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DISTRIBUTIONAL ASPECTS OF IRELAND'S
FISCAL ADJUSTMENT

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1. INTRODUCTION

Conflicting claims have been made about the distributional impact of Ireland's fiscal stabilisation package in recent years. Some argue that vulnerable groups have borne more than their share of the costs of adjustment; others that there has been adjustment with growth and equity. This paper examines these conflicting claims. It begins by clarifying the nature of the different questions which might be asked about distributional changes in the context of a fiscal adjustment programme. The information required to address these questions, and the methodological issues which arise, are also discussed. Sections 3 and 4 turn to the analysis of the data actually available and the light which can be shed on some of the questions raised. Section 3 examines changes in disposable incomes, and Section 4 considers the effects of changes in expenditure on public services over the period. The final section deals not only with conclusions which can be drawn from this evidence but also with defining the boundaries of our knowledge, and the types of information required to extend it.

2. ADJUSTMENT AND DISTRIBUTION: ISSUES AND METHODS

Having been neglected in the early 1980s, from the middle of the decade the effects of structural adjustment programmes in developing countries on the poor moved to the centre of the debate on the design of such programmes. This

reflected widespread concern that the most vulnerable groups in society were being particularly adversely affected. There is now an extensive literature on "adjustment with a human face",¹ and agencies such as the World Bank and the IMF acknowledge that protection of the poor is an important element in the design and implementation of adjustment policies.

The distributional consequences of Ireland's recent fiscal adjustment have been the subject of a good deal of comment through little detailed analysis. Apparently contradictory views about these consequences have been put forward. Some have suggested that poor and vulnerable groups "have borne the brunt of the cutbacks".² Others have argued that there has been a "greater spread of the benefits of growth - adjustment with growth and equity" and that poverty fell over the adjustment period.³

What first becomes obvious when these conflicting claims are considered is that a number of different questions can be asked about the distributional effects of an adjustment programme. Depending on the standard applied, quite different answers can be supported, and it is often far from clear precisely which question is being asked or is most relevant. To assess whether adjustment was equitable or whether the poor were protected, one could ask for example:

1. Did the poor/low income groups experience losses in real income?
2. Did the poor/low income groups experience greater real income losses than others?

3. Did the poor experience lower real income increases than others?
4. Did the numbers below absolute or relative poverty lines rise?
5. Did inequality in the distribution of income increase?

To add a further complication, "income" could in each case refer simply to cash incomes, or alternatively could be extended to encompass the effects of services provided by the State on living standards. If these services are to be included how is this to be done? Given the required data, it is possible to attribute benefit from such services as health and education to those availing of them, but complex issues arise as to how they are to be valued. In the redistributive exercises carried out by the CSO based on the Household Budget Survey, expenditure on providing the service in question is allocated among users, an approach widely adopted elsewhere. Methodologies which attempt to measure the value to recipients in various ways have been explored, most widely in the US, but face many difficulties.⁴ In the same way, given appropriate data on expenditure patterns and assumptions about incidence, indirect taxes could be included as they are in the CSO exercise. There, estimates of "final" income for sample households are presented - that is, income including cash transfers and the "benefit" of non-cash services used, less income tax and social insurance contributions and estimated indirect taxes paid. As discussed in detail in Callan, Nolan *et al.*, (1989), this cannot

however be treated as analogous to disposable income in that it is a construct measuring where expenditure on services etc., goes, not a measure of welfare or command over resources.⁵

A general issues which then arises, with any of these questions, is what counterfactual is to be used in assessing distributional changes. If our concern is with the impact of an adjustment programme *per se*, then it is not valid to simply compare the situation "before" and "after" - not all the difference is attributable to the programme. What then is the appropriate counterfactual - an estimate of what the position would have been with *no* adjustment, or with an alternative adjustment policy? If the latter, how is the alternative to be framed and the outcome estimated? While a preferred alternative programme may underlie some of the comments on Ireland's adjustment, the more straightforward concern which many people have in mind is what actually happened relative to the start of the period. It must be emphasized though that changes over the adjustment period do *not* show the effects of the programme itself, and that the counterfactual adopted will affect our assessment of the distributional impact of adjustment.

Where the question being addressed is, in broad terms, "what happened to the poor?", a distinction must also be made between a focus on how those who were poor in the base period were situated at the end of the period, and one on how the poorest positions evolved.⁶ It clear both from international

research and from the partial household follow-up survey conducted by the ESRI that there is a considerable movement into and out of low income "positions" over time.⁷ Such movements are of considerable interest in themselves, but in assessing the distributional consequences of the fiscal adjustment programme it is of primary importance to look at positions.

Given the questions to be addressed, what data would ideally be used to answer them? Since it is not intended to trace the fortunes of particular individuals over time, panel data is not required: information on cross-sections of the population before and after the fiscal adjustment, chosen independently, would suffice. The information would relate not only to cash incomes but also use of services and expenditure patterns, so that non-cash benefits and indirect taxes could be taken into account. Further, information on alternative methods of valuing such services - on consumers' demands, in effect - would be employed.

The available data of course fall far short of this. The CSO's 1987 Household Budget Survey and the ESRI's Survey of Income Distribution, Poverty and Usage of State Services carried out in the same year provide cross-section information on incomes, use of services and (in the case of the HBS) expenditures close to 1986, which we take to be the most relevant base date. However there is no such survey evidence for 1989 or 1990, "after" adjustment, with which this can be compared.

It would be possible to implement an indirect approach, in effect "ageing" the 1987 income distribution. This would involve uprating incomes from different sources on the basis of known aggregates and also taking changes in employment and unemployment, income tax, etc., into account.⁸ We are currently exploring the application of this technique to the 1987 ESRI Survey data, in order to provide a more up-to-date basis for microsimulation modelling of income tax and social welfare policy options. The technique is less satisfactory in terms of the objectives of this paper, though, and its application is not in any case sufficiently far advanced at this stage.

After this extensive preamble about data deficiencies and the difficulties faced, we proceed in the following sections to an examination of the information which is available and what it allows one to say about the distributional impact of Ireland's fiscal adjustment. In Section 3, cash incomes are analysed, relying for the most part on aggregate statistics such as the growth in incomes from different sources. Particular attention is paid to changes in social welfare support rates, in real terms and relative to other incomes. The light shed on the questions outlined earlier, in so far as cash incomes are concerned, is then discussed. In Section 4, the effects of the changes in public "social" expenditure on health, education and housing are analysed, utilising data on expenditure and activity levels together with what is known about the characteristics

of those availing of the various services.

