Comp	Office machinery and computers
Comm	Radio, TV and communications
OTr	Non motor vehicle transport equipment
Sci	Scientific and photographic appliances
Ch	Other chemicals
Me	Mechanical engineering
EMa	Electrical machinery
Veh	Motor vehicles
Mat	Material manufactures
Cloth	Clothing and footwear
Other	Other manufactured articles

This article examines the differences in export performance across UK industries, and compares those industries to their US and euro-area counterparts.[2] First, the article briefly describes the industry-level data set, drawing a particular distinction between high and low-tech industries. Second, it discusses how movements in relative export prices — the difference between the price of UK exports and the price of foreign exports — could affect industries' exports. It considers why firms in different industries, but in the same country, might have different degrees of price-setting power, and what characteristics make the demand for an industry's goods particularly sensitive to such relative price changes. Finally, the article looks at non-price factors that are likely to have affected export performance, and examines why three of the twelve UK industries saw an increase in their export market share in the 1990s, while the market share of other industries fell.

The data set

This article draws on a disaggregated exports database covering twelve manufacturing industries. It includes quarterly data on world imports, world export prices and unit labour costs for manufacturing industries from 1991 to 2001 for the United Kingdom, the euro area and the United States.[3] The database was specially constructed for this purpose, since disaggregated data on world export volumes are not readily available.

Table B Technological intensity by industry (in 1999)

Aggregate R&D spending as a percentage of:	Production	Value added	Memo: Share of industry in UK manufacturing
High-tech industries			
Medical and pharmaceutical (Ph)	10.5	22.3	4.3
Office machinery and computers (Comp)	7.2	25.8	8.7
Radio, TV and communications (Comm)	7.4	17.9	10.3
Non motor vehicle transport equipment (OTr)	4.4	12.4	4.2
Scientific and photographic appliances (Sci)	9.7	24.6	4.9
Medium-tech industries			
Other chemicals (Ch)	2.9	8.3	12.3
Mechanical engineering (Me)	2.2	5.8	15.6
Electrical machinery (EMa)	3.6	9.1	4.8
Motor vehicles (Veh)	3.5	13.3	10.1
Low-tech industries			
Material manufactures (Mat)	0.6	1.4	15.0
Clothing and footwear (Cloth)	0.3	0.8	2.4
Other manufactured articles (Other)	0.5	1.3	7.5

Note: Based on data for twelve OECD countries: the United States, Canada, Japan, Denmark, Finland, France, Germany, Ireland, Italy, Spain, Sweden, and the United Kingdom. Aggregate R&D intensities calculated after converting countries' R&D expenditures, value added and production using purchasing power parity (PPP) measures.

Source: OECD.

A key distinction in the analysis is between high, medium and low-tech industries. **Table B** outlines the technology intensity of each industry, as proxied by the share of measured research and development (R&D) spending in total production and in value added across twelve OECD countries. It suggests that five of the twelve industries can be broadly grouped together as 'high-technology' sectors. Notably, the three UK industries that increased their market share in the 1990s (**Chart 2**) are all in this group. The final column shows the importance of each industry in UK manufacturing: together, the five high-tech industries account for around a third of UK manufacturing output.

(1) A UK industry is said to have gained market share when UK exports have grown by more than world imports (weighted by UK export shares). The world imports series was constructed using data from the World Trade Organisation and consists of annual imports of various regions from the world across different sectors between 1990 and 2002 in millions of US dollars. The regions are: North America, Latin America, Western Europe, Central and Eastern Europe, Africa, Middle East, and Asia. The short time period used is due to the availability of disaggregated international trade data.

(2) Note that a UK industry will include both UK-owned and foreign-owned companies based in the United Kingdom. Similarly, UK-owned companies in the euro area will be included in euro-area industrial data, rather than UK data.

(3) For a full description of the data set see Buisán *et al* (2005).

