PART II: OUTLOOK

CHAPTER 8: IMPLICATIONS OF THE MEDIUM-TERM OUTLOOK

CHAPTER 9: PROSPECTS FOR ECONOMIC GROWTH
PROSPECTS FOR ECONOMIC GROWTH 1986-1990

1. INTRODUCTION

In this chapter the prospects for growth in the Irish economy over the period to 1990 are assessed. This assessment is carried out against the background of the likely evolution of the international economic environment over the next five years, in particular the prospective growth in the output of industrial countries and in trade volumes amongst our main trading partners in the aftermath of the recent sharp decline in oil prices.

The assessment is based on the general assumption that the broad thrust of government policies currently in place will remain essentially unchanged in the period to 1990. This permits the question of desirable changes in policy to be brought more sharply into focus, as is done in the third part of this report. In addition, some indication of how the domestic economy is likely to respond to the expected upturn in international economic activity permits an assessment to be made of the extent to which the two most important problems currently confronting the economy, namely the level of unemployment and the major imbalance in the public finances, might be ameliorated under present policies. Accordingly the implications for employment and the public finances of the medium-term prospects for output growth are drawn out in the following chapter.

The content of the present chapter is organised as follows. Section 2 examines the medium-term outlook for the international economy drawing on the most recently published forecasts of the IMF. Section 3 contains a general discussion of the channels through which the recent sharp fall in oil prices will influence the course of domestic economic activity in the coming years. Section 4 reviews the short-term outlook for the Irish economy. Section 5 and 6 set out a more long-term overview of growth prospects for the exposed and sheltered sectors of the Irish economy respectively. In Section 7 the foregoing material is brought together into an assessment of medium-term prospects for overall economic growth.
2. PROSPECTS FOR THE INTERNATIONAL ECONOMY

There was a pronounced slowdown in the pace of world economic activity in 1985. According to the IMF, the industrial countries as a group experienced real GNP growth of about 2.8 per cent compared with 4.8 per cent in 1984 while the volume of world trade increased by less than 3 per cent compared with 9 per cent achieved in 1984. The deceleration of economic growth was particularly marked in the US where GNP expanded by 6.5 per cent in 1984 but by only 2.2 per cent in 1985.

At the same time, favourable factors emerged during 1985. Inflation, as measured by the GNP deflator, declined further in the industrial countries from 4.3 per cent in 1984 to 3.9 per cent in 1985 (see Table 5.1). Nominal interest rates fell more sharply: the 6-month LIBOR rate declined from 11.3 per cent to 8.6 per cent between 1984 and 1985. Accordingly, there was a significant reduction in real interest rates in most industrial countries, the UK and Japan being the principal exceptions.

The passage of the Gramm-Rudman-Hollings Act in December 1985 commits the US Administration to implementing a regime of fiscal retrenchment which is likely to see a significant reduction in the US budget deficit between now and 1991. This should impact favourably on the international economic environment through, inter alia, a reduction of the pressure on real interest rates. It should also pave the way for more balanced world-wide economic growth through a reduction in the large deficit on the current account of the US balance of payments, as should the recent real depreciation of the US dollar against the other major currency blocs.

Together, these favourable developments suggest that the international economy may be poised on the threshold of renewed balanced and non-inflationary growth. From the point of view of the industrial economies this prospect is enhanced by the sharp fall in oil prices which has occurred since the end of 1985. Whatever about the speed with which the effects of the oil price fall make themselves felt it is clear that these effects will be positive. It is estimated that the combined import bill of the industrial countries will be reduced by the equivalent of 4 per cent of GNP on foot of the reduction in oil prices between 1985 and 1986. It is projected that the impact effect of this will be to reduce consumer prices by 1-1.5 per cent in 1986 and 1987 and it is expected that this in turn will provide a significant stimulus to consumption and investment.

The most recent medium-term projections for the world economy are those published by the IMF in their *World Economic Outlook* of April 1986 and summarised in Table 5.1. The principal assumptions* underpinning the projections are as follows:

(i) oil prices to average $16 per barrel in 1986, $15 in 1987 and, to remain unchanged in real terms thereafter to 1991;
(ii) real exchange rates to remain unchanged from their March 1986 level throughout the remainder of 1986 and 1987, with the US dollar projected to depreciate in real terms by a further 10 per cent over the 1988-1991 period;
(iii) fiscal policy to become restrictive in the US, with expenditure cuts of $12bn. per annum projected for the period 1987-1991, and to remain moderately restrictive in the other industrial countries;
(iv) monetary policy throughout all the major industrial countries to be such as to prevent any significant acceleration of inflation and,
(v) a modest reduction in nominal interest rates in 1986 and 1987, followed by a period of approximate stability thereafter.

Table 5.1 sets out the resulting IMF projections for the international economy for the years 1985 and 1986 and for the five-year period 1986-1990 as well as comparative figures for recent years. Real GNP growth in the industrial countries is forecast to accelerate gently from its 1985 rate of 2.8 per cent to 3 per cent in 1986 and 3.2 per cent in 1987. The annual average rate of growth projected for the 1986-1990 period, 3 per cent, is a modest improvement on the 2.4 per cent attained during the 1981-1985 period. Growth rates expected for the US economy are higher than those projected for Europe but in the latter case the improvement over the 1981-1985 period is expected to be greater: an average of 2.7 per cent annually between 1986 and 1990 compared with the 1.3 per cent recorded between 1981 and 1985.

The volume of world trade is forecast to increase by 3.3 per cent in 1986 rising to 3.8 per cent in 1987 and averaging 4.4 per cent over the five years to 1990. This compares with an average of 2.5 per cent growth between 1981 and 1985.

The IMF interest rate assumptions do not imply any substantial fall in real rates from their prevailing levels. A modest decline in nominal rates is assumed for 1986 and 1987, broadly in line with the projected fall in inflation. The implicit outlook for real interest rates, therefore, is that they will be broadly unchanged in 1986 and 1987. This is also true of the rest of the period to

*It should be noted that some of the assumptions, especially those relating to the US dollar, have been superseded by subsequent events.

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*World Economic Outlook, April 1986.
**Notwithstanding the rejection of a key provision of the Act by the US Supreme Court in July 1986.
1990. On average the projected real interest rate (the 6-month LIBOR deflated by the inflation rate) for the 1986-1990 period is 4.2 per cent, much the same as that in 1985 although significantly lower than in 1984 (6.7 per cent) and the rate that obtained over the 1981-1985 period on average (5.9 per cent).

As regards exchange rates the IMF expect that the US dollar will depreciate in nominal terms at an annual average rate of about 4.5 per cent between 1986 and 1990, comprising a large 11 per cent fall in value in 1986, a stabilisation of the exchange rate in 1987, and a modest depreciation over the three subsequent years to 1990 amounting to a cumulative 10 per cent.

In summary, from an Irish perspective, the main features of the IMF’s medium-term outlook are as follows: (i) a resumption of GNP growth in the industrial countries as a whole with average annual growth in the period 1986-1990 being modestly higher than in 1981-1985; (ii) a somewhat more pronounced acceleration of GNP growth in Europe; (iii) an acceleration in the growth of the volume of world trade to an annual average rate in the 1986-1990 period almost twice that achieved between 1981 and 1985; (iv) a small reduction in real interest rates in 1986 from their 1985 level followed by a period of approximate stability thereafter to 1990 and, (v) a continued depreciation of the US dollar over the 1986-1990 period as a whole.

### 3. THE IMPACT OF THE OIL PRICE FALL ON THE DOMESTIC ECONOMY

Since Ireland is a net importer of oil — net imports of oil and oil-related products amounted to £840m in 1985 or, about 5½ per cent of GNP — the impact effect of the oil price fall on the Irish economy will be similar to its effect on the economies of most other industrialised countries.

Assuming, as is done by the IMF, that oil prices settle at $15 per barrel for the remainder of 1986 and that the value of the Irish pound averages $1.35, the domestic economy will enjoy a transfer of income, as measured by savings in the oil import bill, equivalent to about 2½ per cent of GNP. The impact effect of this will be to reduce the balance of payments current account deficit. Moreover, the oil price fall together with the concurrent depreciation of sterling and the weakening of the US dollar will exert significant downward pressure on domestic inflation.

These benefits of the oil price fall are undoubted but they are once-off in nature. It cannot be assumed that more enduring benefits will automatically accrue to the domestic economy. In particular it cannot be supposed that increases in output and employment levels will occur unconditionally even in the face of the upturn in world economic activity which is expected to

### Table A.1

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Source: Economic Outlook, IMF, April 1986.
take place in the aftermath of the reduction in oil prices. Whether such enduring benefits do accrue in fact will depend on how the immediate gains associated with the terms of trade improvement, induced by recent movements in oil prices and exchange rates, are distributed within the economy, on the competitiveness of the exposed sectors, and on the evolution of the economy’s productive capacity.

The transfer of income to the domestic economy on foot of the terms of trade improvement can be appreciated between the household sector through a reduction in the consumer price index, the corporate sector through a reduction in costs of production and, the government sector through a reduction in the costs of goods and services which it purchases. The distribution of the terms of trade gain involves trade-offs and also determines the scale and composition of the resultant impetus to domestic demand as well as influencing the size and sustainability of the economy’s supply-side response.

The gain accruing to the household sector is the greater and the gain to the corporate sector the smaller, the weaker is the tendency for private sector nominal wage growth to adjust downwards to the lower rate of inflation. If nominal wages remain inflexible in the face of decelerating inflation the result will be an increase in real household disposable income which can be expected to generate an increase in the volume of consumer demand. However, such buoyancy in consumer demand may be achieved at the cost of some deterioration in the cost competitiveness of the exposed sectors of the economy, and a consequent reduction in output and employment in particular in firms which are dependent on export markets.

As regards cost-competitiveness it should be noted that the fall in oil prices per se will not make Irish producers any more competitive than their counterparts in our main trading partners since the opportunities for securing cost-reducing benefits from the oil price reduction are available to all. What matters for competitiveness is the extent to which such benefits are realised in terms of the speed of adjustment of both domestic oil prices and other costs of production, including labour costs, relative to those in our main trading partners.

In this connection it is worth noting that the data for the last 15 years would suggest that Irish imported oil prices adjust relatively slowly: in the immediate aftermath of OPEC I and OPEC II the price of oil imported by Ireland lagged behind the average OECD import price, while the period of falling oil prices since 1981 has seen Irish oil prices decrease rather more slowly than import prices for the OECD as a whole. The effects of long-term contracts negotiated by the Irish National Petroleum Company may explain these time lags.

