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SUMMARY

In this *Commentary* the international situation is examined in detail, a revised forecast of developments in the economy in 1982 is presented, a tentative projection for 1983 is provided and some policy aspects of developments in 1983 are considered.

The international economy is proving very much weaker than had been assumed in previous *Commentaries*. The recovery expected in trade in the second half of the year simply did not materialise. The volume of world trade is likely to have fallen in 1982, rather than increasing as expected just 3-4 months ago. The fall in world trade reflects the continued weakness in demand and output that has gripped the world economy since the onset of the present recession, aggravated by destocking in the industrial world. As a consequence of the general weakness there has been a major reduction in inflation rates internationally and a very significant fall in nominal interest rates — these however are consequences and are unlikely to herald any new pick up in demand from the corporate sector given the degree of capacity utilisation.

If destocking ends, as assumed generally, then there could be a modest expansion in trade next year. It would however only be modest given the policy stance in the major industrial countries. This continues to be restrictive. A possible exception is the UK where the policy stance appears to have become less restrictive. There has also been a pick up in consumer demand from the third quarter of the year. UK imports in 1983 seem likely to increase more rapidly than world imports.

The domestic economy has also performed rather differently from what we had expected. The overall growth rate is somewhat less than we had forecast, GNP now declining by 1¾ per cent compared with the previous ½ per cent decline. The difference in the overall picture is much less marked than in the individual aggregates. The major change comes in private consumption which is now expected to decline by 6½ per cent. Government consumption expenditure is expected to remain relatively static and investment is forecast to decline by 7½ per cent. Exports are also weaker, but this is due to agricultural exports being less than expected and is reflected in a very large increase in holdings of stocks of intervention goods. Other non-agricultural stocks are forecast to decline by ¾ per cent of GNP because of the weakness of domestic demand. As a consequence imports of goods and services are forecast to decline by 3½ per cent.

The primary reason for the revisions to the forecast was the marked deterioration that occurred in the economy during the middle of the year. Industrial production fell in the second quarter and again in the third quarter of the year. Private consumption fell in the second quarter of the year and the

indications are that in the third quarter the fall was very marked. The July retail sales volume figure was 13.4 per cent below the July 1981 figure. Manufactured exports (SITC 5-8) declined in volume terms in the third quarter due to a decline in exports of chemicals. Unemployment continued to rise at a very rapid rate – the increase from April to October was 20 thousand, a very rapid increase in the light of the 25 thousand increase in the previous year. There was a very serious deterioration in the public finances with the emerging current deficit very much worse than our forecast, and of course simply a different order of magnitude to official forecasts even at June. Import volumes declined, reflecting the general weakness in demand. Finally money market rates declined, reflecting not only the general decline internationally but also excess supply of funds. Fears that the private sector credit guidelines would prove restrictive given the claims arising from advance payments, levies on financial institutions etc. proved groundless as credit remained well within the guidelines.

The deterioration in the economy in the middle of the year requires some explanation. It could be argued that external factors were very much more unfavourable than we had anticipated. However taking the year as a whole industrial exports are forecast to grow more rapidly than in the previous *Commentary*, the decline in the third quarter being more than compensated for by the very large increase in the second quarter – taken together the level of industrial exports was more than satisfactory. It could also be argued that the budget was very much more deflationary than we had forecast. Against this the deterioration in the public finances is roughly what could be expected given the decline in activity – though we cannot say to what extent the decline in activity was due to confidence factors associated with a restrictive budgetary policy.

The most distinctive change in the forecast is the fall in consumption. The forecast fall in consumption is very much greater than the fall in real disposable income. In other words there has been a very large increase in the savings rate this year compared with last year. The rise in the savings rate has reinforced very considerably other negative factors in the economy – the worsening in consumption alone is £265 million at 1981 prices or £365 million at current prices. This has been a powerful influence driving down imports, government revenue, industrial production, etc.

The cause of changes in the savings rate have not yet been established. It is not possible to predict with any confidence, given present econometric work for Ireland, either the direction or the amount of change in the savings rate. There are however obvious parallels with 1975 when the savings rate also increased very rapidly, consumption fell markedly and agricultural incomes increased by a very large amount.

Turning to 1983 the forecast is heavily dependent on the way we see the economy in 1982, the likely development on costs and the stance of fiscal policy. The fiscal assumption is that government will seek to reduce the budget deficit from 9.3 per cent of GNP to 7½ per cent with the public capital programme falling in volume terms by 5 per cent. The target borrowing requirement for the Exchequer would then be about 14¼ per cent of GNP compared with an outcome of 17.6 in 1982 allowance being made for sales out of

intervention and equity finance. Consumer prices, once indirect taxes and charges are included, are forecast to increase by 11 per cent. Basic rates of pay in industry are forecast to increase by about the same. Since this involves a competitive deterioration in basic rates *vis-à-vis* competitors and *vis-à-vis* output prices unemployment will continue to increase because of cost factors in the absence of productivity gains. Agricultural incomes will however continue to rise in real terms.

On the demand side, consumption may pick up if the savings rate falls back, exports will grow rapidly under the stimulus of agricultural export growth (discussed in detail in the text) investment will continue to decline, but imports increase. The balance of payments deficit in 1983 is forecast at 5½ per cent of GNP compared with 8½ per cent in 1982 and 14.3 per cent in 1981.

Finally in the Appraisal we turn again to the difficulties that are raised for the corporate sector by the divergence that emerges in the aggregate between output prices and input costs. The problem with input costs is primarily, but not wholly, with labour costs. We have referred previously to the necessity to recognise the distinction between real labour costs and real wage income. Real labour costs are labour costs relative to output prices (excluding all indirect taxes) whereas real wage income refers to nominal incomes relative to consumer prices. So long as consumer prices rise more rapidly than output prices there is a problem in the aggregate – nominal wage rate changes will tend to be too high relative to output prices and too low relative to consumer prices. In 1983 consumer prices could rise, in the absence of indirect tax changes, by 8 per cent and this could lead to a corresponding reduction in wage inflation. There is a compelling case in terms of minimising the effect on competitiveness for having no increases in indirect taxes, if the revenue can be otherwise raised. In the Appraisal we consider some further aspects of the present fiscal system and suggest that lags in the payment of taxes should be reduced and that this might provide a breathing space on inflation – but not of course prevent a deflationary impact.

TABLE I: NATIONAL ACCOUNTS 1982

A: Expenditure on Gross National Product

	1981 £m	1982 £m	Change in 1982 £m Total	£m Volume	% Total	% Price	% Volume
Private Consumer Expenditure ...	6628	7250	622	−431	9½	17	−6½
Public Net Current Expenditure ...	2271	2575	304	6	13½	13	¼
Gross Domestic Fixed Capital Formation	3089	3125	36	−232	1¼	9½	−7½
Exports of Goods and Services ...	5513	6500	987	310	18	11¾	5½
Physical Changes in Stocks:							
Agriculture	−3	20	23	20	—	—	—
Intervention	−70	140	210	187	—	—	—
Other	−15	−100	−85	−20	—	—	—
Final Demand	17413	19510	2097	−215	12	13½	−1¼
Less Imports of Goods and Services ...	7024	7345	321	−255	4½	8½	−3½
GDP at market prices	10389	12165	1776	40	17	16½	½
Less Net Factor payments	340	600	260	215	76	8½	63
GNP at market prices	10049	11565	1516	−175	15	17¼	−1¾

B: Gross National Product by Origin

	1981 £m	1982 £m	Change in 1982 £m	%
Agriculture, Forestry, Fishing ...	880	1140	260	29½
Non-Agricultural: Wages	6155	6940	785	12¾
Other	1177	1435	258	22
Less Net Factor Payments	340	600	260	76
National Income	7872	8915	1043	14
Depreciation	940	1075	135	14½
GNP at factor cost	8812	9990	1178	13½
Taxes less Subsidies	1237	1575	338	27
GNP at market prices	10049	11565	1526	15

C: Balance of Payments on Current Account

	1981 £m	1982 £m	Change £m
X−M+F	−1851	−1445	+406
Net Emigrants Remittances and other transfers	+419	+410	−9
Net EEC transfer			
Balance on Current Account ...	−1432	−1035	+397

TABLE II: NATIONAL ACCOUNTS 1982-1983

A: Expenditure on Gross National Product

	1982 £m	1983 £m	Change in 1983 £m Total	£m Volume	% Total	% Price	% Volume
Private Consumer Expenditure ...	7250	8125	875	73	12	11	1
Public Net Current Expenditure ...	2575	2830	255	−64	10	12¾	−2½
Gross Domestic Fixed Capital Formation	3125	3220	95	−155	3	8½	−5
Exports of Goods and Services ...	6500	7555	1055	605	16¼	6½	9¼
Physical Changes in Stocks:							
Agriculture	20	25	5	0	—	—	—
Intervention	140	−140	−280	−140	—	—	—
Other	−100	20	120	110	—	—	—
Final Demand	19510	21635	2125	429	11	8¾	2¼
Less Imports of Goods and Services ...	7345	8175	830	294	12¼	7	4
GDP at market prices	12165	13460	1295	135	10½	9½	1
Less Net Factor payments	600	675	75	30	12½	7	5
GNP at market prices	11565	12785	1220	105	10½	9½	1

B: Gross National Product by Origin

	1982 £m	1983 £m	Change in 1983 £m	%
Agriculture, Forestry, Fishing ...	1140	1325	185	16¼
Non-Agricultural: Wages	6940	7745	805	11½
Other	1435	1555	120	8½
Less Net Factor Payments	600	675	75	12½
National Income	8915	9950	1035	11½
Depreciation	1075	1155	80	7½
GNP at factor cost	9990	11105	1115	11¼
Taxes less Subsidies	1575	1680	105	6¾
GNP at market prices	11565	12785	1220	10½

C: Balance of Payments on Current Account

	1982 £m	1983 £m	Change £m
X−M+F	−1445	−1295	+150
Net Emigrants Remittances and other transfers	+410	+530	+120
Net EEC transfer			
Balance on Current Account ...	−1035	−765	+270

I THE INTERNATIONAL ECONOMY

Introduction

The principal development within the international economy since August has been the substantial reductions in interest rates, especially in the US. Several factors underlie the present downward trend. First the US economy has remained stagnant, GNP growth in the third quarter was only 0.8 per cent, annual rate; short-term business credit demand has weakened as stock building and fixed investment is reduced and inflation has continued to slow down, at September the year on year increase was 5 per cent. Second, M1 growth has fallen within the target range since April, due to the sluggish demand for credit, allowing the Federal Reserve to adopt a more accommodating position. Third, the Federal Reserve seems to be concerned to contain the effects on liquidity arising from recent bankruptcies within the US financial sector and debt problems encountered by some sovereign borrowers. Fourth, the passing by the US Congress of a bill to raise $98 billion in tax over three years has favourably influenced market sentiment regarding potential credit market pressure arising from Federal Budget over-runs. Substantial market pressure did occur in the first quarter of 1982 as monetary policy did not accommodate the growing imbalance in the Federal deficit. The reaffirmation of Government resolve to contain the deficit seems to have allayed fears of a recurrence of such pressures later this financial year. Fifth, the dollar has remained strong in the face of narrowing interest rate differentials. The decline of US interest rates was paralleled in the United Kingdom and Germany and also in other European markets, though to a lesser degree. Indeed, sterling rates had been retreating from last Autumn and from January they have been below dollar rates. Notwithstanding the reductions which have taken place *real* interest rates remain substantially positive in the major economies. For example in August three month money market rates in real terms were over 4 per cent in Germany and around 4 per cent in the US; in both the United Kingdom and France they were over 2 per cent.

Even with a further easing of real interest rates it is difficult to see a significant improvement in the level of economic activity internationally next year without a shift in the policy stance. It seems that demand is weakening further at present, much of the weakness, but by no means all, is occurring in the US. GNP in the OECD area is now expected to decline by about ¼ per cent this year. The volume of world trade has already contracted during the

first half of 1982 and the picture is likely to worsen during the second half of the year. On current policies GNP growth in the OECD area in 1983 is likely to be no more than about 1¾ per cent. World trade in manufactures is expected to expand by only around 2½ per cent in volume. The current balance of payments position of industrial countries is likely to continue improving. The ongoing effects of recession and energy conservation have virtually eliminated the OPEC surplus; even a small deficit is not impossible for 1982. Consumer prices will probably ease further to around 6½ per cent on average in 1983 in the OECD area, about a point lower than this year.

Orientation of Policies

The rationale for the present policy stance was discussed in the *Commentary* of August 1982. A criticism of the approach has always been that the curtailment of inflation and reduction of public sector imbalances, the primary objectives of policy, need not of themselves lead to a recovery in investment and output growth, especially as capacity utilisation levels have fallen so sharply. Nor indeed has it ever been explained by the proponents of the current policy stance how a rekindling of inflationary expectations could be prevented if in fact activity did recover.

There is some indication that the US authorities may now be wondering if indeed some relaxation of policy is not required if a recovery is to emerge; or at least that a more balanced mix of policies is essential. The basis for this belief is admittedly quite narrow. It rests in the abandonment from October, temporarily, by the Federal Reserve of its main money supply target M1. The reason given for this move was in terms of technical problems with the indicator itself and that broader definitions of the money supply would be used to guide monetary policy. However the Federal Reserve has stated that lower interest rates would be consistent with the present state of recession in the economy. It might therefore be the case that the US will, over the short run at least, sacrifice the pursuit of monetary targeting, i.e., the further curtailment of inflation, in order to see further significant reductions in interest rates.

In Europe, where inflation has been slower to adjust down, consumer prices in the EC in 1982 are expected to rise by 10½ per cent compared with 6½ per cent in the US, it is unlikely that there will be any co-ordinated effort to boost demand. The Commission of the EEC in its *Annual Economic Review 1982-1983* recognises that the risk of continued stagnation, from a continuation of the present stance might be greater than that of rekindling inflation from relaxing the policy stance. However, the Commission does not urge any such relaxation. Rather it contends that a more specific assignment of policy instruments would assist in averting a continuation of current depressed conditions. What the Commission seem to have in mind is a more balanced mix of policies in which more moderate income development would complement the fiscal/monetary stance which will remain aimed at curtailing inflation.

While this is likely to be the dominant approach across Europe it seems probable that the United Kingdom will be attempting to relax the restrictive demand stance, at least temporarily. The fact that there is officially acknowl-

edged to be an under-run in the PSBR will enable this to occur next year even within the parameters set in the Medium Term Financial Strategy (MTFS). However, the Autumn economic package presented to Parliament on 8 November continues to adopt a cautious approach. Expenditure for 1983/84 is budgeted to decline marginally in volume and on the revenue side only one taxation decision is made, namely a 1 per cent reduction in Employers' Social Insurance Surcharge worth £stg 700 million in 1983/84 and an adjustment to it which will yield a benefit to industry in the last three months of 1982/83 of £stg 350 million. In addition there is provision for a stimulus either by way of reduced taxation or increased expenditure of £stg 1 billion in 1983/84. Of course, if the undershooting of the PSBR is greater than acknowledged, as it may well be (see p. 15) a more stimulatory stance may be taken in the Spring. While some relaxation can therefore be counted upon it is not clear at this stage how far the United Kingdom Government are prepared to deviate from the MTFS in order to bolster the sluggish performance of the economy.

Developments and Prospects

From Ireland's point of view the immediate concern of developments abroad relates to the implications for world trade (Table 1). The weakening of economic activity during the second half of 1982 will exacerbate the contraction of world trade underway since the early part of the year so that for 1982 as a whole the volume of world trade is likely to fall by at least 1 per cent, with world trade of manufactures rising by around 1 per cent. Next year an expansion of about 2½ per cent may occur. This is entirely concentrated among the industrial countries and is based on an end to the destocking currently taking place in Europe, which would support import demand next year, even in the face of weak production. In the United States production

TABLE 1: Growth in World Trade, Volume and Prices, Percentage Change

	Exports			Imports		
	1981	1982	1983	1981	1982	1983
Volumes						
Industrial countries	2.5	0	2.5	−2	0.5	3.5
Oil exporting countries	−17	−13	5	20	0	0
Other developing countries	6	3	2	8	− 3	0
Centrally planned economies	3	4	3	−1	− 1	2
World	0	−1	2.5	1.5	− 0.5	2.5
of which: manufactures	3	1	2.5	4.5	1.5	2.5
oil	−10	−8	2	−10	− 8	2
Unit values (US dollar)						
Industrial countries	−5	−2	4.5	−3	− 4.5	3.5
Oil exporting countries	10.5	−7	0	−2	− 3	3
Other developing countries	−3	−6	2	0	− 3	3
Centrally planned economies	0	−4	2	−4	− 4	2
World	−2.5	−3.5	3.5	−2.5	− 4	3.5
of which: manufactures	−5	−1.5	5	−4.5	− 2	5
oil	11	−7	0	11	−7	0

Source: Report presented to the *Association D'Instituts Europeens de Conjoncture Economique* 28-29 October 1982. Brussels.

growth and import demand are expected to strengthen through 1983 which will also give some impetus to world trade. The import demand of developing countries including oil exporters is not expected to rise above the average of this year given their severely constrained purchasing power.

Turning to prices of internationally traded goods the outlook up to end 1983 is for stable oil prices in dollar terms and a slight recovery of other commodity prices from currently depressed levels, with no change in the annual average compared with this year. The tapering off of industrial countries' export prices, in national currencies is expected to continue into 1983 but a stabilisation of the dollar at the present level will lead to a rise of manufacturing export prices in dollar terms of around 5 per cent.

At the root of the weak forecasts for world trade are the poor prospects for output growth and demand in the industrial and developing world. The United States, because of its size, exercises an important influence on world economic activity notwithstanding the fact that it is a relatively closed economy. However the US economy remained flat in the third quarter of this year, GNP growth annualised was only 0.8 per cent, after a rise of over 2 per cent in the second quarter. The index of leading indicators fell 0.9 per cent in August after increasing consecutively from April to July. It is officially forecast that for the remainder of the year GNP will show the same flat or very moderate expansion. Nor is it expected that the fall in nominal interest rates to date will have a significant impact on US growth in 1983. For example forecasts by Wharton Econometrics for 1983 made in August and September respectively were not significantly different – about 3½ per cent, even though interest rates were reduced from 15 per cent to 13 per cent.