The determinants of export demand

Other things being equal, the demand for UK exports ought to increase in line with income in the rest of the world. But the two series do not increase in lockstep with each other. Other factors are also important, particularly the common-currency price of UK exports relative to the price charged by competing exporters from the rest of the world. This is called the relative export price. A fall in the relative price of exports could reflect a number of factors, including a reduction in production costs or a depreciation of the domestic exchange rate. Competing exporters from other countries producing identical goods but at a lower relative export price should receive a larger share of global spending. So, other things being equal, the demand for exports ought to be negatively related to the relative export price.

Of course, all other things are not always equal, and there are a number of non-price considerations that also influence market share.[1] The following sections consider relative export prices in some detail, and then turn to non-price considerations.

Relative export prices

Chart 3 shows the change in market share in each of our twelve industries since 1990, alongside movements in the relative export price. As anticipated, it suggests that in many industries there is a relationship between price competitiveness — where a fall in relative prices implies a gain in price competitiveness — and market share. In particular, the three industries in which the United Kingdom has gained market share — pharmaceuticals, computers, and communication equipment — are the same three that display falls in relative export prices, or a notable improvement in price competitiveness. Importantly, across industries price competitiveness deteriorated by less than the appreciation of sterling in 1996–97 would imply on its own. That suggests that UK companies managed to reduce costs and squeeze margins, at least to some extent, in order to remain as competitive as possible.

It is important to note that the measure of market share used here (and in the later estimations) shows UK exports in each industry as a proportion of the level of world imports in each industry. A better denominator could be something more akin to world industrial production in each industry. The difference between the two can be demonstrated by their treatment of intra-regional trade. World trade has become more regionally integrated over the past two decades, particularly within Asia. This tends to increase world imports but not UK exports (or those of other developed economies), mechanically reducing the United Kingdom's market share. But if this intra-regional trade has partly substituted for domestic production within

individual Asian countries, as is likely, then world industrial production would have risen by less than world imports. That would make the fall in UK market share less pronounced when measured as a proportion of world industrial production, rather than as a share of world imports. This caveat must be borne in mind when examining our empirical results.

Chart 3 raises two further issues: why have movements in relative export prices differed so sharply between industries? And is demand in some industries more price-sensitive than in others? These questions will be examined in turn.

Explaining relative price changes: some stylised facts

There are two key factors that influence the price charged by exporting companies: the price charged by competitors; and the domestic costs of production. The UK exporter's price should be positively related to its competitors' prices, as an increase in foreign prices allows UK firms to increase their export prices without losing market share. Likewise, in the case of a sterling exchange rate appreciation that reduces the effective sterling price of competitors' products, the UK exporter may have to reduce its export prices in sterling terms if it wants to maintain price competitiveness in foreign markets. But UK exporters' prices will also need to reflect their own costs to some degree. The extent to which prices reflect domestic costs or competitors' prices is partly influenced by the degree of competition and product differentiation in each market. An exporter who is able to pass a substantial proportion of rises in domestic production costs (or any appreciation in sterling) on to their customers in higher export prices is said to have a degree of 'pricing power'.[2]

Charts 4 and 5 provide some evidence on the degree to which firms in different industries have any price-setting power. The charts show how closely export prices have moved with competitors' prices and unit labour costs (total wages and salaries divided by output) in the past. They measure simple correlations in the data, calculated by regressing export prices on unit labour costs and competitors' export prices, with the coefficients summing to unity (so by construction Chart 4 is the inverse of Chart 5). As such, they do not tell us anything about the structural nature of price-setting. Estimates range from zero — in the centre of the circle — to one.

The results are quite striking. They show clearly that, in most UK industries, export prices have moved much more closely with foreign competitors' prices (the blue line in Chart 4) than with changes in the cost of production (the blue line in Chart 5). Note that this does not imply that costs are unrelated to prices: if the sterling exchange rate were to

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(1) These could include, for example, the relative quality of exports, efficiency in meeting delivery times, or credit guarantees. Unfortunately, these factors are not easy to quantify across industries and countries.

(2) In both instances a profit-maximising firm will seek to earn a mark-up over costs. But the sensitivity of its price to those costs, versus the sensitivity of its price to foreign prices, can vary. See Ellis and Price (2003) for more details.