The slow adjustment of costs of production relative to our main trading partners in the aftermath of the oil price fall would impinge detrimentally on cost competitiveness and thus on output and employment in the short-term. Moreover such a conjunction of events would weaken the supply-side of the economy into the medium term because of the impact which a loss of competitiveness would have on profitability and investment and thereby on expanding the economy’s productive capacity.

Reverting to the issue of the distribution of benefits from the terms of trade improvement, it may also be noted that the gain accruing to the household sector is the greater and the gain to the government sector the smaller, the weaker is the tendency for nominal wage growth in the public sector and nominal growth in social welfare payments to reflect lower inflation. If government spending on these items remains unchanged in the face of decelerating inflation, expenditure volumes are necessarily increased relative to budget targets, and the stance of fiscal policy is necessarily, albeit implicitly, shifted. Again, as in the case of the trade-off between the household and corporate sectors, the downward inflexibility of expenditure allocations under these headings in the face of lower inflation boosts the real disposable income of households and the volume of consumer demand, but this time at the cost of giving up an opportunity to effect improvements in the public finances.

What emerges from the foregoing discussion is that there is a clear distinction to be made between the short-term, principally demand-determined effect of the oil price fall on the economy, and the prospective long-term and primarily supply-side consequences. Moreover it is quite possible that a trade-off may occur whereby the beneficial impact of the terms of trade improvement is dissipated by being translated into an immediate but once-off increase in consumption rather than converted into more enduring increases in output and employment which would in the medium term generate a sustainable improvement in living standards.

4. THE SHORT-TERM PROSPECTS FOR THE IRISH ECONOMY

The published short-term forecasts for the Irish economy have become significantly less optimistic as 1986 draws to an end. The forecasts published in the early part of the year were dominated by the expected impact of the fall in oil prices and the upturn in the international economy and in world trade predicted for this year. These forecasts envisaged significant expansion of domestic output and employment levels, fuelled in large part by substantial growth in consumer expenditure and a modest recovery in capital formation. These prospects were predicated inter alia on the expectation of a sharp decline in real interest rates and a large increase in real disposable incomes because of falling inflation.

Since the earlier forecasts were prepared a number events, including the publication of key new economic data, have conspired to overtake them. In
the first place it is evident that the international economy has not responded as strongly to the oil prices fall as was earlier expected. On the domestic front the much vaunted consumer boom has not yet materialised on the scale envisaged. Real interest rates have remained high and investment activity has continued to be depressed. Moreover the poor summer weather conditions have seriously impaired the prospects of recovery in the agricultural economy.

The continuing weakness of Sterling impelled the authorities to devalue the Irish Pound by 8 per cent in August, an event which will have the impact effect of improving international competitiveness but at the expense of stimulating a modest acceleration of inflation.

The publication in July of the 1985 Labour Force Survey and the preliminary results of the 1986 Census yielded information which significantly altered perceptions of what has been taking place in the labour market in recent years. The new population and labour force data together amount to a radically changed basis for constructing forecasts of employment and unemployment.

It is now expected that the rate of inflation in 1986 will be over 3 per cent and not under 3 per cent as predicted before the summer. This is still significantly lower than the 9½ per cent recorded in 1985. The importance of import price trends as a factor underpinning the prospective deceleration of inflation may be gauged with reference to the fact that the latest published Central Bank Bulletin forecasts a decline of 6 per cent in import prices in 1986 and the latest published ESRI Commentary a decline of 4½ per cent.

The fall in the rate of inflation in conjunction with emerging trends in nominal wages and salaries indicate that real disposable incomes will increase substantially in 1986 and with somewhat less certainty, in 1987 also. It was this factor principally which underpinned the projections of strong growth in the volume of consumer spending which were made for 1986 by all forecasting institutions earlier in the year. It seems unlikely however that the earlier forecasts of 3-4 per cent real growth in consumer spending will materialise. The persistence of high real interest rates is an important factor in this regard. Volume growth in consumer spending of about 2 per cent might now be expected for 1986.

As outlined in Section 2 above the reduction in oil prices, together with other concurrent developments in the international economy, is expected to impart a fillip, albeit of modest proportions, to the world economy. The expected acceleration of GNP growth in the industrial countries and the associated increase in the rate of expansion of trade volumes, especially in Europe, will create somewhat more favourable international market conditions for Irish exports in 1986 and 1987 than existed in 1985. Whether this leads to a significant positive response on the part of exports and domestic output will, as pointed out Section 3, depend inter alia on the ability of the exposed sectors of the Irish economy to sustain and improve their competitive position.

Views on this question are significantly less sanguine now than was the case earlier in the year. Partly because the upturn in the world economy has not been as strong as previously envisaged but also because of the evident sluggishness of industrial output and exports in the first half of the year and the deteriorating position in agriculture, forecasts have been revised downwards. Earlier forecasts by the ESRI and the Central Bank envisaged volume growth of about 6 per cent in exports this year. It now seems that a growth rate of 1-2 per cent is in prospect. This would compare with the 6.7 per cent volume growth in exports achieved in 1985. As regards industrial output volume growth of between 2 and 3 per cent would now appear likely. Agricultural output is now expected to decline in 1986.

Earlier expectations were of a modest increase in the volume of investment in 1986. The Central Bank in its Summer Bulletin revised its previous forecast of 2.75 per cent growth down to 2 per cent. The ESRI in its August Commentary however forecast a 2 per cent decline in investment, comprising a 3 per cent decline in the volume of capital formation in building and construction and a 1 per cent decline in machinery and equipment. It now appears certain that investment will register a significant volume fall this year. The more pessimistic prognosis for investment is heavily influenced by the unexpected persistence of extremely high real interest rates.

The discussion in the preceding paragraphs would suggest that volume growth in GDP this year will be low, falling within the range 1-2 per cent. GNP growth will be somewhat lower still.

The pace and distribution of output growth in 1986 will be insufficient to prevent unemployment from increasing further. Accordingly the average number unemployed during the year is forecast at 230,000 on a Labour Force basis, an increase of 3,000 on the corresponding figure for 1985, implying an unemployment rate of almost 18 per cent.

5. MEDIUM-TERM PROSPECTS FOR THE EXPOSED SECTORS

(i) Agriculture

Output and Input Prices

Agricultural output prices are expected to increase by 1 per cent in 1986. This comprises a 2.5 per cent fall in cattle prices, a 1 per cent increase in sheep prices, a 3 per cent increase in milk prices and a 10 per cent increase in cereal prices following on an extremely low base in 1985.


This section is an edited version of material prepared for NEST by An Foras Lamhacht.
The evolution of output prices to the end of the decade depends on the future price policy of the EEC Commission and on developments within the EMS exchange rate regime. It has already been noted in Chapter 2 that the common price stance has hardened since 1982-1983. There is every reason to expect this posture to continue to the end of the decade. Given the stubborn surpluses problem, Community enlargement, and the tensions in international trade the future price environment cannot be auspicious. Against this background there is little alternative but to assume a zero annual change in common prices between 1987 and 1990. In fact this prospect represents no more than what has emerged from the last three price agreements.

As indicated in Table 2.23, Green Pound devaluations have been of considerable significance in ameliorating the effects of reduced ‘target’ prices over the last five years. However it would be hazardous and imprudent to preclude forecasts of price increases for domestic producers on any assumption other than that of existing Green exchange rates remaining unchanged. Nevertheless, even in the face of no change in common prices and no future Green rate re-alignments, Irish producers will enjoy output price increases in 1987 arising from the devaluation of the Green Pound in September of this year. It is estimated that the resultant increase will be of the order of 4 per cent.

While the evolution of output prices holds out little prospect of relief the likely movement in input costs shows more promise for a number of reasons. Firstly, feedingstuffs, one of the major inputs into agricultural production, is one of the products whose price level is under severe pressure. Secondly, other inputs such as fertiliser are sourced outside agriculture and, in the case of phosphorous and potassium in particular, agriculture is almost the only market. Thirdly, many other agricultural inputs are energy-related and consequently only very moderate price increases are expected due to the weakening of oil prices and the US dollar. It is forecast that input costs overall will fall by about 6 per cent in 1986.

The key indicator of likely input cost developments in the period 1987 to 1990 is domestic inflation, which is expected to remain at about 3 per cent per annum. Agricultural input cost increases are likely to be somewhat lower — within the range 2-3 per cent — because of (a) the continued weakness which is expected to characterise fertiliser prices and (b) the expectation that the price of feedingstuffs will track cereal prices which in turn are likely to be weak because of the assumed common price stance.

A 1 per cent increase in output prices in 1986 combined with a 6 per cent fall in the cost of inputs implies a substantial relief in the cost price squeeze on the agricultural sector this year. The assumptions with regard to the evolution of output and input prices over the 1987-1990 period (the conjunction of an average 1 per cent per annum increase in output prices with a 2.5 per cent annual average rise in input costs) implies the re-emergence of a cost-price squeeze but with an intensity somewhat less than that which characterised the 1980-1985 period.

Prospects for Output
The scenario for cattle output is dependent on the future trend in total cow numbers. The latter will depend on the relative growth rates in dairy and beef cows. It is assumed that dairy cow numbers will decline, in order to respect the quota, to at least four or five per cent below the levels recorded for June of 1985, which were about 14,000 down on 1984. For total cow numbers to remain unchanged, beef cow numbers would need to increase by about 16 to 20 per cent by 1990. It is expected that some of this beef cow growth will materialise on dairy farms which were not fully developed prior to the super-levy and where soil quality rules out tillage as an alternative. However, the brunt of the required beef herd expansion will fall on ‘Disadvantaged Areas’ and the increased headage grants this year should enhance the profitability of suckling. The best that might be expected is that cow numbers will show no change by 1990 over 1985. Recent data indicating a drop of 2.3 per cent in aggregate cow numbers in 1986 suggest that this expectation is optimistic.

According to CSO estimates, cattle output (including stock changes) increased by over one per cent in 1985. This represents an uninterrupted expansion vis-a-vis 1982. This feature is unprecedented historically and is difficult to explain. In normal circumstances we would expect cattle output to decline following such a growth in output unless the trend reflects a genuine improvement in animal productivity. A drop of about 1.5 per cent in cattle output is indicated for 1986. For the period 1987 to 1990, given the assumptions made with regard to cow numbers, it is expected that there will be no growth in cattle output relative to 1986. Indeed given the remarks above concerning the exceptional output levels in 1985, the recent reported fall in cow numbers, and the implementation of the EEC Milk Cessation Scheme in 1987 and 1989, a more likely outcome is for 1990 output to be well down on the levels attained in 1985.

