

# QUARTERLY ECONOMIC COMMENTARY

NOVEMBER, 1986

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## SUMMARY

Despite a probable slight upturn in the final few months of the year, it now appears that the Irish economy has virtually stagnated in 1986. GNP growth is forecast to be less than 1 per cent, employment has continued to fall, and the substantial improvement in the Balance of Payments will be due mainly to improved terms of trade, rather than to any upsurge in export volumes. After earlier forecasts, including our own, had all predicted a substantial economic recovery during the year, this likely out-turn is particularly disappointing.

With hindsight it seems that most commentators were too sanguine in calculating the speed with which the consumer price index would respond to falling import prices, and in overestimating the rise in aggregate incomes. Thus expectations of both the value and volume of personal consumption in 1986 were probably excessive. At the same time the level of exports has proved less than expected, due in part to unforeseen difficulties in disposing of agricultural produce, in part to an unusually sharp decline in export prices and in part to some sluggishness in the volume growth of manufactured exports. Perhaps the most significant divergence between expectations and reality has concerned the course of interest rates. Whereas it had been assumed that Irish rates would decline more or less in line with world trends, their actual behaviour has been volatile but without any lasting reduction. With inflation falling, real interest rates have thus tended to rise to extraordinary levels, imposing a strong negative influence on investment and production decisions.

Given that many of the factors which depressed output in 1986 are likely to prove temporary, and that world trade should expand more rapidly, the prospects for a moderate recovery in 1987 seem reasonably good. With the volume of consumption and of exports expected to increase and the volume of investment to at least stop falling, a growth rate of about 2 per cent of GNP is forecast.

This is based on the assumption that interest rates will fall steadily, but not dramatically, from their present levels. This assumption rests in turn on the expectation that the unusual private capital outflow which has been a major factor in 1986 will cease, but that it will not be replaced by a large capital inflow. To a considerable extent these short-term capital movements seem to depend upon perceptions of the evolution of the Irish pound/sterling exchange rate and of the state of the public finances. Once it is accepted that sterling has undergone a lasting correction from its previous over-valued level, rather than suffered a bout of temporary weakness, the only valid grounds for speculative moves out of the Irish pound would be the expectation of a further Irish pound devaluation within the EMS. This looks extremely unlikely in the foreseeable future, but a firm restatement that the official exchange rate policy is to hold EMS parity, backed up by the appropriate funding strategy, may be necessary to restore sufficient confidence for interest rates to fall. Even more vital to the restoration of confidence, and thus to the course of interest rates, would be signs of definite progress towards reducing the current budget deficit and the exchequer borrowing requirement.

## FORECAST NATIONAL ACCOUNTS 1986

### A: Expenditure on Gross National Product

	1985	1986	Change in 1986					
			Provisional £m	Forecast £m	£m		%	
					Total	Volume	Total	Price
Private Consumer Expenditure ...	9797	10262	465	100	4¼	3¾	1	
Public Net Current Expenditure ...	3290	3572	282	56	8½	6¾	1¾	
Gross Domestic Fixed Capital Formation	3597	3473	-124	-82	-3½	-1¼	-2¼	
Exports of Goods and Services (X) ...	10740	10280	-460	82	-4¼	-5	¾	
Physical Changes in Stocks ...	177	203	26	30				
Final Demand ...	27601	27790	189	186	¾	-	¾	
less:								
Imports of Goods and Services (M) ...	10347	9512	-835	-51	-8	-7½	-½	
GDP at market prices ...	17254	18278	1024	237	6	4¼	1¼	
less:								
Net Factor Payments (F) ...	1992	2008	16	114	¾	-5	5¾	
GNP at market prices ...	15262	16270	1008	123	6½	5½	¾	

### B: Gross National Product by Origin

	1985	1986	Change in 1986				
			Provisional £m	Forecast £m	£m		%
					Total	Volume	
Agriculture, Forestry, Fishing ...	1346	1305	-41	-3			
Non-Agricultural: Wages, etc. ...	9323	9857	534	5¾			
Other ...	3189	3443	254	8			
less:							
Net Factor Payments ...	1992	2008	16	¾			
National Income ...	11866	12597	731	6¼			
Depreciation ...	1600	1680	80	5			
GNP at factor cost ...	13466	14277	811	6			
Taxes less subsidies ...	1796	1993	197	11			
GNP at market prices ...	15262	16270	1008	6½			

### C: Balance of Payments on Current Account

	1985	1986	Change in 1986		
			Provisional £m	Forecast £m	£m
X—M ...	393	768	+375		
F ...	-1992	-2008	-16		
Net Transfers ...	1050	1020	-30		
Balance on Current Account ...	-549	-220	+349		
as % of GNP ...	-3½	-1¼	+2¼		

## FORECAST NATIONAL ACCOUNTS 1987

### A: Expenditure on Gross National Product

	1986		1987		Change in 1987				
	Forecast £m	Forecast £m	£m		%		Total	Price	Volume
			Total	Volume	Total	Price			
Private Consumer Expenditure ...	10262	10836	574	256	5½	3	2½		
Public Net Current Expenditure ...	3572	3752	180	18	5	4½	½		
Gross Domestic Fixed Capital Formation	3473	3614	141	49	4	2½	1½		
Exports of Goods and Services (X) ...	10280	10791	511	380	5	1¼	3¾		
Physical Changes in Stocks ...	203	188	- 15	- 13					
Final Demand ...	27790	29181	1391	690	4¾	2½	2¼		
less:									
Imports of Goods and Services (M) ...	9512	9924	412	270	4¼	1½	2¾		
GDP at market prices ...	18278	19257	979	420	5¼	3	2¼		
less:									
Net Factor Payments (F) ...	2008	2128	120	100	6	1	5		
GNP at market prices ...	16270	17129	859	320	5¼	3¼	2		

### B: Gross National Product by Origin

	1986		1987		Change in 1987	
	Forecast £m	Forecast £m	£m		%	
			Total	Volume	Total	Price
Agriculture, Forestry, Fishing ...	1305	1371	66	5		
Non-Agricultural: Wages, etc. ...	9857	10360	503	5		
Other ...	3443	3669	226	6½		
less:						
Net Factor Payments ...	2008	2128	120	6		
National Income ...	12597	13272	675	5¼		
Depreciation ...	1680	1764	84	5		
GNP at factor cost ...	14277	15036	759	5¼		
Taxes less subsidies ...	1993	2093	100	5		
GNP at market prices ...	16270	17129	859	5¼		

### C: Balance of Payments on Current Account

	1986		1987		Change in 1987	
	Forecast £m	Forecast £m	£m		%	
			Total	Volume	Total	Price
X—M ...	768	867	+ 99			
F ...	- 2008	- 2128	- 120			
Net Transfers ...	1020	1000	- 20			
Balance on Current Account ...	- 220	- 261	- 41			
as % of GNP ...	- 1¼	- 1½	- ¼			

## COMMENTARY

### The International Economy

#### *General*

After a temporary setback in the first quarter, the economic expansion expected in developed countries seems to be firmly under way. Particularly in Europe, the rise in real incomes resulting from the fall in oil prices and the dollar has led to a marked increase in the volume of personal consumption and in some forms of investment. In the USA this process has been less dominant, but even so, the rise in consumer spending has been sufficient to offset the effects of a tighter fiscal policy. Growth has slowed in Japan, where the massive appreciation of the yen against the dollar has offset the favourable effects of lower fuel costs. So far as world trade is concerned, the contraction in Japanese exports has been counteracted by increased exports from other countries on the Pacific rim whose currencies have been permitted to depreciate with the dollar.

Provided there is not too sharp a recovery in oil prices, the economic expansion which commenced in the second quarter of 1986 should continue for most of 1987, with Europe showing the fastest growth rates of the developed countries. At the same time, there could be some lessening of trade imbalances as the US begins to benefit from the dollar depreciation. The volume of world trade is expected to grow by about 4½ per cent in 1987, compared with 3½ per cent in 1986 and 3 per cent in 1985. The fastest growth is expected to take place between developed countries, especially in manufactured goods, with trade to and from developing countries remaining relatively depressed.

#### *Fiscal and Monetary Policies*

Fiscal policies are expected to remain restrictive in most major countries. Despite the ruling that parts of the Gramm-Rudman-Hollings Bill are unconstitutional, there is general agreement between the Administration and Congress that the general principles of the bill should be adhered to. Thus, although the specific targets set out in the bill are unlikely to be met, there has already been a perceptible tightening of US fiscal policy which could be intensified in 1987. In Europe, efforts continue to be made in most countries to reduce budget deficits, even where, as in Germany, these are already insignificant. The exception would appear to be the UK, where a considerable relaxation of fiscal policy is taking place as the next general election approaches. A minor easing of the fiscal stance is expected in Japan, but the impact of this on the rest of the world is likely to be minimal.

In general monetary policy has become rather more expansionary in 1986, mainly through adhering to the nominal money supply targets set during 1985,

before the extent to which inflation would decline in 1986 became apparent. As a consequence, nominal interest rates have fallen substantially in most countries. Between October 1985 and October 1986 overnight rates declined by over 2½ per cent in the US, by 2 per cent in Japan, but only ½ per cent in West Germany. However, because inflation has fallen over the same period there has been little change in average real interest rates. Concern about rising money supply and a revival of inflation are likely to prevent most countries from further easing monetary policy in 1987, with West Germany in particular continuing to resist pressure from the US and other countries to reduce its interest rates further. Thus little stimulus to world demand can be expected from monetary policy in the major countries during 1987, and any further fall in nominal interest rates is likely to be very slight. On the other hand, although inflation will remain low in 1987, it probably will tend to accelerate, so that constant nominal interest rates could imply a significant reduction in real interest rates by the end of the year.