Chart 3 Market share and relative export prices across UK industries[a]

(i) Medical and pharmaceutical

Indices: 1993 = 100

Correlation coefficient = -0.85

Market share

Relative export price

(ii) Office machinery and computers

Indices: 1993 = 100

Correlation coefficient = -0.71

Market share

Relative export price

(iii) Radio, TV and communications

Indices: 1993 = 100

Correlation coefficient = -0.41

Market share

Relative export price

(iv) Non motor vehicle transport equipment

Indices: 1993 = 100

Correlation coefficient = -0.27

Market share

Relative export price

(v) Scientific and photographic appliances

Indices: 1993 = 100

Correlation coefficient = -0.42

Relative export price

Market share

(vi) Other chemicals

Indices: 1993 = 100

Correlation coefficient = -0.22

Relative export price

Market share

(vii) Mechanical engineering

Indices: 1993 = 100

Correlation coefficient = -0.06

Relative export price

Market share

(viii) Electrical machinery

Indices: 1993 = 100

Correlation coefficient = -0.78

Relative export price

Market share

(ix) Motor vehicles

Indices: 1993 = 100

Correlation coefficient = +0.19

Relative export price

Market share

(x) Material manufactures

Indices: 1993 = 100

Correlation coefficient = -0.50

Relative export price

Market share

(xi) Clothing and footwear

Indices: 1993 = 100

Correlation coefficient = -0.04

Relative export price

Market share

(xii) Other manufactured articles

Indices: 1993 = 100

Correlation coefficient = -0.52

Relative export price

Market share

(a) The relative export price for an industry is defined as the sterling UK export price divided by the sterling 'world' export price in that industry. The 'world' export price for an industry is calculated by weighting individual countries'
    export prices in that industry together using shares in export values. The data for industrial export prices are taken from the OECD International Trade by Commodity Statistics database in the form of industrial annual export
    values and volumes in dollars over the period 1991–2001: so world export prices are effectively unit value indices. The countries are those in the euro area, Canada, China, Denmark, Hong Kong, Hungary, Japan, Poland, Sweden,
    Switzerland, Turkey, the United States and the United Kingdom.

appreciate, for example, UK companies could maintain prices in foreign currency terms and seek to rebuild margins by adjusting costs, rather than (effectively) raising their export prices and losing competitiveness. By contrast, there is more diversity among euro-area and US industries (the orange and red lines respectively). In several cases in these regions, prices are more closely related to production costs than competitors' prices, consistent with a greater degree of price-setting power.

Chart 4 Co-movement of export prices and foreign export prices by industry
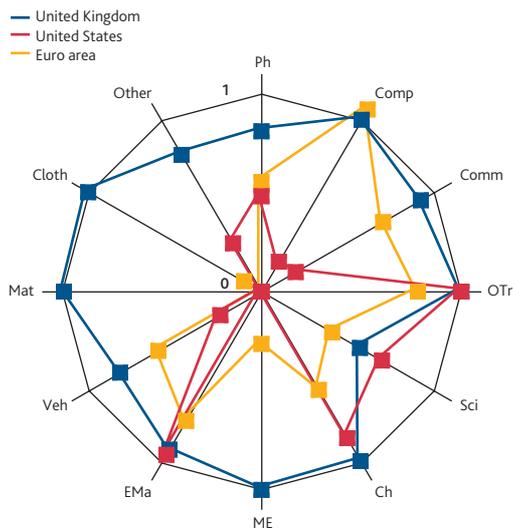
Note: **Charts 4** and **5** are constructed by regressing export prices on unit labour costs and competitors' export prices, with the coefficients summing to unity. Industry abbreviations are shown in **Table A**.

