QUARTERLY ECONOMIC COMMENTARY

SPRING 1993

The forecasts in this Commentary are based on data available by mid-June 1993.

T. J. BAKER, S. SCOTT and S. CANTILLON

Copies of this paper may be obtained from The Economic and Social Research Institute (Limited Company No. 18269), (Registered Office) 4 Burlington Road, Dublin 4.

Price IR£27.50 per copy or IR£110 per year,
(including forthcoming Medium-Term Review, 1993-1998)

T. J. Baker is a Senior Research Officer, S. Scott is a Research Officer and S. Cantillon is an Assistant Research Officer of The Economic and Social Research Institute. The *Commentary* has been accepted for publication by the Institute, which is not responsible for either the content or the views expressed therein.

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As economic recession spreads in Europe, it seems likely that there will be a small decline in output in the EC as a whole in 1993. The UK will probably be the only major EC economy to achieve a positive growth in real GNP this year, as it emerges, somewhat precariously, from its own recession.

Ireland will also record a positive growth rate in 1993. The likely rate of GNP growth is difficult to predict, due to the absence of trade statistics and the sheer scale of the conflicting influences on economic performance. It seems probable that, in spite of the continental recession and the effective depreciation of sterling, the volume of Irish exports will continue to rise, although much more slowly than last year. The dramatic fall in interest rates since March is likely to ensure some expansion in domestic demand, although general uncertainty engendered by the international situation and recent domestic shocks could limit the response to low interest rates.

On balance, a growth in real GNP of about 1¾ per cent seems the most likely out-turn for 1993. This is an upward revision from our previous forecast of 1 per cent, mainly because the fall in interest rates was both quicker and larger than we had anticipated. Consumer prices are forecast to increase by 1¾ per cent, the current account to remain in comfortable surplus, the public finances to be close to Budget targets, total employment to remain virtually unchanged, and unemployment to increase less than expected because net emigration appears to have resumed.

On virtually all criteria, Irish economic performance is likely to be among the best in the EC in 1993. However, this good relative performance in difficult circumstances cannot obscure the fact that in absolute terms there will be a further worsening of Ireland's chronic economic problem of inadequate employment creation.

The special article following this *Commentary* shows that the domestic sales of Irish industry tend to be much more labour intensive than exports. Similarly, service output, mainly serving the domestic market, is more labour intensive than most manufacturing output. Thus much of the rise in the overall labour-productivity of the Irish economy in the '80s was the result of a structural shift in demand from domestic sales to exports, as the imbalances at the beginning of the decade were corrected.

When these demand effects are taken fully into account, it seems probable that supply- side explanations of Ireland's poor employment performance since 1980 are somewhat over- emphasised. For the future, a resumption of balanced growth, in which domestic demand, including the volume of public services, keeps pace with the increase of net exports, could have a greater impact on employment trends than such supply-side measures as tax reform.

In order to achieve and maintain balanced growth, competitiveness must be held or improved, through a continuation of non-inflationary monetary and fiscal policies, the reduction of non-wage costs and, of course, pay moderation. In particular, if fiscal constraints are to ease sufficiently to permit a faster growth in domestic demand and an expansion in necessary public services, a lasting modification in the system of public service pay determination is essential. To this end, it would be helpful if the overall employment implications of pay claims were specifically included among the arbitrator's agreed new criteria.

ESTIMATED NATIONAL ACCOUNTS 1992

A: Expenditure on Gross National Product

	1991 Preliminary* £m	1992 Estimated £m	Change in 1992 £m Value	Change in 1992 £m Volume	Change in 1992 % Value	Change in 1992 % Price	Change in 1992 % Volume
Private Consumer Expenditure ...	15616	16515	899	469	5¾	2¾	3
Public Net Current Expenditure ...	4387	4810	423	162	9¾	5¾	3¾
Gross Fixed Capital Formation	4603	4679	76	- 28	1¾	2¼	- ½
Exports of Goods and Services (X) ...	16893	18673	1780	1757	10½	—	10½
Physical Changes in Stocks	557	- 229	- 786	- 775			
Final Demand	42056	44448	2392	1585	5¾	1¾	3¾
less:							
Imports of Goods and Services (M) ...	15072	15721	649	870	4¼	- 1½	5¾
GDP at Market Prices	26984	28727	1743	715	6½	3¼	2¾
less:							
Net Factor Payments (F)	2865	3158	293	291	10¼	—	10¼
GNP at Market Prices	24119	25569	1450	424	6	4¼	1¾

B: Gross National Product by Origin

	1991 Preliminary* £m	1992 Estimated £m	Change in 1992 £m	Change in 1992 %
Agriculture, Forestry, Fishing ...	1791	2078	287	16
Non-Agricultural: Wages, etc. ...	13620	14403	783	5¾
Other: ...	6890	7441	551	8
less:				
Adjustments	736	1173	437	59½
Net Factor Payments	2865	3158	293	10¼
National Income	18700	19591	891	4¾
Depreciation	2684	2818	134	5
GNP at Factor Cost	21384	22409	1025	4¾
Taxes less Subsidies	2735	3160	425	15½
GNP at Market Prices	24119	25569	1450	6

C: Balance of Payments on Current Account

	1991 Preliminary* £m	1992 Estimated £m	Change in 1992 £m
X—M	1821	2953	1132
F	- 2865	- 3158	- 293
Net Transfers	1969	1740	- 229
Balance on Current Account ...	925	1535	610
as % of GNP	3¾	6	2¼

*Adjusted for revised Balance of Payments Estimates, as described in Winter *Commentary*

FORECAST NATIONAL ACCOUNTS 1993

A: Expenditure on Gross National Product

	1992	1993	Change in 1993				
	Estimated £m	Forecast £m	£m Value	£m Volume	% Value	% Price	% Volume
Private Consumer Expenditure ...	16515	17341	826	369	5	2¾	2¼
Public Net Current Expenditure ...	4810	5123	313	72	6½	5	1½
Gross Domestic Fixed Capital Formation	4679	4894	215	108	4½	2¼	2¼
Exports of Goods and Services (X) ...	18673	19580	907	658	4¾	1¼	3½
Physical Changes in Stocks	- 229	- 54	175	160			
Final Demand	44448	46884	2436	1367	5½	2¼	3
less:							
Imports of Goods and Services (M) ...	15721	16732	1011	672	6½	2	4¼
GDP at Market Prices	28727	30152	1425	695	5	2½	2½
less:							
Net Factor Payments (F)	3158	3424	266	224	8½	1¼	7
GNP at Market Prices	25569	26728	1159	471	4½	2½	1¾

B: Gross National Product by Origin

	1992	1993	Change in 1993	
	Estimated £m	Forecast £m	£m	%
Agriculture, Forestry, Fishing ...	2078	2182	104	5
Non-Agricultural: Wages, etc. ...	14403	15195	792	5½
Other ...	7441	7871	430	5¾
less:				
Adjustments	1173	1230	57	4¾
Net Factor Payments	3158	3424	266	8½
National Income	19591	20594	1003	5
Depreciation	2818	2959	141	5
GNP at Factor Cost	22409	23553	1144	5
Taxes less Subsidies	3160	3175	15	½
GNP at Market Prices	25569	26728	1159	4½

C: Balance of Payments on Current Account

	1992	1993	Change in 1993
	Estimated £m	Forecast £m	£m
X—M	2953	2848	- 105
F	- 3158	- 3424	- 266
Net Transfers	1740	2053	313
Balance on Current Account ...	1535	1477	- 58
as % of GNP	6	5½	- ½

The International Economy

General

Over the past few months, most analysts of the international economy have been revising their growth forecasts for 1993 downwards. The North American recovery has been slower than expected in the early months of 1993, while the European recession appears both deeper and more widespread than had been anticipated. World output growth is now forecast at less than 1½ per cent, slightly below that in 1992, and the acceleration in the volume of world trade which had been expected now seems unlikely.

There remain grounds for hope that the second half of 1993 should show some improvement over the first. Although American growth has slowed, it has not ceased, and is expected to strengthen in the remainder of the year. The restoration of a degree of stability to the ERM has alleviated a major source of uncertainty within Europe, and has permitted a significant reduction in interest rates in many European countries. The strong appreciation of the yen in recent months has improved the competitive position of both American and European producers, while the adverse impact within Japan is being countered by expansionary fiscal and monetary policies.

Thus, uncertainty, tinged with pessimism, is the dominant tone in most international economic commentaries. Within Europe, this uncertainty is heightened by the absence of intra-EC trade statistics, which makes interpretation of trends in EC countries both slower and more difficult than usual in 1993.

The US Economy

The rapid US growth of late 1992 has given way to a more hesitant expansion in the early months of 1993. Domestic demand is still growing, but despite low interest rates there is little sign of either a significant fall in the personal savings ratio or a major rise in business investment. Export volumes are constrained by the European recession and by the general sluggishness of investment worldwide.

Consumer and business confidence have receded from the level they reached during the winter, but remain well above the recessionary levels of 1991. One factor depressing confidence is uncertainty concerning the medium-term fiscal outlook, and the possibility that a continued high budget deficit will force up both long and short-term interest rates. If the medium-term Budget proposals are passed in the Senate as well as the House of Representatives without undue modification, it seems probable that confidence would be considerably strengthened. Even though unemployment remains stubbornly high by American standards at about 7 per cent, a gradual improvement in employment is expected over the remainder of the year. This should help maintain the increase in disposable income, while also tending to bolster consumer confidence as fears of unemployment recede.

The combination of growth in domestic demand and recession in major overseas markets is obviously unfavourable for the volume of net exports. However, the rapid appreciation of the yen should enable the US to improve its market share in relation to its main competitor in many export markets.

On balance, therefore, domestic demand should grow moderately in the remainder of 1993, while net export volumes seem unlikely to show a major change. For the year as a whole, a growth of almost 3 per cent in real GNP remains the most likely outcome, with no significant acceleration in inflation.

The European Economy

The depth and extent of the current European recession has only become apparent in the past few months. So far from representing a brief interruption to a growth pattern which would be resumed in the second half of 1993, it is now clear that the downturn in the second half of 1992 signalled the onset of a serious recession which has reduced output in the majority of continental European countries. Recovery seems unlikely until well into 1994.

Most recent estimates suggest that real GDP in 1993 will fall by over 2 per cent in West Germany and by about 1½ per cent in Germany as a whole. The structure of German industry, with its high proportion of capital goods production, renders it vulnerable to an international recession in investment, especially in a period when German industry is tending to lose competitiveness. Although Germany is not burdened with a large private sector debt overhang, rapidly rising unemployment is undermining consumer confidence, while poor market prospects, both at home and abroad, obviously inhibit productive investment.

The Bundesbank has been even more cautious than most commentators expected in easing German monetary policy in the face of deepening recession. A significant cut in interest rates is still expected in the second half of the year as inflation abates, but this is unlikely to stimulate demand or output within 1993.

The French economy is also in recession. Exports are weak, due to the poor European market and the effective appreciation of the French franc, and domestic demand is held back by uncertainty and high interest rates in the first quarter of 1993. Interest rates have fallen significantly with the easing of ERM tensions, and despite fiscal problems the advent of the new government could allow the gradual rebuilding of confidence. Thus it is reasonable to expect a modest upturn in the domestic economy over the remainder of 1993, although export demand seems likely to stay weak. For the year as a whole, real GDP is expected to stagnate or to decline slightly.

Italy is in recession, and the traditional ability of the Italian economy to remain unaffected by political weakness seems unlikely to hold good in 1993. Domestic demand will almost certainly decline in the year as a whole, with both consumer and business confidence weakened by financial scandals and political uncertainty. In contrast to France, however, the volume of exports should benefit from improved competitiveness, with the depreciation of the lira unlikely to be absorbed by higher wage inflation given the state of the labour market. Real GDP is expected to be close to stagnation in 1993.

Most other continental EC countries, especially those with close trading links with Germany, face the prospect of little or no growth in 1993. Throughout Europe, the public finances are deteriorating as the recession erodes revenue and raises expenditure. While this can be regarded as the normal operation of the automatic stabilisers inherent in the fiscal structure, the sheer scale of the deficits and the degree by which they exceed the current Maastricht guidelines preclude the further deliberate fiscal stimulation of domestic demand in most countries.

The UK Economy

Of the major European economies, only the UK seems certain to achieve significant growth in 1993. This is mainly due to the different timing of the UK economic cycle, with both recession and recovery coming much earlier than in the rest of the EC. However, the upturn in the UK economic activity is also supported by the steep fall in interest rates since September 1992, by a currency which has depreciated against most of its major trading partners, and by a strong, if largely involuntary, fiscal stimulus.

Evidence is accumulating that domestic demand has been recovering fairly steadily since the winter, with retail sales rising and some forms of investment, especially in housing, poised to resume growth after a prolonged decline. The small decline in unemployment since January, although surprising at this stage of the cycle, should itself contribute to an improvement in consumer confidence, and thus to a continuing increase in consumption in the remainder of the year.

Because of the absence of data on intra-EC trade, it has been impossible to monitor the trend of UK net exports in 1993. The competitive advantage gained by devaluation has not yet been significantly eroded, as both price and wage inflation remain very low by UK standards. Thus UK producers should be able to improve market share, both against imports at home and in most major export markets. However, European export markets have proved weaker than expected in 1993, and until full trade statistics become available it is difficult to judge how far increased market share will be offset by a decline in the size of many markets. Preliminary balance of payments estimates for the first quarter suggest that the volume of exports did in fact, increase significantly in the early months of 1993, although the usual J - curve affect saw the value of the trade deficit increase.

Until this uncertainty is resolved, it is prudent to anticipate only a modest contribution to UK growth in 1993 from an improved volume of net exports. Because of the impact of the European recession on UK exports, we have revised our forecast of UK real GNP growth in 1993 from 2 per cent to 1½ per cent. This slower growth could enable consumer price inflation to be held below its upper target of 4 per cent in 1993, although it still seems likely that it will exceed this target in the course of 1994. Given the recovery in domestic demand, which is still expected to continue, the improvement in employment and unemployment trends which appears to have taken place in the first half of the year could continue for the remainder of 1993. A large increase in UK employment, however, seems most unlikely over the next year or so.

The Rest of The World

Unlike most European countries, Japan still expects to see some recovery in its economy in the course of 1993, and to achieve a modest positive growth of almost 2 per cent for the year as a whole. With a large current account surplus, basically sound public finances and low inflation, Japan is unique among the major world economies in being able deploy expansionary monetary and fiscal policies simultaneously. Domestic demand in the remainder of 1993 is likely to respond to the stimuli which have been applied with increasing intensity over the past twelve months. Export demand could be constrained by the international recession and by the appreciation of the yen, but not to the extent that the recovery in GNP will be put at risk.

Other Asian countries, including China, continue to grow rapidly, as they have done throughout the recession. Average growth rates of between 6 and 7 per cent are expected in Asia in 1993. International trade in both goods and services and a continuing strong inflow of capital, especially from Japan, are the driving forces behind the rapid growth of the region. The Middle East, where post Gulf war reconstruction is a factor, and much of Latin America are other regions where strong growth is expected in 1993.