**TABLE 1: Short-term International Outlook**

Country	GNP % Change		Consumer Prices % Change		Hourly Earnings % Change		Unemployment Rate %		Budget Deficit as % of GNP		Current Account Balance as % of GNP	
	1986	1987	1986	1987	1986	1987	1986	1987	1986	1987	1986	1987
United States	2½	3½	2½	3	3	3	7	7	3¼	3¼	-3½	-3
Canada	3¼	3¼	5¼	4	3½	3¼	10	9¼	5½	5	-1¼	-½
Japan	3	4	½	½	3½	3	3	3	1	½	4¼	4
West Germany	3½	3½	0	¼	3¼	3¼	7¼	7¼	¼	½	3¼	2½
France	2¾	3¼	2½	2	4¼	3¼	10½	10½	2½	2½	1	½
UK	1½	2½	3½	4½	8½	8	12	12	3½	3¾	½	0
Italy	2½	3	5½	4¼	7½	6	10¾	10¾	13	12½	1	½
Belgium	2	2½	2¾	2½	3	3	13¼	13	9½	9	3	3
Denmark	3¼	3½	2	2	4¼	5	8½	8½	-2	-1½	-4	-2½
Netherlands	1½	2	½	1	2¾	2¼	14	13¼	6¼	6½	4¾	4½
Sweden	1½	2½	4	4½	6	5	3	3	1½	1½	½	1
Total (OECD)	2¾	3¼	2½	3	4¼	4	8¼	8	3½	3¼	-¼	-½
Ireland	¾	2	3¾	3	6½	5	18	18¼	8½*	8½*	-1¼	-1½

\*Not directly comparable.

Sources: OECD *Economic Outlook*, June 1986, updated on a country basis, with information from London Business School, NIESR, and other member institutes of AIECE.

### *Exchange Rates*

With the possible exception of the collapse of oil prices, the most important economic phenomenon in the past 18 months has been the massive re-adjustment of the world's major currencies. Since the middle of 1985 the trade weighted value of the dollar has declined by over 20 per cent and that of sterling by about 10 per cent. The yen and the deutschmark have correspondingly appreciated. To a large extent these movements represented a correction from the previous situation in which both the dollar and sterling were palpably overvalued, and the readjustment proceeded relatively smoothly because the monetary authorities in each country co-operated in making the correction.

The current consensus would appear to be that the rates between the dollar, yen and deutschmark are now sustainable and that there should be no official



action to encourage further change. However, given the very slow trade response to exchange rate movements, and the predominance of non-trading transactions in determining exchange rates, some change in the key cross-rates cannot be ruled out. If such a change does take place it is likely to take the form of a further dollar depreciation, although its extent would probably be quite limited. Provided that there is approximate stability in the value of the dollar, there would appear to be no reason for any early re-alignment of EMS currencies.

Sterling is something of a special case, both because the UK authorities are less committed to international co-operation than those operating the other major currencies and, crucially, because of the influence of oil prices on sterling. Its present value appears to be based on the expectation that there will be some increase in the price of oil, perhaps to an average of about \$16 dollars per barrel in 1987. If OPEC can effectively re-establish its cartel and force prices up higher than this, then sterling could strengthen somewhat in the coming months, although it will not nearly regain the level it had in the middle of 1985. Conversely, if oil prices fail to rise at all, then a further depreciation of sterling seems probable.

Even if market expectations concerning oil prices are broadly correct, there could be other significant downward pressures on sterling in the course of 1987. The UK balance of payments is set to move into substantial deficit in 1987; the combined effects of relatively high nominal wage settlements and higher import prices are likely to force UK price inflation well above the weighted EEC average, while there are clear indications of moves towards a softer fiscal policy stance. Whether these pressures result in an actual fall in the currency during 1987 will depend largely on the monetary policy adopted. Interest rates are already well above international levels. The choice would appear to lie between widening this differential still further, with obvious deflationary consequences, or allowing some further depreciation of the currency which would encourage output but exacerbate inflation. On balance a continuation of high interest rates and a small decline in the exchange rate would seem the most reasonable forecast for 1987, although as has been proved so often in the past any prediction of exchange rate movements is fraught with uncertainty. What does seem clear is that the depreciation of the past 18 months has represented a basic move towards correcting the previous overvaluation of the currency, and is most unlikely to be reversed. In other words, sterling is not "weak" at present levels; it has merely lost the unwarranted strength that it possessed in the last few years.

#### *The Context for Ireland*

In many respects the international context has been quite favourable to Ireland in 1986. Quite apart from the fall in oil prices, the depreciation of the dollar combined with reduced international interest rates to lighten the burden of overseas debt servicing. The lower value of the dollar, while it has clearly affected the value of some exports, also appears to have reduced the flow of profit expatriation in Irish pound terms. After a first quarter dip, output, consumption and import volumes have all tended to expand fairly briskly, especially in Europe, which should have offered reasonable opportunities to Irish

exporters. If a slow erosion of cost competitiveness over the past few years was holding back manufactured exports to the continent in the early part of the year, then the re-valuation of the deutschmark and guilder in April and the devaluation of the Irish pound in August should have rectified the position.

There have been two strongly adverse external factors in 1986. The first is the extremely weak international market for agricultural produce, where a combination of reduced income in oil-producing states, the falling value of the dollar, Canadian protectionism and the financial difficulties of the European Commission has made exporting Irish products, especially butter, exceptionally difficult. The second adverse factor is the decline in the value of sterling. Apart from the direct trade effects, which perhaps have been less severe than might have been feared, this has contributed to the repeated problems on the domestic capital markets which have prevented Ireland from following the general downward drift of international interest rates. Thus full advantage could not be taken of the favourable elements in the international environment.

The prospects for 1987 are again reasonably good, but once more contain a mixture of positive and negative features. World trade should expand slightly faster than in 1986, with the volume of imports to Ireland's major markets being particularly buoyant. The currency adjustments of 1986 should ensure a reasonable degree of competitiveness *vis-à-vis* continental Europe, while there should be no further significant loss of competitiveness with regard to the US. Although both nominal international interest rates and the dollar would appear to have completed their downward adjustment, there should be enough carry-over effect from 1986 to limit the growth in interest servicing and other factor outflows. Some upturn in the volume of world industrial investment may take place, improving the chances of Ireland attracting increased multinational investment.

The potentially unfavourable factors are that markets for agricultural exports from the EEC are likely to remain depressed, while the Community's own attempts to limit agricultural production could intensify, and that the position of sterling will continue to be fragile. While competing with UK producers will thus remain difficult, the experience of 1986 suggests that such difficulties can be coped with, providing Irish costs are minimised until such time as a higher UK inflation rate has restored a degree of balance.

Of wider general significance is whether continued worries that sterling depreciation could lead to another Irish pound devaluation within the EMS will again contribute to weakness in the capital markets. If the Irish authorities take actions which convince the market that no further EMS devaluation will be contemplated, and if the markets themselves abandon any lingering expectations that sterling might spontaneously "recover from its weakness", then 1987 could prove very different from 1986. Even if there is some further decline in sterling, sufficient funds could return to Ireland to permit a substantial easing of Irish interest rates and the improved world trade prospects could be translated into renewed expansion of the Irish economy.

## THE DOMESTIC ECONOMY

### *General*

The unpleasant process of revising downwards each successive forecast of economic performance in 1986 must be continued in this issue of the *Commentary*. Earlier expectations concerning export volumes, domestic spending, prices and interest rates have all proved too sanguine, with the result that the general economic upturn which was predicted to commence in the middle of the year has so far failed to materialise. Even with the benefit of hindsight, many aspects of this relative stagnation in 1986 are difficult to explain, at least on the basis of data so far available.

Although the general external environment seems likely to remain moderately favourable in 1987, it is a moot point as to when and how far the Irish economy will be able to respond positively to this. One of the major factors which has prevented Ireland from joining in the general European recovery in 1986 has been the unprecedented level of real interest rates, caused in part by the obsession of the financial markets with the sterling/Irish pound exchange rate. Only if sufficient equilibrium is restored to the markets to permit real interest rates to fall to a normal margin over those obtaining in the other EMS countries can a sustained resumption of balanced economic growth be expected.

The forecast for 1987 is based on the assumption that there will be a gradual reduction in Irish interest rates in the remainder of 1986 and the first half of 1987. If this happens, the prospect is for faster economic growth in 1987, finally fulfilling, a year late, some of the expectations originally held for 1986. However, the possibility must be recognised that confidence will remain low and interest rates high throughout 1987, in which case this forecast, like its predecessors in the past twelve months, will prove to have been too optimistic.

### *Exports*

Exports have been one of the areas where economic performance has been disappointing, especially in the second and third quarters of 1986. The value of visible exports in the first nine months of the year was £450 million, or 6 per cent, lower than in the corresponding period of 1985. During a period of rapidly changing price patterns, the decomposition of value data into price and volume components is notoriously difficult. However, if the unit value indices can be accepted as providing an accurate assessment of price trends, then the fall in average export prices compared with 1985 almost exactly matched the fall in value, implying that the total volume of exports in the first nine months of 1986 was virtually unchanged from that in 1985.

When the composition of exports is examined, it is clear that the values of agricultural, manufactured and other industrial exports have all declined compared with 1985. It is less clear how the volumes of each category have moved, as exactly corresponding price indices are not available. In so far as the volume movements can be tracked, there has clearly been a substantial fall in the volume of agricultural exports, while it seems fairly certain that there has been a very small increase in the volume of manufactured exports and a somewhat larger rise in the volume of other industrial exports.

Allowing for a continuation into the fourth quarter of the modest recovery in the volume of exports which appears to have taken place since June, and for approximate stability in average export prices at their August level, the value of total visible exports for 1986 as a whole could be about £9324 million, representing a decline of £419 million or 4¼ per cent of the 1985 level. With average prices for the year likely to be down by about 5 per cent, an annual volume growth of about 1¼ per cent is implied.

