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SPECIAL ARTICLE

by

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CONTENTS

	<i>Page</i>
SUMMARY	5
FORECAST NATIONAL ACCOUNTS	6
COMMENTARY	
The International Economy	8
General	8
The US Economy	8
The European Economy	9
The UK Economy	10
The Rest of the World	11
The Context for Ireland	12
The Domestic Economy	13
General	13
Exports	14
Stocks	16
Investment	16
Consumption	17
Final Demand	19
Imports	19
Balance of Payments	20
Agriculture	22
Industry	22
Services	23
Employment	23
Incomes	25
Consumer Prices	26
Public Finances	26
Interest Rates	27
General Assessment	28
Special Article	
THE LINK BETWEEN IRISH AND UK UNEMPLOYMENT	33
by Patrick Honohan	
STATISTICAL APPENDIX	45

SUMMARY

With most of the relevant information now available, it seems probable that the growth rate of real GNP in 1991 was about 2½ per cent. In the context of near stagnant world trade and a deep recession in the UK, this represents a strong performance by the Irish economy. Domestic demand declined marginally, as consumers and many businesses increased their savings rather than their spending. Growth came from a substantial rise in the volume of net exports, indicating a further improvement in Irish competitiveness.

Indicators for the closing months of 1991 and the early months of 1992 suggest that a moderate recovery in domestic demand is under way. Despite continuing uncertainty about the timing and pace of an upturn in the world economy, Irish export values continued to grow very strongly in early 1992. Projecting a continuation, but no acceleration, in the domestic recovery, and an upturn in imports to match a further rise in export levels, the growth in real GNP in 1992 is forecast at 3¼ per cent. Other features of the forecast are a reduction in consumer price inflation to about 3 per cent by the end of the year, another substantial rise in the current account balance of payments surplus, and a reduction in the Exchequer Borrowing Requirement to below £500 million, less than 2 per cent of GNP and some £100 million better than the Budget target.

Despite the relatively robust weathering of the recession in 1991 and the likelihood in 1992 of a growth rate well above the EC average, unemployment grew very sharply in 1991 and early 1992. The immediate cause of the increase has been the lack of jobs in the UK due to the recession there, resulting in a cessation or reversal of net emigration. However, the increase underlines the chronic difficulty of generating sufficient jobs in Ireland to absorb the steadily growing potential labour force.

With the UK market for emigrants likely to remain weak for several years, a reduction in the intolerable level of unemployment will demand a much faster rate of net job creation within Ireland over the next few years. Changes in industrial policy may make a contribution to this, but an accelerated rate of economic growth will also be necessary. The large and growing current account surplus indicates that very high growth rates of about 6 per cent could technically be sustained for several years, as they have been in many Asian countries. The main condition for such growth is that a higher proportion of personal and corporate savings should be invested in Ireland, rather than contributing to the present large capital outflows. Confidence in prudent fiscal and monetary management remains essential, which precludes fiscal action as a stimulus to growth. What is most vital over the next year or so is an increased awareness by the financial and business community that Ireland's growth potential in the context of the Single European Market and approaching Monetary Union is significantly greater than that of most competing economies.

FORECAST NATIONAL ACCOUNTS 1991
A: Expenditure on Gross National Product

	1990		1991		Change in 1991		
	Preliminary £m	Estimated £m	£m		%		
			Value	Volume	Value	Price	Volume
Private Consumer Expenditure ...	14231	14658	427	0	3	3	0
Public Net Current Expenditure ...	4021	4406	385	60	9½	8	1½
Gross Domestic Fixed Capital Formation	4837	4757	-80	-208	-1¼	2½	-4¼
Exports of Goods and Services (X) ...	15939	16705	766	1002	4¼	-1½	6¼
Physical Changes in Stocks ...	526	470	-56	-60			
Final Demand ...	39554	40996	1442	794	3¼	1½	2
less:							
Imports of Goods and Services (M) ...	13861	14266	405	78	3	2¼	½
GDP at Market Prices ...	25693	26730	1037	716	4	1¼	2¼
less:							
Net Factor Payments (F) ...	3089	3190	101	148	3¼	-1½	4¼
GNP at Market Prices ...	22604	23540	936	568	4¼	1½	2½

B: Gross National Product by Origin

	1990		1991		Change in 1991	
	Preliminary £m	Estimated £m	£m		%	
			£m	%		
Agriculture, Forestry, Fishing ...	1964	1817	-147	-7½		
Non-Agricultural: Wages, etc. ...	12761	13622	861	6¼		
Other ...	6346	6903	557	8¾		
less:						
Adjustments ...	602	1100	498	83		
Net Factor Payments ...	3089	3190	101	3¼		
National Income ...	17380	18052	672	3¼		
Depreciation ...	2583	2738	155	6		
GNP at Factor Cost ...	19963	20790	827	4¼		
Taxes less subsidies ...	2641	2750	109	4½		
GNP at market prices ...	22604	23540	936	4¼		

C: Balance of Payments on Current Account

	1990		1991		Change in 1991	
	Preliminary £m	Estimated £m	£m			
			£m			
X—M ...	2079	2439	360			
F ...	-3089	-3190	-101			
Net Transfers ...	1567	1960	393			
Balance on Current Account ...	556	1209	652			
as % of GNP ...	2½	5¼	2¾			

FORECAST NATIONAL ACCOUNTS 1992

A: Expenditure on Gross National Product

	1991	1992	Change in 1992					
			Estimated £m	Forecast £m	£m		%	
					Value	Volume	Value	Price
Private Consumer Expenditure ...	14658	15508	850	366	5¾	3¼	2½	
Public Net Current Expenditure ...	4406	4725	319	55	7¼	6	1¼	
Gross Domestic Fixed Capital Formation	4757	5127	370	238	7¾	2¾	5	
Exports of Goods and Services (X) ...	16705	18797	2092	1569	12½	2¾	9½	
Physical Changes in Stocks ...	470	135	-335	-320				
Final Demand ...	40996	44292	3296	1908	8	3¼	4½	
less:								
Imports of Goods and Services (M) ...	14266	15576	1310	887	9¼	2¾	6¼	
GDP at Market Prices ...	26730	28716	1986	1021	7¼	3½	3¾	
less:								
Net Factor Payments (F) ...	3190	3512	322	230	10	2¾	7¼	
GNP at Market Prices ...	23540	25204	1664	791	7	3½	3¼	

B: Gross National Product by Origin

	1991	1992	Change in 1992			
			Estimated £m	Forecast £m	£m	%
Agriculture, Forestry, Fishing ...	1817	1872	55	3		
Non-Agricultural: Wages, etc. ...	13622	14439	817	6		
Other: ...	6903	7710	807	11¾		
less:						
Adjustments ...	1100	1260	160	14½		
Net Factor Payments ...	3190	3512	322	10		
National Income ...	18052	19249	1197	6¾		
Depreciation ...	2738	2930	192	7		
GNP at Factor Cost ...	20790	22179	1389	6¾		
Taxes less Subsidies ...	2750	3025	275	10		
GNP at Market Prices ...	23540	25204	1664	7		

C: Balance of Payments on Current Account

	1991	1992	Change in 1992		
			Estimated £m	Forecast £m	£m
X—M ...	2439	3221	782		
F ...	-3190	-3512	-322		
Net Transfers ...	1960	1960	0		
Balance on Current Account ...	1209	1669	460		
as % of GNP ...	5¼	6¾	1½		

COMMENTARY

The International Economy

General

Worldwide economic activity in the closing months of 1991 was significantly weaker than anticipated. As evidence of economic weakness has accumulated, growth forecasts for most economies have been revised downwards in the early months of 1992. Nevertheless, expectations of a recovery in the second half of the year remain almost universal, although that recovery is likely to be hesitant and unsynchronised.

The US is expected to lead the recovery, with Japan, now that its anti-inflationary policies have been eased, resuming growth later in the year. Europe, on the other hand, is likely to find its recovery delayed and weakened by high interest rates and by the unresolved imbalances in the German and UK economies.

For most of the world, inflationary pressures remain low. The sluggishness of economic activity has resulted in approximate stability in most commodity prices. The inflationary consequences of German unification are being contained by the very tight monetary policies of the German authorities, although it appears that it will be some months yet before the pressure eases sufficiently for a relaxation of these policies. Only in Eastern Europe and in some traditionally high-inflation third world countries are prices likely to rise rapidly in 1992.

The US Economy

Preliminary figures show an increase in real GDP of 0.8 per cent in the last quarter of 1991, but, for 1991 as a whole, GDP fell by 0.7 per cent, its first annual decline since 1982. Despite the marginal rise in total output, the closing months of 1991 showed a further fall in consumer confidence, a drop in factory orders and a rise in unemployment. Thus the economy entered the new year in a more depressed state than most analysts had predicted, which in turn resulted in downward revisions to most forecasts of US growth in 1992.

Economic indicators for the early months of 1992, however, suggest that a tentative recovery is under way. Preliminary estimates show that GDP rose at an annual rate of 2 per cent in the first quarter. Consumer confidence, although still weak, has climbed above its winter nadir. This is reflected in sharply rising retail sales in January and February, with only a marginal fall-back in March. Automobile sales remain relatively depressed, although the 1990-1991 decline appears to have been arrested. Housing starts are well above 1991 levels, encouraged by low interest rates. Both the Commerce Department's index of leading indicators and the Purchasing Managers' Index improved during the first quarter, pointing to a continuing gradual recovery. Trade volumes appear

to be improving after a weak December performance, while industrial production rose in February and March to show the strongest industrial performance since July. Employment remains weak, with a sharp fall in job numbers in January, but a significant decline in new unemployment registrations in recent weeks suggests that even the labour market might now have passed its lowest point.

Caution is dictated by the memory that most indicators were at least as positive during the second quarter of 1991, before the tentative recovery petered out into renewed stagnation. However, the timing now seems more favourable, with historical comparisons suggesting that a recovery is overdue, rather than slightly premature as it was last spring. Moreover, there is growing evidence to back up the theoretical expectation that low interest rates are now significantly eroding the overhang of private sector debt which was a major factor in prolonging the recession. The 34 per cent rise in US corporate profits in the first quarter of 1992 is a major example of this. Finally, the pattern of interest rates internationally makes it unlikely that the value of the dollar will surge to uncompetitive levels, as it did in the second quarter of 1991 thus helping to choke off the upturn at that time.

On balance, therefore, it is reasonable to interpret the evidence of the past few months as marking the beginning of a sustained recovery in the US economy. The pace of this recovery is still open to considerable uncertainty, and the general consensus is that it will be much slower than the corresponding periods of most previous economic cycles. Nevertheless an annual GDP growth of between 2 and 2½ per cent in 1992 still seems probable, with a fair likelihood that it will be towards the upper end of this range. Inflation in the US is likely to remain low throughout 1992, consumer prices rising by about 2½ per cent.

The European Economy

Traditionally, West Germany has provided Europe with a basis of steady, low-inflation growth, with most other countries striving to match its economic performance. Since the unification of Germany this pattern has been disturbed. Not only has German inflation accelerated to about the EC average, but its general economic cycle has become out of phase with that of most other European countries. For the first half of 1991, continued German expansion countered the domestic recessions of its neighbours, but since then German stagnation, albeit at a high level of activity, has tended to act as a brake on the early stages of recovery in other European countries. A more serious impediment to any vigorous expansion in such countries as France, Italy and Spain is the high level of European interest rates, dictated by Germany's unification problems.

Within Germany itself, attention is currently focused on the pay-round and its accompanying labour relations problems. At the time of writing it is not known how these will be resolved, but it is reasonable to assume that over the course of 1992 pay settlements will tend to be lower than in 1991. On this assumption it remains probable that there will be some cautious easing of German monetary policy before the end of the year, although this is likely to come later than had previously been hoped, particularly as money supply has been increasing rapidly in the early months of 1992.

Most forecasts suggest that the growth rate in the former West Germany will be in the region of 1 per cent in 1992, with a more substantial rise expected in East German output. Despite the low growth of GDP, the volume of German imports is forecast to increase by about 3½ per cent, much lower than in 1991 but still sufficient to permit continued export growth among other EC countries.

There have been signs of recovery since mid-1991 in most other continental EC countries. This is largely based on an upturn in their domestic demand, as both consumption and investment resume moderate growth after their check in late 1990. A continuation of this trend is expected, as few continental countries suffer from the excessive private sector debt levels which have been delaying recovery in the USA and UK. Despite the slowdown of exports to Germany, improved export prospects in other major markets should enable total export growth to be maintained at slightly above the 1991 rate. Growth rates of about 2 per cent in real GDP are likely to be fairly typical of continental EC countries in 1992. Although German inflation will be higher than in 1991, in most of Europe the inflation rate is expected to be marginally lower.

The UK Economy

Of all the major European economies, the UK has suffered by far the deepest and most persistent recession. Although signs of recovery are still tentative, it does seem likely that the first quarter of 1992 marked the nadir, and that the rest of the year will see a modest upturn in domestic demand. In fact some of the indicators for the first quarter are likely to have been unusually depressed due to temporary uncertainty induced by the election.

Although some growth is expected in the rest of the year, it is most unlikely to be vigorous. Personal consumption and most forms of investment will remain inhibited by the continuing private debt overhang and by high interest rates. The recent ½ per cent cut in interest rates, even if it can be sustained, still leaves real interest rates very high and is unlikely to stimulate a rapid increase in domestic demand. More substantial reductions in interest rates must await a significant relaxation of German monetary policy, and this seems unlikely to take place soon enough to have much effect on activity in 1992.

A more lasting inhibition on a strong UK recovery is the overvaluation of sterling. At current exchange rates it remains improbable that UK export growth can be rapid enough to lead a sustained recovery, while increasing domestic demand seems certain to result in steeply rising import volumes. Several years of relatively slow UK growth accompanied by differentially low cost inflation would be necessary to restore full competitiveness to the UK economy. Alternatively, devaluation within the ERM cannot be ruled out, either as a policy option or as a result of market pressure. However, if devaluation were to provide more than a passing alleviation of the UK's economic imbalances, it would need to be accompanied by effective medium-term anti-inflationary measures, ideally incorporating some form of incomes policy, although this appears to remain ideologically unacceptable to the UK government. Within the context of 1992 alone, devaluation remains much less likely than a period of restricted growth at the present exchange rate.

The Rest of the World

The Japanese economic cycle has followed much the same time path as the German, with strong growth persisting into the first half of 1991, followed by a period of high level stagnation. However, the response of the Japanese authorities has been quite different from the German, with monetary policy being relaxed during the winter and some fiscal stimulation introduced for 1992. Despite this, the stagnation has proved more persistent than expected, and forecasts of GNP growth in 1992 have been revised downwards from 3½ per cent to about 2½ per cent.

Nevertheless the domestic economy is likely to respond to low interest rates in the second half of the year, while the recovery expected in major overseas markets should lead to an acceleration in export volumes. Thus after a stagnant first half, the Japanese economy should be expanding quite strongly by the end of the year. Inflation has fallen in response to stagnation, and inflationary pressures are not expected to recur during the early stages of recovery.

The other industrial Asian countries grew strongly in 1991, boosted by Japanese investment and by high exports within the region and to the EC. Despite lower Japanese and German growth, most of these countries are expected to repeat a growth rate of more than 6 per cent in 1992. Australia, Canada and New Zealand all suffered recession in 1991 but are expected to show some recovery in 1992. The pace of recovery depends largely on the timing and strength of the upturn in the USA.