TABLE 1: Short-term International Outlook

	GNP		Consumer Prices		Hourly Earnings		Unemployment Rate		Current Account Balance	
	Percentage Change						%		% of GNP	
Country	1992	1993	1992	1993	1992	1993	1992	1993	1992	1993
UK	– ¾	1½	3¾	3½	6¾	5½	10	11	– 2	– 2½
Germany	1	– 1½	4	3¾	4½	5	6¾	7¾	– 1½	– 1¾
France	1¾	– ¼	2¾	2½	4	4	10¼	11	½	¼
Italy	1¼	– ¼	5¼	5½	6	4½	11	11¾	– 2	– 1¾
Total EC	1	– ¼	4	3½	5½	4¾	10	11	– 1	– 1
USA	2	3	2½	3	3	3¼	7½	7	– ¾	– 1
Japan	1½	2	1¾	1¾	3¼	2¼	2¼	2½	3¼	3½
Total (OECD)	1½	1½	3½	3¼	5	3¾	8	8½	– ¼	– ¼
Ireland	1¾	1¾	3	1¾	4½	4	16*	17*	6	5½

*See Footnote to Table 8.

The recession in Europe and the relatively slow pace of growth in the US and Japan are likely to keep commodity prices, including that of crude oil, weak throughout 1993. However, the position of many primary producers could benefit from the gradual reduction in international interest rates. The problems of Eastern Europe are likely to remain acute, with the lack of buoyancy in West European markets deferring hopes of an export-led recovery. The economies of most parts of the former USSR are continuing to deteriorate, with little sign of stabilisation, let alone recovery.

The Context for Ireland

There can be no doubt that prospects for the world economy in 1993 have deteriorated significantly since the previous *Commentary.* In particular, the European recession is deeper than was anticipated and recovery now seems unlikely during 1993. Thus many important European export markets are weaker than was expected a few months ago. This could obviously affect the volume of exports this year, and is liable to reduce the incentive to invest in new export-producing capacity.

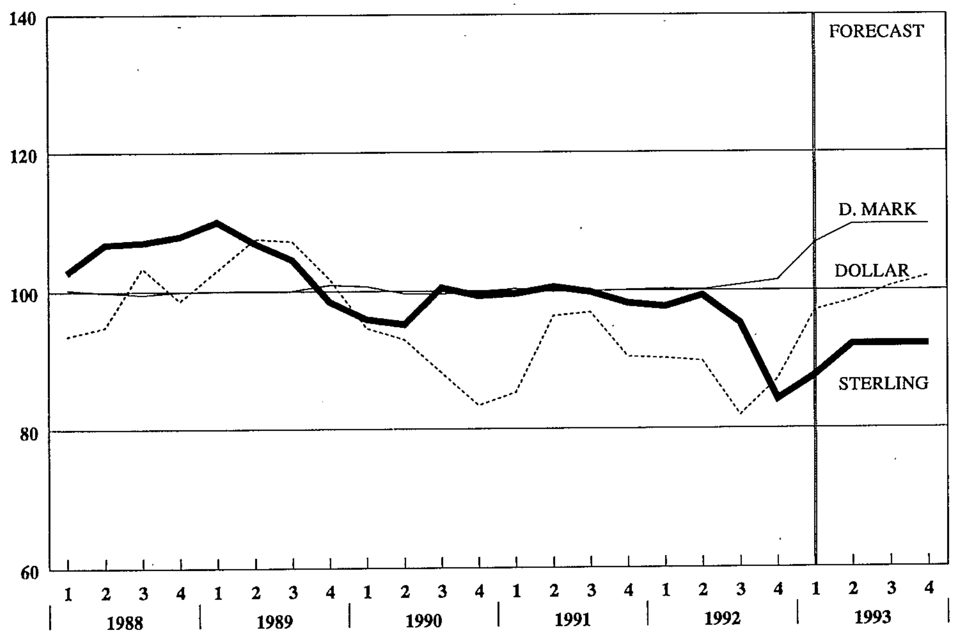
Conversely, domestic demand in the UK is growing in line with earlier expectations, while sterling appreciation has improved the competitive position of Irish exporters. While not sufficient to offset the downward revisions to European growth, this stronger position with regard to the UK should limit the overall deterioration in export markets since our previous forecast.

As already noted, most commodity prices are likely to remain weak in 1993, and the European recession will also restrain prices for manufactured goods. Thus, despite the devaluation of the Irish pound, imported price inflation is unlikely to present a significant problem in 1993.

Both long and short-term interest rates have tended to decline internationally in the first half of the year. With government deficits tending to rise in most countries, and with the medium-term prospects for reducing the US budget deficit still uncertain, it would be unrealistic to expect a significant further fall in long-term interest rates in the remainder of 1993. Despite the proven caution of the Bundesbank, it is likely that there will be a substantial reduction in

FIGURE 1: Exchange Rates

IR£ Price of Unit of Foreign Currency, Quarterly Averages, 1987=100



German short-term interest rates before the end of the year. Provided currency stability within the EMS is maintained, this should be matched with parallel reductions in other European short-term interest rates.

After the gyrations of the past nine months, it might seem optimistic to assume that exchange rates in Western Europe will remain roughly stable for the rest of 1993. However, most of the obvious tensions within the ERM have been at least temporarily resolved, either through currencies leaving the mechanism or through substantial devaluations within it. While no observer would now claim that the current network of exchange rates represents a pattern which will persist until eventual monetary union, it does seem reasonable to expect present parities to prove tenable for the remainder of the year. The emerging weakness of the Deutschmark could result in the depreciation of the ERM currencies as a whole against the US dollar and the yen, but is most unlikely to lead to any ERM realignment.

Of the major European currencies outside the ERM, the lira seems likely to remain volatile, reflecting the unsettled political situation in Italy. Although in the medium term sterling must be considered vulnerable to the deep-seated imbalances in the UK economy, there seems no strong reason to expect any substantial fluctuations this year. Whether or not the UK authorities are effectively tracking a DM exchange rate of between DM 2.45 and DM 2.50, the current rate appears to represent a fair balance between retaining the competitive benefits of last year's devaluation and averting the inflationary pressures which could result from a further significant depreciation. Given the modest nature of the UK recovery so far, it seems probable that any tendency for sterling to appreciate significantly against a weakening Deutschmark will be counteracted by a further reduction in UK interest rates. Although the US dollar has been rather weaker than expected in the second quarter of 1993, mainly due to doubts concerning the pace of US growth, it still seems likely that it will appreciate moderately in the second half of the year, against the yen and especially against the ERM currencies.

The Domestic Economy

General

While the external environment in which Ireland must trade has worsened considerably over the past few months, conditions in the domestic economy have improved. The most striking development, of course, has been the reduction in short-term wholesale and retail interest rates, which has been much faster and larger than expected.

Given the normal lags in the production of economic statistics, the impact of lower interest rates on the domestic economy is not yet fully apparent. However, it is confidently expected that the volume of personal consumption and interest-sensitive investment such as housing will be more buoyant in 1993 than appeared likely three months ago. Productive investment, in industry or services, is influenced more by market prospects than by short-term interest rates. The fall in interest rates could thus benefit investment in domestic industry and services indirectly, through the improved outlook for consumer spending. Finally, the reduction in interest rates has eased the burden of financing working capital, thus improving the competitiveness of many firms and saving some of them from the risk of closure.

The other major development in the domestic economy in recent months has been the confirmation of a significant slowing in the rate of growth of unemployment, as measured by the Live Register. It is, unfortunately, inconceivable that this reflects a substantial increase in total employment in the early months of 1993. By far the most likely explanation is that there has been a resumption of net emigration as the UK and US labour markets have ceased to deteriorate.

The combination of falling interest rates and lower than expected unemployment should lead to a significant saving in current government expenditure in 1993. This makes the achievement of Budget targets for the year much more likely, so long as tight discipline is maintained over discretionary spending. In turn, greater confidence in fiscal management should have a beneficial effect on Irish long-term interest rates.

Exports

In the absence of trade statistics, discussion of export trends must be somewhat speculative. The indicators which do exist, such as the response to questions concerning exports in the IBEC/ESRI Business Survey, are difficult to interpret and produce inconclusive evidence concerning the early months of 1993. Thus forecasts must unavoidably be based on expectations for the year as a whole, in the light of trading conditions, rather than as an extrapolation of recent trends.

Some fall in the volume of agricultural exports seems inescapable, simply because 1992 exports incorporated a massive run-down of intervention stocks of dairy produce, which cannot be repeated as the stocks are virtually exhausted. Although intervention stocks of meat are likely to be reduced in 1993, the quantities involved are not sufficient to match last year's fall in dairy stocks. An overall decline of about 3½ per cent in the volume of agricultural exports would appear compatible with our stock forecasts. The average price of agricultural exports is likely to be higher than in 1992, partly because of the changed composition of exports and partly because of a rise in some market prices. Thus the value of agricultural exports is projected to decline by about 1 per cent in 1993. This represents a slight upward revision from the previous *Commentary*, where a 2½ per cent decline was forecast.

Given that almost half of manufactured exports are to continental EC countries, the European recession can be expected to have a damaging impact on manufactured export volumes. However, there are various factors which should mitigate the effects of the recession. One of the major categories of exports to the continent is pharmaceuticals, which would not appear to face a particularly cyclical demand. Another major export, electronic goods, is cyclical, but tends to follow its own worldwide industry cycle, which appears to have already passed its nadir.

Moreover, in most continental markets the share of Irish manufactured exports has been increasing steadily in recent years. So far as cost competitiveness is relevant in short- term export performance, the devaluation of the Irish pound should accelerate the process of increasing market share in the other narrow-based EMS countries.

TABLE 2: Exports of Goods and Services

	1991 £m	% Change Volume	% Change Value	1992 £m	% Change Volume	% Change Value	1993 £m
Agricultural	2251	27¼	25¾	2832	- 3½	- 1	2804
Manufactured	10526	9¼	9¼	11506	5¼	6¼	12225
Other Industrial	2066	5½	3¾	2144	3½	4	2230
Other	181	- 19	- 19	147	0	2	150
Total Visible	15025	11¼	10¾	16629	3½	4¾	17409
Adjustments	- 350			- 245			- 260
Merchandise	14675	12	11¾	16384	3½	4¾	17149
Tourism	1218	- 2¼	¾	1228	3	5½	1296
Other Services	1000	3	6	1061	4¼	7	1135
Exports of Goods and Services	16893	10½	10½	18673	3½	4¾	19580

In contrast to the continental EC, the UK domestic market is growing in 1993. Against UK competitors, however, Irish exporters have lost some competitiveness, and it is possible that market share, which had been growing strongly in recent years, might decline slightly in 1993. Even in the UK market, however, it should be remembered that Irish exporters have gained competitiveness against most of their continental rivals, which should offset some of their disadvantage compared with domestic UK suppliers.

On balance it seems reasonable to project an increase of just over 5 per cent in the volume of manufactured exports in 1993, compared with a rise of over 9 per cent in 1992. Price changes seem likely to vary widely between markets, with increases in prices to strong currency countries offset by static or lower prices to those countries which have devalued by more than Ireland. In total, a small increase of about 1 per cent is projected in the average price of manufactured exports.

As shown in Table 2, total visible exports are forecast to rise by 3½ per cent in volume and 4¾ per cent in value. It must be stressed, however, that these forecasts are extremely tentative, although any subsequent revision seems as likely to be upwards as downwards.

Tourist receipts were disappointing in 1992 after the strong growth in previous years. A modest recovery is forecast for 1993. Other service exports are projected to continue their steady increase.

Total exports of goods and services are thus forecast to increase by 3½ per cent in volume and by 4¾ per cent in value. This represents a slight upward revision on our forecast in the Winter *Commentary*, due partly to the appreciation of sterling in the past few months, partly to a more buoyant estimate of agricultural export potential, but mainly to a re- assessment of the recessionary impact on the particular pattern of Irish exports to continental Europe.

Stocks

Data becoming available in recent months have only marginally altered our estimate of the large decline in stocks in the course of 1992. A further, but much smaller, fall in stocks is expected in 1993.

After rising fairly steadily in every year since 1987, farm stocks seem likely to be virtually unchanged in 1993. In part this reflects the ending of certain incentives to increase livestock numbers, and in part it is the first step in adjusting to a new CAP regime.

TABLE 3: Stock Changes

	1991 £m	Change in Rate £m	1992 £m	Change in Rate £m	1993 £m
Livestock on Farms	27	21	48	– 50	– 2
Irish Intervention Stocks[1]	535	– 867	– 332	245	– 87
Other Stocks	– 5	60	55	– 20	35
Total	557	– 786	– 229	175	– 54

[1]Including subsidised private storage.

The massive reduction in intervention and related stocks in 1992 reflected the approximate halving of butter stocks and the virtual elimination of stocks of skimmed milk powder. Meat stocks increased slightly. This pattern is likely to be reversed in 1993, with a marginal increase in dairy stocks, but a substantial fall in meat stocks. However, as shown in Table 3, the total scale of stock reduction will be much smaller than in 1992.

It seems likely that there was a significant increase in non-agricultural stocks in 1992, much of it involuntary due to depressed markets in the closing months of the year. A smaller increase in industrial and distribution stocks is projected for 1993, reflecting a voluntary response to improving prospects in the second half of the year.

Investment

Despite a sharp decline in the final quarter, under the influence of economic uncertainty and very high interest rates, the volume of fixed investment in 1992 as a whole is believed to have declined only marginally. This relatively strong performance, when fixed investment was tending to fall substantially in most EC countries, was largely due to the buoyancy of public investment, especially in infrastructure, made possible by increasing EC funds.

TABLE 4: Gross Fixed Capital Formation

	1991	% Change		1992	% Change		1993
	£m	Volume	Value	£m	Volume	Value	£m
Building and Construction	2545	½	3	2621	2¾	5¼	2759
Machinery and Equipment	2058	– 2	0	2058	1¾	3¾	2135
Total	4603	– ½	1¾	4679	2¼	4½	4894

The same factor should permit a moderate increase in the volume of fixed investment in 1993. The earlier than expected reduction in interest rates could permit an upturn in private investment in building and construction in the second half of the year. This seems likely to be concentrated on residential building, which is particularly sensitive to interest rate movements. Investment in commercial building is likely to remain constrained by a surplus of office and retail capacity built up in recent years. As shown in Table 4, the volume of total investment in building and construction is forecast to increase by 2¾ per cent, a slight increase on our previous forecast.

In spite of the reduction in interest rates, only a small increase is expected in investment in plant and machinery. Such investment is generally driven by expectations of business performance rather than the short-term cost of capital. With uncertainty still widespread, especially with regard to the international economy, conditions do not seem right for a major increase in investment in plant and machinery. However, because expectations of domestic sales have improved as a result of the early fall in interest rates, our forecast has been revised marginally upwards compared with the previous *Commentary*.

Consumption

According to the retail sales index, the seasonally corrected value of retail sales fell by 1¼, per cent between the third and fourth quarters of 1992, and remained depressed in the first quarter of 1993, still 1 per cent below the third quarter 1992 level. With the relevant price deflator falling slightly as sterling devaluation reduced retail prices, the decline in the volume of retail sales was shallower, at about ½ per cent between the third quarter of 1992 and the first quarter of 1993.