This is considerably below earlier forecasts, and reflects the decline in the volume of exports from the level reached in the first quarter, whereas previous forecasts assumed a continuing slow rise. In part this decline can be explained by a much higher proportion than expected of agricultural produce being placed into intervention stocks rather than sold abroad, but it also results from stagnation in the volume of manufactured exports. It is still difficult to establish the precise causes of this failure of manufactured exports to grow as expected. While the difficulty of competing on the UK market at the exchange rates in force for most of the year is presumably a contributing factor, there does not in fact appear to have been any reduction in the volume of exports to the UK. More important would appear to have been the weakness of growth in the volume of manufactured exports to continental markets, where a considerable expansion had been expected. It is not yet clear whether this relatively weak performance reflected some lack of competitiveness in the first three quarters of the year, whether it resulted from supply-side constraints, or whether some other cause was involved.

With the pace of European expansion accelerating in the final months of the year, and with cost competitiveness *vis-à-vis* the continental EEC countries improved by the August devaluation, it is possible that some recovery will be seen in the volume of such exports in the fourth quarter. However, manufacturers' expectations with regard to export sales were far from buoyant at the time of the September CII-ESRI Industrial Survey, and thus only a very modest last quarter recovery in the volume of manufactured exports has been assumed in reaching the 1986 annual export forecast shown in Table 2.

Worries about the rate of growth of capacity, allied to general caution induced by the unexplained sluggishness of performance in 1986, serve to keep the industrial export volume forecasts for 1987 very conservative in relation to

**TABLE 2: Exports of Goods and Services**

	1985		% Change		1986		% Change		1987 £m
	£m		Volume	Value	£m		Volume	Value	
Agricultural	1781	—3	—6		1674	2	4		1741
Manufactured	6280	1½	—3½		6060	4	4½		6333
Other Industrial	1556	5	—5		1478	4	5		1552
Other	126				112				120
Total Visible	9743	1¼	—4¼		9324	3½	4½		9746
Adjustments	—216				—224				—200
Merchandise Exports	9527	1¼	—4½		9100	3¾	5		9546
Tourism	691	—9¾	—6		650	3¼	6¼		690
Other Current Receipts	522	1½	1½		530	3	4¾		555
Exports of Goods and Services	10740	¾	—4¼		10280	3¾	5		10791

the expansion seen in most years during the past decade. On the assumption that, after the volatility of the past 12 months, exchange rates will be reasonably stable, a marginal increase seems possible in the average price of both manufactured and other industrial exports in 1987.

Agricultural exports suffered in 1986 from the loss of income in many oil producing markets, as well as from very low dollar-related prices. While difficult conditions seem likely to persist in 1987, a minor recovery is forecast in the value of agricultural exports, as European consumption increases, some new markets are established, and the green pound devaluation improves many prices.

After its setback in 1986, entirely due to the fall-off in US business, tourism can be expected to return to a moderate rate of expansion in 1987, with much of the growth continuing to come from continental markets. Assuming some increase in the volume and value of other services exports, total exports of goods and services in 1987 are forecast to rise by 3¾ per cent in volume, and by 5 per cent in value. The implied price increase of 1¼ per cent on an annual basis represents an average price increase of about 4 per cent from current levels by the end of 1987.

### *Stocks*

The reduced forecasts for agricultural exports in 1986 have to be balanced by a substantial upward revision in the forecast level of intervention stocks, particularly of butter. So, far from the rate of intervention stockbuilding declining sharply in 1986 as had previously been expected, it now appears likely that the increase in intervention stocks will be even greater than in 1985.

Farm stocks, on the other hand, seem likely to fall more sharply than in 1985, as cattle disposals have been above expectations. In the absence of indicators of movements in non-agricultural stock levels, the best guess that can be made at present is that the increase will be similar to that in 1985. On this assumption total stocks are forecast to rise by £203 million in 1986, some £26 million more than last year.

**TABLE 3: Stock Changes**

	1985 £m	Change in Rate £m	1986 £m	Change in Rate £m	1987 £m
Livestock on Farms	-31	-14	-45	+25	-20
Irish Intervention Stocks <sup>1</sup>	105	+40	145	-70	75
Other Non-agricultural Stocks	103	0	103	+30	133
Total	177	+26	203	-15	188

<sup>1</sup>Including subsidised private storage.

While cattle stocks seem certain to decline again in 1987, if only because of the reduction in the breeding herd, the reduction may well be smaller than in 1985 or 1986. Given the likely level of agricultural output in 1987, intervention stocks will probably continue to grow. However, it is assumed that the EEC Commission will renew its attempts to limit the build-up of stocks both through

restricting intake and through intensified efforts at disposal. The forecast, inevitably tentative at this stage, is that the increase in intervention and related stocks will be about half this year's amount. With industrial production and the volume of consumer spending expected to show faster growth in 1987, some increase in the rate of industrial and distribution stocks can reasonably be projected. Lower average interest rates in 1987 than 1986 should encourage this trend. In total therefore, stock building in 1987 is forecast to be slightly below that in 1986 and close to the 1985 level.

#### *Fixed Investment*

Indicators of building and construction activity and of the value of capital goods imports in the first half of 1986 suggest that both the value and volume of total fixed investment will decline significantly in 1986 as a whole. Whereas earlier forecasts looked for some upturn in the second half of the year under the stimulus of lower interest rates and higher incomes, the perverse movement of domestic interest rates during the autumn has precluded this recovery. As shown in Table 4, volume declines of 4 per cent in building and construction and of 1 per cent in machinery and equipment now seem likely, giving an overall decrease in the volume of fixed investment of about 2¼ per cent. Lower prices, in Irish pound terms, for most imported capital goods make it likely that the decrease in the value of investment will be even greater than in the volume.

**TABLE 4: Gross Fixed Capital Formation**

	1985		% Change		1986		% Change		1987 £m
	£m	Volume	Volume	Value	£m	Volume	Value		
Building and Construction	1521	—4	—	0	1520	½	3½	1573	
Machinery and Equipment	2076	—1	—	—6	1953	2	4½	2041	
Total	3597	—2¼	—	—3½	3473	1½	4	3614	

With regard to 1987, little recovery in the volume of building and construction investment can be expected on the basis of current policies. Previous forecasts predicated a pent-up demand for private housing which would be released under a combination of higher real incomes and lower real interest rates. Quite apart from the tendency of real incomes to grow more slowly and interest rates decline more tardily than anticipated, further consideration of demographic factors, including the high level of emigration, casts doubt on the basic premise of a high latent demand for new housing. Thus only a sluggish recovery in private sector housing in the course of 1987 is now projected. This is likely to be offset by a further substantial fall in Local Authority house building in response to the virtual elimination of general waiting lists in many areas.

Agricultural investment in buildings is likely to remain depressed, but a small increase can be expected in the volume of industrial and commercial building, provided that there is a fall in interest rates early in the year. The one relatively buoyant area of building activity in 1986 has been in the area of

household repairs and improvements, under the stimulus of the grants introduced in late 1985. Given the normal administrative lags in such schemes, whereby approvals of about £32 million in the first half of 1986 had been translated into actual payments of just over £4½ million, much of this buoyancy will be carried over into 1987. What is not yet clear is how most of the activity will be treated in National Accounts terms, and thus whether it will be classified as fixed investment or as private consumption expenditure. For the purpose of this forecast, an attempt has been made to split the spending crudely between repairs and improvements, with the former entering consumption and the latter treated as investment.

In keeping with the general prediction of a slowly improving economic performance in 1987, a small increase has been projected in the volume of investment in machinery and equipment. This appears consistent with IDA reports of the number and size of grant approvals during 1986.

### *Consumption*

Most previous economic forecasts for 1986 based much of their predicted growth rate on the assumption that the volume of consumption would rise quite sharply in the course of the year. The evidence to date suggests strongly that this "consumer boom" has failed to materialise. To some extent this can be attributed to the unexpectedly slow reaction of consumer prices to the reduction in import prices, the possible reasons for which will be discussed later. Of perhaps even greater significance is the failure of the value of consumption to rise as much as expected.

Although the retail sales index is an imperfect indicator of total personal consumption, because it excludes important types of consumer expenditure such as housing and travel and includes extraneous spending such as that by foreign tourists, it nevertheless provides some guidance to the course of consumption expenditure. In the seven months to July 1986 the value index was only 2.7 per cent higher than in the corresponding period of 1985. Even more disturbingly, the value index had declined on a seasonally corrected quarterly basis by 2 per cent between the fourth quarter of 1985 and the second quarter of 1986. When due allowance is made for the distorting factors just mentioned, particularly the fall in tourist spending in the early summer of 1986, it still appears that the value of consumer spending in the first half of 1986 did not keep pace with the rise in nominal disposable income over the period.

It is impossible to be certain of the reasons for this phenomenon, and thus to assess the degree to which they are likely to have been temporary. For instance, if the improvement in disposable income was taken as an opportunity to reduce personal indebtedness, the effect will be of limited duration and spending will increase once a new stable balance has been reached. On the other hand, if consumer saving rose because the high level of real interest rates on most small savings instruments made saving attractive, while the even higher rates of interest on personal borrowing deterred purchases of consumer durables, then the effect could persist so long as real interest rates remain high. For the purpose of this forecast it is assumed that there will be a modest recovery in the value of retail spending in the latter part of 1986, the first signs of which could be the improvement in new car registrations during August and

September. Together with expected increases in non-retail consumer spending, this could take the increase in the value of personal consumer expenditure in 1986 to about  $4\frac{3}{4}$  per cent, implying a volume rise of a little over 1 per cent.