In the EC current economic indicators are equally depressed. Industrial production fell in the second quarter of this year, after rising temporarily in the previous three months, and in June there were particularly sharp falls in some countries, which are thought to have persisted at least over the summer. Quarterly GNP figures for the four major Community countries show that growth in the first quarter of the year was barely positive, and provisional figures for the second quarter indicate a decline. In the Community as a whole GNP growth in the first half of the year is estimated at about ¾ per cent in annual terms, but in the second half the level of Community GNP may be falling. Weak recovery at most is expected to follow over the next twelve months (Table 2).

In Belgium the primary objectives of policy are (i) a restoration and improvement of the competitiveness of enterprises in the exposed sector and (ii) stabilisation and reduction of the public sector borrowing requirement. Policy measures have already been taken to this end; a devaluation in February; restrictions in the indexation provision of pay, which is to rise by 6¼ per cent this year and 6¾ per cent next year; reductions in government transfer payments. The forecast for 1983 is based on a continuation of these domestic policies and that the international economy will be weak.

Danish economic policy in 1983 is expected to be chiefly concerned with achieving an improvement in the public sector deficit through incomes restraint, curtailment of public expenditure and higher tax rates. The forecast assumes a continuing gain of market share due to the improved com-

TABLE 2: Short term outlook for selected European countries

	GNP/GDP growth per cent		Consumer prices per cent change		Bal. of Payments as % of GDP/GNP	
	1982	1983	1982	1983	1982	1983
Belgium	−2.3	−0.3	9.0	8.5	n.a.	n.a.
Denmark	2	3½	9½	7	−3.3	−3.3
Federal Republic of Germany	−1	1	5	3	0	½
France	1.1	0.6	12.5	10	−2.4	−2.0
The Netherlands	−1	0	6.1	4.4	3.8	5.0
Italy	0.5	1.7	16.7	15.2	−1.9	−1.1
United Kingdom	0.3	2.0	8.5	6.8	1.1	0.5

Source: Association D'instituts Europeens de Conjoncture Economique, Forecasts of member institutes presented on 28-29 October 1982, Brussels; *Economic Outlook 1982-86,* London Business School, October.

petitive position established in 1980 and 1981, a relative reduction of Danish wage costs of around 15 per cent. Increased oil and gas production in 1982 and 1983 accounts for ½ to 1 per cent of the increase in GNP. The fiscal assumption underlying the projection seems to be one of unchanged policies. If the forecast was based on a fiscal stance which reflected the expected line of policy growth next year would undoubtedly be lower.

The forecasts of German Institutes show some variability both as regards next year and the likely outturn for 1982. The summary presented is about middle of the range. It is based on the view that the containment of inflation will remain the focus of policy and that monetary targeting will continue to be the operational instrument by which the Authorities give expression to the priority. The forecast is predicated on a monetary expansion of around 6 per cent (for 1982 the Central Bank has announced that expansion of the money supply will be in the upper end of the 4-7 per cent target range). However, it is assumed that the effects of recession induced increases in transfer payments and declines in tax revenue will not be severely countered by discretionary fiscal measures. As a result the public deficit will expand in absolute terms and represent about 5 per cent of GNP in 1983, the same proportion as this year. A continued worsening of labour market conditions and a pronounced deceleration of inflation are expected to usher a moderate wage round in 1983. Weakness of international demand is expected to result in sharp deceleration of export growth.

Economic policy in France will be framed around several numeric targets. A deceleration of inflation from a target (which is expected to be exceeded) of 10 per cent this year to 8 per cent in 1983. A public deficit of not more than 3 per cent of GNP, about the same as this year, and maintenance of the external value of the Franc at its present level. The forecast is based on pay and price restraint policies and no change in the volume of public expenditures. Interest rates are expected to rise further leading to a further weakening of domestic demand but sluggish demand internationally will mean that the deficit on the balance of payments will improve only marginally to about 2¾ per cent of GNP.

Projections for the Dutch economy in 1983 start from an assumed hesitant recovery of the industrial world's economy, along the lines presented above. Also an effective appreciation of the Guilder is assumed. Together with low projected commodity price rises and stable oil prices, in dollars, this results in a 2½ per cent rise in import prices. Consumer prices are forecast to decelerate significantly under this influence. Controls over wages in the private sector are not expected but the increase of earnings in enterprises is forecast at a moderate 4½ per cent, i.e. no change in real terms. However, real disposable incomes are expected to decline by around 3 per cent. The policy programme of the outgoing Cabinet in practice results in a freezing of gross social security benefits and government pay, an increase in indirect taxation and a substantial reduction of government contributions to the social security system, offset by higher social security taxes for employees. Notwithstanding the tight fiscal stance the public deficit as a per cent of GNP is forecast to decline only by about ¼ per cent in 1983 to around 5½ per cent.

In Italy policy will be directed at reducing the rate of increase in nominal wages through the existing institutional framework comprising employers and unions and with reducing the public deficit. The forecast is based on no volume change in transfer payments but overall the public deficit as a per cent of GNP is expected to amount to about 13½ per cent of GNP, about the same as 1982.

Prospects for the United Kingdom are subject to considerable uncertainty. The principal difficulty relates to gauging the likely magnitude and extent of relaxations in policy occurring now and, more importantly, in the Spring 1983 budget. Without relaxation the prospect of recovery in 1983 is limited. Industrial production (excluding oil and gas) has been flat in the six quarters to June of 1982. Several factors point to a continuation of this sluggish performance. First order books and order intake are generally very low, implying no major improvement in demand and hence no reason to raise output. Second, there has been a build up, at least until very recently, in retail stocks. In the second quarter of 1982 the retail stock/sales ratio approached levels obtaining in late 1979 and mid 1980 which resulted in sharp destocking. If this occurred again output would be further curtailed. Third the volume of UK manufactured exports fell sharply, by about 7 per cent, between the second and third quarters. Moreover the CBI Industrial Survey for September found over 50 per cent of respondents regarding export over books as "below normal".

An important stimulus to demand rests on a boost to household consumption coming from further and faster deceleration of retail price increases, compared with earnings. This has occurred during the third quarter and accounts in part for the upturn in retail sales which occurred in August and its maintenance in September. There may be a similar tendency for the remainder of this year but thereafter wages and prices are expected to move closely in line. The main boost to real incomes next year will be from a relaxation of fiscal policy in the form of cuts in direct taxation. The *London Business School* estimate that a shortfall of about £stg 1½ billion this year in the PSBR will be used in 1983 to stimulate the economy by reducing the standard rate of income taxation (by 2 percentage points) and eliminating

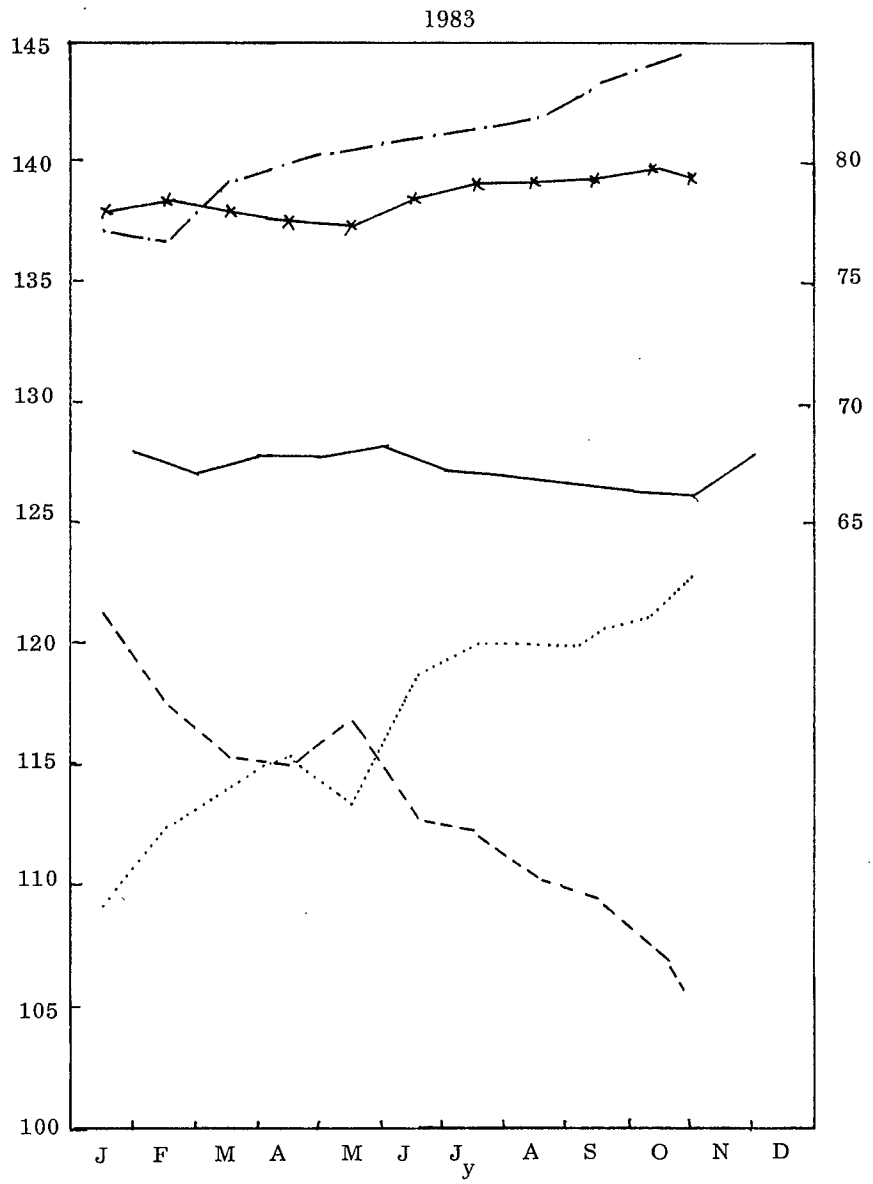
the National Insurance Surcharge. The total net effect is to increase the PSBR estimates for 1983 of £stg 8.7 billion before policy changes by £stg 1 billion to £stg 9.7 billion (3.2 per cent of GDP compared with a forecast outturn of 2.9 per cent in 1982).

Notwithstanding these measures the growth in real disposable incomes in 1983 will be under 1 per cent, compared with a decline of over 2 per cent this year. Consumer spending is forecast to rise more, by about 2 per cent. However, stockbuilding is not expected to be significantly positive and import growth, at 3.8 per cent, is expected to be about the same as this year even though GDP growth is stronger, 2.0 per cent next year compared with about ¼ per cent in 1982. The forecast of the Treasury presented to Parliament as part of the Autumn package does not differ in tenor from that of the *London Business School* when account is taken of differences in fiscal policy assumption. (The Treasury Forecast is based on a less expansionary budget profile for 1983/84). Growth is projected at about 1½ per cent compared with 2 per cent. A positive feature of the Treasury projections, from Ireland's point of view, is the more rapid import demand envisaged, a rise of 5 per cent in volume on average in 1983 and a growth of 5.8 per cent between the second half of 1982 and 1983.

If such demand does emerge from the UK then export growth from Ireland may be saved the worst effects of the weakening level of economic activity which is likely to continue to beset the industrial world over the next twelve months, excepting of course any major swings in the external value of the Irish pound against sterling and other currencies which would worsen this economy's competitive position.

The strengthening of the US dollar in the year to date has not been abated by the recent relaxation of US monetary policy. The real effective exchange rate is about 25 per cent above the average level in the second half of the 1970s. The dollar's strength seems to be reflecting a confidence in and approval of current economic policies which is being manifested in substantial long term capital inflows. The parallel easing of European money market rates is also a factor which has facilitated the continued strength of the dollar. The effective index for the DM has also strengthened during the year. At end October it was about 5¼ per cent above the level at the beginning of the year and in real terms the appreciation was about 2½ per cent. This has occurred despite a marked weakening against the dollar. The present rate against the dollar of about 2.56 is 12 per cent below the end 1981 value. However the German Authorities seem less concerned by this movement, than they were in 1981. A possible reason, in addition to the overall strength of the currency is that dollar denominated commodity prices are falling anyway so that the inflationary impact of the strengthening of the dollar is being considerably dampened. Moreover Germany's cost competitiveness which has suffered against many other currencies is being helped by the dollar's strength. In these circumstances it is unlikely that there will be moves to strengthen the DM position *vis-à-vis* the dollar. The effective position of sterling has remained broadly stable over the first 10 months of 1982. However at the time of writing (November) there are indications that exchange rate fluctuations are occurring. Most notably there has been a weakening of

Diagram 1: Indices of Effective Exchange Rates (March 1973 = 100)



Source: World Financial Markets, Morgan Guaranty Trust Company of New York, Quarterly Bulletin, Central Bank of Ireland.

sterling against the dollar and a sharp strengthening of the Yen, generally believed to be significantly undervalued, against the dollar. It is not clear to what extent a fall in sterling might be countenanced by the UK authorities. An important influence will be the attitudes adopted to a general relaxing of economic policy there. It is being assumed that a sharp depreciation of sterling will be avoided and that any downward adjustment which may occur will be small.

Exports of Goods and Services

Merchandise exports in 1982 seem likely to reach £5660 million, an increase of 18½ per cent on 1981. Within the different categories of exports industrial exports may grow by about 24 per cent while agricultural exports may increase by 3½ per cent.

The pattern of exports within the year is of particular importance. For manufactured exports (SITC 5-8) there was a fall in value and volume in the third quarter (all data seasonally corrected). The fall in value was concentrated in SITC 5 covering Chemicals where exports fell by 16 per cent compared with the second quarter level. Other industrial exports continued to grow however in the third quarter. Overall there was a slight volume fall in total industrial exports in the quarter. It is expected that the fourth quarter level will recover significantly.

The forecasting of agricultural exports is complicated by the adjustment arising from trade in intervention products, the holding of intervention stocks abroad and smuggling. The trade statistics refer only to recorded movements across borders. The data for these movements seem likely to reach £1280 million this year compared with £1235 million last year. In essence this is a forecast for the final quarter of 1982. Live cattle exports have been running at about half their level in the final quarter of last year and while slaughter-

TABLE 3: Exports of Goods and Services

	1981 £m	1982 £m	Percentage change Price	Volume	Value
Manufactured Exports	2821.4	3500	11¼	11¼	24
Other Industrial Exports	668.4	820	12	11	22½
Agricultural Exports	1235.3	1280	11	−6½	3½
Other	49.4	60	—	—	—
Adjustment for intervention and other agricultural trade	+90	+85	—	—	
Balance of Payments Adjustment	78	80	—	—	—
Merchandise Exports	4787	5665	11¼	6¼	18½
Tourism Receipts	424	505	17	2	19
Other Receipts	302	340	—	—	12½
	5513	6500	11¾	5½	18

ings at meat export premises have increased slightly there has been a very big intake into intervention – much more than in the corresponding period of last year. Similarly there appears to have been a big intake of dairy products into intervention this year.

Tourism receipts in 1981 are provisionally estimated at £424 million of which £94 million is passenger fare receipts. The total number of visitors this year is expected to increase by about 4-5 per cent, based on data for the first nine months of the year (excluding excursionists). The number of cross border day trippers has been in decline for a number of years, though there may have been some increase in the number of excursionists from Britain. Total tourism receipts are expected to be £505 million, an increase of 19 per cent in 1981.

Net Current Government Expenditure

The June public expenditure cuts have affected our forecast for government consumption expenditure this year. Table 4 below presents the revised revenue and expenditure forecast for this year.

TABLE 4: Current and Capital Budget 1981-1982

	1981 £m	1982 £m	% change
Current Expenditure			
Pay Expenditure	1925	2215	15.1
Contribution to EC Budget	118	150	27.1
Debt Service (Interest & Sinking Fund)	885	1245	40.6
Social Welfare Expenditure	663	950	43.3
Other Expenditure	1184	1415	13.2
Total Expenditure	4775	5975	23.5
Current Revenue			
Tax Revenue	3315	4025	20.5
Post Office Receipts	282	375	34.8
Other non-tax Revenue	376	500	27.6
Total Revenue	3973	4900	21.4
Current Deficit	802	1075	–
Borrowing for Capital Purposes	908	965	–
Borrowing for Intervention	12	140	–
Total Borrowing	1722	2180	–

Pay expenditure is now expected to increase by 15.1 per cent compared with 18.2 per cent previously. The difference is due almost entirely to the postponement of the final stage of the Public Service Agreement, though there has been some reduction in numbers. Social Welfare expenditure from Exchequer funds is forecast to increase more rapidly as unemployment has deteriorated more than we had expected. Against this the rise in other expenditure may be somewhat less as a result of other changes introduced in the June measures. Once subsidies are considered the rise in the remainder of other expenditure is likely to be very modest.

The biggest change to our forecast budget figures derive from the revenue figures. The decline in activity levels has been so great that a significant short fall in revenue is expected this year.

The current budget deficit is now forecast at £1075 million. Capital expenditure appears to be roughly on target so that exchequer borrowing for capital purposes is likely to be as forecast in the budget. However there has been some unanticipated borrowing for purposes of the intervention agency.

The forecast for net government consumption expenditure is given in Table 5 where the data of Table 4 have been organised on a National Accounts basis.

TABLE 5: Net Government Consumption Expenditure (£m)

	1980	1981	1982
Wages and Salaries	1197.5	1500	1735
Other Consumption Expenditure	782.5	891	975
less Miscellaneous receipts and depreciation	109.0	120	135
Net Government Consumption Expenditure	1871	2271	2575

Investment

Imports of producers capital goods in the first nine months of the year were running only 3½ per cent above their level in the corresponding period of 1981. The likelihood is that such imports will decline in volume terms by almost 4 per cent this year. This is considerably more adverse than previously forecast when a slight volume increase was expected.

We now turn to the level of activity in the building and construction industry in 1982. In the absence of a reliable up to date indicator for this industry as a whole it is necessary to piece together a number of separate items of information.

At this stage, with data covering at most the first three quarters, the level of activity looks set to decline by some ten per cent this year, estimated as follows.

On the output side, the construction of dwellings representing over one third of the industry's output is witnessing a slight decline in completions in the first three quarters compared with the corresponding period last year. By contrast, completions of local authority houses, amounting to about a fifth of house construction, have maintained an increase in both completions and starts, along with a slight decline in the average number of houses in progress. As an indicator of private house starts, the number of Building Society approvals and applications have dropped dramatically, by nearly thirty per cent in number. The increase in total investment funds in Building Societies indicates that there is no financial constraint on their part. The demand for housing responds to changes in real disposal income which has fallen this year. House purchase usually represents a commitment to a stream of financial outgoings, a commitment less readily undertaken when the household's perceived economic prospects are unfavourable. New house prices at 9.8 per cent higher than the corresponding three quarters in 1981, have

risen less than house building costs at some 14 per cent, reflecting the weakness in demand.

