# NEW IRELAND FORUM

## The Macroeconomic Consequences of Integrated Economic Policy, Planning and Co-ordination in Ireland

A Study prepared for the New Ireland Forum by
Davy Kelleher McCarthy Ltd., Economic Consultants and
Commentary on the Study by Professor Norman Gibson
and Professor Dermot McAleese



2nd May 1984

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*The New Ireland Forum was established for consultations on the manner in which lasting peace and stability can be achieved in a new Ireland through the democratic process. The opening meeting of the Forum was held on 30 May, 1983.*

## Contents

## PREFACE

This study was commissioned by the Forum on 15 September, 1983. It was carried out by Davy Kelleher McCarthy Ltd. (DKM), Economic Consultants.

Professor Norman Gibson, Professor of Economics in the New University of Ulster and Professor Dermot McAleese, Head of the Department of Economics, Trinity College, Dublin acted in a consultative capacity and also provided the commentary on the study which follows.

## COMMENTARY ON THE STUDY, 'THE MACROECONOMIC CONSEQUENCES OF INTEGRATED ECONOMIC POLICY, PLANNING AND CO-ORDINATION IN IRELAND' PREPARED FOR THE NEW IRELAND FORUM BY DAVY KELLEHER McCARTHY LTD., ECONOMIC CONSULTANTS

**Purpose of Study**

The purpose of the study is to provide an assessment of the broad economic consequences of three scenarios specified in the consultants' brief: a unitary Irish state, a federal/confederal state in Ireland and joint British and Irish authority in Northern Ireland. The consultants were given certain basic assumptions with a bearing on macroeconomic considerations in relation to each scenario. In addition, assumptions that are common to all the alternative models were also specified, such as that the island of Ireland remains within the European Community. A number of the assumptions are of crucial importance.

The study is concerned with macroeconomic considerations and to that extent necessarily concentrates on a small number of key economic magnitudes such as income, employment, the balance of payments and certain budgetary concepts, including revenue, expenditure and borrowing. These measures are clearly of central importance in any realistic economic assessment of the different scenarios.

However, as a result of this macroeconomic orientation, relative price and wage effects or, more generally, effects on different markets and sub-markets of the economic systems are not explicitly dealt with. These comments are not intended as a criticism of the report, nor of the brief given to the consultants, but are meant to highlight the particular nature of the study and to emphasise that it should not be expected to answer questions, however important, that necessarily fall outside its scope.

The main emphasis of the study is on the consequences of integrating the fiscal and budgetary systems of Northern Ireland and the Republic. Apart from a brief section on exchange rate policy, there is little discussion of the economic consequences of, for example, an integrated incomes, industrial or agricultural policy. (We are aware that the consequences of integrated planning and policy for some major sectors are being examined separately for the Forum). The paper does not deal with the question of whether economic planning could be more effective in the context of a more unified economic system than pertaining at present. Implicit in the approach is the belief that the economic consequences of such policy changes are of second-order importance in relation to the over-riding influence of the effects of the assumed cessation of violence and of budgetary integration. We find this approach a reasonable one.

This is not to deny that a changeover to different fiscal, monetary, incomes and exchange rate policies could have some bearing on the economic well-being of the country. In his presentation to the Forum last September, Professor Louden Ryan observed:

"In the North, (economic) policies are determined by reference to what is deemed right for the whole UK . . . The policies chosen are not necessarily — indeed, they are not likely to be — those that best suit the needs of a peripheral region".*

Examples of inappropriate policies might include the imposition of the national insurance surcharge, and the real appreciation of the pound sterling. There are also examples of policies emanating from the centre which are helpful to the North's development, notably the fall in inflation and the restraint in incomes in the past two years. Moreover, while any of the scenarios examined in the study might offer the North the *possibility* of playing a part in developing economic policies more finely attuned to the needs of a peripheral country, it is evident that there is an important distinction between having the capability of formulating such policy and actually implementing it.

It is also important to stress that the study is strictly *not* an exercise in forecasting actual economic outcomes, if one or other of the scenarios was implemented. The knowledge to provide such forecasts, at least with any plausible degree of precision, does not exist and some would argue cannot exist. The study should instead be regarded as an exercise — it ought to be said a highly professional one — in outlining the broad economic consequences of certain alternative scenarios on the basis of a set of assumptions combined with a model of the way the economic world, or rather a part of it, might reasonably be expected to work.

The fundamental merit of the exercise is that it codifies in a coherent way the macroeconomic consequences of the postulated political arrangements and in so doing should be an important guide to the New Ireland Forum in its deliberations.

**Methodology**

In approaching their task the consultants had to resolve within the context of their brief some key methodological issues. First, if there is to be a rational comparison between different hypothetical futures then those futures must comprehend the set of alternatives available, including the continuation of the status quo. Hence the study provides projections of the previously mentioned major economic magnitudes for the economies of the South and the North under the current political arrangements; this represents a reference analysis for purposes of comparison. The significant features of these analyses for the South and North are returned to below.

The second and related methodological question that requires mention is how to deal in economic terms with each of the three alternative models. Two core questions arise. First, what happens to the campaign of violence and secondly how would the public finances be managed? As

*W. J. L. Ryan "Republic of Ireland: Economic Prospects" address to New Ireland Forum, 21 September, 1983.

regards the first, the consultants' brief included the assumption that violence would cease. The consultants gave operational effect to the assumption in terms of reduced public expenditure on security and some improvement in the prospects for economic growth. The assumption is formulated in such a way as to preclude the possibility of there being a trade-off between the pattern and intensity of violence and the particular constitutional scenario chosen. Violence is assumed to continue in the reference case — continuation of the *status quo* — which by definition must appear economically 'inferior' on this score. The answer to the second question about the management of the public finances hinges crucially on what happens to the subvention currently paid by Britain to the North. A number of different assumptions are made, ranging from no subvention to half of it being still available after ten years together with substantial foreign transfers from other sources. The signficance of these assumptions can scarcely be overstressed. Any marked deviation from them would require major consequential changes to the projections.

The scale of the British subvention to the North markedly raises its disposable income and is so large — some IR£1,760 million for 1983 or almost twice the current budget deficit of the South for that year — that it posed a further problem for the study. In the reference case for the South under present political arrangements, the consultants assumed that the current budget deficit will be eliminated by 1988. To have carried over this assumption into the unitary state scenario, which would have implied a zero current budget deficit for the whole island and no subventions from Britain or additional transfers from elsewhere, seemed to the consultants implausible, as it would have required massive reductions in domestic demand with all the implications this would have for reductions in output and markedly increased unemployment. It is hard not to be sympathetic to this judgement though in a fundamental sense the dilemma is unavoidable as it arises from what should surely be described as the extraordinary scale of the British subvention or transfer payments to the North.

Instead, the consultants follow an alternative approach. This approach initially allows the unitary economy to grow without any restrictive fiscal policy and without benefit of subventions from Britain or additional transfers from elsewhere. The consequence is that government foreign borrowing has to rise to unsustainable levels to meet growing balance of payments deficits. The consultants then illustrate the effects on the economy of the steps that would have to be taken to keep the balance of payments deficit down to a sustainable level. This exercise is repeated for the more favourable cases where the subvention and/or additional external transfers are assumed to be available. A similar approach is applied to the federal/confederal arrangement. The joint authority arrangement does not give rise to such difficulties.

A further methodological issue needs to be mentioned. In generating their projections for the economies, including the aggregate economy of the whole island, the consultants have understandably given little attention to transitionary arrangements. A particular example is the introduction, in the North, of the substantially higher direct and indirect tax rates of the South: in the study. this is done in a single step in one year. Another relates to preparations of the introduction of a common all-Ireland currency. They are, of course, completely aware of these omissions and, time permitting, could have modified their projections and study accordingly. However, the point still needs to be made since, if there were to be a comprehensive integration of the economies of the South and the North, carefully graduated transitionary arrangements over an extended period would be essential as a basis for the harmonisation of taxation, expenditure, health, welfare, educational and other public services. To negotiate, organise, and implement such transitionary arrangements would be a major and sensitive task.

**Current Economic Prospects for the South and the North**

The study provides, within the context of world economic prospects, an assessment of the outlook for the economies of the South and the North within their current political arrangements. As might be expected the outlook is a sobering one. Central to this judgement, and it is difficult to dispute, is the widely held view that over the next five years or so world economic growth is likely to be sluggish. In the circumstances and, in particular, given the necessity for the South to keep tight control over foreign borrowing the projected growth rate in its GDP of some 2.5 per cent up to 1987, perhaps rising to 3 per cent thereafter, seems reasonable. These growth rates carry the implication, however, that unemployment is likely to remain at historically high levels. Taken in conjunction with the South's high rate of population growth, they also imply a minimal increase in standards of living.

The prospects for the North's economy under its present constitutional arrangements are viewed as dismal. The fundamental justification for this view is the scale of the dependence of the North's exports on the slow-growing British economy and especially its dependence on British Government-financed public expenditure which it is the objective of policy to curb, together with the greatly weakened productive capacity of the regional economy. More specifically; growth in GDP of some 2.5 per cent a year in Britain is unlikely to be reflected in the economy of the North; public expenditure, especially in the next few years, cannot plausibly be expected to grow much in real terms and public sector employment is likely to have reached a plateau for some time; and the capacity of the economy to respond to an increase in demand has been weakened by the destruction of capital stock through economic obsolescence and by lack of new investment, particularly in manufacturing industry.

The outcome of these disturbing findings is that at best the North's GDP might grow at a rate of 1.0 per cent per year — indeed this may be too optimistic — in the immediate future and with an expanding population, unemployment can be anticipated to increase from some 114,000 to around 150,000 by the end of the 1980s, the latter representing almost 30 per cent of those in civil employment. This last figure might, of course, be made significantly less by an upsurge in migration from the North which could well happen with a sustained improvement in the British economy. Either way it is a worrying prospect for the people of the North.

The consultants in studying the North's economy pay much attention to the subvention or transfer from the British Government. They show that in 1970/71 it constituted about 9 per cent of GDP at factor cost and that by 1982/83 the corresponding figure was 27 per cent. Another way of emphasising the significance of the subvention to the North is that in 1983/84 it financed about one-third of total government expenditure of almost £4,000 million (IR£5,000 million), excluding the extra costs of maintaining the army there. The consultants assume that the North's balance of payments is essentially financed by the subvention. Hence, in the absence of the subvention the North would have with current levels of expenditure a massive balance of payments problem. The subvention arises almost entirely because of what is widely called the 'parity principle' and because of direct British Government expenditure under the headings of law and order. The parity principle refers to the arrangement whereby the 'same' standard of social services, widely defined to include health, welfare, education and other services are provided irrespective of whether or not the tax and other receipts generated in the North are sufficient to meet the required expenditure, with any difference being made up by a transfer from the British Government.

The transfer is thus in the nature of a residual receipt. This needs to be emphasised since for any given expenditure on maintaining services the transfer would be smaller the larger the revenue raised in the North. If the economy of the North were to grow faster and so produce more revenue, the subvention would decline. Thus there is not a fixed permanent subvention to the North irrespective of its own income earning capacity, a factor which is made clear in the study and which should be kept in mind in considering the various scenarios. Nevertheless, the subvention is of enormous significance to the standard of living of the people of the North and as already indicated currently increases their disposable income by some 25 to 30 per cent.

This is not to say that the consequences of the parity principle and the receipt of the subvention are wholly beneficial to the growth of the economy. Indeed, it is arguable that the parity principle and the dominance of the public sector together impose norms and standards on the economy of the North which distort its economic functioning,

though, of course, this has also been seriously affected by violence and political instability. It may well be that the parity principle has led to high average standards of living in the North but at the cost of a higher level of unemployment.

**Economic Prospects under Alternative Political Models**

The central macroeconomic question for each of the specified scenarios is how to deal with the subvention from Britain to the North. There are, of course, other important macroeconomic questions, such as currency and exchange rate management, but this and other questions, though by no means unimportant, do not pose such formidable difficulties.

The subvention, as already mentioned, has three interrelated aspects. First, it raises markedly the disposable income available to the North, secondly it enables a large volume of government expenditure to be financed without the need for additional taxation or borrowing and thirdly it finances a substantial balance of payments deficit.

The consultants make these points very clearly, particularly in their Tables 4.1 and 4.2, where they combine the two economies as a base for further discussion. Table 4.1 shows, for example, that the subvention amounts to 25 per cent of the GDP at market prices for the North or 8 per cent of the combined GDP for the South and the North and that the balance of payments deficit for the combined state is about IR£2,050 million. The latter is derived by adding the subvention of IR£1,760 million to the balance of payments deficit of the South. In Table 4.2 the loss of the subvention in the combined budget gives a borrowing requirement of IR£3,660 million which is 17 per cent of GDP in comparison with an already high 12 per cent in 1983 for the South alone.

If the economies were combined and violence and the associated political instability were to come to an end there would, of course, be some reductions in expenditure on security and perhaps some increased demand for tourist services both in the South and the North, as well as some improvement in investment in the North. These developments would, in principle, permit faster growth rates in both economies. The consultants allow for these possibilities and take, after an initial adjustment period, as the standard growth rate for the combined economies 3.5 per cent per year, a rate which they concede is optimistic. A lower growth rate requires tougher budgetary measures and makes the adjustments even more painful.

The scale of adjustments required hinges crucially on the availability or otherwise of the British subvention or similar foreign transfers. A total and precipitate absence of such transfers would in our view require what can only be described as catastrophic economic adjustments. The disappearance and non-replacement of the British subvention would result, as already indicated, in an immediate loss of income equivalent to about 8 per cent of the GDP of the combined economies. The net result

could as a first round effect be a fall in disposable income of around IR£2,000 million. Losses on a similar large scale would be expected to persist for many years and unemployment would increase substantially in both economies. Any attempt to offset these effects through foreign borrowing would be doomed to failure. Further accretions of foreign debt to an already high stock of borrowing would exacerbate the problem of high taxation and would soon become unsustainable. In such circumstances, it is doubtful if foreigners would be prepared to lend even if the authorities were willing to borrow.

The consultants, as required by their brief, explore the implications of the British subvention and/or other transfers being available on different scales during the ten year period which the brief specified as the horizon for the exercise. As might be expected the adjustments anticipated and the loss of disposable income likely to be experienced diminish with the size of subvention and transfers provided.

The preceding discussion has concentrated on the combined economies which is essentially the unitary state scenario. That case well illustrates the major economic issues involved in the economic integration of the South and the North. The main additional issue under a federal/confederal arrangement is which part of the combined economies suffers most from the loss, in whole or in part, of the British subvention. The consultants show convincingly that on plausible assumptions the loss falls almost entirely on the North. Clearly the adjustments required would be enormous and the consultants conclude that this option is effectively ruled out "unless substantial foreign aid was available or the South was prepared to make direct and explicit transfers to the North".

For the joint authority scenario the brief specified, as a working assumption, a local administration in the North and its existing pattern of expenditure and taxation but with the South contributing to the subvention in proportion to its GDP. Were the South's contribution to be confined to proportionality with its share of total GDP, then this scenario would not impose a heavy economic burden on the South, especially if violence ceased and expenditure on security could be reduced, and growth rates of GDP improved. Of course, alternative arrangements are possible — which might imply larger contributions for the South — and possible modification of this conclusion. Britain would stand to benefit considerably in terms of a reduced subvention payable to the North, mainly because of faster growth in the economy of the latter following the assumed cessation of violence.

**Conclusion**

The study is a significant contribution towards explaining the likely macroeconomic consequence of different scenarios. The study highlights many important aspects of the economies of both the South and the

North and their potential or lack of it for economic growth.

The chronic weakness of the economy of the North is clearly apparent and it is perhaps legitimate to point out that violence and political instability have greatly accentuated its weakness. The economy has become even more dependent on the British subvention and consequently a unitary, federal or confederal Irish state would be increasingly difficult to achieve without enormous economic sacrifices on the part of both the South and the North, unless the subvention and/or other external transfers were maintained on a very large scale for many years.

The difficulty is all the more apparent on account of the fragile economic position of the South's economy. The projections of the study are not unreasonable — but there is no assurance that the Government's budget targets will be reached or that past export performance will be maintained. Furthermore, the assumption of an end to violence under all scenarios except the *status quo* tends to put the economic consequences of political change in a favourable light: whether such a cessation of violence would be likely, or equally likely for all scenarios, is for others to assess.

N. J. Gibson
D. McAleese

*January, 1984*

# CHAPTER 1

# SUMMARY AND APPRAISAL

## INTRODUCTION

This study *The Macroeconomic Consequences of Integrated Economic Policy, Planning and Co-Ordination in Ireland* was undertaken on behalf of the New Ireland Forum.

The broad terms of reference were set out in a document Guidelines for Study of Benefit/Costs of Integrated Economic Planning and Coordination in Ireland (approved by the Forum on 26th July 1983) where it was specified that the study should examine by comparison with the existing situation the possibilities, costs, and benefits to each of the parties involved in integrated economic planning and coordination in Ireland for each of the following scenarios:—

A. a unitary Irish state.
B. a federal/confederal state in Ireland.
C. joint Irish/British authority in Northern Ireland.

The general assumptions, common to all three scenarios were: that political instability in the North and the violence associated with it would come to an end with the possibility of economic benefits in a range of areas, that the whole island would remain within the European Community and that Britain would honour existing liabilities to individuals on its exchequer (e.g. pensions etc.).

In addition to these general assumptions detailed assumptions were provided for each of the scenarios.

### The Unitary State Case

In the Unitary State case the terms of reference envisaged a single functioning state with all that this implies (a common currency, a common tax system and unified public service). As the British subvention is of such significance to the Northern economy four variants of the Unitary State case were specified (i) where there was no contribution from Britain to the new State (ii) where only a

reconstruction package of £350 million Stg. was available for 7 years from sources other than Britain (iii) where the British subvention was phased out gradually but one-half was still available after 10 years and (iv) where both the reconstruction package and the British subvention as outlined in (iii) were available.

**The Federal/Confederal Case**

The Federal/Confederal case as outlined in the terms of reference consists essentially of two models of a political structure.

The first, a Federal system, envisages two states in a federal system with a common tax structure — the South's — and with the Federal Government responsible for exchange rate policy, security, international relations and industrial policy. The Federal Government retains sufficient revenue to finance its activities, the remainder being distributed to the States who have responsibility for their own expenditure as they see fit in other areas — subject to availability of finance.

The Confederal case in its political dimension envisages two separate states with their own tax and expenditure programmes — except in the areas of security and international relations which are handled by the Confederation. The finances of the Confederation are to be supplied by the State governments.

As with the Unitary State case four variants were specified based on the same assumptions with regard to the availability of external finance.

**The Joint Authority**

The Joint Authority case envisaged a situation where local administration continued in the North with the existing pattern of expenditure and taxation. The difference between this situation and the present one arises because the South, reflecting its position of joint authority, contributes to the subvention to the North — the contribution being in proportion to the GDP of the South and Britain.

## THE REPORT

**Reference Analysis**

The initial part of the study looked at the development of the economy, South and North, if the present situation continues. With this assumption the economy of the South would show modest growth in output over a ten year period. There would be steady if unspectacular increases in output and disposable incomes — both increasing by about one-third. The rate of unemployment however would remain very high at about 16 per cent of the labour force.

The economy of the North would continue to be very depressed. Over a ten year period output, at best, might grow by about 1 per cent per

annum. The dependence of the North on Britain for transfers to maintain services and social welfare payments at British levels would increase. More than one third of the North's disposable income by 1993 would arise from transfers from Britain. Unemployment in the North would increase from 22 per cent of the working populace in 1983 to 32 per cent in ten years, even with emigration of 7,700 per annum. For the island as a whole national disposable income (GNDI) and output (GDP) would grow by 25-30 per cent over the ten years if the present situation continued.

**Features Common to Scenarios**

The size of the transfers from Britain to the North is at the heart of the economic problem faced under the different political scenarios though there are other subsidiary problems that arise in each case. A situation where transfers from Britain ceased immediately would pose severe adjustment problems for the economy of Ireland, or the North and/or the South, depending on where the adjustment would take place. In all cases the problem facing the authorities would be the size of the balance of payments deficit so that the focus of economic policy would be the external payments deficit.

In all cases the cessation of violence would have positive effects on output and employment and this would ease the adjustment problem. The advantages would be greatest in the North as it has been most seriously affected by violence. The North's dependence on British transfers would decrease because incomes and employment would be higher than if violence continues. Transfers would also be reduced because, with the cessation of violence, security expenditure in the North would be less. In the South the main effect of the cessation of violence would come through increased tourism.

**Principal Assumptions for the Scenarios**

In looking at the unitary state four levels of transfer from abroad were considered — ranging from no transfers at all to a situation where half the present level of transfer was still provided after 10 years, together with reconstruction aid of £350 million annually for seven years from other sources. Initially, the unitary state was conceived as one where a single tax and expenditure regine applied. In this case the level of adjustment required by the new state would vary depending on the level of transfer. If no transfers from abroad were available then the growth of the joint economy would be seriously affected. Government expenditure would have to be cut — in addition to cuts in security expenditure. In 5-6 years the position of the external payments deficit would be manageable and the economy could then grow at reasonable rates. Output would be 30 per cent higher than in 1983 by 1993. However, by 1993 national disposable income would have increased by 20 per cent, compared with

20-25 per cent if the present situation continued. This highlights the importance of the British subvention for the living standards of the North. In the event that some part of the transfer from Britain was still available, with one-half available in 1993, then output would grow by just over a third and national disposable income would grow by about 30 per cent.

A feature of a unitary state is a common tax and expenditure system. In the North's case this implies (i) an increase in tax rates (ii) a reduction in security expenditure and (iii) a reduction in other expenditure as part of the adjustment for the joint economy. If it were desired to maintain present Northern taxes and non-security expenditure then the greater part of the adjustment would be borne by the South. In the case where no transfers are available from abroad government expenditure in the South would have to fall very heavily initially — in fact it would be 1990 before the 1983 levels would be reached.

**Unitary Case — Island as a whole**

| | *No British Subvention* | *Modified British Subvention* |
|---|---|---|
| GDP % change 1983-1993 | 30.1 | 34.0 |
| GNDI % change 1983-1993 | 19.9 | 28.1 |
| Unemployment rate 1983 | 16.8 | 16.8 |
| 1993 | 15.5 | 13.1 |

The behaviour of the economy under a federal/confederal arrangement would be similar to that under a unitary state. National disposable income would be the same in the federal/confederal case as in the unitary case, depending on the level of external aid. If no aid was available then total national disposable income would increase by 20 per cent over the ten years, similar to the situation in the unitary state case, whereas if the postulated aid from Britain was available national disposable income would increase by 28 per cent. Output growth would be similar to that in the unitary state case.

However, in the federal/confederal arrangement as specified in the terms of reference the main burden of adjustment would fall on the North. The South's economy would not experience any major difficulty though it would initially be making an implicit transfer to the North by financing some part of the North's security expenditure. The adjustment necessary in the North varies with the size of transfer. In all cases the North is required to make adjustments — in some cases the financial problems would be intractable. This applies in particular to the situations where no transfers or only the special reconstruction package were available.

**Federal/Confederal Case — Island as a whole**

| | *No British Subvention* | *Modified British Subvention* |
|---|---|---|
| GDP % change 1983-1993 | 30.1 | 34.0 |
| GNDI % change 1983-1993 | 19.9 | 28.1 |
| Unemployment rate 1983 | 16.8 | 16.8 |
| 1993 | 15.5 | 13.1 |

The joint authority model is somewhat different from the unitary and the federal/confederal models. The transfers from Britain are assumed to continue as at present but with some contribution from the South. However, the size of the transfer from Britain declines over time because of the effects of peace, as indicated earlier. Output in the North would grow quite rapidly, but national disposable income would grow by rather less as security expenditure was cut. The net effect would be a reduction in the North's dependence on external transfers. From the South's point of view the contribution is no problem to the economy. It can be financed directly out of increased output resulting from peace.

**Joint Authority Case — Island as a whole**

| | |
|---|---|
| GDP % change | 37.1 |
| GNDI % change | 33.0 |
| Unemployment 1983 | 16.8 |
| 1993 | 11.0 |

## APPRAISAL

The three political scenarios represent three different approaches to a new political framework. The economic aspects of each framework are not directly comparable as, in each case, these aspects are a function of the particular framework and the assumptions underlying the operation of the new political arrangements.

**The Unitary Case**

In the unitary state case with a common tax and expenditure system the performance of the economy would depend on the external transfer assumption. Rather than describe each of the four cases corresponding to the different levels of external transfer only two such cases will be considered here (i) where a declining proportion of the present British subvention is still available with one-half remaining in 1993 and (ii) where no external aid is given.

**(i) Some British Aid Available**

The joint economy would be able to maintain a reasonable level of external balance and in addition total output could grow by just over a third. Total

living standards would grow by slightly less as some part of increased output would be going to exports to finance the declining British subvention. The growth of this economy would be sufficient to lead to a reduction in the rate of unemployment from 16.8 per cent of the labour force in 1983 to 13.1 per cent in 1993. Government expenditure (excluding interest payments and security expenditure) could grow by roughly the same amount, over the ten years, as domestic expenditure.

The economic situation in this case is better than would prevail if the present situation continued. In the latter case output in the island as a whole would increase by less than a quarter over the ten years, and unemployment would continue to rise to just less than 19% of the labour force. Even in terms of national disposable income living standards would be higher and would depend less on transfers from Britain than if the present situation continued.

**(ii) No external aid available**

The economy of the island would experience a difficult adjustment if no external aid was available. GDP would grow by less than in the previous case but, of much greater importance, a larger proportion of this output would be going into exports to finance the loss of the subvention and disposable income would increase by just a fifth over the ten years. Unemployment would fall, but by less than in the previous case. By comparison with the reference analysis output would be higher but disposable income would be less, by the end of the period.

A feature of the unitary state with a common tax and expenditure system is that the North would experience (i) an increase in tax rates and (ii) a reduction in security expenditure greater than the reduction in the South, that would impose a very severe strain on its economy. The increase in tax rates alone would cause a reduction in GNP in the first two years of some 4 per cent, compared with a potential output increase of 5 per cent. The reduction in security related expenditure would, in addition, knock 0.75 per cent off the growth rate for the North for each of 5 years.

If it were desired to maintain tax rates and non-security expenditure in the North the South effectively would have to make transfers to the North. The scale of these transfers would depend on the degree of external aid that was available. In the case that no aid at all was available the transfers would be very substantial — equivalent in fact to the size of the British subvention in a situation where peace occurs. The whole of the adjustment in the economy would have to take place in the South. To put this in perspective, the South would be making a transfer of 11.9 per cent of its GNP in the first year and even by 1993 the transfer would be 5.8 per cent of GNP. The transfers would increase the South's borrowing requirement and balance of payments deficit. To realise a sustainable balance of payments deficit the South would have to reduce Government expenditure very sharply initially. Output in the South could increase by

3 per cent per annum but disposable income would increase by just 2 per cent — the difference going to pay for the transfers to the North. The size of the adjustment can be visualised by remembering that the external deficit in the South between 1981 and 1983 fell from 13.5 per cent of GNP to 2.5 per cent.

**(b) The Federal/Confederal Case**

The Federal/Confederal case as set out in the report envisages a Federal Government responsible for tax collection and, on the expenditure side, security, industrial promotion and foreign affairs. The two separate states would be responsible for expenditure as they saw fit and would receive non-tax revenue as at present and a share of the Federal Government's tax revenue once expenditure on security, industrial promotion and foreign affairs was accounted for. The share of each government was based on the relative size of both economies. The transfers from abroad would in this framework go to the Northern economy. There are also some implicit transfers to the North from the South as the South would be contributing taxes to finance the higher level of security in the North borne by the Federation in the new situation.