Given both the passage of time and the expected fall in real interest rates, it seems probable that the factors holding back consumer spending in 1986 will not operate so strongly in 1987. Thus a rise in the value of consumer expenditure roughly in line with the increase in personal disposable income seems the most likely outcome for 1987. Such a value increase, of about  $5\frac{1}{2}$  per cent, would represent a volume rise of about  $2\frac{1}{2}$  per cent, as the long awaited upturn in the volume of consumption finally arrived.

Public expenditure on current goods and services seems set to increase by slightly more than its budgetted rise in 1986. In value terms this is due to a small increase in pay as a result of the settlement of the teachers' dispute, while in volume terms also there appears to have been a slight overrun on spending. Despite the declared intention of the Minister for Finance to make cuts totalling £300 million, it is difficult to make a realistic prediction of the level of current public spending in 1987, given the inevitable uncertainty concerning the timing and outcome of the general election. It is therefore necessary to make the technical assumption that the rise in the volume of public consumption will be  $\frac{1}{2}$  per cent, which is the average increase seen between 1982 and 1985. With the price deflator, largely pay, likely to be considerably lower than in most recent years, this would imply a value increase in public consumption of about 5 per cent in 1987.

#### *Final Demand*

The forecasts of demand components already discussed suggest the extraordinary situation in 1986 that the value of final demand will increase by only the same amount,  $\frac{3}{4}$  per cent, as the volume. The reason for this, of course, is the steep decline in the average price of both exports and imported capital goods, which are sufficient to offset continuing price increases on the domestic items of expenditure. In volume terms, the predicted fall in fixed investment cancels out a considerable proportion of the very modest increase expected in the other components of final demand. One result of this is that the composition of total final demand is exceptionally non-import-intensive.

The projections for 1987 show a more normal picture, both with regard to the increase in final demand and its composition. The value is projected to rise by  $4\frac{3}{4}$  per cent and the volume by  $2\frac{1}{4}$  per cent. All components except stock-building are forecast to contribute to this increase, and the fall in the rate of stock building is confined to the domestically supplied elements of farm and intervention stocks. Thus the pattern of final demand growth in 1987 seems likely to be considerably more import-intensive than in 1986.

#### *Imports*

The fall in the value of imports in the first three quarters of 1986, at over  $10\frac{1}{4}$  per cent, has been even sharper than that in exports. As in the case of exports, however, there is some difficulty in distinguishing between volume and price elements in the value decline, especially when the different categories of imports are considered separately.



The greatest reduction in value compared with the corresponding period in 1985 has been in imports of non-agricultural intermediate goods, which fell by 15½ per cent. This is by far the largest category of imports, and it is also the one in which price falls could be expected to be the greatest, because of both currency movements and the fall in energy prices. Nevertheless it is clear that there has also been a substantial fall in the volume of such imports, reflecting the sluggish performance of manufacturing industry and possibly some run-down in industrial stocks in the first half of the year.

The value of capital goods imports also fell heavily in the period from January to September compared with the same period of 1985. Again price movements account for a substantial part of the reduction, but a significant fall in volume was also apparent. The value of consumer goods imports was marginally above 1985 levels, so that even if the price effect was smaller, a considerable increase in volume took place, as it did in intermediate goods imports for agriculture.

There seems little reason to expect a major surge in import volumes in the final months of the year, although some recovery from the very low levels obtaining from May to August does seem probable. Similarly import prices probably reached their nadir in the early summer and seem unlikely to fall further in the remainder of the year. Table 5 sets out the possible pattern of imports for 1986 as a whole, although the breakdown between price and volume for the different categories must be taken as very tentative.

**TABLE 5: Imports of Goods and Services**

	1985		% Change		1986		% Change		1987
	£m	Volume	Value	Value	£m	Volume	Value	Value	£m
Capital Goods	1253	—1	—8		1153	2	4½		1205
Consumer Goods	2318	3¼	0		2315	3½	5		2430
Intermediate Goods:									
Agriculture	455	5	—6		427	—3	—4¾		407
Other	5376	—3½	—14		4620	3¼	4½		4832
Other Goods	30				22				26
Total Visible	9430	—1	—9½		8537	2¾	4¼		8900
Adjustments	—58				—67				—74
Merchandise Imports	9372	—1	—9½		8470	2¾	4¼		8826
Tourism	399	6½	10¼		440	2½	5½		464
Other Services	576	3	4½		602	3¼	5¼		634
Imports of Goods and Services	10347	—½	—8		9512	3	4½		9924

Given the many projections made earlier in the year of the likely effects of falling energy prices, it is interesting to examine how far the reduction in the import prices of energy has accounted for the decline in import values. In the period from January to August the average import price of energy was almost 40 per cent lower than in the corresponding period of 1985. If the same volume had been imported as in 1985, the price reduction would have led to a saving of some £300 million in the period. For the year as a whole, the price saving on energy seems likely to be about £420 million, or almost half of the total reduction in the value of visible imports. Even allowing for an increased

volume of energy imports, as low-price stocks have built up, the actual reduction in the value of energy imports for the year could amount to about £370 million.

Assuming that the forecast is correct in anticipating a modest recovery in final demand in 1987, total import volumes in that year can be expected to grow by about 2¾ per cent. If the projection that exchange rate changes will be limited in the next 15 months is broadly correct, then a modest increase in import prices seems probable, not least because oil prices are likely to be somewhat higher in 1987 than in 1986. Given increases in tourist spending and other imported services roughly in line with consumer spending, total imports of goods and services in 1987 could increase by 3 per cent in volume and 4½ per cent in value.

### *Balance of Payments*

The import and export forecasts indicate a surplus in the balance of trade in current goods and services in 1986 of £786 million, or nearly double that recorded in 1985. Preliminary Balance of Payments statistics for the first half of the year indicate that the seemingly inexorable rise in net factor payments overseas has been temporarily halted. Even allowing for a small increase in the second half of the year in both national debt interest payments abroad and repatriated profits, it seems that net factor payments in 1986 will be less than 1 per cent above their 1985 level. The check to the growth in national debt interest is due entirely to the effects of lower international interest rates and the weakness of the dollar counteracting the costs of servicing the new borrowing undertaken during the year and of the devaluations against the deutschmark. The dynamics of profit expatriation are imperfectly understood, but it seems probable that the decline in the dollar has contributed both to a check in the level of recorded profits in Irish pound terms, and to limiting the flow of expatriated funds.

Developments in the level of intervention stocks and the cost of disposal to third markets have prevented the flow of EEC subsidies from declining as much as previously expected, and it now appears that there will be only a minor reduction in the level of net subsidies from abroad. In total therefore it seems likely that the balance of payments deficit on current account in 1986 will amount to about £220 million or 1¼ per cent of GNP. Such a forecast, based on existing classification practices, does imply the assumption that the very large residual in the balance of payments is composed of unclassified capital flows, and not from any under-recording of current flows.

With regard to 1987, the trade forecasts indicate a much smaller increase in the surplus on trade in current goods and services, to a level of £867 million. With resumed, but limited, growth likely in net factor outflows, and a probable reduction in the level of net subsidies from abroad, the current account deficit seems likely to increase in 1987 to about £261 million, or 1½ per cent of GNP.

### *Output*

Due in part to adverse weather conditions for much of the year, but primarily to the unexpected weakness in both domestic demand and exports, the output

of the Irish economy has shown very little growth in 1986. The prospects are more favourable for 1987, with a belated increase in domestic and external demand encouraging faster industrial growth, and an assumed return to normal weather conditions permitting some recovery in agricultural output. Nevertheless, output growth seems unlikely to be vigorous, although it should be reasonably balanced between the different sectors.

### *Agriculture*

Expert opinion remains divided concerning the level of agricultural output in 1986. This is not surprising given the pattern of exceptionally poor weather conditions until the end of August followed by unusually favourable conditions for the next six weeks or so. It is clear that total milk production for the year will be down significantly, but the exact extent of the reduction is still open to some doubt. Livestock production will also be lower than in 1985, due to the reduction in the breeding herd, and despite the fact that actual cattle disposals will have increased substantially. It now seems possible that crop production might be slightly above the very depressed level of 1985.

On balance, it would appear reasonable to forecast a decline of about 2½ per cent in the volume of gross agricultural output in 1986. Because of poor fodder production in 1985 and the late availability of spring grazing in many districts, the volume of purchased feed inputs in 1986 as a whole will probably be some 4 per cent higher than in the previous year. Despite a substantial fall in fertiliser usage, total farm inputs will thus have increased by at least 2½ per cent, leaving the volume of gross agricultural product, or the value added in agriculture, about 5 per cent lower than in 1985.

Although milk output is likely to be further curtailed by quota reductions in the marketing year 1987/88, production is likely to be higher in the calendar year 1987 than in 1986. Given normal weather conditions, crop output should also increase, and with higher sheep production offsetting part of a further fall in cattle output, gross agricultural output in 1987 could rise by about 2 per cent in volume. Input volumes, especially of feed, should be somewhat lower, so that gross agricultural product might show a volume rise of 2½ per cent. It is worth noting that this would leave the volume of gross agricultural product well below that achieved in 1985, which at the time was regarded as an exceptionally bad year.

### *Industry*

In the August *Commentary* it was noted that if the volume of production index for manufacturing industry held constant at the average level it reached in the first four months of 1986, it would show an increase of 3 per cent for the year as a whole. Unfortunately it failed to hold that level, with the seasonally adjusted average for May-July some 4¼ per cent below that of the first four months. This downturn accompanied poor figures of manufactured exports and also the period in which the volume of retail sales stagnated rather than grew as anticipated. The CII-ESRI Survey for September gives no indication of any recovery in August or September, and no sign of optimism among manufacturers that there will be an improvement later in the year.