The remaining two thirds of the industry's output is dominated by the Public Capital Programme. Nominal expenditure in 1982 on the identifiable relevant items, deflated by the 10.2 per cent rise in the wholesale price index for building and construction, suggest a real decline in activity of between 15 and 20 per cent. While some areas such as roads have shown a marked increase, the casualties have been industrial and agricultural construction in particular (though agricultural investment is weak in itself). Unfortunately there remains over a fifth of the building and construction industry's output for which there are no guidelines, but the indications for the areas covered are for a drop of some 10 per cent, as mentioned above.

On the input side, the starkest indication comes from the decline of over 15 per cent in cement sales in the first three quarters of 1982 compared with the corresponding 1981 period. This may primarily reflect the overall decline in starts, which would tend to be cement intensive and the decline in agricultural and industrial investment. On a seasonally adjusted basis however there appears to have been an improvement on the low point in cement sales in June.

By contrast the volume index of production of non-metallic mineral products, which includes cement, declined by 7 per cent, based on eight months only. However with the seasonally adjusted series and the trend still in decline, a further deterioration can be expected. Similarly the index of employment in the (non-State) building and construction industry available up to August, shows a fall of 6½ per cent on last year. This index too is in decline in seasonally adjusted terms.

The estimate for investment as a whole is given in Table 6.

TABLE 6: Gross Investment 1981-1982

	1981	1982	% change price	% change volume
Building and Construction	1679	1665	10	−10
Machinery and Equipment	1410	1460	8½	−4¾
Total	3089	3125	9½	−7½

Agriculture, Forestry and Fishing

For 1982 the likelihood is that agricultural incomes will increase very rapidly as a result of increased output, reduced inputs and output prices favourable relative to input prices for fertilisers and feed.

Milk output is expected to increase by a minimum of 7 per cent. In the first nine months of the year milk delivered to creameries was running 6.7 per cent higher than in the corresponding period of 1981. The monthly and quarterly pattern of milk production is very unstable even when seasonally adjusted. The bulk of production is concentrated in the March to September period, but there can be very large fluctuations in the final quarter of the year, and this can significantly affect the year total.

Livestock production is likely to remain unchanged. Cattle output may increase slightly but sheep output may fall. Livestock prices are expected to increase by 9 per cent.

Both crop and turf production are estimated to have grown significantly this year. Crop yields have been very much better than in recent years.

Fertiliser inputs fell by ¾ per cent in the 1981/82 fertiliser year. Consumption of nitrogeneous fertiliser remained unchanged since 1977/78. Phosphate declined by about 2 per cent while potassium fertiliser consumption fell by 1½ per cent. Fertiliser prices are estimated to have increased by 7¾ per cent.

Feeding stuffs inputs in the first quarter of the year were running at record levels. The level was a response to the extreme weather conditions, particularly in January. Feed inputs fell back in the second quarter of the year so that for the first half total feed was marginally below the first half of 1981. It is expected that the second half year figures will show a very significant fall leading to a year on year decline of 7½ per cent in feed inputs.

Table 7 summarises the forecast for agriculture for 1982.

TABLE 7: Agricultural Output and Income 1981-1982

	1981	1982	% change Price	% change Volume
Livestock	962.7	1050	9	0
Livestock Products	651.2	780	12	7
Gross Output	1903.5	2180	10¼	4
Inputs	599.4	615	8	−5
Net Output	1304.1	1565	11	8
Expenses less Subsidies	461.0	465	—	—
Income Arising in Agriculture	843.1	1100	—	—

The forecast is for an increase of just over 30 per cent in income arising in agriculture in 1982. It should be stressed that this is based on a National Accounting convention and no allowance is made for interest payments by

TABLE 8: Agricultural Incomes

	1976	1977	1978	1979	1980	1981	1982
Income Arising in Agriculture forestry, fishing £m	602.3	819.0	917.5	826.1	775	880	1140
Income per person engaged in agriculture etc. £	2505	3590	4060	3705	3605	4295	5700
Consumer Prices (1975 = 100)	118.0	134.1	144.3	163.4	193.2	232.6	273.5
Income per person engaged/ Consumer Prices £	2200	2680	2815	2270	1865	1845	2085
% change in real income per head in agriculture	—	21.8	5.0	−19.4	−17.3	−1.1	13.0
Average Earnings in Industry (T G) £	2760	3240	3710	4280	5055	5885	6650
Average Earnings in Industry/ Consumer Prices £	2335	2415	2570	2620	2615	2530	2430
% change in real income per head in industry	—	3.3	6.5	1.8	−0.5	−3.3	−4.0

farmers to financial institutions arising from farm related borrowings. Depreciation is also treated as an expense of agriculture, and no allowance is made for capital grants. The course of agricultural incomes in recent years is given in Table 8 with some comparative data for earnings in transportable goods industries.

The data are subject to wide variation of interpretation. Ideally we would like to distinguish between full and part time farming, particularly in a comparison with industrial workers. The data do show that there have been greater fluctuations in per capita income from farming than in industry, and that real income per capita from farming is still running at less than in 1976 while real per capita income in industry is higher.

Non Agricultural Earnings

The increase in weekly money earnings in manufacturing in the first quarter of this year was 0.7 per cent (the increase in the index of average earnings was 0.4 per cent) on the final quarter level of last year. This was very much less than we had expected and was due to hours worked falling by rather more than expected given the level of production in March and a smaller increase in basic rates of pay than a consideration of agreements reached in the 22nd round might have suggested. Preliminary figures for the second quarter suggest that hours worked have not recovered to the second quarter level of last year but basic rates had increased more rapidly than expected. The 22nd round, in terms of basic rates, was much less front loaded than we had assumed in the last two *Commentaries*. The rise in basic rates of pay may however be quite high (14½-15 per cent) but average earnings may increase by 13 per cent as a result of reduced hours worked. Employment in manufacturing is expected to fall on average by just over 3 per cent so that the pay bill in manufacturing is likely to increase by less than 9½ per cent (exclusive of employers PRSI contributions).

In the building industry the main construction groups' increase in basic rates of pay is estimated at 13¼ per cent. There were other allowances bringing the increase in potential basic rates up to 15 per cent. The pay bill however may increase by just under 6 per cent as employment falls have been significant in the sector, and it is possible in the light of the poor output that some increases may be waived. Settlements in the private service sector in the 22nd round appear to have been larger than in industry with the increases in the financial sector most marked. Average earnings may have increased by about 16 per cent in private services.

In the Estimates for 1982 the public service pay bill was projected at £2275 million, compared with £1924.5 million in 1981. This figure included a 2 per cent allowance for new posts – including the carryover costs of posts created in 1981 and also incorporated an increase of 5 per cent from 1st October on basic rates of pay. The July 1982 measures restricting public expenditure will lead to savings on pay this year covering special claims, the delayed payment of the 5 per cent, and the continuation to March 1983 of the embargo on filling of vacancies brought in in July 1981. The estimate of the savings on pay this year is £45 million. In addition to these measures other savings on pay are likely given cutbacks in other areas taken inde-

pendently of the July measures. The public service pay (incl. pensions) bill for the year may total £2215 million – representing an increase of 15.1 per cent on 1981.

The non-agricultural pay bill as a whole is thus forecast to increase by 12¾ per cent this year. This is considerably less than the 15¼ per cent previously forecast and is due to (i) the modification of the Public Service Pay Agreement (ii) the phasing of the 22nd round not being as front loaded as originally assumed (iii) the fall in employment being greater than expected deriving mainly from a failure of the assumed recovery to materialise.

Manufacturing Wages, Prices and Output

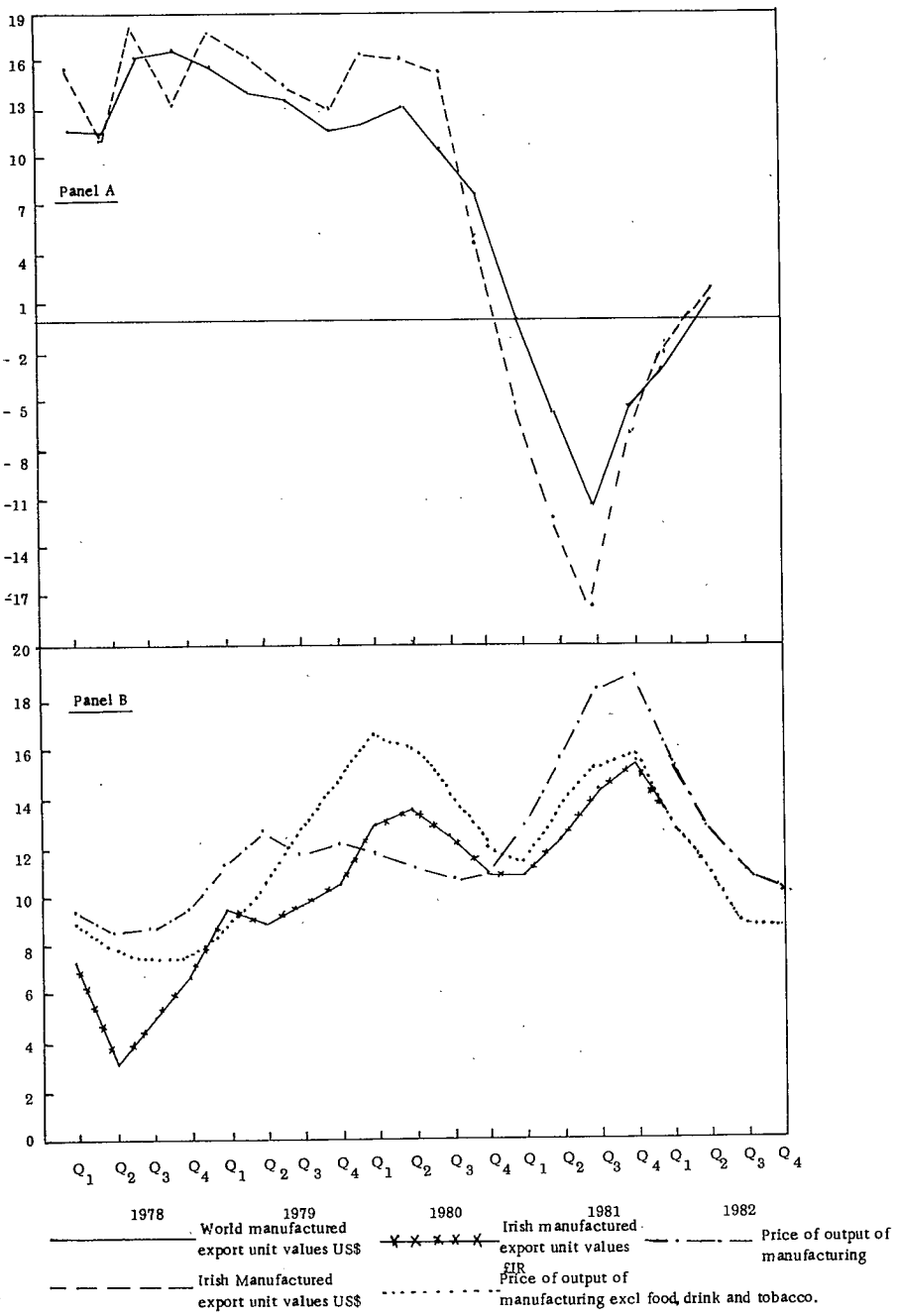
It is useful to analyse the recent evolution of wages in the context of manufacturing output and price developments. Diagram 2 depicts the evolution of wholesale manufacturing output prices and manufacturing export unit values since the beginning of 1978. It may be seen (Diagram 2, Panel A) that over the period as a whole Irish manufacturing export unit values expressed in US dollars showed broadly the same pattern as world manufacturing export unit values. Upward deviations from world prices during the first three quarters of 1980, when Irish manufactured unit values rose year on year by about 16¼ per cent compared with 12½ per cent internationally, were succeeded by sharper falls relative to those worldwide; from the fourth quarter of 1980 to the third quarter of 1981 world manufacturing export unit values in US dollars fell at an annual rate of 12¼ per cent compared with a decline of 17¾ per cent during this period in the case of Irish manufactured export unit values. Since then both prices have risen at an annual rate of about 4½ per cent. That Ireland's manufacturing export prices should parallel the international pattern closely is not of course a surprising result. Indeed it would be the expectation from the theory of the small open economy.

Translating from the above general trend to the domestic inflation experience of industry which produces it is not a straightforward exercise. The annual price increases in domestic currency terms of manufacturing export unit values and certain aggregates of wholesale price increases (Diagram 2, Panel B) show marked differences over the period which would attenuate the conclusion that world price movements are a binding constraint on domestic output inflation.

Particularly sharp divergences have occurred between the movement of wholesale prices for all manufacturing and for that aggregate less the food, drink and tobacco sector: for example the former tapered gently through 1980 from a rate of 11.2 per cent in the fourth quarter of 1978 while the latter decelerated significantly through the year from a peak of 16.4 per cent in the final months of 1979. In 1981 this pattern was reversed. Total manufacturing wholesale prices accelerated more sharply than manufacturing adjusted for the food, drink and tobacco sector. The vagaries caused by the food, drink and tobacco sector arise from several sources. First, falling agricultural prices in 1980 resulted in a very modest rise, of 2½ per cent in wholesale food prices that year. This was followed by a rapid acceleration the following year to 16¼ per cent. Second the wholesale price index includes

Diagram.2 Manufacturing output prices, and export unit values 1978-1982

(Per cent change from corresponding period in previous year.)



Sources: Monthly Bulletin of Statistics, United Nations. Geneva; Wholesale Price Index CSO, Dublin; Quarterly Bulletin Central Bank of Ireland.

excise duties, a factor which influences the drink and tobacco group whose rates of increase have in general been above the average. In 1981 there was significant acceleration in the rate of the price increase in the tobacco sector from 24.8 per cent in 1980 to over 29¼ per cent in 1981. Judging from the intra year pattern of increases it would seem that increases in excise duties were largely responsible for the acceleration. There were also increases in excise duties in respect of drink in the two budgets of 1981. However no acceleration occurred in the wholesale price index of the drink industry between 1980 and 1981, the rate of increase being about 24 per cent in both years.

The foregoing considerations suggest that the food, drink and tobacco sector should be excluded when attempting to analyse the underlying inflation of industrial output prices. Such an adjustment might be expected to result in a very close correspondence between the movements in manufacturing export unit values and the wholesale price index thus adjusted. However as can be seen (Diagram 2, Panel B) this is not quite the case. From the second half of 1979 wholesale prices (adjusted) began a rapid acceleration which led to increases of almost 16½ per cent by the first quarter of 1980 compared with 12¾ per cent for export unit values. And while there was a narrowing in the differential between the two indices in the deceleration which occurred in the course of 1980 the rate of increase in wholesale prices (adjusted) has remained above that of the export unit values.

The proximate causes of these divergencies may lie in differences in composition as between the two indices. For example, the wholesale price index does not contain an element for office equipment and data processing equipment which, as discussed in the *Commentary* of August 1982 has been among the fastest growing components of industrial exports. The weighting system would also be significantly different as between the two indices. For example, the rapid growth in exports of chemicals would have led to a higher weighting of this category in the export price index compared with the output price index, although paradoxically this might have been expected to push the export price index above the wholesale one as the output price of the chemical sector was well above the average of manufacturing (adjusted for food, drink and tobacco).

In the absence of the necessary data which would be required to reconcile any divergencies between the two indices arising from differences in statistical methodology it is possible to outline only tentative conclusions about underlying behaviour at work. It does, however, seem plausible that manufacturers in general were unable to contain output price increases to the rates prevailing internationally from late in 1979 and that during the first three quarters of 1980 their competitive position was being eroded. Even for the narrow group of manufactured exports, the rate of price increases was rising relative to rates internationally, at that time.

The pressure on industry at the time was clearly severe. This may be gauged from input cost increases at the time (Table 9). The most fitful rises occurred in fuel prices, from the second half of 1979, these were increasing year on year by close to 50 per cent. At the same time interest rates began to edge up and continued rising until the middle of 1980. Import

price increases excluding fuels also began to accelerate from the second half of 1979 and finally unit wage costs rose significantly. Hourly earnings accelerated from 11½ per cent in the second quarter of 1979 to 24½ per cent in the second quarter of 1980. As already noted agricultural prices, an important input to the food sector, were an exception as they were actually falling about this time.

TABLE 9: Manufacturing Output Prices and Selected Input Prices 1978-1982 (Per Cent Change)

		1978	1979	1980	1981	1982
Output price of Manufacturing industry	Q1	9.5	11.7	11.2	13.6	15.2
	Q2	8.5	12.3	10.9	15.8	12.7
	Q3	8.7	11.7	10.4	18.2	11.0[e]
	Q4	9.2	11.8	11.0	18.8	
Output price of manufacturing industry (excl. food, drink & tobacco)	Q1	8.9	8.6	16.4	11.9	13.3
	Q2	7.9	10.3	15.4	13.8	11.3
	Q3	7.4	12.9	13.2	15.5	9.2[e]
	Q4	7.3	14.7	12.1	15.8	
Petroleum fuels purchased by manufacturing industry	Q1	2.5	−0.6	56.7	36.7	19.3
	Q2	−1.9	14.2	55.3	33.3	7.8
	Q3	−3.2	42.2	26.1	42.4	4.0[e]
	Q4	−4.1	50.0	20.9	45.7	
Licenced banks AA 3 year lending rate	Q1	8.75	14.25	16.5	15.0	18.4
	Q2	10.4	15.0	18.5	15.7	19.75
	Q3	11.75	15.6	17.2	17.2	18.3
	Q4	13.4	16.5	15.0	17.5	
Import Unit Values (Manufactured goods)	Q1	7.1	9.2	15.2	18.5	9.1
	Q2	7.4	8.7	17.0	17.5	7.7
	Q3	7.7	13.2	12.4	18.0	
	Q4	7.7	12.6	16.5	12.1	
Unit wage costs in manufacturing	Q1	6.2	11.4	16.9	12.8	8.0
	Q2	9.2	7.9	20.4	11.2	11.4
	Q3	9.2	15.8	13.1	9.8	
	Q4	11.5	16.4	21.9	4.3	

Sources: Wholesale Price Index, CSO, Dublin; *Economic Series*, CSO, Dublin; *Quarterly Bulletin*, Central Bank of Ireland.