Of course, the early months of this year were still afflicted with extremely high interest rates and with considerable uncertainty concerning the prospects

TABLE 5: Consumption Indicators

	Annual Percentage Change						
	1988	1989	1990	1991	1992 Estimated	1993 To Date	1993 Forecast
Consumption Value							
NIE 1991, Personal Consumption*	8.1	9.6	4.3	3.9	5.8	—	5.0
Retail Sales Index, Value	4.8	9.2	4.8	1.8	5.0	2.1	4.8
Divergence	3.3	0.4	−0.5	2.1	0.8	—	0.2
Consumption Volume							
NIE 1991, Personal Consumption*	5.5	5.7	2.6	0.7	3.0	—	2.2
Retail Sales Index, Volume	2.1	4.7	2.7	−0.2	3.0	1.6	2.0
Divergence	3.4	1.0	−0.1	0.9	0	—	0.2
Consumer Prices							
NIE 1991, Personal Consumption Deflator	2.6	3.8	1.7	3.2	2.8	—	2.8
Retail Sales Index Deflator	2.6	4.3	2.0	2.0	2.0	1.0	2.8
Consumer Price Index	2.1	4.0	3.4	3.2	3.0	1.4	1.8

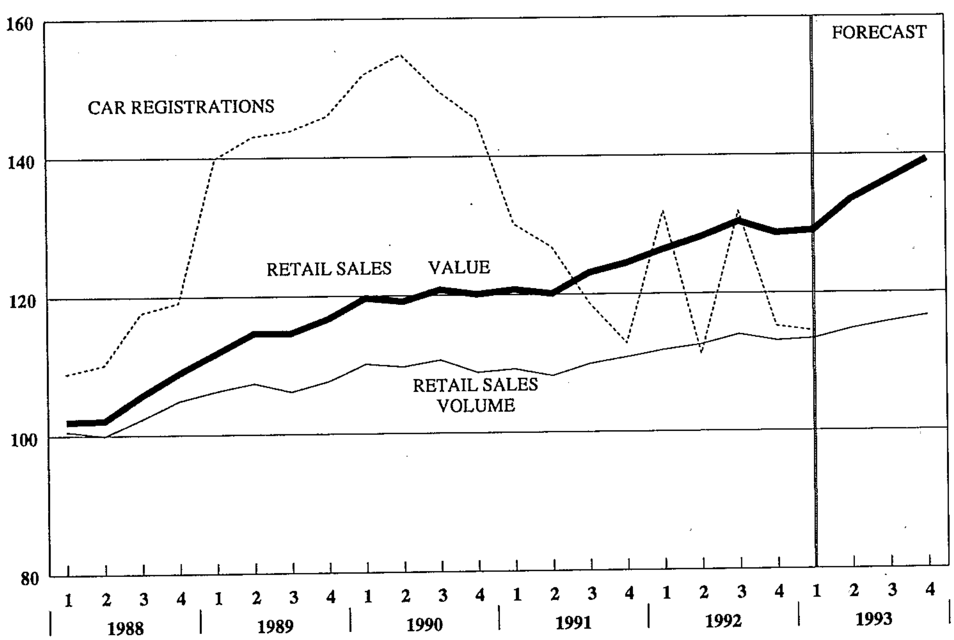
*Adjusted to conform with revised Balance of Payments Estimates.

for the domestic economy. It is almost certain that the subsequent steep fall in interest rates and the related improvement in confidence will lead to a significant recovery in retail sales. What is not yet clear is how rapid and how strong this recovery will be, and indeed, to what extent it has already commenced in the second quarter. Because of structural changes in the taxation system, the trend of indirect tax receipts is a less helpful indicator of consumption trends than in previous years, with the figures for the first five months of 1993 suggesting only that there has been neither a deep slump nor a strong boom in consumer spending.

For the year as a whole, it seems reasonable to assume that the drop in interest rates will encourage some fall in the personal savings ratio, but that the continuing degree of uncertainty will limit the extent of the fall. The projections in Table 5 thus rest on the assumption that the personal savings ratio will decline marginally in 1993 after its steep increases in 1991 and 1992. The projected increase in personal consumption will probably not become fully apparent in the retail sales index until quite late in the year.

FIGURE 2: Consumption

Quarterly Averages Seasonally Adjusted, 1987=100



The current forecast for personal consumption in 1993 represents an upward revision of ¼ per cent on our previous value forecast, principally in response to the earlier than expected fall in interest rates. The revision to the volume forecast is somewhat larger, at ½ per cent, as we have also revised downwards our prediction of consumer price increases.

On the basis of Budget estimates, it seems likely that government consumption will increase by about 1½ per cent in volume and 6½ per cent in value in 1993. These are significantly slower increases than in 1992, although the comparison is complicated by the effect of the government having brought forward some payments from 1993 into 1992.

Final Demand

If the projections so far discussed are correct, final demand in 1993 will increase by about 3 per cent in volume and 5½ per cent in value. In volume terms, domestic demand, excluding stocks, is forecast to increase by just over 2 per cent, and exports of goods and services by 3½ per cent. These compare with estimated growth rates of 2½ per cent and 10½ per cent respectively in 1992. The major reduction in export growth is partly compensated by a positive contribution from the rate of change in stock-building in 1993.

The import intensity of the forecast growth in final demand in 1993 is much the same as in 1992, with slower expansion in personal consumption and industrial exports balanced by an upturn in fixed capital investment.

Imports

As in the case of exports, the absence of trade statistics makes it impossible to monitor trends in imports in the early months of 1993. Past relationships suggest that if final demand follows the pattern already discussed, the volume of visible imports should increase by about 4 per cent. The principal changes from 1992 are likely to be a modest recovery in imports of capital goods, offset by a lower rate of growth in the volume of imports of intermediate industrial goods.

The fall in average import prices in 1992 was rather greater, at about 2 per cent, than we estimated in the previous *Commentary*, which accounts for the upward revision to import volume in 1992. This price decline is likely to be reversed in 1993, but even after devaluation the average rise in import prices seems unlikely to exceed 2 per cent.

TABLE 6: Imports of Goods and Services

	1991 £m	% Change Volume	% Change Value	1992 £m	% Change Volume	% Change Value	1993 £m
Capital Goods	1814	-2½	-4¾	1726	2	4½	1804
Consumer Goods	3620	4½	2¾	3717	4	6	3940
Intermediate Goods:							
Agriculture	466	2½	-1	461	-1	1	466
Other	6871	7½	5	7217	4¾	6¾	7704
Other Goods	83	-8½	-10¾	74	0	2	76
Total Visible	12853	5	2¾	13195	4	6	13990
Adjustments	-165			-172			-180
Merchandise Imports	12688	5	2¾	13023	4	6	13810
Tourism	699	10¾	14	797	4	6½	850
Other Services	1685	9¼	12¾	1901	6¼	9	2072
Imports of Goods and Services	15072	5¾	4½	15721	4¼	6½	16732

Tourist spending abroad rose very rapidly in 1992, after a year or two of near stagnation. A slower growth in the volume of such spending, close to the long-term average, is projected for 1993. Continued expansion in other service imports is expected in 1993, although the rate of growth should slacken slightly, in line with the reduced growth in industrial exports.

Thus, as shown in Table 6, total imports of goods and services are forecast to increase by 4¼ per cent in volume and 6½ per cent in value. As in the case of exports, these projections must be regarded as more than usually tentative for the time of year.

Balance of Payments

There was an exceptionally large increase in the visible trade surplus in 1992, partly, but by no means entirely, due to the surge in agricultural exports as intervention stocks were run down. In the absence of such large stock reductions, there seems likely to be a small decline in the visible trade surplus in 1993. It is worth noting that although both export and import projections are tentative, errors are likely to be in the same direction, leaving the forecast for the trade balance less volatile than either of its components.

The revision to the *Balance of Payments Estimates* in 1992 revealed that there is normally a deficit in trade in services. This deficit widened sharply in 1992, and a further but less acute deterioration is projected for 1993. Thus the surplus on trade in goods and services which increased dramatically in 1992 is forecast to show a small reduction in 1993, as set out in Table 7.

Profit outflows increased by 15 per cent in 1992, and are projected to increase more slowly in 1993 at about 10 per cent. The lower growth forecast for the relevant exports could be partly offset by an increase in the Irish pound value of foreign currency payments following devaluation. Interest payments on the external national debt, which fell by almost 9 per cent in 1992 seem likely to

TABLE 7: Balance of Payments

	1991 £m	Change %	1992 £m	Change %	1993 £m
Visible Trade Balance	2172	58	3434	- ½	3419
Adjustments	- 185		- 72		- 80
Merchandise Trade Balance	1987	69¼	3362	- ¾	3339
Service Trade Balance	- 166	146½	- 409	20	- 491
Trade Balance in Goods and Services	1821	62¼	2953	- 3½	2848
Factor Flows:					
Profits etc.	- 2377	15	- 2735	10	- 3009
National Debt Interest	- 1031	- 8¾	- 940	3½	- 973
Other Debit Flows	- 1220	- 7¾	- 1126	3	- 1160
Total Debit Flows	- 4627	3¾	- 4801	7	- 5142
Credit Flows	1762	- 6¾	1644	4½	1718
Net Factor Flows	- 2865	10¼	- 3158	8½	- 3424
Net Transfers	1969	- 11¾	1740	28	2053
Balance on Current Account	925	66	1535	- 3¾	1477

rise in 1993. Higher foreign borrowing during the currency crisis, and the direct effect of devaluation on payments made in foreign currencies, will be only partly compensated by a reduction in international interest rates. It thus seems possible that net factor outflows will rise a little less rapidly in 1993 than in 1992 and a return to the really high rate of growth of outflows of some recent years seems unlikely.

Due to changes in subsidy flows related to the rundown of intervention stocks, there was a significant fall in net international transfers in 1992. This is expected to be reversed in 1993, with total net transfers, almost entirely from the EC, rising to a record level of over £2,050 million.

On these estimates and projections, and bearing in mind the uncertainties engendered by the lack of trade statistics for 1993, it seems likely that the surplus on the current account of the balance of payments, which rose to about 6 per cent of GNP in 1992, will decline slightly in 1993 to a surplus of about 5½ per cent of GNP. This is still remarkably high by either historical or international standards.

Agriculture

After its modest increase in 1992, the volume of gross agricultural output is likely to fall in 1993. The main reason for this is the setaside of arable land under the CAP reform programme, which will lead to a substantial reduction in crop output. Milk output is set to decline slightly, and although a further rise in livestock output is expected, this will not be sufficient to balance the falls in milk and crop production. It is too early to assess the impact of weather conditions on annual output, but, assuming similar yields to last year, the fall in the volume of gross agricultural output could be about 2 per cent.

The setaside programme should reduce inputs of fertilizer and fuels, but could result in higher inputs of imported feedstuffs. Thus the volume of gross agricultural product, which rose by 7 per cent in 1992, seems likely to fall in 1993, perhaps by about 3 per cent. The volume of net output in the broad agricultural sector is also likely to show a small decline.

Industry

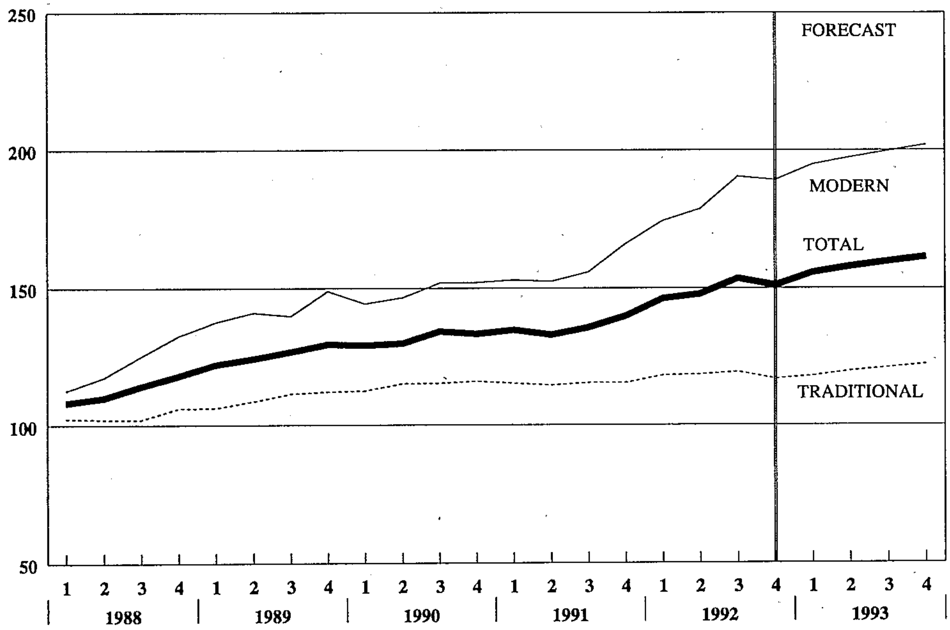
The industrial production index for the first three months of 1993 was surprisingly strong, with manufacturing production more than 8 per cent higher than in the corresponding months of 1992. To some extent the January figure could represent an aberration in timing in relation to the very depressed index for December 1992. Even so, the strength of manufacturing production during a period of weak domestic demand and currency uncertainty suggests that the volume of industrial exports was continuing to grow during the winter.

The IBEC-ESRI Survey of Business suggests that there has been no dramatic change in the volume of output since March. If our forecasts for domestic demand and for industrial exports are correct, there should be a further gradual increase in industrial production in the remainder of 1993. For the year as a whole, an increase of about 6 per cent in manufacturing industry would be compatible with our forecasts of demand.

Output in building and construction is projected to increase by almost 3 per cent, so output in the broad industrial sector is forecast to rise by about 5 per cent in 1993, compared with about 2 per cent in 1992.

FIGURE 3: Manufacturing Output

Quarterly Averages Seasonally Adjusted, 1987=100



Services

Although service output cannot be monitored with confidence on a quarterly basis, it seems very probable that private service output levelled off, or even declined, in the last quarter of 1992 and the first quarter of 1993. With the expected recovery in domestic demand following the sharp reduction in interest rates, private service output is likely to increase in the remainder of 1993. Public service output is scheduled to rise again in 1993, although a little more slowly than in 1992. For the year as a whole it seems probable that the volume of total service output will increase by about 2 per cent, much the same rate as last year.

Employment

Available short-term indicators suggest that there has been little change in the level of total non-agricultural employment in the past twelve months. The recorded fall in building employment appears to have been offset by a rise in service employment, with industrial employment remaining roughly constant. In the remainder of the year, there should be a slight recovery in building employment, little change in the number of industrial jobs and a continued slow increase in service employment.

For 1993 as a whole, as shown in Table 8, the increase in non-agricultural employment is forecast to match the usual decline in the number engaged in agriculture, leaving the annual average at work the same as in 1992. This represents a slight upward revision on our previous forecast, in keeping with the faster growth in GNP now projected.

TABLE 8: Employment and Unemployment

A: Mid-April Estimates '000

	1990	1991	1992	1993	1994
Agriculture	167	154	150	147	144
Industry	320	322	316	310	314
Services	639	649	659	664	670
Total at Work	1126	1125	1125	1121	1128
Unemployed	179	208	225	241	251
Labour Force	1305	1334	1350	1362	1379
*Unemployed Rate %	13.2	14.7	15.7	16.8	17.2
Live Register	221	248	281	295	305

B: Annual Averages '000

	1990	1991	1992	1993
Agriculture	160	152	149	146
Industry	321	319	314	312
Services	645	655	662	667
Total at Work	1126	1126	1125	1125
Unemployed	185	216	236	246
Labour Force	1311	1342	1361	1371
*Unemployed Rate %	13.4	14.9	16.1	17.0
Live Register	225	254	283	300

*New official rate based on ILO definitions. Because these refer to activity in the week preceding the Labour Force Survey, the unemployment rate cannot be derived directly from the figures in the table, which relate to principal economic status as recorded in the Survey.