Chart 5 Co-movement of export prices and unit labour costs by industry
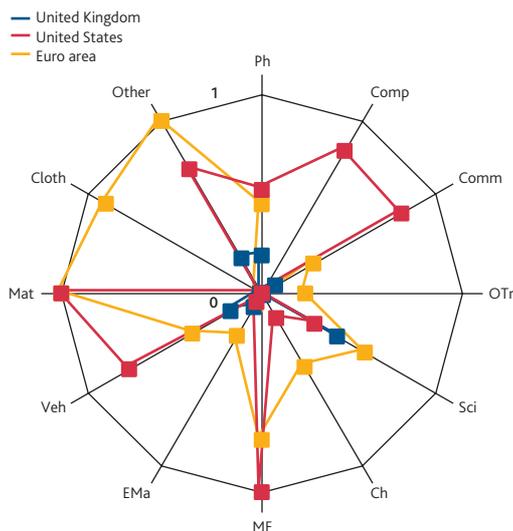
Note: **Charts 4** and **5** are constructed by regressing export prices on unit labour costs and competitors' export prices, with the coefficients summing to unity. Industry abbreviations are shown in **Table A**.

What might explain the differences in pricing power across industries and countries? The following sections examine two factors in particular: the size of UK industries relative to their foreign counterparts; and the openness of each industry.

Industry size

The relative size of a country's industry could affect its pricing power — for example, the larger a UK industry's international market share, the more pricing power UK companies in that industry could have. This would imply that larger industries in larger countries may be less sensitive to competitors' prices, and would have greater ability to pass on their domestic production costs. Empirical evidence tends to support this view. For instance, Goldstein and Khan (1985) find that firms in smaller, more open economies appear to set prices in line with those of their competitors, while firms in larger, less open economies are more inclined to price in line with domestic costs.

Table C shows the share in world exports that each country accounts for, by industry. UK manufacturing industries account for a much smaller share of most international markets than either euro-area or US industries. Four UK industries account for more than a tenth of world exports in their markets, but none accounts for more than a fifth. The United States and euro area, by contrast, are among the top two exporters across most industries. Given this, UK exporters might be expected to be more sensitive to the prices set by their larger competitors, while US and euro-area industries can pay more attention to their own costs when setting prices. This is consistent with **Charts 4** and **5**.

Openness

Openness — taken here to reflect the importance of trade in production and demand — could also affect the degree of pricing power that exporters have. More open industries are likely to be more competitive industries — so the more open an industry is to international competition, the more firms in that industry may be forced to set prices in line with their competitors. Markusen (1981) and Helpman and Krugman (1985) both point to openness as a trigger for competition, as price mark-ups tend to be smaller when the number of competitors is higher. UK exporters operating in open industries would, other things being equal, therefore tend to have less price-setting power than those UK exporters operating in less open industries.

Table D presents measures of international openness for each of the twelve UK industries: the share of imports in total domestic demand; the share of exports in domestic production; and an average of these two series, which are used here as a summary 'openness' indicator. For most industries, the import penetration ratio is similar to the export share of production. The main exception is the clothing and footwear sector, where import penetration is much higher than the export share of production. This is unsurprising, given the increasing importance of low-cost overseas producers in this industry.

Table C World export shares by industry and country[a]

Per cent

	Ph	Comp	Comm	OTr	Sci	Ch	ME	EMa	Veh	Mat	Cloth	Other
Canada	1.5	2.9	3.7	5.9	2.0	4.5	4.0	2.5	14.3	8.0	1.2	4.4
China	2.8	6.4	9.3	1.8	4.3	3.3	2.1	5.3	1.1	8.0	30.7	12.9
Denmark	4.2	0.6	1.3	1.1	1.2	1.1	1.8	0.7	0.3	1.3	1.5	2.5
Euro area	33.4	18.5	14.2	20.9	17.6	34.1	26.9	18.9	29.8	30.9	21.0	23.4
Hong Kong	1.6	7.7	13.0	0.4	9.7	3.8	2.5	8.7	0.8	7.2	24.7	15.1
Hungary	0.6	1.0	1.1	0.1	0.2	0.5	0.7	0.8	0.4	0.6	1.3	0.5
Japan	3.6	22.8	23.1	11.8	20.5	10.9	20.2	25.3	26.5	11.2	0.5	6.1
Poland	0.4	0.0	0.4	1.2	0.1	0.7	0.5	0.6	0.6	1.6	1.9	1.4
Sweden	5.2	0.7	6.0	1.3	1.6	1.3	3.0	1.6	2.6	4.2	0.5	2.0
Switzerland	15.2	0.7	0.6	0.9	8.5	5.1	4.4	2.1	0.3	3.1	0.7	3.7
Turkey	0.2	0.0	0.4	0.3	0.0	0.4	0.2	0.3	0.3	1.7	5.1	0.4
United Kingdom	15.3	11.8	9.1	11.2	8.9	11.0	9.6	7.1	6.6	8.5	4.3	8.7
United States	16.1	27.0	17.6	43.1	25.3	23.5	24.1	26.2	16.3	13.7	6.5	18.9
World	100	100	100	100	100	100	100	100	100	100	100	100

Source: OECD.