Although some allowance should be made, in spite of the Survey evidence,

for a small recovery in output in the final quarter, it now seems likely that the annual increase in manufacturing production will be no more than  $1\frac{1}{2}$  per cent. The autumn recovery in turf production, after a poor summer, and a continuing rise in electricity output, partly offsetting a reduction in gas production, suggest that the increase in the volume of production of all industries could be marginally greater, at about  $1\frac{3}{4}$  per cent. With building activity falling by about 3 per cent, when allowance is made for the "consumption" aspects of home improvements discussed on p. 16, it appears that the total industrial sector will have made only a marginal contribution to economic growth in 1986.

Provided that exports grow as expected, and that the volume of consumption does increase significantly, manufacturing output in 1987 should increase by about  $3\frac{1}{2}$  per cent. With turf production recovering further on the assumption of normal weather, and the fall in demand for building materials coming to an end, the index of production for all industries could also see an increase of  $3\frac{1}{2}$  per cent. Although above the rate of increase in either 1985 and 1986, such a projection is far below the increases seen in the brief recovery of 1983 and 1984, and should be well within the capacity limits of the industrial sector. With building output likely to show a marginal increase after the heavy falls of recent years, industry as a whole can thus be expected to contribute substantially to the projected growth rate in GDP in 1987.

### *Services*

With no running indicators available for the output of services, annual forecasts must be based on general impressions and on approximate relationships between services and the rest of the economy in previous years. On this basis, a small rise in service output seems probable in 1986 with the fall in the volume of tourism being rather more than counteracted by increases in public, distributive and financial services.

The growth in service output seems likely to remain modest in 1987 with a recovery in tourism and somewhat faster growth in other private services being offset by a slower rise in the volume of public services, in keeping with the technical assumption of a  $\frac{1}{2}$  per cent rise in public authority consumption. Total service activity is projected to increase in 1987 at a little under 2 per cent, or slightly below the expected growth in the volume of GDP.

### *Employment*

As was discussed at some length in the *August Commentary*, the publication of the preliminary Census returns for 1986, and the Labour Force Survey for 1985, forced a significant reappraisal of employment estimates both for the recent past and for the immediate future. The revelation of a higher than expected rate of emigration, and thus of a falling labour force, altered one of the basic premises on which calculations had been made.

The relationships between total population, the labour force, employment, unemployment and net emigration are obviously complex, with none being totally independent of the others. However, for the purpose of forecasting, it is probably safest to assume that the level of employment is determined purely by output and productivity factors and is thus not directly influenced by

changes in emigration flows or the size of the labour force. On the basis of the output projections for 1986 and of past trends in productivity, average industrial and agricultural employment levels in 1986 are likely to be considerably lower than in 1985, leaving a reduction of some 17,000 in the annual average total at work in the economy.

On the assumption that net emigration is continuing to run at a high level in 1986, largely in response to the poor employment prospects, the total labour force is expected to decline by about 12,000 on an annual average basis. This, in turn, implies an increase of 5,000 in the average level of unemployment, which is compatible with the number on the Live Register in the first ten months of the year.

**TABLE 6: Employment and Unemployment**

A: Mid-April Estimates '000					
	1984	1985	1986	1987	1988
Agriculture	181	169	161	155	150
Industry	319	305	296	292	292
Services	604	600	600	600	602
Total at work	1104	1074	1057	1047	1044
Unemployed	204	225	230	233	234
Labour Force	1308	1299	1287	1280	1278
Unemployment Rate %	15.6	17.3	17.9	18.2	18.3
Live Register	214	228	232	236	237

  

B: Annual Averages '000					
	1984	1985	1986	1987	
Agriculture	175	167	158	152	
Industry	311	301	293	292	
Services	602	600	600	601	
Total at work	1088	1068	1051	1045	
Unemployed	217	227	232	234	
Labour Force	1305	1295	1283	1279	
Unemployment Rate %	16.6	17.5	18.1	18.3	
Live Register	214	231	235	237	

Provided that the forecast recovery in output, and especially the stabilisation of building activity, does take place in 1987, the fall in the total number at work should be a great deal slower, at about 6,000. It is difficult to predict what effect this amelioration in non-agricultural employment prospects might have on participation rates or on emigration, which itself could be affected by changes in the US law on employing illegal immigrants. Thus, the likely size of the labour force in 1987 is a matter of considerable conjecture.

It is assumed, somewhat arbitrarily, that emigration will be less than in 1986, although remaining at a high level. On this basis, the labour force is projected to fall by some 4,000 in annual average terms, implying an increase of about 2,000 in the average level of unemployment. While this fits reasonably well with an extrapolation of trends in the Live Register, it must be borne in mind that

if net emigration were to be reduced sharply, the number of unemployed could increase much more rapidly than projected.

### *Incomes*

Although the volume of gross agricultural product is forecast to fall by about 5 per cent in 1986, the fall in agricultural incomes is likely to be less severe. Input prices have fallen more sharply than output prices, so that despite some increase in other expenses the net price effect should be positive. When allowance is also made for some increase in incomes from fishing and forestry, a fall of about 3 per cent in aggregate income from agriculture, forestry and fishing seems a reasonable estimate. It is worth noting that given an assumed reduction of over 5 per cent in the numbers engaged, this forecast implies a small increase in the average nominal income per head of those working in agriculture. Annual average price movements seem likely to remain favourable in 1987, so that the projected increase of 2½ per cent in gross agricultural product could result in a rise of about 5 per cent in income arising from agriculture, forestry and fishing.

Data on pay settlements to date in 1986, together with the carryover from 1985, suggest that average earnings in the private sector will rise by about 6¼ per cent this year. However, it now appears likely that the fall in private sector employment has been at least 1 per cent, leaving the increase in the private sector pay bill at little over 5 per cent. The public sector pay bill has increased more rapidly, due in part to the effect of special pay awards, and will show an increase of over 7½ per cent. Total non-agricultural wages, salaries and pensions thus seem likely to have grown by about 5¾ per cent in 1986. This is a sharp downward revision on previous forecasts, and goes some of the way towards explaining the sluggishness of consumer spending in the first half of the year.

Current indications suggest that public sector earnings will again grow more rapidly than private in 1987. Under the influence of difficult trading conditions in many industries due to exchange rate movements, and within the context of a recorded price inflation of 3 per cent or less over the coming months, new private sector pay settlements can be expected to moderate further. An increase in average private sector earnings of less than 5 per cent in 1987 seems probable, with the rise in the pay bill slightly lower because of a marginal fall in the annual average number of private sector employees. The public sector pay bill on the other hand seems set to rise by at least 6½ per cent, even if a pay pause is imposed from the expiry of the current agreement until the end of the year. Thus, total non-agricultural wages, salaries and pensions can be expected to increase by just over 5¾ per cent in 1987, on the assumption that strict control is exercised over public sector pay rises.

Other non-agricultural incomes present something of a paradox in 1986. The extreme price movements in imports and exports resulting from shifting exchange rates would appear to have had the effect of sharply reducing the rate of growth of profits, on a national accounts basis. However, the fall would appear to have been concentrated in the multinational companies which expatriate the bulk of their earnings, as reflected in the minimal rise in net factor payments during the year. Conversely, the payment of dividends from

Irish-based companies and the incomes of independent traders have been relatively buoyant, especially in those cases where trading margins appear to have been widened substantially in the wake of falling import and wholesale prices.

An increase in domestic income from interest, dividends and rents, and from self-employment, of about 9 per cent seems a reasonable forecast for 1986. This is a slight reduction from estimates in previous *Commentaries* due to the substantial downward revision made in the projected volume of retail expenditure. Competition can be expected to narrow margins in the course of 1987, especially as import prices are likely to rise a little, so that despite the expansion in the volume of trading such incomes are likely to grow more slowly next year. An increase of 6½ per cent for 1987 is projected in Table 7.

**TABLE 7: Personal Disposable Income**

	1985	Change		1986	Change		1987
	£m	%	£m	£m	%	£m	£m
Agriculture, etc.	1352	-3	-41	1311	5	66	1377
Non-Agricultural Wages, etc.	9337	5¼	535	9872	5¼	528	10400
Other Non-Agricultural Income	1630	9	147	1777	6½	116	1893
Total Income Received	12319	5¼	641	12960	5½	710	13670
Current Transfers	3146	6¼	197	3343	5	169	3512
Gross Personal Income	15465	5½	838	16303	5½	879	17182
Direct Personal Taxes	3325	8½	283	3608	5	180	3788
Personal Disposable Income	12140	4½	555	12695	5½	699	13394
Consumption	9797	4¾	465	10262	5½	574	10836
Personal Savings	2343	3¾	90	2433	5¼	125	2558
Savings Ratio	19.3%			19.2%			19.1%

Current transfers are forecast to have increased by 6¼ per cent in 1986, with some fall in the level of external transfers offsetting a larger rise in domestic transfers. On the assumptions that there will be only a small increase in the numbers on the Live Register in 1987 and that improvements in benefit and assistance rates will be restricted to the rise in the consumer price index, total transfer incomes in 1987 are likely to increase by about 5 per cent. Gross personal income is thus forecast to increase by 5½ per cent in both 1986 and 1987.

Direct personal taxation will increase much faster than gross personal income in 1986. This is partly because of lagged payments from the more inflationary year of 1985, but mainly due to the effect of the deposit interest retention tax in bringing forward tax payments on unearned incomes. Assuming approximate indexation of tax bands and allowances, direct personal taxation in 1987 would grow by slightly less than the increase in gross personal income. When increases in taxation of 8½ per cent in 1986 and 5 per cent in 1987 are taken into account, personal disposable income is forecast to rise by 4½ per cent in 1986 and by 5½ per cent in 1987. In each year, it seems reasonable to allow for a marginal decline in the personal savings ratio, due to the

composition of income changes and the effect of the deposit income retention tax.