Given virtually static employment, it is surprising that unemployment, as measured by the seasonally corrected Live Register, has increased by only 2,100 between January and May 1993. The potential labour force is continuing to increase by roughly 25,000 per year, so that over a four month period, constant employment would be expected to be associated with a rise of at least 8,000 in the seasonally corrected Live Register. This would also have been in keeping with unemployment trends in 1991 and 1992.

This marked slowdown in the rate of increase in the Live Register is almost certainly the result of a resumption of significant net emigration. Pointers to this are the actual fall in the seasonally-corrected number of under 25 year olds on the Live Register since January, and indeed since August 1992, and a substantial upturn in the net outflow in passenger movements. Renewed net emigration was not expected in 1993, as it was assumed that an improvement in the UK labour market would, as usual, lag significantly behind the recovery in output in the UK economy. However, British figures indicate that there has been an increase in industrial employment and a fall in unemployment at an unusually early stage of the current economic cycle. What is still uncertain is whether this represents merely a correction to over-vigourous job-shedding in the closing months of 1992 or the start of a sustained, if gradual, increase in UK employment.

On balance, it seems more likely that the UK labour market has ceased to deteriorate than that it has commenced a lasting recovery. Thus it seems probable that there will be a continuation of modest net emigration from Ireland in the remainder of 1993, but that its scale will not begin to approach that of the late eighties. This implies that seasonally corrected unemployment will rise in the second half of 1993. An annual average of about 300,000 on the Live Register appears a reasonable estimate at present, suggesting a seasonally corrected level of about 305,000 by the end of the year.

Incomes

Despite the probable decrease in the volume of gross agricultural product in 1993, it is expected that there will be a significant rise in agricultural incomes. This is partly due to higher market prices for some major agricultural products, most notably meat, and partly due to an anticipated increase in net subsidies, including compensation for setaside land. For the broad agricultural sector an increase of 5 per cent in income is forecast.

TABLE 9: Personal Disposable Income

	1991	Change		1992	Change		1993
	£m	%	£m	£m	%	£m	£m
Agriculture etc.	1794	15¾	284	2078	5	104	2182
Non-Agricultural Wages, etc.	13620	5¾	783	14403	5½	792	15195
Other Non-Agricultural Income	2824	1	28	2852	2½	71	2923
Total Income Received	18238	6	1095	19333	5	967	20300
Current Transfers	4287	9¾	417	4704	6	282	4986
Gross Personal Income	22525	6¾	1512	24037	5¼	1249	25286
Direct Personal Taxes	4984	6¾	336	5320	6½	349	5669
Personal Disposable Income	17541	6¾	1176	18717	4¾	900	19617
Consumption	15616	5¾	899	16515	5	826	17341
Personal Savings	1925	14½	277	2202	3¼	74	2276
Savings Ratio	11.0			11.8			11.6

Budget estimates indicate that the aggregate public service pay bill is likely to rise by about 8 per cent in 1993, implying an increase of about 6¼ per cent in average public service pay. Private sector wages and salaries seem likely to display a considerable divergence in 1993. With local bargaining under the PESP coming into effect in the course of 1992 and 1993, annual average earnings in many companies in the sheltered sector or exporting mainly to hard currency countries could increase by over 6 per cent. In many other companies, exposed to intensified competition on either the British or domestic markets, even basic PESP increases are likely to be deferred. Over the private sector as a whole, including the commercial semi-state companies, it seems likely that average earnings in 1993 will increase by about 4¼ per cent. A marginal increase in employment is expected, so aggregate private sector earnings are forecast to rise by 4½ per cent.

Other non-agricultural income is also likely to contain divergent trends. Income from self employment can be expected to increase at least in line with wage income, while a moderate increase also seems likely in income from dividends and rent. However, income from interest will probably see little change in 1993, as lower average interest rates will offset the likely increase in the size of the domestic national debt.For non-wage income as a whole, an increase of about 2½ per cent seems a reasonable projection.

As shown in Table 9, total income received is forecast to increase by 5 per cent in 1993, compared with 6 per cent in 1992. The rise in transfer incomes is likely to be less rapid than last year, partly because of smaller percentage increases in many benefits, but mainly because the rise in unemployment now seems likely to be much slower. Thus the increase in gross personal income seems likely to decline from 6¾ per cent in 1992 to 5¼ per cent in 1993.

Aggregate direct personal taxation is scheduled to increase only marginally more slowly in 1993 than in 1992. Accordingly personal disposable income seems set to grow much less rapidly than in 1992, with the increase forecast at 4¾ per cent, compared with 6¾ per cent in 1992.

The personal savings ratio rose very sharply in both 1991 and 1992. The pattern of income increases seems likely to result in a slight fall in the savings ratio in 1993, as the two quasi-automatic forms of saving, livestock numbers on farms and accrued interest, are both likely to decline. A significant conscious reduction in the savings ratio is obviously also possible in response to lower interest rates. However, until there is concrete evidence that it is taking place, it seems prudent to anticipate only a marginal active reduction in the savings ratio, as the shock to consumer confidence associated with the currency crisis could take a considerable period to evaporate. Thus a relatively minor reduction in the savings ratio is projected, from 11.8 per cent of disposable income in 1992 to 11.6 per cent in 1993. If our income forecasts are correct, this would accommodate an increase of about 5 per cent in the value of personal consumption.

Consumer Prices

In the immediate aftermath of devaluation, there was a general assumption that consumer price inflation would accelerate slightly from the 3 per cent annual rate in 1992. Figures for the first two quarters of 1993, however, show that there will in fact be a substantial reduction in the rate of inflation, as measured by the consumer price index.

Although devaluation has undoubtedly raised the Irish pound price of many imported goods from hard currency countries, it must be borne in mind that the annual average value of the Irish pound has appreciated significantly compared with sterling, and that the UK remains the dominant source of imports. Moreover, the recession is likely to keep the rate of price increases throughout Europe at a very modest level. Thus, while average import prices will undoubtedly rise in 1993, the annual increase seems unlikely to be much more than 2 per cent.

Food prices are likely to rise more rapidly, partly due to devaluation, partly due to international market conditions, and partly due to weather affected increases in seasonal vegetable prices.

Offsetting the probable increases in food and import prices in the year as a whole will be a large fall in the annual level of mortgage interest charges, which possesses a substantial weight in the consumer price index. High mortgage charges in February matched those in November 1992, but for the remainder of 1993 such charges will be about 2 per cent below the levels of the first three quarters of 1992. It is this reduction in interest rates, both larger and earlier than anticipated, which has caused us to revise downwards our forecast for the annual increase in the consumer price index from 3 per cent to 1¾ per cent. The rise in the twelve months to November 1993 is now projected at just under 2 per cent.

However, because mortgage interest is of little or no relevance to them, the other measures of consumer prices will show a faster increase in inflation. Thus the deflators of both retail sales and personal consumption are projected to rise by 2¾ per cent in 1993.

Public Finances

Exchequer returns for the first five months of 1993 suggest that tax revenue is on course to reach its Budget target of £9,485 million, although analysis of trends is complicated by significant changes in collection procedures, especially in the case of VAT. Any successful amnesty scheme in the course of the year would almost certainly result in total tax revenue comfortably exceeding the Budget target.

Current expenditure should be below target, as substantial savings on interest payments and on unemployment should more than offset possible over-runs in some other forms of spending and a possible shortfall in non-tax revenue. Thus the current budget deficit now seems likely to be under £500 million in 1993, or about 1.8 per cent of GNP.

This does not necessarily mean that the Exchequer Borrowing Requirement will also be under the target figure of £766 million, or 2.9 per cent of GNP. Capital receipts from the sale of state assets have exceeded Budget provisions, and at present there seems no reason to expect EC funding to fall below anticipated levels. The major uncertainty at the time of writing is the additional capital outlay which might be involved in relation to Aer Lingus. It seems possible that this could more than outweigh the gains on the current budget deficit and capital revenue, and result in the Exchequer Borrowing Requirement exceeding the Budget target.

Even if the borrowing requirement is slightly over target, and allowing for the impact of devaluation on the Irish pound value of the external national debt, it seems probable that there will be only a temporary and marginal deterioration in the debt/GDP ratio from just under to just over 92 per cent in 1993. In the context of the Maastricht guidelines, Ireland seems likely to come much closer to meeting the fiscal targets in 1993 than most EC countries. Nevertheless, if fiscal strategy is to get fully back on course in 1994, a very tight control will need to be maintained on discretionary expenditure, and particularly on the determination of public service pay increases.

Interest Rates

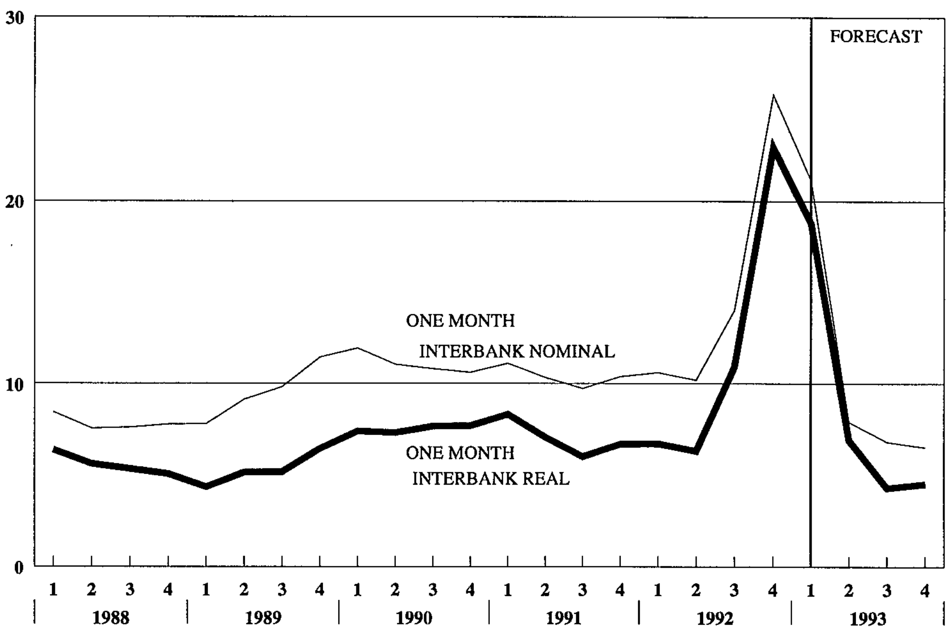
In the Winter *Commentary*, we assumed a substantial fall in wholesale and retail interest rates in the second quarter of 1993, bringing them back to roughly mid-1992 levels by the end of June. In fact, of course, interest rates have fallen much more steeply than anticipated, and by early June wholesale rates were roughly 3 per cent below their level a year previously.

Surprisingly, this very rapid reduction in interest rates is not the result of a faster than expected relaxation in German monetary policy. The Bundesbank, in fact, has been rather more cautious than anticipated in reducing German rates, although, of course, they are significantly lower than in 1992. What has happened is that Ireland has shared fully in a European movement which has seen the interest rate differential between Germany and the other narrow-band ERM countries totally eroded. At present wholesale money market rates in Ireland, as in France and other countries, are slightly below those in Germany.

Despite changed perceptions of Germany's role as the anchor of the ERM, it seems unlikely that this reverse differential will widen much further in the remainder of 1993. Thus further reductions in Irish interest rates probably depend on the Bundesbank finally implementing substantial cuts in German interest rates. Most German and international commentators still expect such cuts to take place in the second half of the year.

FIGURE 4: Interest Rates

Per cent per annum, Quarterly Averages



The other possible influence on Irish interest rates is sterling. The relative strength of sterling in the past few months has been a major contributory factor in permitting the erosion of the differential over German interest rates, both short and long term, and thus allaying fears that a significant permanent differential would be one of the consequences of the devaluation of the Irish pound. However, a period of sterling weakness could put new strains on the current confidence in Ireland's ERM parity, and could force a defensive rise in Irish interest rates.

On balance it seems reasonable to assume that sterling will remain at about its present value for the remainder of 1993, and that accordingly Irish interest rates will be able to follow German rates downward in the second half of the year. A one-month interbank rate of about 6 per cent is assumed for the end of 1993.

General Assessment

Ireland will be one of the very few EC countries to achieve positive growth in 1993. The exact growth rate is difficult to predict, partly because of an absence of information on trends in the early months of the year and partly because there are few precedents for the scale of interest rate reductions since March. Our estimate of a growth rate of 1¾ per cent could prove unduly cautious, but, in the aftermath of a serious shock to confidence during the currency crisis and in the face of a spreading recession is continental Europe, it appears realistic.

If our forecast is broadly correct, the modest rate of economic growth in 1993 will be accompanied by a very low rate of price inflation, at under 2 per cent, approximate stability in total employment, a robust current account balance of payments surplus and a temporary minor deterioration in the public finances. On all these dimensions of economic performance Ireland is likely to show results considerably better than the EC average in 1993. To some extent this can be attributed to prudent economic management in recent years. To a considerable degree it will rest on increased funding from the EC. To some extent it will be due to the structure of the Irish economy, and in particular to the structure of Irish industry with its absence of cyclically vulnerable heavy industries. Finally it can be ascribed in part to good fortune, in that the UK and continental cycles are out of phase with each other, so that moderate expansion in the former will help to offset contraction in the latter.

However, while Ireland's overall economic performance in 1993 will be comparatively good, in absolute terms it will be inadequate. The chronic problem of insufficient job creation will continue to intensify, as the prospect of approximate stability in employment falls far short of the requirement of a net increase of about 25,000 jobs per year. Unexpectedly, it now looks as if a considerable proportion of the shortfall will be absorbed in net emigration rather than increased unemployment, but this, of course, merely shifts the problem rather than resolves it.

It is inevitable that the failure of Irish employment to rise significantly has promoted increasingly urgent debate as to whether Irish economic strategy should be intensified, modified or radically altered. In addressing this question, it is important that Ireland's good relative performance in recent years, when employment has been tending to fall throughout the EC, should be kept in mind, along with the need for a substantially better absolute rate of job creation.

The fact that Irish manufacturing employment has been more or less maintained in the face of first the UK recession and now the continental recession suggests both that there are some advantages in the structure of Irish industry and that the international competitiveness of Irish industry has improved significantly in recent years. Some light is shed on the issue of industrial employment in the special article accompanying this *Commentary*. Although designed primarily to estimate the degree of exposure to currency fluctuations, the analysis in the article is capable of a more fundamental interpretation.

The patterns of output and employment in the 1989 *Census of Production* show very clearly that the employment intensity of production for the home market is very much greater than that of production for export markets. In part this is due to the presence of small, non- exporting establishments with relatively low average output per head. Mainly, however, it is due to the composition of demand, with labour intensive industries tending to supply the home market, while the high-technology industries with a relatively low labour content are engaged almost exclusively in exporting. Although this dichotomy has always been acknowledged, it has seldom been fully documented, and has accordingly not been given due weight in most discussion of past industrial employment trends.

Thus the changing structure of Irish industry during the '80s, when traditional industries declined as modern industries expanded, with a resultant steep fall in the overall labour intensity of industry, has tended to be explained in terms of inappropriate relative factor prices and in terms of a loss of competitiveness in traditional industries in the early '80s. Both these factors did undoubtedly play a part in the process, with the latter probably being the more important. However, the remaining reason for the decline in traditional industry has received little attention, although it was probably the dominant factor. This was the severe contraction of the domestic market, as both consumption and investment volumes fell sharply in 1982 and remained depressed until the closing years of the decade. While greater competitiveness in those years would have limited the extent of import penetration and thus saved some jobs, it is doubtful whether different relative factor prices within Ireland would have encouraged traditional industries to expand when their principal market, domestic sales, was in decline.