These transfers pose no problem for the South. They would reduce GNP and disposable income slightly in the first few years, but the extra growth of the economy as a result of peace would compensate for this.

**(i) One-half of British Subvention still available after 10 years**

The main adjustment highlighted in the previous section covering the Unitary State would in this case be borne in the North. While the adjustment is not major for the joint economy, for the economy of the North it is severe. Output does grow by about the same amount as it would if the present situation continues, but disposable income is unchanged. Unemployment would be worse than in the present situation.

**(ii) No External Aid Available**

In a situation where no aid was available to the North it would effectively have to adjust its living standards by the amount of the subvention — an allowance being made for the implicit transfer from the South. The subvention is so large in relation to GDP (almost 30 per cent in 1983) that the financial imbalances, if this aid ceased, would be so severe that the adjustment in living standards and in employment would be unconscionable. In this case, the adjustment for the whole island outlined in the unitary case is borne by the North (account must be taken of the implicit transfer from the South).

The result in all cases considered under the Federal/Confederal arrangement is conditional on the assumption about the share of the Federal Government's tax surplus. If a different rule had been applied then the distribution of tax burden North and South would have been different. For instance, another rule could have been that the distribution be in relation to present non-security expenditure — in

which case the North's deficit would have been less and the South's greater. A different rule, akin to the special case of the unitary state, could leave the North's tax rates and non-security expenditure unchanged. In this case the Federal Government would simply meet the North's cash requirements and the South would be required to make an adjustment. This adjustment would be identical to that discussed earlier.

**(c) The Joint Authority Case**

The Joint Authority case is different from the other two cases as formulated in the study because the determination of external transfers is different. In the Joint Authority case the North's economy benefits from peace and maintains the non-security expenditure and tax rates that prevail in Britain. Output in the North would grow by 23 per cent, and the rate of unemployment would stabilise at just over 19 per cent of the labour force. As a consequence of the improvement in output and the cessation of violence the transfers from Britain would be reduced. National disposable income in the North would rise by less than the growth in output, but a higher proportion of income would be accounted for by output than at present or if the current situation continued. The situation in the South would be very much as in the reference case with somewhat higher growth each year because of the effects of peace.

**Conclusions**

It is not easy to draw hard and fast conclusions from the analysis of the report. The report answered particular questions based on specified assumptions. The level of external transfer is very important in all scenarios. In some respects the economic aspects of scenarios reduce to simple questions:—

(i) *What happens to living standards in the island as a whole?*. Only in one case, i.e. where there is no aid from anywhere, do living standards fall. This applies equally to the unitary state and the federal/confederal arrangement.

(ii) *Who benefits most in an economic sense?* In one sense the primary beneficiary of each scenario is Britain as her contribution is reduced. This occurs whether because of the benefits of peace in the joint authority case or because she makes no contribution or a declining contribution under the other scenarios. Within the island the beneficiaries depend on the assumptions. In the unitary state the North would clearly suffer even where the island had little financial problems simply because of higher taxes. This could be changed, at least conceptually so that the South would bear the adjustment burden and the North would therefore benefit. Similarly in the federal/confederal arrangement, as specified, the North would suffer, but it would be very easy to design an arrangement, more plausible in a practical sense, whereby the South would bear the burden.

CHAPTER 2

# REFERENCE ANALYSIS

## Section 2.1: Introduction

The objectives of this section are:

(i) to provide a set of assumptions on the development of the world economy which will be maintained throughout the report,

(ii) to provide a framework for considering the development of the economy of the South in the existing situation,

(iii) to provide a picture and to develop projections of the Northern economy.

There is an assumption in this reference analysis that security expenditure both North and South remains unchanged. This is very much the same as assuming that the present level of violence is maintained. This is a working assumption and implies no acceptance of the present situation — but it is necessary to see where the economies are going.

## Section 2.2: The World Economic Situation

### Introduction and Summary

The world economy has undergone very significant change over the past decade. At a policy level there has been a virtual abandonment of short-term Keynesian policy with the emphasis shifting towards structural policy and the better functioning of markets. In part this change was forced on governments by the effect of the relative price increase for oil, but the performance of economies in the years prior to 1973, with accelerating price and wage inflation might have forced a similar shift in emphasis in any event. Even where governments might believe in Keynesian policy the size of government deficits accumulated

over the past decade has necessarily forced a shift in emphasis towards better functioning of markets as a means of reducing unemployment and budget deficits.

A consequence of the structural adjustment now underway is that growth rates for the coming decade are likely to be below those of the pre-1973 era. There could be some improvement before the 1990s as budget deficits will be substantially eliminated by then and governments will be absorbing less out of increased output.

This lower growth picture is already evident in the recovery from the second recession. In the recovery phase growth rates across industrial countries are running well below what might be expected (even in the U.S. which is experiencing the most rapid growth the pace of recovery is less than in previous recoveries). Indeed in the major European countries growth rates may average only 2 per cent per annum over the period to 1988, well below their pre-1973 average growth and well below what might have been expected in a recovery. Nevertheless the recovery is there and economies are expected to grow over the decade.

**The Policy Background**

In the late 1960s industrial countries began to experience a number of unfavourable influences — rapid wage and price inflation and a slowdown in productivity growth. Initially it was believed that contractionary demand management policies, by increasing unemployment, would lead to lower wage inflation and thereby lower price inflation.

In 1970-71 policy was deflationary, unemployment increased, but hourly rates of pay continued to grow very rapidly. Inflation rates fell but this reflected a weakening in commodity prices. The rise in unemployment and the fall in inflation together lulled policy makers into a belief that the problem of inflation had been solved, and policies were eased from the end of 1971. This was followed by a period (mid-1972 – mid-1973) of the most rapid growth since the war with a major commodity price boom and accelerating wage and price inflation. Policy makers became convinced of the need for further restrictive action and deflationary policies were instituted in early 1973. This was simply a continuation of the stance of policy of 2-3 years previously. These policies in themselves would have resulted in a significant recession.

The rise in oil prices and the differential response to that rise compounded these recessionary forces culminating in the 1974/75 recession. The main lesson from this recession was that wage and price inflation could accelerate even during a recession. This lesson was further reinforced in the recovery 1975-78. First, wage and price inflation was higher than in the pre-1974 period although unemploy-

ment was very much higher and capacity utilisation very much lower. Second, by mid-1978 wage and price inflation were accelerating. Policy once again became restrictive, the restriction coinciding with the second oil price shock. Together these factors pushed the world economy into a second recession.

Throughout this second recession the stance of policy remained restrictive. The objective was clear — a reduction in inflation and in inflationary expectations. The mechanism is similar — restrictive fiscal and/or monetary policies increasing unemployment leading to lower wage and price inflation. There was also a shift in emphasis with greater attention directed towards loosening up labour markets (through, for instance, cuts in social welfare allowances) with the aim of making labour markets function better. Throughout this recession governments resolutely refused to reflate in concert or individually (the experience of the unilateral French expansion is sufficiently cautionary). The rise in unemployment, which previously would have resulted in reflationary action is now seen as a necessary part of the adjustment process to lower inflation. Growth, if it is to occur, will not be in response to a government induced demand expansion but will be a reflection of the better functioning of markets. This second recession marked a turning away by major economics from short-term demand management policies where the trade-off between growth, employment, inflation and external balance dominated, to a consideration of policies directed to long term structural change and the better functioning of markets.

Among West European countries cuts in the real level of transfers (unemployment benefits, old age pensions etc.) have been introduced in one form or another in the U.K., West Germany, France, Sweden, Italy, Holland, Belgium and Demark. Domestically, the change in entitlements under the pay-related scheme falls into this category.

It is possible to take this a step further. The size of budget deficits in the major economies is a cause of concern to the individual governments.

Within the European Community budget deficits and government borrowing are considered to be unsustainably high for some governments.

The stated aim of policy is to reduce budget deficits over the medium term. The extent to which these deficits might reflect the recession is not considered important — indeed the U.K. at full employment would be running a surplus of over 3 per cent of GNP, yet this has not deflected the U.K. government from seeking to reduce further the borrowing requirement.

The situation in the U.S. is somewhat similar. From a U.S. policy point of view, the characterisation of the deficit into cyclical and structural elements is critical. Up to recently it has been conventional to ascribe the U.S. budget deficit to the recession. However, the rate of

**Table 2.2.1: Net Borrowing of General Government (% GNP) 1982**

| | | | |
|---|---|---|---|
| Belgium | 13.2 | Ireland | 15.0 |
| Denmark | 9.2 | Italy | 12.0 |
| Germany | 3.9 | Luxembourg | 1.7 |
| Greece | 8.7 | Holland | 6.0 |
| France | 2.8 | U.K. | 1.0 |
| | | European Community | 5.0 |

unemployment consistent with full employment at current tax rates and social welfare payments is now taken at about 6 per cent. The cyclical element of the budget deficit is thus less than was previously thought (ranging from one-third to half of the deficit, depending on the estimates used). The residual element of the deficit — termed the structural element — is large and growing over time. By 1988 on a neutral budget assumption (base 1983) the cyclical element of the budget deficit could be effectively eliminated but the structural element would rise from 3 —4.5 per cent of GNP to 4 — 6 per cent. The aim of policy is to reduce this through expenditure reduction and this will exert deflationary pressures on demand.

While the size of the U.S. structural deficit might not seem too high there are many dangers in allowing it to continue at this level. First, the dynamics of borrowing are such that interest payments as a percentage of GNP rise very rapidly — reaching 5 per cent of GNP before the end of the decade. Second, the rising deficit would absorb an ever increasing proportion of private saving forcing up interest rates —thus reducing investment and the ability of the economy to grow beyond the limits set by existing excess capacity. Third, the higher interest rates would force up the exchange rate with consequent damaging effects on profitability and output in the U.S. economy. Thus it is likely that fiscal policy would remain restrictive.

The general picture that emerges for the major industrial countries is not merely an environment where no demand stimulus will be given by government but one where demand contractionary pressures are likely to be very great. A reduction in budget deficits through expenditure cuts could lead to a reduction in nominal and real interest rates with positive effects on investment. A rise in investment sufficient to take up the slack in demand caused by the reduction in budget deficits and the fall in expenditures of income recipients is unlikely — requiring a unique supply side response i.e. investment increasing in the face of declining demand.

The situation confronting developing non-oil producing countries remains very weak. The recycling of OPEC surpluses in the 1974/75 recession and thereafter, while apparently technically efficient, created

the debt service crisis of today. In the depressed conditions of the 1970s there was a shortage of worthwhile investment projects — yet public capital expenditure increased dramatically, creating interest and debt repayment problems that are now common among developing countries. Even among newly industrialising countries (NICs) debt service problems are acting as a restraint on domesic demand (Brazil, Mexico). The problems of these countries have been exacerbated by the rise in real interest rates since the mid 1970s. The debt service problems of the developing world are so severe that policy, of necessity, must be contractionary. Furthermore even if governments did seek to pursue expansionary policies the unwillingness of the international banking community to lend is reflected in high interest rates and shorter term loans. Developing countries that do not produce oil face an adjustment period in their public finances very similar to that facing the industrial world.

The point that emerges from the above analysis is that fiscal policy simply cannot be expected to be expansionary over the next decade. This is for two reasons (i) budget deficits are already too high in many countries (ii) governments believe that the effects are either harmful or non-existent. The forces at work are more likely to be contractionary though the negative effects will begin to ease when current fiscal problems have been dealt with.

Within the timescale set it is difficult to pinpoint the year when fiscal policy internationally will ease. The U.S. is unlikely to begin tackling the structural deficit before the 1984 election. Thereafter it is assumed that the deficit will be phased out before the end of the decade.

In the U.K. after a brief pre-election relaxation of policy, government seems even more determined to reduce the absolute size of the state sector.

In the smaller European Community countries and Italy the scale of public deficits is such that in these cases fiscal policy too will remain contractionary possibly for 4 — 5 years. Neither France nor Germany is likely to initiate expansionary policies — in France's case because of recent experience, and in W.Germany's because policy there is geared towards growth through exports.

It is worth noting that the age profile in European Community countries (excluding Italy) is such that the number of new entrants onto the labour market in the decade 1980-1990 will fall. The decline in the age group 15 — 20 is expected to be about 18 per cent. The pressures on government to adopt expansionary policies to reduce unemployment are therefore less.

If budget deficits are phased out by the end of the decade economies can grow more rapidly simply because governments will not be absorbing quite as much of increased output. The likelihood of an immediate return to pre-1973 growth thereafter is low, but by the

mid-1990s markets could be functioning better than at present, with beneficial effects on growth and employment.

## The Outlook

**Table 2.2.2: Growth in GNP 1983 — 1993**

| Country | Share in New Foreign Employment in Ireland % | Share in Irish Manufactured Exports 1982 % | GNP Growth 1983-'84 % | GNP Growth 1985-'88 % | GNP Growth 1989-'93 % |
|---|---|---|---|---|---|
| U.K. | 26 | 45 | 2.5 | 2 | 3 |
| U.S.A. | 42 | 15 | 4.25 | 4 | 4.5 |
| West Germany | 12 | 10 | 1.5 | 2 | 4 |
| France | — | 5 | 0 | 2 | 4 |
| Japan | 2 | 5 | 3.5 | 5 | 6 |
| Other | 12 | 20 | 2 | 2 | 4 |
| Total | 100 | 100 | 2.5 | 2.5 | 3.75 |

**Table 2.2.3: World Trade % Change Volumes**

| | 1982 | 1983 | 1984 | 1985 - '88 | 1989 - '93 |
|---|---|---|---|---|---|
| All Goods | -3 | 0.5 | 4 | 4 | 6 |
| Manufactures | -3 | 1 | 6 | 5 | 7.5 |

In framing these forecasts no allowance has been made for supply side shocks. Two sources of supply side shocks can be identified (i) those due to major wars (e.g. Arab/Israeli War, conflict between major powers), political upheaval (e.g. Iranian Revolution), or national disasters (e.g. cereal crop failure in U.S., Canada) and (ii) natural resource price shocks (e.g. major real oil price increases). No particular expertise is claimed with regard to the first set of facts. However, it is probably optimistic to assume essentially that "peace" (such as now prevails) will continue. The situation with regard to natural resource/price increases is considered in Appendix 1. The conclusion is that in the medium term 1983 - '88 world demand for OPEC oil is not likely to get back to the 1979 peak level of demand when real price increases last took place. It would require a 4 per cent increase in world GNP to get to that peak. However, given our

forecast growth beyond that, OPEC output could be reaching 1979 levels by 1990/91, at which time further real price effects could emerge.

Even this relatively optimistic picture could be seriously affected if demand growth is very uneven. If world GNP grew very rapidly in one year this could easily trigger a very rapid growth in OPEC production and could result in greater solidarity among OPEC countries, leading to a hardening of prices.

**Inflation, Interest Rates and Exchange Rates**

We expect the reduction in inflation rates in the major economies to be sustained in the medium term. The figures for 1983 and 1984 may be slightly below the long-term average as commodity prices are unduly depressed because of the recession. As recovery continues commodity prices should begin to increase again. If there is a tendency for inflation rates to rise significantly then we would expect policy to become restrictive once again. The inflation profile for the three major economies is given in Table 2.2.4.

**Table 2.2.4: Consumer Prices % Change**

| | 1983 | 1984 | 1985 — '93 |
|---|---|---|---|
| U.S. | 3 | 4 | 5 |
| U.K. | 5 | 6 | 6 |
| W.Germany | 3 | 3 | 3 |

The situation with regard to interest rates in the U.S. has been mentioned in passing in the discussion of the U.S. deficit. In the medium term as this deficit is phased out there would be some downward pressure on interest rates. At present real interest rates are very high by historical standards. The next stage of the U.S. recovery, if it is to be sustained, would be an expansion in investment. At current real interest rates this would be choked off. The expectation is that monetary policy in the U.S. will be relaxed in 1984 to ensure that the recovery is sustained.

One consequence of a reduction in U.S. interest rates would be a decline in the dollar relative to the DM. It is generally believed that the dollar is overvalued in terms of relative competitiveness by as much as 40 per cent so that a major shift in exchange rates could occur in 1984. Once the adjustment takes place the exchange rates could stabilise for a period. As part of an adjustment in dollar rates the sterling/dollar and sterling/DM exchange rates could vary to restore U.K. competitiveness.

The exchange rate policy of the Irish Government has been in terms of the EMS, not in dollar or sterling terms. Over the medium term the Irish pound may reflect differences in inflation rates. Within a general series of realignments in 1984 it is possible that a slight revaluation could occur *vis-a-vis* sterling.

We expect nominal and real interest rates to be below their present levels over the medium term. Interest rates in real terms will be positive — about 2 per cent. As government borrowing domestically is reduced interest rates in Ireland could move closer to international rates.

## Section 2.3: The Economy of the South

### Introduction

It is not proposed to examine the recent economic performance of the economy of the South. The economy is well researched in terms of an understanding of the main factors at work giving rise to the actual performance under the headings of employment, growth, inflation and external balance. These factors are taken as data for the purposes of this study.

In looking at the performance of an open economy over as extended a period as 10 years it is necessary to look at both the demand and the supply side. On the demand side the growth in markets abroad and at home is important as are shifts in the structure of demand. On the supply side the growth in the capital stock, the level of capacity utilisation, technological change, the growth in the labour force, and the development of the cost structure are relevant issues. Market growth abroad may have little impact domestically if the capital stock is fully utilised, or if costs domestically are seriously out of line with those in competing firms abroad. In the very short run, a competitive cost structure in itself may not be sufficient to overcome weak demand conditions at prevailing prices. The development of an open economy over the medium term is a function of the interplay of the demand and supply influences.

### The Demand Situation

### External Demand

The situation in the world economy has been covered in Section 2.2 Essentially, a good part of the remainder of the 1980s is likely to represent an adjustment phase in the major industrial economies as public finances are corrected. During this adjustment phase GNP growth will be well below that of 1973-'80. However, the recovery from the 1980 - '82 recession is likely to be sustained. Furthermore, once

governments reach fiscal balance — by the end of the decade — economies could grow more rapidly as the deflationary bias is removed. World trade growth will then tend to be higher. Other things being unchanged the growth pattern for the world economy outlined above would feed into the domestic economy through the output, employment and income effects of increased production for export.

The expectation would be that the economy would begin to experience more rapid growth than in the recent past under the impact of the increase in external demand.

Of course it must be remembered that the growth in industrial exports in recent years has not been a response to an increase in demand but to an increase in supply — this increase in supply resulting from new firms. The supply situation is considered later.

The forecasts for the world economy suggest an increase in demand. Thus the increase in Irish industrial exports is likely to be more broadly based than over the past 3 — 4 years during which the increase in exports of chemicals and electronics has accounted for a very large proportion of the growth in industrial exports. The most recent data, from the summer of 1983, do suggest a more broadly based growth in industrial exports and we expect this to be continued throughout the 1980s.

**Domestic Demand**

The domestic demand situation over the medium term is likely to be dominated by the fiscal position. Normally the assumption one would make for fiscal policy in a study such as this would be that of fiscal neutrality i.e. a situation where the economy is given neither a stimulus nor contracted as a result of decisions on government spending and taxation i.e. where the *status quo* on these is maintained. The usual assumptions include indexing income tax bands and allowances, excise duties and social welfare payments, allowing public service pay levels to rise in line with general levels of pay, keeping government consumption expenditure constant in real terms and keeping public capital expenditure constant in real terms. The total of social welfare payments and the total of debt service payments depend on what is happening in the economy. The difficulty with applying notions of fiscal neutrality over an extended period of time given present circumstances in the economy of the South derive from:—

(i) The emergence of a structural budget problem in recent years in addition to the cyclical problem, which it is generally accepted requires corrective action.

(ii) The growth in expenditure that would be required simply to maintain present levels of services given the evolving demographic structure. If the present levels of services were considered adequate

then their maintenance would require continued growth in education and health expenditure and in general services. To the extent that services are not considered adequate or the take-up of well established or recently introduced schemes has not stabilised then there would be an upward push to expenditure. An assumption of constant government current expenditure thus implies that services deteriorate over time from present levels, or that productivity in the public service improves. There might be some scope for the latter, given the increase in public sector employment over the past decade, where the combination of an increased supply of labour confronted by declining private sector demand for labour appeared to have led to an expansion of public sector employment beyond what was required to maintain services.

(iii) The bunching of public investment over the 1979 - '84 period. Once many existing projects are completed public investment could fall sharply. For instance it would be unrealistic to assume that ESB capital expenditure would remain at the present level once the Moneypoint project is completed. This applies also to C.I.E., where the completion of the electrification of the Dublin Suburban Train Service, and the Post Office, where the completion of the Telecommunications Programme, will effectively mean an end to major capital investment by these bodies for some years.

Ideally one would wish to have available a medium term adjustment scenario provided by government setting out the aims of government for fiscal adjustment year by year in order to provide a firm basis of assumptions necessary for projecting the development of the economy. This is not available so that there is no alternative to making assumptions as to the pattern of adjustment on the part of government. Many different assumptions could be made.

Essentially we have assumed a straight line adjustment to the public finances, reducing the current budget deficit by 1.5 percentage points annually to 1987 (Table 2.3.1).

**Table 2.3.1: Current Budget Deficit and Borrowing Requirement % GNP 1983 — 1988**

| | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 |
|---|---|---|---|---|---|---|
| Current Budget Deficit | 7 | 5.5 | 4 | 2.5 | 1 | 0 |
| Borrowing Requirement | 13 | 11 | 9 | 7 | 5.5 | 4.5 |

In framing the projections for the economy the assumption made is that the adjustment takes place entirely on the expenditure side. This means in effect that the real tax rates likely to prevail in 1984 are maintained throughout the adjustment period. The implications of the assumption are discussed later. We have also assumed a modest reduction in borrowing for capital purposes between 1983 and 1988 from about 6 per cent of GNP to 4.5 per cent. In effect, what we have done is to assume that the steep fall in capital expenditure on energy, telecommunications and industry, that seems likely in 1984 would be partly offset by increased capital expenditure in other areas e.g. the roads programme, which we have projected to increase.

The fall in expenditure in the areas referred to is important in containing the external payments deficit. The effective reduction in potential GNP would be about 1 per cent per annum, rather less than might be expected. The public finances would improve primarily because of the real growth in the economy coming from the external side and the projected improvement in labour cost competitiveness discussed later. It is of some interest to note that the expansion in current and capital expenditure in recent years was not reflected in rapid GNP growth, because so much of the increase went on imports or into household saving. A reversal of this will not have a major impact on GNP. Beyond 1988 we assume that government will maintain a zero current budget deficit and a target borrowing requirement of some 4.5 per cent of GNP to cover public capital spending.

To summarise the demand situation: we expect an improvement in external demand leading to a more broadly based growth in industrial exports than in recent years. Fiscal policy domestically will be restrictive holding back expenditure in total but the effects on GNP may not be as marked as might be expected because of composition changes within the public capital programme.

### The Supply Situation

On the supply side of the economy the concern is with how well the capacity of the economy to meet market growth develops. This is a function of the capital stock and technological change, relative costs, the labour force, and the development of each over time.

### Capital Stock

There has been very rapid growth in the capital stock in recent years. Gross Investment averaged 30.7 per cent of GNP in the four years 1978 -1981. In the two years since then it has averaged 25 per cent of GNP or about the same as in the period 1973 — 1978. Output growth however has been very poor in the period since 1978. If the relationship between

investment and output growth that had prevailed throughout the 1960s and 1970s had continued then output growth from 1978 to 1983 would have been about 15 — 20 per cent higher than it actually was. This suggests that there is substantial excess capacity in the system — a point that simple observation confirms. There have undoubtedly been losses in capacity due to closures, and some newly installed capacity is clearly redundant in any meaningful sense. Nevertheless there can be little doubt that capacity is not likely to prove a constraint in the short to medium term. Capacity varies of course from sector to sector and from firm to firm and possibly between public and private sectors.

The existence of excess capacity means that firms will be in a position to meet demand, if profitable, with current levels of investment for several years. Output growth is not inhibited by lack of capacity. Rather excess capacity means that investment from existing enterprises will remain weak for several years.

Precisely the same set of conditions prevails internationally. Excess capacity will limit the degree of total investment worldwide. Thus the amount of new foreign investment locating here will also remain weak for several years reflecting poor world total investment. There will continue to be re-location decisions by, for example, U.S. firms seeking to restore profitability by shifting production to areas where high rates of after-tax profits can be earned due to lower costs or favourable tax treatment and shifts in investment following structural demand changes (e.g. electronics). Even when total investment begins to grow more rapidly more intense competition between different locations now exists than 5 or 10 years ago. From Ireland's point of view there is the added factor that a possible enlargement of the European Community to include Spain and Portugal would offer further location points to firms from outside the Community seeking markets within it.

As mentioned in the previous section on the public finances there is likely to be a fall in public investment as existing major programmes near completion. There is excess capacity in semi-state bodies so that capacity constraints are unlikely to bite for some time. In spite of the cuts assumed in 1984 and 1985 following a fall of about 10 per cent in volume in 1983, public investment will still be running at very high levels. There may be some shifts in expenditure, in particular towards road development.

**Labour Force**

Table 2.3.2 gives details of changes in the population of the South over the past 30 years together with forecasts extending to 1991. These figures are based on NESC Paper No 63 *Population and Labour Force Projections by County and Region 1979 – 1991.*

**Table 2.3.2: Changes in Population 1951 — 1991**

| Age Group | 1951 - 61 Change | | 1961 - 71 Change | | 1971 - 81 Change | | 1981 - 91 Change | |
|---|---|---|---|---|---|---|---|---|
| | '000 | % p.a. | '000 | % p.a. | '000 | % p.a. | '000 | % p.a. |
| 0 — 4 | -12.1 | -0.4 | 14.9 | 0.5 | 31.9 | 1.0 | 18.6 | 0.5 |
| 5 — 19 | 27.2 | 0.3 | 72.9 | 0.9 | 134.9 | 1.4 | 66.4 | 0.6 |
| 19 — 65 | -156.1 | -1.1 | 57.4 | 0.4 | 260.2 | 1.7 | 271.5 | 1.5 |
| Over 65 | -1.3 | -0.0 | 14.7 | 0.5 | 38.2 | 1.1 | 28.0 | 0.7 |
| Total | -142.3 | -0.5 | 159.9 | 0.6 | 465.2 | 1.5 | 384.5 | 1.1 |

The forecasts to 1991 are based on a zero net migration assumption and involve a deceleration in the rate of population growth. Moreover, the composition of growth as between age groups is likely to change significantly. In the table we have attempted a rough categorisation of the population into "state-dependent" and "state-independent" age groups. The 5 — 19 and the over 65s are in the former category while the 19 — 65 are in the latter. Whereas the rate of growth of the 19 — 65 cohort is only reduced marginally the rate of expansion of the 5 — 19s is more than halved and there is also a significant slowing down in the over 65s.

The expected increase of 66,000 in the school going age groups in the 1981 — 1991 decade is less than the increase in the 1960s and compares with a rise of 135,000 in the 10 years 1971 — 1981. Thus the pressures on public expenditure arising from demographic changes are likely to be less in the future than they have been in the recent past, though there will still be upward pressure.

These population forecasts also have implications for labour force growth.