Pig output is estimated to have declined by around four per cent in 1985 and is forecasted to fall by a further one per cent this year. Some recovery is expected from this low base by the end of the decade but the most realistic possibility is that recovery would be merely to 1984 production levels.

With the introduction of the common sheepmeat policy, ewe numbers have enjoyed an uninterrupted expansion of almost four per cent per annum between 1980 and 1984.* The figures for June of last year indicated an increase

of 10 per cent relative to 1984 with an increase of over 5 per cent recorded for June of this year. The forecast for sheep output in 1986 is a four per cent increase. Future prospects for sheep output production are relatively buoyant. Returns from the market place, in common with other livestock enterprises, will continue to be depressed. Profitability will be underpinned by increased productivity and by subsidies not related to sales (the 'ewe premium'). It is assumed that the level of subsidies will not deteriorate over the forecast period. Sheep production is also likely to advance owing to the anticipated enterprise-switching effects of the milk super levy and given that it is one of the few significant livestock activities in deficit in the Community it is likely to remain untouched by any quantitative restrictions for the foreseeable future. It is forecast therefore that ewe numbers will increase by around four per cent per annum from 1986.

Prospects for milk output are conditioned by the super levy and the EC Milk Cessation Scheme. It is assumed that Ireland will retain its guaranteed quantity up to 1990 and its share of the Community 'Reserve'. The implementation of the EC Milk Cessation Scheme as agreed in the April 1986 policy package is expected to cause production to decline by three per cent between 1986 and 1990. On the basis of trends to date a fall of at least six per cent in 1986 following on an increase of around 7.8 per cent in 1985 is forecast. As the drop this year is weather related a recovery can be expected next year, so by the decade end the volume of production is expected to be about three per cent below its 1985 level. It cannot be stressed sufficiently that the real impact of quantitative restraint in the dairy sector will only become manifest from now on. In the past we could have relied on a five per cent per annum increase in production, so for the foreseeable future the super levy has effectively siphoned off about 3.5 per cent each year from what would otherwise be the increase in nominal farm incomes.

The outlook for cereals is perhaps the most hazardous to predict since it is the most sensitive to weather conditions and is also in the front line of the EC Commission assault on surpluses. Excluding the exceptional harvest of 1984, the aggregate production of cereals has been in decline since 1980. Last year, given the appalling weather conditions, production dropped below 1983 levels with a decline of 30 per cent recorded in the volume of output. Within the cereals aggregate there has been substantial growth in the area under wheat which increased from around 117,000 acres in June 1980 to 197,000 acres in June 1985. A somewhat disturbing feature, however, is that the increase of 46,000 acres in 1984 was not repeated in 1985, when a modest increase of only 4,000 acres was recorded. This could be a temporary lull as happened in 1983, but it is likely also that the recent harvest experience could place a temporary obstacle to further expansion of the winter wheat area. It is assumed that total cereal acreage will remain at its 1985 level by 1990. It is also assumed that yields will grow from an 1980-1985 average base by three per cent per year due to an anticipated continued expansion in winter wheat. These assumptions suggest a recovery in total cereal production at a rate of around four per cent per annum relative to the low base of 1985. By 1990, however, we anticipate the production will still be below its 1984 peak.

Input Use

The medium-term outlook for the consumption of current inputs is always difficult to predict because differential input use will be influenced by the need to effect economies and the relative intensities of input use in different farm enterprises, as much as by the prospects for aggregate farm output. However, the fortunes of the dairy sector will have a significant bearing on the consumption of feedstuffs and fertilisers over the next few years since it is estimated that dairy enterprises account for around half of total feed and fertiliser use. An increase in feedstuffs consumption in 1986 of about 11 per cent is indicated following on the fodder shortage caused by last and this year's adverse weather conditions. Fertilisers on the other hand look likely to register a decline of around seven per cent. Given the sluggishness anticipated in cattle production and the possibility that quantitative restraint in the dairy sector will result in reduced current input use, as productivity advances become input conserving rather than output expanding, it is expected that the consumption of current inputs in 1990 will be about 3 per cent below the 1986 level in volume terms.

Prospects for Subsidies and Production Levels

Chart A in Chapter 2 demonstrated the growing importance of subsidies (comprised mainly of heage payments, calf premia, ewe premia etc) in cushioning potentially serious income effects emerging from market conditions in the recent past. Subsidies increased by 1R£129 million between 1980 and 1985 and currently account for 16 per cent of farm incomes. The level recorded for 1985 was exceptional due to the bringing forward of heage payments from 1986 to alleviate serious fodder problems and the introduction of one-off schemes for the same purpose. Given the recent Government initiative to alleviate hardship arising from the severe weather conditions it is estimated that subsidies in 1986 will be 1£15m higher than in 1985.

The outlook for the balance of the period is problematic. If the thrust of the Commission's Perspectives paper* were to be implemented over the next few years we could see a significant growth in the importance of subsidies as they gradually replace the price mechanism as a means of supporting farm incomes. A consistent thrust is evident in the recent price proposals package of 1986/87 where it was suggested that with a downward price adjustment

*European Commission: Perspectives on the Common Agricultural Policy, 1985
in the beef sector there would be new direct prema payments to designated producers. It should be noted however that the small size of the proposed prema would not compensate producers for the severe price reductions that could occur under the Commission's open-ended price policy proposed for beef. A further source of future transfer income which will materialise in the next few years is the monies which will accrue to those producers who surrender their quotas under the EC Milk Cessation Scheme. It is extremely difficult to adopt a firm view as to the likely future role of subsidies since their level will be largely politically determined. Thus, as a technical assumption, we postulate an increase of about £120 million in subsidies not related to sales.

The impact of production levies on farm incomes is of much less significance. An increase in the nominal value of levies of 7.5 per cent in 1986 with no change in the remaining years of the decade is assumed.

Capital Charges
In the National Accounts, capital charges are only estimated for 'machinery and equipment' and 'farm buildings' and these costs only include a depreciation element and do not incorporate interest or other factors relevant in the evaluation of total capital costs. Depreciation is equivalent to some fraction of the capital stock. The evaluation of depreciation charges in the future will depend on the growth in the capital stock or, in other words, the anticipated level of investment. The key factor determining farm investment decisions are expectations regarding real farm incomes. An examination of historical trends reveals a positive relationship between changes in investment and the evolution of the real value of farm incomes. The substantial growth which occurred between 1975 and 1979 undoubtedly reflected the expectation that the advances in real incomes in train since 1976 would persist into the future. There is little likelihood of investment activity ever reverting to the 1979 levels and it is assumed that future trends will be dictated by expectations conditioned by the real income experience since 1980. It is forecast therefore that over the period 1986-1990 gross annual investment will just be sufficient to meet replacement needs and hence depreciation in constant prices will remain at its 1985 level. We assume the nominal value of depreciation will advance at an annual rate of two per cent in line with expectations for current input prices.

Summary Projections of Agricultural Output and Incomes
Table 5.2 crystallises the discussion of the preceding paragraphs into a set of summary projections of agricultural output and farm incomes for the 1986-1990 period. Farm output is forecast to decline by 3 per cent in 1986 and to increase at an annual average rate of 0.5 per cent thereafter to 1990. Given the projections regarding prices and input volumes, nominal farm incomes will be unchanged in 1986 from their 1985 level and are projected to rise by a cumulative 7 per cent in the following four years to 1990. Real farm incomes are forecast to fall by 3 per cent in 1986 and by another 4 per cent cumulatively in the period to 1990.

Table 5.2

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<td>Nominal Farm Incomes</td>
<td>100</td>
<td>100</td>
<td>107</td>
</tr>
<tr>
<td>Real Farm Income(1)</td>
<td>100</td>
<td>97</td>
<td>93</td>
</tr>
</tbody>
</table>

(1) Nominal farm incomes deflated by the CPI. It is assumed that the annual average increase in the CPI will be 1 per cent between 1986 and 1990.

(ii) Manufacturing Industry — The Modern Sectors
As detailed in Chapter 2, the modern sectors of manufacturing industry, comprising Chemicals, Office Equipment and Instrument Engineering, experienced very rapid growth between 1980 and 1985. Output from these three sectors taken together expanded at an annual average rate of 16 per cent, that is at a rate sufficient to account for virtually the entire increment in output recorded by manufacturing industry as a whole over the 1980-1985 period. Accordingly, it is estimated that these three branches of activity produced almost 40 per cent of overall manufacturing output in 1985, (compared with about 20 per cent in 1980), a proportion considerably greater than their share in manufacturing employment which was about 13 per cent.

Significantly, having expanded at a spectacular rate of almost 30 per cent in 1984 output growth decelerated sharply in the modern sectors in 1985 (see Table 2.7). The slowdown in the electronics sector has been put down to the difficulties faced by the industry world-wide in 1985, more particularly to the running down of stocks in that year consequent to the large build-up of stocks that appears to have occurred in 1984. This factor has not been adduced in explanation of the sluggish performance of the other two sectors in question: Chemicals and Instrument Engineering. The fact that all three sectors experienced a marked deceleration in output growth in 1985 suggests the existence of some common explanatory factor.
All three sectors in Ireland are dominated by overseas firms. Foreign companies, principally US multinationals, account for 94 per cent of employment in Instrument Engineering, and 90 per cent and 67 per cent respectively in Office Equipment and Chemicals. Consequently it is to trends in foreign direct investment that one must look for an understanding of the evolution of output from these sectors over recent years.

It is evident that there was a substantial volume of overseas investment in Irish manufacturing in the late 1970s and early 1980s. Not all of this investment would have been directed towards the three most rapidly growing branches of industry but they would have accounted for a substantial proportion of the total, most of which came in turn from US firms. Table 5.3 sets out some relevant data.

The column headed 'New Foreign Investment Approved' measures foreign direct investment intentions and not the actuality. As such the corresponding data should be interpreted with some caution. The figures indicate that substantial increases occurred in each of the years 1979 through 1981 with steep declines taking place in 1982 and 1983. It is worth noting that the 1984 figure includes £180m in respect of an intended electronics project which has subsequently been indefinitely deferred. The data in respect of US firms' capital expenditure set out in the second column evince the same pattern of change over the period.