### *Consumer Prices*

One of the principal disappointments in 1986 has been the slowness of the consumer price index to respond to falling import prices. Most commentators anticipated a fairly rapid impact, with consumer prices, net of tax, actually falling from their first quarter levels. In particular, the increase of 0.2 per cent in the index between May and August was disturbing, given that mortgage rates had fallen and VAT had been reduced on several services. It is, perhaps, ironic that the largest increase in the index during that period was on services and related expenditure.

It is clear, therefore, that margins widened in the distribution chain during the first three quarters of the year. What is not yet certain is whether this widening represents a long-term shift in income distribution or whether it merely reflects the presence of longer lags in the system than had been foreseen. It remains possible to be optimistic that much of the shift is temporary, and that as old stocks are cleared and price competition becomes more apparent retail prices will eventually reflect reductions in wholesale prices.

Taking a fairly cautious view on this matter, the forecast assumes that there will be little change in the level of the consumer price index between August and November, so that the annual average increase in the index for 1986 will be about  $3\frac{3}{4}$  per cent, and the November to November rise about 3 per cent.

With regard to 1987, the assumption that there will be little change in the trade weighted value of the Irish pound implies that import prices will rise gradually in line with world inflation. The most significant price increase could be in crude oil and its derivatives, where a rise of about 15 per cent in the annual average crude oil price is assumed. The further key assumptions underlying the price forecast are that domestic interest rates will begin to decline significantly early in the year, so that the average for the year will be well below the 1986 average, that nominal wage increases will be the lowest for many years, and that indirect tax rates are approximately indexed.

On the basis of these assumptions, the consumer price index could be expected to rise by roughly 1 per cent per quarter throughout 1987, giving an annual average increase of 3 per cent, and a November to November rise of 4 per cent.

### *Public Finances*

The failure of the economy to expand as much as expected in the second half of the year has invalidated earlier forecasts that there should be a substantial upturn in tax revenue as the year progressed. Therefore, it now seems probable that tax as well as non-tax revenue will fall short of target for the year. At the same time, it seems clear that there will be some over-run on public current expenditure, due partly to weather-related temporary factors and partly to some apparent weakening in control of spending limits.

Nevertheless, it is important not to exaggerate the degree of slippage from the target budget deficit. It still appears as if the Minister for Finance's estimate of an excess of £180 million on the deficit, composed of roughly equal shortfalls



in revenue and over-runs on spending, is towards the upper rather than the lower end of the range of possible outcomes. However, even if the deficit turns out to be as low as £1,400 million, which is towards the lower end of the possible range, it would still represent just over 8½ per cent of GNP and a slight deterioration from the position in 1985. Given the likelihood, as usual, of slight underspending on the public capital programme, the total exchequer borrowing requirement will probably remain at about 13¼ per cent of GNP.

If present policies continue, and if the general economic forecast for 1987 is correct, then the current budget deficit next year will be similar to the 1986 out-turn as a proportion of GNP. Indexation of relevant taxes, combined with a faster growth in VAT as import values recover, but also with a loss of the once-off effect of the deposit interest retention tax seen in 1986, suggests that total tax revenue will increase roughly in line with incomes and consumer spending at a little over 5 per cent. Some increase can be expected in non-tax revenue, due to the absence of the special factors which depressed it in 1986, but overall it is difficult to see total revenue increasing by more than 5½ per cent in 1987.

Given existing pay commitments, and assuming that social welfare expenditure increases will be restricted by the presence of only a small rise in the numbers on the Live Register and indexation of benefits to a low rate of price inflation, Supply Service spending seems set to increase by almost 5 per cent if services are maintained at about their current levels. Any significant reduction from this projected increase would imply the cessation or severe cutting back of some existing expenditure heads.

The combination of favourable movements in exchange rates and external interest rates, which limited Central Fund spending in 1986, is unlikely to be repeated in 1987, although there should be some carryover effects from the movements which have already taken place. While a reduction in the average level of domestic interest rates is assumed, the impact of this is less marked, as much of the domestic debt is in the form of fixed interest securities. Taking into account the amount of new exchequer borrowing in 1986 and early 1987, it thus seems probable that Central Fund expenditure will rise by 5 or 6 per cent in 1987. This would leave the increase in total spending at about 5 per cent.

With total revenue increasing at about 5½ per cent and expenditure by 5 per cent, the current budget deficit in 1987 would widen slightly to £1,450 million, thus remaining at about 8½ per cent of GNP. Assuming, in keeping with the investment forecast, that there is no change in the volume of the public capital programme, the exchequer borrowing requirement might be reduced from 13½ to 13 per cent of GNP in 1987.

In purely technical terms, there is no reason why such a level would not be compatible with a significant short-term fall in interest rates, so long as an adequate proportion of the debt were raised by foreign borrowing. In practice, a failure to reduce either the current budget deficit or the exchequer borrowing requirement could have a severe effect on market confidence, and thus impede any movement to reduced interest rates, even if other factors become more favourable. Also, of course, another year in which the public finances were not improved would seriously exacerbate the long-term problem, and would impose yet a greater drain on future income flows.

### *General Assessment*

The disappointing performance of the economy in 1986, when virtual stagnation has taken the place of the fairly vigorous expansion predicted by most commentators, poses obvious questions. In the first place, has the economy been diverted from the expected path by major unforeseen circumstances, or did all the commentators, including ourselves, simply get their projections wrong? Secondly, are the factors which caused the deviation permanent or temporary in their effects? Thirdly, can the economy now be expected to recover on the basis of existing policies or are new initiatives required? Although the answers to these questions are not yet completely clear, they would appear in each case to be of the nature of "a bit of both".

With regard to the divergence between forecasts and reality, some factors were clearly unforeseeable. These included the weather, and so far as the early forecasts were concerned, the US raid on Libya and its effects on American tourism. Other factors, though foreseeable, were unforeseen, by either overseas commentators much closer to the scene or by their Irish counterparts. These included the temporary dip in the German and other economies, before the expected expansion took place, and the second sharp decline in the value of sterling between July and October. Finally, there were specifically Irish factors which in principle were foreseeable, but which in practice took almost all Irish commentators by surprise because there were no recent historical parallels from which to draw comparisons.

The first of these domestic factors, the importance of which has still not been fully recognised, is the sheer scale of emigration in the past two years or so. Although some impressionistic evidence was available, it was not until the Labour Force Survey for 1985 and the preliminary Census returns for 1986 were published simultaneously in July that analysts realised that net emigration was running at about 3 times the rate previously assumed, and that the labour force was accordingly smaller than anticipated. Given the very long lag before statistics of employment become available, projections of employment levels tend to have been influenced by assumptions concerning the size of the labour force taken in conjunction with known trends in unemployment. Thus, past overestimates of the likely size of the labour force in 1985 and 1986 have imparted some upward bias to forecasts of employment levels in those years. This, in turn, has resulted in some exaggeration of likely increases in aggregate incomes, which commentators have perhaps been too slow to revise downwards in the light of the true labour force situation. This would appear to be one significant reason why forecasts of the value of consumer spending in 1986 have been consistently too high.

The second factor is more familiar. This is the failure of consumer prices to respond rapidly to the fall in import prices. It was suggested in the April *Commentary* that there might be some asymmetry between price rises, for which ample observations are available over the years to establish fairly reliable relationships, and price falls, for which virtually no past observations exist. Nevertheless, the degree of asymmetry was totally unexpected, and so the rate of consumer price inflation was underestimated and the likely growth in the volume of consumption overstated.

The third domestic factor which was misread was the course of Irish interest

rates. With international interest rates declining, the exchequer borrowing requirement in 1986 no higher than in 1985, and the expectation that foreign borrowing would account for at least as high a proportion of the total as in 1985, it seemed reasonable to predict a steady fall in domestic interest rates. Instead, the capital market has been short of liquidity for most of the year, and the two periods in which rates have been reduced have each been followed by a further rise.

The reasons for these high interest rates are still a matter for conjecture. While contributory factors include the general lack of confidence engendered by a projected over-run on the current budget deficit, and, perhaps, a somewhat less than adept public funding policy, the fundamental cause of high interest rates has been the lack of liquidity engendered by unrecorded capital outflows. Although the precise forms taken by these outflows remain uncertain, there seems little reason to dispute the explanation offered in the Central Bank's Autumn *Quarterly Bulletin* (pp. 32, 33). These suggest that the major part of the outflow has been due to changes in the timing of trade payments, or "leading and lagging", and that there is no evidence of any substantial flow into long-term external assets. If this view is correct, then it would not appear that the introduction of the deposit interest retention tax has been a major factor in the capital outflow, although it clearly has had a substantial effect on the disposition of funds within the domestic market.

Rather it would appear as if the main motive behind the outflow is uncertainty regarding currency values, resulting from the declining value of sterling. In so far as such uncertainties have resulted in a direct move into sterling, this would seem to have been based initially on an incorrect perception that sterling was passing through a period of temporary weakness, rather than adjusting to a new long-term relationship with other currencies. In practice, a profit could have been taken from a speculative move into sterling only in the brief period from mid-July until the Irish pound devaluation in early August. In so far as speculation took the form of holding other EMS currencies on the grounds that the depreciation of sterling would sooner or later force a devaluation of the Irish pound within the EMS, it was clearly more rational, although even in this case the differentials in interest rates between Dublin and most continental centres would erode the potential profit severely if the holdings were maintained for more than a few months. Whatever the precise forms adopted, what does seem clear is that speculative responses to unforeseen currency movements were a major factor in keeping interest rates well above the levels predicted, and in thus imposing a substantial depressing influence on the economy.