With oil prices fluctuating within fairly narrow limits, the income of OPEC countries should improve moderately in 1992 in line with higher world oil consumption. Although most other commodity prices remain relatively depressed, the export prospects of most third-world primary producers are slightly improved compared with 1991. For those of them which are highly indebted, the weaker US dollar and lower international interest rates should result in some easing of the debt-servicing burden.

TABLE 1: Short-term International Outlook

Country	GNP		Consumer Prices		Hourly Earnings		Unemployment Rate		Current Account Balance	
	Percentage Change									
	1991	1992	1991	1992	1991	1992	1991	1992	1991	1992
UK	-2¼	1	5¼	4¼	8	6	8½	10	-1¼	-1¼
Germany ¹	3¼	1¼	3¼	4¼	6¼	6¼	4½	5	-1	-½
France	1¼	2	3	3	5	5¼	9½	10	-¾	-¾
Italy	1	2	6½	5½	6	5½	11	11	-1½	-1¼
Total EC	1¼	1½	4¼	4¼	6	6	8¼	9¼	-1	-1
USA	-¾	2¼	4	2½	5	3¼	6¼	7	-¼	-¾
Japan	4¼	2¼	2¼	2	5	4¼	2¼	2¼	2	2
Total (OECD)	1	2	4½	3½	6¼	5½	7	7½	0	-¼
Ireland	2½	3¼	3¼	3½	5	5	16½	18	5¼	6¼

¹The Current Account Balance applies to Germany as a whole. The other columns refer to the former West Germany only.

The Context for Ireland

All agencies are agreed that world output and trade should be slightly less sluggish than last year, even after the latest downward revisions. Indeed, it seems increasingly likely that the latest revisions overcorrected for the economic weakness last winter, and that the recovery will be slightly earlier and stronger than the most recent projections.

With regard to Ireland's major markets for industrial exports the prospects are for rather faster import growth than in 1991. This applies to the UK, most continental West European countries both within and outside the EC, and to the US. The major exception is Germany, where import growth will be substantially slower than in 1991.

Industrial costs in most of these markets, especially the UK and Germany, are likely to rise more rapidly than in Ireland. This further modest improvement in competitiveness should enable Irish import penetration in these markets to continue the impressive advance shown during the recession. A further factor improving Irish export prospects is that the industry-specific recession in electronics appears to be ending, although a return to the very high growth rates achieved by the industry in the late eighties seems unlikely in 1992.

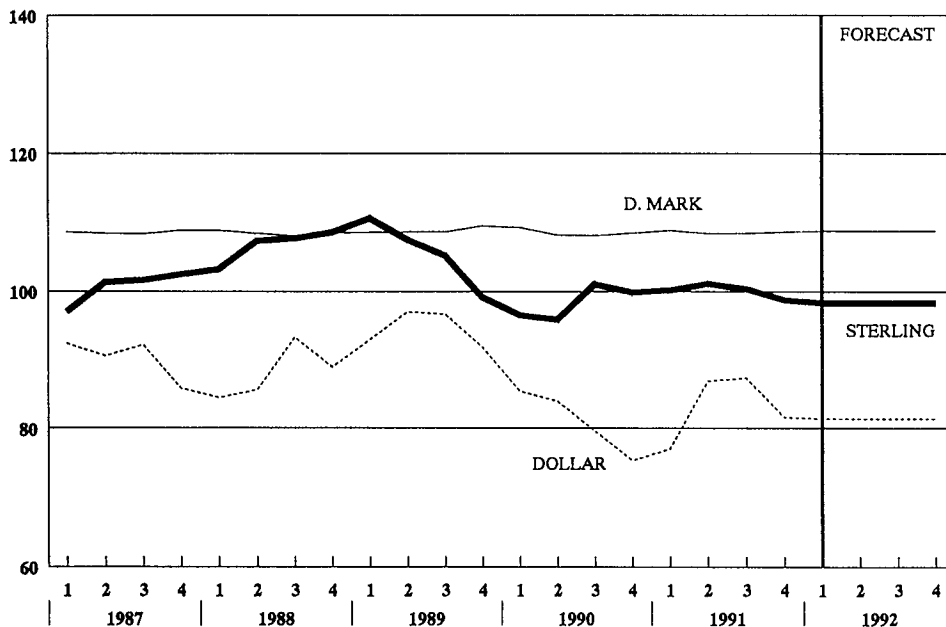
The prospects for agricultural exports, as usual, are difficult to assess, with political decisions and institutional arrangements playing an important role. In particular, uncertainty persists concerning the arrangements for food aid to the countries of the CIS in the approach to next winter, and concerning the availability of Middle East markets to Irish agricultural produce. On balance however, it is clear that conditions will favour a substantial increase in the volume of Irish agricultural exports, although the magnitude of the rise cannot yet be predicted with any certainty. Looking further ahead, the outcome of the GATT negotiations could have a major impact on prices and the availability of markets for agricultural products, but this seems unlikely to have much effect in the course of 1992.

In the wake of the recovery in world output, productive international investment should gradually increase, although it will probably be late in the year before this improvement becomes manifest in actual expenditure on capital formation. Given Ireland's still improving industrial competitiveness, there should be good prospects for attracting a share of any such investment, assuming, of course, that Ireland remains in the mainstream of movement towards European Economic Union.

Interest rate developments in the remainder of 1992 could be quite complex. The US and Japan are likely to maintain their low interest rate regimes throughout the year, with only minor increases possible in the closing months. Germany, conversely, will retain high interest rates, as the alternative of a significantly tighter fiscal policy has little political attraction and the level of capital and current transfers to the former East Germany will remain high. No more than a minor reduction in German interest rates late in the year seems possible. The major uncertainty is whether interest rates in other European countries will continue to be dictated by German rates or whether the capital and currency markets are prepared to tolerate a reduction in interest rates in these countries to below German levels. Even if reverse differentials cannot be

FIGURE 1: Exchange Rates

IR£ Price of Unit of Foreign Currency, Quarterly Averages, 1986=100



established and sustained, it does seem likely that the existing positive differentials will be further eroded over the remainder of the year.

Currency movements are always difficult to predict, as such economic fundamentals as current account balance of payments deficits and surpluses or relative rates of cost inflation nowadays only impinge on the currency markets at irregular intervals. Thus the continuing trade imbalances, especially between the USA and Japan, are not sufficient reason to expect any early shift in exchange rates. For the remainder of 1992 it is reasonable to adopt the technical assumption that there will be no major currency movements. Within the ERM, it likewise seems most reasonable to assume that there will be no significant realignment during 1992, and specifically that the growing current account surplus will not force an upward revaluation of the Irish pound!

The Domestic Economy

General

The recent revisions to the Balance of Payments, due to an upward adjustment to estimates of profit expatriation between 1988 and 1990, have the effect of slightly reducing the apparent rates of growth of the Irish economy in recent years. After the revisions, the 1990 growth rate of GNP was about 6½ per cent, compared with the previous estimate of 7½ per cent. The general picture of the Irish economy growing rapidly between 1986 and 1990, while at the same time moving into substantial current account surplus, is little changed.

With regard to 1991, the Balance of Payments estimates for the first half of the year confirm expectations that there will prove to have been only a modest rise in net factor outflows in the year as a whole. It is now practically certain that there was significant real growth in the Irish economy in 1991. Our current estimate puts this growth at 2½ per cent, compared with the 2 per cent rise we were forecasting throughout most of the year.

This relatively robust performance in 1991, achieved mainly through the expansion in export volumes in the face of international recession, augurs well for an acceleration of economic growth in 1992. Indicators for the closing months of 1991 and the early months of 1992 confirm that there has been an upturn in domestic demand as well as a continued increase in exports. Even on a cautious view of further gains as the year progresses, it seems probable that economic growth in 1992 will be significantly stronger than was projected at the beginning of the year.

Exports

Trade statistics for the first two months of 1992 reveal a remarkable rise of 18.9 per cent in the value of visible exports compared with the corresponding period of 1991. The rise in the value of manufactured exports was even greater at 19.2 per cent. While part of this exceptional rise reflects the relative weakness of export values in early 1991, seasonally-corrected figures indicate that January and February exports were significantly higher than in the closing months of last year, and represented the two highest monthly levels of export value ever recorded in Ireland.

Among manufactured and other industrial exports, the early results for 1992 show a continuation of the broad-based advance evident in 1991, reinforced by the coming on stream of new capacity, and, significantly, a recovery in the value of office and data processing machinery exports. For the year as a whole, it would be unrealistic to expect the rate of increase over last year to be maintained at the level of the first two months. However, with the majority of overseas markets likely to be less depressed than in 1991, with competitiveness still improving, and with further new capacity becoming available during the year, a substantial annual increase in the volume and value of industrial exports is probable. Perhaps cautiously, the projections embodied in Table 2 show manufactured export volumes increasing by 10 per cent, while the value rise of 14 per cent implies little more than a consolidation of the seasonally corrected levels reached in January and February. The apparent slowdown forecast for other industrial exports is illusory, as most of the growth shown for 1991 was in fact the result of a CSO reclassification of some items from unclassified to industrial exports. When allowance is made for this, a substantial acceleration in the value of other industrial exports is forecast for 1992.

Agricultural exports were also very buoyant in the early months of the year, although what proportion of the increase in meat and butter exports represented aid shipments from intervention stocks to the CIS cannot yet be established. For the year as a whole it is expected that there will be a moderate rise in sales of agricultural products to regular markets at full commercial prices. The extent to which occasional markets, particularly in the Middle East,

TABLE 2: Exports of Goods and Services

	1990	% Change		1991	% Change		1992
	£m	Volume	Value	£m	Volume	Value	£m
Agricultural	2147	6¼	4¾	2251	13	11	2499
Manufactured	9954	7½	5¾	10532	10	14	12006
Other Industrial	1971	10½	4½	2060	4	7	2204
Other	271	-32	-33	181	0	2	185
Total Visible	14343	7	4¾	15025	9½	12½	16894
Adjustments	-243			-297			-267
Merchandise	14100	6½	4½	14728	9¾	13	16627
Tourism	1131	3¾	6½	1205	6½	10¼	1329
Other Services	708	5½	9	772	5½	9	841
Exports of Goods and Services	15939	6¼	4¾	16705	9½	12½	18797

will become available in 1992 remains uncertain, but a substantial increase in sales to such markets is assumed. Finally, a continued flow of produce from intervention to the CIS is assumed, although the quantities involved, especially in the later months of the year, cannot be foreseen with any certainty. Taking all outlets together, the forecast value increase of 13 per cent for the year seems reasonable, with the average price being depressed by the expected change in the composition of sales between the various outlets.

The volume rate of growth for total merchandise exports is forecast at just under 10 per cent, roughly one and a half times the growth in 1991. Because export prices are expected to rise in 1992, in contrast to their fall last year, the projected increase in the value of merchandise exports, at 13 per cent, is almost three times as rapid as that achieved in 1991.

In view of the recession in the UK and the US and of the disruption caused to holiday bookings by the Gulf war, tourist earnings held up quite well in 1991. The rise of about 6½ per cent in the value of tourism was due mainly to a substantial increase in continental visitors, which compensated for a fall in the number of American tourists and near stagnation in UK visits. With some recovery in the number of US visitors expected this year, the rise in tourism earnings should be greater than in 1991. However, in view of continuing economic uncertainties in many of the major tourist markets, it would be premature to expect a return to the very high growth rates achieved in tourist earnings during the late '80s. A rise in the value of tourism of just over 10 per cent is therefore forecast, implying a volume increase of about 6½ per cent.

Until the new CSO surveys provide more detailed and up-to-date figures for other service imports and exports, it is difficult to make confident predictions about trends in these sectors. On the basis of figures for the first half of the year, it appears that other service exports in 1991 rose by about 9 per cent in value. A similar increase is projected for 1992, but estimates of service exports might have to be revised quite radically, almost certainly upwards, when the new surveys become available.

Total exports of goods and services are thus estimated to have risen by 6 per cent in volume in 1991, with a fall in annual average export prices bringing the value rise down to about 4¾ per cent. For 1992 a volume rise of 9½ per cent is forecast, with price increases raising the expected growth in the value of exports of goods and services to 12½ per cent.

TABLE 3: Stock Changes

	1990 £m	Change in Rate £m	1991 £m	Change in Rate £m	1992 £m
Livestock on Farms	76	- 41	35	- 25	10
Irish Intervention Stocks ¹	417	108	525	- 400	125
Other Stocks	33	- 123	- 90	90	0
Total	526	- 56	470	- 335	135

¹Including subsidised private storage.

Stocks

It now seems probable that the rate of stockbuilding in 1991 was rather higher than previously expected, although still below the exceptionally high 1990 rate. In particular it appears that the increase in intervention and related stocks was even higher in 1991 than in 1990, contrary to earlier expectations of a significant reduction in the rate of such stockbuilding. The build-up of farm stocks was lower than in the previous year, and the stagnation in import volumes in the face of modest industrial growth suggests that there could have been a substantial fall in the level of non-agricultural stocks and work in progress.

The build-up of intervention and related stocks is expected to be greatly reduced in 1992, although in the light of the 1991 out-turn, we have now allowed for some positive level of stockbuilding. The projected figure of £125 million is subject to a wide margin of error in either direction, but it is compatible with the projected level of agricultural exports, and any changes in the projected stock level are likely to be compensated by opposite changes in the export projection. It is expected that the growth in farm stocks will come almost to an end in 1992, while the recovery forecast in the general economy could be accompanied by virtual stability in the level of industrial and distribution stocks.

As Table 3 shows, the direct contribution of stockbuilding to the growth of final demand is likely to be quite strongly negative in 1992. Indirectly, however, it is the reduction in intervention stock-building which should allow agricultural exports to increase.

Investment

Statistics published since the end of the year show that the fall in the volume of investment in building and construction in 1991 was much milder than had been forecast. A recovery in the final quarter meant that there was only a marginal fall in the number of new private house completions for the year as a whole, although a reduction in average house size may have resulted in a somewhat larger fall in the actual volume of house building. With an increased volume of infrastructure investment, largely financed through EC structural funds, and of industrial building tending to compensate for the decline in the volume of investment in building and construction in the agricultural and commercial sectors, it seems probable that the total volume of investment in building and construction in 1991 fell by less than 2 per cent, as shown in Table 4.

TABLE 4: Gross Fixed Capital Formation

	1990	% Change		1991	% Change		1992
	£m	Volume	Value	£m	Volume	Value	£m
Building and Construction	2494	- 1¼	1	2519	5	8	2721
Machinery and Equipment	2343	- 7	- 4½	2238	5	7½	2406
Total	4837	- 4½	- 1¼	4757	5	7¼	5127

There appears to have been a steeper decline in the volume of investment in machinery and equipment during 1991. The volume of capital goods imports fell by almost 10 per cent, and although such imports are not an exact indicator of investment trends, such a large drop in imports must reflect a substantial fall in investment in equipment. It seems probable that industrial investment in machinery and equipment was at least maintained during 1991, so the reduction must have been concentrated in the service and agricultural sectors. One contributory element in the decline was the sharp reduction in commercial vehicle registrations, which was even steeper than the fall in car registrations.