**Table 2.3.3: Change in Labour Force 1961 — 1991**

| | '000 | % Change per annum |
|---|---|---|
| 1961 — 1971 | 19.7 | 0.2 |
| 1971 — 1981 | 184.1 | 1.6 |
| 1981 — 1991 | 149.0 | 1.1 |

After showing only small growth in the 1960s the labour force expanded rapidly in the following 10 years.

**Table 2.3.4: Labour Force 1983 — 1993 ('000)**

| | 1983 | 1986 | 1991 | 1993 |
|---|---|---|---|---|
| Labour Force | 1296 | 1338 | 1413 | 1443 |

The labour force is expected to continue to rise rapidly over the next ten years (Table 2.3.4). The extent of the rise, however, depends on assumptions made about participation rates of married women and, to a lesser extent, external migration. We have used the assumption that participation rates will continue to increase but at a more modest pace than in the seventies. Combined with a zero external migration assumption this leads to a rise in the labour force of 15,000 per annum. More extreme assumptions about participation could be made which would have the labour force rising by as much as 30,000 per annum. If there is a net outflow of people then labour force growth would be less. For instance if net migration averaged 10,000 a year, made up of an outflow of 15,000 a year of potential new entrants onto the labour market (those in 18 — 25 age group) and an inflow of 5,000 made up of emigrants of earlier decades returning to retire then there would be minimal labour force growth over the decade.

A number of factors could lead to a rather different outcome for migration than the assumed one of net zero flows. First, the stock of existing Irish emigrants abroad has both diminished significantly and aged considerably. This should lead to smaller net inflows in the older age groups than occurred during the 1970s. Second, in the second half of the 1980s the numbers in the younger age groups (15-19) of virtually all European populations are set to fall — in some cases very dramatically. Job opportunities, therefore, for the continually growing Irish labour force in those age groups could improve and lead to increased outflows. The combination of both factors could lead to renewed net emigration and lower labour force growth and unemployment levels than projected above.

The analysis confirms what is really an obvious point viewed from the present viz. that the supply of labour both in terms of the existing stock (of employed and unemployed) and new entrants is unlikely to prove a barrier to growth. There is an ample supply of labour and this will be augmented by additions to the supply over the coming decade.

### Relative Costs

The period of the second recession has been marked by a very serious deterioration in labour costs in Ireland relative to output prices. This comes out clearly in the data in Table 2.3.5.

**Table 2.3.5: Output and Wage Costs (Index Numbers 1977 = 100)**

| | Basic Rates of pay (1) | Wage Cost per unit of output (2) | Output Prices (3) |
|---|---|---|---|
| 1977 | 100 | 100 | 100 |
| 1978 | 114.4 | 108.7 | 109.0 |
| 1979 | 132.7 | 122.1 | 122.0 |
| 1980 | 162.4 | 145.6 | 135.2 |
| 1981 | 189.5 | 160.3 | 157.8 |
| 1982 | 218.7 | 174.0 | 176.5 |

There was a very serious deterioration in wage costs per unit of output relative to output prices in 1980. Wage costs rose by 7.7 per cent that year relative to output prices. This significantly reduced the profitability of enterprises and induced changes at the firm level, ranging from closures to lay-offs, to restore profitability. Employment fell dramatically. These data are highly aggregative — the experience at the individual sector level has been more varied. In fact a good deal of the improvement in 1982 in the wage costs/output price ratio at the aggregate level has been due to the impact of new firms increasing output very rapidly. The experience of the more traditional sectors has not been as favourable, though the available data for 1983 suggest a more favourable relationship between industrial labour costs and industrial prices.

The deterioration in wage costs relative to output prices has not been reflected in increased average real earnings (Table 2.3.6).

**Table 2.3.6: Wages and Prices % Change**

| | Wage Costs/ Output Prices | Real Average Earnings |
|---|---|---|
| 1978 | -0.3 | 6.7 |
| 1979 | 0.3 | 1.7 |
| 1980 | 7.7 | 0 |
| 1981 | -5.3 | -3.1 |
| 1982 | -3.0 | -3.9 |

In 1980, the year when the deterioration in wage costs relative to output prices occurred, average real earnings were static. They fell in the following two years.

What was happening was that consumer prices were rising more rapidly than output prices. The difference was most marked in 1980 when output prices increased by only 10.8 per cent while consumer prices rose by 18.2 per cent. The difference arose because of (i) the worsening in the terms of trade coming from the oil price rise and (ii) increases in indirect tax rates. Output prices rose by 16.7 per cent in 1981 compared with a consumer price increase of 20.4 per cent — the corresponding figures for 1982 were 11.9 per cent and 17.1 per cent. The gap in 1983 has narrowed considerably.

The assumptions we have made with regard to 1984 fiscal policy (see section on public finances below) still allow real tax rates to rise mainly because income tax allowances and bands are not fully indexed. The assumption of full indexation after 1984 would allow real personal disposable income per employee to increase — though a very high share of the increase would still be taken in taxes as marginal tax rates on income and expenditure remain so high. The very high level of unemployment will continue to operate as a brake on average pay increases very much as in recent years. If a different line of attack is taken to the fiscal target — say through revenue increases, the situation with regard to relative costs would deteriorate as employees sought pay increases to compensate for tax increases.

The assumptions we have made with regard to prices, incomes and the exchange rate over the period are:

(i) that output prices increase by 8 per cent over the period to 1993 — or about the European Community average.

(ii) the exchange rate is adjusted to reflect differences in inflation rates.

(iii) basic rates of pay increase by 10 per cent per annum.

**GNP Growth**

In the previous two sections the demand and supply conditions confronting the economy over the next ten years have been briefly covered. Models of growth tend to specify growth in factor supplies (labour and capital) as the decisive elements in growth over the medium to long-term. Both the level of existing excess capacity and the growth in the labour force over the next decade would not suggest that the economy of the South would be supply constrained. Indeed, in many respects, the response of factor prices to excess capacity of labour and capital may prove the most significant feature of the decade of the 1980s. This response has been distorted by the dichotomy that has arisen between real labour costs and real after-tax incomes. The development of real incomes does suggest that wage rates can adjust to

labour market conditions. The fall in real earnings in 1981 and 1982 and in real after-tax earnings in manufacturing for a longer period point to an adjustment in the labour market. This was not reflected in labour costs to industry because of taxes. Beyond 1984 we think this dichotomy between labour costs and real incomes could disappear, as real tax rates are stabilised.

On the demand side the second major post-war recession seems to be over. There is likely to be modest growth in GNP in the major economies and this will be reflected in increased industrial exports and in increased output in industry. The fiscal stance of government will be contractionary but the effects may not be as marked as might initially be thought given composition changes in expenditure.

We would thus expect the economy to experience modest growth over the coming decade. Table 2.3.7 summarises the projection.

GDP increases at 2.5 per cent per annum up to the point where the fiscal situation eases. After this growth is more rapid. The balance of payments on current account remains consistently in surplus. This is a consequence of the fiscal stance. Unemployment continues to increase. Note that the unemployment figures may be too optimistic as throughout this and other sections we have assumed low productivity growth both in the South and the North. This is based on a view that a good part of the growth in employment will be in low productivity services.

**Public Finances**

It is necessary for the purposes of the study to develop the basic assumption about fiscal policy in more detail. The specific assumptions were set out in Table 2.3.1 for the period of fiscal adjustment 1984 —1988.

We have made a distinction between the period to 1988 when the fiscal adjustment takes place and the period from then to 1993.

**The Period 1983 — 1988.**

(a) Expenditure

It has been assumed that:

(i) Rates of benefit and assistance would be increased by 8 per cent from the summer of 1984 and thereafter maintained in real terms.

(ii) Central Fund expenditure (consisting mainly of national debt interest, sinking funds and the contribution to the European Community) would total £1,890 million in 1984, and thereafter

**Table 2.3.7: GDP, Balance of Payments, Unemployment 1983 — 1993**

| | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 |
|---|---|---|---|---|---|---|---|---|---|---|
| Private Consumption | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 |
| Government Consumption | 0 | -1 | -0.5 | 0 | 2 | 2 | 2 | 2 | 2 | 2 |
| Investment | -2.5 | 2.5 | 5 | 5 | 7.5 | 5 | 5 | 5 | 5 | 5 |
| GDP | 2.5 | 2.5 | 2.5 | 2.5 | 3 | 3 | 3 | 3 | 3.75 | 3.25 |
| **Balance of Payments** | | | | | | | | | | |
| % GDP (+ = surplus) | +0.2 | +1.1 | +1.6 | +2.1 | +1.6 | +1.7 | +1.8 | +1.7 | +2.0 | +2.1 |
| **Unemployment*** | | | | | | | | | | |
| % Labour Force | 16.2 | 16.2 | 16.3 | 16.4 | 16.6 | 16.7 | 16.6 | 16.5 | 16.4 | 16.3 |

*April in following year

increase in line with the previous year's borrowing depending on interest rates and exchange rates.

(iii) After 1984 the overall level of current expenditure would remain unchanged in real terms up to 1987. This is a very strong assumption. As interest on debt is predetermined and social welfare rates have been assumed to be indexed, it follows that pay and other current expenditure are a residual. As a subsidiary assumption the pay bill is projected to increase in line with inflation up to 1987. In so far as average pay rates in the public sector are unlikely to rise much less rapidly than inflation or pay rates in the private sector this assumption implies that public sector employment will fall.

(iv) The public capital programme is cut so that borrowing for capital purposes would be reduced from 6 per cent of GNP in 1983 to 4.5 per cent in 1988.

(b) Revenue

It has been assumed that:—

(i) Excise duties remain unchanged in real terms.

(ii) VAT rates remain unchanged.

(iii) Special taxes remain i.e. income levy, youth employment levy etc.

(iv) The bands and allowances under the tax code would not be fully indexed in 1984 but would be fully indexed thereafter.

(v) All other taxes are indexed.

On these assumptions the public finances would develop as in Table 2.3.8.

It is very important to understand how the reduction in the deficit and borrowing requirement shown in the table comes about. Firstly, current expenditure is being held steady in real terms. This is a major departure from recent years where total current expenditure has been outstripping inflation to a considerable degree. Second, the adjustment in current expenditure is occurring in non-debt non-social welfare expenditure where the pay bill is strictly limited. Third, central fund expenditure begins to increase less rapidly, because its major constituent, interest payments, is not rising so rapidly as borrowing is cut back. Fourth, marginal tax rates out of income and consumption remain very high. The marginal tax rate out of income in 1984 is in excess of 40 per cent and the marginal tax rate out of consumption is about a third. Fifth, savings accrue on debt servicing as domestic interest rates begin to move

**Table 2.3.8: Development of the Public Finances 1983 — 1988 (£m Current Prices)**

| | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 |
|---|---|---|---|---|---|---|
| **Current Revenue** | 5815 | 6635 | 7455 | 8300 | 9250 | 10270 |
| Taxes | 4770 | 5500 | 6205 | 6925 | 7735 | 8575 |
| Non-Tax Revenue | 1045 | 1135 | 1250 | 1375 | 1515 | 1695 |
| **Current Expenditure** | 6715 | 7435 | 8100 | 8750 | 9450 | 10270 |
| Central Fund | 1675 | 1890 | 2060 | 2220 | 2370 | 2500 |
| Pay | 2450 | 2700 | 2915 | 3150 | 3400 | 3740 |
| Social Welfare | 1060 | 1210 | 1340 | 1475 | 1620 | 1815 |
| Other Expenditure | 1525 | 1635 | 1785 | 1905 | 2060 | 2215 |
| Current Deficit | 900 | 800 | 645 | 450 | 200 | 0 |
| Capital Borrowing | 800 | 800 | 805 | 800 | 890 | 995 |
| Total Borrowing | 1700 | 1600 | 1450 | 1250 | 1090 | 995 |
| % GNP | | | | | | |
| Current Deficit | 7 | 5.5 | 4 | 2.5 | 1 | 0 |
| Borrowing | 13 | 11 | 9 | 7 | 5.25 | 4.25 |
| Current Revenue | 44.2 | 45.6 | 46.2 | 46.4 | 46.6 | 46.4 |
| Current Expenditure | 51.1 | 51.1 | 50.2 | 48.9 | 47.6 | 46.4 |

closer to interest rates abroad because domestic pressure on interest rates from government borrowing declines.

The data in the table are not a forecast — they represent one adjustment path for the public finances. It might be very easy to criticise one element of the path but if the adjustment to the public finances is to be made without real tax increases then difficult choices are inevitably posed with regard to public expenditure.

For instance it is reasonably clear that special claims could be a feature of pay developments in the public sector for the next 4 — 5 years under present negotiating arrangements. If the public pay bill reflects this and expands by say 10 — 12 per cent then other expenditure such as social welfare or other non-pay expenditure must be affected. Given the assumed constraint of eliminating the current budget deficit over 4 years it is very hard to see how this could occur if there is a public service pay explosion. Hence we have assumed that government will take steps to contain the pay bill. The effects of increasing real tax rates has been considered in the section on the supply side of the economy, and we are assuming that no further increases in real tax rates occur after 1984.

**The Period 1988 — 1993**

We have seen earlier that the combined impact of the Government's objective of reducing the current budget deficit and the secular decline in capital spending could lead to a very sharp reduction in overall exchequer borrowing by 1987 — down to 4.5 per cent of GNP from a peak of 16.8 per cent in 1981.

New borrowing as a percentage of national debt outstanding will also fall sharply. In the period 1979 — 1982 new borrowing each year amounted on average to 20 per cent of the debt outstanding at the end of the previous year. This, combined with the impact of exchange rate changes, pushed up the national debt, and interest payments thereon, at a rate in excess of 25 per cent per annum. The Exchequer was caught in a vicious circle of high borrowing leading to increased interest payments which in turn led to more borrowing etc.

If by 1988 Exchequer borrowing is reduced as postulated above, the reverse of such a process could begin to operate in a significant way. Because debt outstanding is growing slowly interest payments will decelerate in a major way and because interest accounts for more than 20 per cent of total expenditure it will have a major decelerating impact on overall expenditure. Assuming tax revenue continues to grow in line with the economy generally the impact such a "virtuous" circle could have on Exchequer finances is dramatic.

To illustrate this we projected these finances beyond 1988 on assumptions that:

(a) Real GNP would continue to expand by 2.5 per cent per annum with inflation remaining at 8 per cent.

(b) Social welfare expenditure would increase by 12 per cent, facilitating a real increase in rates of 2 per cent and volume rise of 2 per cent in the number of beneficiaries.

(c) The two categories, public service pay and other expenditure, would grow by 10 per cent per annum, i.e. less than nominal GNP but faster than inflation.

(d) Capital spending increases by 10 per cent a year.

(e) Income tax bands and allowances are indexed, as are specific excise duties.

Table 2.3.9 has been prepared in the context of the study to show what could happen to the public finances on assumptions that are not very restrictive.

The current budget would be in surplus by 1989, after which time the "virtuous circle" impact is quite dramatic. By 1993 the surplus would amount to 5 per cent of GNP and would be more than adequate to

finance capital borrowing so that the Exchequer would have an overall cash surplus.

In this scenario tax rates remain at the very high level that seem likely to prevail in 1984. Faced with emerging surpluses and increased unemployment one plausible pattern of development would be that government would continue to aim for a zero current deficit, and that this would be effected more or less equally through reductions in tax

**Table 2.3.9: Development of the Public Finances 1988 — 1993**
**£m. Current Prices**

| | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 |
|---|---|---|---|---|---|---|
| **Current Revenue** | 10270 | 11420 | 12700 | 14125 | 15700 | 17460 |
| **Current Expenditure** | 10270 | 11205 | 12200 | 13300 | 14480 | 15750 |
| Central Fund | 2500 | 2620 | 2720 | 2820 | 2900 | 2950 |
| Pay | 3740 | 4115 | 4525 | 4980 | 5480 | 6030 |
| Social Welfare | 1815 | 2035 | 2275 | 2550 | 2855 | 3200 |
| Other | 2215 | 2435 | 2680 | 2950 | 3245 | 3570 |
| Current Surplus | 0 | 215 | 500 | 825 | 1220 | 1710 |
| Capital Borrowing | 995 | 1095 | 1205 | 1325 | 1455 | 1600 |
| Total Borrowing | 995 | 880 | 705 | 500 | 235 | (110)* |
| Total Borrowing % GNP | 4.5 | 3.5 | 2.6 | 1.6 | 0.7 | (0.3)* |

*Cash Surplus

**Table 2.3.10: Fiscal Projections 1988 — 1993**
**£m. Current Prices**

| | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 |
|---|---|---|---|---|---|---|
| Current Revenue | 10270 | 11305 | 12450 | 13710 | 15075 | 16550 |
| Current Expenditure | 10270 | 11305 | 12450 | 13710 | 15075 | 16550 |
| Deficit | 0 | 0 | 0 | 0 | 0 | 0 |
| Capital Borrowing | 995 | 1110 | 1240 | 1380 | 1540 | 1715 |
| Revenue/ Expenditure % GNP | 46.4 | 45.8 | 45.3 | 46.7 | 44.1 | 43.4 |
| Borrowing % GNP | 4.25 | 4.25 | 4.25 | 4.25 | 4.25 | 4.25 |

rates and increases in expenditure. The projected GDP figures (Table 2.3.7) incorporate the pattern for the current budget deficit and borrowing requirement set our in Table 2.3.10.

**Oil Variant**

We were asked to consider how an oil find would change this situation. In particular this arises because of the possibility of a commercial oil find off Waterford. At this point in time we do not know (i) the size of the field (ii) the level of capital expenditure needed to develop it or (iii) the time profile of production. Without data on these, exercises estimating the benefits to the economy and the Exchequer are necessarily illustrative. The impact on state finances of a hypothetical commercially viable field of varying sizes (200, 100 and 50 million barrels) are presented in Table 2.3.11 (i) — (iii). The assumptions used were:—

- State introduces a special Petroleum Revenue Tax at a rate of 40 per cent.
- Production starts in 1985.
- We assume a constant real price of oil in Irish pound terms — equal to £26 a barrel at 1984 prices.
- Development expenditure amounts to £750 million for the 200 million barrel field, £500 million for a 100 million barrel field and £350 million for a 50 million barrel field.
- Inflation is fixed at 10 per cent per annum.
- Interest rates are fixed at a constant 13 per cent.
- The field is completely funded by bank borrowings with dividends being paid only after the company's indebtedness to the bank has been reduced to zero.
- The State exercises its right to 50 per cent of the equity of the field.

On these assumptions Table 2.3.11 (i) — (iii) sets out the profile of production, revenue etc for each of the three cases. The points that come out from the table are (i) the size of the field is important in determining the government share of the take as costs are not directly proportionate to the size of fields (ii) oil fields are exhaustible - when the oil ceases to flow there is no further revenue.

The present value of the state revenue from the different size fields is £2,800 million, £1,350 million and £600 million. The present value of the state take gives the order of magnitude of the permanent gain to the economy from an oil find. For instance, if the present value of a 200 million barrel field is £2,800 million this allows a permanent reduction

## Table 2.3.11 (i): Impact of Oil Field of 200 Million Barrels

| | £ Million | | | | | Production 200 million barrels | | | | PRT = 40 per cent | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Production Mio Barrels | Price £ | Gross Revenue | Capital Expendi-ture | Operating Costs | Interest Costs | Royalty | PRT | Corpora-tion Tax Paid | Company Cash Flow | Govt. Dividend | Company Dividend | Total Govt Revenue at current prices | Revenue at 1984 prices |
| 1984 | 0.00 | 26.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1985 | 3.00 | 28.60 | 85.80 | 60.00 | 25.00 | 0.00 | 6.86 | 0.00 | 0.00 | —6.06 | 0.00 | 0.00 | 6.86 | 6.24 |
| 1986 | 3.00 | 31.46 | 94.38 | 170.00 | 25.00 | 0.79 | 7.55 | 0.00 | 0.00 | —108.96 | 0.00 | 0.00 | 7.55 | 6.24 |
| 1987 | 9.00 | 34.61 | 311.45 | 240.00 | 35.00 | 14.95 | 24.92 | 0.00 | 0.00 | —3.42 | 0.00 | 0.00 | 24.92 | 16.72 |
| 1988 | 22.00 | 38.07 | 837.47 | 140.00 | 55.00 | 15.40 | 83.75 | 169.95 | 0.00 | 373.37 | 127.47 | 127.47 | 381.17 | 260.34 |
| 1989 | 26.00 | 41.87 | 1088.70 | 80.00 | 60.50 | 0.00 | 108.87 | 335.73 | 127.47 | 376.14 | 188.07 | 188.07 | 760.14 | 471.99 |
| 1990 | 26.00 | 46.06 | 1197.58 | 60.00 | 66.55 | 0.00 | 119.76 | 380.51 | 251.00 | 318.96 | 159.48 | 159.48 | 911.55 | 514.34 |
| 1991 | 21.00 | 50.67 | 1064.00 | 0.00 | 73.21 | 0.00 | 106.40 | 353.76 | 285.38 | 245.26 | 122.63 | 122.63 | 868.17 | 445.51 |
| 1992 | 18.00 | 55.73 | 1003.20 | 0.00 | 80.53 | 0.00 | 100.32 | 328.94 | 265.32 | 228.09 | 114.05 | 114.05 | 808.63 | 377.23 |
| 1993 | 15.00 | 61.31 | 919.60 | 0.00 | 88.58 | 0.00 | 73.57 | 302.98 | 246.71 | 207.77 | 103.88 | 103.88 | 727.14 | 308.38 |
| 1994 | 12.00 | 67.44 | 809.25 | 0.00 | 97.44 | 0.00 | 64.74 | 253.83 | 227.24 | 161.01 | 80.50 | 80.50 | 631.31 | 243.40 |
| 1995 | 11.00 | 74.18 | 815.99 | 0.00 | 107.18 | 0.00 | 65.28 | 257.41 | 194.12 | 192.00 | 96.00 | 96.00 | 612.81 | 214.79 |
| 1996 | 9.00 | 81.60 | 734.39 | 0.00 | 117.90 | 0.00 | 58.75 | 223.10 | 193.06 | 141.59 | 70.79 | 70.79 | 545.70 | 173.88 |
| 1997 | 7.00 | 89.76 | 628.31 | 0.00 | 129.69 | 0.00 | 50.27 | 179.34 | 167.32 | 101.69 | 50.85 | 50.85 | 447.78 | 129.71 |
| 1998 | 6.00 | 98.73 | 592.41 | 0.00 | 142.66 | 0.00 | 47.39 | 160.94 | 134.51 | 106.91 | 53.45 | 53.45 | 396.30 | 109.36 |
| 1999 | 5.00 | 108.61 | 543.04 | 0.00 | 156.92 | 0.00 | 43.44 | 137.07 | 120.71 | 84.90 | 42.45 | 42.45 | 343.67 | 62.27 |
| 2000 | 4.00 | 119.47 | 477.88 | 0.00 | 172.61 | 0.00 | 38.23 | 106.81 | 102.80 | 57.42 | 28.71 | 28.71 | 276.56 | 80.19 |
| 2001 | 4.00 | 131.42 | 525.66 | 0.00 | 189.87 | 0.00 | 42.05 | 117.49 | 80.11 | 96.13 | 48.07 | 48.07 | 287.72 | 56.92 |
| 2002 | 0.00 | 144.56 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 88.12 | —88.12 | 0.00 | 0.00 | 88.12 | 15.85 |

PRT = Petroleum Revenue Tax

## Table 2.3.11 (ii): Impact of Oil Field of 100 Million Barrels

| | £ Million | | | | | | Production 100 million barrels | | | | PRT = 40 per cent | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Production Mio Barrels | Price £ | Gross Revenue | Capital Expenditure | Operating Costs | Interest Costs | Royalty | PRT | Corporation Tax Paid | Company Cash Flow | Govt. Dividend | Company Dividend | Total Govt at current prices | Revenue at 1984 prices |
| 1984 | 0.00 | 26.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1985 | 3.00 | 28.60 | 85.80 | 60.00 | 25.00 | 0.00 | 6.86 | 0.00 | 0.00 | —6.06 | 0.00 | 0.00 | 6.86 | 6.24 |
| 1986 | 3.00 | 31.46 | 94.38 | 150.00 | 25.00 | 0.79 | 7.55 | 0.00 | 0.00 | —88.96 | 0.00 | 0.00 | 7.55 | 6.24 |
| 1987 | 9.00 | 34.61 | 311.45 | 175.00 | 35.00 | 12.35 | 24.92 | 0.00 | 0.00 | 64.18 | 0.00 | 0.00 | 24.92 | 18.72 |
| 1988 | 12.00 | 38.07 | 456.80 | 115.00 | 40.00 | 4.01 | 45.68 | 154.89 | 0.00 | 97.22 | 33.19 | 33.19 | 233.76 | 159.66 |
| 1989 | 15.00 | 41.87 | 628.10 | 0.00 | 45.00 | 0.00 | 62.81 | 364.20 | 33.19 | 122.90 | 61.45 | 61.45 | 521.65 | 323.90 |
| 1990 | 15.00 | 46.06 | 690.91 | 0.00 | 49.50 | 0.00 | 69.09 | 400.62 | 78.04 | 93.65 | 46.83 | 46.83 | 594.58 | 335.63 |
| 1991 | 13.00 | 50.67 | 658.67 | 0.00 | 54.45 | 0.00 | 65.87 | 376.84 | 85.85 | 75.66 | 37.83 | 37.83 | 566.39 | 290.65 |
| 1992 | 10.00 | 55.73 | 557.33 | 0.00 | 59.90 | 0.00 | 55.73 | 309.19 | 80.75 | 51.76 | 25.88 | 25.88 | 471.56 | 219.19 |
| 1993 | 8.00 | 61.31 | 490.45 | 0.00 | 65.88 | 0.00 | 39.24 | 269.73 | 66.26 | 49.34 | 24.67 | 24.67 | 399.90 | 169.60 |
| 1994 | 7.00 | 67.44 | 472.06 | 0.00 | 72.47 | 0.00 | 37.76 | 253.28 | 57.80 | 50.75 | 25.37 | 25.37 | 374.21 | 144.28 |
| 1995 | 5.00 | 74.18 | 370.91 | 0.00 | 79.72 | 0.00 | 29.67 | 183.06 | 54.27 | 24.18 | 12.09 | 12.09 | 279.09 | 97.82 |
| 1996 | 0.00 | 81.60 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 39.23 | —39.23 | 0.00 | 0.00 | 39.23 | 12.50 |

PRT = Petroleum Revenue Tax

## Table 2.3.11 (iii): Impact of Oil Field of 50 Million Barrels

| | £ Million | | | | | | Production 50 million barrels | | | | PRT = 40 per cent | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Production Mio Barrels | Price £ | Gross Revenue | Capital Expenditure | Operating Costs | Interest Costs | Royalty | PRT | Corporation Tax Paid | Company Cash Flow | Govt. Dividend | Company Dividend | Total Govt Revenue at current prices | Revenue at 1984 prices |
| 1984 | 0.00 | 26.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1985 | 3.00 | 28.60 | 85.80 | 60.00 | 25.00 | 0.00 | 6.86 | 0.00 | 0.00 | —6.06 | 0.00 | 0.00 | 6.86 | 6.24 |
| 1986 | 3.00 | 31.46 | 94.38 | 120.00 | 25.00 | 0.79 | 7.55 | 0.00 | 0.00 | —58.96 | 0.00 | 0.00 | 7.55 | 6.24 |
| 1987 | 9.00 | 34.61 | 311.45 | 120.00 | 35.00 | 8.45 | 24.92 | 23.22 | 0.00 | 99.86 | 17.42 | 17.42 | 65.56 | 49.26 |
| 1988 | 10.00 | 38.07 | 380.67 | 50.00 | 38.50 | 0.00 | 30.45 | 104.69 | 17.42 | 139.61 | 69.80 | 69.80 | 222.36 | 151.88 |
| 1989 | 10.00 | 41.87 | 418.73 | 0.00 | 42.35 | 0.00 | 33.50 | 137.15 | 78.51 | 127.22 | 63.61 | 63.61 | 312.77 | 194.21 |
| 1990 | 5.00 | 46.06 | 230.30 | 0.00 | 46.59 | 0.00 | 18.42 | 66.12 | 102.87 | —3.69 | 0.00 | 0.00 | 187.41 | 105.79 |
| 1991 | 5.00 | 50.67 | 253.33 | 0.00 | 51.24 | 0.48 | 20.27 | 72.63 | 49.59 | 59.12 | 27.72 | 27.72 | 170.20 | 87.34 |
| 1992 | 5.00 | 55.73 | 278.67 | 0.00 | 56.37 | 0.00 | 22.29 | 80.00 | 54.36 | 65.65 | 32.82 | 32.82 | 189.47 | 88.39 |
| 1993 | 0.00 | 61.31 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 60.00 | —60.00 | 0.00 | 0.00 | 60.00 | 25.45 |

PRT = Petroleum Revenue Tax

in the budget deficit of the interest saved from a reduction in borrowing by that amount — say £300 million in 1983 prices. The permanent effect is less for the other two cases.