(a) The data are averages over the period 1991–2001. The world is proxied by the sum of the individual countries in the table, and the two largest exporters in each industry are highlighted in red. Industry abbreviations are shown in **Table A**.

Table D International openness of UK industries[a]

	Import penetration[b]	Export share of production	'Openness' indicator[c]
High-tech industries			
Medical and pharmaceutical (Ph)	44.1	53.9	49.0
Office machinery and computers (Comp)	90.6	89.2	89.9
Radio, TV and communications (Comm)	77.2	73.6	75.4
Non motor vehicle transport equipment (OTr)	58.8	64.5	61.7
Scientific and photographic appliances (Sci)	56.3	57.0	56.6
Medium-tech industries			
Other chemicals (Ch)	47.8	50.4	49.1
Mechanical engineering (Me)	50.5	52.9	51.7
Electrical machinery (EMa)	45.1	42.9	44.0
Motor vehicles (Veh)	54.5	45.6	50.1
Low-tech industries			
Material manufactures (Mat)	28.4	23.9	26.2
Clothing and footwear (Cloth)	51.9	35.5	43.7
Other manufactured articles (Other)	35.2	24.7	30.0

Source: OECD.

(a) Data are calculated as averages over the sample 1991–2001.
(b) Share of imports in total domestic demand.
(c) Average of import penetration and export share of production.

Chart 6 presents the openness indicators across UK, euro-area and US industries. The chart shows that, in all three countries, high-tech industries (indicated by the yellow background) tend to be more open than low-tech industries.

Rank correlations can be used to examine the proposition that openness has a bearing on how firms set export prices. In the euro area, these indicate that exporters have less pricing power in those industries that are more open to international competition: the correlation between an industry's openness indicator (**Chart 6**) and its price responsiveness to competitors' prices (**Chart 4**) is significant and positive

(0.71).[1] However, while industry openness appears to be important in the euro area, similar correlations were statistically insignificant for the United States and the United Kingdom.

Chart 6 Openness of industries across countries
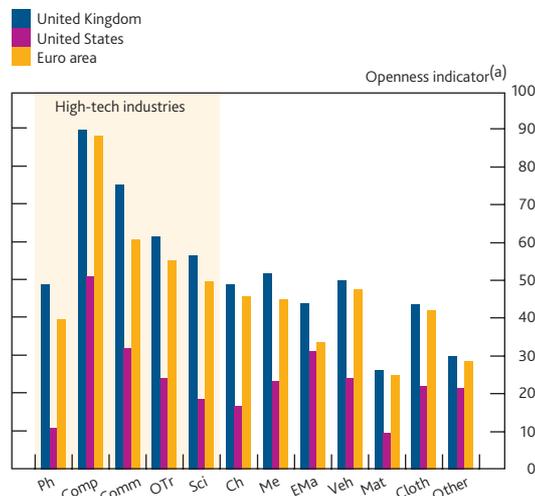
(a) Average of export share in domestic production and import share in domestic demand. Euro-area data include intra euro area trade.

The sensitivity of demand across industries

So far, this article has shown that relative price movements have differed markedly across industries, and has discussed

(1) To estimate rank correlations, industries are ordered by different factors (eg for the openness indicator in **Table D**, the ordering of UK industries would be: office machinery and computers; radio, TV and communications; non motor vehicle transport equipment; scientific and photographic appliances; and so on). Industries are also ordered according to their co-movement of their export prices with foreign export prices (**Chart 4**). Rank correlations are then calculated between these orderings (or rankings). By construction, these correlations fall between zero and one.

some factors that could drive those different movements. These same factors could also affect the sensitivity of demand to a change in prices — the price elasticity of demand. Changes in demand will also depend on changes in world income, but, again, the sensitivity of demand to income could vary across different products.