With a rapid increase in planning permissions in the final quarter of 1991 and of house registrations in the first quarter of 1992, it is clear that a recovery in private house building is now under way. Part of these increases could reflect tax-influenced timing decisions, and it would be imprudent at this stage to extrapolate the rate of increase for the first quarter to the whole of 1992. Nevertheless, a substantial increase in the value of new housebuilding does seem likely for 1992 as a whole. Industrial and infrastructure building should continue to increase in volume, but the fall-off in new commercial projects in the course of 1991 is likely to be reflected in a decline in the volume of commercial building in 1992. Indeed, with the present degree of overcapacity in office accommodation and, to a lesser extent, retail space, it seems likely to be well into 1993 before any significant increase in commercial building takes place. In total, however, the volume of investment in building and construction seems certain to increase, perhaps by about 5 per cent.

Statistics of capital goods imports and commercial vehicle registrations for the early months of 1992 do not indicate any immediate upturn in investment in machinery and equipment. However, as the year progresses and the upturn in economic activity becomes more apparent, an increase in such investment seems very probable. A volume rise of 5 per cent is projected, with a resulting similar increase in the volume of total investment. Because investment decisions tend to be volatile, this forecast of a 5 per cent volume growth in investment could well be exceeded if business confidence improves more rapidly than anticipated.

Consumption

On re-assessing the evidence, we have revised downwards our estimate of the volume increase in personal consumption in 1991 to zero. The volume of retail sales declined by 0.2 per cent, as shown in Table 5, and there was a fall in the volume of tourism spending abroad. Although expenditure on other services is likely to have increased, it is improbable that this can have done more than just offset the fall in retail and overseas spending. Judging by the retail sales data, the recovery in personal consumption in the closing months of the year

TABLE 5: Consumption Indicators

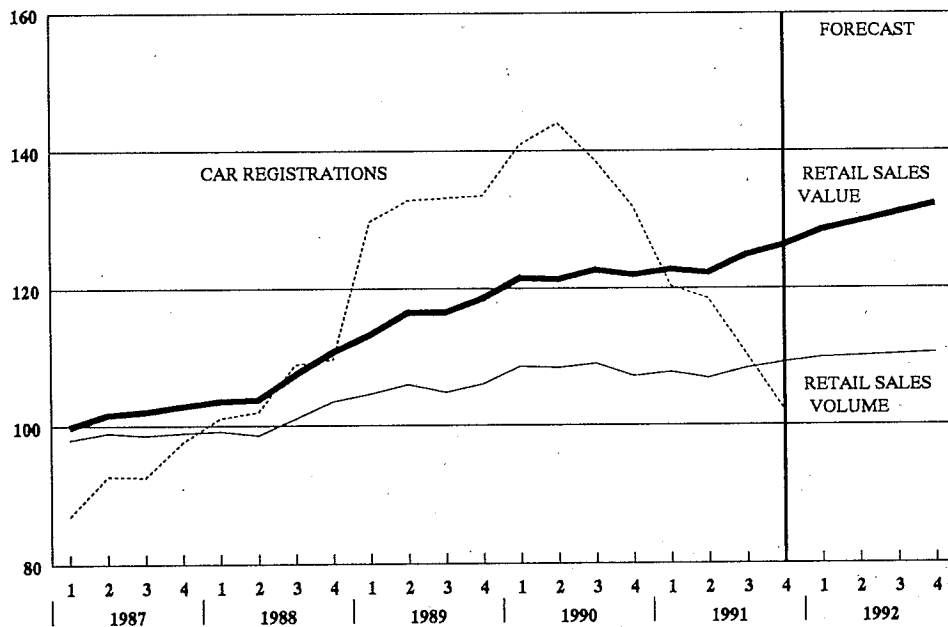
	Annual Percentage Change					
	1988	1989	1990	1991	1992 To Date	1992 Forecast
<i>Consumption Value</i>						
NIE 1990, Personal Consumption	6.4	7.6	3.7	3.0	—	5.8
Retail Sales Index, Value	4.8	9.2	4.8	1.8	5.8	5.1
Divergence	1.6	-1.6	-1.1	1.2	—	0.7
<i>Consumption Volume</i>						
NIE 1990, Personal Consumption	3.6	3.7	1.1	0	—	2.5
Retail Sales Index, Volume	2.1	4.7	2.7	-0.2	3.3	2.0
Divergence	1.5	-1.0	-1.6	0.2	—	0.5
<i>Consumer Prices</i>						
NIE 1990, Personal Consumption Deflator	2.7	3.8	2.6	3.0	—	3.2
Retail Sales Index Deflator	2.6	4.3	2.0	2.0	2.4	3.0
Consumer Price Index	2.1	4.0	3.4	3.2	3.7	3.4

merely compensated for the shortfall in the first half. The implication of this time path is that there was a significant positive carryover into 1992 in the seasonally corrected volume of consumer spending.

Retail sales figures for the first two months of 1992, and tax receipts for the first four months, suggest that this carryover was reinforced by a further volume rise in personal consumption. This tends to confirm the evidence provided by private house sales that there has been some improvement in consumer confidence, and that the personal savings ratio, which rose sharply in both 1990 and 1991, has now stabilised or even begun to decline. For the year as a whole

FIGURE 2: Consumption

Quarterly Averages Seasonally Adjusted, 1986=100



it seems reasonable to assume that the savings ratio will fall slightly from its 1991 peak, although remaining at a historically high level. On the basis of our income forecasts, such an assumption implies an increase of about $5\frac{3}{4}$ per cent in the value of personal consumption in 1992, with volume increasing by about $2\frac{1}{2}$ per cent. Such a projection suggests a modest further rise in the seasonally corrected level of retail sales, although the annual increases over the corresponding months of 1991 will tend to decline when comparison is made with the less depressed periods of last year.

Government consumption is believed to have risen by about $1\frac{1}{2}$ per cent in volume in 1991, with the very high price deflator taking the value increase to $9\frac{1}{2}$ per cent. On the basis of Budget projections, it seems likely that the increase in the value of government consumption in 1992 will be about $7\frac{1}{4}$ per cent. Because of the postponement of some phased pay increases, the price deflator for government consumption should fall to about 6 per cent, implying a volume increase of $1\frac{1}{4}$, per cent, marginally below the 1991 rate of increase. This represents a continuation of the policy of firmly controlling the volume of discretionary public spending, although it involves an upward revision to our technical pre-budget assumption of an unchanged volume of government consumption.

Final Demand

Despite revisions to estimates of most categories of expenditure, our estimate of the increase in the value of final demand in 1991 remains unchanged at $3\frac{3}{4}$ per cent. The volume estimate has been revised downwards marginally from $2\frac{1}{4}$ per cent to 2 per cent. The volume of domestic demand in 1991 is estimated to have fallen by almost 1 per cent, with all the growth thus coming from the rise in export volumes. Because of the substantial fall believed to have taken place in non-agricultural stock levels, and the decline in investment in machinery and equipment, the import-intensity of final demand in 1991 was exceptionally low.

The increase in final demand in 1992 is forecast to more than double, to 8 per cent in value and $4\frac{1}{2}$ per cent in volume. Export growth is expected to account for most of the rise but the volume of domestic demand is also projected to increase by almost $1\frac{1}{2}$ per cent. With the pattern of growth forecast to be more balanced, the import-intensity of final demand is likely to be considerably greater than in 1991.

Imports

Trade statistics for the first two months of 1992 show import values continuing the same trend of virtual stagnation that they followed throughout 1991. If our general forecast of a rise in final demand is correct, this trend should soon change, and import values and volumes should begin to rise quite sharply. In particular imports of capital goods should reverse the fall they suffered in 1991, and the rise in intermediate goods for industry should accelerate. Consumer goods imports were surprisingly buoyant in 1991, so only a modest increase in the rate of growth is projected for 1992.

The total increase in visible imports which would appear likely to be induced by the scale and pattern of the forecast rise in final demand is about $6\frac{1}{2}$ per

TABLE 6: Imports of Goods and Services

	1990	% Change		1991	% Change		1992
	£m	Volume	Value	£m	Volume	Value	£m
Capital Goods	1969	-9¼	-7¼	1814	5	7½	1950
Consumer Goods	3358	5¼	7¼	3620	6½	9½	3965
Intermediate Goods:							
Agriculture	467	-2	-¼	466	-2	0	466
Other	6600	2	4	6871	7½	10½	7592
Other Goods	86	-5½	-3	83	0	2	85
Total Visible	12480	¾	3	12853	6½	9½	14058
Adjustments	-194			-190			-197
Merchandise Imports	12286	¾	3	12663	6½	9½	13861
Tourism	701	-3¼	0	701	4	7½	754
Other Services	874	0	3¼	902	3	6½	961
Imports of Goods and Services	13861	½	3	14266	6¼	9¼	15576

cent in volume and 9½ per cent in value, as shown in Table 6. The likely rates of increase in merchandise imports are likely to be similar, as no major changes are foreseen in the balance of payments adjustment.

Tourist spending abroad is estimated to have remained more or less unchanged in 1991, implying a fall of over 3 per cent in volume. In keeping with the general expectation of an upturn in consumer spending, a moderate increase of about 4 per cent in the volume of tourist spending is forecast for 1992. As in the case of other service exports, figures for other service imports must be treated with some reserve until the next CSO revisions are made available. However, on the existing basis, data for the first half of 1991 indicate that there was unlikely to have been any significant change in the volume of other service imports last year. In line with the general forecast of increased economic activity, a rise of 3 per cent in the volume of such service imports is tentatively projected for 1992.

In total, the increase in the value of imports of goods and services is thus forecast to triple in 1992 to a rate of 9¼ per cent. The volume increase is projected to recover from a near stagnant ½ per cent in 1991 to a more normal 6¼ per cent in 1992.

Balance of Payments

Contrary to expectations earlier in the year, the visible trade balance rose by over £300 million in 1991 to £2,172 million. This is substantially higher than our estimate in the *Winter Commentary*, which was based on trade trends up to October. Balance of Payments estimates for the first half of the year confirm our assumption that there was an adverse movement in the adjustment factors, but even so it seems likely that the balance of merchandise trade improved by about £250 million in 1991. The surplus on trade in services appears to have increased by over £100 million in 1991, leaving the total surplus on trade in goods and services at £2,439, an increase of £360 million over the 1990 level.

Our export and import forecasts imply a further large increase in the surpluses on visible, merchandise and total trade in 1992. The visible trade balance is projected to improve by £664 million, over half of which increase has already been achieved in the first two months of the year. With the adjustment

TABLE 7: Balance of Payments

	1990 £m	Change %	1991 £m	Change %	1992 £m
Trade in Goods and Services	2079	17	2439	32	3221
Factor Flows:					
Profits etc.	- 2452	4	- 2550	15	- 2933
National Debt Interest	- 1009	6	- 1070	4	- 1113
Other Debit	- 1204	8	- 1300	8	- 1404
Total Debit	- 4665	5½	- 4920	10¾	- 5450
Credit Flows	1576	9¾	1730	12	1938
Net Factor Flows	- 3089	3¼	- 3190	10	- 3512
Net Transfers	1567	25	1960	0	1960
Balance on C.A.	556		1209		1669

factors likely to move favourably, and the surplus on trade in services expected to increase by another £80 million, the surplus on trade in goods and services is forecast to rise to £3,221 million in 1992, as shown in Table 7.

Throughout last year we suggested that the decline in the value of electronics exports from the middle of 1990 would limit the growth of profit expatriation in 1991. Despite the upward revision in CSO estimates of profit expatriation in the years to 1990, the Balance of Payments figures for the first half of 1991 confirm our expectations. Because of the possibility that some profit outflows were brought forward into 1990 for tax purposes, it would be unwise to extrapolate the first half decline in profit expatriation to 1991 as a whole. However, making due allowance for this possibility and also for some upturn in the value of relevant exports in the later part of the year, it seems probable that the increase in profit outflows in 1991 as a whole was fairly small. A rise of 4 per cent appears to be a reasonable estimate.

On the evidence of the first-half Balance of Payments estimates, the rise in overseas national debt interest and in other debit outflows was quite modest in 1991. Credit flows, as would be expected from the volume of capital export in recent years, continued to increase strongly. Consequently the increase in net factor outflows is likely to have been relatively low, at about 3¼ per cent.

With the value of multinational exports recovering in the later months of 1991 and likely to grow strongly in 1992, profit expatriations can be expected to surge this year. An increase of 15 per cent would be in keeping with our export projections. Unless there is an unexpectedly large increase in foreign holdings of Irish government securities, the rise in interest payments on the overseas national debt is likely to be quite modest. Assuming much the same increase in other debit payments as in 1991, gross factor outflows are forecast to rise by almost 11 per cent. However, there could be an acceleration in the growth of factor inflows, as profits earned by Irish subsidiaries abroad recover from the recession. Thus an increase of 10 per cent is forecast for net factor outflows in 1992.

There was a massive increase in EC transfers in 1991, as agricultural subsidies remained high and Social and Regional Fund payments soared. Due to timing factors, Social Fund receipts are expected to decline in 1992, but

other EC transfers are likely to increase, leaving the forecast level of total transfers virtually unchanged.

Even after the recent downward revisions, it thus looks certain that the overall balance of payments surplus on current account rose very steeply in 1991 and is due to record another substantial rise in 1992. Our estimates place the 1991 surplus at 5¼ per cent of GNP, with a rise to 6¾ per cent projected for 1992.

Agriculture

Gross agricultural output is estimated to have risen by 0.8 per cent in 1991, and, with the volume of inputs virtually static, gross agricultural product rose by 1.4 per cent. When some allowance is made for continued expansion in the volume of forestry and fisheries output, the gross product of the broad agricultural sector increased by a little over 1½ per cent.

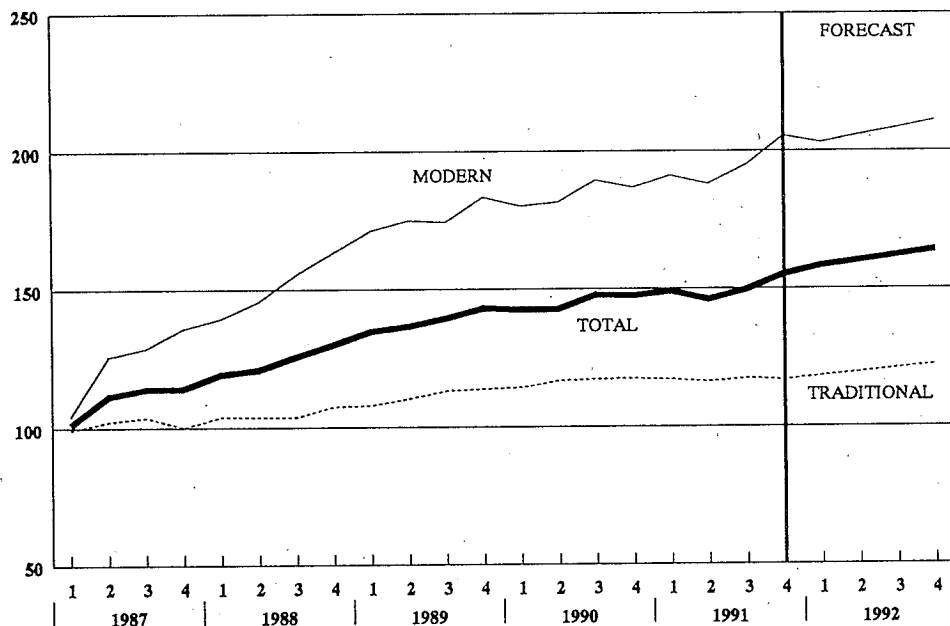
Assuming broadly similar weather conditions, little change is expected in the volume of gross agricultural product in 1992. A small increase in livestock output is likely to be offset by a decline in milk production due to quota restrictions. Input levels are expected to remain roughly constant, so that the volume of gross agricultural product is also forecast to remain unchanged. Further increases in forestry and fishing output are probable, so the total product of the broad agricultural sector is projected to grow marginally in 1992.