In practical terms the government is faced with actual receipts so that it is a question of planning expenditure in relation to revenue to ensure that the permanent effect is realised. The state could simultaneously ease the constraint on expenditure or reduce taxes, and reduce borrowing.

In the case of a 200 million barrel field state revenue in 1988 would be 3.7 per cent of total revenue, and by 1989 this would have risen to 6.5 per cent. This improvement in the fiscal situation would allow public sector employment to be some 30,000 higher than at present, or the equivalent or more if tax rates were reduced, in the private sector. This is the most optimistic of the three cases. The benefits from the other two are considerably less. It is important to remember that these are just illustrative examples — we still await firm details of the possible oil prospect.

## Section 2.4: The Economy of the North

### Introduction

The recent economic performance of the North has been covered extensively in the New Ireland Forum report *A Comparative Description of the Economic Structure and Situation, North and South*. It is not proposed to cover the same ground in this paper.

The factors affecting the development of the North's economy are very similar to those affecting the South. They relate to Government expenditure, market growth abroad, relative costs with the additional factor of the effect of violence on investment and output. The North differs in one other major respect, not only from the South but from other economies in that it is in substantial receipt of funds from an external source — in the form of the British subvention.

### The British Subvention

The most significant feature of the Northern economy over the past decade is the importance of the U.K. subvention. In 1970/71 the subvention amounted to 3.5 per cent of 1970 GDP at factor cost. By 1976/77 this had increased to 28 per cent and has remained at about this level since (these figures exclude the extra cost of the British army in the North). It is therefore necessary before dealing with the projection to explain the basis of the subvention and its evolution over time.

Given the importance of the U.K. subvention it is important to understand how it arises. Table 2.4.1 summarises the main headings under which the subvention arises, using the same definition as in the Forum report, *A Comparative Description of the Economic Structure and Situation, North and South.*

The bulk of the subvention is made up of three elements, — the contribution to the Northern Ireland Consolidated Fund (the grant-in-aid), the operations of the Northern Ireland Office (mainly on law and order) and the British contribution to the Northern Ireland National Insurance Fund.

**(i) The Contribution to the North — (Grant-in-Aid)**

The contribution to the Northern Ireland Consolidated Fund from the U.K. government is equivalent to the difference between current revenue and current expenditure of Northern Ireland Departments (these departments exclude the U.K. Ministry of Agriculture, Fisheries and Food, the Intervention Board and the NIO). The significance of the grant- in-aid can be seen by looking at the Consolidated Fund for Northern Ireland — the year 1983/84 is given below in Table 2.4.2.

The grant-in-aid is essentially a topping up to ensure that expenditure is financed. This expenditure — particularly that covered by supply services-is not wholly current as some capital expenditure is included in it. In fact, if the grant in aid is taken as a current receipt the Northern Ireland Exchequer is running a budget surplus. However, this would be a very artificial way of looking at the accounts of the North. A more complete picture is obtained by looking at the National Accounts classification of Consolidated Fund Revenue and Expenditure (Table 2.4.3). This table differs from Table 2.4.2 in that the Northern Ireland National Insurance Fund expenditure and revenue (including the grant from the U.K. National Insurance Fund discussed later) is included. Also included are some items of expenditure totalling £152 million (equivalent to the borrowing requirement) not identified separately.

The grant-in-aid in essence finances current and capital expenditure with some small amount of borrowing making up the residual. Indeed if revenue generated from the North's economic activity is considered, then the North would be running a current deficit of £503 million or 10.5 per cent of GDP at factor cost.

**(ii) The Northern Ireland Office**

The Northern Ireland Office, which is not a Northern Ireland Department but rather a U.K. Department, has primary responsibility for law, order and protective services (police, prisons etc). The Office's

**Table 2.4.1: British Subvention to the North — £m. Current Prices 1970/71 — 1983/84**

| | 1970/71 | 1973/74 | 1976/77 | 1980/81 | 1981/82 | 1982/83 | 1983/84* |
|---|---|---|---|---|---|---|---|
| Grant-in-Aid | - | 175 | 360 | 640 | 585 | 630 | 725 |
| NIO Services | - | 20 | 170 | 308 | 339 | 364 | 390 |
| N.I. Courts | - | - | - | 6 | 8 | 8 | 8 |
| Ministry of Agri., Fisheries & Food: Subsidies & Grants | 37 | 38 | 51 | 35 | 35 | 52 | 45 |
| British National Insurance Fund Grant to NI National Insurance Fund | 13 | 30 | 56 | 99 | 96 | 111 | 139 |
| VAT Refund | - | 1 | 5 | 16 | 18 | 18 | 18 |
| N.I. Electricity Service Loan Annuity** | - | - | - | 34 | 34 | 34 | 34 |
| Other | 37 | 54 | - | - | - | - | |
| less European Regional Development Fund Receipts | - | - | 7 | 21 | 16 | 18 | 29 |
| less European Social Fund Receipts | — | - | 6 | 23 | 25 | 29 | 40 |
| Sub-Total | 87 | 318 | 629 | 1092 | 1074 | 1170 | 1280 |
| Extra Cost of Army | 6 | 33 | 65 | 111 | 149 | 134 | 140 |
| Total | 93 | 351 | 694 | 1203 | 1223 | 1304 | 1420 |

*Estimates

**Annualised Equivalent of Write-Off of Debts of N.I. Electricity Service.

**Table 2.4.2: Consolidated Fund of the North — £m. Current Prices**
**1983/84 Estimate**

| Income | | Expenditure | |
|---|---|---|---|
| Attributed Share of U.K. Taxes | 1650 | Supply Services | 2622 |
| VAT Refund from U.K. Government | 18 | Consolidated Fund | |
| Regional and District Rates | 169 | Services | 180 |
| Interest on Loans | 130 | (of which rates) | (67) |
| Other Revenue | 110 | Other Expenditure | 1 |
| Sub-Total | 2077 | | |
| Grant-in-Aid | 726 | | |
| **Total Income** | **2803** | **Total Expenditure** | **2803** |

**Table 2.4.3: National Accounts Classification of Receipts and Expenditure of Northern Ireland Departments — Estimated Transactions — £m. Current Prices 1983/84**

| Receipts | | Expenditure | |
|---|---|---|---|
| Attributed Share of U.K. Taxes | 1650 | **Current** | |
| Regional & District Rates | 169 | Current Expenditure on: | |
| | | Goods & Services | 1121 |
| | | Debt Interest | 113 |
| Grant-in-Aid | 726 | Subsidies | 254 |
| VAT Refund | 18 | District Rates | 67 |
| Interest Received | 130 | Current Grants to | |
| | | (i) Local Authorities | 222 |
| Receipt from N.I. National | | (ii) Private Sector | 1222 |
| Insurance Fund | 432 | Other Current Transactions | 13 |
| Grant from U.K. National | | Total Current Expenditure | 3012 |
| Insurance Fund | 139 | | |
| Other Revenue | 110 | (Current Surplus) | (362) |
| Total Revenue | 3374 | **Capital** | |
| | | Gross Fixed Capital Formation | 123 |
| | | Capital Grants to | |
| | | (i) Local Authorities | 29 |
| | | (ii) Public Corporations | 40 |
| | | (iii) Private Sector | 149 |
| | | Net Lending to | |
| | | (i) Local Authorities | 102 |
| | | (ii) Private Sector | 72 |
| Borrowing Requirement | 152 | Total Capital Expenditure | 515 |
| **Total Receipts** | **3527** | **Total Expenditure** | **3527** |

expenditure may be regarded as being funded directly from Britain and in essence is very similar to the grant-in-aid. For 1983/84 the amount allocated is £390 million.

### (iii) Contribution to the Northern Ireland National Insurance Fund

The three main elements in the Northern Ireland National Insurance Fund are contributions from employers, employees and the Northern Ireland Consolidated Fund. However, the National Insurance Fund still remains in deficit — this deficit being made up by payments from the British National Insurance Fund. The amount in 1983/84 is budgeted at £139 m.

### Total Revenue and Expenditure

The three elements referred to are incorporated into a full account for Northern Ireland (excluding local authorities and nationalised industries, except in so far as they are in receipt of loans, grants or subsidies already included in expenditure). For completeness net expenditure by the British Ministry of Agriculture, Fisheries & Food is included as a receipt and as an expenditure. Table 2.4.4 contains the complete account. Note that excluded from this table are the extra costs of the British Army in the North.

In forecasting the government accounts for Northern Ireland it is important to realise that some items of receipts are not determined from activity in the North but are rather residual in nature with the British Government making up any deficiency. The grant-in-aid and the grant from the British National Insurance fund are the two principal areas where this arises. The main item of revenue derived from activity in the North is the attributed share of U.K. taxes.

### Attributed Share of U.K. Taxes

This amount is paid from the U.K. Consolidated Fund to the Northern Ireland Consolidated Fund (formerly N.I. Exchequer) and is a sum representing the N.I. share of U.K. taxes. It is intended that the sums involved be the proceeds of taxes paid to U.K. Consolidated Fund properly attributable to N.I. after deducting the cost of collection and the Northern Ireland share of the U.K. contribution to the European Community. In practice the amounts attributed are based on certain conventions as well as actual receipts.

For customs and excise the amount attributable to Northern Ireland is the same proportion of U.K. total customs and excise as Northern Ireland purchases of goods covered by customs and excise duties are of the U.K. total. Where data are not available the North's share is based on its share of U.K. population.

**Table 2.4.4: Government Expenditure and Revenue 1983/84 — £m. Current Prices**

| Revenue | | Expenditure | |
|---|---|---|---|
| **Northern Ireland Office** | 393 | **Northern Ireland Office** | 393 |
| Attributed Share of U.K. Taxes | 1650 | **Northern Ireland Departments** | |
| Other Current Receipts of Consolidated Fund | 409 | Current Expenditure on Goods & Services | 1121 |
| NI National Insurance Fund Own Receipts | 432 | Debt Interest & Subsidies & Rates | 447 |
| Grant from British National Insurance Fund | 139 | Social Welfare Expenditure under National Insurance Fund | 571 |
| Grant-in-Aid (incl. VAT Refunds) | 744 | Other Transfers | 873 |
| Total Receipts | 3767 | | |
| UK Ministry of Agriculture etc. | 45 | UK Ministry of Agriculture etc. | 45 |
| Borrowing | 152 | Capital Expenditure | 515 |
| Total Receipts | 3964 | Total Expenditure | 3964 |

The income tax estimate is based on a proportionate rate and is the amount given by applying to total U.K. income tax receipts the proportion Northern Ireland incomes are of total U.K. incomes.

Corporation profits tax is assessed similarly — the proportion being that of total profits from activities in the North relative to total U.K. profits.

Stamp Duties, Estate Duties, Vehicle Excise and the National Insurance Surcharge are based on actual amounts collected.

From the perspective of this study the attributed share of the U.K. taxes is biased upwards because receipts from the U.K. Consolidated Fund through North Sea oil and gas revenue appear as part of the North's taxes although there is no oil or gas production in the North. In 1982/83 the amount collected from North Sea production was £7,810 million — made up of £250 million in Corporation Tax, £2,400 million in Supplementary Petroleum Duty, £3,280 million in Petroleum Revenue Tax and the remainder (royalties etc.) at £1,880 million. Identifiable items in the attributed share of U.K. taxes to the North are Petroleum Revenue Tax, £59 million (1.8 per cent of total revenue) and Supplementary Petroleum Duty, £43 million. There is also a minor amount included for Corporation Tax (about £5 million). No allowance appears to be made for other North Sea taxes. If attributed on a similar basis these would amount to £33 million. The total of North Sea revenue assigned to the North is thus in the range of £107 — £140 million.

The revenue figures are further adjusted to take account of U.K. payments to the European Community and the costs of collection of taxes — this is not a charge on Northern Ireland Departments. Table 2.4.6 provides the details of the estimate for the attributed share of U.K. taxes for 1982/83 and 1983/84.

**Table 2.4.6: Share of U.K. Taxes Attributed to North**
**£m. Current Prices**

| | 1982 — '83 | 1983 — '84 |
|---|---|---|
| Customs & Excise | 730 | 800 |
| Inland Revenue | 826 | 890 |
| Vehicle Excise Duties | 42 | 43 |
| National Insurance Surcharge | 54 | 37 |
| Total Revenue Arising | 1652 | 1770 |
| less costs of Collection | 35 | 37 |
| less N.I. share of the U.K. Contribution to the European Community | 75 | 83 |
| Total | 1542 | 1650 |
| Adjustment for Previous Years | 66 | - |
| Total Attributed Share | 1608 | 1650 |

**Table 2.4.7: GDP & Main Influences**

| | 1973 | 1974 | 1975 | 1976 | 1977 | 1978 | 1979 | 1980 | 1981 | 1982 |
|---|---|---|---|---|---|---|---|---|---|---|
| GDP % Change Volume (N.I.) | 3.4 | -1.1 | 2.2 | 1.0 | 0.8 | 0.9 | 1.1 | -2.4 | 0.8 | -0.8 |
| Govt. Expenditure % Change Volume | 11.1 | 18.0 | 4.6 | 0.4 | -0.5 | 5.5 | 1.1 | 0.1 | 0 | 3 |
| Govt. Expenditure % GDP | 67.8 | 63.5 | 64.7 | 64.5 | 71.0 | 74.3 | 74.3 | 76.1 | 75.6 | 78.0 |
| GDP (Britain) % Change Volume | 7.7 | -0.7 | -0.7 | 3.7 | 1.4 | 3.1 | 1.4 | -2.1 | -2.3 | 1.4 |

The adjustment for previous years arises because final data are not available at the time the year is complete. The amount depends on how well receipts are forecast and estimated.

### Forecasts for GDP, Employment & Government Finances

The preparation of consistent forecasts for the North's economy is hampered by the lack of a consistent national accounts framework.

The main causal factors influencing the development of the economy are very similar to those in the South (i) the level of government expenditure (ii) the growth in the area's principal markets, mainly Britain (iii) the evolution of costs.

(Government Expenditure is as defined in "The Government's Expenditure Plans 1983-84 to 1985-86" Cmnd 8787. It includes the Northern Ireland Office, Northern Ireland Departments, Local Authorities, capital expenditure by nationalised industries and National Insurance Fund expenditure).

### Government Expenditure

As noted above total Government expenditure is a dominating influence on the North's economy. It is determined in the first instance by the U.K. Government subject to the principle of parity — affecting the level of services, the operation of the social welfare system, and the response to violence in expenditure terms (excluding the extra cost of army operations which is not included in the Northern Ireland Programme in the British Government Expenditure Plans). The broad outlines of U.K. government expenditure plans are laid down in Volumes I and II (Cmnd 8789 I — II) of the Governments Expenditure Plans 1983-84 to 1985/86.

**Table 2.4.8: Public Expenditure Northern Ireland 1982/83 — 1985/86**

| | 1982/83 Actual | 1983/84 Plans | 1984/85 Plans | 1985/86 Plans |
|---|---|---|---|---|
| Total Expenditure (£m. Current Prices) | 3568 | 3806 | 4020 | 4210 |
| % Change | 0.9 | 6.7 | 5.6 | 4.7 |
| Total Expenditure (£m. Constant '81/82 Prices) | 3319 | 3372 | 3398* | 3398* |
| % Change | 3.1 | 1.6 | 0.5 | 0 |

*Using GDP deflator — increasing by 5 per cent per annum.

The projected figures for government expenditure are fairly typical of the type of figures that the U.K. Government have produced over a number of years. They represent a statement of intent to reduce the growth and the relative size of government. The plans suggest that there will not be an expansionary programme over the next few years. The global figures of the previous table are broken down by expenditure head, where considered appropriate, in Table 2.4.9 below.

**Table 2.4.9: Expenditure by Programme 1983/84 (Estimates) £m**

| | |
|---|---|
| Industry | 405 |
| Housing | 317 |
| Law, Order etc. | 400 |
| (of which NIO) | (393) |
| Education | 562 |
| Health | 626 |
| Social Security | 1084 |
| Other | 412 |
| **Total** | **3806** |

In projecting these figures it is necessary to make some assumptions about areas of expenditure where more or less automatic increases would take place. For many items of expenditure the development of the population and of the labour force is the determinant of expenditure. The approach used has been to estimate the various components of expenditure with reference to the relevant age groups in the population.

In Appendix 2 an attempt is made to reconstruct the age distribution of the 1981 census and to provide a projected 1993 population. From this we can look at the target groups for education, health and social welfare expenditure. The total population is projected to grow by about 5 per cent over the period. The increase is concentrated in the age group 16 — 64. i.e. the economically active population.

Turning first to education expenditure, the projection shows an increase of 1.8 per cent over the whole period in the numbers of those aged less than 16. Taken with the number assumed still in education over the age of 16 the total number in education over the whole period would remain relatively unchanged — though of course there are differences between different age groups which would affect the different levels of education.

Similarly, the main target group for health expenditure i.e. those older than 50 is, on the projection, relatively unchanged. If the

projection proves accurate then there will be an increase in the number of births per year. Clearly health expenditure is affected by the violence in the North but no estimate of the additional expense involved in this is available.

It is now necessary to estimate the level of unemployment to derive social security expenditure. As noted earlier the bulk of the increase in the population is projected in the potential labour force. The potential labour force could grow from 660.1 thousand in 1981 to 713.4 thousand in 1993 (census of population definitions).

It is of some interest to look at recent developments in the labour force — using census of employment figures. There has been a reclassification of those unemployed recently but, for comparability purposes, the old definition is used. This affects the measure of the working population and unemployment.

**Table 2.4.10: Employment & Unemployment 1974 — 81**
**000's**

| | 1974 | 1979 | 1980 | 1981 | Change 1974 — 1981 |
|---|---|---|---|---|---|
| Civilian Working Population | 595 | 652 | 651 | 646 | +51 |
| Unemployment | 27 | 63 | 73 | 104 | +77 |
| Civil Employment | 568 | 589 | 578 | 542 | -26 |
| Of which: | | | | | |
| Public Sector Employment | 173 | 207 | 213 | 212 | +39 |
| Private Sector* Employment | 310 | 306 | 290 | 258 | -52 |
| Self Employed | 85 | 74 | 75 | 72 | -13 |

*There may be some public sector jobs included in this total where enterprises are commercial.

There was a substantial increase in the labour force over this period. However, there was a very large increase in unemployment and a fall in employment. The fall in employment itself is made up of an increase of 22.5 per cent in public sector employment and a decline of 16.8 per cent in private sector employment. The increase in public sector employment owes a good deal to the level of violence and the operation of parity of services with the U.K. To a certain extent the expansion of public sector employment at relatively higher levels of pay must have bid labour away from the private sector and led wage rates up.

It has previously been noted that the U.K. Government is unlikely to adopt an expansionary stance over the medium term. This has fairly clear implications for public sector employment in Northern Ireland. If present levels of government expenditure in the U.K. were maintained in real terms to 1988 then government expenditure would still be 40 per cent of GDP i.e. about the average ratio of 1977/78 — 1979/80. If this level were no more than maintained beyond 1988 then by 1993 government expenditure would be 34 per cent of GDP. It is assumed that there will be some relaxation of present policies beyond 1988 and that there will be some growth in the real level of government expenditure, but less than the growth in GDP.

Turning to employment, direct employment by the public sector in the North could remain relatively unchanged for several years and then grow slowly. With the projected development in public expenditure, the projected growth in the U.K. and the likely development in relative labour costs, the growth in the rest of the economy (discussed later) might at best maintain the expected June 1984 levels of employment. The profile for employment and unemployment to 1993 is given in Table 2.4.11. The figures given in this case are based on revised definitions and amount to reducing the level of unemployment and the labour force by 8 thousand in 1981. Actual data are used for 1982 and 1983 where available. The labour force growth of 53 thousand between 1981 and 1993 is based on the projected growth in the population aged over 16.

**Table 2.4.11: Employment & Unemployment 1981 — 1993 (000's)**

| | 1981 | 1982 | 1983 | 1984 | 1993 |
|---|---|---|---|---|---|
| Civilian Working Population (Labour Force) | 638 | 631 | 632 | 636 | 691 |
| Unemployed | 96 | 106 | 114 | 122 | 166 |
| Civil Employment | 542 | 525 | 518 | 514 | 525 |
| Of which: | | | | | |
| Public Sector | 212 | 212 | 212 | 212 | 228 |
| Private Sector | 258 | 241 | 234 | 230 | 220 |
| Self Employed | 72 | 72 | 72 | 72 | 77 |

This gives the general order of magnitude for unemployment — the basis for a substantial proportion of social security expenditure. Unemployment is expected to increase by 36 per cent on the expected 1984 levels and by 73 per cent on the 1981 levels.

Total Social Security expenditure takes place under a variety of headings: Retirement Pensions, Invalidity Benefits, Unemployment Benefits, Supplementary Benefits, Child Benefit etc. The population projection shows practically no change in the numbers in receipt of benefits other than those related to unemployment. As a consequence expenditure on social security under these headings should show little change. Combining expenditure on unemployment and other benefits, total social security expenditure by 1993 could be more than 10 per cent higher than in 1983/84 in volume terms at current rates of benefit. It is a moot point whether the real level of individual benefits would increase in line with real growth in GDP per person employed in the U.K. If so then the estimates made here are possibly too low.

For the remaining items of expenditure it is assumed that

(i) Law, order and protective service expenditure remains unchanged in volume terms.

(ii) Housing expenditure remains at the real level proposed for 1984/85 and 1985/86. This allows continuous additions to the housing stock by the Northern Ireland Housing Executive at the rate of 4 to 5 thousand houses and improvement and modernisation of existing houses. It appears likely that there will be increased expenditure as European Community support for urban renewal in Northern Ireland allows a re- allocation of domestic resources to housing. It is assumed that this is forthcoming and reflected in an increase in actual expenditure on housing — the level being about 5 per cent higher as a result.

(iii) Expenditure on industry to increase by about 2 per cent per annum to reflect increases in the numbers covered by training programmes.

(iv) Other expenditure (agriculture, transport, other environmental services) is assumed to remain unchanged on the 1983/84 level. In fact, in the U.K. Government Expenditure Plans nominal expenditure in the North on these services in 1984/85 is projected at 5-6 per cent below present levels and staying at about that level in the following year. Thus the projection allows some increase in expenditure after 1985/86.

Table 2.4.12 summarises the effects of these assumptions on total expenditure.

This gives an increase of just over 0.7 per cent per annum in Government expenditure in real terms. The increase due to the rise in unemployment covered by social security payments accounts for 40 per cent of the increase.

The conclusion of this exercise is that no major increase in government expenditure on the lines of the past 10 years can be expected

in the next decade. This will limit directly the growth in numbers directly employed by government and indirectly affect all other sectors in the community.

**Table 2.4.12: Public Expenditure by Programme 1983/84 —1993/94 £m (1983/84 prices)**

| | 1983/84 | 1993/94 |
|---|---|---|
| Industry | 405 | 495 |
| Housing | 317 | 350 |
| Law, Order etc. | 400 | 400 |
| Education | 562 | 570 |
| Health | 626 | 650 |
| Social Security | 1084 | 1210 |
| Other | 412 | 415 |
| Total | 3806 | 4090 |

**Growth in the U.K. Economy & Relative Competitiveness**

Growth in the U.K. has already been covered in Section 2.2 — The World Economic Situation. The picture there for the U.K. is for a resumption of modest growth. This is expected to average 2.5 per cent per annum in the period 1983-1993 compared with 0.7 per cent in the period 1973-83, and 3.2 per cent from 1960 — 1973. Other things being equal this would be expected to feed back into Northern Ireland manufacturing industry to some extent.

The assumption about other things being equal is really an assumption about the development of industry and labour costs and the effects on investment of perceptions of violence in the future. The development of industry is a process of change where firms and sectors undertake new processes and introduce new products. There can also be a dynamic to an economy introduced by new foreign investment. The Northern economy presents a picture of an economy where the processes have been arrested - in particular manufacturing industry seems very weak and dominated by traditional sectors. If this is a correct characterisation of manufacturing industry in the North then growth in the U.K. market would not feed fully back into manufacturing because of low income elasticities for the output of industry, because there is a concentration in areas where competition from newly industrialising countries will continue to be intense, and because of the sterilisation of the renewal and reinvestment process due to the effects of violence.

It should be added that we would not expect a deterioration in competitiveness over the medium term. There may have been some labour market effects from the rapid growth in public employment in the 1970s that forced up basic rates of pay in the North. If this were the case then the combination of a static public sector and further increases in unemployment could act to limit the growth in incomes and prevent a further deterioration in wage competitiveness.

### GDP Growth to 1993

The main determinants of growth in the North are the growth in government expenditure, the growth in the U.K. economy and the development of relative costs. The analysis of this section suggests that there will be some growth in the Northern Ireland economy over the medium term. However, the prime determinant of growth in the past decade viz. the public sector, is unlikely to offer any major stimulus. In terms of aggregate market growth the situation is more favourable than in the past decade but the North's benefit will be limited because of the structure of industry. However, there is unlikely to be a loss of wage competitiveness vis-a-vis the U.K. Against this, a continuation of violence will continue to inhibit investment so that necessary structural change will not take place. This translates into a profile for output:

**Table 2.4.13: GDP by Sector 1983 Constant Prices**

| | 1983 £m. | 1993 £m. | % Change p.a. |
|---|---|---|---|
| Agriculture | 290 | 320 | 1 |
| Manufacturing | 925 | 1075 | 1.5 |
| Construction | 345 | 380 | 1 |
| Other Industries | 200 | 230 | 1.5 |
| Services | 2390 | 2640 | 1 |
| Public Administration | 625 | 625 | 0 |
| GDP at factor cost | 4775 | 5270 | 1 |

### Projections of Revenue and British Subvention

It is necessary to see what the implications are for the North's revenue (both the attributed share of U.K. tax revenue and the U.K. subvention) of this pattern of development.