3. FISCAL ADJUSTMENT AND CASH INCOMES

McAleese (1990a, b) has argued that "no major group bore the burden of adjustment", that there was in fact no burden to adjust to, as incomes of different types (agricultural, employment, profits, social welfare) all increased at least as fast as inflation; tax reductions gave rise to further gains in real net incomes; and increases in employment/declines in unemployment reduced the numbers relying on social welfare. The most striking characteristic of the period 1986-89 or 1986-90 is clearly that fiscal adjustment was accompanied not by contraction but by economic growth and increased employment. The relationship between this growth and adjustment policies is the subject of other papers to this conference, but the fact that it occurred means that "the burden" of adjustment takes on rather a different meaning in this specific case.

First, then, the increase in employment and decline in unemployment are of central importance in looking at cash incomes. The number at work rose from 1,081,000 in 1986 to 1,120,000 by 1990, while the number unemployed fell from 227,000 to 183,000 (using Labour Force Survey data and definitions). However the level of emigration during the period, with net emigration of 136,000 between 1987 and 1990, was crucial to the fall in unemployment.⁹ While emigration is a complex phenomenon, and external as well as domestic

factors play a key role,¹⁰ the level of emigration over the period must clearly colour our attitude to the decline in unemployment and its favourable distributional effects.¹¹

Turning to the evolution of incomes from different sources, Table 1 shows how the National Accounts personal income aggregates changed over the 1986-90 period. Real agricultural incomes recovered strongly from their 1986 low, while the numbers employed in agriculture remained roughly constant, implying a very substantial average increase per person. There was a significant increase in non-agricultural

Table 1: *Aggregate Personal Income Growth by Type, 1986-1990*

	<i>Percentage change</i>	
	<i>Nominal</i>	<i>Real^a</i>
Income from agriculture	45.2	27.5
Non-agricultural wages and salaries:	26.5	11.0
Other non-agricultural income ^b	38.2	21.3
Transfers ^c	14.2	0.2
Total personal income	27.0	11.5

Source: National Income and Expenditure 1989; ESRI Quarterly Economic Commentary, Summer 1991.

Note: a Deflated by GNP deflator.

b Income of independent traders (non-agricultural) plus rent, interest and dividends.

c Includes transfers from abroad.

wages and salaries in real terms, of 11 per cent, due to a combination of increased employment and real earnings' growth. Non-agricultural employment (employees plus self-employed) rose by 4.6 per cent over the period, so if the number of employees grew at about this rate they

experienced a rise of about 6 per cent in real income per capita. (We also know from the Quarterly Industrial Inquiry that the growth in average gross real earnings for employees in industry was about 5 per cent.) Income of the self-employed outside agriculture, plus interest dividends and rent, grew very rapidly, by 38 per cent in nominal terms, over 20 per cent in real terms. Unfortunately we know very little about how the dispersion of income from these different sources may have evolved. (As far as earnings are concerned, the Programme for National Recovery made provision for a flat-rate element which would entail higher percentage increases for the low paid, but in practice, rates for some higher paid groups may have increased by more than the provisions of the Programme.)

Given these changes in gross market incomes, the nature and extent of the tax reductions over the period imply that net incomes rose significantly more rapidly for many of those in the income tax net. The standard rate was reduced from 35 to 30 per cent; the standard rate band was increased by 38 per cent; and the top rate was reduced from 58 to 53 per cent. The offsetting restrictions in special reliefs were, by comparison, rather minor: tax relief was restricted to 80 per cent of mortgage interest payments (with an effective maximum relief of £3,200 as against the initial maximum of £4,000) while life assurance relief was curtailed from 50 per cent to 25 per cent of the premium.

The diversity of taxpayers' circumstances (incomes,

mortgages, number of children) allows for a wide range of possible outcomes at individual level. At average industrial earnings, the net income gain for a one-earner couple is only about half a percentage point higher than the growth in gross earnings. If such a couple had a mortgage of two and a half-times average earnings,¹² the restrictions in mortgage interest relief would actually offset these gains, leading to no real income growth. If the under-indexation of child benefit is taken into account, the real income position of such a family could even have worsened slightly. It should be stressed that the combination of circumstances and income ranges in which such a result obtains are very restrictive however; they simply illustrate that it would be *possible* for real incomes to have fallen over the period in certain positions towards the lower end of the equivalent income distribution. At higher income levels, the reductions in the standard rate of tax become more influential. At twice average industrial earnings, even those with heavy mortgages and with children experienced real net income gains of about 4 per cent, rising to 9 per cent for those without mortgages.

Turning to social welfare support, Table 2 shows the changes between 1986 and 1990 in maximum social welfare rates applying to different family types for each of the main schemes. In general, the increases led to small gains in real incomes, of between 1 and 3 per cent over the 4 year period. There were much more substantial increases for those schemes which had the lowest rates at the beginning of the period

though. Rates for the long-term unemployed were increased by between 12 and 25 per cent in real terms, rates for those on short-term unemployment assistance rose by 12-17 per cent,¹³ and supplementary welfare allowance rose by 14 to 20 per cent. The only major social welfare benefit which did not keep pace with inflation was Child Benefit, which is paid in respect of all children: this is incorporated within the table, which therefore shows lower percentage increases for families with children in each case. There was also a streamlining of rates of payment for child dependants: there were larger increases in some of the lower rates, and smaller increases for the highest rates. (The marginal fall in the real value of a widow's contributory pension plus child benefit for a widow with 4 children reflects both of these

Table 2: *Real Changes in Social Welfare Incomes, 1986-1990*

<i>[Nominal change deflated by increase in CPI of 13.4 per cent]</i>	<i>One adult</i>	<i>Couple</i>	<i>+2 children</i>	<i>+4 children</i>
Old Age Contributory Pension	1.5	1.3		
Old Age Non-contributory Pension	2.1	2.0		
Unemployment/Disability Benefit	3.0	3.1	1.8	2.4
Short-term Unemployment Assistance	16.6	14.3	11.8	13.6
Long-term Unemployment Assistance	25.0	15.9	11.7	12.4
Invalidity Pension	1.3	2.0	1.1	0.7
Widow's Contributory Pension	2.7		1.5	-0.2
Widow's Non-Contributory Pension	4.1		2.0	0.1
Supplementary Welfare Allowance	20.3	17.7	13.8	14.8

Source: Social Welfare Rates booklet, 1986 and 1990.

factors: it should be noted, however, that reductions in tax liabilities would have more than offset this, leading to a rise in net income.)