Industry

A disappointing performance in December, possibly due to changing seasonal patterns, resulted in the annual increase in the volume of production

FIGURE 3: Manufacturing Output

Quarterly Averages Seasonally Adjusted, 1986=100



index for manufacturing industry increasing by only 3.3 per cent in 1991. This is the smallest annual increase in the index since 1986, but it nevertheless represented a much stronger performance than that in most competing countries, many of which suffered significant declines in industrial production.

Despite the December aberration, industrial production was on a strong upward trend in the second half of 1991, and this continued in January 1992 with the seasonally-corrected index reaching a new record level, 9 per cent up on January 1991. The EC-financed CII-ESRI Survey of Business, although not yet recording the buoyancy of 1989 and early 1990, does indicate steady progress in early 1992 and expectations of continued growth in the coming months. Both recent trends and our projections of manufactured exports for the year suggest that the annual rise in production in manufacturing industry could be in the region of 7½ per cent in 1992. This is a significant upward revision on our forecast in the *Winter Commentary*.

In line with our estimates and forecasts for investment, the output of the building and construction industry is thought to have declined by about 2 per cent in 1991 but is projected to increase by 5 per cent in 1992. Thus the output of the broad industrial sector is estimated to have grown by about 2½ per cent in 1991 and is forecast to grow by over 6½ per cent in 1992.

Services

Total service output is estimated to have grown by almost 2½ per cent in 1991. Public services grew by about 1½ per cent, and private services, on the basis of employment trends and the general composition of economic activity, by a little under 3 per cent.

The volume of services should increase by a little more than 3 per cent in 1992. On Budget projections there could be marginally slower growth in the volume of public services, at 1¼ per cent. However, with tourism expected to recover from its slow rate of increase last year, other export services to continue their steady expansion and retail trade to emerge from its period of stagnation, private service output could increase by at least 3½ per cent.

Employment

Taken together, the available series covering employment in industry, construction and financial services suggest that total non-agricultural employment remained at least constant in 1991, and probably increased marginally. This impression is supported by the relatively buoyant receipts from income tax and the employment and training levy.

Tax receipts, which are the only broad indicator so far available, suggest that employment levels have been at least maintained in the first four months of 1992. This would be consistent with the other evidence that there has been some economic upturn since last autumn. For 1992 as a whole, the general forecasts in this *Commentary* imply a moderate increase in non-agricultural employment, with a small rise in manufacturing employment, a stabilisation in the number of building jobs, and a continued gradual increase in service employment.

Agricultural employment is difficult to predict with confidence, as no indicators are available between the annual Labour Force Surveys. The

TABLE 8: Employment and Unemployment

A: Mid-April Estimates '000					
	1989	1990	1991	1992	1993
Agriculture	163	167	155	153	150
Industry	306	320	318	320	328
Services	621	639	648	652	658
Total at Work	1090	1126	1121	1125	1136
Unemployed	202	179	210	243	250
Labour Force	1292	1305	1331	1368	1386
Unemployed Rate %	15.6	13.7	15.8	17.8	18.0
Live Register	233	221	248	281	288

B: Annual Averages '000				
	1989	1990	1991	1992
Agriculture	165	161	154	152
Industry	315	319	319	324
Services	632	645	650	656
Total at Work	1112	1125	1123	1132
Unemployed	188	188	220	248
Labour Force	1300	1313	1343	1380
Unemployed Rate %	14.5	14.3	16.4	18.0
Live Register	232	225	254	284

assumption is made that after the large fall in the year to April 1991, the numbers engaged in agriculture will return to the long-term trend of a small annual decline. However, with farm incomes falling sharply in 1991 a further substantial decline in agricultural employment in the year to April 1992 cannot be ruled out.

As shown in Table 8, the annual average employment total is estimated to have fallen by two thousand in 1991, and is forecast to increase by about nine thousand in 1992, with non-agricultural employment rising by eleven thousand.

Registered unemployment rose very sharply in the first half of 1991, more gently in the second half, but has accelerated again in the early months of 1992. Almost certainly, these movements reflect conditions on the UK market, operating through changes in net migration flows. The rate of increase in UK unemployment was very rapid in late 1990 and the first half of 1991, slackened somewhat in the second half of 1991, but has since deteriorated once more.

For the remainder of the year, it seems probable that there will be sufficient recovery in the UK economy to reduce the rate of increase of unemployment there, although not sufficient to prevent some further rise. If there is indeed some amelioration in the rise in UK unemployment, then the experience of last autumn suggests that migration flows could once more be reversed. Thus there is reason to hope that the rise in Irish unemployment, as measured by the seasonally-corrected Live Register, will be considerably slower for the rest of 1992 than it has been in the first four months.

Incomes

Despite the small increase in the volume of gross agricultural product, the fall in average agricultural prices and a reduction in subsidies to farmers led to an estimated decline of 9½ per cent in income arising in agriculture in 1991. Incomes rose in forestry and fishing, so that the decline in income in the broad agricultural sector in 1991 was about 7½ per cent. With the volume of gross agricultural product projected to remain roughly constant, a more favourable movement of prices, and continuing income rises in forestry and fishing, an increase of about 3 per cent in incomes in the broad agricultural sector is forecast for 1992.

It appears that average private sector earnings are likely to have risen by just over 5 per cent in 1991, with a marginal rise in employment taking the increase in aggregate private sector pay to a little over 5½ per cent. With aggregate public service pay increasing by over 9 per cent, total non-agricultural wages, salaries and pensions are estimated to have risen by 6¾ per cent in 1991. Average private sector earnings in 1992 are forecast to increase again by about 5 per cent, with the slightly lower basic increase due under the PESP being offset by extra productivity-based increases in some industries. With a small increase expected in average employment levels, aggregate private sector earnings are likely to increase by about 5½ per cent. Aggregate public service pay is expected to increase less rapidly than in 1991, under the compromise terms agreed for the implementation of the PESP. Thus total non-agricultural earnings are forecast to increase by about 6 per cent in 1992, as shown in Table 9.

The stagnant domestic economy is likely to have restricted the growth of income from self employment and from interest, dividends and rents in 1991. An increase of 4½ per cent seems a reasonable estimate in the absence of relevant current indicators. The expected recovery in domestic demand in 1992 could raise the annual increase in such incomes to about 6 per cent.

Transfer income to households rose very sharply in 1991, mainly because of the steep rise in unemployment. Another substantial increase seems probable in 1992, although it should not be quite as high as last year. A rise of 7 per cent in total current transfers to households is projected.

TABLE 9: Personal Disposable Income

	1990 £m	Change %	£m	1991 £m	Change %	£m	1992 £m
Agriculture etc.	1970	- 7½	- 147	1823	3	55	1878
Non-Agricultural Wages, etc.	12761	6¾	861	13622	6	817	14439
Other Non-Agricultural Income	2612	4½	118	2730	6	164	2894
Total Income Received	17343	4¾	832	18175	5¾	1036	19211
Current Transfers	3886	9¼	357	4243	7	297	4540
Gross Personal Income	21229	5½	1189	22418	6	1333	23751
Direct Personal Taxes	4653	6¾	318	4971	8	398	5369
Personal Disposable Income	16576	5¼	871	17447	5¼	935	18382
Consumption	14231	3	427	14658	5¾	850	15508
Personal Savings	2345	19	444	2789	3	85	2874
Savings Ratio	14.1			16.0			15.6

Gross personal income is thus estimated to have risen by about 5½ per cent in 1991, and is forecast to increase by about 6 per cent in 1992. Direct personal taxes rose by 6¾ per cent in 1991. Current indications are that the rise in such taxes will be higher in 1992 at about 8 per cent. If this projection is correct, the increase in personal disposable income this year will be much the same as in 1991 at about 5¼ per cent.

Consumption indicators already discussed suggest that the value of personal consumption increased by only 3 per cent in 1991. This implies that for the second year running there was a large rise in the personal savings ratio. The estimated 1991 ratio of 16 per cent, if correct, is the highest since 1984. Purely on cyclical timing it would be reasonable to expect this rise in the savings ratio to end in 1992. The upturn in consumption since the autumn shown by retail sales indicators and tax receipts confirms this expectation, and suggests that the savings ratio could be beginning to decline. For 1992 as a whole, a modest decline to 15.6 per cent in the personal savings ratio is projected, leaving it still well above the levels of 13 per cent or less which it reached in 1988 and 1989. Of course the ratio could decline more steeply in 1992 if consumer confidence were fully restored, but it would be imprudent to anticipate a substantial fall in the absence of concrete evidence that it is taking place.

Consumer Prices

After rising quite steeply in the summer of 1991, the quarterly rate of price inflation as measured by the consumer price index has slackened perceptibly in the past six months. Thus although February 1992 showed the highest twelve-months rise in the index since early 1990, the seasonally-corrected quarterly rise between November and February was only 0.6 per cent, the lowest for well over a year. When allowance is made for the impact of tobacco taxes on the February index, the underlying rate of price inflation during the winter was very modest.

With some further tax increases due to affect the index, and the expected cut in mortgage interest delayed longer than had been hoped, the increase in the index in the twelve months to May 1992 is likely to remain high, at close to the 3.7 per cent recorded in the year to February. However, with the sharp jump between May and August 1991, caused by the temporary strength of the dollar and some high seasonal vegetable prices, likely to be avoided this year, the twelve-month increases in August and November 1992 should decline to about 3 per cent. If this expectation proves correct, then the annual average rise in the consumer price index in 1992 will be about 3.4 per cent. Although this would be slightly above the 3.2 per cent recorded in 1991, the time trend through the year would hold out strong hopes that the annual rise could return to 3 per cent or below in 1993.

Public Finances

In our previous *Commentary*, published immediately before the Budget, it was suggested that the Exchequer Borrowing Requirement in 1992 should be held to about £525 million or 2.1 per cent of expected GNP, the same ratio as was achieved in 1991. In the event, the target set in the Budget was an EBR of £590 million, or 2.4 per cent of GNP, with a small rise, from £300 million to £339

million, set for the current budget deficit. If these official Budget targets were to prove accurate, it would thus represent a slight weakening of the fiscal position compared with 1991, which would be worrying in the light of the long standing official targets for 1993, and of the foreseeable revenue losses and expenditure commitments for next year.

Fortunately, it already appears from the exchequer returns for the first four months of the year that the revenue targets for 1992 will be comfortably exceeded. Total tax revenue to the end of April was 9.7 per cent above that in the corresponding period of 1991. Even allowing for the fact that the comparison is with the period of weakest revenue flow last year, it now is reasonable to assume that tax revenue in 1992 will rise by almost 8 per cent, provided that the moderate growth of domestic demand forecast in this *Commentary* is, in fact, achieved. Such an out-turn would result in tax receipts approximately £150 million higher than anticipated in the Budget.

Mainly because of higher unemployment, current expenditure in 1992 is also likely to be above the target levels, but by very much less than revenue. Thus it now seems probable that the current budget deficit will be below £250 million, less than 1 per cent of GNP, and the EBR will be about £500 million, or less than 2 per cent of GNP. Such an outcome would keep the public finances well on course towards meeting their 1993 targets.

Because of the potential loss of revenue next year from the ending of VAT at point of entry, the necessary reduction in the standard VAT rate and reductions in DIRT receipts, framing the 1993 Budget to maintain fiscal progress will nevertheless prove difficult. The problem will be further exacerbated by the commitment to pay the deferred phases due under the PESP compromise. The buoyancy of 1992 tax receipts and the likelihood of faster economic growth next year make the prospect less daunting than it appeared a few months ago, but a strongly disciplined approach will still be necessary, with tight control maintained on the level of discretionary public spending.

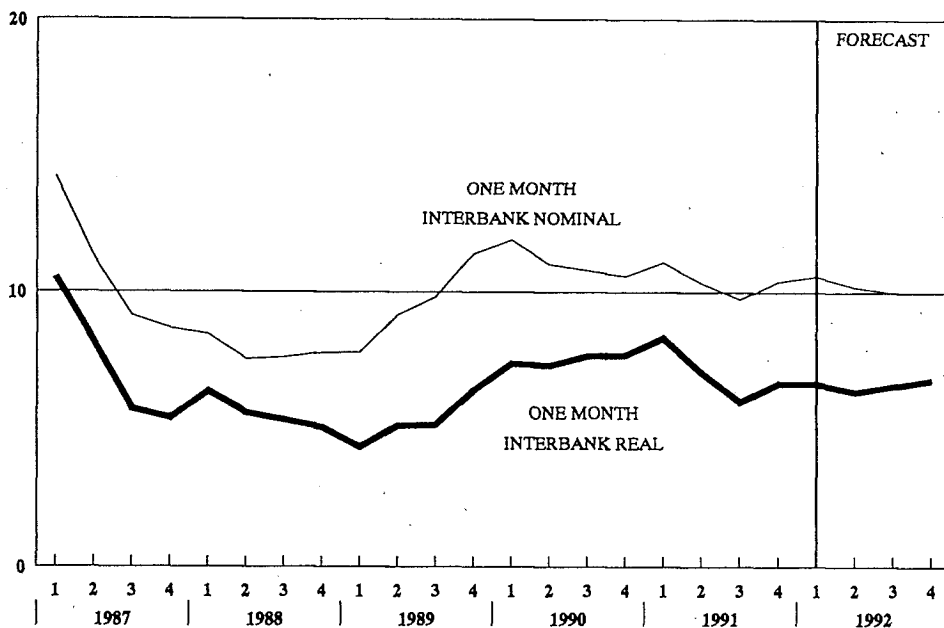
Interest Rates

As discussed in the International Section of this *Commentary*, it now seems probable that German interest rates will remain unchanged until late in the year. Thus the prospects for Irish interest rates in 1992 depend on whether the differential over German rates can be further reduced. So far as fundamental economic factors are concerned, it seems perverse that Ireland, with a proven commitment to maintaining its ERM parity, low inflation, improving public finances and massive current account surplus, should suffer a positive interest rate differential over not only Germany but also such countries as the UK and Belgium. The only plausible explanations lie in a lack of awareness overseas of the strength of the Irish economic and fiscal performance over the past five years and in the recent propensity of Irish institutions and individuals to export capital, much of it to countries with less sound economies than their own.

Even without any change in these underlying factors, it seems probable that Irish interest rates will edge downwards. The recent $\frac{1}{4}$ per cent reduction in the Central Bank's short-term facility rate is likely to be repeated in the near future, which will lead to a reduction in most retail interest rates. Further

FIGURE 4: Interest Rates

Per cent per annum, Quarterly Averages



reductions would probably depend on concerted action by other ERM members to propel their rates towards, or even below, German levels. Such action cannot be ruled out, although it would be premature to assume that it will take place. The forecasts in this *Commentary* are thus based on the assumption that Irish interest rates will remain unchanged after their next reduction until near the end of the year, but it is hoped that this assumption might prove too conservative.