With the assumptions for constant government expenditure and the growth of the U.K. economy, then if current tax rates are maintained in

real terms the U.K. Government would be running large budget surpluses by 1993. The assumption actually made, that there would be some relaxation of policy after 1988 is reflected in an increase in real government expenditure of about 1 — 1.5 per cent. The effects of this on the North are implicit in the data in Table 2.4.12 where expenditure (excluding law, order and protective services) increases by slightly more than in the U.K. as a whole. Realistically one would not expect a relaxation of policy on government expenditure to be equally felt across the board. For instance it could take the form of increased direct central government expenditure under the headings in Table 2.4.12 — though it could mean increased orders for Northern firms engaged in defence work.

It is necessary however, to go further than this. Even with the assumed relaxation on expenditure the U.K. Government would be running large surpluses by 1993. This is implausible. The Government would be likely to reduce real tax rates. We have constructed a scenario where the U.K. government holds the real level of expenditure constant to 1987 when government expenditure is 40 per cent of GDP, then lets it grow at 1.25 per cent per annum, maintains a borrowing requirement of 2 per cent of GDP and then reduces the real level of taxes to the extent possible.

Taxes as a percentage of GDP fall to 37 per cent compared with 43.5 per cent in 1983. Real tax rates decline, but total tax revenue increases because the volume of output is increasing. Since the North is experiencing the same decline in real tax rates the effect on the U.K. tax revenue attributed to the North depends on the growth in the North's economy. As we have seen the North's GDP is increasing by just about 1 per cent per annum compared with 2.5 per cent in the U.K.

It is necessary to make an indirect approach to estimating the North's share of U.K. tax revenue. The North's GDP would fall at factor cost from 1.9 to 1.6 per cent of U.K. GDP at factor cost between 1983 and 1993, so that a decline in the proportion of the attributed share of total U.K. tax revenue from 1.28 per cent in 1983 is likely. As a simple rule of thumb we have assumed that the ratio of the (North's Tax/North's GDP) to (U.K. Tax/U.K. GDP) remains constant between 1983 and 1993 i.e.

$$\frac{(NT)}{(NGDP)} \Big/ \frac{(UKT)}{(UKGDP)} = 0.67 \text{ in 1983 and 1993}$$

The consequence would be that in 1993 at 1983 prices the amount payable to the North under the attributed share would fall to £1530m from £1650 million in 1983. This would result from declining tax rates in the U.K. as a whole and poor growth in the North relative to the U.K. A similar situation could arise with regard to National Insurance Fund

receipts if the rates of contribution were reduced. Given the insurance aspect of these contributions and the high level of unemployment in the U.K. as a whole it is assumed that real rates of contribution remain unchanged. In Table 2.4.15 an estimate is derived of the grant from the British National Insurance Fund.

**Table 2.4.15: Social Security Expenditure and Financing £m. 1983 Prices**

| | 1983 | 1993 |
|---|---|---|
| Social Security Expenditure in North | 1084 | 1210 |
| N.I. National Insurance Fund own receipts | 432 | 471 |
| Other (Amount financed from General Revenue) | 513 | 573 |
| Grant from British National Insurance Fund | 139 | 166 |

Actual receipts into the National Insurance Fund are determined in a mixture of ways, being income related to a maximum income limit as in the South or flat rate, depending on characteristics. Given that there is very little change expected in employment, the most that could be expected at current rates of contribution, would be based on real income growth of 1 per cent per annum. Cut-off points and flat-rate contributions would bias downward the Fund's income. In the table we have assumed a .75 per cent per annum increase. The U.K. contribution to the Fund, derived as a residual, shows an increase of 20 per cent between 1983 and 1993.

**Table 2.4.16: Consolidated Fund Accounts Northern Ireland 1993/94 £m. 1983 Prices**

| | | | |
|---|---|---|---|
| Attributed Share of U.K. | | | |
| Taxes | 1530 | Supply Services | 2825 |
| VAT Refund | 20 | Consolidated | |
| Rates | 170 | Fund Services | 190 |
| Other | 250 | (Rates) | (70) |
| Grant-in-Aid | 1045 | | |
| | 3015 | | 3015 |

Table 2.4.16 considers the Consolidated Fund Accounts for the North by 1993/94.

The growth in Supply Service Expenditure is derived from Table 2.4.12 which considers total public expenditure in the North. In going

**Table 2.4.17: Government Revenue and Expenditure 1993/94**
**£m, 1983 Prices**

| **Revenue** | | **Expenditure** | |
|---|---|---|---|
| Northern Ireland Office | 393 | Northern Ireland Office | 393 |
| Attributed Share of U.K. Taxes | 1530 | Current Expenditure on | |
| Other Receipts | 420 | Goods & Services | 1230 |
| National Insurance Funds (Own Receipts) | 471 | Debt Interest & Subsidies & Rates | 450 |
| Grant from British National Insurance Fund | 166 | National Insurance Expenditure | 637 |
| Grant-in-Aid (incl Vat Refunds) | 1065 | Other Social Security Expenditure | 573 |
| Total Receipts | 4045 | Other Transfers | 400 |
| Ministry of Agriculture etc. | 50 | Ministry of Agriculture etc. | 50 |
| Borrowing | 152 | Capital Expenditure | 515 |
| | 4247 | | 4247 |

from Table 2.4.12 to this, expenditure on Law, Order and Protective Services (essentially the NIO) and expenditures financed by the National Insurance Fund (including grant from British National Insurance Fund) were deducted from the totals in that table. The percentage increase in the remainder between 1983/84 and 1993/94 was then applied to the 1983/84 Supply Service Estimate.

The grant-in-aid then emerges at £1045 million, compared with £744 million in 1983/84. It is possible to piece together the full budget profile for the North — Table 2.4.17. This corresponds to Table 2.4.4.

The implied total British subvention to the North by 1993 is given in Table 2.4.18.

**Table 2.4.18: British Subvention to North**
**£m, 1983 Prices**

| | 1983/84 | 1993/94 |
|---|---|---|
| Grant-in-Aid | 725 | 1045 |
| NIO Services | 386 | 386 |
| NI Courts | 7 | 7 |
| U.K. Ministry of Agriculture etc | 45 | 50 |
| Grant from U.K. National Insurance Fund | 139 | 166 |
| VAT Refund | 18 | 20 |
| NIES Loan Annuity | 34 | 34 |
| less ERDF Receipts | 29 | 30 |
| less ESF Receipts | 40 | 40 |
| Total | 1280 | 1778 |
| Extra Cost of Army | 140 | 140 |
| Total | 1420 | 1918 |

The U.K. subvention by 1993/4 would be approximately 36 per cent of GDP compared with 30 per cent in 1983/84. As noted earlier this may understate the position to the extent that social welfare payments might increase in real terms. For instance, were one to assume that real social welfare payments increase in line with real growth in the U.K. economy then social security expenditure could be £150 million more in 1993/94 and this would increase the size of the grant-in-aid plus the grant from the British National Insurance Fund by this amount.

**The Economy of the North 1993/94**

The picture that emerges of the North's economy by 1993/94 on the assumption of a continuation of violence is one of unrelieved gloom. In terms of the standards employed by economists to judge the performance of an economy the Northern economy will not have performed well. Unemployment will be high, average living standards will be not much different and the economy will be experiencing a massive external payments deficit — measured by the size of the U.K. subvention.

**Employment and Unemployment**

| | 1983 | 1993 |
|---|---|---|
| Civil Employment 000's | 518 | 525 |
| Unemployment 000's | 114 | 166 |
| Civil Labour Force 000's | 632 | 691 |
| Unemployment % Civil Labour Force | 18.0 | 24.0 |
| % Civil Employment | 22.0 | 31.6 |

**Living Standards**

| | 1983 | 1993 | % Change p.a. |
|---|---|---|---|
| GDP (1983 Prices) £m | 4775 | 5270 | 1.0 |
| Population 000's | 1562 | 1641 | 0.5 |
| GDP per head | 3055 | 3210 | 0.4 |
| GDP Plus Subvention in £m (1983 Prices) | 6195 | 7188 | 1.4 |
| (GDP Plus Subvention) per head £ | 3965 | 4380 | 1.0 |

**External Dependence**

| | | |
|---|---|---|
| GDP (1983 prices) £m | 4775 | 5270 |
| Subvention £m | 1420 | 1918 |
| Subvention % GDP | 29.7 | 36.4 |

Even these measures are somewhat suspect. The conventional measures of GDP treat defence as output, yet it is self-evident that an increase in GDP occurring because of an increase in externally financed security services is not an increase in goods and services available to the community. The extra law, order and security in the North is more

properly conceived as a cost of production, an input into the cost side of output. To the extent that the extra costs are financed externally to the North then income, demand and output are higher than they would otherwise be, given the violence, unless the cost of these services could be financed by borrowing (due allowance being made for interest payments). It is in this sense that a reduction in violence and violence related expenditure which reduced the British subvention would have a negative first round effect on the demand for output. These demand effects are important and arise because of the level of violence. There is little doubt however that on any commonsense view the GDP figures for both 1983 and 1993 are too high as measures of welfare.

On top of the picture painted for the Northern economy there would have been continuous violence over the whole period at levels currently prevailing. It is difficult to see how the situation — the combination of a relative worsening of economic circumstances, rising unemployment and continued violence could be sustained. We would expect that the intensification of the present unfavourable position would lead to a significant increase in migration from the North. The assumption we adopted in Appendix 2 was that annual net migration could be 7,700. This could increase very significantly — particularly in the context of an improvement in the British economy.

# CHAPTER 3

# COMMON FEATURES OF ALTERNATIVE SCENARIOS

There are several levels at which one approaches the violence in the North. At the most fundamental level the human misery and suffering associated with that violence is the most striking dimension. At another level the loss in output and the exchequer costs are of some significance. In this section we attempt to look at the output and exchequer effects of the ending of violence and political instability, and currency arrangements that might arise in a new political situation. These represent common themes of the three scenarios.

## 3.1: Cessation of Violence

### The North

#### Supply Side Effects

At the outset it is as well to recognise that the losses in output due to violence may be permanent. There can be little doubt that the path of development in the North has been seriously affected by the violence. This comes directly on the supply side (i) where indigenous and foreign firms decided not to invest or to locate new plants outside the North (ii) where the expansion in the public sector in the security and health areas may have pushed up wage rates in general and (iii) where extra security costs were reflected in increased costs to firms not covered by special government schemes.

Losses of output due to "losing" investment are permanent. If violence ceases then the economy of the North would experience an increase in investment by indigenous and foreign firms compared with what otherwise would occur. However, decisions to invest outside the North have already been made and output is taking place elsewhere. A cessation of violence would not lead to plants set up elsewhere relocating in the North. It should however lead to the North appearing more favourable than at present as a location for investment by existing firms and new foreign investment from abroad.

Output losses may also have occurred because of the induced effect on labour costs of increased demand for labour by the Government services. Some part of this demand has arisen from making up leeway in accordance with the principle of parity while the remainder has arisen from the increased requirement for security personnel because of the violence. However a cessation of violence in itself would not lead to an improvement in relative labour costs. The reality is that wage rates are rarely flexible downwards. Even if wage rates were flexible downwards there is no reason to believe that output would increase to the level that would have prevailed if there had been no violence — because many firms have simply gone to the wall as a result of labour cost developments. An adjustment of labour costs to reduced violence would run from reduced violence to reduced demand for security personnel to higher unemployment to lower wage rates, but this may take some time to work through.

Finally on the supply side there would be an increase in profitability in firms where security costs were not fully recoverable. The amounts paid out under the Security Staff Premium Scheme seem very small in relation to the potential costs involved.

### Demand Side Effects

On the demand side there is no evidence that the output of firms in the North is meeting resistance because the output is from the North, with the exception of tourism output. A cessation of violence would have positive effects on tourism.

### Overall Effects

The cessation of hostilities would thus have both supply and demand implications. The extent may not be as marked as might be expected because of the permanent loss of productive capacity to date. The most that could be hoped for, even allowing for new investment, is that the manufacturing sector might experience output growth more or less in line with U.K. growth with this further reflected in non-public sector service output, augmented by the positive tourism effects.

### Public Expenditure Effects

At first sight the public expenditure effects of the cessation of violence appear straightforward. The costs are included in expenditure under the Northern Ireland Office and in extra costs arising under Army expenditure. However, the situation is by no means as clear as this. First, under the Northern Ireland Office expenditure in 1982/83 was £369 million. No breakdown is available of this but it is possible to piece

together some parts. Of the total, £250 million is estimated to have been extra law enforcement costs. These costs include police and prison expenditure, both current and capital. The capital element in total expenditure is £20 million. In addition criminal injuries to persons amounted to £7.1 million and criminal damage to property £31.1 million. The Security Staff Premium Scheme cost £2.6 million in 1981/82 (say £2.5 million in 1982/83). Together these amounted to £291 million.

The bulk of the extra expenditure clearly arises from the increase in the police force, the prison service and the prison population.

### The Police Force

There are two sources of data on the police force contained in the Northern Ireland Annual Abstract of Statistics 1981 (Belfast HMSO). One refers to the strength of the Police Force at December of each year while the other is derived from the June census of employment and may include civilians. Since the concern is with trends both are given over the relevant available time period. Table 3.1.1 summarises the position.

**Table 3.1.1: Employment in Police Force**

| | Strength of Police Force (numbers) | | | | | |
|---|---|---|---|---|---|---|
| | R.U.C | R.U.C. Reserve Full Time | Part Time | Total Full Time | Total | Employment in R.U.C. (June) Numbers |
| 1971 | 4086 | - | 1284 | 4086 | 5370 | - |
| 1972 | 4257 | 153 | 1981 | 4410 | 6391 | - |
| 1973 | 4391 | 290 | 2224 | 4681 | 6905 | - |
| 1974 | 4565 | 510 | 3350 | 5075 | 8425 | 8,131 |
| 1975 | 5902 | 661 | 4158 | 5563 | 9721 | 10,462 |
| 1976 | 5253 | 870 | 3827 | 6223 | 10050 | 11,787 |
| 1977 | 5692 | 1002 | 3684 | 6694 | 10378 | 12,022 |
| 1978 | 6110 | 1188 | 3420 | 7298 | 10718 | 12,773 |
| 1979 | 6614 | 1304 | 3209 | 7918 | 11127 | 13,266 |
| 1980 | 6935 | 1685 | 3067 | 8620 | 11687 | 13,760 |
| 1981 | 7334 | 2060 | 2810 | 9394 | 12204 | 14,467 |
| % Changes | | | | | | |
| '74-81 | 79.5 | - | 118.8 | 130.0 | 127.3 | - |
| '74-81 | 60.7 | 304.0 | -16.1 | 85.0 | 44.9 | 77.9 |

The total full time strength of the R.U.C. increased by 85 per cent between 1974 and 1981. Using the wider definition the increase was just under 80 per cent. From 1971 the increase in the total full time R.U.C. (including reserve) was 130 per cent.

### The Prison Service and Prison Population

There has also been a very rapid growth in the prison service and prison population — the costs of both are covered by the Northern Ireland Office.

**Table 3.1.2: Prison Service & Prison Population (numbers)**

| | Prison Service | Prisoner Population | |
|---|---|---|---|
| | | Prison | Borstal etc. |
| 1970 | | 784 | 126 |
| 1971 | | 819 | 117 |
| 1972 | | 1117 | 95 |
| 1973 | | 1649 | 90 |
| 1974 | 983 | 2087 | 91 |
| 1975 | 1378 | 2588 | 118 |
| 1976 | 1869 | 2441 | 140 |
| 1977 | 2112 | 2740 | 138 |
| 1978 | 2185 | 2671 | 140 |
| 1979 | 2456 | 2361 | 148 (145)* |
| 1980 | 2488 | 2223 | 211 |
| 1981 | 2685 | 2237 | 207 |

*Youth Offenders' Centre Opened

The greater part of the increase in the prison population has been due to the increase in the number of prisoners jailed for crimes connected with terrorism and violence. It would be unrealistic to think that a return to peace would lead to a reduction to a pre-1969 level for the prison population once those serving sentences have been released, as general crime may have increased. Pressure on prison space in the 1970's must have resulted in differential sentencing over time as seems to have occurred in the Republic of Ireland and in Britain.

The increase in the prison population from 1970 to 1981 was 185 per cent. There was a roughly similar increase in the prison service since 1974. The increase in the latter from 1970 could have been over 200 per cent.

Savings in government expenditure that might occur from the cessation of violence could be quite small initially. An exception to this would be in relation to expenditure on criminal damages, criminal injuries and the Security Staff Premium Scheme (£41m in 1982/83) where expenditure would fall quite sharply. For other expenditure there is a stock-flow problem.

The police force is of a particular size. The cessation of violence in itself will have no effect on numbers employed in the police force. Decisions would have to be made not to replace police officers who die or retire or to let serving police officers go. The employment situation in the North is not such that police officers would leave of their own accord — particularly if violence ceases. The loss due to retirement may not be great — the expansion of the force in the 1970s suggests that it is a relatively young police force.

The situation is further complicated with respect to the prison service and prison population. A cessation of violence in itself does nothing to reduce the prison population — it would reduce the inflow. The prison population would decline over time but the rate of decline would depend on the length of sentences and policy on remission of sentences. We assumed that without violence the prison population would have been about 1,000 in 1981 compared with 784 in 1970.

Over and above the problem with the prison population the prison service itself presents an identical problem to that of the police force viz. there is no automatic reason for believing that the numbers would decline because the prison population declines.

In essence what this is saying is that the savings to the Northern Ireland Office from the cessation of violence would not be marked, unless one was willing to make large numbers of staff redundant. The "extra cost" of £250 million in 1982/83 may not be fully realisable as savings i.e. it is unlikely that expenditure covered by the NIO would fall to £75 million, the implied non-violence cost.

Nevertheless there would be savings if people are simply not replaced when they leave, retire or die. The numbers voluntarily leaving would not, as noted earlier, be very large, particularly if the job situation remains poor and working conditions become more favourable (violence ceases and prison population declines).

The working assumption we were given, for the alternative scenarios specified "unified public service and security forces to be by end 1988 of a size *pro rata* with that currently obtaining in the south, adjusted for excess violence-related security establishment". There are three ways the latter can be interpreted (i) where the excess violence related establishment is taken as a datum and no adjustment is made North or South (ii) where the excess violence-related establishment in the South is taken as the "norm" and the security establishment North and South is simply reduced to present levels in the South (iii) where the security

establishment in the South is adjusted downwards and the North's simply follows. The second of these is taken as the working assumption. The first implicitly involves maintaining the present levels of the security establishment while other public services are reduced i.e. a reduction could take place in the teaching population but the number of police men remain unchanged. This seems inherently implausible. The third is covered in the discussion below with regard to the South.

For the North's prison service the assumption requires a very significant reduction in numbers — to about 700 — 750 once the prison population has adjusted fully to the cessation of violence. The police force similarly would be reduced to 3,500 — 4,000. The precise assumption made with regard to the prison service is that one-half of those currently in jail for subversive offences would be released in 5 years and all in 10 years and that the prison service size follows, due allowance being made for increased crime. For the police force the adjustment is assumed to take place over 5 years, with the numbers of full time police down to 4,000 and a corresponding reduction in the police staff. In terms of the expenditure covered by NIO this then looks roughly as in Table 3.1.3.

**Table 3.1.3: Expenditure now covered by NIO 1982/83 —1993/94**

| | 1982/83 | 1983/84* | 1988/89** | 1993/94** |
|---|---|---|---|---|
| Total Expenditure | 364 | 386 | 166 | 150 |
| Criminal Damage etc | 41 | 47 | - | - |
| Extra Cost Law & Order | 250 | 262 | 89 | 73 |
| *Normal Cost Law & Order | 73 | 77 | 77 | 77 |
| Total Cost Law & Order | 323 | 339 | 166 | 150 |
| of which: prisons | 70 | 74 | 53 | 37 |
| other | 253 | 261 | 113 | 113 |

*1983/84 figures are estimates
**1988/89 and 1993/94 figures are projections on basis outlined, in 1983/84 prices.

There are several points worth noting.

(i) The full extra cost of violence is not saved even by 1993/94 because there has been an increase in other crime since 1968, which it appears reasonable to assume will continue and worsen. This would be reflected in higher prison expenditure than in the pre-violence period.

(ii) The category "other" includes police expenditure and everything else. It is possible that the savings here could be considerably greater, but we have no information on how this expenditure is broken down.

(iii) The savings are savings just under this programme. To the extent that employment is reduced social security expenditure may increase — depending on the dynamic effects of a return of peace.

(iv) It is assumed that employment in the prison service and police force falls without any difficulty (the decline by 1988 is about 9,000 and by 1993/94 about 9,500). In practice this might require some form of redundancy compensation. A permanent reduction in expenditure on law, order and protective services of just over £200 million per annum has a present value of £1,500 million to the U.K. Exchequer. Thus voluntary redundancies could be generously compensated compared with a situation of continued violence — though not of course compared with a situation where those becoming redundant simply receive unemployment assistance. For purposes of this exercise the assumption made is that people go directly from employment to unemployment. This increases social security by about £20 million.*

To summarise — the position that would arise in the North with the cessation of violence would be:

(i) some increase in investment from existing and foreign firms.

(ii) an increase in tourist expenditure.

(iii) significant savings in security costs.

(iv) a direct fall in security-related employment.

These are simply first order effects.

**The South**

The situation that would arise in the South with the cessation of violence is in some respects dissimilar to that in the North. The most important differences arise with regard to expenditure on security and investment, while there are some similarities with regard to tourism.

The extra cost of security in the South is very much less in absolute terms than in the North — an estimated IR£125 million in 1982 compared with £250 million (sterling) in the North in 1982/83.

*NIEC No 34. Public Expenditure Priorities Dec 1982.

From the mid 1970s these extra costs have accounted for about one quarter of total expenditure on security — covering the Defence Forces, the Gardaí and the prison service. The extra cost in 1982 of £135 million was out of a total of £488 million. Of this £11.5 million was due to the maintenance of subversive prisoners at Portlaoise and Limerick. If, given the size of the security services, overtime can be regarded as arising from the security situation the amount involved in 1982 under overtime in gardaí and prison service plus border and security allowances for the defence forces amounted to just over £30 million.

A cessation of violence would lead to an immediate saving in overtime expenditure. There would also be savings arising from a reduction in the size of the Defence Forces. Between 1970 and 1982 the size of the Defence Forces increased by 6,000 from 8,500 to 14,500. The whole of this increase may have been due to the security situation. A policy of non-replacement would very soon lead to a significant reduction in numbers — the strength of the army could be down to the 1970 level in about 3½ years simply through wastage, given the terms of enlistment.

The situation in the Gardaí is somewhat different. There was a very significant increase in Garda numbers throughout the 1970s — with numbers increasing by more than 50 per cent in the years since 1969. Wastage could be much less than in the Defence Forces. Because of the rapid expansion in the size of the Gardaí the force is dominated by relatively young people. Loss through retirement is currently well below loss through the 1970s and 1960s and the general economic situation has slowed down the numbers leaving of their own accord. The decline in Garda numbers may be only about 1 per cent per annum. In 1982 salaries for Gardaí amounted to £90 million. In addition £18.6 million was spent on overtime (though some small proportion of this would not have been paid to Gardaí but would have gone to clerical and other staff).

Finally there may be little saving on the prison service even when sentences of subversive prisoners are completed. There appears to be a shortage of prison places so that a halving of the subversive prison population in the next five years (based on sentences imposed and parole) could very easily be matched by an increase in other prisoners.

As with the Gardaí the main savings are likely to come through a reduction in overtime (on the assumption that subversive prisoners require a greater degree of prison service attention). In 1982 overtime payments of £7.4 million contrasted with salary payments of £12.3 million.

A cessation of violence then would lead to exchequer savings in the South. These would occur because of:

(i) A decline in the numbers in the Defence Forces.

(ii) A decline in overtime in the Gardaí and prison service and some modest decline in Garda numbers.

The extent of the savings is difficult to see. Indeed if one were to postulate that the strength of both the army and Gardaí decreased in size to the pre-1969 level the savings would be more than the extra cost estimated of £125 million, so that the £125 million implicitly makes some allowance for an increased army for whatever reason, and an increased Garda force, presumably for ordinary as opposed to subversive crime.

The assumptions used are that the army is reduced to 10,000, that overtime is eliminated in the Gardaí, and that a further reduction of 1 per cent per annum takes place in their number to 1993, and that overtime is eliminated in the prison service.

The situation then for security expenditure would look as follows:

**Table 3.1.4: Security Costs (£m, 1982 Prices)**

| | 1982 | | | 1988 | | | 1993 | | |
|---|---|---|---|---|---|---|---|---|---|
| | Pay | Other | Total | Pay | Other | Total | Pay | Other | Total |
| Gardaí | 143 | 41 | 184 | 118 | 37 | 155 | 112 | 33 | 145 |
| Prison Service | 24 | 20 | 44 | 17 | 8 | 25 | 17 | 9 | 26 |
| Defence Forces | 154 | 54 | 208 | 105 | 45 | 150 | 105 | 45 | 150 |
| Sub-Total | 321 | 115 | 436 | 240 | 90 | 330 | 234 | 87 | 321 |
| Other | — | - | 52 | - | - | 55 | - | - | 59 |
| **Total** | 321 | 115 | 488 | 240 | 90 | 385 | 234 | 87 | 380 |

There would be increased expenditure on unemployment as a result of the reduction in the army.

There is no evidence that the violence in the North has had a direct effect on investment in the South either of indigenous or foreign firms. There may have been some adverse effects on trade to U.K. from isolated acts of violence (e.g. the Mountbatten murder) but this is not quantified.

The violence clearly has had an effect on tourism receipts in the South. In contrast with the North there is still a good deal of excess capacity so that a cessation of violence leading to an increase in tourism could be matched on the supply side.

The precise figures one would put on future tourist numbers are very subjective. The most recent period has intermixed the effects of recession abroad, a relative price deterioration, a change in the preferences of holiday makers, and the violence. As our forecasts assume no further relative price deterioration, tourism figures would be positively affected — by an upward shift in the level — by the ending of violence. It is difficult to know how far to push this. In table 3.1.5 tourism is considered in more general terms to see what the violence has cost in tourism revenue. The recoverable loss in tourism may be the recent loss and this is used below.

**Table 3.1.5: Tourism Numbers to Ireland from U.K. and U.S. (000's)**

| | 1979 | 1980 | 1981 | 1982 |
|---|---|---|---|---|
| Total U.K. Visits Abroad* | 15466 | 17507 | 19046 | 20607 |
| Total U.K. Tourists Abroad* | 9827 | 11666 | 13131 | 14373 |
| Total U.K. Visits to South* | 1466 | 1430 | 1409 | 1436 |
| Total U.S. Tourist Numbers** | 9681 | 9971 | 9978 | 10275 |

*U.K. data source
**U.S. data source

**Table 3.1.6: Visitors to Ireland by purpose of visit (000's)**

| | 1979 | 1980 | 1981 | 1982 |
|---|---|---|---|---|
| Cross Channel | 1345 | 1337 | 301 | 1341 |
| of which: Tourist | 532 | 488 | 436 | 425 |
| Visit to Relative | 470 | 494 | 501 | 501 |
| Business | 258 | 259 | 2490 | 281 |
| Other | 87 | 96 | 116 | 134 |
| Continental Europe | 199 | 191 | 215 | 235 |
| of which: Tourist | 102 | 103 | 109 | 130 |
| Visit to Relative | 21 | 22 | 28 | 28 |
| Business | 53 | 49 | 61 | 61 |
| Other | 23 | 17 | 17 | 16 |
| Transatlantic | 187 | 150 | 152 | 181 |
| of which: Tourist | 156 | 112 | 105 | 136 |
| Visit to Relative | 23 | 30 | 42 | 27 |
| Business | 7 | 6 | 3 | 14 |
| Other | 2 | 2 | 1 | 4 |
| Total | 1731 | 1678 | 1668 | 1757 |
| of which: Tourist | 790 | 703 | 650 | 691 |
| Visit to Relative | 514 | 546 | 571 | 556 |
| Business | 318 | 314 | 313 | 356 |
| Other | 112 | 115 | 134 | 154 |

The tables taken together suggest that there was a very significant fall in tourists (as opposed to visitors) from the U.K. and the U.S.A. from 1979 at a time when tourists from these countries were increasing very rapidly. The tourist numbers from the U.K. in 1982, if the same 1979 proportions had been maintained, would have been almost double the actual number (800 thousand compared with 425 thousand). For U.S. tourists the numbers would have been 20 per cent higher. It would be unrealistic to apply these crude numbers to derive the revenue loss as there was clearly a loss of competitiveness in the industry given the rate of inflation here vis-a-vis the rate in other areas adjusted for exchange rate changes. Nevertheless it is difficult not to feel that the decline in tourist numbers since 1979 owes a good deal to the violence of that period. The assumption used is that for U.K. and U.S. tourists to the South the growth since 1979 would have been one-half the growth in tourists to all destinations. This places the loss in 1982 at about £50 million once passenger fare receipts are considered (£55 million in 1983).