With such a wide ranging and substantial set of increases in costs and output prices rising above the rate prevailing internationally and output growth decelerating sharply from early 1980 (Diagram 3) it is unsurprising that there was a sharp fall in employment. Indeed profit margins are likely to have been severely squeezed throughout 1980 notwithstanding the easing in the rate of increase of some input costs in the second half of the year. Right through the year productivity was falling and during the second half of the year output price increases were being reduced in line with those prevailing on world markets.

During 1981 cost increases excepting wages remained substantial. However, some slowing down in the rate of increase in hourly earnings occurred though

erratically and output growth in the course of the year was translated into accelerated productivity growth resulting in sharp deceleration in unit wage costs throughout the year, from almost 22 per cent in the fourth quarter of 1980 to about 4¼ per cent a year later. (Diagram 3, Table 22).

Turning into 1982 a more broadly based range of favourable indications has developed. During the first two quarters there has been a rapid deceleration in wholesale fuel prices, down to about 8 per cent year on year in the second quarter and import prices generally have slowed down considerably. Furthermore in domestic currency terms both manufacturing wholesale prices and export unit values have decelerated further in the first two quarters. Most recently interest rates have begun to fall. On balance these circumstances would indicate a considerable improvement in the cost/price position of manufacturing industry.

However, the slow down in output growth in consecutive quarters from the final quarter of 1981 has been associated with decelerating productivity. At the same time the rise in hourly earnings has been maintained so that unit wage costs have reaccelerated during the first half of the year. During the remainder of the year it is expected that there will be further upward pressure on unit wage costs, while output prices continue to decelerate. In these circumstances it is likely that employment will continue to fall. Indeed there can be little prospect of achieving even stability while such imbalances and pressures exist within the corporate sector.

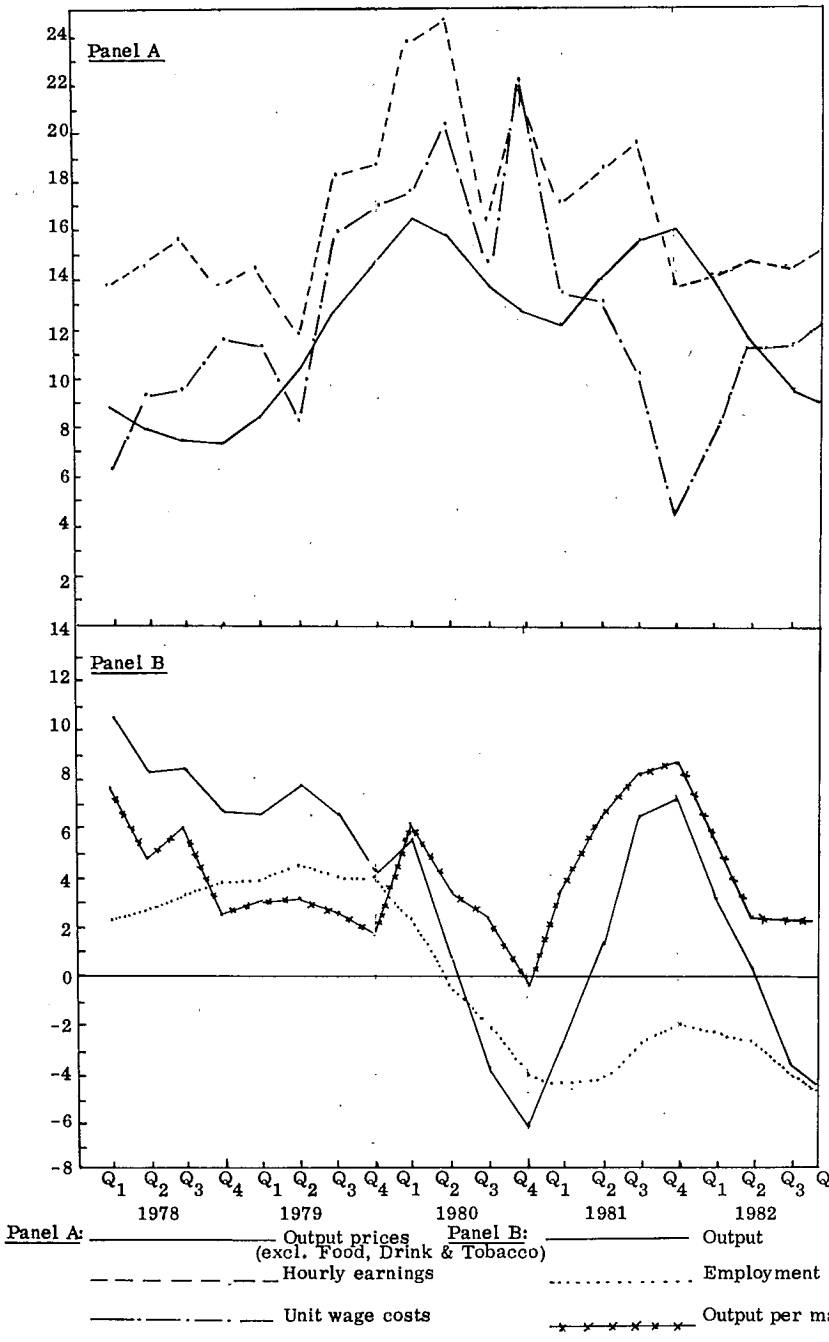
Private Consumer Expenditure

In the previous *Commentary* an increase of 15 per cent in nominal disposable income was forecast for 1982 with a corresponding decline in private consumption. As discussed in the section on non-agricultural earnings the total pay bill is expected to increase by 12¾ per cent compared with the previous forecast of 15¼ per cent. Agricultural incomes are also expected to increase by rather less – 30 per cent, compared with the previous one third increase. In spite of this, revisions to other elements in our forecast and in the amount of net direct taxes and social welfare payments gives rise to an increase of just less than 14¼ per cent in nominal disposable income. As we expect consumer prices to increase by 17 per cent on average this implies a fall of just 2½ per cent in real disposable income.

The fall in real consumption for the period for which we have data is very much greater than the fall in real disposable income. Retail sales, after remaining relatively constant in real terms for a period of a year from the fourth quarter of 1980 to the third quarter of 1981 inclusive fell by 4.5 per cent in the final quarter of 1981, remained static in the first quarter of this year and then fell again in the second quarter by 3 per cent. Even this understates the position as there was a dramatic fall in retail sales in May and in the three month period May-July the volume of retail sales fell by 8.4 per cent compared with the period February-April. When garages and filling stations are excluded from the data the decline begins in the third quarter of 1981 and has been steady if not as spectacular. The decline in the latest three month period has been 4½ per cent. From all accounts there has been no major pick up since the summer months. If retail sales remained at their

Diagram 3 Manufacturing Output, Prices and Wage Costs 1978 - 1982.

(per cent change) from corresponding period in previous year.



Sources: Wholesale Price Index, CSO Dublin, Industrial Employment Earnings & Hours Worked, CSO, Dublin, Industrial Production, CSO Dublin.

July level for the remainder of the year the decline in the volume of retail sales would be 7¾ per cent. We expect some slight pick up of the data for the end of the year as later phases of the 22nd round become payable and as those on incomes above £9,500 covered by PRSI reach the upper limit for their gross PRSI contributions. Retail sales could still fall by just over 7 per cent.

The fall in consumption is likely to be the same order of magnitude. There are some factors at work which would lead to some variation from this: (i) not all car sales are household purchases (ii) foreign tourist expenditure is reflected in retail sales and our forecast is for a volume increase under this (iii) expenditure abroad by Irish tourists is not included and the forecast is for a volume increase in this (iv) certain expenditures are excluded e.g. electricity consumption and meals away from home. The forecast is for a volume fall of 6½ per cent on private consumption.

The implications of this are that there has been a marked increase in the savings rate this year. If the broad orders of magnitude are reasonable the rise in the personal savings ratio has been from an estimated 19.6 per cent in 1981 to 23.2 per cent in 1982. This is a very large increase. Increases of this order are not unknown – most particularly between 1974 and 1975 the savings rate increased from 18.3 per cent to 25.4 per cent of personal disposable income. The decline that year in real consumption was 4.5 per cent against an increase of 4.5 per cent in real disposable income. In many respects this year has many of the characteristics of 1975, with a decline in consumption, a rapid deterioration of the public finances, a reasonably large increase in farm incomes (on a national accounts basis) following a period of decline. Unfortunately the behavioural influences on the savings rate have proved very difficult to identify statistically and this makes forecasts of consumption very unreliable.

The figure for the savings rate is based on a residual viz. household savings and is thus subject to wide margins of error. The principal areas of weakness arise from our earnings forecast which may prove too high and the consumption forecast which may prove too pessimistic. However the broad orders of magnitude seem reasonable. A rise in the savings rate provides an explanation of several of the developments in the economy. The weakness in consumer demand was reflected in a worsening of the public finances. It also appeared in an increase in stocks initially and then an adjustment to stocks and then to output and imports. The rise in the savings rate led to an increase in available funds, and the weakness in loan demand from both the personal and corporate sectors led to an imbalance between supply and demand for funds at prevailing interest rates making it possible for the government to increase greatly domestic sources of finance and lower interest rates.

Imports of Goods and Services

Merchandise imports in the first nine months of the year were running just 4.7 per cent higher than in the first nine months of 1981. The monthly pattern has been very uneven from 1981 to date – the quarterly pattern has been more even. Imports, seasonally corrected, peaked in the third quarter

of last year. Since then the quarterly level has been running a minimum of 10 per cent below that peak. In Table 10 the quarterly pattern of imports by end use is examined.

TABLE 10: Imports by end use £m (s.c)

	1981				1982		
	I	II	III	IV	I	II	III
Producers Capital Goods	198.5	221.0	256.5	236.0	231.0	242.0	227.0
Consumer Goods	405.0	421.0	446.0	468.0	476.0	458.0	429.5
Materials for Agric.	71.5	93.5	96.0	68.0	92.0	101.0	77.0
Materials for Industry	818.5	903.5	958.0	919.0	938.0	937.0	896.0
Total Imports	1512.0	1613.0	1793.0	1664.0	1760.5	1720.0	1647.5

It is readily apparent that the decline in the value of imports has been widespread. Imports of capital goods reflect the general weakness in investment. Imports of consumer goods have tapered off quite sharply since the first quarter of this year. There may have been some advance imports in August to avoid the VAT on imports at the point of entry but the third quarter level of imports of consumer goods is reduced. Imports of materials for further production, the largest category of imports are considerably reduced – a reflection of the weakness in internal demand and excess stocks of materials reported by manufacturing firms.

To the extent that the fall in imports represents destocking in the retail and wholesale trade and in manufacturing industry it is difficult to know if a turning point has been reached. The monthly pattern does not indicate any pick up during the third quarter – rather the contrary. We are assuming that there will be some slight pick up once destocking ends but that the level of imports will be below the final quarter level of 1981. The level of imports assumed is £1650 million approximately giving an import total for the year of £6800 million.

Import prices in the first eight months of the year increased by 8 per cent on the first eight months of 1981. Part of this reflects a fall in import prices towards the end of last year when the effective exchange rate increased thereby pulling down import prices. On average this year the effective

TABLE 11: Imports of Goods and Services

	1981	1982	% change	
	£m	£m	Price	Volume
Merchandise Imports	6575	6800	8	−4¼
Temporary Transaction	91	100	—	—
Merchandise Imports (adjusted)	6484	6700	8	−4¾
Tourism	350	425	17	3¾
Other Services	190	220	—	—
Imports of Goods and Services	7024	7345	8½	−3½

exchange rate may depreciate by about ½ per cent. During the greater part of the year there has been relative stability in the effective exchange rate, with a sudden increase from mid November. This should act to hold the increase in import prices to about 8 per cent.

Balance of Payments

Table 12 summarises the balance of payments situation.

TABLE 12: Balance of Payments £m

	1981	1982
Imports of Goods and Services	−7024	−7345
Exports of Goods and Services	+4413	+6500
Net factor payments	−340	−600
Net transfers	+419	+410
Current External Deficit	−1432	−1035
(Balance of Merchandise Trade (adj.))	−1697	−1045
Balance of Merchandise Trade (unadj.)	−1800	−1140

It is readily apparent that the fall in the external payments deficit from 14.3 per cent of GNP in 1981 to 8.9 per cent of GNP in 1982 has been a result of an adjustment on the pure trade side with the balance of trade declining 6½ per cent of GNP.

GNP and GDP, Employment and Other Income

GDP using expenditure data is forecast to have increased marginally by just under ½ per cent. GNP by contrast is forecast to have declined by 1¾ per cent because of the impact of foreign interest payments. It should be stressed that the fluctuations in the different expenditure components are very wide so that even small changes could affect the outcome. In particular we have no information on non-agricultural stock levels – the decline in this could be even greater than we have forecast. In a purely arithmetic sense the contribution to the percentage change in GNP by different expenditure heads is given in Table 13.

TABLE 13: Contribution to GNP growth 1982, per cent

Private Consumption	−4.3
Government Consumption	0.1
Investment	−2.3
Stocks	+1.3
of which: Intervention	(+1.9)
: Other Non-Agricultural	(−0.7)
Exports less Imports	+5.6
GDP	+0.4
Net factor payments	−2.1
GNP	−1.7

Looking at GDP from the output side the picture is somewhat similar. Net output in agriculture is forecast to grow rapidly, manufacturing output is

likely to decline marginally and output in building and construction is expected to fall by 10 per cent. Services output is more problematical. Public sector services, given the method of measurement may increase but private sector services decrease, reflecting the poor demand situation. Table 14 summarises the position with regard to GDP (at factor cost) forecast for 1982.

TABLE 14: GDP (factor cost) per cent change, by Sector 1982

Agriculture	8
Industry	-3¾
Services	1
GDP	¼

There has been a continued deterioration in unemployment. The forecast is given in Table 15.

TABLE 15: Employment and Unemployment 1982-1983 (000's Mid-April)

	1982	1983
Agriculture	200	195
Industry	350	335
Services	595	600
Total employment	1145	1135
Unemployment	130	165
Labour Force	1275	1295
Unemployment Rate	10.2	12.7
Live Register	148	183

There has been a very rapid increase in unemployment during 1982. By April of next year the increase since April of this year could be as high as 35 thousand. The size of the increases reflects the depth of the recession, the weakening in new investment and losses in competitiveness.

Finally the category "Other Income" as given in Part B of Table I is given in more detail in Table 16.

TABLE 16: "Other Income" $m

	1980	1981	1982
Trading Profits of Companies	840	950	970
Other Trading Profits	615	727	855
Rent etc.	153	177	210
Stock Appreciation	-264	-340	-250
Adjustment for financial services	-298	-335	-350
Total	1046	1177	1435

The increase in trading profits of companies is very small at 2 per cent. However this includes the corporate sectors component of stock appreciation

(about 2/3 of total). When allowance is made for this the increase in corporate profits is 11 per cent.

Financial Developments

A Public Sector Borrowing Requirement (PSBR) of £2760 million is expected for 1982 compared with £2235 million in 1981 (Table 17). Net Exchequer Borrowing in the first nine months was £1736 million and in the final quarter further net borrowing of about £444 million is expected to take place bringing the total for the year to £2180 million. Indications are that Semi-State Bodies capital expenditure will be broadly in line with PCP provisions, in which case borrowings of about £580 million would be required to finance that level of expenditure.

TABLE 17: Financing of Public Sector Borrowing Requirement (£ million)

		1981	1982
Net Exchequer Borrowing		1722	2180
plus	Semi State Bodies Borrowing	513	580
=	PSBR	2235	2760
less	Sales of securities to domestic and non bank private sector	204	400
	small savings	76	60
=	Monetary financing of PSBR	1955	2300
of which			
	– Net External Financing	1494	1626
	– Other	461	674

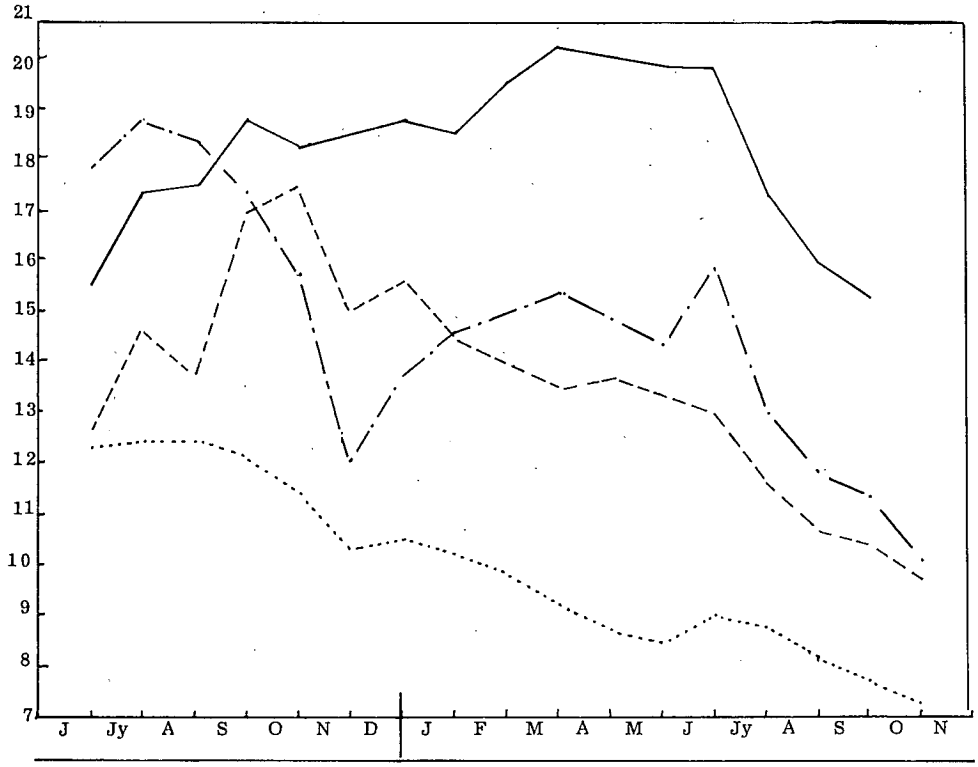
Data exclude borrowing for current purposes by Semi State Bodies

It was expected last May that there would be more buoyant demand for government securities in the second half of 1982 with domestic interest rates tending to fall under the influence of an easing of rates internationally (Diagram 4). In the event the strength of demand especially in August and September was significantly greater than anticipated. In the nine months to end September Gilt sales amounted to £530 million. Of this about £350 million is thought to have been in respect of the domestic non bank public. Total non monetary financing at end September was about £400 million, the balance being represented by small savings. Of the monetary financing of about £1330 million in the first nine months £1080 million took the form of foreign borrowing and the balance of £250 million came from the domestic banking system including the Central Bank.