General Assessment

Throughout 1991, we predicted that the growth rate for the year would be about 2 per cent. With only a few final pieces of data to come, it seems fairly certain that the growth of real GNP was at least that, and was more probably about 2½ per cent as we estimate in this *Commentary*. To have achieved such a positive growth rate in the context of an international recession, and particularly in the face of a 2¼ per cent GNP decline in our main trading partner, represents a considerable economic feat. It confirms that macro-economic policy in recent years has been successful in improving Irish competitiveness, and that past industrial policy, for all the criticism, has produced an industrial base which can outperform most of its neighbours.

However, the experience of 1991 also served to highlight the chronic structural problem of the Irish economy, which is its inability to create jobs at a sufficient rate to absorb the high natural increase in the labour force. With the UK recession causing a blowback in the traditional safety valve of emigration, Irish unemployment soared alarmingly, in spite of a small increase

in the number of non-agricultural jobs. It is quite clear from 1991 that a merely good economic performance is inadequate to deal with the employment crisis. What is needed is an outstanding performance, sustained for several years.

This is confirmed by our forecast for 1992. Growth is expected to recover to 3¼ per cent, well above the EC average, with domestic demand emerging from its 1991 stagnation and the strong rise in net exports gathering some additional pace. Cost inflation is likely to remain at the moderate level established in recent years, further improving competitiveness, while price inflation is likely to decline in the second half of the year. On current trends, there should be a reduction in the Exchequer Borrowing Requirement and a substantial reduction in the debt/GNP ratio. Yet, despite these positive features, average unemployment will be significantly higher than in 1991.

In the short-term context of 1992 itself, not a great deal can be done to reduce the likely level of unemployment. The training and employment schemes already in place might have some impact in alleviating the problems, but certainly will not provide a solution. Further state-financed emergency schemes would probably prove counter-productive, losing more jobs by damaging confidence than they would create directly. However, if there is little chance of altering the immediate outlook, this is an opportune time for considering the longer term implications of the current situation and assessing the possibilities for a radical improvement in future years.

The urgency of such an assessment is intensified by two considerations. In the first place it is a well established fact that the potential labour force in Ireland will continue to increase by about 2 per cent each year for the remainder of the decade. In the second place it appears increasingly likely that the UK economy, tied to an uncompetitive exchange rate, is entering a prolonged period in which growth will be low and intermittent. The key implication of this for Ireland is that the UK labour market will almost certainly remain depressed, so that there is most unlikely to be a resumption of large scale net emigration to the UK in the next five years or so.

Against this background of demographic pressure and a very restricted outlet through emigration, the need to increase the rate of net job creation within Ireland is obvious. The structural approach to this requirement, through modification of industrial strategy, has been much debated in recent months, and an essentially short-term publication such as this *Commentary* is not the place to further this debate. Curiously, however, there has been much less public focus on the complementary approach to the problem, namely through the broad macro-economic measure of the growth rate.

Past relationships suggest, as was demonstrated for a short-period in 1989/90, that real GNP growth in the region of 6 per cent per year leads to an increase of roughly 30,000 net jobs per year. One of the reasons why the simple growth approach to job creation has been little explored is the general perception that a sustained real growth rate of 6 per cent is impossible to achieve.

It is true that such growth rates have been very rare in Europe, at least in recent times, but they are commonplace among the newly industrialised countries of Asia. The current degree of underutilisation of potential resources in Ireland is such that at least four or five years of growth exceeding 6 per cent would technically be feasible.

Apart from the level of unemployment itself, the principal justification for this assertion lies in an examination of the Balance of Payments. In 1981, the current account deficit reached a peak of 14.7 per cent of GNP. Five years of virtual economic stagnation reduced the deficit to 3.0 per cent of GNP by 1986, as would be expected. More surprisingly, the past five years, in which the annual growth rate averaged nearly 4½ per cent, have coincided with a steady improvement in the current account balance, which in 1991 is believed to have reached a surplus of £1,200 million, or over 5 per cent of GNP.

This progression is so striking that the natural reaction is to doubt the accuracy of the figures. However, since 1987 the positive balance on current account has broadly been matched by a negative balance of identified items on capital account. There is no evidence of a persistent negative unexplained balancing item as there was in the early '80s, the famous 'black-hole'. Indeed, since the latest revisions, there is a very large positive residual for 1990, suggesting that the next revision to the balance of payments, when surveys of service trading are complete, will tend to increase the current account surplus for 1990 and 1991.

Accepting the figures as broadly accurate, two features stand out from a study of the current account surplus in recent years. The first is that the non-transfer balance, that is the balance of trade in goods and services less net factor outflows, remains in deficit, but is tending to improve. In the years of very high economic growth, 1989 and 1990, the deficit rose moderately by about £200 million a year, while in years of slower growth it has tended to fall significantly. If our predictions are correct, it could be reduced to about £300 million in 1992, and would move into surplus within about two years if economic growth remains in the region of 4 per cent and continues to be export-led.

The second major feature is that the entire current account surplus can be accounted for by the level of net transfers, mainly from the EC, and that the steep rise in such transfers, especially in 1990 and 1991, explains much of the increase in the current account surplus in those years. There seems little danger of a substantial fall in net transfer receipts in future years. Although the level of agricultural subsidies should decline, this is likely to be offset by increases in other funds. Indeed, if current hopes are realised, a significant increase in total transfers can be expected as part of the transition towards European union.

The increase in the current account surplus has a number of implications for the economy as a whole. In the first place, the move into surplus was a necessary ingredient in the establishment of confidence in Ireland's exchange rate policy and the subsequent reduction in the differential between Irish and overseas interest rates. However, maintaining confidence does not require the continuing increase of the surplus to a level which is unique in Europe and rare in the entire world economy. Sustaining a moderate current account surplus is desirable if the overseas national debt is to be reduced, but exchange rate policy will remain secure so long as there is not a headlong rush towards deficit.

More fundamentally, the growing surplus is a measure of the underutilisation of Irish labour and of the high rate of private sector saving. Provided that it included a substantial element of capacity-increasing investment, a much faster growth of domestic demand could be accommodated

without running into current account balance of payments constraints. An interesting facet of this general point is that the rise in EC transfer payments, while clearly beneficial in maintaining incomes and providing infrastructure and training, has not been translated into a sustained increase in domestic demand with its concomitant improvement in job levels and living standards.

To understand the failure of the economy to respond fully to the removal of the current account constraint, it is necessary to look at the other side of the balance of payments. The build up of the current account surplus has, of course, been matched by the emergence of a large deficit on capital account. Part of this can be explained by the virtual cessation of net official foreign borrowing and by a rise over the period in Irish foreign currency reserves. However, the most dramatic contribution to the capital account deficit has been a massive rise in private capital outflows. Unfortunately, no breakdown of these flows is published, and it would be of great value if the Central Bank were to produce a detailed analysis covering the past few years.

In the absence of such an analysis, it can only be assumed that the flows consist of three main elements: direct investment abroad by Irish companies, portfolio investment abroad by financial institutions, and personal investment in overseas financial assets. Good reasons can be advanced why each of these flows should have increased since the easing of exchange controls.

The development of overseas subsidiaries, usually by acquisition, allows a company to grow in such a way that risks and opportunities are geographically spread over several markets. In many cases, the acquisition of foreign subsidiaries is a necessity for the marketing of products which continue to be manufactured within Ireland. In other cases, expansion abroad is the most viable growth option for companies which have already attained a dominant market share in Ireland. Portfolio investment, by institutions or individuals, can also be better spread to balance risks and increase returns through the purchase of overseas assets, especially as the Irish market in equities is so narrowly based.

However, while an increase in private capital outflows can be explained by such factors, the scale of the increase is harder to understand. It appears to reflect a collective perception that economic prospects, and thus future profitability, were significantly higher in other economies than in Ireland. Given that much of the capital export was to the UK and the US, this perception must in many cases have proved misguided, at least in the past two years. If faulty perceptions did account for part of the capital outflow, much of the blame can be attached to the overoptimistic assessments which until recent months emanated from both official and financial sources within the UK. More worrying, from the viewpoint of an Irish economic commentator, is that part of the blame may attach to unduly pessimistic assessments of Irish prospects.

Whatever about the past, the key question for the future is whether a significant proportion of the private capital currently being exported can be diverted back to investment in the Irish economy. With exchange controls virtually abolished, this obviously cannot be done by direction. Exhortation seldom seems to exert much influence on those in control of substantial amounts of money. Persuasion, by default, must take the form of allowing the

facts to change the general perception within the financial community of Ireland's relative economic prospects.

With the exception of the unavoidable corrective period of the mid'80s, Ireland's economic growth rate has averaged about 4 per cent over every five-year period since 1960. Even without any change in attitudes, it will almost certainly return to such a growth path in 1993. With an attitude shift which led to a greater concentration on investing the high rates of personal and corporate savings within the country, productive capacity in indigenous industry and services would be increased, some structural bottlenecks could be eased, and the remaining interest rate differential would be eliminated. In turn, personal consumption would be boosted by greater job security and lower interest rates. In these circumstances the growth rate would approach 6 per cent, and could be sustained at that level provided growth remained balanced and institutionalised pay restraint is maintained. Such a sustained growth rate would generate the profits to justify the initial investment decisions. At the same time it would make a serious contribution towards dealing with the unemployment crisis, enable real progress to be made on convergence of living standards towards European levels, and would ease the burden of reducing the national debt ratio.

For many years now, discussions of the confidence factor have concentrated exclusively on the need for confidence in prudent fiscal and monetary policies. Such confidence must obviously be maintained, which precludes any premature relaxation of these policies, and thus any question of direct fiscal stimulus. However, the confidence factor which is now becoming vital, and which has been deficient in recent years, is confidence in the rapid yet steady growth of the Irish economy. The strength with which Ireland weathered the international recession and the favourable prospects opened up by the Single European Market and, assuming ratification of the Maastricht Treaty, by moves towards EMU are powerful reasons why confidence in Ireland's ability to sustain a growth rate well above the European average over the coming decade should increase steadily from now on.

THE LINK BETWEEN IRISH AND UK UNEMPLOYMENT

Patrick Honohan

Abstract

Irish unemployment has moved sharply higher since 1979, bringing it far above its traditional relationship with UK unemployment. Nevertheless, analysis of the data up to the end of 1991 reveals that trends and fluctuations in UK unemployment still have a decisive long-term influence on Irish unemployment, especially for males. In order to identify this influence clearly it is necessary to use series adjusted for the effects of definitional changes.

1. Introduction

Many factors have buffeted the Irish labour market over the past decade. The protracted period of fiscal retrenchment, with growing tax rates and cutbacks in discretionary government spending, undoubtedly had adverse effects on the demand for labour. The structure of taxation too evolved during the 1980s affecting the relative price of different types of labour and of capital. The international macroeconomic competitiveness of the Irish economy, and specifically of Irish wages, also fluctuated during the 1980s in response to exchange rate changes and wage settlements. Interest rates soared to exceptionally high levels, especially in mid-decade. Finally, external demand conditions fluctuated, with recovery from the 1979-82 recession being succeeded by a period of boom, especially in the UK economy, before the recent recession was triggered by the Kuwait war.

These various factors have been sifted by economists in several important recent studies (Cf. Barry and Bradley, 1991; Dornbusch, 1989; Geary, 1992; Giavazzi and Pagano, 1990; Sexton, Walsh, Hannan, McMahon, 1991; Leddin, 1990; McAleese, 1990; McAleese and Mc Carthy, 1988; Newell and Symons, 1990) and each has been considered of key importance by some researcher.

The purpose of the present paper is to recall and re-emphasize the exceptional importance of migration flows in determining where, after the market has adjusted to other shocks, Irish unemployment will tend to settle. This overriding importance of migration was stressed in the 1970s, a time of net immigration, by Walsh in several papers (e.g. Walsh, 1968), and perhaps most forcefully by McCarthy (1979). Taking up this theme, I argued in my 1982 and 1984 papers that domestic factors appeared to have only a transitory impact on Irish unemployment. In the long-run (I argued) the Irish unemployment rate had always tended to converge to about 5 percentage points above the UK rate.

Since the early 1980s Irish unemployment has soared to record levels. It is clear that the old relationships do not hold. Yet it would be wrong to ignore the important correlations which still exist between Irish and UK unemployment.

*I am indebted to Terry Baker, Tim Callan, Terry Corcoran, John Fitz Gerald, Sue Scott, Jerry Sexton and Brendan Walsh for helpful comments and suggestions.

In this paper, looking at the data since the late 1970s to end-1991, we argue that UK unemployment still exerts a strong influence on Irish unemployment, both in the short term and in the long term. Indeed the short-term impact may be more rapid than in the past. We no longer maintain that the long-term gap is constant: there does appear to have been an upward drift in Irish unemployment that cannot easily be explained by UK trends. Nevertheless, most of the increase in, and of the fluctuations of, male unemployment in Ireland can be associated with the movements in UK unemployment. Trends in registered female unemployment are less easy to explain, but here too an important influence from the UK can be detected.

Nevertheless, the policy prescriptions drawn in the past remain valid today. The impact of demand-led employment growth in Ireland on unemployment is likely to continue to be attenuated by migration flows. Sustained reductions in the Irish-UK unemployment differential are likely to depend on structural and microeconomic measures to improve access to the labour market and labour market effectiveness of social groups who are at present disadvantaged.¹ Such structural measures could include improved effectiveness of education and training, incentive improvements in the Social Welfare system, and support for area-based employment initiatives in disadvantaged areas.

2. *Main Trends in the Series*

Figure 1 shows the main trends in the quarterly series of the rate of registered unemployment, Ireland and UK.² Until the mid-1970s the Irish figures are expressed as a percentage of the insured population (the 'IRL-old' series in the figure); this series was discarded in the early 1980s in favour of the ('IRL') series based on total labour force. The lower series in the figure is the UK rate.

The common movements in the Irish and UK rates in the 1960s and 1970s is evident from the figure, as is the fact that both series increased dramatically during 1980-82. However the amplitude of the Irish increase is much greater and there is no tendency for the Irish series to return to its traditional distance from that in the UK. It is also evident that the downturn in the UK series from 1986 is followed, though much less sharply, by the Irish data. In contrast, the recent upturn from 1990 is quickly tracked in the Irish data.³

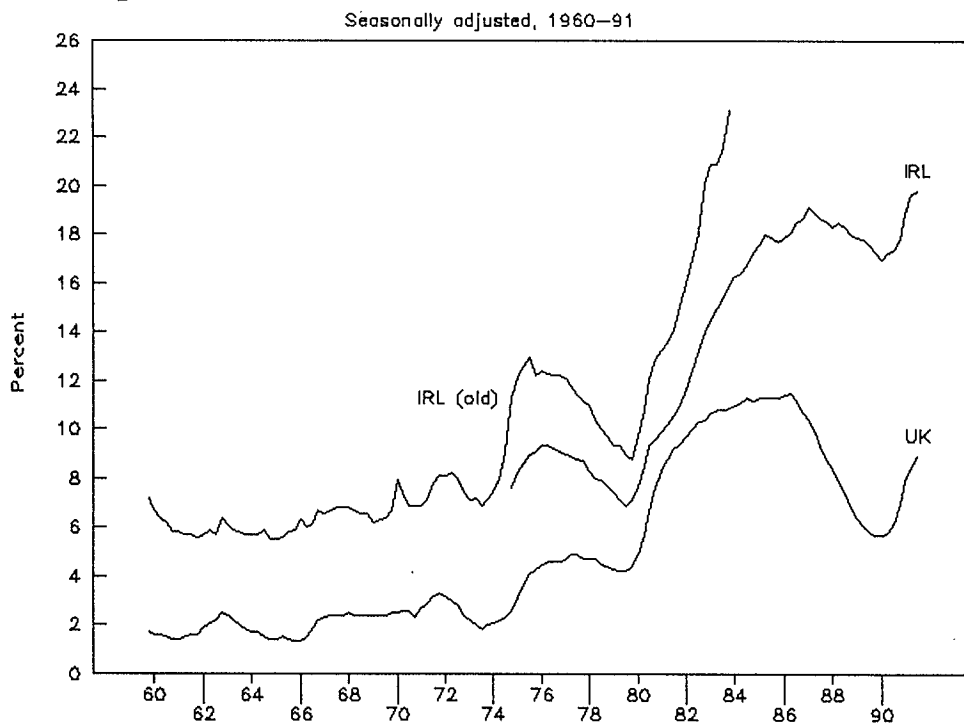
There have been several important definitional changes in the official series for registered unemployment in the UK, as well as some in Ireland. A recent paper in the official UK publication *Employment Gazette* (Lawlor, 1990) provides a consistent series going back into the 1970s and based on current statistical definitions. Irish data can also be adjusted by referring to the 'current definition' series published in *The Trend of Employment and Unemployment 1986-88* (Appendix A table IV) and by adding back the two categories which were removed from the Live Register in 1990. We use both the adjusted 'consistent' series and the official series in what follows.