## Section 3.2:
## Exchange Rate Policy Options

Until 1979, the currency of the Republic was linked to the pound sterling on the basis of a one for one, no margins parity. For all practical purposes, Britain and Ireland were fully integrated in their monetary arrangements. This naturally extended to the two parts of Ireland, and any proposals for constitutional changes up to that time would have encountered no special difficulties in the matter of exchange rate policy.

The situation was radically altered by the decision of the Irish Government to join the European Monetary System, and to break the link with Sterling, early in 1979. The Irish pound now trades at a 20 per cent discount on Sterling, there are wide-ranging exchange controls in operation in the Republic and the pre-existing integration of the two parts of Ireland has been dismantled.

Consequently, any changes in current constitutional arrangements would necessitate a review of exchange rate policy, of monetary policy and of exchange controls. Matters are further complicated by the fact that Northern Ireland does not have a separate currency, which implies that any change in the existing dispensation there would be as much a currency reform as a change in exchange rate policy. We do not propose detailed solutions to the exchange rate and monetary policy problems in all of the various scenarios, but rather confine ourselves to the implications of each and the policy options which would in principle be available.

**Unitary State**

The assumption concerning the unitary state case is given in the terms of reference as:

> "Single currency, linked to EMS at Irish pound parity".

This would involve the substitution of the Republic's currency for Sterling in Northern Ireland. It is tempting to think of this as a devaluation of the "Northern Ireland pound", but this would be a misleading description. There is no Northern Ireland pound to devalue. A closer analogy would be the position in Luxembourg, which uses a franc equal in value to the Belgian franc. If the citizens of Luxembourg decided tomorrow to use German marks instead, this would hardly be viewed as a revaluation or devaluation, but more as a currency reform.

In such a currency reform, all pre-existing prices would be simply re-stated in the new currency, as would all contracts, rather as happened during the decimalisation of Irish and British coinage in the early nineteen-seventies.

Thus there would be no impact on, for example, the competitiveness of the Northern Ireland economy. There could however be dynamic effects, to the extent that the real exchange rate of the Irish pound diverges from that of Sterling in subsequent years.

The Northern Ireland economy is financially integrated with that of the United Kingdom to an even greater extent than was true of the economy of the Republic prior to the severing of the link with Sterling. There is no separate currency or monetary authority. Subsidiaries of U.K. banks have the largest share of the market and the U.K. building societies dominate their sector. The application of the Republic's system of exchange controls could create even greater distortions in Northern Ireland than they have created in the Republic. In the event of full monetary integration between the two parts of Ireland, a review of exchange control policy would be desirable.

It has been estimated that the seignoirage profits of the Bank of England on its note circulation in Northern Ireland were of the order of £33 m. Sterling in 1981. This amount would accrue to the domestic monetary authorities in the event of monetary integration in a United Ireland, and the non-tax revenues of the Government would rise by that amount.

**The Federal/Confederal Case**

The terms of reference specify the assumption for the Federal case as:

> "Federal Government to be responsible for single exchange rate policy.."

This essentially involves the adoption of a new currency of some sort in Northern Ireland, but does not require that it be linked at the IR£ rate to the EMS. Thus, there would be a currency reform in the North, the only real static effect of which would be the transfer of seignoirage profits discussed above. The dynamic effects would depend on what exchange rate policy was pursued, a topic to which we will return shortly. In the Confederal case it was envisaged that the North would either stay at parity with Sterling or link to the South's currency. This is covered in the Joint Authority case.

**The Joint Authority Case**

The exchange rate assumption in this case is stated to be:

> "Continue existing currency/exchange arrangements

or

> Assume new currency arrangements for North, involving link with Irish pound".

If the existing currency/exchange rate arrangements were to be continued, there would of course be no economic impacts whatsoever. The second alternative in the joint authority case envisages a new exchange rate, i.e. a new currency, for Northern Ireland, which in turn would require the establishment of a new monetary authority, or Central Bank, in Belfast. This would be a very significant undertaking.

A new currency for the North would be rather pointless if it were to be linked at par with Sterling. Thus the assumption stated is that it would be linked to the Irish pound. Given that the pound Sterling is floating against the EMS currencies at present, the new Northern currency could not simultaneously maintain links with both in a joint authority arrangement.

In order for a new Northern currency, linked to the Irish pound, to constitute anything more than a currency reform, it would first be necessary to establish a new currency in Northern Ireland, and then to alter its rate of exchange against others. Presumably the currency would first be established at parity with Sterling, and then linked to the Irish pound at some new rate, possibly par. This would constitute, in two separate steps, both a currency reform and an exchange rate change, and might be felt to be a rather tangled procedure.

It raises the question of the optimal degree of monetary integration in these islands, as well as the question of the optimal degree of monetary integration within the island of Ireland. Prior to 1979, there was virtually full monetary integration in the whole area, although there were technically two currencies. At present, there are two currencies,

floating against one another. Under the proposal discussed above there could be three and it appears to us to be debatable whether there should be further monetary disintegration in an area characterised by close economic interdependence in trade and payments.

**Exchange Rate Policy for an "Extended" Irish Pound**

Under any of the proposed constitutional dispensations, it could be envisaged that the domain of the Irish pound would be broadened to displace Sterling as the currency of Northern Ireland. The static effects in the Republic would be zero, while the static effects in Northern Ireland would depend on the disposition of the Bank of England's lost seignoirage income.

The dynamic effects on both parts of Ireland could however be highly significant, and would depend on what kind of exchange rate policy was subsequently pursued.

At present, the Irish pound participates in the European Monetary System, essentially an adjustable peg with certain bilateral and multilateral intervention support arrangements. The United Kingdom is pursuing a floating exchange rate policy, and decided not to participate in the EMS exchange rate arrangements.

This situation has created difficulties for the Republic. About 25 per cent of the Republic's trade is with EMS member states, while about 45 per cent is with the United Kingdom. The exchange rate with the pound Sterling is thus more important in trading than the rate with the EMS countries. However, the Sterling rate has fluctuated very considerably since March 1979. At one stage the Irish pound briefly exceeded parity with Sterling, fell to the low 70s, rose above 90 early this year and has fallen back below 80 in recent months. These gyrations in the IR£ rate have introduced a high degree of unpredictability to the Republic's transactions with its major trading partner.

These difficulties would be exacerbated if the IR£ became an all-Ireland currency. The data on destination of exports and origin of imports for Northern Ireland are poor. However, unofficial estimates suggest that up to 80 per cent of Northern Ireland's trade may be with Britain. If this is the case, the proportion of the trade of the island of Ireland which has either its origin or its destination in Britain could be 60 per cent or higher, with the share of EMS countries being below 20 per cent.

For the Republic to have an exchange rate link with the EMS countries rather than with Sterling is a policy which is bound to create problems so long as Sterling is floating. For an all-Ireland currency to pursue an EMS link in the same circumstances would create even greater problems, which could be particularly acute in Northern Ireland. This leads us to the conclusion that, in devising a suitable

exchange rate strategy in the various constitutional scenarios, consideration should be given to an abandonment of the EMS link, and its replacement by either a trade-weighted approach or a simple link with Sterling, not necessarily at par, of course, but not necessarily at the current rate, unless in the meantime Britain joins the EMS.

# CHAPTER 4

# THE UNITARY STATE CASE



## Introduction

In this section the development of the economy of the island as a whole is considered in a broad macroeconomic sense under the political assumption of a unitary state. The unitary state is interpreted initially to mean a state with a single currency and a unified tax and expenditure system. Once this analysis is complete some of the difficulties thrown up for the North's economy by the assumption of a unified tax and expenditure system are examined — in particular the implications of maintaining the present tax structure and non-security expenditure in the North are considered.

With these broad assumptions setting the framework, a series of scenarios are examined. These run as follows:

(i) British subvention not available.

(ii) British subvention not available but a special reconstruction package available from the European Community and the USA for 7 years at £Stg 350 million per year.

(iii) British subvention phased out gradually but half still available after 10 years.

(iv) British subvention available as in (iii) plus special reconstruction package as in (ii).

In all cases foreign investment continues.

## The Methodology

The economy of a unitary state, without any external transfer or with transfers as given in the introduction, would be dominated by the balance of payments. In such an economy, with the very large additional borrowing requirement arising from the public finances of the North it would not be realistic to assume a reduction of the current budget deficit

over a period comparable to that assumed in the reference analysis. Any attempt to reduce the current budget deficit for the country on the lines assumed in the reference analysis for the South would severely reduce domestic demand — to the extent in fact that the economy would be running balance of payments surpluses. It was therefore necessary to adopt a different approach.

The approach was to construct a series of accounts for the economy of the country as a whole for each of the cases. Taking account of the expected development of the world economic situation and the effects of the cessation of violence on the supply side, the economy, initially, was allowed to grow with no deflationary action being taken. In three of the four cases considered there was an increase over time in the balance of payments deficit.

We allowed these to be financed by foreign borrowing which led to increased interest payments in the following years which exacerbated the underlying payments deficit. In each scenario exploding and unsustainable deficits emerged which required corrective fiscal policy adjustments.

It is necessary to make operational the concept of a sustainable deficit. This has been taken to mean a situation where the level of the external payments deficit is equivalent to private direct investment from abroad, and this is taken at 2 per cent of Gross National Disposable Income. The order of magnitude of this can be seen with reference to the economy of the South where this would be about £250 million in 1983 — or rather more than in recent years. Other targets could be specified but this appears the best approach, since in the long run an economy will neither be in surplus nor deficit in the basic balance i.e. the current balance of payments deficit (or surplus) less the autonomous inflow (or outflow) of capital from abroad.

The analysis throughout is given in Irish pound terms. The rate of inflation in the North and South is the same. On the formation of the unitary state all contracts are written in Irish pound terms at IR£ = 80p Stg. Thereafter the same influences on inflation occur in both economies with an exchange rate adjustment occurring to compensate for the higher inflation.

**The Two Economies Combined**

It is necessary to combine the two economies, to make some allowance for the positive effect on growth of the cessation of violence, and to make a negative adjustment to growth for the introduction of the South's tax structure in the North. The year 1983 is taken as a base.

The sum of GDP in each area is the GDP of the whole country. GDP at market prices in the South is estimated at £13,875 million and in the North at £7,040 million. The North's figure is derived from the estimate of the GDP at factor cost, converting to market prices using the U.K. ratio of

GDP at factor cost to GDP at market prices and then converting to Irish pounds at £Stg. = £IR1.25. As there are no satisfactory or comprehensive data on the North's balance of payments we have assumed it is in balance. In the absence of the subvention and with the same expenditure levels, this implies that the North's payments deficit would be equivalent to the subvention. The North is further assumed to be neither a net debtor nor creditor but is in receipt of transfers which we have put at £50 million (this is based on receipts from the Social and Regional Fund of the European Community and the CAP — the estimates for the first two of these for 1983/84 are higher than we have allowed but there may be outward payments we know nothing about e.g. pensions arising in North to people who have gone abroad because of the troubles). In terms of the methodology we have adopted, the GDP and external accounts profile for 1983 before allowing for the assumed cessation of violence is given below in Table 4.1. where we have adjusted the accounts to treat the subvention as equivalent to the North's payments deficit.

**Table 4.1: GDP, GDE Combined State 1983 — £m, Current Prices**

| | Conventional Account | Adjusted Account |
|---|---|---|
| South's GDP at market prices | 13875 | 13875 |
| North's GDP at market prices | 7040 | 7040 |
| GDP Total at market prices | 20915 | 20915 |
| Net Factor Payments | -725 | -725 |
| Transfers to the South: | 600 | 600 |
| Transfers to the North: | | |
| Subvention | 1760* | - |
| Other | 50 | 50 |
| Gross National Disposable Income | 22600 | 20840 |
| Balance of Payments Deficit | 325 | 2085 |
| Gross Domestic Expenditure | 22925 | 22925 |

*Excluding the extra cost of Army in North.

### The Budget of the Joint Economy

The profile for the joint budget is now considered. In Table 4.2 a joint base budget is given — the British subvention is excluded from the revenue side as is the estimate for implied North Sea Oil (£130 million implicit in the attributed share of U.K. taxes going to North) but costs of collection and the contribution to the European Community are included.

**Table 4.2: Joint Budget 1983 — Current Prices**

| | South IR£m | North (Stg.)£ | North IR£m | Whole Island IR£m |
|---|---|---|---|---|
| **Revenue** | **5815** | **2049** | **2560** | **8375** |
| Tax | 4770 | 1640 | 2050 | 6820 |
| Non Tax | 1045 | 409 | 510 | 1555 |
| **Expenditure** | **6715** | **3101** | **3875** | **10590** |
| Interest | 1370 | 113 | 142 | 1512 |
| Payments to EEC | 185 | 83 | 104 | 289 |
| Other | 5160 | 2467 | 3084 | |
| Northern Ireland Office | - | 393 | 490 | 8789 |
| Ministry of Agriculture etc. | | 45 | 55 | |
| **Current Deficit** | **900** | **1052** | **1315** | **2215** |
| Capital Borrowing | 800 | 515 | 645 | 1445 |
| **Total Borrowing** | 1700 | 1567 | 1960 | 3660 |
| per cent GNP | 13 | | 29.7 | 18.5 |

The figures given in the table for the North (Table 4.2) are reconciled with those of Table 2.4.2 on the next page.

This assumes for 1983 that the costs of collection are absorbed within the existing framework of tax collection in the South.

In taking this joint budget as the base and applying it to the economy of the island as a whole we are effectively taking public expenditure as given, without harmonisation, as a basis from which to generate the model economy. The adjustment necessary to expenditures to bring the economy of the island back to external balance can be conceived of as incorporating two adjustments, one of harmonisation and then one of reduction. An alternative approach would have been (i) to harmonise expenditure programmes, (ii) bring the average level of employment in the public sector for the island to that of the South at present. In this case there would have been some compensating effects but the overall effect would be to increase expenditure, the borrowing requirement and the external deficit. The required adjustment given the target variable selected for policy would necessarily have been greater.

### The Cessation of Violence

As noted in Chapter 3 the cessation of violence would have an effect on the supply side in the North's economy through the effect of an increase in investment and a reduction in security costs borne by firms but not

| Table 2.4.2 | | Table 4.2 | |
|---|---|---|---|
| | **£m. Sterling Current Prices** | | |
| **Revenue** | | | |
| Attributed Share of U.K. Taxes | 1650 | Attributed Share | 1650 |
| | | plus Costs of Collection | 37 |
| | | plus EC Taxes | 83 |
| | | | 1770 |
| | | less North Sea Oil | 130 |
| Other | 409 | | 1640 |
| | | Other Taxes | 409 |
| **Expenditure** | | | |
| Total Expenditure | 2803 | **Total Expenditure** | 3616 |
| plus other capital expenditure | 152 | less EC | 83 |
| | | less NIO | 393 |
| | | less MAFF | 45 |
| | | less British National Insurance Fund Grant | 139 |
| | 2955 | **Total** | 2956 |

covered at present by the state. On the demand side there could be some modest increase in tourist expenditure — but we are not allowing total demand to fall as a result of a fall in public violence-related security expenditure (or if this falls demand is maintained by other means). It is difficult to know how much benefit to assume from the cessation of this violence. Supply side models are either non-existent or deficient. The danger from this is to assume no supply side consequences at all and this clearly would be incorrect. It is necessary, therefore to make an assumption about the growth capacity of the North's economy in the absence of violence.

If we take it that there has been a substantial loss in capital in the North because of the violence then there may not be as much excess capacity there as might be hoped, though clearly there is some, if only because of the recession effect. The North may have a plentiful supply of labour but an inadequate capital stock and this shortage in the capital stock would limit the growth of the economy — effectively its potential growth is limited by the growth in the capital stock.

In Section 2.4 where the situation in the Northern economy was considered a growth rate of about 1 per cent was projected on the basis of the structure of industry, growth in markets abroad and the area's relative competitive position. At the very most this growth would be pushed up to about 2.5 per cent because of the cessation of violence. While this might appear slight it is necessary to accept that the process of change is often very much slower than one might hope — the cumulative effect over time is to have GDP about one-sixth higher in 1993 than it would be if violence continued.

This must also be seen in the context of the size of the public sector in the North. In Section 2.4 it was noted that 40 per cent of civilian employment was in the public sector. This sector would remain relatively fixed with the cessation of violence (though some of the adjustment in the economy would take place through reduced security expenditure). A growth rate of 2.5 per cent in an economy where output of a very large sector is constant implies a growth of about 4 per cent in the remainder. The growth assumption is thus on the optimistic side.

For the South's economy the supply side effects would be minimal though there would be some. On the demand side we initially assume no reductions in public sector demand because of the reduction in violence, but positive effects because of the increase in tourist numbers. The recoverable loss because of the violence in 1983 was estimated in Section 3.1 at £55 million. At the very most the South's GDP would be .25 to 0.5 per cent higher because of increased tourism if the impact was felt immediately. For purposes of the projections a permanent increase in growth was assumed over the 10 year period which allows the possibility of the losses of the 1970s to be made up. A growth rate of 3.75 per cent was used for the South's economy to capture the effect of the cessation of

violence plus the effect of the other assumptions. The assumptions of both economies' growth are optimistic. Accordingly a sensitivity analysis using lower growth rates is carried out to see how sensitive the results are to lower growth.

**Application of South's Tax Structure in North**

The application of the South's tax structure in the North would reduce the North's real disposable income and reduce the potential growth of the North's economy. This is so because tax rates in the South are very much higher than tax rates in the North. Taxes on income per person employed in the North in 1983/84 are expected to be £1,850 with GDP at factor cost per person employed about £11,600 whereas in the South taxes on income per person employed are £1,950 with GDP figures per person employed of £10,050. Taxes on expenditure as a proportion of personal consumption are higher in the South — amounting to 30 per cent compared with 25 per cent in the North (though not all taxes on expenditure are on consumption goods in the South). Taxes per person employed in the South are 7 per cent higher than in the North. This understates the real tax burden as transfer income in the North is very much higher than in the South and taxes on expenditure are more properly related to disposable income. The introduction of the South's tax structure with expenditure unchanged would be deflationary in the North in the short run.

**Table 4.3: Combined Growth 1984 — 1993**

| | 1984 | 1985 | 1986 - 1993 |
|---|---|---|---|
| Combined Economy — | | | |
| Cessation of Violence | 3.5 | 3.5 | 3.5 |
| South's Tax Structure | -1.5 | -1 | - |
| GDP Growth | 2.0 | 2.5 | 3.5 |

The adjustment to the South's tax structure is assumed to take place in the first two years, reducing the growth of the joint economy. In the formulation used here the adjustment appears as a reduction in composite growth. However if the South's tax structure were applied to the North the whole of the adjustment would take place in the North's economy. This point is turned to in more detail later.

**(i) No British Subvention**

In this case transfers from Britain cease. The economy is allowed to develop in the "unconstrained" manner outlined earlier. The main

features of this development (GDP, Balance of Payments, Government Borrowing and unemployment) are given in Table 4.4.

The balance of payments deteriorates dramatically, going from 10 per cent of GNDI in 1983 (10.0 per cent of GDP) to 16.7 per cent (15.7 per cent of GDP) by 1993. The main cause of this is the rise in interest payments on foreign borrowing to replace the British subvention.

Clearly, the path outlined in Table 4.4 would lead to an unsustainable accumulation of foreign debt and interest payments. Deflationary action would therefore be required so as to obtain a more acceptable course for the payments deficit. As indicated previously a target of reducing the deficit to 2 per cent of GNDI was set, as representing a sustainable deficit over the longer term.

The adjustment is assumed to be effected by reducing Gross Domestic Expenditure through deflationary measures on the expenditure side. This directly reduces the external payments deficit in the first instance. The reduction in the external payments deficit reduces foreign factor payments which in turn reduce the payments deficit in the following period. This is the converse of the situation in Table 4.4. The level of GDP by the end period is 7.5 per cent below its level in the unconstrained case, with the adjustment to the balance of payments effectively completed by 1989.

The adjustment is not painless. It occurs as a result of deflationary action to reduce domestic expenditure. In a pure switching economy resources would simply go to exports to maintain GDP. The real world however is more complex and inevitably there would be output losses.

In the unconstrained case (Table 4.4) the borrowing requirement rises from 15.6 per cent of GNDI in 1983 to 22.5 per cent in 1993. The adjustment in the balance of payments is achieved by a reduction in the borrowing requirement of government. This is achieved by expenditure reductions (excluding debt interest expenditure) and by keeping present tax rates up to the year when the external adjustment is complete at which point, it is assumed, changes would be made that would result in revenue remaining a constant proportion of GDP thereafter. (Table 4.5).

The adjustment to government borrowing takes place initially because of the reduction in expenditure, and then, as the economy begins to recover from the deflationary shock of this the very high elasticity of taxes with respect to output pushes up revenue quite rapidly. Once the adjustment in the balance of payments is complete expenditure grows more or less in line with GDP. The cuts in total public expenditure in the early period are quite substantial. However the security savings, assuming they are spread as in Chapter 3, allow other expenditure to be 4 per cent higher in volume terms than it would otherwise be.

Unemployment reflects the pattern of output. In the unconstrained case unemployment rises slightly in the first two years because of the relatively weaker growth, but thereafter falls sharply because of the maintained 3.5 per cent growth in GDP. Once the external constraint is seen to be

**Table 4.4: "Unconstrained" Economy — No British Subvention**

| | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | Cumulative % Change |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GDP % Change | — | 2 | 2.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 37.6 |
| GDE % Change | — | 2 | 2.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 37.6 |
| BOP % GNDI | -10.0 | -10.1 | -10.8 | -11.6 | -12.3 | -13.0 | -13.7 | -14.4 | -15.2 | -15.9 | -16.7 | — |
| Govt. Borrowing % GNDI | 15.6 | 15.9 | 16.8 | 17.4 | 18.2 | 18.9 | 19.6 | 20.3 | 21.1 | 21.8 | 22.5 | — |
| Unemployment % Labour Force | 16.8 | 17.2 | 17.3 | 16.5 | 15.7 | 14.9 | 14.1 | 13.2 | 12.4 | 11.5 | 10.6 | — |

The adjustment is phased over the period to 1988/89 when the Balance of Payments deficit reaches the target level of 2 per cent of GNDI.

**Table 4.5: "Constrained" Economy — No British Subvention**

| | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | Cumulative % Change |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GDP % Change | — | 0.9 | 1.2 | 2.2 | 2.5 | 2.6 | 3.3 | 3.5 | 3.5 | 3.5 | 3.5 | 30.1 |
| GDE % Change | — | -0.6 | -0.7 | 0.3 | 1.0 | 1.1 | 3.1 | 3.8 | 3.7 | 3.7 | 3.7 | 20.6 |
| BOP % GNDI | -10.0 | -8.5 | -7.0 | -5.3 | -4.0 | -2.4 | -2.0 | -2.0 | -2.0 | -2.0 | -2.0 | — |
| Govt Borrowing % GNDI | 15.6 | 14.3 | 13.2 | 11.4 | 10.0 | 8.6 | 8.1 | 8.1 | 8.0 | 7.9 | 7.8 | — |
| Government Expenditure % Change* | — | -1.1 | -1.3 | -0.8 | 1.0 | 1.2 | 2.9 | 4.2 | 4.1 | 4.0 | 4.0 | 19.4 |
| Unemployment % Labour Force | 16.8 | 18.1 | 19.2 | 19.5 | 19.5 | 19.4 | 18.8 | 18.1 | 17.2 | 16.4 | 15.5 | — |

*Excluding Interest Payments and Security.

operative then the counterpart of weaker GDP is the rise in the level and the rate of unemployment. The rate does not begin to decline until the adjustment is over, but the level of unemployment even by 1994 is higher than in 1984.

**(ii) Grants from European Community and Elsewhere**

In this case grants of £350 million Sterling are available for 7 years. This is interpreted to mean IR£437.5 million per annum in real terms. Fiscal policy is initially assumed to neither stimulate nor contract the economy. Table 4.6 summarises the development of the economy under this set of assumptions.

Under this scenario the balance of payments deficit remains very high. The amount of aid is not large being 1-2 per cent of GDP for 7 years. The deficit rises progressively reaching 14.3 per cent of GNDI by 1993. As with case (i) this would be an unsustainable situation.

The adjustment to the external account — reducing the balance of payments deficit to 2 per cent of GNDI is not so severe because of the external assistance assumed to be available. Table 4.7 summarises the principal features of this adjustment. The adjustment is achieved by 1986 after which the economy can resume its growth path until 1991 when the grant ceases and a further adjustment takes place in that year.

The adjustment once again is achieved primarily by a reduction in the government borrowing requirement. This rises from 13.2 per cent of GNDI in 1983 to 21.1 per cent in 1993 in the unconstrained case, but falls to 7.8 per cent when the adjustment takes place. As with the first scenario the adjustment in the public finances to achieve the balance of payments target leads to weaker growth and higher unemployment —but both of these are better than if no aid is available.

**(iii) British subvention phased out gradually but half still available after 10 years. (Modified British Subvention.)**

This is interpreted to mean that half the present level of subvention (excluding the extra costs of the army) in real terms is still available — not the subvention that would have to be paid if the present situation continues.

As in the two previous cases the economy is allowed to grow of its own accord with no deflationary action by government to see how the external accounts develop. (Table 4.8).

What is happening in this case is that the payments deficit remains low in the first few years, but as the subvention falls the payments deficit

begins to rise. By 1993 the deficit is 7 per cent of GNDI compared with almost 15 per cent in the case where no foreign grants are available. There is still a need for an adjustment in domestic expenditure. The target for the balance of payments is kept at 2 per cent of GNDI and the adjustment begins in 1986 (Table 4.9).

In this case the level of GDP is just 2.6 per cent below its level in the unconstrained case. The adjustment in the balance of payments is less than in the two previous cases. Once again it is achieved by a reduction in the Government Borrowing Requirement which is about 7.5 per cent of GNDI by 1993 compared with 13.1 per cent in the unconstrained case.

**(iv) Modified British Subvention plus Grants from European Community and Elsewhere**

This is a combination of cases (ii) and (iii) where in addition to a continuation of a modified British subvention there is also a reconstruction package of £437.5 million per annum from other sources, e.g. the European Community for seven years, both indexed. Table 4.10 summarises the development of the economy.