Significantly, since 1988 employment in traditional manufacturing has risen, in contrast to its steep fall in the preceding six years. This is partly due to increasing exports by the sector and improved competitiveness, but it also reflects the renewed growth of domestic demand.

The experience of Irish industry is broadly parallelled by the wider economy. In an under-publicised NESC Report (no. 94) *The Association between Economic Growth and Employment Growth in Ireland*, the authors show that much of the shortfall in employment during the '80s was in the service sector rather than manufacturing. In manufacturing, employment in Ireland moved from a growth rate among the fastest in the world in the '70s to a decline at about the OECD average rate in the '80s. The rate of growth of service employment declined from just above the OECD average in the '70s to roughly half the OECD average in the '80s. This decline occurred almost entirely in non-market services, broadly speaking the state sector, in which employment increased at the minimal annual rate of 0.2 per cent in the '80s, with an actual fall between 1985 and 1989.

Services, and particularly non-market services, are related almost exclusively to the domestic market, and tend to be more labour-intensive than most industries. Thus, through both industry and services, the contraction of domestic demand in the '80s appears to have been a primary cause of the poor employment performance of the Irish economy. It is largely the failure of non-market services to match the growth rate of the rest of the economy since 1989, due to continuing fiscal constraints, which explains the disappointing recent growth in total employment.

Given the imbalances at the beginning of the '80s, the contraction in domestic demand was unavoidable. Not only did resources have to be shifted from personal consumption to government saving in order to reduce the fiscal deficit, they also needed to be shifted from domestic demand to net exports to eliminate the current account balance of payments deficit, which amounted to 14.7 per cent of GNP in 1981. These adjustments have been successfully achieved, but the cost in employment was high, and probably inescapable, given the much greater employment intensity of domestic demand than export demand, both within industry and the economy as a whole.

Acknowledgement of the part played by demand factors as well as supply considerations in the evolution of the employment crisis carries significant implications for future economic policy. The demand effects of increased taxation during the mid-80s in curtailing domestic demand appear to have been at least as important as the supply-side effects operating on relative wage costs through the tax wedge. If this was so, then radical tax reform may not be the panacea that it is so widely expected to be.

There is a strong case for tax reform on grounds of equity and efficiency, but its potential impact on employment trends may have been overstated. On the supply side, there is ample evidence that an increasing tax burden, including the widening of the tax-wedge between employers' labour costs and employees' take-home pay, contributed substantially to uncompetitive pay increases in the mid-80s. However, if tax reform is defined as reducing direct tax rates while maintaining the total level of tax revenue through reducing allowances and introducing new taxes, then it is far from clear that this would have a corresponding impact in reducing the size of future pay settlements. On the demand side, a revenue-neutral tax reform would provide little or no stimulus to domestic demand.

Obviously, a general relaxation of fiscal policy, in which tax cuts were not offset, would both boost domestic demand and have a greater chance of encouraging low nominal pay settlements. Employment would clearly benefit. Unfortunately the public finances are not yet in a condition where an immediate substantial relaxation could be contemplated, and any such stimulus would prove short-lived and ultimately counter-productive. Nevertheless, as the decade progresses a gradual and cautious relaxation of fiscal policy should become feasible, allowing a steady and somewhat faster growth in domestic demand.

The past two decades have seen seriously unbalanced growth. In the '70s, domestic demand was allowed to expand much too fast, resulting in unsustainable imbalances by the end of the decade. In correcting these, the '80s necessarily saw domestic demand severely curtailed, with a very serious impact on employment levels. In the current decade, the opportunity exists for much more balanced growth, with export and domestic demand remaining in equilibrium. Such balanced growth would undoubtedly be more employment intensive than the export oriented growth of the '80s, especially if the volume of non-market services is permitted to expand in line with the rest of the economy.

If the opportunity for balanced growth is to be taken, certain policy conditions must obviously be fulfilled. In the first place, international competitiveness must be maintained, and, if possible strengthened. This requires the continuation of non-inflationary fiscal and monetary policies, within the context of the existing hard-currency strategy. It also requires control of industrial costs and the implementation of many of structural adjustments arising from the Culliton Report. Above all, it requires moderation in pay settlements, either within or outside a new national agreement, and the introduction of a greater element of flexibility to cope with any recurrence of major exchange rate instability.

Beyond general competitiveness, however, balanced growth can be fully realised only if there is a significant easing of the pressures on the public finances. A reduction in aggregate taxation on the household sector, and an increase in the volume of non-market services in such areas as health and education would both make a considerable contribution to employment. While some easing of fiscal pressure can be expected if interest rates remain low, this is unlikely to provide a large enough or secure enough improvement in the fiscal balance to permit a substantial easing of the fiscal stance. The main factor which has maintained pressure on the public finances in recent years has been the differentially high rate of increase in public service pay. The opportunity which 1993 offers to modify the process of public service pay determination must be grasped. The principle of arbitration is valuable and should not be abandoned. However, the criteria to which the arbitrator works should be radically amended, to include full consideration of productivity elements in the pay of reference groups, market circumstances as evidenced in applications and resignations, ability to pay, and last, but not least, implications for employment levels.

If a reformed arbitration system could bring public service pay settlements into line with moderate private sector trends for the remainder of the decade, then the constraint on the public finances would be greatly eased. Normal economic growth would result in sufficient revenue flow to permit both moderate cuts in tax rates and a gradual expansion in the volume of necessary public services, while continuing the necessary reduction in the debt/GDP ratio. Both would contribute to a balanced growth of the economy, and employment would rise more closely in line with national output. Whether such growth would be fast enough to make substantial progress in easing the unemployment crisis depends largely on the rate of economic growth in Europe as a whole, which is obviously beyond the control of the Irish authorities. However, by achieving balanced and sustainable growth within the economy, the authorities and other decision makers would be making the maximum domestic contribution to resolving the unemployment and emigration problems.

MANUFACTURING OUTPUT AND EMPLOYMENT BY MARKET AREA

by Terry Baker

Introduction

The currency instability following sterling's withdrawal from the ERM focused attention on the proportion of industrial employment dependent on the UK market or otherwise vulnerable to fluctuations in the value of sterling. Although exchange rates are now more stable, a renewed depreciation of sterling within the next few years cannot be ruled out. Thus the issue of the employment share of major overseas markets remains of interest and deserves closer examination.

No definitive detailed assessment of total employment exposure to currency risks is feasible, although surveys can make a significant contribution to knowledge, especially in the difficult areas of overseas competition on the domestic market and international competition in third markets. However, as a statistical baseline, the employment dependent on different markets in 1989 can be derived from the *Census of Industrial Production* for that year. Taken in conjunction with the 1985 Input-Output tables, a reasonable estimate of the employment content of domestic disposal and of direct and indirect exports to the UK, other EC countries and to the rest of the world can be made.

The information is obviously rather dated by now, but the basic patterns are unlikely to have been radically changed in the intervening years. A clear picture of the 1989 pattern should still provide a useful basis for the consideration of future developments.

Direct Employment Shares

Table 10 of the 1989 *Census of Industrial Production* sets out for each industrial sector the gross output and persons engaged both for all establishments and for exporting establishments. For exporting establishments, it shows total gross output and gross output exported, with the latter broken down between exports to the UK, other EC, USA and the rest of the world. Thus the share of major export regions and domestic disposals in the gross output of each industry can be readily calculated. Approximate employment shares can be derived by assuming that employment in the exporting establishments of each industry is distributed in the same proportions as gross output. Although this implies an implausible degree of homogeneity among exporting establishments, the degree of distortion involved is probably minor, if the maximum available disaggregation between industries is used.

The results of re-casting Table 10 of the *Census of Industrial Production* for each industry are shown in Appendix 1. Summary results are set out in Table 1. The

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Table 1: *Manufacturing Industry - Domestic and Export Shares 1989*

	Domestic			*Exports*				
	Domestic Only	*Exporting Establishments*	*Total*	*Total*	*UK*	*Other EC*	*Rest of World*	*Total*
HIGH-TECH INDUSTRIES								
Gross Output £m	100.7	212.6	313.3	5888.8	1,134.6	3,200.5	1,553.7	6,202.1
%	*1.6*	*3.4*	*5.0*	*95.0*	*18.3*	*51.6*	*25.1*	*100*
Employment	1,451	1,535	2,989	37,171	7,120	20,777	9,274	40,160
%	*3.6*	*3.8*	*7.4*	*92.6*	*17.8*	*51.7*	*23.1*	*100*
TRADITIONAL INDUSTRIES								
Gross Output £m	1,667.1	2,113.2	3,780.3	3,428.9	1,252.4	1,270.5	906.0	7,209.2
%	*23.1*	*29.3*	*52.4*	*47.6*	*17.4*	*17.6*	*12.6*	*100*
Employment	31,620	31,291	62,911	49,966	20,330	17,346	12,290	112,877
%	*28.0*	*27.7*	*55.7*	*43.3*	*18.0*	*15.4*	*10.9*	*100*
FOOD INDUSTRIES[1]								
Gross Output £m	827.6	397.9	1,225.5	1,097.5	351.2	380.7	365.6	2,323.0
%	*35.6*	*17.2*	*52.8*	*47.2*	*15.1*	*16.4*	*15.7*	*100*
Employment	8,134	3,879	12,013	6,955	2,922	2,028	2,005	18,968
%	*42.9*	*20.4*	*63.3*	*36.7*	*15.4*	*10.7*	*10.6*	*100*
TOTAL MANUFACTURING[1]								
Gross Output £m	2,595.4	2,723.7	5,319.1	10,415.2	2,738.2	4,851.7	2,825.3	15,734.3
%	*16.5*	*17.3*	*33.8*	*66.2*	*17.4*	*30.8*	*18.0*	*100*
Employment	41,205	36,708	77,913	94,092	30,372	40,151	23,569	172,005
%	*24.0*	*21.3*	*45.3*	*54.7*	*17.7*	*23.3*	*13.7*	*100*

[1] Excluding Meat and Dairy Industries.

meat and dairy industries are excluded, because, as explained in the *Census of Industrial Production*, the allocation of gross output between domestic and export outlets is unreliable for those industries.

Two features immediately stand out from Table 1. The first is the contrast between the high-technology modern industries and the traditional and food industries. Although well known, the minuscule share of the domestic market in the gross output and employment of the high-technology industries remains striking.

The second feature is that for each of the major categories of industry, and for manufacturing industry as a whole, the domestic share of employment is significantly higher than the domestic share of gross output. There are two reasons for this. In almost all industries, as can be seen from Appendix Table 1, output per head is lower in the non- exporting establishments than in the exporting. This is not surprising, as non-exporting establishments tend to be smaller and often incorporate a local service element in their activities. The other, more important, reason is that within each category the more labour intensive industries tend to supply mostly the home market, while the industries with the highest output per head are mainly engaged in exporting. For example, the office and data processing machinery industry, with an output per head of £348,000, exports 97.3 per cent of its gross output, while the clothing industry, with output per head of £24,000, exports only 41.7 per cent of gross output.

An interesting, if less obvious, feature of Table 1 is that there is less divergence between output and employment shares for the UK market than for either the domestic or the other export markets. The reason for this is that the UK has by far the least variable market share between individual industries. Every industry exports to the UK, with the share of output ranging from a low of 4.6 per cent for bread, biscuits and flour confectionery to a high of 41.3 per cent for the knitting industry. In the overwhelming majority of industries, the UK share lies between 9 per cent and 35 per cent. This contrasts with variations in the domestic share from 1.9 per cent for instrument engineering to 93.4 per cent for grain milling and animal feedstuffs, and in the other EC share from 0.5 per cent for bread, biscuits and flour confectionery to 60.4 per cent for rubber products. Thus the composition effect is weak in the case of the UK market, as it is equally represented in industries with high and low output per head.

Export Shares by Ownership

It is sometimes argued that Irish-owned firms are more dependent on the UK market than foreign-owned firms. Table 11 of the *Census of Industrial Production* allows market share to be calculated by ownership. Summary results are set out in Table 2. Because the breakdown is by size rather than by industry, meat and dairy production cannot be excluded. Also, because the degree of disaggregation is much less than in the industry table, the full divergence between output and employment patterns cannot emerge.

Despite these drawbacks, Table 2 is nevertheless of considerable interest. It can be seen that the overwhelming difference between Irish and foreign-owned establishments is in the degree to which they serve the domestic market.

Table 2: *Irish and Foreign-Owned Industry*

	Domestic			*Exports*				*Total*
	Domestic Only	*Exporting Establishments*	*Total*	*Total*	*UK*	*Other EC*	*Rest of World*	
IRISH OWNED								
Gross Output £m	2,722.6	2,894.9	5,617.5	3,053.5	1,259.3	684.8	1,109.4	8,671.0
%	*31.4*	*33.4*	*64.8*	*35.2*	*14.5*	*7.9*	*12.8*	*100*
Employment	40,212	32,630	72,842	31,982	13,598	7,366	11,018	104,824
%	*38.4*	*31.1*	*69.5*	*30.5*	*13.0*	*7.0*	*10.5*	*100*
FOREIGN OWNED								
Gross Output £m	441.6	1,153.4	1,595.0	9,474.6	2,168.6	4,668.8	2,637.2	11,069.6
%	*4.0*	*10.4*	14.4	85.6	19.6	42.2	23.8	100
Employment	4,959	8,852	13,811	71,149	16,307	35,022	19,820	84,960
%	*5.8*	*10.4*	16.2	83.8	19.2	41.2	23.4	100
TOTAL MANUFACTURING[1]								
Gross Output £m	3,164.2	4,048.3	7,212.5	12,528.1	3,427.9	5,353.6	3,746.6	19,740.6
%	*16.0*	*20.5*	*36.5*	*63.5*	*17.4*	*27.1*	*19.0*	*100*
Employment	45,171	41,482	86,653	103,131	29,905	42,388	30,838	189,784
%	*23.8*	*21.9*	*45.7*	*54.3*	*15.7*	*22.3*	*16.3*	*100*

[1] Including Meat and Dairy Industries.

Because of the dominance of domestic sales by Irish-owned companies, the proportion of their employment dependent upon direct exports to the UK is significantly lower than for foreign-owned companies. Of course, the UK share of exports, as distinct from total output, is much higher in Irish than Foreign-owned establishments.

Although details by size of establishment are not presented in Table 2, there is a clear pattern that, among both Irish and foreign-owned establishments, the smaller the size the greater the dependence on the domestic market. The UK share, however, is little affected by size of establishment. Among foreign-owned establishments, those of EC origin are significantly more involved with the domestic market than those of US or other origin. About 38 per cent of employment in EC-owned establishments is dependent upon the domestic market, compared with only 8.5 per cent of employment in other foreign establishments. This, of course, reflects the presence of many British companies in the more traditional sectors of industry, and the dominance of American multinationals in the high-technology sectors. Again, however, the UK share is relatively constant.

Indirect Exports

The pattern of employment shares of the major markets set out in Table 1 does not show the full extent of employment dependence on export markets. This is because a substantial proportion of domestic disposals of gross output represents sales within the manufacturing sector, and is thus incorporated in the export sales of the purchasers. Using the transactions table of the 1985 *Input-Output*, it is possible to derive output coefficients which can be applied to the 1989 values of gross output. In this way the flow of output within and between industries in 1989 can be established and distributed according to the market patterns of the recipient industries. Because of differences in the classification of industries between the two sources, the analysis has to be on the basis of industry groups rather than individual industries. A particular difficulty arises in the case of chemicals, which has been resolved by the heroic, but not unreasonable, assumption that all inter-industry flows relate to the traditional chemical sectors rather than to pharmaceuticals.