Two additional factors are not taken into account in this table: reductions in pay-related benefit (PRB) and the implementation of equality of treatment between men and women, which led to changes in payments for adult and child dependants. PRB was reduced from 25 per cent¹⁴ to 12 per cent of relevant earnings; there was also a restriction in the band to which this applies. Thus, for gross earnings of £11,000 the amount of PRB payable could have fallen from £40.50 to £17.80 per week. There could, therefore, have been falls in real income for some unemployed persons or "positions" entitled to PRB.

The implementation of equal treatment for men and women led to new rules for the payment of adult and child dependant payments. For contributory benefits, these payments had been made irrespective of a wife's earnings; but under the new rules, full payments were only made if the spouse's earnings did not exceed a certain limit (initially £50 gross per week). If earnings exceeded this limit, the adult dependant payment is now withdrawn, while child dependant payments are halved. Transitional arrangements were put in place to ensure that current welfare recipients at the time of the change did not experience nominal reductions in payments; but in terms of the analysis of *positions* within society, reductions in payments were an inherent part of the process. As against

this, the equality of treatment measures led to new welfare entitlements for some married women.

Over the 1986 to 1990 period, a variety of welfare and tax measures were aimed specifically at those in low paid positions. On the tax side, these measures included increases in general exemption limits, child additions to the income tax exemption limits, and a reduction in the tax rate applied to those just above the exemption limits (the marginal relief rate). On the welfare side, increases in Family Income Supplement and an intensive campaign to increase take-up of entitlements to that benefit were the main features. These processes continued in the 1991 Budget and welfare measures. Without evidence for an actual sample of households, it is none the less interesting to illustrate the impact on incomes of applying these measures to hypothetical cases. Figure 1 shows how they would have altered the relationship between gross earnings and income net of tax and social welfare payments for a single earner couple with four children.¹⁵ The calculations are designed to show incomes net of tax and PRSI, but including FIS and an assumed value of a medical card, along the lines set out in NESC (1990).¹⁶

The 1991 schedule lies above the 1986 schedule over the full range of incomes, but the upward shift is particularly marked for incomes below £10,000 per annum - those below that income should, in theory at least, have gained substantially. The changes in the incentives facing employees are also worth noting, though. The nature of the medical card entitlement