In this case, as is readily apparent from Table 4.10, the transfers are such that initially the economy is running balance of payments surpluses. Fiscal policy is retained as accommodating the growth in the economy so that the surplus on the balance of payments is allowed to occur.

The payments deficit remains reasonable until 1990, but then with the removal of the special grant it begins to go sharply into deficit. It is at this point that adjustments would be required. In practice this would be relatively straightforward, requiring a reduction in gross domestic expenditure of about 3 per cent and in GDP of about 1.5 in 1991 compared with the unconstrained case — thereafter growth is 2.9 per cent and 3.5 per cent to 1993.

This weakness in growth would result in a slight rise in the level of unemployment in 1991 but the rate of unemployment continues to fall with the exception of 1991 being 13.7, 14.0, 13.7, and 12.8 per cent respectively in the years 1990-1993.

This case requires adjustments in the public finances — but these are slight.

**The Sensitivity of the Results**

To see how sensitive the results are to the growth rate, the assumption was made that there would be no change in the growth rate in the South or the North as a result of the cessation of violence. The analysis was then carried out on the basis of no external aid or British subvention.

**Table 4.6: "Unconstrained" Economy with Grants of £350 million Stg.**

| | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | Cumulative % Change |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GDP % Change | — | 2 | 2.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 37.6 |
| GDE % Change | — | 2 | 2.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 37.6 |
| BOP % GNDI | -7.7 | -7.8 | -8.4 | -9.0 | -9.6 | -10.2 | -10.8 | -11.4 | -13.9 | -14.6 | -15.4 | — |
| Govt. Borrowing % GNDI | 13.2 | 13.5 | 14.2 | 14.7 | 15.3 | 15.9 | 16.5 | 17.1 | 19.7 | 20.4 | 21.1 | — |
| Unemployment % Labour Force | 16.8 | 17.2 | 17.3 | 16.5 | 15.7 | 14.9 | 14.1 | 13.2 | 12.4 | 11.5 | 10.6 | — |

**Table 4.7: "Constrained" Economy with Grants of £350 million Stg.**

| | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | Cumulative % Change |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GDP % Change | — | 0.4 | 1.0 | 2.5 | 3.5 | 3.5 | 3.5 | 3.5 | 2.4 | 3.5 | 3.5 | 30.8 |
| GDE % Change | — | -1.8 | -1.1 | 0.9 | 3.6 | 3.5 | 3.5 | 3.5 | 0.7 | 3.6 | 3.6 | 21.7 |
| BOP % GNDI | -7.7 | -5.5 | -3.5 | -2.0 | -2.0 | -2.0 | -2.0 | -2.0 | -2.0 | -2.0 | -2.0 | — |
| Govt. Borrowing % GNDI | 13.2 | 11.2 | 9.4 | 7.9 | 7.9 | 7.9 | 7.8 | 7.8 | 7.9 | 7.8 | 7.8 | — |
| Government Expenditure % Change* | — | -3.7 | -2.8 | 1.0 | 4.8 | 4.5 | 3.8 | 3.7 | -0.5 | 3.8 | 3.8 | 19.5 |
| Unemployment % Labour Force | 16.8 | 18.5 | 19.8 | 19.8 | 19.1 | 18.3 | 17.5 | 16.7 | 16.7 | 15.9 | 15.1 | — |

*Excluding Interest Payments & Security.

**Table 4.8: "Unconstrained" Economy — Modified British Subvention**

| | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | Cumulative % Change |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GDP % Change | — | 2 | 2.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 37.6 |
| GDE % Change | — | 2 | 2.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 37.6 |
| BOP % GNDI | -1.4 | -1.7 | -2.2 | -2.8 | -3.4 | -4.0 | -4.7 | -5.4 | -6.2 | -6.9 | -7.8 | — |
| Govt. Borrowing % GNDI | 6.6 | 7.0 | 7.6 | 8.2 | 8.6 | 9.4 | 10.1 | 10.8 | 11.6 | 12.3 | 13.1 | — |
| Unemployment % Labour Force | 16.8 | 17.2 | 17.3 | 16.5 | 15.7 | 14.9 | 14.1 | 13.2 | 12.4 | 11.5 | 10.6 | — |

**Table 4.9: "Constrained' Economy — Modified British Subvention**

| | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | Cumulative % Change |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GDP % Change | — | 2.0 | 2.4 | 3.1 | 3.1 | 3.1 | 3.2 | 3.2 | 3.2 | 3.2 | 3.2 | 34.0 |
| GDE % Change | — | 2.0 | 2.2 | 2.6 | 2.8 | 2.5 | 2.7 | 2.7 | 2.7 | 2.8 | 2.8 | 29.0 |
| BOP % GNDI | -1.4 | -1.7 | -2.0 | -2.0 | -2.0 | -2.0 | -2.0 | -2.0 | -2.0 | -2.0 | -2.0 | — |
| Govt. Borrowing % GNDI | 6.6 | 7.0 | 7.4 | 7.4 | 7.5 | 7.5 | 7.5 | 7.5 | 7.5 | 7.5 | 7.4 | — |
| Government Expenditure % Change* | — | 4.2 | 4.2 | 2.8 | 2.8 | 2.7 | 2.2 | 2.1 | 2.2 | 2.2 | 2.2 | 31.2 |
| Unemployment % Labour Force | 16.8 | 17.2 | 17.4 | 16.9 | 16.4 | 15.9 | 15.4 | 14.8 | 14.2 | 13.7 | 13.1 | — |

*Excluding Interest Payments & Security.

**Table 4.10: "Unconstrained" Economy — Modified British Subvention plus External Aid**

| | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| GDP % Change | — | 2 | 2.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| GDE % Change | — | 2 | 2.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| BOP % GNDI | 0.5 | 0.2 | -0.1 | -0.6 | -1.1 | -1.6 | -2.2 | -2.8 | -5.0 | -5.8 | -6.6 |
| Unemployment % Labour Force | 16.8 | 17.2 | 17.3 | 16.5 | 15.7 | 14.9 | 14.1 | 13.2 | 12.4 | 11.5 | 10.6 |

**Table 4.11: Senstivity Results — No British Subvention**

| Case (i) | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | Cumulative % Change |
|---|---|---|---|---|---|---|---|---|---|---|---|
| GDP % Change | 0.9 | 1.2 | 2.2 | 2.5 | 2.6 | 3.3 | 3.5 | 3.5 | 3.5 | 3.5 | 30.1 |
| Government Expenditure % Change* | -1.1 | -1.3 | -0.8 | 1.0 | 1.2 | 2.9 | 4.2 | 4.1 | 4.0 | 4.0 | 19.4 |
| Sensitivity | | | | | | | | | | | |
| GDP % Change | -0.1 | 0.2 | 1.4 | 1.5 | 1.6 | 2.3 | 2.6 | 2.6 | 2.6 | 2.6 | 18.7 |
| Government Expenditure % Change* | -2.8 | -1.3 | -1.3 | -0.7 | -0.5 | 1.6 | 3.2 | 3.1 | 3.0 | 3.0 | 7.3 |

*Excluding Interest Payments and Security.

The results are thus comparable with those of case (i). Table 4.11 summarises the principal differences once the economy has adjusted the external account, focussing on growth in GDP, and the change in government expenditure.

The overall picture remains substantially the same. The adjustment to the external account takes place by 1988/89 but because the growth rate is less there is a bigger adjustment required in government expenditure. The decline in this is greater and is necessary for five years as opposed to three.

What the sensitivity analysis shows is more or less what one would expect. If the economy is going to experience slower growth than assumed then larger adjustments in the borrowing requirement are needed to achieve a given target for the balance of payments and conversely if growth rates prove to be higher.

**Summary and Conclusion of Analysis to Date**

In this section we have considered in very broad terms the development of the macroeconomy of a unitary state covering the whole island. Four cases were considered, covering a range of external support going from none to quite generous aid. The main impetus to the joint economy comes from growth that would occur in the absence of violence. The constraint on its development is the external sector. The amount of grants available is the most important determinant of how the economy must adjust its potential to meet the external constraint. While the differences between scenarios are difficult to trap given the range of options and the different adjustment paths the most obvious difference arises in Gross National Disposable Income, GNDI (i.e. output plus transfers from abroad). The most favourable position in economic terms is the final scenario where the British Government continues to pay a declining proportion of the subvention, and is still providing one half of the amount by 1993, while other external sources provide £350 million Sterling per annum for 7 years. The least favourable is one where no external funds, either from the British Government or elsewhere occur.

In Table 4.12 the position with regard to Gross National Disposable Income in the different scenarios is compared in different years. For each year considered the reference point is the case where there is no aid or British subvention.

In approaching the economic problem of the unitary case in this way the question of whether the burden of adjustment would take place in the North or the South was translated into an island adjustment problem. There is however one element of the profile that is not simply an island adjustment problem i.e. the application of the South's tax structure in the North. This reduces disposable income in the North and

**Table 4.12: GNDI by Scenario**

| Scenario | 1984 | 1987 | 1990 | 1993 |
|---|---|---|---|---|
| (i) | 100 | 100 | 100 | 100 |
| (ii) | 102 | 102 | 101 | 101 |
| (iii) | 108 | 109 | 109 | 108 |
| (iv) | 110 | 111 | 111 | 109 |

following from this reduces demand, output and employment. This adjustment in the North is explicitly covered in the Federal/Confederal case of Chapter 5.

### The Maintenance of the North's Tax and Non-Security Expenditure Regime

In the preceeding analysis the concept of a unitary state embraced a common tax and expenditure system. The North's economy would thus receive multiple shocks (i) an increase in tax rates yielding IR£410 million, (ii) a reduction in security expenditure, (iii) a reduction in other government expenditure as part of the joint economy's adjustment, (iv) positive supply side effects from the ending of violence.

It is of some interest to see what would be required in the form of an adjustment in the South if the North were to maintain its present tax structure and non-security government expenditure. This is a hypothetical situation within the unitary case.

The adjustment in the balance of payments in the constrained economy was achieved by cuts in public expenditure. Security expenditure cuts North and South accounted for the principal part of this. In the hypothetical case cuts in security in the North take place but tax rates remain unchanged as does other expenditure. The cuts in security expenditure in the North are one part of the adjustment that would be required but the whole of the rest would be borne by the South.

Two cases of external finance were examined (i) where no external funds are available and (ii) where the modified British subvention is available. (These correspond to cases (i) and (iii) considered in the earlier part of the chapter).

#### (i) No External Funds

Table 4.13 below contrasts the position with regard to non-security non-interest expenditure where the adjustment applies North and South with that where the adjustment takes place in the South only.

**Table 4.13: Constrained Economy — South's Government Expenditure % Change Volume 1983 — 1993**

| | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 |
|---|---|---|---|---|---|---|---|---|---|---|
| Govt. Expenditure* — whole economy makes adjustment | -1.1 | -1.3 | -0.8 | 1.0 | 1.2 | 2.9 | 4.2 | 4.1 | 4.0 | 4.0 |
| Govt. Expenditure* — adjustment in South only | -9.1 | -2.3 | -1.4 | 1.8 | 2.1 | 5.0 | 7.2 | 6.9 | 6.5 | 6.4 |

*Excluding Interest Payments and Security.



**Table 4.14: Constrained Economy — South's Government Expenditure % Change Volume 1983 — 1993**

| | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 |
|---|---|---|---|---|---|---|---|---|---|---|
| Govt. Expenditure* — whole economy makes adjustment | 4.2 | 4.2 | 2.8 | 2.8 | 2.7 | 2.2 | 2.1 | 2.2 | 2.2 | 2.2 |
| Govt. Expenditure* — adjustment in South only | -0.5 | 7.1 | 4.6 | 4.5 | 4.3 | 3.4 | 3.3 | 3.3 | 3.3 | 3.3 |

*Excluding Interest Payments and Security.

For the constrained joint economy there are modest reductions in government expenditure (excluding interest payments and security). Once the balance of payments adjustment is completed this expenditure could begin to increase again by fairly rapid amounts.

If taxes are not uniform and the South is required to make the adjustment then the initial cut in expenditure is very severe. The size of the cut is determined by the revenue loss of not having uniform taxes plus the required cut in total expenditure. A consequence of the assumption of fixed expenditure in the North is that once the external payments situation eases public expenditure (excluding interest and security) in the South would grow very rapidly.

The cuts in expenditure as a result of the requirement that the North be relatively untouched are very severe. In the years 1984-88 expenditure in the South would run to £482m, £570m, £650m, £660m respectively lower than in the scenario examined earlier in this chapter.

**(ii) Modified British Subvention**

There is very little adjustment required for the joint economy in the situation where a modified British subvention is available. Cuts in security expenditure do take place but other non-interest expenditure declines. Where the North retains its tax and non-security expenditure the adjustment path in the South is given in Table 4.14.

The initial decline occurs because of the maintenance of the North's present tax system.

The approach effectively postulates different tax and expenditure systems within a unitary state. In practical terms it is very hard to see how this could work as the existence of different tax and expenditure regimes, particularly where the differences are large, would lead to corporate and household flight from the relatively less favourable region.

This problem can be tackled by considering the transfer necessary to maintain Gross Domestic Expenditure in the North. The transfer could take many forms — e.g. regional grants, higher capital expenditure, tax rebates etc. The amount of transfer depends on what target is being set. If Gross Domestic Expenditure were to be maintained at the levels indicated in the reference analysis this implicitly accepts the present level of security related expenditure. It is difficult to see how the North's economy could avoid the downward adjustment in security related expenditure that would accompany peace. This then becomes formally equivalent to the solutions provided earlier. The cuts in expenditure in the South then encapsulates the two effects of providing resources to the North and cutting expenditure to reduce the payments deficit.

Table 4.15 provides datas on the relative size of the direct transfer from the South to the North required to maintain non-security expenditure at 1983 levels, with security expenditure declining as

**Table 4.15: British Subvention to North to Maintain Non-Security Expenditure and Existing Tax Rates = Required Transfer from South to North**

| | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 |
|---|---|---|---|---|---|---|---|---|---|---|
| % South GDP | 11.9 | 11.1 | 10.2 | 9.4 | 8.6 | 8.0 | 7.4 | 6.9 | 6.4 | 5.8 |

outlined earlier and with current tax rates in the North. This is equivalent to the British subvention in a situation where peace occurs and where taxes are held constant (North Sea taxes are treated as part of the subvention).

The transfers increase the borrowing requirement and become part of the adjustment problem of the South. These transfers are very large. In absolute money terms the 1983 transfer is IR£1,760 million and while this falls with the benefit of peace and increased security expenditure it remains very substantial. The North realises the benefits of peace fully. Its only adjustment is a reduction in security expenditure. The size of these transfers would be considerably reduced if further expenditure cuts or tax increases in the North were implemented to keep disposable income no better than in the reference analysis.

# CHAPTER 5

# THE FEDERAL/CONFEDERAL CASE

Within the terms of reference two cases are identified under this heading (i) a federal arrangement and (ii) a confederal arrangement. While politically there may be significant differences between these two arrangements there is little difference in an economic sense. Accordingly, it is proposed to treat them as one case. Here again the starting point of the analysis is the likely budgetary position of the public authorities —for the reasons given previously. In so far as there is a difference between the federal and confederal cases outlined in the terms of reference it derives from the treatment of the North's finances. The North's revenue is determined by the North's existing taxes, and the whole burden of adjustment is borne by the North, modified to the extent that external grants are available. In this section we assume uniform tax rates across the federal/confederal arrangement.

In such a scenario there would be one national federal Government with two dependent states having local administrations. The specific assumptions used are:

(1) The Federal Government would receive the proceeds of all current tax revenues with the South's tax structure being applied in the North.

(2) The Federal Government would be responsible for expenditure on security, industrial policy and foreign relations.

(3) Having retained sufficient revenue to finance its own expenditures, the surplus of the Federal Government would be distributed as a subvention to both states in proportion to the relative sizes of GDP.

(4) The two states would be responsible for expenditure on all other public services other than those which are the direct responsibility of the Federal Government.

(5) Each state would be financed from its own non-tax revenue sources, its share of the federal surplus and either borrowing or local taxation as it so wished.

(6) We make a number of alternative assumptions about external aid to the new Northern State.

We look first at the financial position of the Federal Government taking 1983 as a base before allowing for the effects of the cessation of violence. It is assumed it takes responsibility for those matters now administered by the Northern Ireland Office in the North and corresponding central departments in the South. In addition it would have responsibility for administering industrial policy in both states. Table 5.1 gives details of revenue and expenditure in 1983.

**Table 5.1: Federal Government Finances 1983 (£ Million)**

| | Relating to North | Relating to South | Total |
|---|---|---|---|
| **Expenditure** | | | |
| Security | 490 | 510 | 1000 |
| Industrial Policy | 190 | 280 | 470 |
| Foreign Affairs | - | 20 | 20 |
| Total | 680 | 810 | 1490 |
| **Revenue** | **Collected in North** | **Collected in South** | |
| Taxes | 2460 | 4770 | 7230 |
| Excess of Revenue Over Expenditure | 1780 | 3960 | 5740 |

The Federal Government emerges with a surplus of over £5.7 billion, of which nearly £4 billion would be contributed by the South and almost £1.8 billion by the North. If such a surplus was distributed in proportion to the relative sizes of GDP the following would be the result.

**Table 5.2: Distribution of Federal Surplus — 1983**

| £ Million | North | South |
|---|---|---|
| Distribution of Surplus | 1934 | 3806 |
| Net Contribution | 1780 | 3960 |
| Net Benefit | 154 | -154 |

**Table 5.3: Federal Finances 1983 — 1993, £ million, Current Prices**

| | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Expenditure** | **1490** | **1511** | **1538** | **1570** | **1610** | **1657** | **1805** | **1967** | **2143** | **2336** | **2546** |
| Security | 1000 | 972 | 945 | 918 | 893 | 868 | 937 | 1012 | 1093 | 1181 | 1275 |
| Industrial Policy | 490 | 539 | 593 | 652 | 717 | 789 | 868 | 955 | 1050 | 1155 | 1271 |
| **Revenue** | **7230** | **8043** | **8904** | **9953** | **11125** | **12436** | **13901** | **15538** | **17369** | **19415** | **21702** |
| **Surplus** | 5740 | 6532 | 2366 | 8383 | 9515 | 10779 | 12096 | 13571 | 15226 | 17079 | 19156 |
| Distributed to: | | | | | | | | | | | |
| North: | 1934 | 2110 | 2298 | 2590 | 2912 | 3277 | 3641 | 4058 | 4507 | 5021 | 5574 |
| South: | 3806 | 4422 | 5068 | 5793 | 6603 | 7502 | 8455 | 9513 | 10719 | 14058 | 13582 |



**Table 5.4: Implicit Transfers from South to North, £ million, Current Prices**

| 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 |
|---|---|---|---|---|---|---|---|---|---|---|
| 154 | 168 | 244 | 220 | 197 | 181 | 187 | 205 | 209 | 230 | 231 |

Such an arrangement would result in an effective transfer of over £150 million from the South to the North. This arises from the fact that security expenditure in the North, as a proportion of GDP, is substantially higher than in the South. The transfer is not direct but comes through distribution of the federal surplus.

We examined the development of the finances of the Federal Government over time under the following assumptions:

(a) that there is no deflationary policy pursued by either of the two states, apart from the initial impact of raising Northern taxes to Southern levels,

(b) with the benefits of peace the long-term growth rates of both economies are raised, to 2.5 per cent in the North and 3.75 per cent in the South. For the first two years we assumed federal growth rates of 2.0 and 2.5 per cent as in Chapter 4,

(c) we assumed that the Federal Government would benefit from the savings in security expenditure discussed in Chapter 3. This amounts to a decline, in real terms, of 10 per cent per annum in such expenditures between 1983 and 1988. Between 1988 and 1993 we left security spending unchanged in real terms,

(d) expenditure on industrial policy and foreign affairs is projected to grow by 10 per cent per annum.

The combination of declining security expenditure and tax revenues growing in line with an expanding economy results in a significant increase in the surplus of the Federal Government. In the ten years it increases, in current prices, from £5.7 billion in 1983 to £19.2 billion in 1993. In 1983 prices the surplus in the final year amounts to £8.9 billion i.e. an increase of over 50 per cent in real terms. This, of course, is reflected in the subvention paid to both States.

**The South's Economy**

The main influences on the South's economy under this scenario compared with the reference analysis occurs (a) because of the increase in GDP arising from the cessation of violence, and (b) the increase in the balance of payments deficit and the borrowing requirement resulting from the implicit transfer to the North as derived in Table 5.2.

The effect of the cessation of violence on the South's economy if no adjustment in the public finances or the balance of payments is made is an increase in the growth rate to 3.75 per cent per annum over the whole period.

The implicit transfers from South to North are given in Table 5.4.

These transfers must be financed. Initially they will appear as an increase both in the borrowing requirement of Government and in the balance of payments on current account. The size of the transfer (both in real terms and relative to GNP) will diminish up to 1988 as security expenditure in both states is harmonised. The financial situation confronting the South's economy is given in Table 5.5.

In this projection, in contrast to the approach in the unitary case we have assumed that the savings on security expenditure in the South are compensated by increased expenditure in other areas. Thus the impact of the growing subvention from the Federal Government facilitates both a slight decline in the borrowing requirement and the "balance of payments". If the primary target of policy were defined as in the unitary case in Chapter 4 (i.e. a balance of payments deficit of 2 per cent of GNDI) there would be need for only very slight further adjustment. On the other hand, if the fiscal objectives outlined for the South in the reference case in Chapter 2 were maintained, a similar adjustment as was described there would be necessary.

In the former case the growth of the South's economy would be very close to the growth rate of 3.75 per annum assumed. The adjustment in the balance of payments could take place in the first two years reducing the level of GNP by about 1-2 per cent after which the economy could resume growth.

In the latter case the transfer would be a charge on the current budget — equivalent to just over 1 per cent of GNP in the first year. The adjustment in the public finances would be that much more difficult — though by comparison with the reference analysis the growth rate of the economy is higher.

### The North's Economy

We examined the financial position of the Northern State under the same four alternative assumptions concerning external aid as in the case in Chapter 4. In addition because of the structure of the federal budget it would receive the implicit transfers from the South discussed earlier.

#### (i) No British Subvention

The first task is to examine the Northern finances assuming there is no transfer from Britain or elsewhere and no deflationary policies apart from the impact of raising Northern taxes to Southern levels. The impact of the latter would be to reduce GDP by 2.5 per cent in 1984 and 1.5 per cent in 1985. Thereafter a constant growth rate of 2.5 per cent was assumed.

**Table 5.5: Southern Finances 1983 — 1993, Current Prices**

| | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Borrowing** | | | | | | | | | | | |
| £ Million | 1854 | 1968 | 2207 | 2418 | 2654 | 2919 | 3235 | 3597 | 3981 | 4420 | 4887 |
| % GNDI | 13.6 | 12.9 | 13.0 | 12.6 | 12.3 | 12.1 | 11.9 | 11.8 | 11.7 | 11.6 | 11.4 |
| **Balance of Payments** | | | | | | | | | | | |
| £ Million | -479 | -554 | -660 | -677 | -695 | -721 | -772 | -839 | -897 | -980 | -1050 |
| per cent GNDI | -3.5 | -3.6 | -3.9 | -3.5 | -3.2 | -3.0 | -2.9 | -2.8 | -2.6 | -2.6 | -2.4 |

**Table 5.6: "Unconstrained" Northern Economy — No British Subvention**

| % GNDI | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Balance of Payments Deficit | 22.2 | 22.1 | 23.6 | 26.8 | 30.1 | 33.4 | 36.6 | 39.7 | 43.2 | 46.7 | 50.5 |
| Borrowing Requirement | 19.3 | 19.5 | 21.8 | 24.4 | 27.0 | 29.5 | 32.0 | 34.4 | 37.0 | 40.0 | 42.6 |

**Table 5.7: "Unconstrained" Northern Economy with Grants of £350 Million Stg.**

| % GNDI | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Balance of Payments | 14.7 | 14.9 | 15.6 | 17.9 | 20.3 | 22.6 | 24.8 | 27.0 | 37.2 | 40.4 | 44.0 |
| Public Borrowing | 12.5 | 12.5 | 13.9 | 15.7 | 17.4 | 19.0 | 20.6 | 22.1 | 31.3 | 33.7 | 36.4 |

Such an economy would be similar, in economic terms, to an independent Northern Ireland. The table clearly shows that such a state would be financially unviable. Both the balance of payments and public borrowing explode to levels that could not be financed. The size of the imbalances are such that it would not be plausible to examine what adjustment would be necessary to bring the finances into line, bearing in mind that the table already incorporates negative growth rates in the first two years.

**(ii) £350 Million Sterling Grants from European Community and Elsewhere**

In this scenario it is assumed that grants of £350 million Sterling (in 1983 prices) are made available for seven years. The path of the unconstrained economy is set out in Table 5.7.

Even with such a package of aid the financial problems of the State would be acute and would require significant adjustment to bring them into line. The adjusted economy is portrayed in Table 5.8.

The adjustments required in the economy would be enormous. Public expenditure would have to be cut by 25 per cent between 1984 and 1988 and unemployment would rise to over 30 per cent of the labour force. Even if such adjustments could be achieved further cuts would be necessary in the 1990s as the financial aid package ends in 1990.

**(iii) Modified British Subvention**

In this scenario the British subvention is assumed initially to be maintained at the 1983 level but gradually diminished so that only half is available by 1993. The unconstrained economy is set out in Table 5.9.

Clearly the financial problems under this particular assumption are far more tractable than in the previous two cases. Indeed in the earlier years there are surpluses in both the external and Government accounts. No fiscal policy adjustment would be required before 1988 and 1989 (Table 5.10).

Up to 1988 the growth in the economy facilitates a slight fall in unemployment from its 1985 level. However, the adjustment that is necessary in the later part of the period, as the British subvention falls, stabilises employment with the result that unemployment rises in line with the labour force. In addition significant cuts in public spending are required and there is no growth in overall national expenditure (GDE).

**(iv) Modified British Subvention plus External Aid**

The final scenario assumes that in addition to the British subvention being maintained at a reduced level, the £350 million Sterling package is also available (Table 5.11).