¹However, the limited effectiveness to date of efforts to reduce the share of long-term unemployment is discussed in Breen and Honohan (1991).

²The series are seasonally adjusted by the OECD.

³Though this recent increase represents a higher proportion of unemployment in the UK, it amounts to about the same percentage of the labour force in each country (3.2 per cent in the UK, 2.8 per cent in Ireland).

Fig. 1: IRELAND AND UK — UNEMPLOYMENT



Figures 2 and 3 are based on the 'consistent' series, and on numbers unemployed rather than rates. The Irish and UK data are brought to a common base. These figures show that there is a sharp difference as between males and females in the degree to which Irish and UK data match.

Looking first at male unemployment (Figure 2) reveals that Irish and UK data continue to share common patterns into the 1980s. Thus, the increase in UK unemployment from 1980 to 1982 is followed with a lag of one to two years by a proportionate increase in Irish male unemployment. The stabilization of UK unemployment between 1982 and 1986 is mirrored by relative stability in the Irish data from about 1984 to about 1988. The sharp fall in UK unemployment from 1987 to 1989 has an attenuated echo in the modest fall in Irish male unemployment between 1988 and 1990. Finally the sharp increase in UK data after 1990 is matched by a simultaneous sharp increase in Ireland.

For female unemployment, Figure 3 shows that the Irish and UK series have not moved closely together. There has indeed been a notable divergence of trend between 1986 and 1990. Walsh (1992) has already drawn attention to the strong divergence from about 1985 between registered female unemployment and unemployment as reported in the Labour Force Survey (LFS). He attributes at least part of this divergence to changes in the incentive for unemployed women to register. This has resulted in a much faster rate of growth in registered female unemployment than in male unemployment (Figure 4). It is not the intention of the present paper to explore the reasons

Fig. 2: MALE UNEMPLOYMENT

Seasonally Adjusted — Consistent Series

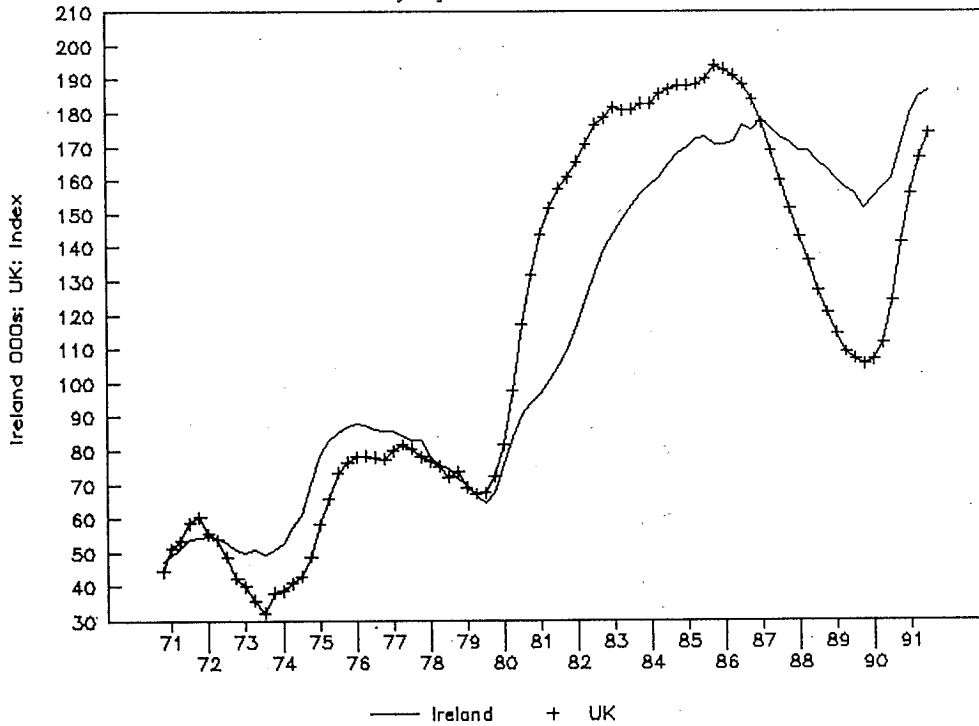


Fig. 3: FEMALE UNEMPLOYMENT

Seasonally Adjusted — Consistent Series

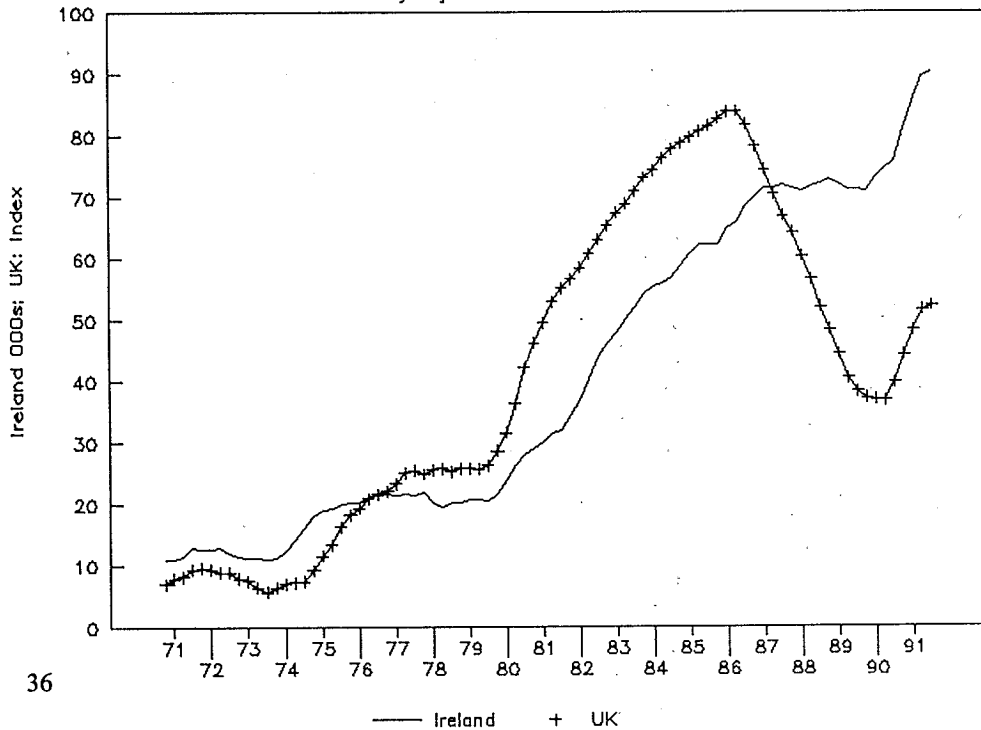
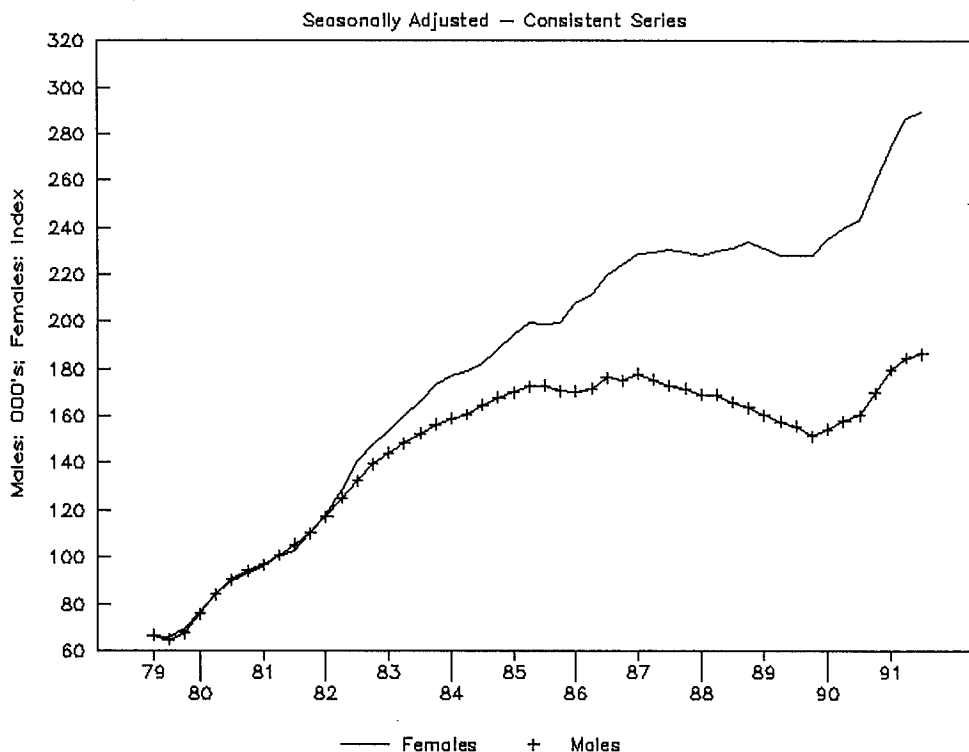


Fig. 4: FEMALE AND MALE UNEMPLOYMENT



for the divergence, though they are of considerable policy importance. For our purpose, the importance of the divergence is that it may explain the fact that the links between Irish and UK registered unemployment are so much weaker for females than for males.

Between end-1979 and end-1991, registered male unemployment grew from 64,000 to 177,000 — an increase of 175 per cent. This would have been 190 per cent had it not been for definitional changes in 1990. (There is little divergence for males between survey and register data.)

Registered female unemployment grew from 20,000 to 88,000 over the same period, but the growth in female unemployment reported in the LFS was about 32,000 less over the same period. To the extent that this divergence between survey and register reflects shifts in registration behaviour more than actual changes in unemployment conditions, it may be appropriate (for the purpose of analyzing the international linkages) to subtract it from the registered growth. After subtracting out this divergence, growth in female unemployment is measured at 174 per cent (or 183 per cent if allowance is made for the definitional changes in the register). Thus, the percentage increase in female and male unemployment over the period, so corrected, is about the same.

For comparison, although the official series for UK registered unemployment grew by only 90 per cent, the consistent series, adjusted for definitional changes, grew by 141 per cent. Thus, if the long-run relationship between Irish and UK unemployment were one of proportionality, then we could say that

over three-quarters of the large jump in Irish unemployment since 1979 was accountable to UK unemployment growth, when measured on a consistent basis. In fact, our regression model below indicates that the relationship is not one of proportionality, in which case less of the Irish growth can really be imputed to the UK.

3. Regression Results

In my 1984 paper I argued that migration between Ireland and the UK was the dominant explanation for long-term movements in Irish unemployment. This conclusion was based on econometric analysis of the rate of registered unemployment during the period 1962-83.

In particular I presented regression equations (based on quarterly data) showing that the rate of unemployment in Ireland reacted both immediately and with a lag to changes in the UK rate. A 1 per cent increase in UK unemployment would quickly increase Irish unemployment by about $\frac{1}{2}$ of 1 per cent. Over time Irish unemployment would converge to an equilibrium relationship about 5 percentage points above the UK rate. About one-twelfth of the gap would be closed each quarter.

As a matter of fact, by 1983 the gap between Irish and UK rates had widened to a degree not experienced since 1975. The equations predicted (all other things being equal) that this gap would be narrowed. Unfortunately, though the rate of increase in Irish unemployment slowed, the expected convergence did not occur. The purpose of this section is to apply econometric techniques to the recent data to see to what extent a similar statistical relationship still exists.

The underlying model behind the statistical equations is that there exists a pool of workers, located on both sides of the Irish Sea, who have a preference for living in Ireland, and who will migrate to (or stay in) Ireland if unemployment conditions are not too bad there relative to conditions in the UK.⁴ Since these workers form a small proportion of the UK labour market, their movements will have no appreciable effect on unemployment there. An increase in the demand for labour in Ireland may lead to a temporary fall in unemployment, but soon migration flows will act to restore the former level of unemployment unless UK unemployment has changed.

The net effect of changes in UK unemployment and other disturbances to this system will be to generate a gradual convergence of Irish unemployment to a stable relationship with UK unemployment.

Our approach to estimating this model is to fit a simple reduced-form error-correction equation to the data along the lines of the 1984 study. We used both the overall rate of unemployment (Table 1) and the numbers of males and females unemployed (Table 2).

Our general model for the change in Irish unemployment (ΔIR) is (apart from seasonal factors and a, possibly autocorrelated, stochastic residual):

$$\Delta IR = \alpha + \beta \Delta UK - \gamma(IR - \delta UK)_{-4} + \zeta T$$

where T is a time trend.

⁴This is a simplified version of the Harris-Todaro model of rural-urban migration (Honohan, 1982). Unemployment and wage differentials as an incentive for migration have been studied by Walsh in several papers beginning with his 1977 report.

TABLE 1: RATE OF UNEMPLOYMENT

Equation No.	1.1		1.2		1.3	
	Coeff t-stat		Coeff t-stat		Coeff t-stat	
Intercept	0.05	(0.5)	-0.02	(0.2)	0.19	(1.8)
Change in UK	0.55	(5.1)	0.40	(4.3)	0.58	(5.7)
Lagged Chg Irish			0.34	(3.1)		
Gap	-0.080	(3.9)	-0.052	(3.2)	-0.014	(1.2)
Time trend	0.014	(4.0)	0.010	(3.4)		
AR(1) parameter	0.34	(2.9)			0.59	(5.8)
RSQ/DW	0.672	1.82	0.687	1.84	0.414	0.83
SEE	0.221		0.216		0.291	
Sample	75q1-91q4		75q1-91q4		75q1-91q4	

Quarterly data, seasonally adjusted.

Dependent variable is change in Irish unemployment rate.