The price sensitivity of demand

One factor that may influence the price sensitivity of demand is openness. In principle, UK exporters with a higher exposure to international trade should find that the demand from abroad for their products is more sensitive to changes in their prices.

What support is there for this hypothesis in the data? **Table E** shows how a change in relative prices is estimated to affect export demand: 24 out of 36 UK, euro-area and US export industries display a significantly negative demand response to an increase in relative prices, based on simple regressions of export demand on relative prices and world income.[1]

Table E Percentage response of exports to a 1% change in relative export prices

	United Kingdom	Euro area	United States
High tech			
Ph	-2.2		
Comp	-0.5	-1.0	-2.5
Comm	-1.9	-1.3	
OTr		-2.4	
Sci	-1.4	-1.0	-0.5
Medium tech			
Ch		-1.4	
ME		-0.8	-1.3
EMa		-1.1	-1.1
Veh		-0.7	-1.4
Low tech			
Mat	-0.2	-0.8	-1.9
Cloth		-0.9	
Other	-0.4	-0.9	-1.0

Note: A blank entry means that relative prices were not found to be a statistically significant determinant of export volumes at the 10% level. Industry abbreviations are shown in **Table A**.

In the United Kingdom, changes in relative export prices have a significant effect on export volumes in six of the twelve industries. Rank correlations for UK data between openness (**Table D**) and the sensitivity of export demand to price (**Table E**) confirm a significant relationship: the correlation coefficient is -0.66.[2] However, while the same rank correlations were negative for the euro area and the United States, they were statistically insignificant.

Interestingly, four of the UK industries where prices significantly affect volumes — pharmaceuticals, computers, communications and scientific equipment — are high-tech

industries, which tend to be more exposed to international trade (**Table D**).

The sensitivity of demand to overseas income

Previous work has highlighted the importance of product differentiation and technological competitiveness in explaining the growth in world trade (see Helpman and Krugman (1985) and Grossman and Helpman (1991)). In these studies, industries that produce a greater variety of differentiated goods (which high-tech industries tend to do) benefit more than others from an increase in foreign income, as people demand a greater variety of products as their income rises. So as income increases abroad, foreigners may spend a larger proportion of any increase on differentiated goods. Differentiation can be enhanced by patent systems, which are intended to protect innovative products, and brand image. Other things being equal, this relationship between product differentiation and export demand would show up as an increase in market share as income rises.

Chart 7 shows how closely export volumes move in line with changes in world demand, based on simple regression analysis.[3] Where the responsiveness is greater than one, this suggests that, for a given change in relative prices, the industry's exports are likely to grow at a faster rate than world income, such that market share would increase. Similarly, market share might be expected to decline as world income rises where the response is less than one.

The chart suggests that there may be some relationship between technological intensity and the sensitivity of exports to world demand, at least in the euro area and the United Kingdom. Exports of high-tech industries in these countries appear to respond more vigorously to changes in world demand than low-tech exports. In contrast, US exports appear to have been more sensitive to world demand in the low and medium-tech industries. It is possible that these results are driven by specific goods within these sectors; unfortunately the sectoral disaggregation is not detailed enough to shed light on this. But the UK and euro-area results suggest that high-tech exports do respond more to changes in world demand, consistent with greater product differentiation in these industries than in their low-tech counterparts.

Once again, correlation analysis can test the relationship between technological intensity and the responsiveness of

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(1) One technical consideration here is that domestic export prices — and hence relative export prices — could be endogenous: in other words, export prices are related to export volumes and associated production costs, and *vice versa*. That would create an identification problem. For the United Kingdom at least, this is probably not a significant problem, since evidence suggests that domestic export prices are effectively exogenous — or unrelated to costs — for UK exporters across industries (**Charts 4** and **5**). But this caveat is probably more important for the euro-area and US results, which should only be taken as indicative.
(2) A larger negative coefficient in **Table D** indicates greater price sensitivity, so the negative correlation is consistent with more open industries having a greater sensitivity of export demand to prices.
(3) Relative prices are controlled for by including them in the regression.