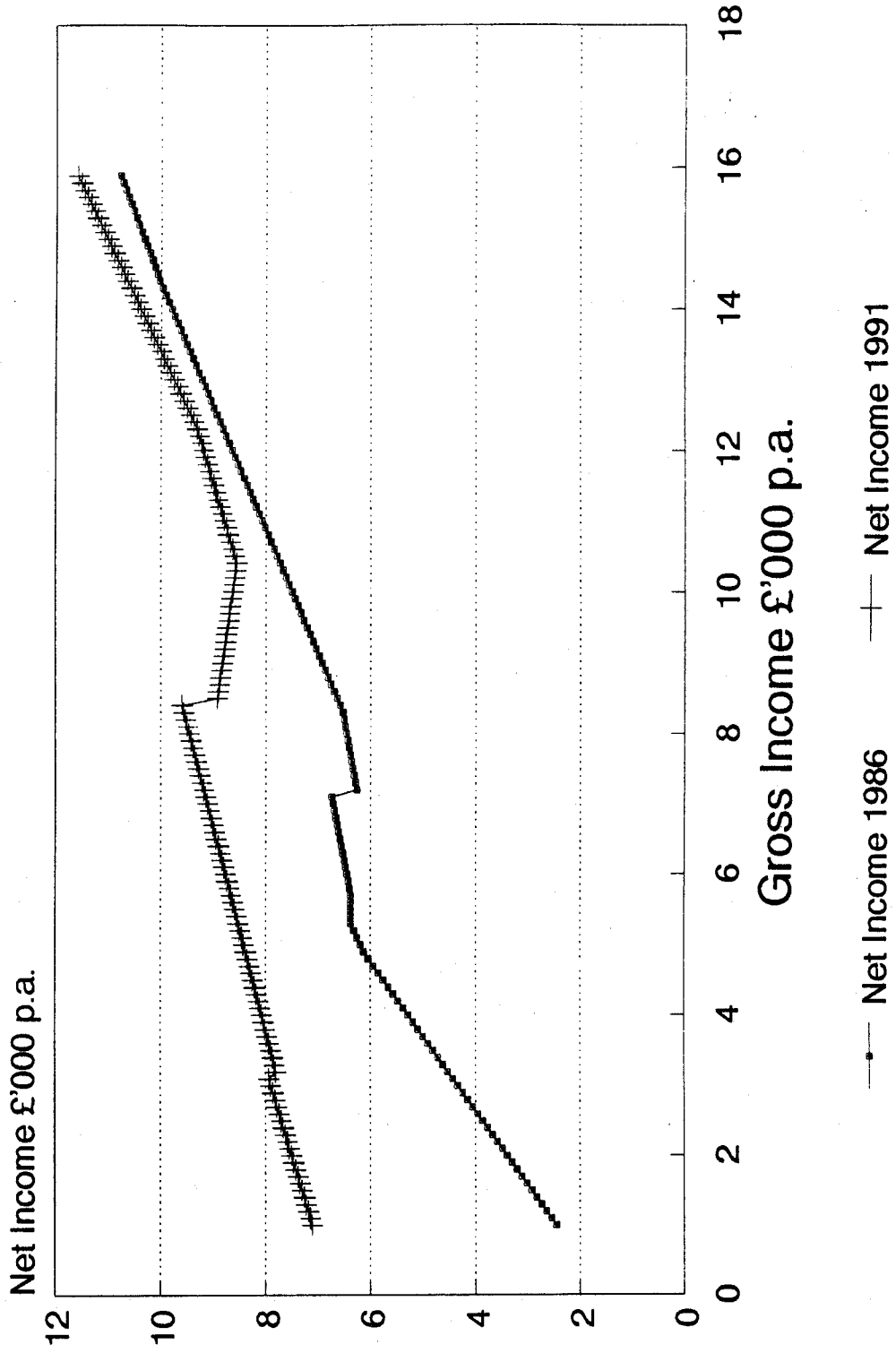


FIGURE 1 : GROSS EARNINGS AND NET INCOME

leads to a kink in net income at about £8,400, followed by an effective marginal tax rate (from marginal income tax relief, FIS withdrawal and PRSI) of over 100 per cent between £8,500 and £10,400. This means that the "poverty trap" for such families has been exacerbated, and shifted up the income scale: it used to occur before the medical card income guideline, well below average industrial earnings, and now occurs after the medical card income guideline, much closer to average industrial earnings and in a much denser area of the earnings distribution. The numbers actually facing these very high effective tax rates are in fact quite limited, since for the highest effective tax rates to be relevant the family must be in receipt of FIS, but the numbers in receipt have increased only from about 5,000 in 1986 to just over 6,500 in 1990, despite the changes in the scheme. This in itself clearly casts considerable doubt on whether the income support is reaching its intended target, and shows that the substantial gains to hypothetical cases accrued in fact only to a small number.¹⁷

What does the evidence presented suggest about the questions posed in Section 2, with respect to the distributional changes over the adjustment period in terms of cash incomes alone? The first question was whether the real incomes of low income "positions" fell. While it was seen to be possible for real cash incomes to have declined in certain circumstances, it appears that this could not have applied to any major set of low income positions, given the growth in

average income from various sources, the changes in social welfare rates, and the income tax changes implemented. The second question was whether the poor experienced greater real income losses than other groups, and again the answer is clearly in the negative.

The third question was whether those at low incomes experienced slower income growth than other groups. This is more complex but the data suggest that income growth was most rapid on average for profits and self-employment incomes, for agricultural incomes - from a very low base - and for those on Unemployment Assistance or Supplementary Welfare Allowance. Net income growth for employees was more moderate, and varied in particular with the extent of the gain from income tax cuts. Apart from the lowest rates, though, social welfare rates did grow less rapidly over the period than most other income types.

The fourth question was whether the numbers below absolute or relative poverty lines rose. Given that real incomes appear to have risen for most groups, the numbers below absolute lines would have fallen. As far as relative poverty is concerned, the reduction in unemployment and increase in employment would be expected to reduce the numbers below relative income lines. The increase in farm incomes and - depending on the location of the line applied - the relatively large increases in lowest social welfare rates would also work in that direction. As against this, rapid increases in market incomes would have raised purely relative

income standards substantially and have offsetting effects - one reason why it is sometimes argued that, in the short-term, a "fixed" rather than "moving" target to measure progress in reducing poverty is appropriate.

The final question is related to overall income inequality. Even with full data, answers to such questions might depend on the precise measure used. But some of the main forces which were at work can be identified, along with the likely direction of their impact. The reduction in unemployment and increase in employment would be expected to increase the share of income going to low income groups, and reduce inequality. The rise in profits and self-employment income during the upswing would, however, be expected to increase the share of those at the top of the distribution, increasing inequality.¹⁸ Reductions in the level of income taxes, given the steep progressivity of the tax code, would be expected to increase the dispersion of incomes; one would expect, and simulation analyses confirm, that there would be particularly strong effects towards the top of the income distribution.

4. FISCAL ADJUSTMENT AND STATE-FUNDED SERVICES

4.1 Overall Social Spending

The evolution of cash incomes over the course of the period of fiscal adjustment comprises only part of the story. A great deal of the media coverage and public reaction at the time focused on State-funded services, in particular in the "social spending" areas of health, education, housing and

subsidies. Even with a great deal more information than is available, it would be very difficult to arrive at a conclusive assessment of the overall distributional impact of the policies implemented in these diverse areas, for reasons already discussed. Here our aims are more modest: to examine how social spending actually developed in the 1986-90 period, identify the areas where the effects of fiscal adjustment were concentrated, and tentatively discuss the distributional implications.

We will look in turn at health, education, housing and subsidies in this way, but first it is relevant to see how fiscal adjustment affected social spending compared with other areas of expenditure. Table 3 shows the growth in current government spending between 1986 and 1989/1990 by type. "Social Spending" in total - comprising health, education, social welfare, housing and subsidies - grew more rapidly than overall current spending.¹⁹ Nor is it the case that relatively rapid growth in social welfare transfers is simply obscuring less rapid increases in the other elements; social welfare spending grew by 6.7 per cent between 1986 and 1989, while the rest of social services expenditure rose by 9.3 per cent. Thus the share of social spending, and of spending on social services excluding cash transfers, in current government spending rose significantly over the period of fiscal adjustment 1986-1989 or 1986-1990. With overall government current spending growing considerably less rapidly than GNP between 1986 and 1989, current social

Table 3: Current Government Expenditure by Type, 1986-1990

Current Expenditure Type	Percentage change		Share in current spending			Share in GNP		
	1986-89	1986-90	1986	1989	1990	1986	1989	1990
	Per cent							
Debt Service	7.6	15.6	21.4	21.9	22.1	11.8	10.2	10.0
Economic Services	-18.4	-13.0	8.5	6.6	6.6	4.7	3.1	3.0
Infrastructure	-3.2	8.1	0.7	0.6	0.6	0.4	0.3	0.3
Social Services	8.0	15.1	53.9	55.3	55.3	29.8	25.8	25.1
- health	6.6	19.3	12.4	12.6	13.2	6.9	5.9	6.0
- education	21.7	28.4	10.9	12.6	12.5	6.0	5.9	5.7
- social welfare	6.7	12.4	27.7	28.1	27.8	15.3	13.1	12.6
- housing	-11.1	-51.8	0.3	0.2	0.1	0.2	0.1	0.1
- subsidies	-28.0	-27.6	2.5	1.7	1.6	1.4	0.8	0.7
Total Social Services excluding social welfare	9.3	17.8	26.2	27.2	27.5	14.5	12.7	12.5
Security	1.2	14.0	7.4	7.1	7.5	4.1	3.3	3.4
Other	10.2	9.8	8.1	8.4	7.9	4.5	4.0	3.6
Total	5.3	12.2	100.0	100.0	100.0	55.3	46.8	45.4

Source: Budget Booklet 1991, Table p.111, 1990 Table p. , Revised Estimates for Public Services 1991, Table 6, p.xviii, Revised Estimates for Public Services, 1990, Table 6, p.xviii.

spending did decline substantially as a proportion of GNP, but was not disproportionately responsible for the fall in the government spending/GNP ratio.