Gap is the difference between Irish and UK rates lagged four quarters

TABLE 2: QUARTERLY MALE AND FEMALE UNEMPLOYMENT

Equation No. Dependent variable	2.1	2.2	2.3	2.4	2.5
	Male Coeff t-stat	Male Coeff t-stat	Male Coeff t-stat	Female Coeff t-stat	Female Coeff t-stat
Intercept	8.17 (2.2)	8.19 (2.2)	12.05 (3.5)	4.27 (3.0)	4.80 (2.8)
Change in UK	21.8 (3.4)	19.6 (3.4)	8.8 (1.2)	3.00 (0.5)	0.1 (0.0)
Lagged Irish	-0.050 (3.6)	-0.161 (4.3)	-0.120 (2.7)	-0.156 (1.6)	-0.067 (0.6)
Lagged UK	4.3 (3.0)	4.3 (3.2)	5.8 (2.8)	2.2 (1.0)	0.02 (0.0)
Time trend		0.28 (3.2)	0.11 (0.8)	0.19 (1.4)	0.06 (0.3)
Seasonal dummy 1	-4.3 (2.9)	-4.3 (3.2)	-6.7 (4.5)	-2.2 (3.1)	-2.3 (3.8)
Seasonal dummy 2	-11.1 (7.5)	-11.8 (8.7)	-13.8 (10.0)	-0.8 (1.3)	-0.7 (1.2)
Seasonal dummy 3	-6.1 (4.5)	-6.6 (5.3)	-8.0 (6.6)	-2.6 (3.8)	-2.5 (4.2)
AR(1) parameter					0.30 (2.1)
RSQ/DW	0.849 1.52	0.880 1.87	0.905 1.96	0.411 1.52	0.440 1.71
SEE	2.66	2.39	2.19	1.55	1.54
Sample	79q3-91q4	79q3-91q4	79q3-90q3	79q3-91q4	79q3-91q4

Quarterly data

Dependent variable is change in Irish unemployment (thousands)

UK data is short-term unemployed in millions

'Lagged' data are lagged four quarters

The long-run equilibrium of this system is:

$$IR = \frac{\alpha}{\gamma} + \delta UK + \frac{\zeta}{\gamma} T$$

with adjustment to this at the rate of 100γ per quarter. The inclusion of a time trend is designed to capture long-term changes in the equilibrium. These could be attributable to changes in preferences of the mobile group. The fact that a time trend is significant in a sample period should not lead to a presumption that extrapolation of this time trend will provide useful predictions for the future.

When using data on the rate of unemployment (rather than numbers) we restrict δ to be unity, thus the gap between Irish and UK unemployment rates enters as a single explanatory variable rather than the two separately.

The results are as follows.⁵ Using quarterly data from the first quarter of 1975⁶ to the end of 1991, we still find a strong long-term relationship between Irish and UK rates of unemployment. However, the equilibrium is a trending one, with the equilibrium gap growing over time. This gap is estimated (in Equation (1.1)) at 6.2 percentage points at end-1982, but growing to 12.5 per cent by end-1991. The rate of adjustment to the equilibrium, at 8 per cent per quarter, is the same as estimated in my 1984 paper.

Equations (1.2) and (1.3) provide slight variations, the latter showing the importance of including the time trend: without the trend, the fit is much poorer.

Looking at the male and female figures separately, we use the numbers rather than the rates. We focus mainly on the period mid-1979 to end-1991. Table 2 is based on the official figures. A similar picture to that for the total rate emerges for the males. The fit is quite good (Equation 2.2) with an R-squared of 0.88, and the rate of adjustment to the long-run equilibrium is faster, at about 16 per cent per quarter. The necessity for the time trend is confirmed by comparing with Equation 2.1.

Note, however that if the recent surge is left out by looking at a sample ending in the third quarter of 1990 (Equation 2.3) the estimated speed of adjustment is considerably lower and the time trend is no longer significant. Until the recent surge, it would have been possible to argue that male unemployment converged to a stable, untrended relationship with the UK. This highlights a restrictive feature of our model in coping with these data: the more of medium-term fluctuations it attributes to the UK linkage, the less of long-term trends can be attributed to the UK.

Table 3 is based on 'consistent definitions'. The equations improve in terms of fit (the standard error shrinking from 2.4 to 2.0) and the precision of the parameter estimates. Equation (2.7), using seasonally adjusted figures, is probably the best equation for the males. The importance of the time trend is reinforced: the long-run coefficient of time equals about 1700 per month) about two-thirds of the average growth. The adjustment coefficient indicates that about one-fifth of the residual gap from the long-term equilibrium is closed each quarter.

The female equation based on the official figures is very poor (Equation 2.4). But turning to the 'consistent' series the situation improves. Using seasonally adjusted data (Equation 2.10), all of the coefficients are significant, and have values with the same order of magnitude as the male equations.⁷ The point estimate for the speed of adjustment (at 0.29 per quarter) is even higher than that for the males. The estimated time trend is equivalent to about 1300 per month: a very large figure. The overall explanatory power for the equation is

⁵Students of the recent theoretical literature in econometrics will recognize that the validity of these regressions depends on there being a cointegrating regression linking the two unemployment series (at home and abroad) and the time trend. As usual the data are not very conclusive on this: both male and female unemployment do appear to be non-stationary, but we can reject the hypothesis that there is no cointegration only at low levels of confidence on the basis of the augmented Dickey-Fuller test statistics reported in Table 4.

⁶That is when the OECD data series begins.

⁷Including male UK unemployment as an additional explanatory variable worsened the standard error of the equation. Furthermore, female UK data provided a better fit than total UK data.

TABLE 3: QUARTERLY MALE AND FEMALE UNEMPLOYMENT
BASED ON 'CONSISTENT' UK AND IRISH SERIES

Equation No.	2.6		2.7		2.8		2.9		2.10	
Dependent variable	Male		Male		Male		Female		Female	
Seas. adj	No		Yes		Yes		No		Yes	
	Coeff t-stat		Coeff t-stat		Coeff t-stat		Coeff t-stat		Coeff t-stat	
Intercept	9.85	(3.8)	2.4	(1.0)	0.71	(0.7)	1.83	(1.3)	1.46	(1.5)
Change in UK	34.4	(5.6)	34.2	(5.9)	35.8	(6.8)	34.1	(3.5)	29.5	(4.4)
Lagged Irish	-0.191	(4.2)	-0.194	(4.5)	-0.040	(2.3)	-0.140	(1.2)	-0.286	(3.5)
Lagged UK	10.7	(5.0)	10.7	(5.3)	3.8	(2.8)	4.5	(1.7)	7.1	(3.8)
Time trend	0.33	(3.5)	0.33	(3.8)			0.19	(1.4)	0.38	(3.8)
Seasonal dummy 1	-7.1	(8.4)			-2.4	(4.2)				
Seasonal dummy 2	-14.9	(16.5)							-0.8	(1.4)
Seasonal dummy 3	9.3	(10.4)					-2.5	(4.4)		
AR(1) parameter					0.41	(4.0)				
RSQ/DW	0.912	2.03	0.758	1.96	0.674	2.03	0.557	1.62	0.567	1.67
SEE	2.03		1.90		2.13		1.34		0.92	
Sample	79q3-91q4		79q3-91q4		71q1-91q4		79q3-91q4		79q3-91q4	

Quarterly data

Dependent variable is change in Irish unemployment (thousands)

UK data is short-term unemployed in millions

'Lagged' data are lagged four quarters

Series are adjusted for changes in definition;

UK from Employment Gazette, Dec 1990;

Irish from CSO Releases (Table 6) and Review of Employment and Unemployment 1986-88.

considerably lower than that for males. Nevertheless, an UK-Ireland linkage for females which was by no means evident in the diagram is clearly picked up by the model.

Finally, as the 'consistent' series is available back to 1971, we estimated the same equation over this longer period. Not surprisingly the precision of the estimate and the fit are poorer (Equation 2.8), but the error-correction structure still survives. The impact effect of UK male unemployment is not much different, but the estimated speed of adjustment to equilibrium is a good deal lower. The time trend is no longer significant. There is residual autocorrelation, removed in the reported equation by a first order autocorrelation parameter, but the equation passes standard tests for structural stability. The female data does not support an error-correction model over the longer period.

4. Concluding Remarks

Simple relationships rarely tell the whole story, and it is clear that our model is oversimplified. One point to be borne in mind is that both Ireland and the UK are influenced by worldwide trends and that our approach may tend to overemphasize the specifically UK source of fluctuations. Furthermore, we have not explained the factors which have led to a significant time trend. These need to be understood if we are to forecast future developments. It is possible that the factors relate to the supply of labour: for instance there may be a growing pool of unemployed who have diminished attachment to the labour market, and whose presence does not influence the migration decisions of the mobile labour force.

Furthermore, unlike the 1984 paper, we have not looked at the short-term factors influencing unemployment in a transitory manner. These factors have been analyzed in detail in the papers referenced in the introduction, and our

TABLE 4: STATIONARITY AND COINTEGRATION TESTS
(DICKEY-FULLER) BASED ON 'CONSISTENT' UK AND IRISH
SERIES

Stationarity:		DF	DW	ADF(4)	DW	
Ireland Male		-2.90	(1.91)	-1.80	(1.95)	
UK Male		-2.47	(0.16)	-1.99	(2.10)	
Ireland Female		-0.72	(0.38)	-0.31	(1.98)	
UK Female		-2.12	(0.15)	-1.52	(1.84)	
Cointegration:		CRDW	DF	DW	ADF(4)	DW
Male		0.01	-0.58	(0.72)	-1.25	(2.03)
Male with time trend		0.12	-0.54	(0.91)	-2.02	(1.94)
Female		0.01	0.96	(0.47)	-0.12	(2.01)
Female with time trend		0.31	-2.20	(1.04)	-3.73	(2.06)

Quarterly data, seasonally adjusted: no. of obs = 45.

CRDW is the cointegrating regression Durbin-Watson statistic.

DF and ADF(4) refer to the ordinary and augmented (with four lags) Dickey-Fuller test statistics.

DW refers to the Durbin-Watson statistic for the Dickey-Fuller regressions.

purpose here has been to attempt to identify the continuing importance of the migration links with the UK, relegating the remaining detail to the statistical residual, and to the time trend.

The speed with which the recent UK surge passed through to Irish data is noteworthy. This could have arisen for several reasons, including for example the existence in the late 1980s of a larger pool of very recent emigrants to the UK who were quicker to return home when labour market conditions there deteriorated. An alternative explanation could be tighter conditions than heretofore being imposed on welfare recipients in the UK. All of these matters deserve further study.

The fact that estimated UK-Irish links are somewhat weaker than in the past is not really surprising. Developments in the two economies have generally become less closely coupled for many reasons including the currency separation and increasingly close links between Ireland and the rest of the EC. Even if the currency link is restored by the EC common currency, it seems evident that the links with the UK will continue to weaken. It may also be that the wider horizon of an European job market could eventually assume greater importance, though the possibilities here could be overstated.⁸ Such trends will not reduce the dependence of Irish labour market conditions on the outside world; but they will make it more difficult to identify them in the statistics. The present study should serve as a reminder not to ignore the predominant importance of external factors in influencing long-term trends in Irish unemployment.

I end with two caveats. First, the paper does not claim that there is nothing that can be done to improve the availability of jobs, or employment growth more generally: it merely questions the medium-term impact of such changes on measured levels of unemployment. In that sense it argues against undue reliance on changes in unemployment as a measure of domestic economic performance. Second, the omission from the study of the other variables that do have an impact, transitory or more lasting, on unemployment means that

⁸The US labour market is likely to remain more important than the continental EC.

TABLE 5: UNEMPLOYMENT — CONSISTENT SERIES

Thousands		Ireland		UK				Ireland		UK	
		male	female	male	female			male	female	male	female
1971	1	47.3	10.9	496	81	1982	1	110.1	34.4	1796	652
	2	49.0	10.9	569	90		2	117.2	36.7	1848	673
	3	51.0	11.4	595	95		3	125.3	40.1	1908	699
	4	53.7	12.9	654	107		4	132.4	43.8	1971	727
1972	1	54.2	12.5	674	110	1983	1	139.6	46.1	1995	754
	2	54.6	12.5	619	107		2	144.4	47.8	2028	778
	3	54.2	12.9	599	102		3	148.5	49.9	2019	794
	4	53.2	11.9	542	101		4	152.5	51.8	2022	818
1973	1	50.9	11.4	474	90	1984	1	156.3	54.0	2041	844
	2	49.9	11.3	447	86		2	158.9	55.2	2040	857
	3	50.8	11.1	399	74		3	160.8	55.8	2073	880
	4	49.3	10.9	360	65		4	164.8	56.8	2088	897
1974	1	50.6	11.1	424	74	1985	1	167.9	58.6	2100	908
	2	52.7	12.4	432	81		2	170.0	60.6	2100	919
	3	57.3	14.0	457	83		3	172.7	62.1	2105	930
	4	60.9	16.0	479	84		4	173.0	62.0	2123	940
1975	1	70.2	18.1	542	106	1986	1	170.9	62.2	2166	955
	2	78.5	19.0	648	133		2	170.6	64.8	2154	967
	3	82.9	19.3	732	154		3	171.8	65.9	2134	968
	4	85.4	19.9	819	187		4	176.6	68.5	2105	943
1976	1	87.2	20.1	854	210	1987	1	175.3	70.0	2054	902
	2	87.8	20.3	873	223		2	178.3	71.3	1980	859
	3	87.7	21.3	875	241		3	175.4	71.4	1886	813
	4	86.3	21.5	870	249		4	173.1	71.8	1785	772
1977	1	85.9	21.7	864	255	1988	1	171.6	71.4	1692	741
	2	85.6	21.4	892	269		2	169.1	71.0	1602	696
	3	84.2	21.6	912	289		3	169.1	71.7	1520	652
	4	83.2	21.4	900	293		4	165.9	72.1	1421	600
1978	1	83.2	21.8	873	287	1989	1	163.7	72.9	1347	557
	2	78.1	20.3	857	294		2	160.6	72.0	1280	512
	3	75.5	19.4	841	298		3	157.8	71.1	1219	466
	4	74.7	20.1	804	291		4	155.9	71.1	1195	441
1979	1	71.7	20.2	821	297	1990	1	151.8	71.0	1178	429
	2	69.6	20.8	770	297		2	154.6	73.2	1194	425
	3	66.5	20.7	750	296		3	157.9	74.6	1247	424
	4	64.4	20.4	753	302		4	160.6	75.8	1386	457
1980	1	67.4	21.6	806	330	1991	1	170.1	80.8	1581	510
	2	75.8	23.9	910	363		2	179.8	85.4	1745	556
	3	83.9	26.2	1090	418		3	185.0	89.3	1863	595
	4	90.4	28.0	1308	485		4	186.6	90.1	1944	602
1981	1	94.2	28.9	1469	532						
	2	96.8	29.9	1605	571						
	3	100.7	31.4	1695	610						
	4	105.4	31.9	1759	635						

Note: Seasonally adjusted data

Source: UK: Employment Gazette, December 1990'

Ireland: The Trend of Employment and Unemployment, 1986-88; CSO Monthly release, Table 6

this study is by its very nature partial. While that should not invalidate the conclusions drawn, it does mean that the full story of the determinants of unemployment is not contained in the model presented here.