In the final quarter the expected borrowing of £440 million will to some extent be met by the continued buoyancy of gilt sales in October. About £240 million is expected to be raised in this way of which about £50 million may be sold to the non-bank private sector. This still implies further borrowing of about £200 million for the year as a whole therefore external borrowing could amount to about £1275 million.

Data in respect of the funding of State Sponsored Bodies expenditures, or indeed the intra year pattern of the expenditure itself are extremely limited. If expenditure turns out to be as indicated by the "Public Capital

Diagram 4 Three month Euro - and Domestic Money Market Interest rates



Sources: World Financial Markets, Morgan Guarantee Trust Co. N.Y.

Quarterly Bulletin, Central Bank of Ireland.

Programme 1983" the Semi State Bodies borrowing requirement will be around £580 million. In the first eight months of the year, it seems that foreign borrowing of around £100 million was undertaken. No figures are available for domestic borrowing. It has been assumed that for the year as a whole about £350 million of the borrowing requirement will be met from foreign borrowing compared with £250 million last year and the balance from licensed banks.

With regard to balance of payments financing (Table 18), it can be seen that official capital flows, associated predominantly with funding of the public sector borrowing requirement, will exceed the expected current deficit. A rise of £100 million is expected in the net external liability of

banks. Leading of foreign payments over receipts are thought to have been an important brake on growth in the external reserves in the first eight months of 1982; 'other' (outward) capital flows were around £320 million during this period. Recent downward movements in sterling, if sustained could mitigate or reverse such movements late in the year. Overall however other outward capital flows could be substantial, a figure of £445 million for the year has been assumed. On this basis the external reserves would rise by around £300 million in the twelve months to end December 1982 bringing their level at end year to around £1780 million equivalent to over three months cover of merchandise imports.

TABLE 18: Balance of Payments Financing (£ million)

	1981	1982
Balance on Current Account	−1432	−1035
Net External financing of Exchequer	1255	1276
Change in Net External position of banks (residency basis)	57	100
Change in Net External position of Semi State Bodies	265	410
Other flows	−18	−445
Change in Official External Reserves	127	306
of which revaluation	122	9
Level of reserves at end year	1473	1779
Number of months merchandise imports covered by reserves	2.7	3.2

The conjuncture of a moderating balance of payments deficit and substantial official capital inflows principally by semi state bodies means that much of the expected rise in the external reserves in 1982 occurs in the final three months of the year. To end September the growth was only £48 million implying a rise of almost £260 million in the fourth quarter. Together with an acceleration in bank lending to the non-government sector a sharp increase in the money supply (Table 19) is expected to occur in the final quarter bringing the rise in the twelve months to end December 1982 to 13 per cent compared with 17½ per cent in the twelve months to December 1981.

Bank lending to the non Government sector (which includes lending to semi state bodies) increased by only 2½ per cent in the first eight months of 1982. This in part is the consequence of sluggish underlying demand for credit, but also the result of distortions in the pattern of demand for credit generated by credit guidelines. Even after seasonal adjustment non-government lending tends to rise sharply in the final quarter of the credit policy year, (Nov-February), presumably as banks encourage borrowing in order to maximise the base to which the ensuing year's guideline will apply. A similar pattern is expected this year; the rise in lending of 2½ per cent in the first eight months, amounting to about £150 million, would meet only two thirds of the expected domestic borrowing requirement of the semi state bodies. With the weak underlying demand for credit it is difficult to say to what extent it will be possible for banks to expand lending. A rise of 8 per cent in the twelve months to December is probably as much as might be expected

TABLE 19: Money Supply (£ million)

	1981	1982
Domestic Factors:		
1. Monetary financing of the PSBR	1955	2300
2. Change in Government deposits with Central Bank	8	—
3. Commercial Bank lending to the Private Sector(1)	729	250
4. Domestic Credit Expansion (1 + 2 + 3)	2692	2550
5. *Less* change in net non-deposit liabilities	159.8	225
External Factors:		
6. Current Balance of Payments	−1432	1035
7. Private Non Bank Capital Flows(2)	−17	−385
8. Statistical discrepancy(3)	−50	—
9. Increase in M3 (= 4 − 5 + 6 + 7 + 8)	1033.4	905
Percentage increase in M3 (twelve months to December)	17.4	13.0
DCE as percentage of M3 at end previous year	45.3	32.2

(1)Includes lending to Semi State Bodies for current purposes but not for capital purposes.
(2)Includes capital flows of Semi State Bodies not related to borrowings. Capital flows of banks are excluded on a location of branch basis.
(3)Due to differences in valuation of Government securities in banks' balance sheets compared with flow of funds to Exchequer from sales of securities.

in light of the exceptionally slow growth to August. This implies an acceleration in lending to over 5¼ per cent in the final four months of calendar 1982. Even with such growth bank lending to private (non-government *less* semi state bodies) sectors would be substantially less than in 1981 (Table 20). Indeed the reduction in lending more than cancels the rise in monetary financing of the PSBR so that DCE falls to £2550 million from almost £2700 in 1981, and shows a significant reduction when expressed as percentage of money stock at end previous year. The overall balance of payments position is broadly unchanged compared with 1981, even though there is a substantial reduction in the current deficit. The principal reason for the much worsened capital account position is the effects of leading of payments over receipts which has been occurring this year.

The net effect of domestic and external monetary influences is for growth in M3 of 13 per cent in the twelve months to December 1982. This implies a sharp acceleration to 8 per cent in the last four months of the year after an increase of 4½ per cent in the first eight months.

III THE DOMESTIC ECONOMY 1983

Introduction

In this section it is intended to set out a forecast for developments in the economy in 1983. The assumptions underlying a forecast at this stage are of crucial importance in determining the forecast. It is intended to discuss first the likely development of incomes and costs and second the fiscal stance of government. The forecast we present in Table II is based on these assumptions. As both these factors are of such great importance we turn again to these issues in Part IV: Appraisal.

Incomes and Costs

There was a very rapid deceleration in the rate of increase in consumer prices in the second half of 1982. We expect the consumer price index for November 1982 to be 12-12½ per cent higher than in November 1981. This increase is considerably less than our previous forecast and has been due to a considerable weakening in inflationary forces abroad and at home as the world recession has continued. The rise in consumer prices for the year as a whole forecast at 17 per cent is less than expected.

Given that the world economy is likely to remain relatively depressed in 1983 and that as a consequence world inflation is expected to be less than in 1982 it follows that external influences on the domestic inflation rate will be reduced at constant exchange rates. Indeed if no increase in indirect taxes were imposed in the next budget the rate of increase in consumer prices could be as low as 8 per cent. This is not an implausible figure. The constant tax price index for the year 1982 as a whole is likely to increase by 13-13¼ per cent compared with the rise in the CPI as a whole of 17 per cent. The end year figure (i.e. November 1982 compared with November 1981) is likely to be about 10 per cent.

The underlying inflationary picture is thus not too unfavourable. Consumer prices of course will be affected if any increase in indirect taxes takes place in the next budget. Increased charges for public services are formally equivalent to indirect tax charges in terms of the effect on prices and if not measured by the index are a reflection on the index. Assuming that indirect taxes and charges together add 3 per cent to consumer prices from the first quarter there would still be an increase of about 11 per cent in consumer prices, with the increase from November 1982 to November 1983 about 10 per cent.

In addition to this more favourable development on prices and its effect on incomes there is also the effect of the present agreements on pay. It is necessary to distinguish between the public and private sectors in this regard. In the private sector the particular pattern of agreements in many cases involves increases in basic rates of pay either at the end of this year or early next year. The carryover from 1982 is likely to be about 5-5½ per cent or about 1½-2 per cent greater than the carryover on consumer prices. If in

broad outline the increase in prices is as outlined above then it would involve lower increases than have been current in recent years from the completion of present agreements to maintain real basic rates of pay.

Finally the level of unemployment itself and the continued increase into 1983 will act to restrain increases in basic rates of pay. Seen from the point of view of workers the fall in real average earnings in 1981 and that expected in 1982 has been very substantial (3.3 per cent and 4 per cent respectively). We would expect increases in basic rates of pay, following the expiry of present agreements, to be less than in the 22nd round. The figure we are using is an increase of about 5 per cent from the summer of 1983, making some allowance for small increases in basic rates prior to that, reflecting the different phasing of present agreements between firms. Thus it is very easy to envisage an increase of about 12 per cent in basic rates of pay in the private sector in 1983 compared with 1982 as a whole. In the face of output price increases of about 8 per cent and reduced inflation abroad these figures would suggest a continued increase in unemployment as firms seek to restore profitability. This point is turned to in more detail in the Appraisal where it is argued that policy should be directed to avoiding this competitive loss.

There has been a significant change in the outlook for public service pay in 1983 following on the modification of the Public Service Pay Agreement. On basic rates of pay the modification postpones the third stage of the agreement to January 1983 with the amounts due from October paid in February and June in two equal instalments. The third phase of the modified agreement runs to end February so that any new agreement on pay would run from then. The assumption of a modest increase of 5 per cent in basic rates from the completion of the present agreement still seems reasonable.

Of greater significance has been the agreement on special claims. It appears that payments in 1983 on foot of special claims will be considerably less as a result of the modification. First, even with those cases where agreement has been reached only 2/5 of the payment will be made in 1983 – the remainder coming in 1984. Second the government has not agreed to a date of implementation of any new claims for special awards. The effect of both these is a reduction in the forecast level of public service pay next year.

The factors affecting the total pay bill in the public service next year are the increases in basic rates of pay, incremental scales, pensions, payment of postponed third phase 1982 amounts, part payment of agreed special claims, and some reduction in numbers due to wastage. The figures published with the book of estimates suggest an increase of £231 million in the public service pay bill assuming no further increase in pay beyond that already agreed. Some further increases may occur but we would expect them to be modest. Furthermore we expect the ban on recruitment to be maintained leading to a fall of about 1 per cent in numbers. The pay bill is forecast to reach £2515 million an increase of 13½ per cent on 1981.

Finally we consider agricultural incomes in 1983. The forecast increase of just over 30 per cent in income arising in agriculture in 1982 was due to a variety of favourable factors in 1982 compared with previous years. The dominant influence on the output side being the rise in milk output of 7 per cent.

This is due in large part to favourable weather conditions, though there was an increase in the dairy herd. Output growth in 1983 is likely to be quite modest at about 2½-3 per cent. Livestock production may be about 2 per cent, with a recovery in sheep production and cattle output increasing moderately. Crop and turf production on the other hand may remain very modest. Output prices are likely to increase less rapidly than in 1982 at constant exchange rates as the farm price review increases will reflect the fall in the rate of inflation across Europe. An increase of about 9 per cent on average compared with this year seems roughly the order of magnitude for prices.

Inputs of feed may fall further in 1983, reflecting more than anything the very high level of the first quarter of 1982. Fertiliser consumption is expected to stay at about the average level of recent years.

As a consequence net output is expected to increase by about 3½ per cent. Other expenses less subsidies may increase only marginally. Income arising is forecast to increase by 16½ per cent.

Fiscal Assumption

At the time of writing the broad order of magnitude of current expenditure, capital expenditure and the target current budget deficit for 1983 are known. The accounting conventions used in preparing budget accounts are such that it is difficult to provide a forecast that falls readily within those conventions.

Ideally we would like to present our forecasts of the likely outcome. However there is some interest in the figures presented at different stages by government e.g. the Book of Estimates, the opening deficit, the increased allowances for social welfare, tax changes and other charges. The different stages at which information is available provide an incomplete picture of the likely outcome for the year and involve what might appear to be arbitrary assumptions. This should be remembered in the following discussion.

There is first the question of the opening current budget deficit. As government accounts are presented, the opening position essentially represents the situation that would exist at existing expenditure levels and tax rates. The expenditure levels are those contained in the book of "Estimates for Public Services". Strictly, the Book of Estimates does not adhere to an unchanged policies rule as it can incorporate policy decisions as well as convention. For instance the grant to CIE is reduced from an estimated £96 million in 1982 to £86 million in 1983 and this is due to be accompanied by future increases in charges. The payment to the Social Insurance Fund is estimated in the Book of Estimates to fall from £250 million in 1982 to £158.7 million next year. A possible cause of this is the assumption of a fall in unemployment benefits and pay related benefits payable at current rates given the level of unemployment and the movement of people from benefit to assistance. In practice the income limit may be raised, incomes are increasing anyway and of course unemployment is still rising so that the numbers on benefit can still increase.

On the revenue side the same problems arise. It is still not certain if the "Estimates of Receipts and Expenditure" normally published just prior to the budget statement incorporate the effects on revenues of the general

stance of fiscal policy implied by specific measures on budget day. In recent years the inclusion of a "revenue buoyancy" element in the budget day estimates suggests that the opening revenue figures are revenue figures at current tax rates and assuming no changes in policy.

There is the question of the changes necessary to bring the current budget deficit and the borrowing requirement to the level desired by government, given the claims of different groups. Essentially this involves decisions about the rate of increase in social welfare payments, the assumption about future levels of pay, and the tax changes that are likely.

Finally, given the divergences between budget forecasts of revenue, expenditure, and borrowing and the actual outcome in recent years it is necessary to make some judgement about the likely outcome. In practical terms this can only be done once the whole set of measures is available on budget day. In other words in our forecasting we would hope to get the current balance between the likely outcome of GNP, revised tax rates and the effect of fiscal policy on the economy. As these are jointly determined there are possibilities for cumulative error in any forecast.

The opening current expenditure position is derived from the Book of Estimates. Excluding central fund services current expenditure is estimated to increase by 6.1 per cent in 1983 (it should be noted that our estimate for 1982 is marginally less than that in the preliminary estimate given by government). Pay and pensions are estimated to increase by 7.7 per cent. Interestingly enough other known pay items totalling £60 million (covering the 1982 cost of the third phase, the 1982 cost of special claims to be paid in 1983 and that part of 1983 special claims to be paid in 1983) are not included in the opening expenditure position.

Central fund services are likely to grow very slowly. The fall in interest rates internationally and domestically means that total interest payments in 1983 on foot of borrowings to end 1982 will hardly change, but there will be some increase because of borrowings during 1983 itself and because of exchange rate effects relative to the average of 1982. The contribution to the EC budget however is expected to rise from £150 million this year to £170 million in 1983.

Revenue, at current tax rates and allowances, is expected to increase by about £675 million. This is less than our previous forecast and derives from a lower level of pay in 1983, and because actual tax receipts in 1982 were less than expected. About £375 million of the increase is due to increased income tax receipts. This is an inevitable consequence of the way the opening deficit is obtained, given the increase in nominal incomes forecast and the steeply progressive nature of the income tax code when allowances and bands are not adjusted. In 1982 the corresponding figure was £373 million on a different income figure and with more generous allowances — though we do not know the earnings assumption underlying it. At current tax rates other revenue receipts depend in the case of *ad rem* taxes on the likely growth in volume, and in the case of *ad valorem* taxes on both volume and price changes. The specific figures used are often a matter of judgement—sometimes in areas where knowledge might be weak. For instance the fall in car sales in 1982 was very much more than could be explained by reference to dis-

posable income influences alone. There was a very large increase in new car prices and interest rates. There are also cyclical factors at work. The effect on revenue of a cyclical downturn, as opposed to a pure induced decline, can be very large. In 1982 the revenue lost, through both excise duties and VAT, was very substantial. Thus even a modest cyclical recovery, even though dampened by the general deflationary stance, could increase revenue significantly. The fall in interest rates and stability in new car prices could accentuate this. Other tax revenue is expected to grow by about £200 million. Post office revenue, at current charges is not likely to exhibit much growth, but other non-tax revenue could increase – for instance through increased interest and dividends on exchequer advances, an increase in the surplus income of the Central Bank, and in increased revenue from Bord Gais. Thus total revenue could increase by £675 million.

The opening deficit could look very much like the position given in Table 20.

TABLE 20: Opening Deficit 1983 £m

	1982 (Forecast)	1983
Tax Revenue	4025	4600
Non-Tax Revenue	875	975
Total Current Revenue	4900	5575
Central Fund Service	1400	1485
Public Service Pay	2215	2385
Other Expenditure	2355	2470
Total Current Expenditure	5970	6340
Current Deficit	1070	765

It should be obvious that this is a very artificial way of looking at expenditure and indeed revenue. On the expenditure side as we have indicated in the previous section our forecast for the public service pay bill is £2515 million or £130 million more than in the simple opening position. Furthermore some allowance must be made for increased social welfare allowances, because of increases in rates. As we expect the rate of inflation to decline the increase in the basic rates of payment are likely to be very much less than in 1982. The rise in 1982 of 25 per cent was related initially to a bigger rise in the consumer price index from indirect taxes than eventually occurred so that there could be little real growth in the level of payment on average next year. The assumption we made in the previous *Commentary* of two increases, one of 7½ per cent in April and the other of 5 per cent in October, still seems the correct order of magnitude and gives an increase of 12½ per cent for the year. The increase expected in social welfare expenditure is thus very much less than the increase in 1982. Some part reflects expenditure to be financed out of the social insurance fund, where revenue is likely to increase as the income limit is raised perhaps to £10,600 from the present £9,500. The exchequer cost could be about £100 million. On the expenditure side current expenditure could be £230 million more than the opening position would indicate.

Given that the intention is to reduce the budget deficit and borrowing requirement it follows that tax increases and charges are required. The extent of these is determined not only by the target deficit given expenditure but also by the indirect effect on revenue and expenditure of the deflation implicit in the target deficit (viz. £750 million). Thus taxes, and other charges before any change in existing structures, would require increased revenue in excess of £245 million.

In the previous *Commentary* it was stated that

> "There are several constraints that face government in reducing the deficit, most particularly (i) that imposed by the necessity to provide some indexation of income tax allowances and (ii) the need to avoid major increases in indirect taxes which might feed either directly or indirectly into industrial costs. These may not be independent as a significant proportion of the population may look at net real disposable income in framing new income claims. To the extent that this is correct, reductions in the deficit are difficult. Government has to weigh up the need to reduce the deficit and borrowing requirement against the effect on costs."