Turning to capital expenditure, Table 4 shows however that health, education and particularly housing bore the brunt of the reductions in capital spending between 1986 and 1989. While Public Capital Programme (PCP) spending in areas such as agriculture and tourism rose, and investment in "productive" infrastructure remained roughly unchanged in

aggregate (in nominal terms), public capital expenditure on housing fell by two-thirds and education and health also declined. Whereas 33 per cent of the PCP went on housing, education and health in 1986, only 17 per cent did so in 1989.

Table 4: *Public Capital Programme 1986-1990*

	<i>Percentage change</i>		<i>As percentage of PCP</i>		
	<i>1986-1989</i>	<i>1986-1990</i>	<i>1986</i>	<i>1989</i>	<i>1990</i>
Sectoral Economic					
Investment	12.9	32.2	23.9	32.0	31.5
Productive					
Infrastructure	2.0	25.7	38.7	46.8	48.5
Social					
Infrastructure	-56.4	-57.0	33.0	17.0	14.2
-housing	-64.8	-68.4	23.4	9.8	7.4
-education	-45.4	-33.3	6.0	3.9	4.0
-hospitals	-20.3	-22.0	3.6	3.4	2.8
Government					
Construction etc. ^a	-18.3	35.2	4.3	4.2	5.8
Total	-15.5	0.4	100.0	100.0	100.0

Source: Budget Booklet 1991, Table, p.112.

Note: a This item is included in "social infrastructure" in the Budget booklet categorisation, but not in this table.

We now look in detail at each of the main social services spending areas, beginning with health.

4.2 Health

The area where public expenditure over the 1986-89 period probably generated most controversy was the health services. Table 5 shows that current government expenditure on the health services was indeed tightly restrained in 1987

and 1988. Expenditure in nominal terms rose only marginally in 1987 and was held constant in 1988. In real terms, these clearly constituted significant reductions. Using the deflator for all current government expenditure on goods and services, current expenditure on health was 10 per cent lower in 1989 than in 1986. Since the rate of increase in costs in the health services is generally thought to exceed that in other areas of government spending, this is likely to understate the underlying decline.

Table 5: *Current Government Expenditure on Health 1980-90*

Year	Current health expenditure		Percentage change		Expenditure as percentage of GNP
	nominal ^a £m	real(1986 prices) ^b £m	nominal	real	
1980	656	1161	75.9	-0.6	7.3
1986	1154	1154			6.9
1987	1177	1109	2.0	-3.9	6.5
1988	1172	1052	-0.4	-5.1	6.2
1989	1230	1040	4.9	-1.1	5.9
1990	1377	1075	12.0	3.4	6.0
1986-89			6.6	-9.9	
1986-90			19.3	-6.8	

Source: Budget Booklet 1991, Table, "Current Government Expenditure by Functional Classification; various years (e.g., 1991 p. 111); *Economic Review and Outlook 1991*, Tables 2 and 3, p. 36.

Note: a Gross non-capital expenditure.
b National Accounts Deflator for government expenditure on current goods and services

To understand the impact which this had on the health services, it is essential to note that health spending had already been held in check in the preceding 1980-86 period. Public spending on health in 1986 was no higher in real terms than in 1980 and had fallen from 7.3 per cent to 6.9 per cent of GNP. By 1989, it represented only 5.9 per cent of GNP. Given the upward pressure on health expenditures internationally as a consequence *inter alia* of the development of new technologies and drugs, this was a remarkable reversal of the trend of the previous twenty years.

Which services were most affected? Table 6 shows the main spending heads. Current spending on general hospitals accounts for about half of all current health services expenditure, and grew less rapidly than total expenditure between 1980-86 and 1986-89. Using the general government expenditure deflator, hospital spending in real terms fell by 7 per cent between 1980 and 1986 and by a further 9 per cent between 1986 and 1989. Despite a significant real increase in 1990, it remains below the 1986 level. Expenditure on the psychiatric programme actually fell in *nominal* terms between 1986 and 1989, and was the other area most affected. By contrast, expenditure on the General Medical Service, providing free general practitioner care and prescribed medicines to those with medical card cover, grew relatively rapidly, particularly between 1986 and 1989.

Table 6: *Current Public Health Expenditure by Service, 1980-90*

<i>Programme</i>	<i>Percentage change</i>			<i>Share in total</i>			
	<i>1980-86</i>	<i>1986-89</i>	<i>1986-90</i>	<i>1980</i>	<i>1986</i>	<i>1989</i>	<i>1990</i>
Community protection	61.2	10.5	16.6	1.8	1.6	1.6	1.6
Community health	96.8	28.8	30.3	12.3	13.7	16.1	14.7
of which:							
GMS	114.1	27.1	31.8	7.6	9.2	11.2	10.0
Community Welfare	112.7	8.9	27.4	6.4	7.7	7.6	8.1
Psychiatric	72.0	-1.7	4.8	12.8	12.4	11.1	10.7
Handicapped	114.4	10.2	18.8	8.1	9.8	9.9	9.6
General							
Hospitals	64.5	7.6	23.6	53.8	49.9	49.0	50.8
Support	82.7	6.2	11.2	4.8	4.9	4.7	4.5
Total	77.4	9.7	21.3	100	100	100	100

Source: Health Statistics Table J1 various years; Revised Estimates for Public Services 1991, Health, Appendix Table Y, pp. 186-7.

Note: Gross non-capital spending; some of the elements (notably transfers to disabled and handicapped persons under the Community Welfare Programme) are not categorised as health spending in the functional classification used in Tables 3 and 5.