The detailed results of these calculations of indirect exports and the resultant employment shares are set out in Appendix 2. The importance of indirect exports varies widely between industries. For office and data processing machinery, chemicals, and drink and tobacco, indirect exports are of little significance, accounting for under 2 per cent of total gross output and employment. However, for electrical engineering, textiles and clothing, and wood, paper and printing, indirect exports through inter-industry sales account for over 6 per cent of total gross output and employment. In the case of wood, paper and printing, which has relatively low direct exports, indirect exports make up more than a quarter of total exports.

Results for the three main categories of industry, and for total manufacturing industry (excluding meat and dairy products) are summarised in Table 3. It can be seen that indirect exports support over 9,000 jobs in total manufacturing, most of them in the traditional industries.

Table 3: *Indirect and Total Exports*

	Indirect Exports				*Total Exports*				*Net Domestic*	*Total*
	UK	*Other EC*	*Rest of World*	*Total*	*UK*	*Other EC*	*Rest of World*	*Total*		
HIGH-TECH INDUSTRIES										
Gross Output £m	36.0	85.4	33.7	155.1	1,170.6	3,258.9	1,587.4	6,043.9	158.2	6,202.1
%	*0.6*	*1.4*	*0.5*	*2.5*	*18.9*	*53.0*	*25.6*	*97.5*	*2.5*	*100*
Employment	382	904	351	1,637	7,502	21,681	9,625	38,808	1,352	40,160
%	*0.9*	*2.3*	*0.9*	*4.1*	*18.7*	*54.0*	*24.0*	*96.7*	*3.3*	*100*
TRADITIONAL INDUSTRIES										
Gross Output £m	111.5	128.3	87.8	327.6	1,363.9	1,398.8	993.8	3,756.5	3,452.7	7,209.2
%	*1.5*	*1.8*	*1.2*	*4.5*	*18.9*	*19.4*	*13.8*	*52.1*	*47.9*	*100*
Employment	2,196	2,403	1,563	6,162	22,526	19,749	13,853	56,128	56,749	112,877
%	*2.0*	*2.1*	*1.4*	*5.5*	*20.0*	*17.5*	*12.2*	*49.7*	*50.3*	*100*
FOOD INDUSTRIES[1]										
Gross Output £m	46.8	49.9	48.9	145.6	398.0	430.6	414.5	1,243.1	1,079.9	2,323.0
%	*2.0*	*2.2*	*2.1*	*6.3*	*17.1*	*18.6*	*17.8*	*53.5*	*46.5*	*100*
Employment	458	490	479	1,427	3,380	2,518	2,484	8,382	10,586	18,968
%	*2.4*	*2.6*	*2.5*	*7.5*	*17.8*	*13.3*	*13.1*	*44.2*	*55.8*	*100*
TOTAL MANUFACTURING[1]										
Gross Output £m	194.3	263.6	170.4	628.3	2,932.5	5,115.3	2,995.7	11,043.5	4,690.8	15,734.4
%	*1.2*	*1.7*	*1.1*	*4.0*	*18.6*	*32.5*	*19.1*	*70.2*	*29.8*	*100*
Employment	3,036	3,797	2,393	9,226	33,408	43,948	25,962	103,318	68,687	172,005
%	*1.8*	*2.2*	*1.4*	*5.4*	*19.4*	*25.6*	*15.1*	*60.1*	*39.9*	*100*

[1] Excluding Meat and Dairy Industries.

Total Exports

When both direct and indirect exports are considered, total exports support 60 per cent of total employment, with net domestic disposals supporting approximately 40 per cent. The corresponding shares for gross output are 70 per cent and 30 per cent, thus confirming the greater labour intensity of domestic demand for industrial output.

Among the main categories of industry, total exports account for over half of gross output in all three categories, with net domestic disposals accounting for a tiny 2½ per cent of gross output in the high-technology sector. Net domestic disposals give rise to 50 per cent of employment in traditional industry and to 56 per cent in the food industry (excluding meat and dairy), but to only 3 per cent in the high-technology industries.

Of the export regions, total exports to the UK support roughly 33,000 jobs, two-thirds of them in the traditional sector. The rest of the EC accounts for 44,000 jobs, half of them in the high-technology sector, while the rest of the world supported 26,000 jobs, more evenly divided between the sectors. In percentage terms, total exports to the UK were responsible for between 17½ and 20 per cent of employment in each of the main industrial categories, and for 19½ per cent in manufacturing as a whole. These employment shares are marginally above the gross output shares in traditional and food industries and in total manufacturing. By contrast, total exports to other EC countries accounted for 54 per cent of employment in high-technology industry, but much lower shares in the other categories of industry. For total manufacturing other EC countries accounted for 25½ per cent of all employment, compared with 32½ per cent of output. The rest of the world supported 15 per cent of jobs in total manufacturing and 19 per cent of gross output.

Domestic Currency Exposure

The approximate shares of employment dependent on different markets set out above do not equate with the total of employment which could be affected by movements in particular currencies. On the one hand, some of the exports to the UK, especially in the high- technology sectors, could be relatively impervious to fluctuation in the sterling/Irish pound exchange rate. On the other hand, some exports to third markets could be susceptible to intensified competition from the UK following a sterling depreciation, while many suppliers of the domestic market compete with imports which could become more competitive due to currency changes.

The data analysed here cannot provide definitive answers to such questions of currency exposure. However, they can suggest rough orders of magnitude so far as the domestic market is concerned.

It is not unreasonable to assume that the majority of non-exporting establishments are providing products that are not fully tradeable internationally. This may be because of the nature of the goods, such as fresh bread, or because of the degree of service incorporated in the product, as in the case of local printers. By contrast, the products of exporting establishments are obviously tradeable. Thus, almost by definition, exporting establishments are susceptible to overseas competition both in export markets and on the domestic markets. This is not to say that all such establishments are vulnerable to currency changes, in the sense that they are at risk of closure or contraction following the large depreciation of a competitor's currency. However, in many cases it does mean that international competitiveness needs to be taken into account in making business decisions affecting both their domestic and their export markets. Because of taste similarities, distribution arrangements and sheer proximity, the most important competition to Irish establishments on the domestic market is likely to be from the UK, and it is fluctuations in sterling rather than any other currency which is relevant in assessing potential exposure.

On the crude split between exporting and non-exporting establishments, but excluding the high-technology sector, on the grounds that net domestic sales are a minor by-product of export operations, it would appear that 35,200 jobs dependent on the domestic market are liable to be exposed to intensified UK competition following a significant reduction in sterling's real exchange rate. When this is added to the 33,400 jobs dependent upon total exports to the UK, and to an unspecified number which could be affected by competition in third markets, total exposure in manufacturing industry to major sterling fluctuations could amount to over 70,000, or more than 40 per cent of total employment.

Conclusions

1. On the basis of 1989 patterns, roughly 30 per cent of manufacturing gross output, and 40 per cent of industrial employment, is dependent on the domestic market. Almost half of output, and just over half of employment, in the traditional and food sectors depends on domestic sales. The domestic market is insignificant for the high-technology sector.

2. Taking both direct and indirect exports into account, the UK market accounts for about 19 per cent of manufacturing output and employment. The UK share is relatively constant between the high-technology, traditional and food categories of industry. Even at the level of individual industries, the UK share is much less variable than those of the domestic market or other export destinations.

   Despite these constant shares across categories, the much higher labour intensity of traditional industries means that, in absolute numbers, traditional industry accounts for most of the employment dependent on the UK market. Thus, of the total UK-dependent employment of 33,400, traditional industry accounts for 22,500 and high-technology industry for only 7,500.

3. Total exports to other EC countries account for almost 33 per cent of gross output and 26 per cent of employment in manufacturing. The continental EC is responsible for well over half of both gross output and employment in the high-technology sector. In both the traditional and food sectors, the continental EC countries account for a higher share of gross output, but a lower share of employment, than the UK. The total EC- dependent employment of 44,000 is fairly evenly split between 21,700 in the high-technology sector and 19,700 in the traditional sector.

4. The rest of the world, which of course includes some important non-EC European markets, accounts for 19 per cent of manufacturing gross output and 15 per cent of industrial employment. Its output and employment shares in the high-technology sector are significantly higher than those of the UK, but its share in the traditional sector is much lower than either the UK or the rest of the EC.

5. Irish-owned establishments are much more dependent on the domestic market than foreign-owned. The relative employment shares of the domestic market are 70 per cent and 16 per cent. Somewhat surprisingly, the UK market share is higher for foreign-owned than for Irish establishments, and in absolute terms more than half of UK-dependent employment is in foreign-owned firms. As would be expected, a high proportion of employment dependent on other EC and rest of the world markets is in foreign-owned establishments.

6. Total exposure to currency risks cannot be established from the sources used in this exercise. However, a crude estimate can be made by assuming that exporting establishments are producing fully tradeable goods and are thus competing on the home market with actual or potential imports. By adding the domestic employment share of exporting establishments (excluding the high-technology sector) to the employment share of direct and indirect exports to the UK, a rough order of magnitude of potential sterling exposure can be calculated. On this basis, the total employment exposed to major sterling fluctuations could be over 70,000, some 40 per cent of industrial employment. What proportion of this exposed work-force is actually vulnerable, in the sense of being at significant risk from a substantial sterling depreciation, cannot be determined by this type of exercise.

APPENDIX 1: *Gross Output and Employment Share by Industry 1989*

NACE Code	Industry	TOTAL	DOMESTIC: Domestic only	DOMESTIC: Exporting Establish-ments	DOMESTIC: Total Domestic	EXPORT: Total Export	EXPORT: To UK	EXPORT: To Other EC	EXPORT: To Rest of World
	HIGH-TECH INDUSTRIES								
257	**Pharmaceuticals**								
	Gross Output £m	1328.7	3.5	35.1	38.6	1290.1	144.5	597.3	548.3
	%	*100*	*0.3*	*2.6*	*2.9*	*97.1*	*10.9*	*44.9*	*41.3*
	% Exp. Est.			*2.7*		*97.3*	*10.9*	*45.0*	*41.4*
	Employment	5663	78	151	229	5434	609	2513	2312
	%	*100*	*1.4*	*2.7*	*4.1*	*95.9*	*10.7*	*44.4*	*40.8*
33	**Office and Data Processing Mach.**								
	Gross Output £m.	2394.1	5.6	59.6	65.2	2328.9	521.7	1264.6	542.6
	%	*100*	*0.2*	*2.5*	*2.7*	*97.3*	*21.8*	*52.8*	*22.7*
	% Exp. Est.			*2.5*		*97.5*	*21.8*	*53.0*	*22.7*
	Employment	6883	56	171	227	6656	1488	3618	1550
	%	*100*	*0.8*	*2.5*	*3.3*	*96.7*	*21.6*	*52.6*	*22.5*
34	**Electrical Engineering**								
	Gross Output £m.	1955.7	86.9	112.7	199.6	1756.1	402.1	1073.0	281.0
	%	*100*	*4.4*	*5.8*	*10.2*	*89.8*	*20.6*	*54.9*	*14.3*
	% Exp. Est.			*6.0*		*94.0*	*21.5*	*57.4*	*15.1*
	Employment	20185	1132	1143	2275	17910	4096	10937	2877
	%	*100*	*5.6*	*5.7*	*11.3*	*88.7*	*20.3*	*54.2*	*14.2*
37	**Instrument Engineering**								
	Gross Output £m.	523.6	4.7	5.2	9.9	513.7	66.3	265.6	181.8
	%	*100*	*0.9*	*1.0*	*1.9*	*98.1*	*12.7*	*50.7*	*34.7*
	% Exp. Est.			*1.0*		*99.0*	*12.8*	*51.2*	*35.0*
	Employment	7429	185	73	258	7171	927	3709	2535
	%	*100*	*2.5*	*1.0*	*3.5*	*96.5*	*12.5*	*49.9*	*34.1*
	Total High Tech Industries								
	Gross Output £m.	6202.1	100.7	212.6	313.3	5888.8	1134.6	3200.5	1553.7
	%	*100*	*1.6*	*3.4*	*5.0*	*95.0*	*18.3*	*51.6*	*25.1*
	Employment	40160	1451	1538	2989	37171	7120	20777	9274
	%	*100*	*3.6*	*3.8*	*7.4*	*92.6*	*17.8*	*51.7*	*23.1*

NACE Code	Industry	TOTAL	DOMESTIC Domestic only	DOMESTIC Exporting Establish-ments	DOMESTIC Total Domestic	EXPORT Total Export	EXPORT To UK	EXPORT To Other EC	EXPORT To Rest of World
14,49	**Other Manufacturing**								
	Gross Output £m	312.7	204.0	17.9	221.9	90.8	28.0	42.0	20.8
	%	*100*	*65.3*	*5.7*	*71.0*	*29.0*	*9.0*	*13.4*	*6.6*
	% Exp. Est.			*16.5*		*83.5*	*25.7*	*38.7*	*19.1*
	Employment	3281	769	414	1183	2098	646	972	480
	%	*100*	*23.5*	*12.6*	*36.1*	*63.9*	*19.7*	*29.6*	*14.6*
	Total Trad. Industry								
	Gross Output £m	7209.2	1667.1	2113.2	3780.3	3428.9	1252.4	1270.5	906.0
	%	*100*	*23.1*	*29.3*	*52.4*	*47.6*	*17.4*	*17.6*	*12.6*
	Employment	112877	31620	31291	62911	49966	20330	17346	12290
	%	*100*	*28.0*	*27.7*	*55.7*	*43.3*	*18.0*	*15.4*	*10.9*
	FOOD INDUSTRIES								
416-22	**Grain and Feed Stuff**								
	Gross Output £m	571.5	461.8	71.8	533.6	37.9	33.9	3.8	0.2
	%	*100*	*80.8*	*12.6*	*93.4*	*6.6*	*5.9*	*0.7*	-
	% Exp. Est			*65.5*		*34.5*	*30.9*	*3.4*	*0.2*
	Employment	2690	1841	556	2397	293	262	29	2
	%	*100*	*68.4*	*20.7*	*89.1*	*10.9*	*9.7*	*1.1*	*0.1*
419	**Bread, Biscuits etc.**								
	Gross Output £m	223.5	167.8	43.7	211.5	12.0	10.3	1.0	0.7
	%	*100*	*75.1*	*19.5*	*94.6*	*5.4*	*4.6*	*0.5*	*0.3*
	% Exp. Est			*78.4*		*21.6*	*18.5*	*1.8*	*1.3*
	Employment	5854	4183	1310	5493	361	309	30	22
	%	*100*	*71.4*	*22.4*	*93.8*	*6.2*	*5.3*	*0.5*	*0.4*
420-1	**Sugar, Chocolate etc.**								
	Gross Output £m	392.2	129.7	95.0	224.7	167.5	130.1	13.3	24.1
	%	*100*	*33.1*	*24.2*	*57.3*	*42.7*	*33.2*	*3.4*	*6.1*
	% Exp. Est.			*36.2*		*63.8*	*49.6*	*5.0*	*9.2*
	Employment	4168	1211	1070	2281	1887	1467	148	272
	%	*100*	*29.0*	*25.7*	*54.7*	*45.3*	*35.2*	*3.6*	*6.5*

APPENDIX Cont.