This seems just as valid now. In addition the government target figure of £750 million for the deficit seems to have been framed in the context of an outturn for 1982 of £900-£950 million, or with reference to a fall in the proportion of GNP accounted for by the deficit from an expected 7½ per cent to 5½ per cent. Obviously if the deficit proves to be 9.3 per cent of GNP a reduction to 5½ would be a very serious reduction in aggregate demand. The size of the deficit in 1982 is something we turn to in the appraisal, where it is suggested it contains some features which indicate that a reliance on changing tax rates to increase revenue may be misdirected. If the deficit does prove to be as large as 9.3 per cent of GNP this would necessitate not only a change in the target level for 1983, but also in the change between 1982 and 1983. We are assuming, under current arrangements that the deficit would be reduced to £900 million or 7 per cent of GNP. In effect the government would need to raise net taxes and charges not accounted for earlier by about £135 million. This is what we are assuming. With this set of assumptions the budgetary picture is thus somewhat as follows.

TABLE 21: Budget Outcome 1983 £m

	1982	1983 Opening	1983 Forecast
Tax Revenue	4025	4600	4700
Non Tax Revenue	875	975	1010
Total Current Revenue	4900	5575	5710
Central Fund Services	1400	1485	1485
Pay Expenditure	2215	2385	2515
Other Expenditure	2355	2470	2610
Total Expenditure	5975	6340	6610
Current Deficit	1070	765	900

In framing this we are assuming that the broad orders of magnitude of the cuts contained in the Estimates are maintained and that control systems are introduced to contain expenditure both by departmental head and sub-head. While the picture might seem favourable with reference to 1982 it should be stressed that the improvement in the finances comes about because of (i) a very significant saving on interest payments because of the fall in interest rates (ii) the assumption of no indexation of income tax allowances and bands and to a lesser extent (iii) control on expenditure.

In the previous *Commentary* it was assumed that the volume of public investment would fall by 5 per cent in 1983. The publication of "Public Capital Programme 1983" has caused us to re-examine this figure. The public capital programme at £2135 million is 8 per cent up on the estimated 1982 outcome in value terms. However the figure of £2135 million includes a figure of £120 million for projects not yet identified publicly which satisfy certain criteria. *A priori* we have no way of knowing how much would be spent under this heading but experience suggests that the introduction of investment criteria slows down capital expenditure. The assumption made in this *Commentary* is that the £120 million will not be spent in 1983 and that public investment will fall by 6 per cent in volume.

Final Demand and GNP in 1983

Exports of goods and services are expected to grow by about 9¼ per cent next year. Industrial export growth may slow down given the continued weakness in world demand, lower new investment by foreign firms and a deterioration in relative labour costs. There will be some output and exports from the Aughinish Plant but the extent is not easy to determine and of course there will be corresponding imports. The forecast growth in industrial exports is 7½ per cent, still above the growth in world trade. Agricultural exports will be determined not only by supply conditions domestically but also by the ability to sell stocks currently held in intervention and to prevent stocks from increasing further. There could in other words be a very significant increase in agricultural exports. For instance if all of domestic supply next year plus present holdings of intervention stock were sold agricultural exports could increase by a quarter in volume terms in 1983. We have no way of knowing just how much will be sold out of or into intervention. It makes no difference to the overall growth rate, but it does affect the value and volume of exports and the size of the current payments deficit. Simply as a matter of convenience we are assuming that all intervention stocks are sold, agricultural exports are correspondingly increased but that the sale price of intervention stocks is significantly less than purchase price so that EC transfers increase. There could also be some increase in the volume of tourism expenditure following the slight increase expected in U.K. disposable income. Thus exports of goods and services are expected to total £7555 million, a rise of 9¼ per cent in volume.

Investment is expected to decline by about 5 per cent. Public investment, as assumed earlier, could fall by 6 per cent. Private corporate investment and agricultural investment will remain very weak, but there could be some increase in private housebuilding. There has been an easing on the situation

with regard to the supply of funds through the building societies. The amount available through the Housing Finance Agency has been increased, but other house purchase loans decreased. The net effect is an increase of about 10 per cent in the amount available for loans for housing through Government.

Government consumption expenditure is expected to decline by about 2½ per cent in volume terms. We have assumed a continuation of the ban on recruitment in certain areas leading to a decline in numbers. In the discussion of fiscal policy it was further assumed that control systems would be instituted to maintain expenditure within the limits set. This coupled with increased charges reduces net expenditure.

Private consumption may grow slightly next year. The public service pay bill is expected to increase by 13½ per cent. Average earnings in the private sector may rise by 12 per cent but the continued decline in employment will reduce the increase in the pay bill to 10½-11 per cent. Agricultural incomes are forecast to rise by 16½ per cent. Transfers from the Exchequer are expected to rise by 20 per cent (excluding National debt interest). Personal income is then expected to increase by 12 per cent. As taxes on income (including social insurance contribution) are set to increase very rapidly under the fiscal assumption personal disposable income will increase by less — about 10½ per cent. Thus there would be a marginal fall in real disposable income. The savings rate may however fall back, particularly if the fluctuations in farmers income have been responsible for part of the instability in the savings rate. The experience of 1975/76 is very instructive. In 1976 real disposable income fell by 3 per cent yet with a fall in the savings rate from 25.4 to 21.2 per cent of disposable income real consumption increased by 2.4 per cent. The principal difference between the 1975/76 period and the present is that consumption bottomed out in the first quarter of 1975 and increased rapidly thereafter peaking in to final quarter of the year and then weakening in 1976 itself, while we have only a very modest upturn forecast for the final quarter of 1982. However a fall in the savings ratio of 1½ points could give rise to a volume rise of 1 per cent in consumption.

Final demand is forecast to increase by 2¼ per cent. It is very difficult to know how far imports will increase. There has been very massive destocking this year and as firms reach desirable levels of stocks imports will tend to increase. Strengthening this is the continued increase in industrial exports, and the small rise forecast for consumption. Investment is expected to decline as are imports of feedstuffs for animals. The forecast for imports of goods and services is for an increase of 4 per cent with import prices rising by 7 per cent. While the forecast volume growth in imports might appear high by reference to final demand the prime cause of this is the turnabout in stocks where practically all the change in stocks is treated as imports. GDP could show a growth of about 1 per cent with GNP rising by about the same. The external payments deficit could fall further to £765 million or just 6 per cent of GNP.

The forecast for 1983 is very tentative. The fall in interest rates abroad plays a very large part in reducing the external payments deficit and the Government budget deficit. The rate of inflation is considerably reduced,

again because of external factors. These improvements are a result of the general deterioration in the world economy and have their counterpart in a reduced rate of growth in industrial exports. The most worrisome feature of the forecast is the continued deterioration in the relationship between labour costs and output prices. This is turned to in more detail in the Appraisal which follows.

IV APPRAISAL

In previous issues of the *Commentary* we have stressed the importance of costs in influencing output and employment. Within the financial constraints imposed by the assumption on the public finance side it is suggested that policy should be directed towards improving the cost position of the corporate sector. At the outset it must be recognised that the dichotomy between real labour costs (i.e. labour costs relative to output prices) and real income (i.e. nominal income relative to consumer prices) lies at the heart of the problems. In 1981 and 1982 real labour costs increased by 4-5 per cent while real earnings fell by 3.3 per cent in 1981 and 4 per cent in 1982. There was a very large adjustment underway to real incomes reflecting the poor employment prospects and weak output that have characterised the period. It is difficult to envisage an incomes policy that could have achieved as much. Yet this real income adjustment was not enough to prevent real labour costs increasing. The divergence has occurred because of the differences between output prices and consumer prices (the increase in the rate of PRSI contribution has of course added to the labour costs of firms making the argument stronger).

Excluding changes in indirect taxes and charges for services the consumer price index could increase by as little as 8 per cent in 1983. If prices did increase by as little as this then the increase in nominal basic rates of pay could be held at about this rate which could mean little deterioration in labour costs in Ireland relative to other countries at constant exchange rates and this would be reflected in increased exports and reduced imports, compared to what would otherwise occur. As we believe that the real constraint is the balance of payments, policy should not be such as to worsen the external balance on the cost side. Thus government should consider not increasing indirect taxes as a means of preventing other costs from rising. To suggest this however is not a plea for abandoning fiscal targets, as the current budget deficit and the borrowing requirement are also reflected in the external payments deficit. There is little alternative to deflation in the present circumstances but the damage to costs must be minimised. There are different ways this problem can be approached. In broad terms they involve consideration of revenue changes and expenditure changes.

First the question of revenue must be looked at. In the last year the notion that taxation has reached its limit has become widespread. This may be true for some currently in the tax net but it is not obviously so in all cases. There is sufficient casual evidence to suggest that even for those in the tax net (i.e. forgetting those evading tax) the timelines of tax payments is poor. The Appropriation Accounts provide some information on the

amount outstanding for different taxes. The data need to be treated with extreme caution as the amounts outstanding are based in some cases on assessments which are purely notional and bear no relation to reality. In some cases firms may have gone to the wall and the money will simply never be collected. In Table 22 below the data for Income Tax (excluding PAYE) for the years 1975-76 and prior are presented – the position being that prevailing at 31st May 1982.

TABLE 22: Income Tax (excluding PAYE) £m

Year of Account	Charge	Net Discharge	Net Charge	Net Paid	Balance
1975-76 and prior	1172.2	476.2	696.0	646.2	49.8

The table indicates that the initial assessment for income tax for the self employed totalled £1172.2 million. However by May 1981 it was agreed that £476.2 million of this did not apply. The remainder, the net charge, is made up of the amount that has been paid and the balance outstanding. Even the balance outstanding does not necessarily mean that this money is due to the Revenue Commissioners as some part remains in dispute (£24.5 million) and some part of this could be treated as a net discharge. Of the remainder some part might not yet be paid for a variety of reasons. In other words the amount likely to be paid either this year or in the future from the balance outstanding from 1975-76 and previous years is quite small. The most recent data under this heading for the year 1980-81 shows a charge of £535.8 million, a net discharge of £130.5 million, tax paid of £125.0 million and a balance outstanding of £280.3 million. Given the way these figures are derived the figure of £280.3 million very seriously overstates the true balance outstanding. Of this £280.3 million £192.6 million is in dispute (i.e. under appeal or enquiry), only £7.2 million is not in dispute, the remainder is in various stages of collection but will not all be collected as people have gone out of business. Perhaps about ¼ of the balance outstanding may be collected either this year or in the future.

Similar arguments apply to taxes collectable under (i) PAYE, though the amounts here are very small (ii) Surtax (iii) Corporation profits tax (iv) Corporation Tax, where the balance outstanding is quite high but the amounts likely to be collected small, (v) Capital Gains tax (vi) Wealth Tax (vii) Capital Acquisition Tax, and with slight variation (viii) VAT. There can be little doubt that even when all allowances have been made for the nature of the data there were substantial amounts of tax due and not paid from last year and previous years. If anything the amounts are likely to have increased in 1981/82 and during this year. Simply on the year 1980-81 figures, excluding VAT underpaid, and assuming that only ¼ of the balance outstanding would be collected under each heading, gives a figure of £125 million. The VAT figures are more difficult of interpretation as a higher proportion may be collected. The Appropriation Accounts only consider estimates in relation to failures to furnish statutory returns by end 1981. For the year 1980 which corresponds with the fiscal year used above the estimated returns open for collection are £29.1 million of which £7.5 is under enquiry, the rest being

an under collection. Of this latter £2.2 million is at estimate stage, £14.7 million at demand stage and £12.2 million at enforcement stage. As a very rough estimate perhaps about £15 million might be collected. The figures for 1981 are very much bigger than this. The point of this exercise is really to get an idea of the orders of magnitude of outstanding tax due each year that has arisen from lags in payment. The amounts are substantial and growing. Even the crudest figures for end 1982 obtained by simple indexing of the fiscal year figure for two years and taking an estimated VAT figure available for 1981, would be in excess of £200 million. This ignores tax from previous years not yet collected and a possible increase in non-payment of due taxes this year.

It could be argued that these lags have always existed so that the amounts due for payment will always appear to be large at the end of an accounting year. If this were solely the case and true and accurate payments were quickly made shortly after the end of the account period it would be a simple matter. Casual observation suggests that payment can often be 2-3 years after the year in which income is earned. There seems very little justification of this in an era when inflation is so rapid.

The actual reasons why tax payments lag behind the accounting period need to be critically examined. There are two sides to this. From the revenue side excess initial charges will automatically lead to dispute and delay. In other words the Revenue Commissioners must make better estimates at the individual level, perhaps to the extent of intra year spot checks to determine likely income. As an alternative individuals could be allowed to self assess with the Revenue Commissioner undertaking random detailed auditing with severe penalties for tax fraud. There may also be a question of numbers, skill levels, morale and turnover in the Revenue Commissioners. If so they need to be dealt with. From the individual and firm point of view tax delays should be less profitable with a positive real interest rate charged on unpaid tax after say one month following the end of the fiscal year.

The foregoing applies to the collection of revenue on income that is essentially *known*. In addition to this there are some indications that substantial amounts of income do not come to the attention of the Revenue Commissioners. An appeal for greater honesty is unlikely to realise much revenue so that in this case greater Revenue powers are also needed.

There is no question that an attempt to force firms and individuals to pay due tax will have a serious effect on those firms which delay or avoid payments. The alternative is to raise existing and new taxes on existing taxpayers. There seems very little reason why the latter should bear the burden.

In this section we have argued that delays in payment of taxes are reducing state revenue by amounts that are not insignificant in relation to the amount the State might feel like raising by increasing indirect taxes and charges in 1983. As an alternative the State should seriously consider the changes necessary to ensure that the Revenue Commissioners can do their work. The importance of maintaining and perhaps increasing competitiveness cannot be overstressed.

We have also made various suggestions over the past year for increasing revenue from new taxes, charges for services, treating specific services as

income and thereby subject to tax etc. Many of these based on equity grounds and are perhaps desirable in their own right independently of the fiscal problem. Without the fiscal problem movements in these areas might reduce taxes for some sections of the community. The effect on competitiveness is more difficult to see but if indirect taxes bear more heavily on industrial workers, because of the composition of their expenditure, greater equity might ease the situation from their point of view for a given tax burden nationally.

Turning now to expenditure the question of the growth in government services in volume terms relative to GNP and the increase in the relative price effect of government services must be referred to. The growth in government services exceeded the growth in potential revenue. To this was added a very large increase in the price of those services in the late 1970s and 1980 as incomes in the public service "caught up" with those in the private sector following a decline in the relative position of the public service throughout the greater part of the period of national pay agreements. Of course the use of the term "public service" obscures very large differences between different segments. For some the "catch up" was just that while for others the increases were very large. This growth is part of the fiscal problem and to the extent that taxpayers do not feel there are corresponding services it is difficult to see why taxes should be raised rather than expenditure cut. Expenditure cuts could be cuts in activity levels or cuts in pay levels or both.

The point of this whole section derives from a belief that steps should be taken to maintain the competitive position of industry. The mechanism for this is to hold the rate of price inflation to as low as possible to reduce the rate of wage inflation. As the budget deficit and borrowing requirement must be reduced it follows that other revenue be tapped or expenditure cut. The specific proposal is that lags in the payment of taxes be looked at, the aim being to reduce these lags. The effect is once off, but would, if it yielded the amounts suggested earlier, provide a breathing space on costs in 1983 and this would be important in balance of payments and employment terms.

Finally it might be of some interest to consider how the fiscal problem arose. The current budget deficit exists for a variety of reasons.

First, the recession itself by reducing revenue and increasing expenditure affects the current budget deficit. Second, State capital expenditure that does not remunerate the exchequer or the agency undertaking the expenditure generates future interest payments which appear directly in the Government accounts (either at first hand or later to provide "equity" for state companies). Third because of interest payments on past borrowing to finance current deficits. Fourth because of non-payment of taxes or increasing delays in the payment of taxes. Fifth because of the expansion of government expenditure relative to GNP. Sixth because of the relative price effect of Government Services — an effect that became very marked in 1978, 1979, 1980 in pay levels. There is very little that can be done about the recession and previous recessions. Given the nature of State borrowing (i.e. on a programme basis rather than a project basis) and state guarantee for semi-state companies there is little that can be done about past debt. However there seems little reason to continue to make mistakes. The appraisal criteria re-

ferred to in "Public Capital Programme 1983" suitably modified might properly be applied to the programme itself rather than a notional £120m. Simply calling expenditure "capital" is not sufficient reason for undertaking it.

IRISH MANUFACTURING INDUSTRY – RECENT WAGE, PRICE AND PRODUCTIVITY DEVELOPMENTS

J.G. Keenan*

Introduction

Economic theory suggests that increases in money wages paid by firms greater than increases in output prices will lead to a fall in employment if there is not compensating productivity growth or flexibility of profit margins. The main aims of this paper are to consider, firstly, developments in the cost structure of Irish manufacturing industry if only the basic terms of the National Wage Agreements had been paid and secondly, to consider actual developments in the cost structure. To the extent that our traded goods are not perfect substitutes for traded goods elsewhere in the world economy we can influence the world price of Irish traded goods, so that the more our goods deviate from the "perfect substitutes" position the less the effect on output and employment of any adverse cost developments. In this paper the influence of cost increases on output prices is not considered; rather it is thought that the primary effect of these influences will be on output rather than price so that the "price taker" model is being implicitly assumed. Section 1 of the paper outlines some relevant theoretical considerations which are not highlighted in many treatments of the model. This framework is then used in Section 2 to consider the developments of industry labour costs under the basic terms of the National Wage Agreements since the end of 1975. Section 3 contrasts the proposals under these wage agreements with actual developments using earnings data.

1. *Theoretical Considerations*

The demand for labour and the supply of labour are both considered to be functions of a real wage. However, particularly in an open economy, there may be large differences between the absolute level of and changes in the real wage paid by firms and the gross real wage of workers, so that statements by employers that their real wages have increased and by employees that their real wages have fallen can both be true for the same time period. Assuming that in the context of workers wage agreements with firms it is their gross wage before tax deductions that is of concern to them, for our purposes we consider the differences arising from two reasons,[1] firstly, because of divergences between movements in the aggregate price index facing workers and the output price at the factory gate received by firms, secondly, because of employment taxes paid by firms on wages paid to workers. Equations (1) and (2) present standard labour demand and supply equations reorganised to give a more useful presentation for our purposes.