How were services and staffing affected by the constraints on expenditure? Here information is patchy, but some important indicators are available. As Table 7 shows, manpower in the health services had risen slightly between 1980 and 1986 despite the constraints on expenditure. Between early 1987 and end-1988, though, there was a sharp drop in staffing, which affected all categories whether medical, nursing, catering, maintenance or clerical/administrative. As far as activity levels are concerned, Table 8 shows that the

number of in-patients treated in public hospitals (as measured by the numbers discharged) also fell between 1986 and 1988, though not as rapidly as the number of hospital beds since the average length of stay was reduced. There was a significant increase in the number of people treated on a day-care basis, but whether this was sufficient to offset the decline in in-patients is not clear.²⁰ The numbers treated at out-patient clinics in public hospitals also fell between 1986 and 1988. The number of children examined in school or at developmental clinics, and of women receiving care under the Maternity and Infant scheme, also fell between 1986 and

Table 7: *Manpower in the Health Services Staff in Health Boards and in Voluntary Hospitals (wholetime equivalents)*

<i>Category</i>	<i>End Feb. 1980</i>	<i>End March 1987</i>	<i>End Dec. 1988</i>	<i>End 1989</i>
Clerical/ Administrative	5443	6141	5759	6048
Medical and Dental	4348	3834	3653	3842
Nursing and Allied	29472	} 37667	25932	n.a.*
Catering and Housekeeping	8806		8626	n.a.*
Paramedical	2814	4500	3170	3655
Maintenance	2158	1995	1661	1633
Other	2606	2124	1989	n.a.*
Total	55647	56262	50791	52,577

Source: *Health Statistics*, Table H1, various years

Note: a Categories have been changed for the 1989 statistics which now show nursing (excluding "allied") as 22,261 and "support services" as 15,108.

1988. Under the psychiatric programme the fall in expenditure between 1986 and 1988 was associated with an acceleration of the trend away from institutional care, the number of in-patients resident in psychiatric hospitals falling from

Table 8: *Activity in the Public Health Services 1980-89*

<i>General Hospitals</i>	<i>1980</i>	<i>1986</i>	<i>1987</i>	<i>1988</i>	<i>1989</i>
Number of beds	17,665	16,876	15,225	13,632	13,634
Patients discharged	543,698	566,105	512,004	491,474	507,048
Average length of stay	8.6 ^a	7.4	7.3	7.0	6.7
Attendances at out-patient clinics	n.a.	1,621,035	1,524,726	1,581,185	
Number of out-patient sessions	n.a.	72,262	68,746	67,188	
<i>Community Protection/Health</i>					
Number of Children examined					
- at clinics	39,868	53,532	54,395	48,912	
- at school	115,590	128,513	120,349	112,745	
Number of women receiving care under Maternity and infant scheme	61,558	50,640	48,805	45,557	
<i>GMS</i>					
Number of people covered	1,199,599	1,323,035	1,342,233	1,324,849	1,256,818
Average number of visits	5.8	6.4	6.5	6.6	n.a.
Average number of prescription items	9.6	9.3	9.9	10.4	11.6
<i>Psychiatric Programme</i>					
Number of in-patients	13,441	11,559	10,681	9,500	
Average number of attendances at out-patient clinics	n.a.	182,310	178,979	159,412	
Number resident in hostels	n.a.	1092	1302	1405	

11,500 to 9,500. This greatly exceeded the rise in the number of such patients resident in special hospitals, and the number of attendances at out-patient psychiatric clinics also fell. The General Medical Service, on the other hand, where the level of expenditure is essentially "driven" by the level of activity rather than vice versa, saw continued increases in visiting rates (up to the change in payment system for GPs in early 1989, beyond which such information is not gathered) and prescribing rates.

Capital spending in the health area was reduced from almost £60m. in 1986 and 1987 to £44-£45m. in 1988 and 1989, and £42m. in 1990. Most of this expenditure relates to hospitals.

What can be said about where in the income distribution these developments in the health services will have had most impact? First, the level of primary care available to those on low incomes with medical cards, in the form of GP care and prescribed medicines, was *not* affected adversely, indeed the amount spent on this service was one-third higher in 1989 than 1986. Those with medical card cover were also exempted from the charges for out-patient consultations and in-patient stays in public wards of public hospitals introduced in 1987. They would, however, have been among those most vulnerable to any deterioration in the quality of, or ease of access to, public hospital care.

While difficult to measure directly, it does seem likely that the decline in manpower and in-patients treated in

general hospitals was accompanied by longer waiting periods, and perhaps some deterioration in the quality of care broadly defined, for public patients. Those with health insurance, mostly in the upper half of the income distribution, could avail of easier access to private beds/hospitals, and the increase in the numbers subscribing to the VHI between 1986 and 1989 may be one indication of the increased pressure on the public hospital service.²¹ Private patients were not unaffected though, in that charges levied by public hospitals for private beds increased sharply, and VHI premia rose significantly more than the CPI over the 1980s.²² Of the two-thirds of the population without insurance and relying on public hospital care, those without medical card cover not only faced a hospital system under pressure, they also had to pay the new charges for in-patient and out-patient hospital care and had to pay for GP care and prescribed medicines. In that sense, they, rather than the lowest income group, could be regarded as the most adversely affected. However, the elderly make up a relatively high proportion of those with medical card cover, and lower income/socio-economic groups appear to experience more ill health. This is one reason why studies based on the CSO redistribution exercise or similar methodology show the bottom equivalent income deciles benefiting more than the middle of the distribution from expenditure on public hospital care, as well as overall health spending (see CSO, 1983; Rottman and Reidy, 1988, Nolan, 1991; 1992). Those towards the bottom of the income

distribution may therefore be particularly likely to be affected by pressure on the public hospital services.

4.3 Education

The other major area of current government social services expenditure is education. Table 9 shows that, although this area also generated considerable controversy, it fared rather differently to health in terms of the trend in current public spending. Between 1980 and 1986 expenditure rose substantially in real terms. The 1986-89 period saw a

Table 9: *Current Government Expenditure on Education 1980-90*

Year	Current education expenditures		Percentage change		As percentage of GNP
	nominal ^a	real ^b (1986)	nominal	real ^b	
1980	470	832			5.2
1986	1013	1013	115.5	21.8	6.0
1987	1154	1088	13.9	7.4	6.4
1988	1162	1044	0.7	-4.0	6.1
1989	1233	1043	6.1	-0.1	5.9
1990	1301	1016	5.5	-2.6	5.7
1986-89			21.7	3.0	
1986-90			28.4	0.3	

Source: Budget Booklet 1991, Table "Current Government Expenditure by Functional Classification", various years (incl. 1991, p. 111); *Economic Review and Outlook 1991*, Tables 2 and 3, p. 36.