References

- BARRY, F., and J. BRADLEY, 1991. 'On the Causes of Ireland's Unemployment', *The Economic and Social Review*, Vol. 22, No. 4, pp. 253-286.
- BREEN, R., and P. HONOHAN, 1991. 'Trends in the Share of Long-term Unemployment in Ireland', *The Economic and Social Review*, Vol. 23, No. 1, pp. 73-92.
- DORNBUSCH, R., 1989. 'Credibility, Debt and Unemployment: Ireland's Failed Stabilization', *Economic Policy*, No. 8, pp. 173-201.
- GEARY, P.T., 1992. 'Ireland's Economic Recovery: A Preliminary Review of the Evidence', *The Economic and Social Review*, forthcoming.
- GIAVAZZI, F. and M. PAGANO, 1990. 'Can Severe Fiscal Contractions be Expansionary? Tales of Two Small European Countries', in O. Blanchard and S. Fischer, (eds.), *NBER Macroeconomics Annual 1990*, pp. 75-110.
- HONOHAN, P., 1982. 'Is Ireland a Small Open Economy?' *Administration*, Vol. 29, No. 4, pp. 356-375.
- HONOHAN, P., 1984. 'The Evolution of the Rate of Unemployment in Ireland 1962-83', *Quarterly Economic Commentary*, May, pp. 41-64.
- LAWLOR, J., 1990. 'Monthly Unemployment Statistics: Maintaining a Consistent Series', *Employment Gazette*, Vol. 98, No. 12, December, pp. 601-608.
- LEDDIN, A., 1990. 'An Analysis of the Irish Unemployment Problem in the Context of EMS Membership', University of Limerick, mimeo.
- McALEESE, D., 1990. 'Ireland's Economic Recovery', *Irish Banking Review*, Summer, pp. 18-32.
- McALEESE, D., and D. McCARTHY, 1988. 'Adjustment and External Shocks in Ireland', World Bank PPR Working Paper No. 262.
- McCARTHY, C., 1979. 'The Impact of Job Creation on Unemployment and Emigration', *Central Bank of Ireland Quarterly Bulletin*, Summer, pp. 64-75.
- NEWELL, A., and J. SYMONS, 1990. 'The Causes of Ireland's Unemployment', *The Economic and Social Review*, July, pp. 409-429.
- SEXTON, J.J., B.M. WALSH, D.F. HANNAN, D. McMAHON, 1991. *The Economic and Social Implications of Emigration*, National Economic and Social Council, Report No. 90.
- WALSH, B.M., 1968. *Some Irish Population Problems Reconsidered*, Dublin: The Economic and Social Research Institute, General Research Series, Paper No. 42.
- WALSH, B.M., 1977. 'Unemployment Compensation and the Rate of Unemployment: The Irish Experience', in H. Grubel and M. Walker, (eds.), *Unemployment Insurance*, Vancouver: The Fraser Institute.
- WALSH, B.M., 1987. 'Why Is Unemployment So High?' in C. Ó Grada and R. Thom, (eds.), *Perspectives on Economic Policy 1*, Dublin: University College, Dublin.
- WALSH, B.M., 1992. 'Jobless Figures Boosted by More Women Signing on Register', *The Irish Times*, March 20, 1992.

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	100.0	12466	22680	184.2	40.2	143.8
1987	113.6	132.6	101.4	12866	18450	182.4	41.1	141.2
1988	127.6	162.1	105.8	13068	15654	182.9	43.2	139.7
1989	142.5	189.4	112.3	13640	18068	187.0	45.3	141.8
1990	149.2	198.4	117.6	14325	19539	193.0	48.3	144.8
1991	154.1	209.6	118.0	14990	19652	194.5	50.3	144.3

Quarterly Averages or Totals

1989 I	139.2	193.0	102.4	3522	3663	182.5	43.7	138.8
II	147.3	196.8	112.9	3250	4203	184.9	44.5	140.5
III	132.1	167.0	105.8	3160	5467	189.8	46.5	143.5
IV	151.8	196.3	118.1	3708	4735	190.8	46.6	144.2
1990 I	147.6	203.4	108.2	3782	4372	189.2	45.9	143.6
II	153.3	203.0	119.3	3368	4667	191.9	47.2	144.9
III	139.8	181.4	109.8	3272	5313	195.6	49.9	145.5
IV	156.3	201.1	122.1	3903	5187	195.4	50.3	145.2
1991 I	154.2	215.9	110.7	4018	4785	192.6	49.2	143.3
II	156.1	209.7	118.7	3484	4164	193.7	49.4	144.4
III	141.9	186.5	110.1	3455	5228	195.6	50.8	144.8
IV	164.7	221.7	121.5	4033	5475	196.0	51.6	144.5
1992 I								
II								
III								
IV								

Quarterly Averages or Totals (Seasonally Corrected)

1989 I	138.7	183.2	106.5	3245	No Seasonal Pattern	184.3	44.3	140.0
II	140.6	187.1	108.8	3454		185.8	45.1	140.8
III	143.6	186.3	111.5	3458		188.0	45.8	142.4
IV	147.3	196.1	112.1	3492		189.8	46.0	143.8
1990 I	146.7	192.7	112.7	3492		191.2	46.6	144.8
II	146.9	194.2	115.1	3582		192.8	47.8	145.1
III	152.1	202.8	115.6	3577		193.7	49.1	144.5
IV	151.7	199.9	115.8	3671		194.3	49.7	144.7
1991 I	153.4	204.4	115.4	3715		194.7	50.0	144.6
II	150.2	201.2	114.6	3705		194.6	50.1	144.6
III	153.9	208.6	115.8	3778		193.9	49.9	143.8
IV	159.8	219.9	115.2	3791		194.8	51.0	144.0
1992 I								
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	104.9	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	147.8	111.7	96.1	100.0	169.7	71.7	241.4	1988
142.4	164.5	116.8	100.0	100.0	160.0	71.6	231.6	1989
144.5	161.7	119.9	103.9	100.5	152.1	72.6	224.7	1990
148.1	164.2	120.7			170.5	83.5	254.0	1991

Quarterly Averages

142.6	173.9	108.9	97.9	99.6	169.5	73.0	242.6	1989 I
148.9	174.2	118.5	99.1	99.8	159.7	70.9	230.7	II
130.1	141.4	108.8	100.9	100.1	155.9	72.7	228.6	III
148.7	165.8	120.8	102.1	100.5	154.7	69.7	224.4	IV
145.8	174.5	111.2	100.9	98.5	158.3	71.7	230.0	1990 I
149.3	169.4	121.4	103.1	100.3	148.2	71.2	219.4	II
133.6	143.1	111.3	105.1	101.3	149.7	75.0	224.7	III
149.5	157.4	124.1	106.3	101.9	152.1	72.6	224.7	IV
149.7	172.8	114.0	105.5	100.3	165.8	77.9	243.7	1991 I
150.6	167.1	121.2	108.7	102.6	167.2	81.1	248.3	II
135.6	144.6	112.2	110.3	102.8	173.1	88.7	261.8	III
157.1	169.2	124.1			175.7	86.3	262.0	VI
					186.8	91.4	278.1	1992 I
								II
								III
								VI

Quarterly Averages (Seasonally Corrected)

140.3	163.1	112.2	98.7	100.5	163.9	72.5	236.5	1989 I
142.2	163.4	114.1	99.3	99.9	161.5	71.9	233.4	II
142.5	160.1	115.3	100.6	99.9	158.2	71.0	229.2	III
145.1	168.3	115.2	101.4	99.7	156.1	71.1	227.2	IV
143.4	163.0	114.8	101.8	99.4	152.8	71.2	224.0	1990 I
143.0	159.9	117.0	103.3	100.4	150.1	72.0	222.1	II
146.5	162.6	117.8	104.8	101.1	151.8	73.2	225.1	III
145.5	158.9	118.2	105.6	101.1	153.6	74.1	227.7	IV
147.1	161.1	117.8	106.4	101.2	160.2	77.4	237.6	1991 I
144.5	158.3	116.9	108.9	102.7	169.1	82.0	251.1	II
148.8	164.3	118.7	110.0	102.6	175.3	86.8	262.1	III
152.5	170.5	118.1			177.3	87.8	265.1	IV
					181.2	90.9	272.1	1992 I
								II
								III
								VI

	Prices							
	17	18	19	20	21	22	23	24
	Consumer Price Index	Output Price Index Manufacturing	General Wholesale Price Index	Agricultural 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		103.1				1382.4

Quarterly Averages

1989 I	96.8	108.2	107.2	121.2	100.9	104.3	103.4	1473.5
II	97.8	109.7	108.4	125.1	101.4	106.4	104.9	1638.9
III	99.2	110.5	109.0	121.0	101.7	108.0	106.2	1710.6
IV	100.0	109.7	107.7	116.7	98.7	104.3	105.6	1711.3
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	107.4	101.6	98.4	95.6	97.1	1413.3
IV	106.4	109.5		103.6	98.0	96.5	98.2	1408.3
1992 I	107.3	110.2						1426.9
II								
III								
IV								

Quarterly Averages (Seasonally Corrected)

1989 I	96.7	108.4	107.4	119.3	No Seasonal Pattern	No Seasonal Pattern	No Seasonal Pattern	No Seasonal Pattern
II	97.8	109.5	108.6	122.9				
III	99.1	110.2	108.6	122.5				
IV	100.1	110.0	107.8	119.1				
1990 I	100.8	108.7	106.1	114.0				
II	101.3	107.7	104.8	109.4				
III	102.0	107.6	104.9	104.7				
IV	102.8	107.0	104.8	103.3				
1991 I	103.4	107.6	105.3	103.5				
II	104.4	108.6	106.5	104.2				
III	105.6	108.8	106.9	102.9				
IV	106.5	109.7		105.9				
1992 I	107.2	110.5						
II								
III								
IV								

Consumption Indicators			Government			Interest Rates		
25	26	27	28	29	30	31	32	
New Cars Registered	Retail Sales Value	Retail Sales Volume	Current Revenue	Current Expenditure	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
68569	197.5	97.8	8776	9076	300	10.4	9.3	1991

Quarterly Averages or Totals

25672	177.1	93.2	1807	2057	250	7.8	8.7	1989	I II III IV
25536	182.3	94.6	1812	2011	199	9.2	9.1		
18192	181.4	93.2	2008	1924	- 84	9.8	8.8		
8983	195.9	99.8	2129	2027	- 102	11.4	9.2		
27830	189.9	96.6	1872	2236	364	11.9	10.2	1990	I II III IV
27883	189.8	96.8	2004	2036	32	11.0	10.0		
18928	190.9	96.9	2101	1970	- 131	10.8	10.2		
8766	201.6	100.8	2293	2180	- 113	10.6	10.0		
23797	191.8	95.9	1886	2313	427	11.1	9.3	1991	I II III IV
22979	191.2	95.5	2074	2390	316	10.3	9.1		
15051	194.4	96.3	2295	2071	- 224	9.7	9.6		
6742	208.7	102.6	2521	2302	- 219	10.4	9.0		
			2055	2538	483	10.4	8.7	1992	I II III IV

Quarterly Averages or Totals (Seasonally Corrected)

19285	179.6	94.6	2004	1958	- 46	No Seasonal Pattern	No Seasonal Pattern	1989	I II III IV
19741	184.6	95.7	1849	2021	172				
19799	184.6	94.7	2051	2042	- 8				
19835	187.7	95.8	1873	2007	134				
20936	192.5	98.0	2056	2122	66			1990	I II III IV
21416	192.1	97.9	2071	2048	- 24				
20603	194.3	98.5	2120	2085	- 35				
19610	193.1	96.8	2032	2169	136				
17891	194.3	97.2	2059	2191	131			1991	I II III IV
17605	193.6	96.5	2158	2405	246				
16385	198.0	97.8	2301	2190	- 111				
15169	200.2	98.6	2244	2294	50				
			2237	2554	317			1992	I II III IV

	Monetary Developments				Exchange Rates			
	33	34	35	36	37	38	39	40
	Money Supply M3	Licensed Banks Domestic Credit		External Reserves	Effective Index	Sterling	Dollar	Deutschmark
		Gov.	Non-Gov.					
	£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	12635.6	2506.0	13872.3	2891.7	68.31	0.9302	1.6585	2.6729
1991	13024.6	2502.2	13722.8	3256.0	67.33	0.9131	1.6144	2.6710

End-Period Totals

Quarterly Averages

1989 I	10231.7	2435.4	11057.8	2735.8	63.49	0.8262	1.4440	2.6708
II	10506.9	2302.0	11764.9	2497.5	63.64	0.8500	1.3831	2.6698
III	10712.5	2350.7	11815.0	2886.7	64.21	0.8693	1.3877	2.6691
IV	10945.0	2417.7	12538.3	2521.0	66.32	0.9226	1.4621	2.6490
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	12635.6	2506.0	13872.3	2891.7	68.65	0.9154	1.7817	2.6735
1991 I	12348.6	2382.0	13746.5	3200.9	68.28	0.9126	1.7429	2.6646
II	12511.9	2288.9	13912.2	3422.0	66.55	0.9038	1.5430	2.6753
III	12923.2	2380.5	14047.2	3471.2	66.68	0.9108	1.5355	2.6740
IV	13024.6	2502.2	13722.8	3256.0	67.87	0.9257	1.6433	2.6693
1992 I					67.97	0.93033	1.6479	2.6663
II								
III								
IV								

End-Period Totals (S.C.)

Quarterly Averages (S.C.)

1989 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								
1990 I								
II								
III								
IV								
1991 I								
II								
III								
IV								
1992 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	- 1966	- 650	1985
8621.3	9374.3	753.0	103.0	104.0	- 1957	- 509	1986
9155.2	10723.5	1568.3	109.4	118.8	- 1957	239	1987
10214.8	12304.8	2090.1	114.5	127.1	- 2542	437	1988
12284.3	14597.0	2312.8	129.3	141.4	- 3039	371	1989
12479.5	14343.0	1863.5	138.3	153.5	- 2782	864	1990
12864.1	15030.9	2166.9					1991

Av. Monthly Totals

Quarterly Averages or Totals

1003.0	1118.7	115.7	126.5	131.8	- 660	89	1989 I
1042.8	1270.6	227.8	130.7	146.9	- 927	- 24	II
974.5	1214.9	240.4	121.9	138.3	- 612	341	III
1075.7	1261.4	185.8	138.5	149.1	- 950	- 145	IV
1043.7	1218.1	174.4	138.7	149.9	- 752	176	1990 I
1048.0	1257.2	209.2	144.4	158.1	- 838	65	II
995.8	1110.4	114.7	131.3	142.7	- 626	291	III
1074.1	1195.2	124.1	139.4	159.2	- 875	24	IV
1075.2	1173.4	98.3	141.4	155.4	- 589	167	1991 I
1072.4	1258.6	186.2	140.5	165.2	- 843	85	II
1036.3	1228.0	191.8	134.0	158.2			III
1104.0	1347.8	243.8	143.1	172.1			IV
							1992 I
							II
							III
							IV

Av. Monthly Totals (S.C.)

Quarterly Averages or Totals (S.C.)

981.9	1164.5	182.7	124.1	137.8	No Seasonal Pattern	No Seasonal Pattern	1989 I
1046.6	1231.3	184.7	130.4	142.1			II
1036.8	1237.0	200.1	130.5	141.9			III
1043.3	1240.1	196.8	133.8	145.1			IV
1021.7	1244.5	222.8	136.1	153.6			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	1201.6	133.4	140.6	159.4			1991 I
1072.3	1216.1	143.8	139.6	159.4			II
1085.5	1277.7	192.2	141.7	166.4			III
1062.7	1317.0	254.3	136.9	166.4			IV
							1992 I
							II
							III
							IV