<table>
<thead>
<tr>
<th>Year</th>
<th>US Firms Capital Expenditure (£ million)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1978</td>
<td>402</td>
</tr>
<tr>
<td>1979</td>
<td>213</td>
</tr>
<tr>
<td>1980</td>
<td>207</td>
</tr>
<tr>
<td>1981</td>
<td>229</td>
</tr>
<tr>
<td>1982</td>
<td>146</td>
</tr>
<tr>
<td>1983</td>
<td>124</td>
</tr>
<tr>
<td>1984</td>
<td>113</td>
</tr>
</tbody>
</table>

The decline in US firms' investment spending in Ireland is largely explained by a similar reduction worldwide as Table 5.4 indicates. Total foreign investment by US manufacturing companies fell from $24bn in 1980 to $14bn in 1984. The principal explanation for this probably resides in the international economic depression over the same period. However, within the substantially diminished total, the share accounted for by the newly industrialising countries of South East Asia significantly increased.

The data in Table 5.4 do not distinguish between new 'green-field' investment and capital formation in pre-existing production units reflecting re-equipment of plants. It is almost certain that the increasing share of South East Asian countries which emerges from the undifferentiated data would be even greater if 'green-field' investment were separately identified.

<table>
<thead>
<tr>
<th>Year</th>
<th>Total (at $ billion)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1980</td>
<td>23.944</td>
</tr>
<tr>
<td>1981</td>
<td>19.164</td>
</tr>
<tr>
<td>1982</td>
<td>17.669</td>
</tr>
<tr>
<td>1983</td>
<td>15.273</td>
</tr>
<tr>
<td>1984</td>
<td>13.653</td>
</tr>
</tbody>
</table>

In the light of the foregoing discussion it is possible to provide an outline of the prospects for the 'modern' manufacturing sector over the next five years, given that the international conditions expected are somewhat more favourable than those experienced in the 1980-1985 period.

In the short-term (1986 and 1987) the upturn in the world economy and in particular the expected recovery of European markets should have beneficial effects on export and output growth. However a number of cautionary notes are appropriate on this score. Grounds for caution have already been provided by the evolution of output and exports from the relevant sectors to date in 1986.

Firstly, as noted above the first six months of the year have seen a decline in the output of chemicals relative to the same period in 1985 of 8.4 per cent. Corresponding data for office machines and instrument engineering indicate increases in output of 17.5 and 5.6 per cent respectively, higher than the growth rates in 1985 as a whole, but about one third of those attained in 1984 and about half the annual average growth rate achieved between 1980 and 1985.

Secondly, demand can only drive output in the short run up to the point of full capacity utilisation. It is not clear to what extent the capacity of the sectors in question is currently being utilised. What is clear, however, is that
the rate of increase in capacity, as measured by foreign direct investment flows, has decelerated sharply since 1981. On this basis it is unlikely that the next two years will see a resumption of output growth on the scale witnessed between 1980 and 1984.

A third and related point has to do with the purely arithmetic effect on the recorded output data over the first half of the decade whereby the output of the modern sector exhibited strong growth in percentage terms because increments to output were large relative to the pre-existing level of output in that sector. As the level of output continues to rise, growth rates in percentage terms necessarily fall, even if the absolute size of the increments to output remains the same. Recorded growth rates will a fortiori fall if the absolute size of the increments diminishes in successive years.

Another related point which must be considered is the possible existence of a 'life-cycle' effect within successive generations of foreign companies established in Ireland, of which the most recent generation comprises companies located principally in the Chemicals, Electronics and Instrument Engineering sectors. Empirical evidence on this issue has been assessed by O'Malley* and points to a situation whereby successive generations of overseas firms expand output rapidly in the years immediately following their establishment in Ireland, stabilise output and employment around a peak level in the next period, and succumb to a period of decline thereafter during which output falls and jobs are shed.

If the generation of overseas companies responsible for the impressive output and export growth recorded in Chemicals, Office Equipment and Instrument Engineering between 1980 and 1984, has entered the second stage of the life-cycle described above — an assessment with which the performance of these sectors in 1985 and early 1986 is consistent — optimism about the magnitude of these sectors' response to the expected upturn in the world economy may be misplaced. Moreover such an assessment highlights the question of whether the improving international trading climate will generate an acceleration of foreign direct investment into Ireland and thereby sow the seeds of substantial output and employment growth in the medium term.

Turning to this question some pointers to a possible answer have already been provided. The increasing share of South East Asia in total world-wide foreign investment by US companies has been noted. Of greater significance than the fact that published data reveal this trend is the near certainty that they underestimate the rate of increase in the share of South East Asian countries in investment in new projects as distinct from re-equipment expenditures. It is not possible to isolate with any precision the factors responsible for this but it would seem reasonable to suggest that the buoyancy of the Far East economy relative to Europe in recent years has exerted a powerful influence in this regard. It would seem therefore that rapid and sustained economic growth in Europe is a pre-requisite for reversing the recent trends in the geographical pattern of US foreign direct investment flows.

Moreover Ireland's share of US foreign direct investment in Europe has recently been coming under pressure because of the increasing competition between European countries and, within countries, between regions and urban areas, for industrial projects. The intensification of such competition has been due in large measure to rising levels of unemployment and the deployment of industrial policy instruments by governments to secure their employment objectives. Given the medium-term outlook for unemployment in Europe it seems likely that the intensity of this competition will be maintained. Moreover Ireland's share is likely to come under continued pressure on foot of the recent accession of Spain and Portugal to EEC membership.

Another factor which is relevant to considering foreign direct investment prospects in the medium-term is the current situation of the electronics industry which has provided a large proportion of the inflow into Ireland over the last decade or so. Informed analysis of the world-wide electronics industry suggests that renewed expansion on a scale comparable to that which characterised the period up to 1984 is critically dependent upon a new technological breakthrough which will bring with it a fresh wave of innovations and applications of electronics technology to new areas of activity. While this technological breakthrough is awaited existing technologies will progress towards maturity and the industry world-wide may enter a period of relative stagnation.

Taking all the above-mentioned factors into consideration it would appear extremely unlikely that the modern manufacturing sectors will expand output over the next five years at a rate equivalent to that which obtained between 1980 and 1985. This would seem to be especially true of the Office Equipment sector. An optimistic scenario might be one in which the rate of growth in output from the Electronics industry would decelerate to 17.5 per cent per annum between 1986 and 1990, compared with 35 per cent between 1980 and 1985, with the Chemicals and Instrument Engineering industries each growing at rates somewhat below those achieved in the last five years i.e. about 7.5 per cent annually. This would yield an annual average growth rate of about 12 per cent for these three sectors taken together, compared with 16 per cent annually between 1980 and 1985. It might be more realistic

*The proposed increase in output has been calculated by using estimated 1985 output weights, the figure for 1980-1985 is by using actual 1980 weights. The two sets of weights are significantly different due principally to the very rapid growth in output from the Office Equipment sector between 1980 and 1985.
of the domestic market, would therefore appear to be more adequately explained by a deterioration of competitiveness, as indicated by increasing import penetration and a falling share of the dominant export market. Given the importance of labour costs in the value-added structure of the sectors in question it is not unreasonable to look to the trends in relative hourly earnings as the proximate source of competitive pressure although the ultimate source of poor competitiveness may be sought in the failure or inability of firms in these labour-intensive industries to secure adequate levels of investment. For the sectors in question the most relevant exchange rate is that of the Irish pound against sterling.

Prospects for the Textiles, Clothing, and Footwear industries in the short to medium term cannot be accounted bright given current exchange rates. If the Irish pound continues to trade against sterling in the 90-95 pence range, a range which implies a nominal appreciation of 9-14 per cent vis-à-vis 1985, or about 10.5-15 per cent vis-à-vis the average position for the 1981-1985 period as a whole, an intensification of competitive pressure can be expected in the short run, given especially the recent and emerging trends in rates of pay.

On this basis it seems inevitable that output and employment will continue to decline in these sectors. In this regard it should be noted that although the industries in question produce only 6 per cent of manufacturing output, they account for about 14 per cent of manufacturing employment because of their relative labour intensity. It might be added that, in contrast to many of the other more established manufacturing sectors which in 1985 reversed their previously recorded output declines, output in Textiles, Clothing and Footwear experienced sharp reductions in output in 1985. It might be expected that the five year period to 1990 will see a decline in the output of these sectors at a rate perhaps somewhat lower than that which obtained between 1980 and 1985. It would be optimistic, given the present outlook for exchange rates and average earnings, to expect the output decline to be halted.

The Food, Drink and Tobacco, and Other Engineering* industries were the only long-established manufacturing sectors to experience output growth over the 1980-1985 period. In the case of Drink and Tobacco, this was almost entirely attributable to the performance of output in 1984 and 1985, which may in turn have been due to the relaxation of the tax treatment of alcohol and tobacco products in recent budgets. For both the Food, and Drink and Tobacco industries domestic sales are the most important demand outlet with exports accounting for about one-third of output. Future prospects for output growth are accordingly heavily dependent on the evolution of domestic consumer demand.

*Engineering other than Office Equipment and Instrument Engineering.

The large reductions in output and employment experienced by these sectors during the 1980 - 1985 period, although partly explained by the weakness of the domestic market, would therefore appear to be more adequately explained by a deterioration of competitiveness, as indicated by increasing import penetration and a falling share of the dominant export market. Given the importance of labour costs in the value-added structure of the sectors in question it is not unreasonable to look to the trends in relative hourly earnings as the proximate source of competitive pressure although the ultimate source of poor competitiveness may be sought in the failure or inability of firms in these labour-intensive industries to secure adequate levels of investment. For the sectors in question the most relevant exchange rate is that of the Irish pound against sterling.

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*Engineering other than Office Equipment and Instrument Engineering.
However, in the case of food processing, particularly in the dairy products and meat processing sub-sectors, it might be reasonable to expect some slowdown in the rate of output growth recorded in recent years, because of the effects of reforms in the CAP on the agricultural sector. That is, unless a concerted and successful attempt is made to develop higher value-added products as a means of obviating the otherwise output-dampening effects which will follow on the restrictions in raw material supplies associated with CAP reform.

For the purposes of quantifying the medium-term prospects for manufacturing output as a whole, therefore, two scenarios have been constructed reflecting respectively an optimistic and a pessimistic outlook. The difference between the projections for the manufacturing industry groupings as between these two scenarios have been anticipated in the discussion above but may be summarised as follows:

(i) the 'optimistic' scenario envisages output growth of about 12 per cent per annum in the years 1986-1990 for the modern sectors (compared with 16 per cent per annum between 1980 and 1985), and just over 2 per cent annually in the more established sectors taken together, which compares with 0.2 per cent per annum over the last five years. This would yield an average annual growth rate of about 6.5 per cent between 1986 and 1990 for total manufacturing industry, somewhat higher than the growth rate attained between 1980 and 1985.