*The author is an economist in the Central Bank. The views expressed in the paper are those of the author and not necessarily those of the Central Bank.

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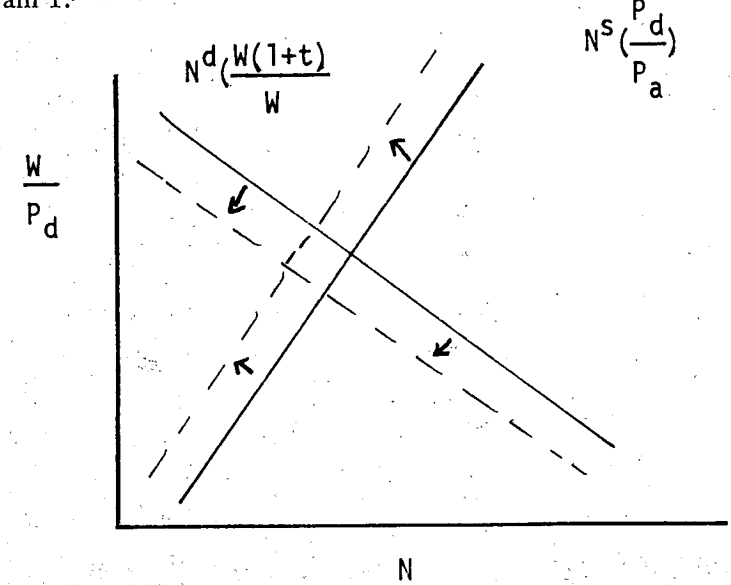
$$(1) \quad N^D = N^D\left(\frac{W(1+t)}{P_d}\right) = N^D\left(\frac{W(1+t)}{W} \; \frac{W}{P_d}\right);$$

$$(2) \quad N^S = N^S\left(\frac{W}{P_a}\right) = N^S\left(\frac{W}{P_d} \; \frac{P_d}{P_a}\right);$$

where N^D = demand for labour
N^S = supply of labour
P_d = output price received by firms (excluding taxes)
P_a = aggregate price index of consumption goods purchased by workers
W = money wage rate (net of employment taxes)
t = proportional employment tax on money wages paid by firms.

Equation (1) presents the demand for labour as a function of the real wage paid by firms to workers excluding employment taxes (i.e., $\frac{W}{P_d}$) and the ratio of the gross money wage of firms to the net money wage, the former being equal to the money wage paid to workers (i.e., the net money wage) plus employment taxes. In equation (2) the supply of labour is presented as a function of $(\frac{W}{P_d})$ and the ratio of the output price received by firms to the aggregate price index faced by workers in purchasing a representative basket of consumption goods. This ratio highlights the fact that if consumer prices on average increase more than the firms output price, workers will require an increase in money wages greater than the increase in output price received by the firms to maintain their purchasing power. This would push up the real wage of firms and tend to lower employment and output. All workers tend to use the same aggregate price index of consumer goods in wage negotiations but the output price received by firms varies from industry to industry so that the same money wage demand will have different output and employment effects in different industries and even on different firms within the same industry. Consequently, the implications of an equal pay increase to all industrial workers can only be assessed by a detailed examination of each industry.

The following results are easy to prove and are demonstrated with the aid of diagram 1.



The demand for labour and supply of labour curves are now defined for fixed $\frac{W(1+t)}{W}$ and $\frac{P_d}{P_a}$ ratios, respectively. Any increase in employment tax rate t rotates/shifts the demand curve to the left and results in a fall in the level of employment and the net real wage $\frac{W}{P_d}$ and an increase in the gross real wage $\frac{W(1+t)}{P_d}$. Likewise, for given output prices, if consumer goods prices increase faster than output prices, the supply of labour curve shifts upwards to the left and, other things equal, employment will fall as firms' real wage increases. The fall in employment is greater, the greater the real wage resistance is. Note that these results occur even though workers have an actual fall in their real wage if the labour market is to clear. If they refuse to accept this cut in living standards, which implies non clearance of the market, the employment fall is greater and the market stays in disequilibrium. It is clear, therefore, that the wage ratio $\frac{W(1+t)}{W}$ and the price ratio $\frac{P_d}{P_a}$ may cause large divergences between firms and workers real wages so that developments in one may be no guide at all to developments in the other.

For our purposes, the variations in the price ratio represent changes in the "terms of trade" facing firms and industries, the latter being defined as the ratio of factory gate prices to domestic and imported consumption goods at market prices. This is evident from the fact that the consumption price index is a weighted average of domestic consumption goods market prices (P_{cd} below) and imported consumption goods market prices (P_{cm} below), where both of these indices are inclusive of indirect taxes, with the weights equal to the share of these goods in total consumption. These shares are represented by α and $(1 - \alpha)$ respectively in equation (3) below.

$$(3) \qquad P_a = \alpha P_{cd} + (1 - \alpha) P_{cm}$$

Dividing through by P_d and letting Δ denote the proportionate change in the relevant ratio, we have, assuming constant shares:

$$\Delta \frac{P_a}{P_d} = \alpha \Delta \frac{P_{cd}}{P_d} + (1 - \alpha) \Delta \frac{P_{cm}}{P_d}$$

It is clear, therefore, that if workers seek increases in wages greater than the output price increase received by their firm they are seeking compensation for:

(a) relative price movements of domestic goods at factory gate prices,
(b) changes in the ratio of their firms output price to that of imported consumer goods,
(c) changes in distribution and retail mark-ups, and
(d) changes in indirect taxes.

All of these factors will tend to be exogenous to firms so that unless workers are willing to accept a reduction in real wages instead of seeking compensation for the effect of these changes, employment falls and the burden of

adjustment is carried by those losing employment rather than by all workers in the firm.

In the above discussion no mention has been made of productivity. If a fall in employment occurs because of an increase in the wage ratio or the price ratio mentioned above, then productivity gains may generally be expected to result. These productivity gains are required to offset the effect of rising real wages on the profitability of firms and will not prevent employment from falling but may offset the extent of the decline. Increases in productivity, because of capital stock growth and other factors, may increase the demand for labour and real wages and offset the effects of an increase in the wage ratio or a fall in the price ratio on employment.

2. *Pay Policy and National Wage Agreements*

This section considers the implications of the basic terms of the national wage agreements for movements in the wage rates of firms and workers for eighteen major manufacturing industries, during the period from the third quarter of 1976 to the third quarter of 1981. During this period, for all but the lowest paid industrial workers, the basic terms of these agreements gave fairly uniform money wage increases to workers, while there is evidence of substantial variation in the output price increases received in different industries. This implies that, had these agreements been adhered to they would have led to substantial variations in the development of real wage costs in different industries.

Since 1975, the CSO has published price indices of manufacturing output prices excluding VAT. Customs and excise duties are included in this index, so that for our purposes we have to exclude consideration of the Drink, Tobacco and Motor Industries where substantial changes in the duty rate are included in the CSO indices and, so, do not properly reflect the output price increase received by firms. For the industries considered, the price ratio $\frac{P_d}{P_a}$ is set equal to the ratio of the relevant manufacturing output price index to the Consumer Price Index.

The money wage of firms is calculated as the money wage paid to workers before income tax plus the employers social insurance contribution.[2] This money wage divided by the output price index equals the wage of firms at constant prices and is used as a measure of the firms real wage. The real wage of workers is taken as the ratio of the money wage before taxes to the Consumer Price Index. The analysis in Section 1 above was cast in terms of movements in wage rates. Unfortunately, data on wage rates in manufacturing industry are not available with only average earnings data being published. Initial wage rates for each industrial group were assumed and the basic terms of the wage agreements from end-1975 applied to these. The method of deriving these wage rates is described in the Appendix. For our purposes the absolute level of the wage rate is unimportant; rather we are interested in the percentage change in various aggregates over the period.

Table 1 below presents the results for many of the aggregates mentioned above, if only the basic terms of the agreement had been paid. The industries are ranked in ascending order of their assumed wage rate at the beginning of

Table 1 Wage Agreement Development in Major Industrial Groups, September 1976 - September 1981

INDUSTRIAL GROUP NACE Classification	% Change in Output Prices ΔP_d*	% Change in Ratio of Output Prices to Consumer Prices $\Delta\left(\frac{P_d}{P_a}\right)$	% Change Firms Real Wage $\Delta\left(\frac{W(1+t)}{P_d}\right)$	% Change Workers Real Wage $\Delta\left(\frac{W}{P_a}\right)$	% Change in Ratio of Firms to Workers Money Wage $\Delta(W(1+t)/W)$	% Change in Firms Real Wage using Average Manufacturing Output Prices	Assumed Average Workers Wage Rate end-1975 £
Clothing	67.5	-15.9	10.8	-3.0	-4.0	-0.4	26.36
Processing and Preserving of Fruit and Vegetables	92.3	-3.5	-8.8	-10.9	-1.1	-5.8	36.47
Leather and Footwear	46.4	-26.5	21.0	-10.1	-1.1	-4.9	36.63
Bread, Biscuits and Flour Confectionery	91.7	-3.7	-8.9	-11.5	-0.9	-6.2	37.52
Electrical Engineering	65.7	-16.8	5.8	-11.2	-0.8	-5.9	37.84
Mechanical Engineering	77.5	-10.9	-0.2	-10.5	-0.7	-4.9	38.44
Timber and Furniture	79.5	-9.8	-1.4	-10.5	-0.7	-4.9	38.48
Textiles	69.9	-14.7	3.3	-11.3	-0.6	-5.8	38.73
Metal Articles	83.7	-7.8	-4.0	-11.0	-0.5	-5.3	39.82
Manufacture of Sugar and Cocoa, etc.	89.6	-4.7	-8.1	-12.3	-0.2	-6.4	40.46
Grain Milling, etc.	74.8	-12.2	-1.7	-13.7	0.0	-7.7	42.55
Manufacture of Dairy Products	72.6	-13.3	-0.6	-13.8	0.0	-7.8	42.58
Processing of Plastics	65.1	-17.1	4.8	-13.3	0.2	-7.1	43.42
Paper and Paper Products	89.1	-5.1	-8.7	-13.5	0.2	-7.3	43.68
Slaughtering and Preserving of Meat	84.8	-7.2	-6.8	-14.0	0.6	-7.5	45.24
Chemicals	92.6	-3.3	-10.6	-14.5	1.1	-7.5	48.85
Non-Metallic Products	111.2	6.0	-18.6	-14.8	1.3	-7.7	49.62
Rubber	101.3	1.1	-14.8	-15.6	2.0	-7.9	54.45

* Δ denotes the proportionate change.

the period. The second last column in Table 1 shows the percentage change in the real wage of industries when each industry's wage rate is deflated by the average increase in manufacturing output prices. From this, if we exclude the clothing industry, we see that the percentage change in each industry's real wage is not very sensitive to the assumed wage rates. This is encouraging as it allows us draw conclusions from the results presented in this table which would not be very different from the conclusions drawn if the true wage rates were known. For example, under the basic terms of the wage agreements, workers in the relatively low wage Leather and Footwear industry would have received an increase of just over 5 per cent more than workers in the relatively high wage Rubber industry. Nevertheless, the real wage of firms in the Rubber industry would have fallen by 14.8 per cent, while the real wage of firms in the Leather and Footwear industries would have increased by 21 per cent. This is mainly because output prices in the Rubber Industry increased by 101.3 per cent and by 46.4 per cent in the Leather and Footwear industry. It is clear that the different changes in real wages between industrial groups are dominated by output price movements. In addition, the percentage change in this column for the Clothing industry is much higher than the other industries because over 95 per cent of the workforce are women with low wage rates and hence benefit most from the basic terms of the wage agreements which were often a combination of minimum flat rate and percentage increases. No other industry is so completely dominated by these factors.

The change in the ratio of firms money wage to workers money wage given in column 5 is not very significant over the period. The ratio fell for all except the high average wage rate industries, the fall being greatest for the lower wage rate industries. This occurs because the social insurance scheme changed from a combination of flat rate and pay related contributios only in 1979 to pay related only, resulting in a benefit to the lower wage industries. Only in the case of the Clothing industry, however, would this result on its own have implied a significant reduction in the real wage rate of firms, the effects in other industries being marginal.

The Consumer Price Index increased by 99.1 per cent over the period. Column 2 indicates that only the Non-Metallic Mineral Products industry and the Rubber industry had increases in output prices greater than the increase in the Consumer Price Index. Clearly in the other industries an attempt by workers to defend their purchasing power through an increase in money wages equal to the increase in consumer prices would push up firms real wage rates. Under the basic terms of the wage agreements money wages increased by a larger percentage for lower paid workers. However, only workers receiving real wage rates of £35 per week or less at the start of the period would have had real gains under the agreements. Of the sixteen industries with adverse movements in the ratio of their output prices to consumer prices, five had increases in their money wages under the basic terms of the wage agreements greater than their output price increase so that real wages increased (see column 3). The real wage increases implied for the Clothing and Leather and Footwear industries are very large. The latter industry's real wage increase is dominated by the lowest output price increase during the period,

while as stated previously, the Clothing industry had most to lose from the operation of minimum flat rate and percentage increases in the wage agreements. Workers in this industry had least to lose in real wages from a strict adherence to the basic terms of the agreements. This coupled with one of the lowest output price increases, pushed up firms wage costs considerably.

At the other end of the wage rate scale, only the Non-Metallic Mineral Products industry and the Rubber industry could have afforded to pay workers increases in money wages equal to the increase in the consumer price index and still have a decline in their real wage rates. The basic terms of the wage agreements represented a reduction of 18.6 per cent and 14.8 per cent, respectively, in their real wage rates.

We conclude this section by noting that while the national wage agreements have had similar effects on the real wage of workers over a wide income span, the effects on the different industries in which these workers are engaged vary greatly, ranging from an increase in the real wage of 21 per cent in the Leather and Footwear industries to a fall of over 18 per cent in the Non-Metallic Mineral Products industry. If basic wage increases were directly linked to the output price increases received in different industrial sectors, income differentials between workers across industry would have widened considerably as is evident from the fact that output prices in the Leather and Footwear industry increased by 46.4 per cent compared to 111.2 per cent in the Non-Metallic Mineral Products industry. Wage agreements which set an industry wide wage increase for workers without regard to the different implications across industry groups can create difficulties for industries subject to intense price competition and hence receiving relatively low output price increases. This represents a cost to the economy to be set against the benefits in terms of reduced industrial unrest which may have occurred from the operation of a national pay norm.

3. *Actual Developments*

The discussion in the last section centred around the implications of the national wage agreements assuming that wage increases were in accordance with the basic terms of the wage agreements. Firms, however, may in certain circumstances plead inability to pay and workers may bargain for productivity related increases under these agreements in addition to the basic terms. Also, the formulation of the wage agreements as a combination of flat rate and percentage increases narrows differentials and creates the possibility of further claims to restore these at a later date. The basic terms of the wage agreements may not therefore be a good guide to actual developments. In looking at actual developments one would ideally like to have wage rate data instead of earnings data which include overtime, bonuses, incentives scheme payments, etc. In this section changes in actual wage rates over the period are approximated by the use of adjusted hourly earnings data. The adjusted hourly earnings data equal average weekly earnings divided by hours worked where each hour worked in excess of forty hours is taken as equivalent to one and a half hours for wage purposes. No distinction is drawn between changes in the nominal wage rates of workers and firms, as it is clear from Table 1 that changes in social insurance rates for employers had

little impact on changes in wage rates over the period. However, any large increases in these in the future will increase industry wage costs and reduce employment prospects.

Table 2 below presents the actual developments in wage costs over the period. From column 1 we can see that in seventeen of the eighteen industrial groups considered, the increase in actual wage rates was greater than the increase in the Consumer Price Index while for the Bread, Biscuits and Flour Confectionery industry wage rates increased by 0.4 per cent less than the increase in consumer prices. The actual increases suggest that workers in all industry groups received increases above the basic terms of the wage agreements. The implications for firms real wage rates are considered in column 5. The additional increases granted were sufficiently large for the real wage rates of firms in seventeen industries considered to increase over the period, while only five industries had increased real wage rates for firms implied under the basic terms of the wage agreements. The exception is the Non-Metallic Mineral Product industry which had the largest increase in output prices.

The effects of rising real wage rates on output and employment can be offset either wholly or in part by increases in productivity. In Table 2 changes in productivity are estimated by the changes in the output per man hour series. Output per man hour actually fell in five industries although by less than 1 per cent per annum. In the Meat industry, output per man hour increased by over 9 per cent per annum. On examination of the industry, however, it is clear that this arises because the volume of production in the base period, the third quarter of 1976, was well below the average for the quarter. The results for this industry therefore should be treated with caution and are not considered further below. Of the remaining industries, the Electrical Engineering, Paper and Printing Products, Chemicals and Rubber industries had an annual average productivity growth of 2½ per cent or more.

Nominal unit wage costs are normally used in comparing changes in wages with changes in productivity. However, when prices change and there are substantial differences in price changes between industries, real unit wage costs give a clearer picture of developments over time within and between industries. The last column in Table 2 gives the annual average growth in real unit wage costs over the period. Eight industrial groups had increases in real wage rates per unit of output of no less than 3½ per cent per annum. The Leather and Footwear industry was the worst affected, but a substantial deterioration in wage costs occurred in each of these industries. The growth in productivity was not nearly sufficient to compensate for wage increases given the output price increases obtained. Indeed, in only the Non Metallic Mineral Products industry and the Rubber industry were wage increases matched by a larger increase in productivity so that the real wage cost per unit of output actually fell. In most other industries, given the actual developments in real unit wage costs, it seems inevitable that they will economise further in their use of labour, or if this is not possible, the weaker firms may have to cease operating as presently constituted. Unless there is a rapid reversal of past trends, employment in the existing firms in these industries is more likely to contract than to expand.