**Table 5.8: "Constrained" Northern Economy with Grants of £350 Million Stg.**

| | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 |
|---|---|---|---|---|---|---|---|---|---|---|
| GDP (% Change) | -4.4 | -3.4 | -0.4 | 0.0 | 0.4 | 2.2 | 2.5 | 0.8 | 1.1 | 1.1 |
| GDE (% Change) | -5.7 | -3.9 | -3.3 | -2.6 | 1.8 | 2.4 | -1.7 | -1.7 | -1.1 | -1.1 |
| BOP (% GNDI) | 12.2 | 9.7 | 7.2 | 4.7 | 2.2 | 2.0 | 2.0 | 6.0 | 4.0 | 2.0 |
| Public Borrowing | 9.9 | 8.3 | 5.4 | 3.8 | (0.6)* | (1.3) | (1.8) | 1.3 | (1.2) | (3.8) |
| Government Exp. (% Change) | -6.2 | -5.7 | -5.2 | -4.7 | -3.9 | 1.6 | 2.5 | -3.9 | -3.0 | -3.1 |
| Unemployment % Labour Force | 23.3 | 27.6 | 29.7 | 31.4 | 32.8 | 33.0 | 33.0 | 34.2 | 35.0 | 35.9 |

*Brackets indicate a surplus

**Table 5.9: "Unconstrained" Northern Economy — Modified British Subvention**

| % GNDI | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Balance of Payments | (1.7)* | (2.3) | (2.4) | (0.7) | 1.1 | 3.0 | 4.8 | 6.7 | 8.8 | 11.0 | 13.5 |
| Public Borrowing | (4.0)* | (4.3) | (3.8) | (2.6) | (1.3) | (0.1) | 1.3 | 2.6 | 4.2 | 5.7 | 7.5 |

*Brackets indicate a surplus

**Table 5.10: "Constrained" Northern Economy — Modified British Subvention**

| | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 |
|---|---|---|---|---|---|---|---|---|---|---|
| GDP (% Change) | -2.5 | -1.5 | 2.5 | 2.5 | 1.8 | 1.2 | 1.3 | 1.4 | 1.4 | 1.4 |
| GDE (% Change) | -2.5 | -1.5 | 2.5 | 2.5 | 1.0 | -0.3 | -0.1 | -0.2 | 0.0 | 0.0 |
| BOP (% GNDI) | (1.7) | (2.3) | (2.4) | (0.7) | 1.1 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| Public Borrowing % GND | (4.3) | (3.8) | (2.6) | (1.3) | (1.0) | (1.5) | (2.0) | (2.5) | (3.1) | (3.7) |
| Government Expenditure (% Change) | -0.2 | 0.4 | 4.1 | 3.8 | 1.4 | -1.3 | -1.0 | -1.1 | -0.9 | -1.0 |
| Unemployment (% Labour Force) | 21.7 | 24.6 | 22.3 | 22.2 | 22.6 | 23.7 | 24.8 | 25.3 | 26.0 | 26.6 |

**Table 5.11: "Unconstrained" Northern Economy — Modified British Subvention plus External Aid**

| % GNDI | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Balance of Payments | (6.3) | (6.9) | (7.5) | (6.3) | (4.9) | (3.6) | (2.3) | (0.9) | 5.4 | 7.4 | 9.7 |
| Public Borrowing | (8.5) | (8.9) | (8.8) | (8.0) | (7.2) | (6.4) | (5.6) | (4.7) | 0.8 | 2.5 | 4.1 |

**Table 5.12 "Constrained" Northern Economy — Modified British Subvention plus External Aid**

| | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 |
|---|---|---|---|---|---|---|---|---|---|---|
| GDP (% Change) | -2.5 | -1.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 0.1 | 1.3 | 1.2 |
| GDE (% Change) | -2.5 | 1.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | -2.7 | -0.2 | -0.5 |
| BOP (% GNDI) | (6.9) | (7.5) | (6.3) | (4.9) | (3.6) | (2.5) | (0.9) | 2.0 | 2.0 | 2.0 |
| Public Borrowing (% GNDI) | (8.5) | (7.9) | (8.8) | (8.0) | (7.7) | (6.4) | (4.7) | (2.4) | (2.0) | (3.5) |
| Government Exp. (% Change) | -0.2 | 0.4 | 4.1 | 3.8 | 3.5 | 2.6 | 2.6 | -0.9 | -1.4 | -1.2 |
| Unemployment (% Labour Force) | 21.7 | 21.6 | 24.6 | 24.6 | 24.6 | 24.6 | 24.6 | 26.4 | 27.0 | 27.6 |

Not surprisingly, the financial problems are less than in the previous case. Surpluses are again encountered in the earlier years and no fiscal policy adjustment is necessary until 1991 (Table 5.12).

The growth in the economy between 1986 and 1990 is just sufficient to cater for the growing labour force leaving the unemployment rate stabilising at a high level. By 1991, however, cuts in public and national expenditure are necessary with the result that unemployment rises again at the end of the period.

**Summary and Conclusion**

The structure of the Federal State as used in this analysis has the implication that the burden of adjusting to reduced external aid falls almost exclusively on the Northern State. In contrast, the Southern State would encounter minimal financial difficulties and no major adjustment would be required. This is the essential difference between it and a Unitary State with a unified tax expenditure regime where the burden of adjustment would be effectively borne by the island as a whole. The size of these financial imbalances in the North would effectively rule out this option unless substantial foreign aid was available or the South was prepared to make direct and explicit transfers to the North. This result was a product of the basic assumptions used. A different rule for the distribution of the Federal Surplus would give different results. It is conceivable that the whole of the adjustment would take place in the South with the North maintaining the *status quo.* The transfers from the South would be similar to those in Table 4.15.

# CHAPTER 6

# JOINT AUTHORITY

In many respects the joint authority case is very similar in its economic respects to the reference analysis of Chapter 2. The differences arise because of (i) the South's contribution to the subvention and (ii) the cessation of violence.

(i) The costs of subvention are to borne jointly by Britain and the South in proportion to their respective GDPs. In 1983 this proportion, 3.7 per cent, implies, on a subvention of £1,600 million, a contribution of £60 million from the South. On the extreme assumption that the economy in the North showed no improvement over that outlined in Chapter 2 the cost to the South would rise to £83 million in 1993 (1983 prices). The amounts in other words would be small.

(ii) In fact the cessation of violence leads to higher growth in the North and South. This has been partly covered in Chapter 4, and again in Chapter 5. The growth rate in the North would go from 1 per cent per annum to a potential 2.5 per cent and this in itself would affect the size of the subvention — increasing North-generated revenue and reducing social welfare expenditure. The potential growth rate in the South on the cessation of violence was taken as 3.75 per cent. This is higher than in the reference case because of the impact of increased tourism and possible other effects, but assumes no fiscal adjustment. Of course the degree of fiscal adjustment would be less in any event because the underlying growth rate is higher. To operationalise the scenario for the South it is assumed that the budget deficit is phased out, again over the period to 1988/89, and that the South pays 3.75 per cent of the subvention.

**The Northern Economy**

The assumption about the North's potential growth has to be modified to take account of the effect on GDP (as measured) of the fall in demand that would result from a reduction in security related expenditure as calculated for the North in Section 3.1. The amounts are not

**Table 6.1: GDP North**

| | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 |
|---|---|---|---|---|---|---|---|---|---|---|
| GDP % Change | 1.75 | 1.75 | 1.75 | 1.75 | 1.75 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 |

insignificant — being about 1 per cent of GDP at factor cost each year to 1988 (Table 6.1). Thereafter, this new level of security expenditure is maintained and GDP growth is 2.5 per cent per annum. Total employment in this economy would be higher than in the reference analysis, but there would be lower public sector employment and higher private sector employment.

The projected employment/unemployment profile for the North resulting from the growth path given in Table 6.1 is given in Table 6.2. Unemployment remains stubbornly high even with this scenario.

**Table 6.2: Employment & Unemployment (000's June each year)**

| | 1984 | 1988 | 1994 |
|---|---|---|---|
| Public Sector | 212 | 203 | 210 |
| Self Employed | 72 | 73 | 75 |
| Other Private Sector | 230 | 248 | 275 |
| | 514 | 524 | 560 |
| Unemployment | 122 | 136 | 135 |
| Labour Force | 636 | 660 | 695 |
| Unemployment Rate | 19.2 | 20.6 | 19.4 |

**The Subvention**

It is necessary to estimate the subvention by 1993. The Consolidated Fund Accounts of the North look as in Table 6.3. From this we can derive the grant in aid.

Because of the higher growth and lower unemployment projected, compared with the reference analysis, tax revenue is higher and there are savings on payments to the unemployed. As a consequence the grant-in-aid is very significantly reduced.

The next element of the subvention to be considered is the contribution from the British National Insurance Fund. Total social welfare expenditure in real terms in the North would be significantly less than in the reference analysis, because unemployment is considerably less. Simultaneously, there is real growth in the economy which is reflected in real income growth. As in the reference analysis not all of this growth is reflected in contributions to the National Insurance Fund, (.75 of the increase is taken) but over the period total receipts do rise. The picture than becomes (Table 6.4).

**Table 6.3: Consolidated Fund Accounts for the North 1993 (1983 Prices)**

| | | | |
|---|---|---|---|
| Attributed Share of U.K. Taxes | 1730 | Supply Services | 2790 |
| V.A.T. Refund | 20 | Central Fund Services | 190 |
| Rates | 170 | (of which Rates) | (70) |
| Other Receipts | 350 | | |
| Sub-Total | 2170 | | |
| Grant-in-Aid | 810 | | |
| | 2980 | | 2980 |

**Table 6.4: Social Security Expenditure and Financing 1993/94 1983 Prices**

| | 1983/84 | 1993/94 |
|---|---|---|
| Social Security Expenditure in North | 1084 | 1140 |
| N.I. National Insurance Fund Own Receipts | 432 | 500 |
| Other (Amount Financed from General Revenue) | 513 | 540 |
| Grant from British National Insurance Fund | 139 | 100 |

Total social security expenditure is reduced compared with the reference analysis. The amount financed from general revenue rather than national insurance contributions is also reduced. This is further reflected in supply service expenditure in Table 6.3.

The next element in the subvention of major significance is the expenditure now undertaken through the NIO. The time profile for its reduction was given in Chapter 3. The amounts in constant 1983 prices are £386 million, £166 million and £150 million in 1983/84, 1988/89 and 1993/94 respectively.

Bringing the different components together the projected British subvention in this case in 1993/94 is given in Table 6.5.

**Table 6.5: British Subvention to North £m**

| | 1993/94 1983 prices | 1983/84 |
|---|---|---|
| Grant-in-Aid | 810 | 725 |
| NIO Services | 150 | 386 |
| NI Courts | 5 | 7 |
| U.K. Ministry of Agriculture etc | 50 | 45 |
| Grant to NI National Insurance Fund | 100 | 139 |
| VAT Refund | 20 | 18 |
| NIES Loan Annuity | 34 | 34 |
| less ERDF Receipts | 30 | 29 |
| less ESF Receipts | 40 | 40 |
| **Total** | **1099** | **1280** |

There is thus a reduction in the real level of the subvention to the North. On the specified assumption that the subvention would be shared in the proportion of the respective GDPs the level of the South's

contribution would be just over £50 million in 1983 prices . The reduction in the subvention compared with the reference analysis would occur because (i) of the increased level of activity — reducing the grant-in-aid, and the contribution from the British National Insurance Fund because domestic revenue increases and (iii) of the effect of the reduction in violence in NIO expenditure.

### The Southern Economy

The economy of the South has two adjustments to make — a reduction in the budget deficit and a transfer to the North ranging from £60 million in 1984 to £51.5 million in 1993. For all practical purposes the path is identical to that outlined in the reference analysis. The increase in GDP resulting from the cessation of violence in the very first year is slightly over £100 million. With the tax system that is assumed to apply, the consequential increase in revenue would be almost identical to the contribution to the subvention (in fact is slightly more). Thus the cessation of violence in itself in terms of its output effects would more than finance the contribution to the subvention. The potential reduction in security related expenditure in the South, whilst modest compared with the potential reduction in the North would also permit non-security related non-debt service expenditure to be slightly higher even with reducing the budget deficit. In the context of the order of magnitude of the figures in Chapter 2 the contribution to the subvention effectively makes no difference and is swamped by the increased growth and its effects on the public finances.

In this scenario we have considered only the case where the contribution from the South to the North is fixed, based on the proportion of present GDPs. In fact, even with current tax rates and with no output effects from peace the amount of the contribution could increase quite dramatically. (Section 2.3). The cost is the output and income forgone.

### Summary and Conclusion

The effect on the South of a contribution to the subvention is marginal in the context of the reference analysis — the balance of payments effects are minimal and the government revenue effects are more than covered from the increased level of activity. In both the North and the South there will be sectoral shifts — from those employed in the security services and dependent on security spending to the rest of the community.

APPENDIX 1

# Oil Price Shocks

## Introduction

The rise in oil prices in 1973/74 and again in 1979/80 had two adverse effects on the world economy.

First, the increase in the relative price of oil administered a supply side shock to the system. The change in the relative price of oil immediately made some part of the capital stock redundant. This was reinforced by the effect on other parts of the capital stock from the change in patterns of demand resulting from the relative price shift. The effect of the oil price increase of 1973/74 on the capital stock was imperfectly perceived — studies in 1975 and 1976 concluded that there was no loss or insignificant loss at that time. Now it is clear that the lead times are simply very much longer than assumed.

Secondly, the oil price increase imparted a deflationary shock to the system. This occurred because oil exporters as a group were low absorbers of goods and services and built up large payments surpluses. While these surpluses were matched by capital flows there was a shortage of worthwhile investment at the new depressed levels of demand and this acted to further depress demand in the world economy. The success of "recycling" in the 1974/75 recession lies at the root of many of the debt service problems of today, a point made in Section 2.2.

## Oil Price Prospects

1983 witnessed a fall in the nominal price of oil with the official market price declining to U.S. $29 from U.S. $34 per barrel and there have been claims from the Saudis that the new price will be maintained until 1985.

Oil consumption tends to be more volatile than consumption of other fuels.

The volatility in oil consumption translates back into volatility in production with the bulk of the variation being borne by oil exporters.

It is easy to see, with the fall in the demand for oil and hence in OPEC production, why prices fell in 1982 and early 1983. Production data for the first half of 1983 indicate a further decline in OPEC production.

Turning from past data to assumptions about the future course of oil prices it is necessary to see if there are likely to be pressures on oil prices within the projection period.

First, there is some evidence that at constant real energy prices the use of energy per unit of output has declined because of changes induced in energy use by the increase in the real price of energy during the 1970s. This would suggest that if world GDP increases by 12-15 per cent over the projection period the demand for energy at current real energy prices might increase by about 9-11 per cent.

**Table 1: World Primary Energy Consumption 1972 — 1982 (m.t.o.e.*) % Changes in brackets**

| | Total Consumption | Gas Hydro Coal Nuclear | Oil |
|---|---|---|---|
| 1972 | 5630.7 | 3038.3 | 2592.4 |
| 1973 | 5923.2 ( 5.2) | 3125.2 (2.9) | 2798.0 ( 7.9) |
| 1974 | 5964.5 ( 0.7) | 3204.2 (2.5) | 2760.3 (-1.3) |
| 1975 | 5968.9 ( 0.1) | 3244.1 (1.2) | 2724.8 (-1.3) |
| 1976 | 6291.4 ( 5.4) | 3396.8 (4.7) | 2894.6 ( 6.2) |
| 1977 | 6490.6 ( 3.2) | 3503.7 (3.2) | 2986.9 ( 3.2) |
| 1978 | 6707.7 ( 3.3) | 3625.1 (3.5) | 3082.6 ( 3.2) |
| 1979 | 6944.3 ( 3.5) | 3819.0 (5.3) | 3125.3 ( 1.4) |
| 1980 | 6903.7 (-0.6) | 3902.2 (2.2) | 3001.5 (-4.0) |
| 1981 | 6862.3 (-0.6) | 3956.6 (1.4) | 2905.7 (-3.2) |
| 1982 | 6834.7 (-0.4) | 4015.9 (1.5) | 2818.8 (-3.0) |

**Source:** BP Statistical Review of World Energy 1982.
* = Million Tonnes Oil Equivalent.

**Table 2: World Oil Production (m.t.o.e.) 1972 — 1982 (% Change in brackets)**

| | Total Production | OPEC | U.K. & Mexico | Rest of the World |
|---|---|---|---|---|
| 1972 | 2633.8 | 1356.8 | 24.9 | 1252.1 |
| 1973 | 2871.7 | 1547.7 ( 14.1) | 27.0 | 1297.0 ( 3.6) |
| 1974 | 2879.2 | 1538.3 ( -0.6) | 31.7 | 1309.2 ( 0.9) |
| 1975 | 2733.1 | 1361.8 (-11.5) | 40.7 | 1330.6 ( 1.6) |
| 1976 | 2954.3 | 1540.2 ( 13.1) | 55.4 | 1358.7 ( 2.1) |
| 1977 | 3066.7 | 1564.5 ( 1.6) | 91.2 | 1411.0 ( 3.8) |
| 1978 | 3094.1 | 1494.6 ( -4.5) | 119.3 | 1480.2 ( 4.9) |
| 1979 | 3225.0 | 1551.1 ( 3.8) | 158.7 | 1515.2 ( 2.4) |
| 1980 | 3080.5 | 1277.2 (-17.7) | 187.8 | 1615.5 ( 6.6) |
| 1981 | 2893.0 | 1440.2 (-10.7) | 217.7 | 1535.1 (-5.0) |
| 1982 | 2705.6 | 881.7 (-22.7) | 252.7 | 1571.2 ( 2.4) |

Second, there has been continuous growth in non-oil energy output. From 1972 — 1983 the average annual rate of growth was 2.8 per cent. At current real energy prices production of coal could continue to grow in U.S., U.S.S.R., China and some West European fields. An increase of about 2 per cent per annum in non-oil energy supplies may be a conservative estimate.

Third, non-OPEC oil supply has continued to grow — the two weakest years being 1974 and 1981. In the medium term there could be further growth but beyond the medium term (e.g. 5 — 10 years out) such output could decline unless new reserves are proved.

Fourth, on the supply side the Iraq/Iran war has affected supplies of oil from both of these countries. Present output levels are running at about one-third of previous peaks i.e. a much greater fall than for the other OPEC powers. Cessation of hostilities would lead to increased supply.

Given these factors it would take until 1988 for the demand for oil to reach the 1978 level on the assumption of a 2.5 per cent growth in world GNP and it would still be below 1979 demand. OPEC production would tend to be at about the depressed 1981 level. The conclusion is that in the absence of any major political disturbance in the supply area of the Middle East there will be no supply shock or accompanying real price increase over the projection period.

**Table 3: Energy Demand & OPEC Production Scenarios 1983 — 1988**

| World GDP % Change 1983-'88 | World Energy Consumption % Change 1983-'88 | Coal, Gas, Hydro, Nuclear Consumption 1988 Level m.t.o.e. | Oil Consumption 1988 Level m.t.o.e. | Oil Production | | |
|---|---|---|---|---|---|---|
| | | | | Total UK & Mexico | Rest of World | OPEC |
| (i) 2.5 | 2 | 4430 | 3085 | 3085 | 275 | 1650 | 1160 |
| (ii) 3 | 2.25 | 4455 | 3215 | 3215 | 275 | 1650 | 1260 |
| (iii) 4 | 3% | 4455 | 3475 | 3475 | 275 | 1650 | 1550 |

**Table 4: Energy Demand & OPEC Production Scenarios 1988 — 1994**

| World GDP % Change 1988-'94 | World Energy Consumption % Change 1988-'94 | Coal, Gas, Hydro, Nuclear Consumption 1994 Level m.t.o.e. | Oil Consumption 1994 Level m.t.o.e. | Oil Production | | |
|---|---|---|---|---|---|---|
| | | | | Total UK & Mexico | Rest of World | OPEC |
| 3.75 | 2.75 — 3 | 5135 | 3700 | 250 | 1600 | 1850 |

It would require a growth rate in world GDP of 4 per cent per annum in the period 1983 — 1988 for OPEC production to reach the 1979 level. The assumption of no oil price shock in the period to 1988 seems reasonable.

Beyond that it depends on the extent to which new reserves are proven. Assuming no further major reserve growth outside the OPEC countries the following picture would emerge in 1994.

One needs to be very cautious about such exercises as they tend to become purely arithmetic in nature. If OPEC products were pushing at the previous peaks this would result in higher prices and this would intrude on the growth rates assumed. Furthermore, new reserves are constantly being proven. If non-OPEC oil production grew at just 1 per cent per annum then OPEC production would reach the previous peak level of output slightly later.

APPENDIX 2

# Population and Labour Force Calculations for the North

The April 1981 Northern Ireland census put the population of the region at 1,507,000. Of this total 1,488,000 were actually enumerated and the Register General estimated that a further 19,000 persons were resident in non-enumerated households. However, comparisons with data from other sources, namely the school census and the numbers of children for whom child benefit was being paid revealed a considerable shortfall in the census of population results for these age groups. It was therefore decided by the Northern Ireland Office that the official population figure for Northern Ireland be revised upwards to 1,562,000 persons.

As a result of this it was necessary to revise the census figures for each age group and to estimate the size of the labour force. Comparing the original census results with the population projections for 1981 of the Registrar General suggested that the vast bulk of the numbers omitted from the original census were below 40 years of age. The numbers in the 0-4 age group are calculated on the basis of the number of live births since 1978. The school census figures are employed to calculate the numbers in the 4 — 14 age groups. This left relatively minor adjustments to be made to the census of population result for the 15 — 39 age group. The male/female distribution was presumed unchanged. The results are shown in Table 1.

**Table 1: Age Distribution of Population 1981**

| | Male | Female | Total |
|---|---|---|---|
| 0 — 4 | 68.2 | 65.2 | 133.4 |
| 5 — 9 | 69.9 | 65.5 | 135.4 |
| 10 — 14 | 76.1 | 72.4 | 148.5 |
| 15 — 19 | 79.8 | 75.1 | 154.9 |
| 20 — 24 | 69.5 | 65.9 | 135.4 |
| 25 — 29 | 54.6 | 52.1 | 106.7 |
| 30 — 34 | 50.1 | 49.4 | 99.5 |
| 35 — 39 | 48.6 | 48.9 | 97.5 |
| 40 — 44 | 30.2 | 40.4 | 79.6 |
| 45 — 49 | 36.4 | 38.2 | 74.6 |
| 50 — 54 | 36.2 | 39.6 | 75.7 |
| 55 — 59 | 35.4 | 39.4 | 74.8 |
| 60 — 64 | 31.3 | 36.4 | 67.6 |
| 65+ | 71.1 | 107.1 | 178.1 |
| Total All Ages | 766.2 | 795.6 | 1561.8 |

Based on these figures an estimate was made of the size of the labour force. It was assumed that the participation rates were the same as those obtained from the original census results. These rates are shown in Table 2.

**Table 2: Participation Rates**

| | Male | Female |
|---|---|---|
| 16-24 | 74.5 | 51.6 |
| 25-64 | 94.1 | |
| 65 + | 9.1 | 0 |

These estimates are used to estimate population aged 16 and over by economic activity.

**Table 3: Economic Classification of Population Aged 16 and Over**

| | Male | Female | Total |
|---|---|---|---|
| Total Age 16 + | 536.0 | 577.5 | 1115.5 |
| of which | | | |
| Students | 34.0 | 35.1 | 69.1 |
| Retired | 64.6 | 64.7 | 129.3 |
| Others | 20.0 | 234.9 | 254.9 |
| Economically Active | | | |
| = Labour Force | 417.4 | 242.7 | 660.1 |
| of which | | | |
| Employees | 282.4 | 206.7 | 489.1 |
| Self-Employed | 55.1 | 5.3 | 60.4 |
| Unemployed | 79.9 | 30.6 | 110.5 |

Given these revised population figures it was necessary to project the Northern Ireland population for 1983. This involved adjusting the Registrar General's population estimates for 1990 and 1995 for the extra numbers included in the revised 1981 population figure. The Registrar's estimates for those under 15 in 1993 are taken to be reasonable. Estimates for other age groups are based on the assumption that survivorship rates for the 1981 population are the same as those implied in the Registrar's

forecast. The male/female distribution is taken as unchanged. Implicit in the Registrar's survival estimates is an outward migration figure of 7,700 persons per annum. The results for 1993 are in Table 4.

**Table 4: Projected Population 1993 by Age and Sex**

| | Male | Female | Total |
|---|---|---|---|
| 0 — 4 | 80.5 | 77.0 | 157.5 |
| 5 — 9 | 74.6 | 69.9 | 144.5 |
| 10 — 14 | 66.4 | 63.1 | 129.5 |
| 15 — 19 | 64.6 | 60.8 | 125.4 |
| 20 — 24 | 69.2 | 65.7 | 134.9 |
| 25 — 29 | 69.2 | 66.2 | 135.4 |
| 30 — 34 | 64.0 | 63.2 | 127.2 |
| 35 — 39 | 52.7 | 53.0 | 105.7 |
| 40 — 44 | 46.5 | 44.9 | 94.4 |
| 45 — 49 | 44.3 | 46.5 | 90.8 |
| 50 — 54 | 38.7 | 42.4 | 81.1 |
| 55 — 59 | 32.7 | 36.5 | 69.2 |
| 60 — 64 | 30.3 | 35.2 | 65.5 |
| 65+ | 71.8 | 108.2 | 180.0 |
| | 805.8 | 835.5 | 1641.1 |

The above results suggest a growth rate of 0.4 per cent per annum for Northern Ireland for the period 1981/1993. This compares with a growth of 0.2 per cent per annum for the 1971/81 intercensal period. The above population estimates are now used to provide a rough measure of the labour force in 1993. The critical assumption used is that participation rates remain unchanged. Such an assumption has important implications for estimating the number of females in the labour force. In the case of the Republic where female participation rates are low due to low rates for married women such rates are likely to rise in the future resulting in a significant underestimate if the above assumption of unchanged participation rates is used. However, the position in the North is quite different as the participation rate for women is already high. The 1981 participation rate for women aged 16 and over was 51.6 compared with a rate of 28.7 for women aged 15+ in the South in 1979*. Any increase in female participation rates is, therefore, likely to be small. Table 5 gives details of labour force projections for 1993.

Table 5: Population by Economic Activity and Sex, 1993

| | Male | Female | Total |
|---|---|---|---|
| Total aged 16 + | 571.2 | 613.3 | 1184.5 |
| of which | | | |
| Students | 30.8 | 31.0 | 61.8 |
| Retired | 65.3 | 65.4 | 130.7 |
| Others | 22.3 | 256.3 | 278.6 |
| Total Economically Active = Labour Force | 452.7 | 260.7 | 713.4 |

The above figures suggest a growth in the labour force of 0.6 per cent or almost 4,500 per annum between 1981 and 1993.

*NESC No. 63. July 1982. Population and Labour Force Projections by county and region, 1979 — 1991.

APPENDIX 3

# Some Basic Terms

Where an economy is running neither a balance of payments surplus nor a deficit it is conventional to say that income, output and expenditure are equal. When an economy is experiencing a balance of payments deficit then output (and income) is less than expenditure — the economy is spending more than its income or output. In order to see how this operates in the framework we have set out it is necessary to define some terms.

Gross Domestic Product (GDP) is the sum of Private Consumption (C), Government Consumption (G), Investment (including stocks) (I), and Exports of Goods and Services (X) less Imports of Goods and Services (M).

$$(GDP = C + G + I + X\text{-}M)$$

Gross National Product (GNP) is Gross Domestic Product (GDP) less interest and dividends paid abroad (called Net Factor Payments (NFP) ).

$$(GNP = GDP - NFP)$$

Gross National Disposable Income (GNDI) is the sum of GNP and Net Current Transfers from abroad (T). These latter arise primarily because of emigrants' remittances and transfers from the European Community.

$$(GNDI = GNP + T = GDP\text{-}NFP + T)$$

Gross Domestic Expenditure (GDE) is the sum of Private Consumption (C), Government Consumption (G), and Investment (I).

$$(GDE = C + G + I)$$

The Balance of Payments (BOP) is the sum of Exports of Goods and Services (X) less Imports of Goods and Services (M) less Net Factor Payments (NFP) plus Transfers (T).

$$(BOP = X\text{-}M\text{-}NFP + T)$$

Gross National Disposable Income, which is a measure of the income available to the community can be looked upon as follows:

$$\begin{aligned} GNDI &= GDP - NFP + T \\ &= C + G + I + X - M - NFP + T \\ &= (C + G + I) + (X\text{-}M\text{-}NFP + T) \\ &= GDE + BOP \end{aligned}$$

Alternatively:

$$BOP = GNDI - GDE$$

When Gross Domestic Expenditure (GDE) is greater than Gross National Disposable Income (GNDI) then the balance of payments is in deficit, and conversely when GDE is less than GNDI the economy is in surplus.

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