(ii) the 'pessimistic' scenario envisages output growth in the modern sectors taken together decelerating to about half that recorded between 1980 and 1985 i.e. to about 8 per cent, due in particular to a sharp deceleration in Electronics. This scenario envisages output growth in the more established sectors between 1986 and 1990 occurring at a moderately faster rate than that achieved over the last five years, the principal elements in which are a continued though somewhat gentler decline in textiles, clothing and footwear, and a modest deceleration in output growth from the food industry because of the impact of CAP reforms. These projections add up to a projected annual average growth rate of about 4 per cent between 1986 and 1990 for the manufacturing sector as a whole.

6. MEDIUM-TERM PROSPECTS FOR THE SHELTERED SECTORS

(i) Building and Construction

The two most important components of output in Building and Construction are private residential investment and investment carried out under the Public Capital Programme. It is estimated that the former category accounted for about 36 per cent of total Building and Construction output in 1985, while Local Authority residential construction together with categories of non-residential construction other than those attributable to Agriculture, Industry,

Semi-State Bodies, and Commercial Development accounted for a further 47 per cent. This second aggregate corresponds roughly to that element of building and construction activity which comes within the ambit of the PCP.

The 1986 Budget provisions imply a volume reduction of over 3 per cent in the PCP this year. It is assumed that there will be no volume growth in PCP building and construction activity over the 1987-1990 period as a whole. *

The prospect of zero volume growth on average in PCP building and construction activity between 1987 and 1990, if realised, would significantly attenuate the probability of substantial growth in overall building and construction activity. What growth would take place in the output of the industry would have to come exclusively from private residential investment, new capital formation by the Semi-State Bodies and private non-residential investment in agriculture, industry and commercial development.

Looking back over the last five years the volume of new private residential investment peaked in 1981. A volume decline of about 5 per cent is expected under this heading in 1986 implying that an annual average rate of growth of almost 11 per cent would be required between 1987 and 1990 for the 1981 peak to be regained by the end of the decade. Notwithstanding the likelihood of some reduction in real interest rates over this period and some modest improvement in disposable per capita incomes relative to the 1980-1985 period it seems most unlikely that such a rate of expansion could be achieved. It might be optimistically assumed that the average rate of growth in new private residential investment between 1987 and 1990 would be about 5 per cent.

When allowance is made for an acceleration of expenditure on private sector repairs and maintenance in the wake of the new measures introduced in October 1985, this would translate into an annual average volume increase in overall private residential investment of about 7 per cent.

However, regard must also be had to likely rates of household formation. In this connection trends in the population aged between 20 and 29 are a useful indicator. It is estimated that the numbers in this age group increased by 1 per cent annually between 1981 and 1986, but population projections for the 1986-1991 period point to a decline of 0.8 per cent per annum in the corresponding age category. ** This might be expected to impart a downward influence to overall private residential investment making a rate

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* The population projections in question are those published by the CSO in 1985. These have been superseded by

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of expansion of 5-5½ per cent per annum between 1987 and 1980 a not unreasonable projection.

In the case of agricultural investment it is projected that the volume growth will be just sufficient to cover depreciation needs over the 1986-1990 period, implying a rate of 2 per cent per annum.

As to the remaining categories of private non-residential construction: the Semi-State Bodies, Industry, and Commercial Development, volume growth of over 20 per cent annually would be required to regain 1981 volume levels. Bearing in mind that the levels of investment recorded under these headings in the early 1980s were underpinned _inter alia_ by a large influx of foreign direct investment in manufacturing and by the fact that major projects by the ESB and An Bord Gais were then on hand, and given the medium-term prospects for foreign direct investment discussed earlier, it must be accounted extremely unlikely that 1981 volume levels of private non-residential investment will be attained by 1990. An annual average growth rate of 10 per cent between 1986 and 1990 probably demarcates the likely upward bound for such investment, with 5 per cent perhaps representing a more reasonable expectation.

Drawing together the various elements of output therefore and noting in particular the assumption that construction activity under the PCP will exhibit zero volume growth over the next five years, it seems likely that total building and construction output will expand at an annual average rate within the range 2 to 3¼ per cent in the 1986-1990 period. This would compare with the annual average output decline of 5.5 per cent experienced between 1980 and 1985.

(ii) The Services Sector

Within the overall services sector the first distinction that needs to be made is between public and private services. As far as the former category is concerned it may be reasonable to expect no volume growth in output over the 1986-1990 period as a whole. As far as the latter is concerned it should be noted that very little is known about the precise determinants of output growth. It is intended that this issue will be addressed in a forthcoming NESC report on the services sector.

Although the mechanisms which influence output growth in private sector services cannot be identified with any great precision it is clear that the growth of producer services is associated with the evolution of output in agriculture and industry, and the growth of services to consumers with the evolution and pattern of consumer demand. Given the medium-term outlook for real personal disposable income, and in particular the likelihood that consumer demand will be somewhat stronger in the 1986-1990 period than over the last five years, it might be expected that the output of consumer services will increase somewhat faster in the coming five years than in the years 1980-1985. Output of producer services may grow somewhat faster than over the 1980-1985 period, depending on which of the two medium-term scenarios for industrial output is considered the more likely.

Under the more optimistic assumptions the annual average growth rate in private sector services output could be 3 per cent between 1986 and 1990 yielding a rate of growth for the services sector as a whole of about 2 per cent. Under the more pessimistic scenario the corresponding growth rates might be 1½ and 1 per cent respectively. It should be stressed that a considerably greater degree of uncertainty inheres in these projections than in those for the agricultural and industrial sectors.

7. OVERALL ECONOMIC GROWTH

The assessment in Sections 5 and 6 above of the prospects for output growth in the main sectors of the economy permits the broader picture of overall growth prospects to be constructed. These projections are summarised in Table 5.5

<table>
<thead>
<tr>
<th></th>
<th>'Optimistic' (per cent per annum)</th>
<th>'Pessimistic' (per cent per annum)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>-0.2</td>
<td>0.2</td>
</tr>
<tr>
<td>Industry</td>
<td>5.8</td>
<td>3.7</td>
</tr>
<tr>
<td>Services</td>
<td>2.0</td>
<td>1.0</td>
</tr>
<tr>
<td>GDP at Factor Cost</td>
<td>3.2</td>
<td>1.9</td>
</tr>
</tbody>
</table>

(1) These projections should be accepted as mere degrees of precision or certainly than the discussion in the text suggests.

Under the 'optimistic' scenario an annual average growth rate of GDP of just over 3 per cent might be envisaged for the 1986-1990 period. This would be significantly faster than the annual average growth rate of 1.8 per cent achieved between 1980 and 1985 but very much lower than the 4.6 per cent per annum attained in the 1975-1980 period.

Under the 'pessimistic' scenario a growth rate of under 2 per cent annually might be in prospect for the 1986-1990 period. This is roughly comparable to that achieved over the last five years.
IMPLICATIONS OF THE MEDIUM-TERM OUTLOOK

1. INTRODUCTION

In the previous chapter a number of plausible scenarios for the evolution of output in the Irish economy over the medium term were constructed on the assumption that the broad thrust of existing policies would remain unchanged. It is important to consider the extent to which the evolution of output as postulated under these 'optimistic' and 'pessimistic' scenarios, might be expected to contribute to the resolution of the two most pressing problems currently confronting the economy, namely the high level of unemployment and the major imbalances which exist in the public finances.

The content of this chapter is organized as follows. Section 2 assesses the prospects for employment growth in the period to 1990 given the output projections developed in Chapter 5. Section 3 considers likely future growth in the labour force and the implications for unemployment.

Section 4 assesses the likely implications of the output and employment projections for the public finances on the assumption that the present stance of fiscal policy remains unchanged to 1990. In this section the analysis concentrates principally on the likely evolution of the National Debt-GNP ratio. Section 5 contains a summary and concluding remarks.

2. MEDIUM-TERM PROSPECTS FOR EMPLOYMENT

The employment levels which might be associated with the medium-term output scenarios developed in the previous chapter are summarised in Table 6.1. The difficulties involved in constructing employment projections are considerable, even given projections of output growth. The principal problem revolves around the issue of prospective trends in labour productivity, the determinants of which are imperfectly understood. Accordingly the projections contained in Table 6.1 should not be ascribed any greater degree of certainty or precision than the discussion in the following paragraphs suggests.

(i) Agriculture

It has been conventional to suppose that employment trends in agriculture are exogenous to income developments in that sector and to assume accordingly
that the rate of employment decline will follow the long-term trend rate of 3 per cent per annum. The results of recent Labour Force Surveys prompt a questioning of the validity of this approach: the numbers engaged in agriculture fell by 20,000 between April 1983 and April 1985, or at a rate of 5.5 per cent annually, which represents a significant acceleration relative to trend.

Whether this rate of decline can realistically be expected to persist over the medium-term depends upon which factors are considered responsible for what has occurred in 1984 and 1985. Three main sets of factors can be isolated: demographic, classificatory and economic. The purely demographic factor is associated with the age distribution of farmers and the incidence of retirements and deaths amongst those engaged in agriculture. The classificatory factor has to do with a possible increase in the proportion of part-time farming and the resultant reclassification of those previously recorded as farmers in the IFS to non-farm occupations. The economic factor has to do with the income losses sustained in agriculture over the last two years which, coupled with the uncertainty concerning future prospects, may have induced an exodus from farming through earlier retirements and emigration, coupled with fewer people entering agriculture.

Table 6.1

Employment Projections to 1990 (Thousands)(1)

<table>
<thead>
<tr>
<th></th>
<th>1986(2)</th>
<th>1988(2)</th>
<th>'Optimistic'</th>
<th>'Pessimistic'</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>160</td>
<td>160</td>
<td>142</td>
<td>142</td>
</tr>
<tr>
<td>Industry</td>
<td>205</td>
<td>200</td>
<td>210</td>
<td>200</td>
</tr>
<tr>
<td>- Manufacturing</td>
<td>204</td>
<td>200</td>
<td>204</td>
<td>204</td>
</tr>
<tr>
<td>- Building</td>
<td>76</td>
<td>73</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>- Other</td>
<td>25</td>
<td>25</td>
<td>25</td>
<td>25</td>
</tr>
<tr>
<td>Services</td>
<td>600</td>
<td>602</td>
<td>624</td>
<td>600</td>
</tr>
<tr>
<td>Public</td>
<td>245</td>
<td>240</td>
<td>240</td>
<td>240</td>
</tr>
<tr>
<td>Private</td>
<td>357</td>
<td>362</td>
<td>394</td>
<td>306</td>
</tr>
<tr>
<td>Total Employment</td>
<td>1974</td>
<td>1960</td>
<td>2090</td>
<td>1837</td>
</tr>
</tbody>
</table>

(1) The projections should not be considered any greater degree of certainty or precision than the discussion in the text
(2) Mid-April 1986
(3) Mid-April 1986 figures are 1985.1 estimated figures.