Note: ^a Gross non-capital.

^b Deflator is for National Accounts government expenditure on current goods and services.

sharp rise in spending in 1987, but there was almost no increase in nominal terms in 1988 and in 1989 spending simply kept pace with inflation. As a result, by 1989 the level of spending in real terms was no higher than in 1986. Though bearing some of the burden of fiscal adjustment, then, particularly in 1988, education did not experience the substantial reductions in the real value of spending seen in health between 1986 and 1989, nor was it so constrained in the first half of the decade.

Table 10: *Composition of Current Expenditure on Education 1987-1990*

<i>Education level</i>	<i>Percentage of total current expenditure</i>			
	<i>1987</i>	<i>1988</i>	<i>1989</i>	<i>1990</i>
First Level	37.0	36.4	36.7	36.0
Second Level	39.0	39.7	38.6	38.4
of which				
- Secondary ^a	54.8	58.4	57.4	56.5
- Community/ Comprehensive	10.2	11.2	11.3	11.4
- Vocational	33.1	28.7	29.3	30.2
- Other ^b	1.9	1.7	2.0	1.9
Third Level	19.1	19.5	19.2	20.1
of which				
- grants to HEA	47.9	46.1	44.2	44.5
- grants to VECs	27.7	28.2	28.3	27.3
- other ^c	24.4	25.7	27.5	28.2
Administration	4.8	4.3	5.6	5.5

Notes: a Includes superannuation of comprehensive and community school teachers.

b Includes examinations and miscellaneous.

c Includes grants and scholarships to individuals, teacher training colleges, Dublin Dental Hospital, Institute for Advanced Studies

Looking at the composition of current spending on education, Table 10 shows that First Level was the sector most affected in 1988 when nominal aggregate education spending was effectively held constant. Within the Second Level sector, expenditure on vocational, rather than secondary or comprehensive/community schools, was most severely constrained. Over the period 1987-89 or 1987-1990 this remains the pattern, though the differences between the sectors are not very marked.

The evolution of staffing levels and student/teacher ratios is shown in Table 11. The number of National teachers fell and the overall pupil/teacher ratio rose between 1986/87 and 1988/89, though the percentage of children in classes of 40 or more declined slightly. The number of teachers in Second Level schools also fell and pupil/teacher ratios rose. Though it is not possible to obtain detailed data, it has been suggested that the number of teachers available for remedial and guidance teaching was particularly affected.

Education also saw sharp reductions in capital spending in 1988. Only £61m. was spent in that year and £54m. in 1989, compared with £93m. in 1987 and £99m. in 1986. Expenditure on National and Secondary school building/maintenance fell by about 50 per cent, and spending on RTCs also fell, while spending on other third-level institutions was maintained.

The effects of the constraints on public education expenditure in this period will have been quite widely spread in distributional terms. The fact that primary and vocational

Table 11: *Teachers and Pupil/Teacher Ratios in National and Second Level Schools, 1986-1989*

	1986/87	1987/88	1988/89	1989/90
<i>National Schools</i>				
Number of teachers	19,795	19,853	19,178	19,001
Number of pupils	556,120	554,008	548,623	540,572
Pupil/teacher ratio ^a	30.3	30.2	31.0	30.8
Percentage of pupils in classes				
> 40	5.4	5.0	4.8	4.5
> 30 < 40	63.0	62.8	67.7	66.9
<i>Secondary Schools</i>				
number of teachers ^b	12,112	11,958	11,698	11,630
number of pupils	215,833	214,937	213,851	213,617
pupil/teacher ratio ^b	17.8	18.0	18.3	18.4
<i>Community and Comprehensive Schools</i>				
number of teachers ^c	2,434	2,392	2,429	2,423
number of pupils	39,396	39,890	40,488	40,139
pupil/teacher ratio	16.2	16.7	16.7	16.6
<i>Vocational Schools</i>				
number of teachers ^d	5,389	5,375	5,389	5,335
number of pupils ^e	83,722	85,447	84,845	85,205
pupil/teacher ratio	15.5	15.9	15.7	16.0

Source: Department of Education Statistical Report, various years

Notes: a Includes only "teaching teachers" in calculation of ratio.

b Includes teachers on incremental scales only.

c Includes part-time, counted as full-time equivalents.

d Full-time teachers in second level, plus part-time teachers allocated to day courses in second level, counted as full-time equivalents.

e Full-time second-level day courses.

second-level education were affected would, however, have particularly adverse consequences for lower income groups, since a higher proportion of pupils in these than in other sectors come from the lower socio-economic groups. This is

reflected in the distributional pattern revealed by the CSO exercises, where lower income groups receive a much larger proportion of the benefits from expenditure on First or Second than on Third level education.²³ Since there is less scope for funding through parental contributions etc., in poorer neighbourhoods, schools in such areas will also be more reliant on public spending and may, therefore, be more seriously affected.

4.4 Housing

Reductions in public capital spending formed a major element in the fiscal adjustment process, and the area where this had greatest impact was public sector housing. As Table 12 shows, PCP expenditure on building and maintenance of public housing fell from £386m. in 1986 and £372m. in 1987 to only £136m. in 1989 - so £250m. less was being spent in the latter year in nominal terms, making a substantial contribution to attaining overall public expenditure and borrowing targets. In volume terms, the 1989 level of investment in public housing was only about 30 per cent of that seen in 1986 and 1987.

These reductions in spending were in three main areas:

- (i) Building and repair of Local Authority houses, where the expenditure fell from £166m. in 1986 to £43m. in 1989;
- (ii) Local Authority and Housing Finance Agency house purchase and improvement loans, which were cut back from £162m. in 1987 to £69m. in 1988, at which time the building societies and banks agreed to make additional funds available to low-income house buyers;

- (iii) Private housing grants, where expenditure fell from £104m. in 1987 to £74m. in 1988 and £40m. in 1989 as the house improvement grants, Local Authority £5,000 tenant purchase grant, and £2,250 grant for purchasers of new houses were abolished.