NACE Code	Industry	TOTAL	DOMESTIC			EXPORT			
			Domestic only	*Exporting Establish-ments*	*Total Domestic*	*Total Export*	*To UK*	*To Other EC*	*To Rest of World*
	TOTAL MANUFACTURING (EXCL. MEAT AND DAIRY)								
	Gross Output £m	15734.3	2595.4	2723.6	5319.1	10415.2	2738.2	4851.7	2825.3
	%	*100*	*16.5*	*17.3*	*33.8*	*66.2*	*17.4*	*30.8*	*18.0*
	Employment	172005	41205	36708	77913	94092	30372	40151	23569
	%	*100*	*24.0*	*21.3*	*45.3*	*54.7*	*17.7*	*23.3*	*13.7*
	TOTAL MANUFACTURING (INCL. MEAT AND DAIRY)								
	Gross Output, £m	19740.7	3164.3	4048.3	7212.6	12528.1	3427.7	5354.3	3746.1
	%		*16.0*	*20.5*	*36.5*	*63.5*	*17.4*	*27.1*	*19.0*
	Employment	189784	45171	42188	87359	102425	33286	42314	26825
	%	*100*	*23.8*	*22.2*	*46.0*	*54.0*	*17.5*	*22.3*	*14.2*

Appendix 2: *Direct and Indirect Exports - Gross Output and Employment Shares, 1989*

		INDUSTRY GROUP														*Total Traditional*	
		Non-Met. Minerals		*Trad. Chemicals*		*Trad.Met. and Eng.*		*Drink and Tobacco*		*Textiles Clothing, etc.*		*Wood, Paper, Printing*		*Misc.*			
		G.O. £m	*Emp No.*	*G.O. £m*	*Emp No.*	*G.O. £m*	*Emp No.*	*G.O. £m*	*Emp No.*	*G.O. £m*	*Emp No.*	*G.O. £m*	*Emp No.*	*G.O. £m*	*Emp No.*	*G.O. £m*	*Emp No.*
Total Output		893.1	11,313	953.9	7,260	1666.8	29,590	838.6	6,566	853.5	23,813	1130.1	22,107	873.2	12,228	7209.2	112,877
Direct Domestic		438.6	5,864	352.2	2,494	772.3	15,848	519.6	4,379	333.4	11,062	928.4	18,493	435.8	4,771	3780.3	62,911
Direct Exports:	UK	65.4	783	182.6	1,445	308.7	4,717	105.9	726	262.3	7,068	162.0	2,837	165.5	2,754	1252.4	20,330
	Other EC	144.7	1,736	296.4	2,427	327.4	4,993	90.9	622	181.0	3,552	29.8	581	200.3	3,435	1270.5	17,346
	Rest of World	244.4	2,930	122.7	894	258.4	4,032	122.2	839	76.8	2,131	9.9	196	71.6	1,268	906.0	12,290
	Total	454.5	5,449	601.7	4,766	894.5	13,742	319.0	2,187	520.1	12,751	201.7	3,614	437.4	7,457	3428.9	49,966
Indirect Exports:	UK	10.8	144	5.4	38	23.2	476	4.0	34	21.9	726	30.3	604	15.9	174	111.5	2,196
	Other EC	17.9	239	6.3	45	31.7	650	3.5	29	20.3	673	26.2	522	22.4	245	128.3	2,403
	Rest of World	22.4	300	3.4	24	23.5	483	4.7	40	8.8	293	16.7	332	8.3	91	87.8	1,563
	Total	51.1	683	15.2	107	78.4	1,609	12.2	103	51.0	1,692	73.2	1,458	46.6	510	327.6	6,162
Total Exports:	UK	76.2	927	188.0	1,483	331.9	5,193	109.9	760	284.2	7,794	192.3	3,441	181.4	2,928	1363.9	22,526
	Other EC	162.6	1,975	302.7	2,472	359.1	5,643	94.4	651	201.3	4,225	56.0	1,103	222.7	3,680	1398.8	19,749
	Rest of World	266.8	3,230	126.1	918	281.9	4,515	126.9	879	85.6	2,424	26.6	528	79.9	1,359	993.8	13,853
	Total	505.6	6,132	616.8	4,873	972.9	15,351	331.2	2,290	571.1	14,443	274.9	5,072	484.0	7,967	3756.5	56,128
Net Domestic		387.5	5,181	337.1	2,387	693.9	14,239	507.4	4,276	282.4	9,370	855.2	17,035	389.2	4,261	3452.7	56,749

Appendix 2 (continued)

		INDUSTRY GROUP											
		Pharmaceutical		*ODP and Instr. Eng.*		*Elec. Eng.*		*Total High-Tech*		*Food Industry*[b]		*Total Manufacturing*[b]	
		G.O.	*Empl.*	*G.O.*	*Empl.*	*G.O.*	*Empl.*	*G.O.*	*Empl.*	*G.O.*	*Empl.*	*G.O.*	*Empl.*
		£m	*No.*	*£m*	*No.*	*£m*	*No.*	*£m*	*No.*	*£m*	*No.*	*£m*	*No.*
Total Output		1328.7	5,663	2917.7	14,312	1955.7	20,185	6202.1	40,160	2323.0	18,968	15734.3	172,005
Direct Domestic		38.6	229	75.1	485	199.6	2,275	313.3	2,989	1225.5	12,013	5319.1	77,913
Direct Exports:	UK	144.5	609	588.0	2,415	402.1	4,096	1134.6	7,120	351.2	2,922	2738.2	30,372
	Other EC	597.3	2,513	1530.2	7,327	1073.0	10,937	3200.5	20,777	380.7	2,028	4851.7	40,151
	Row	548.3	2,312	724.4	4,085	281.0	2,877	1553.7	9,274	365.6	2,005	2825.3	23,569
	Total	1290.1	5,434	2842.6	13,827	1756.1	17,910	5888.8	37,171	1097.5	6,955	10415.2	94,092
Indirect Exports:	UK	a	a	5.7	37	30.3	345	36.0	382	46.8	458	194.3	3,036
	Other EC	a	a	14.1	91	71.3	813	85.4	904	49.9	490	263.6	3,797
	Row	a	a	6.6	42	27.1	309	33.7	351	48.9	479	170.4	2,393
	Total	a	a	26.4	170	128.7	1,467	155.1	1,637	145.6	1,427	628.3	9,226
Total Exports:	UK	144.5	609	593.7	2,452	432.4	4,441	1170.6	7,502	398.0	3,380	2932.5	33,408
	Other EC	597.3	2,513	1544.3	7,418	1144.3	11,750	3285.9	21,681	430.6	2,518	5115.3	43,948
	Row	548.3	2,312	731.0	4,127	308.1	3,186	1587.4	9,625	414.5	2,484	2995.7	25,962
	Total	1290.1	5,434	2869.0	13,997	1884.8	19,377	6043.9	38,808	1243.1	8,382	11043.5	103,318
Net Domestic		38.6	229	48.7	315	70.9	808	158.2	1,352	1079.9	10,586	4690.8	68,687

Note: a) Indirect chemical exports attributed to traditional chemicals
b) Excluding meat and dairy industries.

Appendix 2 (continued)

		INDUSTRY GROUP															
		Non-Met. Minerals		*Trad. Chemicals*		*Trad.Met. and Eng.*		*Drink and Tobacco*		*Textiles Clothing, etc.*		*Wood, Paper, Printing*		*Misc.*		*Total Traditional*	
		G.O.	*Emp*	*G.O.*	*Emp*	*G.O.*	*Emp*	*G.O.*	*Emp*	*G.O.*	*Emp*	*G.O.*	*Emp*	*G.O.*	*Emp*	*G.O.*	*Emp*
		%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Direct Domestic		49.1	51.8	36.9	34.4	46.3	53.6	62.0	66.7	39.1	46.5	82.2	83.7	49.9	39.0	52.4	55.7
Direct Exports:	UK	7.3	6.9	19.1	19.9	18.5	15.9	12.6	11.0	30.7	29.7	14.3	12.8	19.0	22.5	17.4	18.0
	Other EC	16.2	15.4	31.1	33.4	19.7	16.9	10.8	9.5	21.2	14.9	2.6	2.6	22.9	28.1	17.6	15.4
	Rest of World	27.4	25.9	12.9	12.3	15.5	13.6	14.6	12.8	9.0	8.9	0.9	0.9	8.2	10.4	12.6	10.9
	Total	50.9	48.2	63.1	65.6	53.7	46.4	38.0	33.3	60.9	53.5	17.8	16.3	50.1	61.0	47.6	43.3
Indirect Exports:	UK	1.2	1.3	0.6	0.6	1.4	1.6	0.5	0.6	2.6	3.0	2.7	2.7	1.8	1.4	1.5	2.0
	Other EC	2.0	2.1	0.7	0.6	1.9	2.2	0.4	0.4	2.4	2.8	2.3	2.4	2.6	2.0	1.8	2.1
	Rest of World	2.5	2.6	0.3	0.3	1.4	1.7	0.6	0.6	1.0	1.3	1.5	1.5	0.9	0.8	1.2	1.4
	Total	5.7	6.0	1.6	1.5	4.7	5.5	1.5	1.6	6.0	7.1	6.5	6.6	5.3	4.2	4.5	5.5
Total Exports:	UK	8.5	8.2	19.7	20.5	19.9	17.5	13.1	11.6	33.3	32.7	17.0	15.5	20.8	23.9	18.9	20.0
	Other EC	18.2	17.5	31.8	34.0	21.6	19.1	11.2	9.9	23.6	17.7	4.9	5.0	25.5	30.1	19.4	17.5
	Rest of World	29.9	28.5	13.2	12.6	16.9	15.3	15.2	13.4	10.0	10.2	2.4	2.4	9.1	11.2	13.8	12.2
	Total	56.6	54.2	64.7	67.1	58.4	51.9	39.5	34.9	66.9	60.6	24.3	22.9	55.4	65.2	52.1	49.7
Net Domestic		43.4	45.8	35.3	32.9	41.6	48.1	60.5	65.1	33.1	39.4	75.7	77.1	44.6	34.8	47.9	50.3

Appendix 2 (continued)

		INDUSTRY GROUP											
		Pharmaceutical		*ODP and Instr. Eng.*		*Elec. Eng.*		*Total High-Tech*		*Food Industry*[b]		*Total Manufacturing*[b]	
		G.O.	*Empl*	*G.O.*	*Empl*	*G.O.*	*Empl*	*G.O.*	*Empl*	*G.O.*	*Empl*	*G.O.*	*Empl*
		%	%	%	%	%	%	%	%	%	%	%	%
Direct Domestic		2.9	4.1	2.6	3.4	10.2	11.3	5.0	7.4	52.8	63.3	33.8	45.3
Direct Exports:	UK	10.9	10.7	20.2	16.9	20.6	20.3	18.3	17.8	15.1	15.4	17.4	17.6
	Other EC	44.9	44.4	52.4	51.2	54.9	54.2	51.6	51.7	16.4	10.7	30.8	23.4
	Row	41.3	40.8	24.8	28.5	14.3	14.2	25.1	23.1	15.7	10.6	18.0	13.7
	Total	97.1	95.9	97.4	96.6	89.8	88.7	95.0	92.6	47.2	36.7	66.2	54.7
Indirect Exports:	UK	a	a	0.2	0.3	1.6	1.7	0.6	0.9	2.0	2.4	1.2	1.8
	Other EC	a	a	0.5	0.6	3.6	4.0	1.4	2.3	2.2	2.6	1.7	2.2
	Row	a	a	0.2	0.3	1.4	1.6	0.5	0.9	2.1	2.5	1.1	1.4
	Total	a	a	0.9	1.2	6.6	7.3	2.5	4.1	6.3	7.5	4.0	5.4
Total Exports:	UK	10.9	10.7	20.4	17.2	22.2	22.0	18.9	18.7	17.1	17.8	18.6	19.4
	Other EC	44.9	44.4	52.9	51.8	58.5	58.2	53.0	54.0	18.6	13.3	32.5	25.6
	Row	41.3	40.8	25.0	28.8	15.7	15.8	25.6	24.0	17.8	13.1	19.1	15.1
	Total	97.1	95.9	98.3	97.8	96.4	96.0	97.5	96.7	53.5	44.2	70.2	60.1
Net Domestic		2.9	4.1	1.7	2.2	3.6	4.0	2.5	3.3	46.5	55.8	29.8	39.9

Note: a) Indirect chemical exports attributed to traditional chemicals
b) Excluding meat and dairy industries.

STATISTICAL APPENDIX

	Output Indicators					Employment		
	1	2	3	4	5	6	7	8
	Total Manufacturing	Modern Manufacturing	Traditional Manufacturing	Electricity Output	Houses Completed	Total Manufacturing	Modern Manufacturing	Traditional Manufacturing
	1985 = 100	1985 = 100	1985 = 100	G.W.H.	Total Number	'000s	'000s	'000s
1985	100.0	100.0	100.0	11919	23948	186.9	39.4	147.5
1986	102.9	107.1	99.9	12466	22680	184.2	40.2	143.8
1987	113.6	132.7	101.4	12866	18450	182.4	41.1	141.2
1988	127.6	161.9	105.8	13068	15654	182.9	43.2	139.7
1989	142.5	188.9	112.3	13640	18068	187.0	45.3	141.8
1990	149.2	197.9	117.6	14325	19539	193.0	48.3	144.8
1991	153.9	208.6	118.0	14990	19652	194.6	50.4	144.2
1992	169.6	243.6	121.0	15682	22464			
Quarterly Averages or Totals								
1990 I	147.6	202.8	108.0	3782	4372	189.2	45.9	143.6
II	153.3	202.6	119.0	3368	4667	191.9	47.2	144.9
III	139.8	180.8	109.5	3272	5313	195.6	49.9	145.5
IV	156.3	200.0	121.8	3903	5187	195.4	50.3	145.2
1991 I	154.2	215.3	110.5	4018	4785	192.6	49.2	143.3
II	156.1	209.3	118.4	3484	4164	193.7	49.4	144.4
III	141.9	186.0	109.8	3455	5228	195.6	50.8	144.8
IV	163.8	218.7	121.2	4033	5475	196.4	52.1	144.1
1992 I	167.6	245.9	113.2	4187	4372	191.9	51.1	141.0
II	173.4	245.6	122.5	3644	5920	193.1	50.8	142.5
III	161.0	227.5	113.9	3602	6284	195.4	52.1	143.4
IV	176.8	248.9	122.2	4249	5888			
1993 I				4239				
II								
III								
IV								
Quarterly Averages or Totals (Seasonally Corrected)								
1990 I	146.4	191.1	112.4	3490	No Seasonal Pattern	191.2	46.6	144.9
II	147.3	194.0	114.8	3585		192.8	47.9	145.1
III	152.3	200.9	115.1	3579		193.7	49.2	144.5
IV	151.3	201.1	115.8	3669		194.3	49.6	144.7
1991 I	152.9	202.5	115.0	3712		194.7	49.9	144.7
II	150.8	201.0	114.3	3709		194.6	50.1	144.5
III	154.0	206.5	115.1	3782		193.7	50.1	143.9
IV	158.6	219.9	115.5	3786		195.2	51.4	143.5
1992 I	165.9	231.0	117.8	3871		194.0	51.9	142.4
II	167.6	236.2	118.4	3879		194.1	51.5	142.6
III	174.1	252.5	119.2	3945		193.5	51.4	142.5
IV	171.2	250.2	116.6	3986				
1993 I				3918				
II								
III								
IV								