These factors are interrelated and their relative weights difficult to quantify. However, to the extent that the sharp recorded fall in agricultural employment since 1983 is attributable to (a) reclassifications which may be once-off in effect and/or (b) age-related demographic factors which will weaken in time, it is unlikely that the recent rate of decline in the farm labour force can be sustained. In relation to demographic factors it should be noted that recent years have seen an unprecedented decline in the number of farmers aged 65 years and over. Accordingly the cohort from which the bulk of future retirements can be expected is one which is considerably smaller now than in 1979: there were 31,000 farmers aged 65 and over in 1979 compared with 20,000 in 1985.

Our projections of agricultural employment see a 5.5 per cent decline in 1986 and an average decline of 3 per cent annually between 1987 and 1990. This would imply a projected fall in national output of 162 thousand in 1990, compared with 169 thousand in 1985, a fall of 27 thousand over the five-year period.

(ii) Industry

The assessment of prospects for the Building and Construction industry in Chapter 5 envisaged annual average output growth of 3.75 per cent and 2.2 per cent in the period 1985-1990 under the 'optimistic' and 'pessimistic' scenarios respectively. It is assumed that the corresponding rates of employment growth will be somewhat lower. Under the 'optimistic' scenario therefore employment in 1990 is projected at 86 thousand, 10 thousand higher than in 1985. Under the 'pessimistic' scenario the employment projection for 1990 is 80 thousand.

It is considered that the expansion of output from manufacturing industry together with its distribution between the main branches of activity, projected under the optimistic scenario, will be insufficient to increase employment in manufacturing above its 1985 level by 1990. The key factor here is productivity growth. Over the 1980-1985 period output per employee grew at an annual average rate of 15 per cent in the 'modern' sector while the corresponding rate of increase in the more established sectors was about 5 per cent.

If these trends in productivity growth were to be maintained over the 1985-1990 period it would require commensurate growth rates in output — growth rates considerably higher than projected under the 'optimistic' scenario — to maintain 1985 levels of employment in manufacturing.

However, there is reason to believe that the high growth of output per employee recorded by the 'modern' sectors between 1980 and 1985 was due in part to factors which are unlikely to recur, including the very high levels of new foreign direct investment which took place in the late '70s and early '80s. Moreover recorded productivity growth in the more established sectors between 1980 and 1985 was in part attributable to the influence of competitive

*Chemicals, Office Machines and Instrument Engineering taken together
pressures (partly induced by a recession in demand) on employment levels.

If, as is implied by the 'optimistic' projections of output growth, competitive
depressures on the more established sectors are relaxed over the medium-term,
it might be reasonable to expect a deceleration in recorded productivity growth
in these sectors.

Because of an assumed deceleration of productivity growth* therefore
manufacturing employment under the 'optimistic' scenario is projected to be 203 thousand in 1990 that is, unchanged from its level in 1985.

The growth rates in manufacturing output postulated under the 'pessimistic'
scenario would be consistent with a continued sharp decline in employment
with both the modern and the more established sectors shedding labour. Under
this scenario manufacturing employment may fall to 186 thousand by 1990,
almost 20 thousand below its level of 1985.

(iii) Services

It is assumed that employment in public sector services will remain unchanged
at its estimated 1986 level of 240 thousand in the period to 1990. This is
by way of a working assumption and is not a forecast.

As to private services, employment under the 'optimistic' scenario is projected
to be 37 thousand higher in 1990 than in 1985. The implied annual average
rate of increase projected here is somewhat less, at 2 per cent, than the
corresponding rate of growth in output (3 per cent per annum) in order to
reflect the likelihood of increasing output per employee as the more extensive
application of technology brings enhanced labour productivity to the services
sector.

Under the more pessimistic scenario (output growth of 1.5 per cent annually)
the rate of change in employment is assumed to be no more than 0.5 per
cent per annum. The resultant projection of private services sector
employment in 1990 is 368 thousand, about 10 thousand higher than its
estimated level in 1985.

(iv) Total Employment

Drawing together the employment projections by sector yields a total
employment figure of 1090 thousand by 1990 under the 'optimistic' scenario,
representing an increase of 16 thousand on the 1985 level and an average
annual increase of about 3,500. Under the 'pessimistic' scenario it is projected
that employment would fall to 1037 thousand by 1990, that is 37 thousand
below its 1985 level, representing an annual average decline of over 7,000
per annum.

<p>| Table 6.2 |
| Trends in GDP and Total Employment |</p>
<table>
<thead>
<tr>
<th>GDP</th>
<th>Total Employment</th>
<th>GDP per Employee</th>
</tr>
</thead>
<tbody>
<tr>
<td>1975-1980</td>
<td>4.6</td>
<td>1.5</td>
</tr>
<tr>
<td>1980-1985</td>
<td>1.8</td>
<td>-1.5</td>
</tr>
<tr>
<td>1985-1990(O)</td>
<td>1.2</td>
<td>0.3</td>
</tr>
<tr>
<td>1985-1990(P)</td>
<td>1.9</td>
<td>-0.2</td>
</tr>
</tbody>
</table>

* Under both scenarios, productivity growth in the 'modern' sector is assumed to decline from 15 per cent per annum in 1980-1985 to 10 per cent per annum in 1985-1990, and in the most established sectors from 5 to 2.5 per cent.

It is worthwhile considering what the employment projections described in
the previous paragraphs, together with the medium-term output projections
from which they are derived, imply for prospective economy-wide productivity
trends in the 1985-1990 period, and how these productivity trends in turn
compare with the experience of recent periods.

Table 6.2 indicates that GDP per person employed increased at an annual
average rate of 3.1 per cent between 1975 and 1980, and by 3.3 per cent
in the 1980-1985 period. Under the 'optimistic' scenario for the period
1985-1990 the implied annual average rate of increase in GDP per employee
is 2.9 per cent. The corresponding projection of total employment growth
therefore is consistent with an evolution of GDP per employee broadly
comparable with that of the two most recent five-year periods.

Under the 'pessimistic' scenario the implied annual average rate of growth
in GDP per employee between 1985 and 1990 is 2.6 per cent, significantly
below that recorded in either of the two most recent periods of similar duration.
That economy-wide labour productivity growth is lower under the 'pessimistic'
scenario has to do with the fact that it has been assumed that the respective 1990 levels of employment in agriculture and public sector
services would be unchanged as between the two cases.

3. MEDIUM-TERM TRENDS IN THE LABOUR FORCE AND
    UNEMPLOYMENT

(i) Recent Trends in Unemployment

Live register unemployment stood at 240 thousand in December 1985,
equivalent to over 18 per cent of the estimated labour force. The monthly
Live Register figures for 1985 revealed a deceleration in the rate of increase towards the end of the year. The trend over the first nine months of 1986 has seen some reversal in what previously appeared to be an inexorable rise. There were 232,400 persons on the Live Register in September 1986, on an unadjusted basis, a fall of 7,500 from end-1985. On a seasonally adjusted basis however, the figures for September show a modest increase of some 1,300 from their December 1985 level.

Whatever about the rate of change in the numbers on the Live Register the magnitude of the unemployment problem remains enormous. Notwithstanding the modest reduction in the numbers unemployed which has been recorded in 1986 to date, it appears likely that the average unemployment rate for the year will be in the region of 18 per cent.

Moreover the deceleration in the rate of increase in 1985 and the modest decline recorded in early 1986 must be viewed in conjunction with the marked turnaround in net migration which has occurred in recent years. In each of the years 1972-1981, with the exception of 1980, net inward migration took place with average annual immigration of 9,500. The 1986 Census of Population reveals that net outward migration totalling 75,000 occurred between 1981 and 1986, that is, an annual average net outflow of 15,000. Moreover it is estimated that net outward migration of 20,000 and 31,000 took place in the years to April 1985 and April 1986 respectively.

The evolution of unemployment in the period to 1990 depends as much on future trends in the labour force as on prospective changes in the numbers at work. The latter element has been considered in detail above. The following paragraphs consider the question of prospective trends in the labour force.

(ii) Prospective Trends in the Labour Force

The likely future evolution of the labour force is an issue surrounded by considerable uncertainty. At the present time in Ireland the degree of uncertainty on this issue is accentuated by the results of the most recent Labour Force survey (LFS) and of the 1986 Census of Population. The 1985 LFS revealed that the labour force declined in the year to April 1985 for the first time since the Survey was instituted. The preliminary results of the recent Census indicate that net outward migration totalling 75,000 took place in the 1981-1986 period and indicate that a modest decline in population occurred between 1985 and 1986. Moreover it is estimated that net outward migration of 31,000 took place in the year to April 1986 alone.

Likely future trends in the labour force depend inter alia on whether, and at what rate, net outward migration persists over the coming years, and on whether the overall decline in labour force participation rates evident in recent years continues. The answers to these questions depend in turn on the evolution of economic magnitudes and more particularly on the trend in employment. The evolution of the labour force is not independent of the evolution of employment.

Such is the uncertainty which currently attends these questions that the likely future direction of change in the labour force is a matter of some doubt in contrast to previous periods when it was the magnitude of the increase that was uncertain.

Constructing satisfactory labour force projections is a complex task requiring sound judgement not only about the likely future evolution of demographic factors but also a model of how the labour force responds to economic variables both at home and abroad. In the short time that has evolved since the publication of the preliminary results of the 1986 Census it has not been possible to construct a model of labour force growth sufficient to this task. What follows therefore represents nothing more than an attempt to derive a plausible projection for 1990 based on a relatively crude methodology.

Population

Population growth comprises two elements: the natural increase, and net migration. It is assumed that net migration to the end of the decade will average 25,000 per annum, considerably higher than the average annual net outflow which characterised the 1981-1986 period as a whole but somewhat lower than the 31,000 net outflow which is officially estimated to have occurred between 1985 and 1986. It is assumed that the age distribution of this net outflow will be broadly comparable to the pattern which characterised the high migration assumption outlined in Population and Labour Force Projections 1986-1991 published in 1985 by the CSO. It is also assumed that trends in fertility will follow the high fertility case used in the same publication.