The final factor which domestic commentators failed to foresee was the decline in the value of exports. In part, this was because export price behaviour was the converse of retail prices, with the downward adjustment being greater and quicker than anticipated. In part, it was because exports of dairy produce, which are always volatile, have been particularly disappointing. However, the most significant and disturbing reason has been the apparent and unexplained stagnation in the volume of manufactured exports against a background of reasonably buoyant external demand since the first quarter.

These, then, are some of the explanations as to why reality has turned out

so different from earlier forecasts. The more important question of whether the factors involved are likely to prove temporary, produces equally confused and uncertain answers.

It must certainly be hoped, even without firm evidence, that the weather pattern of the past two summers has been a temporary phenomenon rather than the harbinger of a permanently altered climate. Similarly, it can be hoped, although perhaps with less confidence, that extraneous political acts will not interfere with trade or tourist flows in 1987.

Of the more directly economic factors responsible for the disappointing downturn in 1986, it is reasonable to expect that many of them will prove temporary. The fact that a fairly vigorous consumer boom is now under way in most European countries demonstrates that the downturn in the first quarter of 1986 was temporary. At the same time, it both presents an opportunity for Irish manufactured exports to resume their growth, and offers hope that the volume of Irish consumption will soon begin its own expansion. The forces of competition in Ireland, although weaker than had been expected, can still prove strong enough to force down margins, and bring consumer prices more into line with wholesale.

The main imponderable in attempting to assess the impact on 1987 of the factors which emerged in 1986 is the course of domestic interest rates. If the explanation is true that these were held so high in 1986 partly through the market over-reacting to the depreciation of sterling, then the question becomes one of how long this situation will continue. As was discussed in the international section, sterling is more likely to depreciate further against the EMS currencies in 1987 than to appreciate significantly. At the same time, it seems overwhelmingly probable that the Irish authorities will hold to the current parity within the EMS. In these circumstances, the principle of loss limitation should sooner or later lead to a reversal of the lead-lag position between the Irish pound and either sterling or other currencies. The assumption made in this *Commentary* that this process will take place fairly gradually in the course of 1987, and that interest rates will, therefore, follow a similar pattern can, unfortunately, be no more than a guess.

This creates a major but unavoidable uncertainty at the heart of the forecast. The influence of interest rates on economic performance is strong and pervasive. Apart from the direct effects on consumer prices and on costs in industry, agriculture and many services, they play a central role in investment, stocking and employment decisions, and also in determining the subjective but important phenomenon of confidence. There can be little doubt that the extraordinarily high and erratic level of real interest rates in 1986 has been a major cause of the economic stagnation, and the modest recovery projected for 1987 is crucially dependent on some reduction in both their level and volatility.

This leads naturally to the question of whether policy changes are needed to enable economic recovery to take place. The answer would seem to be that some expansion in the economy in 1987 is likely, but by no means certain, on the basis of a continuation of existing policy. The likelihood of expansion is because many of the factors depressing the economy in 1986 appear to have been of a mainly temporary character. The uncertainty centres on the behaviour of interest rates. A broad continuation of present fiscal and

monetary policies implies that the current budget deficit will remain over 8 per cent of GNP and that there will be only a minimal reduction in the exchequer borrowing requirement as a proportion of GNP in 1987.

It could be argued that there is no technical reason why such a situation would be incompatible with falling interest rates in the short run, provided that currency fears abate. However, subjective moods affect market confidence and thus interest rates, and the weakening of fiscal policy was a contributory factor to the persistence of high interest rates in 1986. It is probable that definite progress towards meeting the longer-run imperative of reducing the borrowing requirement will be needed to create the mood in which interest rates can fall significantly.

Thus both long-term and shorter-term considerations dictate a stronger fiscal stance. So far as a long-term improvement in the public finances is concerned, a broadening of the tax base and a more rational appraisal of public capital investment might both prove more important than cuts in current expenditure. However, in the present circumstances it appears that current spending cuts must form the major element in the next budget. Not only are they widely expected to take place, but they have already been proposed in general terms, by the Minister for Finance. Failure to implement such proposals would almost certainly have a strongly adverse effect on confidence. If confidence were to weaken further, and interest rates were to remain at present levels, even the rather modest recovery forecast for 1987 in this *Commentary* could prove unattainable.

Conversely, a package which combined effective cuts in current expenditure with a firm and convincing restatement of exchange rate policy, backed up by a consistent funding strategy, could lead to a sharper reduction in interest rates than has been assumed in our forecast. In this case economic growth could prove significantly stronger, for a sustained fall in real interest rates would itself provide a greater stimulus to output and investment in late 1987 and 1988 than any marginal tax concessions which might be granted to specific sectors of the economy.

*STATISTICAL APPENDIX*

	Output Indicators			4	Employment		Output per Head	
	1	2	3		5	6	7	8
	Manufacturing	Transportable Goods	Electricity Output	Cement Sales	Manufacturing	Transportable Goods	Manufacturing	Transportable Goods
	1980 = 100	1980 = 100	G.W.H.	000 Metric Tons	000's	000's	1980 = 100	1980 = 100
1980	100.0	100.0	10733	1814.9	227.4	239.0	100.0	100.0
1981	102.7	101.6	10767	1812.5	222.5	234.2	105.0	103.7
1982	104.6	103.6	10792	1486.1	215.3	226.0	110.5	109.6
1983	112.6	111.1	11039	1382.4	202.5	212.6	126.4	124.9
1984	126.7	125.1	11424	1298.4	196.3	205.9	146.8	145.2
1985	130.1	126.8	11919	1233.2	189.0	197.6	156.5	153.4
1986								

Quarterly Averages or Totals

1983	I	110.3	107.8	2990	298.1	204.5	214.2	122.7	120.3
	II	115.6	113.2	2650	367.1	202.2	213.2	130.0	127.0
	III	106.5	108.3	2470	371.5	202.9	213.3	119.4	121.3
	IV	118.1	115.2	2929	345.7	200.3	209.7	134.1	131.3
1984	I	120.2	117.1	3136	271.5	197.4	206.7	138.5	135.4
	II	133.8	133.9	2672	366.3	196.8	207.5	154.6	154.2
	III	117.9	118.5	2562	350.0	196.9	206.4	136.2	137.2
	IV	135.1	130.9	3054	310.6	194.2	202.8	158.2	154.3
1985	I	132.2	128.1	3259	241.3	189.3	197.9	158.8	154.7
	II	137.8	134.4	2818	350.4	188.9	198.6	165.9	161.7
	III	119.4	117.1	2705	333.1	189.2	197.5	143.5	141.7
	IV	141.7	127.8	3137	308.3	188.4	196.5	158.8	155.4
1986	I	132.5	127.6	3356	205.0	185.0	192.9	162.9	158.1
	II	139.2	135.7	2996	319.1	184.9	194.0	171.2	167.2
	III				330.6				
	IV								

Quarterly Averages or Totals Seasonally Corrected

1983	I	111.0	109.9	2720	362.7	205.7	216.0	123.1	121.6
	II	108.7	106.3	2799	330.3	203.0	213.0	121.8	119.3
	III	113.3	112.8	2761	339.1	201.8	212.1	127.7	127.1
	IV	117.8	115.9	2769	352.8	199.4	209.3	134.3	132.3
1984	I	120.5	118.8	2852	335.7	198.7	208.6	137.9	136.1
	II	126.1	126.0	2816	329.0	197.5	207.2	145.2	145.3
	III	125.7	123.8	2859	319.4	195.8	205.1	146.0	144.3
	IV	134.3	131.2	2899	314.0	193.3	202.5	158.0	154.8
1985	I	132.7	130.2	2960	302.3	190.6	199.8	158.3	155.7
	II	130.2	126.7	2966	314.6	189.6	198.3	156.2	152.7
	III	127.3	122.4	3017	303.4	188.1	196.3	153.9	149.0
	IV	130.8	128.0	2985	310.3	187.7	196.2	158.5	155.9
1986	I	133.2	129.9	3044	258.4	186.3	194.7	162.6	159.5
	II	131.5	127.9	3151	286.3	185.5	193.6	161.2	157.9
	III				300.7				
	IV								

Unemployment	Prices						
	9	10	11	12	13	14	
Live Register Av. Monthly	Consumer Price Index	Agricultural Price Index	Import Unit Value	Export Unit Value	Terms of Trade	Price of Stocks + Shares	
000's	Nov. 1982 = 100	1980 = 100	1975 = 100	1975 = 100	1975 = 100	1975 = 100	
101.5	68.4	100.0	195.6	179.5	91.8	212.0	1980
127.9	82.4	117.7	232.4	208.4	89.7	219.9	1981
148.2	96.5	127.5	249.4	231.5	92.8	179.9	1982
192.7	106.6	135.4	261.1	251.9	96.5	223.7	1983
214.2	115.8	139.4	286.5	273.0	95.3	296.1	1984
230.6	122.0	135.6	293.2	280.6	95.7	316.8	1985
							1986

Quarterly Averages or Totals

188.3	102.5	132.0	247.0	237.3	96.1	172.0	1983 I
188.1	105.3	133.7	254.5	247.7	97.3	206.1	II
193.0	108.3	138.8	268.8	257.0	96.7	249.7	III
201.3	110.3	138.5	275.3	263.3	95.6	267.2	IV
215.2	112.9	146.6	281.5	266.0	94.5	309.6	1984 I
210.8	115.5	150.0	283.7	269.8	95.1	314.9	II
212.6	116.9	135.6	294.3	276.6	94.0	280.7	III
218.1	117.7	134.4	297.9	283.3	95.1	279.1	IV
232.8	119.9	140.7	297.3	280.3	94.3	284.7	1985 I
226.5	121.5	140.2	300.6	288.0	95.8	289.4	II
231.8	123.3	133.1	298.0	289.9	97.3	333.3	III
231.2	123.5	134.3	289.7	282.7	97.6	359.8	IV
238.7	125.4	140.8	279.0	270.0	96.8	426.8	1986 I
221.8	126.9	139.1	266.0	268.4	100.9	508.5	II
235.1	127.1					509.5	III
							IV