Output per Head			Money Earnings	Real Earnings	Unemployment			
9	10	11	12	13	14	15	16	
Total Manufacturing	Modern Manufacturing	Traditional Manufacturing	Manufacturing	Manufacturing	Live Register Male	Live Register Female	Live Register Total	
1985 = 100	1985 = 100	1985 = 100	1989 = 100 Av. Weekly	1989 = 100 Av. Weekly	'000s Av. Monthly	'000s Av. Monthly	'000s Av. Monthly	
100.0	100.0	100.0	81.3	92.5	170.2	60.4	230.6	1985
104.4	104.8	102.5	87.3	95.7	172.0	64.4	236.4	1986
116.4	127.2	106.0	91.8	97.6	176.2	71.1	247.3	1987
130.4	147.6	111.7	96.1	100.0	169.7	71.7	241.4	1988
142.4	164.1	116.9	100.0	100.0	160.0	71.6	231.6	1989
144.5	161.2	119.9	103.9	100.5	152.1	72.6	224.7	1990
147.8	163.0	120.8	108.4	101.7	170.5	83.5	253.9	1991
					187.2	96.0	283.1	1992
Quarterly Averages								
145.8	174.0	110.9	100.9	98.5	158.3	71.7	230.0	1990 I
149.3	169.0	121.2	103.1	100.3	148.2	71.2	219.4	II
133.6	142.6	111.1	105.1	101.3	149.7	75.0	224.7	III
149.5	156.6	123.8	106.3	101.9	152.1	72.6	224.7	IV
149.7	172.3	113.8	105.5	100.3	165.8	77.9	243.7	1991 I
150.6	166.9	120.9	108.7	102.6	167.2	81.1	248.3	II
135.6	144.2	111.9	108.6	101.1	173.1	88.7	261.8	III
155.9	165.3	124.1	110.9	102.6	175.7	86.3	262.0	IV
163.3	189.5	118.4	109.6	100.6	186.7	91.4	278.1	1992 I
167.9	190.3	126.9	112.5	102.5	183.9	93.1	277.0	II
154.0	171.9	117.1	112.3	101.7	188.5	101.8	290.2	III
					189.5	97.6	287.2	IV
					197.9	101.7	299.6	1993 I
								II
								III
								IV
Quarterly Averages (Seasonally Corrected)								
142.8	162.2	114.3	102.0	99.5	152.9	71.4	224.4	1990 I
143.3	159.8	116.8	103.0	100.1	149.9	72.1	222.0	II
145.9	160.5	117.5	104.8	101.2	151.4	72.8	224.2	III
146.4	159.6	118.1	105.5	101.1	154.1	74.3	228.3	IV
146.3	159.9	117.3	106.7	101.5	160.4	77.6	238.0	1991 I
145.0	158.9	116.7	108.5	102.3	169.0	82.0	250.9	II
148.0	161.9	118.2	108.4	101.1	174.7	86.3	260.9	III
152.6	168.4	118.4	110.1	101.8	177.9	88.1	266.0	IV
159.4	175.5	122.2	111.0	101.8	181.4	91.1	272.5	1992 I
161.9	181.7	122.5	112.3	102.1	185.6	93.9	279.6	II
167.9	192.9	123.6	112.1	101.7	189.9	99.3	289.2	III
					191.8	99.6	291.3	IV
					192.6	101.5	294.0	1993 I
								II
								III
								IV

	Prices							
	17	18	19	20	21	22	23	24
	Consumer Price Index	Output Price Index Manufacturing	General Wholesale Price Index	Agricultural Output Price Index	Import Unit Value	Export Unit Value	Terms of Trade	Price of Stocks + Shares (ISEQ)
	Nov. 1989 = 100	1985 = 100	1985 = 100	1985 = 100	1985 = 100	1985 = 100	1985 = 100	Jan. 1988 = 1000
1985	86.5	100.0	100.0	100.0	100.0	100.0	100.0	580.4
1986	89.8	98.8	97.8	99.5	88.8	92.7	104.3	907.7
1987	92.6	100.4	98.4	103.5	88.8	92.7	104.4	1326.2
1988	94.6	104.5	102.4	114.4	94.6	99.3	105.0	1294.6
1989	98.5	109.5	108.1	120.1	100.7	105.9	105.1	1633.6
1990	101.7	107.8	105.1	106.5	95.7	95.9	100.2	1562.2
1991	105.0	108.7	106.4	103.1	97.9	95.2	97.2	1382.4
1992	108.2	110.5	107.3	106.1	95.9	92.6	96.6	1311.1
Quarterly Averages								
1990 I	100.9	108.4	105.8	115.6	95.4	100.0	104.8	1813.2
II	101.2	107.9	104.6	111.4	92.3	97.9	106.1	1673.2
III	102.1	108.0	105.4	103.4	96.5	95.8	99.3	1523.7
IV	102.7	106.7	104.7	101.2	97.8	92.5	94.6	1238.8
1991 I	103.5	107.3	105.1	104.9	96.7	93.0	96.1	1241.3
II	104.3	108.8	106.4	106.1	97.2	93.8	96.5	1466.9
III	105.7	109.2	106.9	101.6	98.4	95.6	97.1	1413.3
IV	106.4	109.5	107.3	103.6	98.5	96.1	97.6	1408.3
1992 I	107.3	110.2	107.8	107.4	97.7	95.2	97.4	1426.9
II	108.1	111.3	108.3	109.7	97.0	97.9	101.0	1389.8
III	108.7	110.6	107.2	106.7	94.8	93.5	98.7	1263.1
IV	108.9	109.8	106.0	104.5	92.4	89.9	97.3	1164.5
1993 I	109.3	112.9		109.2				1313.5
II	109.1							1532.2
III								
IV								
Quarterly Averages (Seasonally Corrected)								
1990 I	100.8	108.7	106.0	114.0	No Seasonal Pattern	No Seasonal Pattern	No Seasonal Pattern	No Seasonal Pattern
II	101.3	107.6	104.6	109.2				
III	102.0	107.7	105.1	104.9				
IV	102.8	107.0	104.8	103.1				
1991 I	103.5	107.6	105.3	103.6				
II	104.4	108.5	106.4	104.1				
III	105.6	108.9	106.7	103.1				
IV	106.4	109.8	107.4	105.5				
1992 I	107.3	110.4	108.1	106.0				
II	108.2	110.9	108.2	107.5				
III	108.6	110.4	106.9	108.4				
IV	109.0	110.2	106.2	106.5				
1993 I	109.3	113.1		107.8				
II	109.2							
III								
IV								

Consumption Indicators			Government			Interest Rates		
25	26	27	28	29	30	31	32	
New Cars Regis-tered	Retail Sales Value	Retail Sales Volume	Current Revenue	Current Expendi-ture	Current Deficit	1 month inter bank Rate	Long term Gilt Rate	
Total	1980 = 100	1980 = 100	£m	£m	£m	Per cent per annum	Per cent per annum	
59592	155.9	91.0	6331	7615	1284	11.9	12.6	1985
58760	158.8	90.5	6709	8104	1395	12.4	11.1	1986
54341	161.3	89.3	7152	8332	1180	10.8	11.3	1987
61888	169.1	91.1	7690	8006	317	7.8	9.5	1988
78383	184.5	95.4	7756	8019	263	9.6	8.9	1989
83407	193.5	98.0	8269	8421	152	11.1	10.1	1990
68533	197.0	97.8	8776	9076	300	10.4	9.3	1991
67861	206.8	100.7	9360	9806	446	15.2	9.1	1992

Quarterly Averages or Totals

25	26	27	28	29	30	31	32	
27830	189.9	96.6	1872	2236	364	11.9	10.2	1990 I
27883	189.8	96.8	2004	2036	32	11.0	10.0	II
18928	190.9	96.9	2101	1970	– 131	10.8	10.2	III
8766	201.6	100.8	2293	2180	– 113	10.6	10.0	IV
23797	191.8	95.9	1886	2313	427	11.1	9.3	1991 I
22979	191.2	95.5	2074	2390	316	10.3	9.1	II
15051	194.4	96.3	2295	2071	– 224	9.7	9.6	III
6706	208.7	102.6	2521	2302	– 219	10.4	9.0	IV
24058	200.6	98.2	2055	2538	483	10.6	8.7	1992 I
20193	203.4	99.0	2299	2374	75	10.2	8.8	II
16772	206.7	100.3	2473	2307	– 166	14.0	9.3	III
6838	215.6	104.7	2533	2587	54	25.8	9.6	IV
20839	204.8	99.1	2170	2763	593	21.1	9.0	1993 I
								II
								III
								IV

Quarterly Averages or Totals (Seasonally Corrected)

25	26	27	28	29	30	31	32	
20926	192.6	98.1	2074	2109	35	No Seasonal Pattern	No Seasonal Pattern	1990 I
21311	191.8	97.7	2069	2047	– 22			II
20584	194.5	98.5	2089	2104	15			III
20025	193.3	96.9	2048	2168	120			IV
17913	194.4	97.3	2080	2171	91			1991 I
17459	193.3	96.4	2155	2405	250			II
16337	198.1	97.9	2253	2216	– 37			III
15529	200.3	98.7	2270	2289	19			IV
18164	203.4	99.6	2267	2370	102			1992 I
15303	206.3	100.3	2391	2392	1			II
18144	209.8	101.6	2404	2476	72			III
15855	207.1	100.7	2298	2575	277			IV
15756	207.7	100.5	2395	2578	183			1993 I
								II
								III
								IV

	Monetary Developments				Exchange Rates			
	33	34	35	36	37	38	39	40
	Money Supply M3	Licensed Banks Domestic Credit Gov.	Licensed Banks Domestic Credit Non-Gov.	External Reserves	Effective Index	Sterling	Dollar	Deutsch-mark
	£m End Period	£m End Period	£m End Period	£m End Period	Dec. 1971 = 100	Per IR£	Per IR£	Per IR£
1985	8924.8	2514.1	8441.1	2271.9	62.41	0.8234	1.0659	3.1134
1986	8836.9	2725.7	9065.5	2205.3	66.65	0.9147	1.3424	2.9080
1987	9799.5	2754.9	9494.5	2821.4	66.15	0.9089	1.4879	2.6717
1988	10421.0	2636.4	10853.4	3161.0	65.08	0.8568	1.5249	2.6743
1989	10945.0	2417.7	12538.3	2521.0	64.39	0.8665	1.4175	2.6650
1990	12540.7	2506.0	13855.9	2891.7	68.31	0.9302	1.6585	2.6729
1991	13024.6	2502.2	13553.2	3256.0	67.33	0.9131	1.6144	2.6710
1992	14203.3	2946.7	14410.7	2112.8	69.48	0.9692	1.7073	2.6562
	End-Period Totals				Quarterly Averages			
1990 I	11289.9	2526.0	12681.5	2457.8	68.07	0.9475	1.5703	2.6539
II	11381.6	2506.6	13082.8	3097.3	68.73	0.9542	1.5981	2.6809
III	12421.6	2454.7	13230.6	3705.6	67.85	0.9046	1.6850	2.6828
IV	12540.7	2506.0	13855.9	2891.7	68.65	0.9154	1.7817	2.6735
1991 I	12187.3	2382.0	13776.7	3200.9	68.28	0.9126	1.7429	2.6646
II	12306.1	2288.9	13928.7	3422.0	66.55	0.9038	1.5430	2.6753
III	12650.2	2380.5	13973.3	3471.2	66.68	0.9108	1.5355	2.6740
IV	13024.6	2502.2	13553.2	3256.0	67.87	0.9257	1.6433	2.6693
1992 I	12555.4	2399.4	13614.2	3495.8	67.97	0.9303	1.6479	2.6663
II	12960.9	2449.1	13685.4	3223.6	67.63	0.9156	1.6555	2.6691
III	12998.8	2792.2	14010.9	2130.2	69.81	0.9538	1.8160	2.6528
IV	14203.3	2946.7	14410.7	2112.8	72.50	1.0784	1.7048	2.6363
1993 I	15741.2	2463.4	14509.0	3571.0	68.91	1.0361	1.5320	2.5018
II								
III								
IV								
	End-Period Totals (S.C.)				Quarterly Averages (S.C.)			
1990 I	No Seasonal Pattern	No Seasonal Pattern	No Seasonal Pattern	No Seasonal Pattern	No Seasonal Pattern	No Seasonal Pattern	No Seasonal Pattern	No Seasonal Pattern
II								
III								
IV								
1991 I								
II								
III								
IV								
1992 I								
II								
III								
IV								
1993 I								
II								
III								
IV								

Visible Trade Indicators					Balance of Payments		
41	42	43	44	45	46	47	
Imports (Value)	Exports (Value)	Trade Surplus (Value)	Imports (Volume)	Exports (Volume)	Net Factor Flows	Current Account	
£m	£m	£m	1985 = 100	1985 = 100	£m	£m	
9428.2	9743.0	314.8	100.0	100.0	- 1967	- 650	1985
8621.3	9374.3	753.0	103.0	104.0	- 2017	- 611	1986
9155.2	10723.5	1568.3	109.4	118.8	- 2113	- 60	1987
10214.8	12304.8	2090.1	114.5	127.1	- 2663	62	1988
12284.3	14597.0	2312.8	129.3	141.4	- 3233	- 348	1989
12479.5	14343.0	1863.5	138.3	153.5	- 3131	37	1990
12853.4	15024.6	2171.3	139.2	162.0	- 2865	925	1991
13199.3	16624.5	3425.2	145.9	184.3	- 3158	1535	1992

Av. Monthly Totals Quarterly Averages or Totals

1043.7	1218.1	174.4	138.7	149.9	- 773	61	1990 I
1048.0	1257.2	209.2	144.4	158.1	- 818	- 56	II
995.8	1110.4	114.7	131.3	142.7	- 630	190	III
1071.1	1195.2	124.1	139.4	159.2	- 910	- 158	IV
1073.4	1173.5	100.1	141.4	155.4	- 655	- 16	1991 I
1072.2	1258.6	186.4	140.5	165.2	- 845	- 90	II
1036.1	1228.0	191.8	134.0	158.2	- 550	751	III
1104.0	1347.8	243.8	142.6	172.6	- 814	279	IV
1109.1	1347.2	238.1	144.4	174.3	- 713	418	1992 I
1106.9	1453.5	346.7	145.2	182.7	- 832	333	II
1060.5	1338.6	278.1	142.3	176.3	- 787	496	III
1122.2	1404.4	282.2	154.5	192.3	- 825	289	IV
							1993 I
							II
							III
							IV

Av. Monthly Totals (S.C.) Quarterly Averages or Totals (S.C.)

1021.7	1244.5	222.8	136.1	153.6	No Seasonal Pattern	No Seasonal Pattern	1990 I
1049.2	1219.7	170.5	143.8	153.1			II
1058.8	1149.3	90.5	140.4	148.9			III
1028.5	1176.6	148.2	133.8	155.3			IV
1068.2	1201.4	134.9	140.6	159.4			1991 I
1072.3	1215.7	143.8	139.6	159.4			II
1085.5	1277.7	192.2	141.7	166.4			III
1062.7	1317.0	254.3	136.3	166.9			IV
1086.5	1362.2	275.8	141.5	175.2			1992 I
1106.7	1409.4	308.8	143.2	177.9			II
1107.0	1379.4	272.4	149.6	183.4			III
1097.9	1380.4	282.6	151.5	188.1			IV
							1993 I
							II
							III
							IV