On the basis of these main assumptions it is projected that the population in 1990 will be 3,534,6 thousand a slight reduction on the Census figure for 1986*. Within this total a significant shift in the age structure of the population is anticipated. A substantial reduction in the numbers aged under 15 and a largely counterbalancing increase in those aged 15 and over are projected. The proportion aged 15 and over is projected to rise from an estimated 70.8 per cent in 1986 to 72.5 per cent in 1990, yielding an absolute increase over the period from 2503 thousand to 2652 thousand in the numbers of working age.

*The population projections were prepared by Mr John Blackwell. Appendix 2 details the assumptions upon which these projections are based.
The overall population projection combined with the assumptions relating to net outward migration imply a natural increase of 25,600 per annum over the remainder of the decade. This is very much less than the corresponding figure of 33,000 for the 1981-86 period but represents a continuation of a trend evident over recent inter-censal periods.

**Participation Rates**

Table 6.3 sets out the evolution of participation rates by sex and marital status over the 1975-1985 period. From the point of view of using these data as a guide to likely future trends, two sub-periods may be distinguished: that spanning the years 1975 to 1983 and the two years from 1983 to 1985.

From 1975 to 1983 there was a decline in the male and the single and widowed female participation rates of, on average, 0.4 and 0.2 percentage points per annum respectively. At the same time there was a substantial increase in the participation rate of married women of 0.7 percentage points annually on average. The rate of decline in male participation rates accelerated between 1983 and 1985 while in the case of single and widowed females the rate of decline accelerated even more markedly. The steady increase in the participation rate of married females evident in the eight years to 1983 was reversed in 1984 before increasing modestly again in 1985. The married females' participation rate in 1985 was only slightly above the 1983 rate.

<p>| Table 6.3 |</p>
<table>
<thead>
<tr>
<th>Participation Rates by Sex and Marital Status, 1975-1985</th>
</tr>
</thead>
<tbody>
<tr>
<td>Males</td>
</tr>
<tr>
<td>Single and Widowed Females</td>
</tr>
<tr>
<td>Married Females</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

In very broad terms two factors will impel the overall participation rate over the remaining years of the decade, and in opposite directions. The persistence of high emigration concentrated amongst those in the younger working age groups is likely to have the impact effect of reducing the corresponding age-specific participation rates*. On the other hand, to the extent that labour market conditions are eased somewhat by the continuation of net outward migration on the scale assumed, the so-called discouraged worker effect might be expected to weaken as a higher proportion of those who remain in Ireland may start to seek employment.

In the absence of a complete model of labour force determination, it is extremely difficult to anticipate what future trends in participation rates the balance of these, and other, factors will produce. Our labour force projection of 1312 thousand for 1990, 27 thousand higher than has been estimated for 1986, implies that the overall participation rate in 1990 will be approximately the same, at 51.5 per cent, as the rate estimated for 1986**.

(iii) The Outlook for Unemployment

The 'optimistic' medium term scenario envisages 1090 thousand persons at work in 1990. This combined with the illustrative labour force projection of 1317 thousand, derived above implies an unemployment level of 227 thousand in 1980 representing just over 17 per cent of the labour force and a very modest reduction on the estimated level of 1986.

The 'pessimistic' scenario for 1990 envisages substantially fewer people at work: 1037 thousand. This would be consistent with an increase in unemployment of 50 thousand from its 1986 level of 230 thousand, if the labour force were to evolve as indicated above. The corresponding unemployment rate would be over 21 per cent. It should be stressed however that this is a rather facile conclusion. As indicated earlier the evolution of the labour force is not independent of the evolution of employment. Trends in participation rates are likely to be positively correlated with employment trends and for this reason it must be accounted unlikely that the labour force in 1990 would be as large under the 'pessimistic' as under the 'optimistic' employment scenario.

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*On the grounds that the participation rates of emigrants in a particular age group is higher than that of the total population in that age group and a lower figure higher than the participation rate of those in that age group who remain in Ireland

**A combination of age and sex-specific participation rates which are consistent with these results are set out in Appendix 2 together with the other assumptions used to derive the population and labour force projections.
4. MEDIUM-TERM PROSPECTS FOR THE PUBLIC FINANCES

We now turn to a consideration of the likely implications for the public finances of prospective economic developments in the medium term. Of particular interest in this regard is an assessment of the extent to which the fiscal imbalances which currently exist might be ameliorated by likely future growth in output and employment on the one hand, and by the prospective future evolution of interest and exchange rates on the other.

A useful perspective on this question is provided by considering the conditions which must obtain in order that the ratio of National Debt to GNP be stabilised — the stabilisation of the National Debt-GNP ratio was adopted as a target for 1987 in Building on Reality — and then by going on to consider whether these conditions are likely to be met, given the medium-term scenarios for output and employment growth developed above. This approach also permits the crucial role played by interest rates in shaping the budgetary arithmetic to be identified.

Before analysing the likely future evolution of the public finances it is worth briefly describing the budgetary targets adopted for 1986 and the extent to which they appear likely to be breached.

(i) The 1986 Outturn

Table 6.4 sets out details of the current and capital budgets for 1986 in terms of the Budget estimates and what now appears likely to be the outturn for the year following the publication of the end-September Exchequer returns.

The Exchequer Borrowing Requirement (EBR) is now set to reach £2180m, £180m in excess of the target set in the January budget. This would represent about 13.3 per cent of GNP. For the 1987 EBR target, as set out in the Government's economic plan Building on Reality, to be attained would require a reduction in the EBR equivalent to 3.5 percentage points of GNP in 1987.

The expected EBR overrun is entirely concentrated on the current account. The current budget deficit is expected to reach £1430m in 1986 or 8.7 per cent of GNP. This would represent the highest current budget deficit ever recorded and would be 3.7 percentage points of GNP higher than the 1987 target set out in Building on Reality. Exchequer borrowing for capital purposes as a proportion of GNP had been reduced by 1986, to the level envisaged for 1987 in Building on Reality. Assuming that the Budget target of £750m is attained in 1986, this element of the EBR will have been brought below its 1987 target.

Table 6.5 sets out the elements of the current budget in somewhat greater detail for both 1985 and 1986. It can be seen that the prospective 1986 outturn will see a reversal of the trend evident in recent years whereby the surplus on non-interest items increased. This surplus is now set to fall from £540m in 1985 to £410m in 1986. If the Budget targets were attained the non-interest surplus on current account would increase to £600m.

As regards increases in expenditure allocations there is considerable variation across the principal aggregates. The projected rate of growth in interest payments, at less than 1 per cent, is such as to restrain the growth of overall current spending somewhat. The nominal increase of 6.6 per cent in non-pay non-transfer payments supply service spending now expected, compares with a 2.7 per cent increase targeted in the Budget. This represents an overrun of £75m relative to the Budget allocation due, inter alia, to the allocation to agriculture of £49m more than was allowed for in the Budget.

Spending on pay and pensions is projected to grow by almost 8 per cent in 1986. When account is taken of a likely decline in public sector employment in 1986 what is implied here is an increase in average income per capita of over 8 per cent or, an increase of over 5 per cent in real terms. Of the nominal increase in the pay and pensions allocation, 1½ percentage points may be attributed to a carryover in rates of pay from 1985, about 2 points to the impact of the current Public Sector Pay Agreement in 1986, and about one percentage point to the effect of incremental scales.
Gross spending on Social Welfare transfer payments is set to rise by almost 9 per cent in 1986. Of this increase 3.2 percentage points may be attributed to carryover from 1985 and the balance to the impact of the increases in rates of payment which took effect from mid-July of this year. The balance is attributable to projected increases in the number of recipients under the various programmes, especially UA and UB.

Turning to the revenue side of the current account, a large shortfall on Budget targets amounting to £100m is now projected for 1986. Of this, £40m is attributable to the tax component comprising in the main a lower than expected outturn in respect of VAT and customs receipts. The shortfall in non-tax revenue is likely to be £60m implying an outturn of £615m in 1986 compared with £750m in 1985.

### Table 6.5
**Current Budget Detail, 1985-1986**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Pay and Pensions</td>
<td>2479</td>
<td>2667</td>
<td>7.6</td>
</tr>
<tr>
<td>Social Welfare Transfers</td>
<td>1311</td>
<td>1471</td>
<td>11.9</td>
</tr>
<tr>
<td>Gross Social Welfare Transfers</td>
<td>(2188)</td>
<td>(2378)</td>
<td>(8.0)</td>
</tr>
<tr>
<td>PRSI Receipts</td>
<td>(874)</td>
<td>(907)</td>
<td>(3.8)</td>
</tr>
<tr>
<td>Other Supply Services, net</td>
<td>(478)</td>
<td>(494)</td>
<td>(3.3)</td>
</tr>
<tr>
<td>Appropriations in Aid</td>
<td>5601</td>
<td>5652</td>
<td>0.9</td>
</tr>
<tr>
<td>Total Supply Services (1+2+3)</td>
<td>487</td>
<td>426</td>
<td>10.1</td>
</tr>
<tr>
<td>Other Non-Interest</td>
<td>5108</td>
<td>6278</td>
<td>20.8</td>
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<tr>
<td>Total Non-Interest (4+5)</td>
<td>1827</td>
<td>1844</td>
<td>0.9</td>
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<tr>
<td>Interest Payments</td>
<td>745</td>
<td>8122</td>
<td>112.7</td>
</tr>
<tr>
<td>Total Current Revenue (6+7)</td>
<td>5581</td>
<td>6077</td>
<td>8.9</td>
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<tr>
<td>Tax</td>
<td>750</td>
<td>615</td>
<td>-18.0</td>
</tr>
<tr>
<td>Non-Tax</td>
<td>6331</td>
<td>6692</td>
<td>5.7</td>
</tr>
<tr>
<td>Total Revenue (9+10)</td>
<td>543</td>
<td>-414</td>
<td>—</td>
</tr>
<tr>
<td>Non Interest Current Balance (6-11) (1)</td>
<td>1328</td>
<td>1420</td>
<td>—</td>
</tr>
</tbody>
</table>

(1) Minor rate changes omitted
Source: Budget Assume 1986, NIM: Secretariat Estimates

**The National Debt**

The evolution of the National (Exchequer) Debt in recent years was documented in Chapter 3 where it was shown that in nominal terms the National Debt increased two-fold between 1981 and 1985. Associated with this growth in the National Debt there has been a rapid increase in the cost of servicing it. Exchequer debt servicing costs absorbed 8.2 per cent of GNP in 1981 and 12.9 per cent of GNP in 1985. The National Debt/1GNP ratio is an important indicator of fiscal imbalance for reasons which are more fully explained in Chapter 8. It also provides a convenient and useful framework for assessing the medium-term prospects for the public finances.