Quarterly Averages or Totals Seasonally Corrected

182.4	102.7	129.2	No Seasonal Pattern	No Seasonal Pattern	No Seasonal Pattern	No Seasonal Pattern	1983 I
190.0	105.0	131.1					II
196.0	108.1	140.9					III
202.6	110.7	142.1					IV
208.9	113.0	143.8					1984 I
212.8	115.2	146.1					II
215.6	116.6	138.0					III
219.6	118.2	138.2					IV
226.3	120.1	138.1					1985 I
228.6	121.2	136.5					II
234.8	123.0	135.6					III
232.7	124.0	138.1					IV
232.1	125.5	138.2					1986 I
233.8	126.6	135.5					II
238.1	126.8						III
							IV



	Money Earnings Weekly Averages		Real Earnings		Consumption Indicators		
	16	17	18	19	20	21	22
	Manufacturing	Transportable Goods	Manufacturing	Transportable Goods	New Cars Registered	Retail Sales Value	Retail Sales Volume
	1973 = 100	1973 = 100	1982 = 100	1982 = 100	Total	1980 = 100	1980 = 100
1980	321.2	321.0	112.0	111.8	91032	100.0	100.0
1981	373.8	372.6	108.2	107.7	104645	118.3	99.4
1982	419.1	419.8	103.6	103.6	72603	129.4	94.0
1983	468.3	469.2	104.8	104.8	61094	137.0	90.5
1984	523.8	525.1	107.9	108.0	55893	145.4	89.2
1985	563.0	563.5	110.0	109.9	59592	155.6	90.8

Quarterly Averages or Totals

1983 I	440.6	440.8	102.6	102.4	29851	135.5	92.0
II	458.4	463.1	103.9	104.8	12255	130.2	86.1
III	476.3	475.9	104.9	104.7	12110	135.4	87.6
IV	497.9	497.1	107.7	107.4	6878	148.5	94.8
1984 I	502.3	503.0	106.2	106.1	19263	139.8	87.9
II	518.5	523.8	107.1	108.0	18443	143.9	88.6
III	528.2	528.1	107.9	107.5	11708	143.5	87.3
IV	546.0	545.6	110.7	110.4	6479	155.8	93.7
1985 I	541.8	542.0	107.8	107.7	19914	147.6	87.5
II	561.6	565.4	110.3	110.4	19200	153.2	89.8
III	566.8	566.3	109.7	109.2	13287	155.2	90.1
IV	581.6	580.3	113.4	113.3	7197	167.6	96.6
1986 I	578.5	577.7	110.1	109.7	19177	155.2	88.8
II	595.9		112.0		17663	154.5	88.2
III					13896		
IV							

Quarterly Averages or Totals Seasonally Corrected

1983 I	447.1	448.4	104.1	104.2	20604	136.8	93.1
II	456.1	458.0	103.4	103.6	10450	132.0	88.1
III	476.9	477.0	105.1	104.9	13951	137.4	89.8
IV	492.7	493.4	106.6	106.6	13626	141.8	90.8
1984 I	509.3	510.9	107.6	107.8	13363	141.7	89.0
II	516.5	518.5	106.7	106.9	15453	145.6	89.9
III	528.6	529.5	107.9	107.9	13555	145.7	88.8
IV	540.4	541.8	109.6	109.7	12956	148.4	89.1
1985 I	548.9	549.5	109.2	109.2	13945	149.9	88.9
II	559.8	560.1	109.9	109.8	15848	155.0	91.0
III	567.4	568.3	109.8	109.6	15386	157.8	91.7
IV	575.4	576.0	111.2	111.1	14444	159.4	91.6
1986 I	585.9	585.1	111.5	111.1	13528	157.9	90.3
II	594.3		111.7		14461	156.2	89.4
III					16046		
IV							

Government			Monetary Developments				
23	24	25	26	27	28	29	
Current Revenue	Current Expenditure	Current Deficit	Money Supply M3	Licensed Banks Domestic Credit		External Reserves	
				Government	Non-Gov.		
£m	£m	£m	£m End Period	£m End Period	£m End Period	£m End Period	
3155	3708	553	n.a.	1132.6	n.a.	1346.0	1980
3973	4796	823	n.a.	1277.4	n.a.	1473.1	1981
4908	5896	988	7291.9	1564.7	6655.1	1594.0	1982
5711	6671	960	7697.4	1775.6	7493.8	2014.8	1983
5952	6991	1039	8473.9	2247.9	8127.6	2101.2	1984
6331	7615	1284	8924.8	2514.1	8441.1	2271.9	1975 1986

Quarterly Totals

Monthly Totals

1220	1646	426	7229.1	1499.9	6888.3	1235.1	1983 I
1405	1654	249	7345.5	1638.4	6904.8	1343.2	II
1440	1560	120	7439.7	1749.7	7302.1	1914.4	III
1646	1811	165	7697.4	1775.6	7493.8	2014.8	IV
1290	1719	429	7697.4	1831.2	7512.5	2117.7	1984 I
1516	1684	169	7934.1	2142.4	7724.4	1952.0	II
1457	1715	258	8161.6	2223.0	7938.4	1875.0	III
1688	1873	185	8473.9	2247.9	8127.6	2101.1	IV
1325	1981	656	8438.9	2166.3	8151.0	2632.5	1985 I
1635	1792	157	8545.0	2319.1	8291.7	3124.8	II
1562	1838	277	8639.4	2421.6	8206.8	3009.6	III
1809	2004	195	8924.8	2514.1	8441.1	2271.9	IV
1416	2056	640	8567.5	2510.1	8730.6	2232.8	1986 I
1735	2052	317	8449.5	2119.0	8551.5	2296.5	II
1591	1844	253				2116.4	III IV

Quarterly Totals (S.C.)

Monthly Totals (S.C.)

1340	1609	269	No Seasonal Pattern	No Seasonal Pattern	No Seasonal Pattern	No Seasonal Pattern	1983 I
1396	1652	256					II
1493	1631	138					III
1459	1779	320					IV
1450	1672	222					1984 I
1491	1689	198					II
1503	1802	299					III
1495	1831	336					IV
1511	1922	411					1985 I
1596	1799	203					II
1607	1941	334					III
1603	1949	346					IV
1624	1995	371					1986 I
1688	2064	376					II
1635	1948	313					III IV

	Visible Trade Indicators					Exchange Rates	
	30	31	32	33	34	35	36
	Imports (Value)	Exports (Value)	Import Excess (Value)	Imports (Volume)	Exports (Volume)	Effective Index	Sterling
	£m	£m	£m	1975 = 100	1975 = 100	Dec. 1971 = 100	Per IR£
1980	5419.6	4130.9	1288.7	162.6	158.9	74.01	0.8862
1981	6578.4	4777.6	1800.8	166.0	158.3	67.75	0.8002
1982	6812.3	5687.9	1124.4	160.3	169.8	67.35	0.8125
1983	7358.2	6938.2	420.0	165.3	190.2	65.13	0.8222
1984	8913.5	8898.0	15.5	182.6	225.2	62.26	0.8134
1985	9434.5	9742.1	-307.6	188.7	239.9	62.41	0.8234
1986							

Monthly Averages

1983 I	585.8	471.5	114.8	167.1	164.8	69.46	0.8943
II	592.1	575.8	16.4	163.8	192.6	65.14	0.8171
III	603.0	606.2	-3.2	157.8	195.6	63.28	0.7894
IV	671.8	658.7	12.1	172.7	207.6	62.74	0.7896
1984 I	744.5	654.4	90.1	186.3	203.8	62.58	0.7951
II	714.9	769.8	-54.9	177.4	236.5	62.56	0.8097
III	710.5	722.7	-12.2	170.0	216.6	61.86	0.8143
IV	801.1	819.0	-17.7	189.3	239.7	62.04	0.8352
1985 I	820.0	800.4	19.6	194.4	236.6	61.95	0.8590
II	808.2	855.8	-47.6	189.3	246.2	61.44	0.8075
III	740.7	795.3	-54.6	175.0	227.5	62.15	0.7959
IV	775.9	795.9	-20.0	188.6	233.3	64.11	0.8324
1986 I	732.8	762.5	-29.7	185.0	234.6	66.60	0.8966
II	723.3	786.6	-64.7	191.4	243.1	67.34	0.8976
III	668.5	752.7	-84.2			66.44	0.9148
IV							

Monthly Averages. Seasonally Corrected.

1983 I	560.7	506.3	54.4	167.1	164.8	No Seasonal Pattern	No Seasonal Pattern
II	583.1	553.7	29.4	163.8	192.6		
III	624.5	605.4	19.1	157.8	195.6		
IV	689.4	642.6	46.8	172.7	207.6		
1984 I	716.1	695.8	20.3	177.7	214.9		
II	705.1	737.7	-32.6	174.7	227.5		
III	745.2	725.9	19.3	179.9	218.1		
IV	804.8	798.7	6.1	190.9	234.2		
1985 I	792.4	862.1	-69.7	185.6	249.6		
II	795.6	817.8	-22.2	185.5	239.2		
III	774.5	792.4	-17.9	183.8	227.4		
IV	796.4	770.5	25.9	194.2	227.1		
1986 I	702.4	809.3	-106.9	176.1	246.2		
II	717.9	759.5	-41.6	189.3	235.1		
III	704.7	762.4	-57.7				
IV							

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