export demand to world income. **Chart 8** shows a significant positive correlation (0.74) between the responsiveness of UK exports to world demand and technology, as proxied by the intensity of R&D activity in production. The correlation is also significant in the euro area (0.73). These results are consistent with more product differentiation in high-tech than in low-tech industries. In turn, this lends support to the argument that technological intensity can affect market share (**Chart 2**). This mechanism occurs over and above the impact of relative prices, and hence is consistent with the United Kingdom being a price taker (**Chart 4**).[1]

Chart 7 Responsiveness of export volumes to a 1% change in world demand[a]
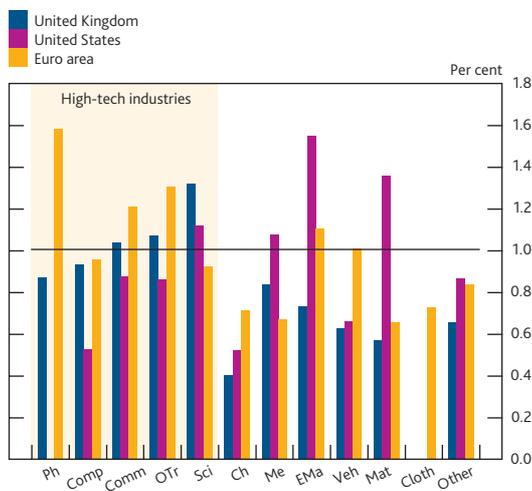
(a) Industry abbreviations are shown in **Table A**.

Chart 8 Technological intensity and the responsiveness of exports to changes in world demand
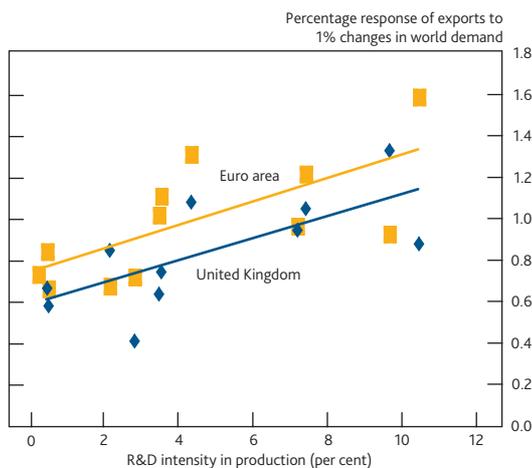
Conclusion

UK exports are a significant component of the demand for UK goods and services. Many UK manufacturing industries lost market share between 1991 and 2001 — or in other words, exports did not keep pace with world demand. The industry-level analysis presented in this article suggests that most UK industries are price takers, with very limited scope for passing changes in costs on to their foreign customers in higher export prices. This contrasts with the United States and the euro area, where companies appear to have more pricing power, perhaps reflecting the greater size of US and euro-area industries. It also implies that UK industries will be more sensitive than their US and euro-area counterparts to movements in exchange rates. In particular, in the face of a sterling appreciation UK companies are more likely to have to maintain their foreign currency prices and work to rebuild margins by adjusting costs, rather than change their export prices. This implies that there was limited scope for UK exporters to pass on the effects of sterling's appreciation in the mid-to-late 1990s on to their customers.

The disaggregated analysis in this article also reveals significant differences across UK industries. In particular, the three UK industries that increased their market share between 1991 and 2001 are all relatively technologically intensive. Although data suggest that these industries do not have materially more pricing power than other UK industries, their relative export prices did fall somewhat over the period, in contrast with other UK industries. There is also some evidence that higher technological intensity increases the responsiveness of demand in an industry to movements in world demand, perhaps by increasing the scope for product differentiation. So those high-tech industries may have been better placed to reap the benefits of the increase in world demand over the decade, thereby increasing their market share.

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(1) There was no significant correlation between R&D intensity and demand responsiveness in the United States, which casts some doubt on the strength of this channel. But given the range of responses of exports to world demand across industries (**Chart 7**), this was unsurprising.

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