A growing National Debt implies growing debt servicing costs. Accordingly, in circumstances where the National Debt is increasing relative to GNP, interest payments will absorb an increasing proportion of GNP if the interest rate remains unchanged. The corollary is that Exchequer borrowing will become unsustainable. This suggests a simple rule of thumb, namely that a sustainable borrowing position is consistent only with a situation where the ratio of National Debt to GNP is stabilised or reduced.

Whether or not the National Debt/1GNP ratio evolves in a sustainable direction depends critically on three factors: (i) the future course of interest rates and exchange rates; (ii) the evolution of nominal GNP and (iii) the stance of fiscal policy as measured by the non-interest budget balance, that is the EBR net of interest payments.

If it is assumed that the non-interest EBR as a proportion of GNP were to remain unchanged then the question of a stable National Debt/1GNP ratio reduces to a consideration of the relationship between the nominal interest rate and the rate of growth of nominal GNP. Under such circumstances, if the nominal interest rate exceeds the rate of growth in nominal GNP, the debt ratio will tend to rise and to accelerate without theoretical limit, and interest payments will absorb an ever-increasing proportion of GNP.

At the time of writing (September 1) the average interest rate on new Exchequer debt was approximately 8.5 per cent.** If this rate were to obtain throughout the period to 1990 it would require an equivalent rate of increase in nominal GNP over the period to stabilise the debt-GNP ratio, assuming no change in the non-interest budget balance as a proportion of GNP in the intervening period. With an annual average inflation rate of about 3 per cent in prospect for the years 1986-1990 this would translate into the requirement that real GNP increase at an annual average rate of about 5.5 per cent — a rate which is well beyond the optimistic end of the range which emerged from the discussion of the medium-term outlook for output and employment presented in Chapter 5.

*This underestimates the impact of debt servicing. The present value of incremental debt servicing costs is likely to be significantly higher because of the interest rate sensitivity of the public sector's balance sheet.

**This was computed as the weighted average of foreign interest rates as measured by 6-month Libor and domestic rates as measured by the average monthly yield on medium-term government stock. The weights used reflect the composition of Exchequer debt outstanding at end-December 1985.
These figures derive from the assumption that interest rates and the exchange rate of the Irish pound will remain broadly unchanged from their September 1986 levels for the period to 1990. Expectations exist that international interest rates will fall somewhat from their current levels and that some exchange rate movements will occur over the medium term, in particular a further weakening of the US dollar. It has already been noted however that the IMF projections to 1991 do not foresee any significant further reduction in international real interest rates from their 1986 levels over this period. It might seem reasonable to expect some reduction in domestic rates but this is a matter of considerable uncertainty.

In any event it would require a large measure of interest rate optimism to change the conclusion drawn above about the sustainability of the debt-GNP ratio. In particular, it would require an average real interest rate reduction of about two and a half percentage points (with unchanged inflation projections) relative to the September 1986 position, in order that the rate of real GNP growth necessary to achieve a stabilisation of the debt-GNP ratio would fall within the range outlined in the medium-term scenarios for output and employment constructed in the previous chapter. Again, this is on the basis of an unchanged non-interest EBR relative to GNP.

(iii) The Exchequer Borrowing Requirement

The conclusions in the preceding paragraphs about the likelihood of conditions existing over the 1986-1990 period which would be sufficient to stabilise the debt-GNP ratio derive from a rather simplistic mechanical exercise in which it was assumed for purely illustrative purposes that the non-interest EBR would remain unchanged as a proportion of GNP over the medium-term. In the following paragraphs this assumption is relaxed in order to pose the question: whether the non-interest EBR is likely to expand or contract between 1986 and 1990, on the basis of the medium-term scenario for output and employment developed above and, on the basis of existing government policies in relation to expenditure and taxation.

Some cautionary notes about this exercise should be struck at the outset. In the first place, given that the expenditure and revenue projections arrived at are not derived from a comprehensive set of national accounts-type income and expenditure forecasts for the economy as a whole, in which the full set of macro-economic interactions are estimated and taken into account, the exercise must be viewed as somewhat incomplete and the projections of budgetary aggregates must be interpreted as being of the "orders of magnitude" variety. In particular the projections should not be ascribed the status of forecasts.

Secondly, there is some difficulty in satisfactorily translating the assumption that existing government policies will continue, into projections of tax and expenditure growth under certain headings. In this regard there is particular difficulty attaching to the pay and pensions, and non-pay non-transfer payments components of current spending. In the interests of clarification therefore it is useful to specify the assumptions which have been used in regard to the various elements of the non-interest EBR. They are as follows:

(i) that expenditure on pay and pensions will increase from £2667m in 1986 at a rate of 4.75 per cent per annum in the four years thereafter to 1990, reflecting an annual inflation rate of 3 per cent, an allowance of a 1 per cent per annum increase to incorporate the impact of incremental scales and an allowance of 0.7 per cent per annum increase to cover the impact of other factors (implicit in the projection therefore are the assumptions that numbers employed in the public sector will remain unchanged at their 1987 level through to the end of the decade, and that special pay agreements will add nothing to the Exchequer pay bill in the 1988-1990 period);

(ii) that per capita rates of social welfare transfer payments will rise in line with the CPI, that is by 3 per cent per annum between 1986 and 1990;

(iii) that expenditure on the non-pay non-transfers element of supply services will expand at an annual average rate of 4.5 per cent between 1986 and 1990 incorporating all allowance of 1.5 per cent annually for volume growth;

(iv) that expenditure on the non-interest component of the Central Fund (mostly Ireland's contribution to the EEC budget) will increase at an annual average rate of 4 per cent between 1986 and 1990;

(v) that there will be no volume change in the PCP over the period of 1990, that Exchequer capital spending will accordingly expand in nominal terms by 3 per cent per annum with a pro rata increase in Exchequer capital resources and that, as a result, Exchequer borrowing for capital purposes will be some £850m in 1990;

(vi) total tax revenue will grow in line with nominal GNP implying an elasticity of tax revenue to GNP of unity.

As regards non-tax revenue a number of factors indicate that there will be very little buoyancy over the rest of the decade. These factors include the reduction in the Bord Gais surplus on foot of lower oil prices, and the uncertainty about whether the operating surplus of An Bord Telecom will continue to be remitted to the Exchequer after 1988. Accordingly non-tax revenue is projected to be no more than £650m in 1990 compared with an expected outturn of £615m in 1986.

*The assumption about the future impact of special agreements may in effect bias the 1986 projections downward somewhat.
Table 6.6*  
Projected Evolution of the Public Finances to 1990

<table>
<thead>
<tr>
<th></th>
<th>1986(1)</th>
<th>Optimistic</th>
<th>Pessimistic</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>(£m)</td>
<td>(£m)</td>
<td>(£m)</td>
</tr>
<tr>
<td>Current Revenue</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tax</td>
<td>6077</td>
<td>7760</td>
<td>7390</td>
</tr>
<tr>
<td>Non-Tax</td>
<td>615</td>
<td>650</td>
<td>640</td>
</tr>
<tr>
<td>Total</td>
<td>6692</td>
<td>8410</td>
<td>8830</td>
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<tr>
<td>Non-Interest Current Expenditure</td>
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<td></td>
</tr>
<tr>
<td>Pay and Pensions</td>
<td>2667</td>
<td>3210</td>
<td>3210</td>
</tr>
<tr>
<td>Net Transfer Payments</td>
<td>1471</td>
<td>1680</td>
<td>1940</td>
</tr>
<tr>
<td>Other Supply Services, Net</td>
<td>1714</td>
<td>2040</td>
<td>2060</td>
</tr>
<tr>
<td>Non-Interest Central Fund</td>
<td>426</td>
<td>510</td>
<td>510</td>
</tr>
<tr>
<td>Total</td>
<td>6272</td>
<td>7460</td>
<td>7720</td>
</tr>
<tr>
<td>Non Interest</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current Balance</td>
<td>+414</td>
<td>+950</td>
<td>+310</td>
</tr>
<tr>
<td>Exchequer Capital Borrowing</td>
<td>751</td>
<td>850</td>
<td>850</td>
</tr>
<tr>
<td>Non Interest EBR</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(% of GNP)</td>
<td>-317</td>
<td>+100</td>
<td>-540</td>
</tr>
<tr>
<td></td>
<td>2.0</td>
<td>+0.5</td>
<td>-2.7</td>
</tr>
</tbody>
</table>

\(\text{1) Likely outcome}\)

Based on these assumptions, illustrative projections of the components of the non-interest EBR for 1990 are set out in Table 6.6. Two sets of projections are given for 1990 corresponding respectively to the optimistic and pessimistic output and employment scenarios constructed earlier. The principal channels through which the different output and employment projections produce a different prospect for the non-interest EBR are: tax revenue, and net expenditure on transfer payments. Tax revenue is £170m lower under the 'pessimistic' scenario because of the lower rate of employment growth and the lower rate of increase in the volume of personal consumption which would consequently ensue. Net expenditure on transfer payments is £260m higher under the 'pessimistic' scenario because of the higher level of unemployment and the lower level of PRSI contributions associated with lower employment.

Under the 'optimistic' scenario the net effect on the non-interest component of the EBR would be to transform an expected deficit of £337m in 1986 into a very modest surplus of £100m in 1990. Under the 'pessimistic' scenario it is projected that the non-interest EBR would be in deficit to the extent of £540m in 1990. This would be equivalent to almost 3 per cent of 1990 GNP compared with the corresponding proportion of 2 per cent in 1986.

5. CONCLUSIONS

The medium-term outlook for output growth as analysed in Chapter 5 indicates that the continuation of existing policies offers little prospect of ameliorating the two most serious problems currently facing the Irish economy.

The more optimistic scenario is consistent with an almost negligible reduction in unemployment even in the face of net outward migration at the rate of 20,000 per annum on average between 1986 and 1990. A very modest improvement in the public finances by 1990 might be in prospect under this scenario but as Chapter 8 indicates this improvement would be insufficient, given the likely evolution of interest rates, to secure what can only be regarded as the minimal objective of fiscal policy, namely stabilisation of the National Debt-GNP ratio.

Under the more pessimistic scenario the prospects are worse. The numbers out of work are projected to increase above the already disturbing level of 1986 and the public finances projected to deteriorate further.

What emerges clearly from the assessment contained in this and the previous chapter is that there is no automatic correction mechanism at work in the public finances. Indeed, the pessimistic scenario indicates that quite the opposite forces may be at work. The assessment also clearly indicates that under existing policies the principal mechanism which is likely to, at best contain the growth of unemployment, is that of emigration.