Table 2 Actual Wage Cost Developments in Major Industrial Groups, September 1976 - September 1981

INDUSTRIAL GROUP	% Change Workers Real Wage Rate	% Change Firms Money Wage Rate	% Change Output per Man Hour	% Change Nominal Unit Wage Costs	% Change Firms Real Wage Rate	% Change Real Unit Wage Costs	Annual Average Growth in Real Unit Wage Costs
Clothing	12.7	124.5*	1.0	122.3*	34.0*	32.7*	5.8*
Processing and Preserving of Fruit and Vegetables	13.5	126.1	9.0	107.4	17.6	7.9	1.5
Leather and Footwear	12.5	124.1*	6.1	111.0*	53.1*	44.1*	7.6*
Bread, Biscuits and Flour Confectionery	-0.4	98.4	-4.8	108.4	3.5	8.7	1.7
Electrical Engineering	8.1	115.3	13.0	90.5	30.0	15.0	2.8
Mechanical Engineering	7.0	113.0	1.3	110.3	20.0	18.5	3.5
Timber and Furniture	4.2	107.4	-2.5	112.7	15.5	18.5	3.5
Textiles	8.5	116.0	8.9	98.3	27.1	16.7	3.6
Metal Articles	8.2	115.4	10.7	94.6	17.3	5.7	1.2
Manufacture of Sugar and Cocoa, etc.	17.0	133.0	-4.5	144.0	22.8	28.6	5.2
Grain Milling, etc.	14.9	128.9	3.9	120.3	30.9	26.0	4.7
Manufacture of Dairy Products	15.1	129.3	-2.9	136.1	32.9	36.8	6.5
Processing of Plastics	9.6	118.2	-5.0	129.7	32.2	39.2	6.8
Paper and Paper Products	19.6	138.1	19.8	98.7	25.9	5.1	1.0
Slaughtering and Preserving of Meat	25.1	149.2	55.5	60.3	34.8	-13.3	-2.8
Chemicals	20.1	139.1	18.6	101.6	24.1	4.7	0.9
Non-Metallic Products	5.1	109.2	5.9	97.5	-0.9	-6.5	-1.3
Rubber	1.3	101.8	19.3	69.2	0.2	-16.1	-3.5

* The percentage increase in these industries would be slightly less if the wage subsidies granted between April 1981-April 1982 under the Employers Employment Contributions Scheme were included. The conclusions, however, would be the same.

Conclusion

Increases in wages above the basic terms of the national wage agreements seem to have been paid in all industries considered. The Clothing, Leather and Footwear and Plastics industries did not have sufficient growth in productivity to prevent the wage cost per unit of output from increasing even under the basic terms of the wage agreements, given the increase in price which they received for their products. The wage increases granted in most other industries, in addition to the basic terms of the wage agreement, have precipitated large increases in real unit labour costs which may have damaged employment prospects in many existing firms across a wide range of industries. When negotiating wage increases, consideration should be given not alone to productivity and consumer price increases, but also to output price increases received by industry and the fact that substantial relative price movements affect firms' capacity to pay a uniform wage increase in all industries.

Notes

1. Firm contributions to workers pension funds should be included in the employers money wage rate. A CSO survey of industrial labour costs in 1975 suggested that these penion fund contributions accounted for 4 per cent of labour costs in total manufacturing industry. So long as this proportion remained constant over the period, the results in the text expressed in percentage change terms would not be altered by the inclusion of these payments. To the extent that the share of employers pension funds contributions in total labour costs increased over the period the increase in firms wages is underestimated in the text.

2. The class A social insurance rate was applied to the quarterly average wage rate data for each group with due regard to the income limit. This method is an approximation used in the absence of distribution of earnings data for each industry.

References

PAUL DE GRAUWE, "Macroeconomic Theory for An Open Economy" (Mimeograph.) Center for Economic Studies, Catholic University of Louvain.

APPENDIX

The basic terms of the wage agreements were first applied to estimated male and female wage rates. In the case of males four different weekly wage rate groups were calculated assuming 3rd quarter 1975 levels of £44, £50, £55 and £60 and each industry classified into one of these groups based on a standardised average weekly earnings for the same quarter. The standardized average weekly earnings being the average earnings for a forty hour week in each industry calculated from the official male average weekly earnings for Sept. 1975 figure assuming that each hour worked above forty was paid for at a rate of time and a half. The industries were then grouped into the assumed wage rate groups to which the standardised average weekly earnings were nearest. For females the same procedure was adopted using assumed weekly wage rates of £26, £30, £35 and £44. The aggregate weekly average industrial wage rate figure was then derived through estimating weights for males and females from the official average weekly earnings figures for males, females and all workers and weighting the male and female wage rates by these. The weights and other information are provided in Table 3 below. The procedure therefore ignores the fact that non adult earnings play a part in determining aggregate average earnings in each industrial group so that the weights are calculated as if this element was zero. Given that the weight attributed to non adult earners is likely to be quite small and that the results in percentage change terms are not very sensitive to the assumed wage rate the effect on the results is considered to be inconsequential.

Table 3 Data Used to Calculate Initial Wage Rates

INDUSTRIAL GROUP	Assumed Male Wage Rate	Assumed Female Wage Rate	Weights used for Males	Weights used for Females
Clothing	44	26	0.0197	0.9803
Processing and Preserving of Fruit and Vegetables	44	30	0.4618	0.5382
Leather and Footwear	44	30	0.4732	0.5268
Bread, Biscuits and Flour Confectionery	44	30	0.5368	0.4632
Electrical Engineering	50	30	0.3914	0.6086
Mechanical Engineering	44	26	0.6912	0.3088
Timber and Furniture	44	26	0.6931	0.3069
Textiles	50	26	0.5304	0.4696
Metal Articles	44	26	0.7676	0.2324
Manufacture of Sugar and Cocoa, etc.	50	30	0.5232	0.4768
Grain Milling, etc.	44	26	0.9194	0.0806
Manufacture of Dairy Products	44	35	0.8425	0.1575
Processing of Plastics	50	26	0.7257	0.2743
Paper and Paper Products	50	30	0.6838	0.3162
Slaughtering and Preserving of Meat	50	30	0.7618	0.2382
Chemicals	55	30	0.7435	0.2565
Non Metallic Products	55	30	0.7847	0.2153
Rubber	60	35	0.7780	0.2220

STATISTICAL APPENDIX

		Output Indicators				Employment		Output per Head	
		1	2	3	4	5	6	7	8
		Manufacturing	Transportable Goods	Electricity Output	Cement Sales	Manufacturing	Transportable Goods	Manufacturing	Transportable Goods
		1973 = 100	1973 = 100	G.W.H.	000 Metric Tons	000's	000's	1973 = 100	1973 = 100
1976		108.2	107.3	8443	1500.4	196.7	206.7	113.8	112.5
1977		115.9	115.4	9127	1516.5	202.9	213.9	118.1	117.0
1978		125.6	125.1	9815	1751.7	208.8	219.9	124.4	123.3
1979		133.3	132.9	10853	2067.8	217.4	229.1	126.8	125.8
1980		131.9	131.6	10733	1814.9	215.1	227.1	126.8	125.6
1981		135.7	134.1	10767	1812.5	207.7	219.6		
		Quarterly Averages or Totals							
1979	I	125.8	124.3	3051	375.5	213.2	224.0	122.0	120.3
	II	141.3	140.3	2582	574.1	216.6	229.2	134.9	132.7
	III	129.1	130.9	2365	616.1	218.6	230.5	122.1	123.1
	IV	137.1	135.9	2855	502.1	221.1	232.5	128.2	126.7
1980	I	132.4	130.8	3022	424.8	217.9	229.3	125.7	123.7
	II	142.4	143.1	2502	495.0	216.2	229.1	136.2	135.4
	III	124.0	124.8	2358	476.9	214.1	226.2	119.8	119.6
	IV	128.8	127.5	2851	418.2	212.1	223.6	125.6	123.6
1981	I	128.6	126.9	2885	410.2	208.2	219.8	127.7	125.2
	II	144.2	142.2	2546	516.6	207.0	219.5	144.1	140.3
	III	131.8	132.3	2408	488.8	207.8	220.1	131.2	130.4
	IV	138.2	134.8	2928	396.9	207.8	219.0	137.6	133.5
1982	I	132.9	130.1	2954	335.2				
	II								
	III								
	IV								
		Quarterly Averages or Totals Seasonally Corrected							
1979	I	130.6	130.1	2707	440.2	214.1	225.6	126.2	125.0
	II	132.9	131.8	2844	525.3	216.9	228.6	126.7	125.0
	III	134.8	134.5	2753	591.8	218.3	230.0	127.7	126.8
	IV	134.7	134.8	2584	495.2	220.1	232.0	126.6	126.0
1980	I	137.5	137.0	2681	498.0	218.9	231.0	129.9	128.6
	II	133.8	134.3	2755	452.9	216.5	228.4	127.8	127.5
	III	129.1	127.9	2745	458.1	213.8	225.7	124.9	122.9
	IV	127.3	127.1	2580	412.4	211.1	223.1	124.7	123.5
1981	I	133.1	132.5	2560	480.9	209.2	221.4	131.6	129.7
	II	135.4	133.4	2738	461.7	207.2	218.8	135.1	132.2
	III	137.1	135.6			207.4	219.7	136.9	133.9
	IV	136.7	134.5			206.8	218.6	136.9	133.5
1982	I	137.2	135.2						
	II								
	III								
	IV								

Unemployment	Prices						
9	10	11	12	13	14	15	
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. 1975 = 100	1975 = 100	1975 = 100	1975 = 100	1975 = 100	1953 = 100	
107.8	114.4	125.7	119.0	123.5	103.8	456.2	1976
106.4	130.0	153.9	139.3	142.3	102.1	572.9	1977
99.2	139.9	174.0	146.2	151.6	103.7	867.3	1978
89.6	158.5	184.2	165.9	165.5	99.8	928.0	1979
101.5	187.3	179.3	195.6	180.8	92.4	912.5	1980
127.9	225.6	213.1				946.6	1981
	Quarterly Averages or Totals						
97.7	150.2	189.8	151.8	158.0	104.1	971.6	1979 I
89.8	155.0	196.0	159.2	162.4	102.0	994.3	II
85.6	161.4	183.5	170.9	165.3	96.7	889.5	III
85.4	167.2	172.0	172.7	166.9	96.6	856.6	IV
92.0	173.5	180.4	183.6	174.9	95.3	888.3	1980 I
94.0	186.3	186.3	192.6	181.0	94.0	887.3	II
103.9	191.8	176.2	194.8	183.4	94.1	909.5	III
116.0	197.7	179.0	205.3	185.9	90.6	964.9	IV
125.8	209.9	202.9	221.4	194.1	87.7	942.3	1981 I
124.3	218.1	213.2	231.3	206.2	89.1	1012.8	II
126.8	230.4	213.9	236.8	213.7	90.3	960.5	III
134.5	243.8	220.0	236.6	218.2	92.2	872.6	IV
146.8	249.5	237.0	241.7	223.7	93.0	827.6	1982 I
							II
							III
							IV
	Quarterly Averages or Totals Seasonally Corrected						
93.1	149.6	188.1					1979 I
90.9	152.6	189.9					II
88.6	162.7	186.9		No Seasonal Pattern			III
86.0	169.2	176.0					IV
87.5	172.8	178.8					1980 I
95.1	183.4	180.5					II
106.8	193.3	179.4					III
116.6	200.1	183.2					IV
121.7	209.1	201.2					1981 I
125.5	214.7	205.0					II
129.5	230.9						III
134.7							IV
							1982 I
							II
							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	1977 = 100	1977 = 100	Total	1975 = 100	1975 = 100
1976	176.8	176.7	97.4	97.3	69514	119.6	102.2
1977	206.3	206.1	100	100	82310	143.0	106.9
1978	236.2	235.7	106.4	106.3	105582	170.2	116.3
1979	271.3	271.1	107.9	107.9	95938	197.7	120.3
1980	321.2	321.0	108.1	108.1	91032	226.8	119.3
1981					103922	268.2	118.6
	Quarterly Averages or Totals						
1979 I	250.9	250.6	105.2	105.1	31544	186.1	119.0
II	261.8	262.9	106.4	106.9	28387	195.5	121.6
III	283.6	282.0	110.7	110.1	23658	200.4	120.2
IV	288.9	288.9	108.9	108.9	12349	208.2	120.4
1980 I	302.3	301.5	109.8	109.5	34241	205.3	122.8
II	318.3	318.6	107.6	107.7	23589	223.7	118.5
III	318.8	318.2	104.7	104.5	20517	223.5	115.7
IV	345.2	345.6	110.0	110.3	12592	258.4	120.5
1981 I	346.2	344.6	103.9	103.6	35496	239.4	120.6
II	373.3	371.4	107.8	107.5	29153	264.0	119.1
III	383.8	385.2	104.9	105.5	32094	276.1	
IV					7160	279.8	
1982 I							
II							
III							
IV							
	Quarterly Averages or Totals Seasonally Corrected						
1979 I	255.2	255.4	107.6	107.8	26463	185.7	118.7
II	261.0	261.1	107.7	107.9	23935	195.4	121.6
III	281.6	280.6	109.2	109.0	24541	201.7	120.5
IV	287.2	286.9	106.3	106.3	18711	208.1	120.2
1980 I	307.5	307.3	112.3	112.3	28801	218.0	122.2
II	317.3	316.4	108.9	108.7	19890	221.9	118.6
III	316.6	316.6	103.3	103.5	21283	225.2	116.0
IV	343.1	343.2	107.4	107.7	19083	242.2	120.5
1981 I					29518	253.9	120.1
II						261.8	119.3
III						278.0	120.1
IV						279.1	114.7
1982 I							
II							
III							
IV							

	Government		Monetary Developments				
23	24	25	26	27	28	29	
Current Revenue	Current Expenditure	Current Deficit	Money Supply M3	All Banks Domestic Credit Government	Non-Gov.	External Reserves	
£m	£m	£m	£m End Period	£m End Period	£m End Period	£m End Period	
1470	1672	201	2814.3	682.0	2088.0	955.5	1976
1757	1966	209	3294.2	836.0	2639.5	1200.7	1977
2023	2421	398	4248.8	902.6	3475.2	1251.9	1978
2384	2905	521	5044.3	1005.9	4350.5	974.7	1979
3155	3708	553	5939.2	1132.6	5050.7	1346.0	1980
3973	4796	823	7029.9	1277.4	6053.6	1473.1	1981
Quarterly Totals			Monthly Totals				
515	656	141	4431.1	908.4	3793.9	1138.0	1979 I
435	711	276	4729.8	928.0	4058.2	993.9	II
689	724	35	4761.1	977.1	4256.0	933.6	III
745	814	69	5044.3	1005.9	4350.5	974.7	IV
751	777	26	5094.1	875.8	4607.8	960.7	1980 I
783	1013	230	5181.0	952.5	4585.8	979.7	II
726	870	144	5500.3	1123.1	4773.0	1164.4	III
895	1047	152	5939.2	1132.6	5050.7	1346.0	IV
871	1076	205	6147.6	1124.1	5381.7	1322.7	1981 I
936	1188	252	6369.8	1201.5	5511.6	1191.7	II
970	1245	275	6679.8	1217.8	5785.0	1071.8	III
1196	1287	91	7029.9	1277.4	6053.6	1473.1	IV
1044	1437	393				1406.0	1982 I
1176	1474	298					II
							III
							IV
Quarterly Totals (S.C.)			Monthly Totals (S.C.)				
474	655	181	4376.8	908.4	3722.9	1093.2	1979 I
463	707	244	4730.7	928.0	4012.3	1086.2	II
718	754	36	4741.9	977.1	4199.9	945.0	III
732	787	55	4921.1	1005.2	4341.9	924.0	IV
692	775	83	5025.7	875.8	4519.3	923.0	1980 I
833	1008	175	5183.0	952.5	4546.2	1070.7	II
757	906	149	5501.3	1123.1	4516.1	1178.5	III
880	1013	133	5806.3	1132.6	5039.6	1275.8	IV
803	1073	201	6072.6	1124.1	5274.3	1270.6	1981 I
996	1182	186	6387.4	1201.5	5468.0	1302.4	II
1011	1297	286	6683.2	1217.8	5719.2		III
1176	1246	70		1277.4	6039.2		IV
962	1434	472					1982 I
1251	1466	215					II
							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£
1976		2334.9	1858.7	476.2	115.3	104.0	78.90	1.0000
1977		3090.9	2518.2	572.7	129.9	122.2	77.01	1.0000
1978		3713.1	2963.2	749.9	148.8	134.8	77.57	1.0000
1979		4817.5	3501.1	1316.4	170.3	146.1	77.08	0.9646
1980		5419.6	4130.9	1288.7	162.6	157.9	74.01	0.8862
1981		6572.8	4845.7	1727.1			67.75	0.8002
		Monthly Averages						
1979	I	368.9	248.3	120.6	170.9	130.2	77.86	0.9999
	II	423.0	276.4	146.6	185.4	141.5	76.92	0.9624
	III	405.7	308.8	96.9	167.2	154.8	75.85	0.9239
	IV	411.5	333.5	78.0	167.7	165.3	77.73	0.9728
1980	I	476.6	319.6	157.0	182.8	150.5	75.85	0.9276
	II	440.0	334.4	105.6	160.9	153.2	74.71	0.9026
	III	433.2	356.6	76.6	156.6	161.3	74.65	0.8905
	IV	458.1	363.1	95.0	157.2	162.0	70.75	0.8231
1981	I	511.7	339.6	172.1	162.7	145.0	67.24	0.7686
	II	557.2	405.5	151.7	169.6	162.9	66.57	0.7730
	III	572.6	419.4	153.2	170.4	162.7	67.85	0.8177
	IV	548.7	450.4	98.2	163.4	171.3	69.32	0.8407
1982	I	597.8	417.5	180.2	175.0	154.7	67.71	0.8126
	II							
	III							
	IV							
		Monthly Averages. Seasonally Corrected.						
1979	I	361.1	264.5	96.6	163.6	140.9		
	II	403.7	276.5	127.2	179.6	143.8		
	III	425.0	302.5	122.5	179.5	150.3		
	IV	415.0	318.8	96.2	168.1	154.4		
1980	I	466.5	346.0	120.5	178.7	165.2		
	II	423.8	334.8	89.0	154.8	155.6		
	III	453.3	349.0	104.3	165.2	158.0		
	IV	464.4	349.2	115.2	158.8	152.2		
1981	I	504.1	361.0	143.1	158.7	155.0		
	II	537.6	406.9	130.7	164.0	165.9		
	III	597.7	414.2	183.5	179.1	159.7		
	IV	554.6	433.7	120.9	164.0	162.8		
1982	I	586.9	443.0	143.9	171.7	165.0		
	II							
	III							
	IV							

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