Table 12 also shows that current spending on housing, though dwarfed by the capital programme, was also reduced between 1986 and 1990. Its major element is the mortgage subsidy scheme, on which about £25m. was spent in 1987 and 1988 but which had been reduced to £10m. by 1990.

The impact of the reduction in expenditure on Local Authority house building was that whereas about 6,000 houses

Table 12: *Current and Capital Public Expenditure on Housing, 1980-1990*

	<i>Capital Expenditure (PCP) £m.</i>	<i>of which</i>			<i>Index of volume change 1986=100</i>	<i>Current Expenditure</i>
		<i>Local Authority Housing</i>	<i>House Purchase & Improvement Loans</i>	<i>Private Housing Grants</i>		
1980	202				79	
1986	386	166	173	42	100	27
1987	372	101	162	104	95	36
1988	202	55	69	74	49	33
1989	136	43	48	40	31	24
1990	122	61	23	35	28	13

Source: Budget Booklet Public Capital Programme, various years (1991, pp. 181-184, 207, 111)

Notes: a A small "other" category is not shown

b Deflator for Gross Domestic Fixed Capital Formation

had been built annually between 1980 and 1986, by 1989 only 768 were completed, while the 1990 figure was 1003. This has begun to have an impact on waiting lists for public housing, as far as can be seen from the available data.

The distributional effects of these reductions in public housing expenditure vary with the programme involved, and in some cases will take time to be fully felt. Those most affected by the reduction in Local Authority house building and thus the availability of such housing are from the lower income groups, as can be seen from the concentration of Local Authority tenants in the lower incomes deciles in the Household Budget Survey or the ESRI 1987 Survey.²⁴ This is also where the effects of the reduction in Local Authority/HFA loans will be predominantly felt. The house improvement grants scheme and the grant for new house purchasers, on the other hand, were of benefit to those owning or buying their own house and thus middle and upper income groups would benefit more, and the same is true of the mortgage subsidy scheme. The £5,000 house purchase grant for Local Authority tenants was probably of most benefit to the more financially secure of those in public housing. House building and loans for low-income house purchasers were where most of the savings were made, however, and the impact will, therefore, have primarily been felt towards the bottom of the income distribution.

4.5 *Subsidies*

The final category of "social spending" distinguished in the budgetary classification is "subsidies". This is now dominated by grants to Local Authorities in relief of rates and to CIE, but subsidies on bread, milk and dairy produce designed to keep down the price of these items were an

important element from 1975 to 1987. Table 13 shows that overall current expenditure on subsidies was reduced from £232m. in 1986 to £174m. in 1987, largely due to the abolition of these consumer subsidies. This was a particularly controversial step, since these subsidies had been introduced to meet explicitly distributional objectives. However, social welfare rates increases took into account the effect on prices as reflected in the CPI, so social welfare recipients were at least partly insulated from the effects of the elimination of these subsidies.

Table 13: *Current Exchequer Expenditure on Subsidies, 1980-90*

<i>Year</i>	<i>Current expenditure on subsidies £m.</i>	<i>Of which bread, milk and dairy produce £m.</i>
1980	214	38
1986	232	28
1987	174	2
1988	172	-
1989	167	-
1990	168	-

4.6 *Indirect Taxation*

Indirect tax revenue contributed substantially to closing the gap between public spending and revenue over the 1986-90 period, increasing by about 26 per cent in nominal terms. However, this was no more rapid than the increase in consumer expenditure, so in that sense the burden of indirect taxation was maintained rather than increased. Further, there

was no increase in the proportion of total tax revenue coming from indirect taxes over this period. The composition of indirect taxation - in terms of the relative importance of customs, excise, VAT and motor vehicle duties - was also little changed. While indirect taxes are generally found to be regressive, then,²⁶ fiscal adjustment over the 1986-90 period did not involve an increase in the indirect tax burden relative to consumer expenditure, or a shift from direct to indirect taxes such as seen in the UK in the early 1980s.

4.7 Public Social Services: Conclusions

Constraints on public spending on health, education and housing formed an important element of Ireland's fiscal adjustment, though these services did not bear a disproportionate share of the burden of restraining current expenditure. Health expenditure was more severely affected than education, both between 1980 and 1986 and from 1986 to 1989. Social spending did bear the brunt of the capital spending cuts between 1986 and 1989, with the public housing programme in particular being reduced very substantially.

The constraints on social spending may, in many cases, have been felt particularly by those on low incomes. It is important, though, to distinguish a number of different situations in which a conclusion of this type could be put forward. Even where a service is available to all, irrespective of income, and used by all income levels, the poor may be relatively hard hit by any deterioration, because

private resources are not available to make up for a reduction in the level of State funding or to go outside the public system to purchase privately - as in the case of National schools, for example. It is also worth noting that a reduction in public spending on such services will *ceteris paribus* serve to increase inequality in terms of a construct such as "final income" in the CSO's redistribution exercises. This is because when benefits which are fairly equally spread across the income distribution are added to more unequally distributed cash incomes, they lead to a fall in measured inequality.

However, this is rather different to a situation where services provided largely for those on low incomes, or availed of disproportionately by such households, are singled out for relatively large cuts or particularly severely constrained. There are some examples of this occurring, notably the very substantial cuts in public housing. The public hospitals' service represents something of an intermediate case: although the entire population is (now) entitled to public care, a substantial proportion of mostly high-income households rely on private treatment, so the effects will not be felt evenly over the distribution. There are examples of expenditure mostly benefiting middle and upper income groups being cut - such as the house improvements' grants' scheme - and expenditure benefiting low income groups increasing relatively rapidly - such as the General Medical Service. In terms of quantitative importance

in the overall programme of fiscal adjustment, though, the cuts in public capital expenditure on house building and house purchase loans stand out.

5. CONCLUSIONS

We began this paper by referring to the conflicting views which have been expressed about the distributional consequences of Ireland's fiscal adjustment. Spelling out that rather different *questions* may underlie these judgements helps to resolve at least some of the apparent contradictions. Most importantly, those who see the adjustment as having been benign in distributional terms tend to focus on cash incomes, on the growth in employment, and on the extent to which social welfare support rates were increased in real terms. Those who argue that the poor have borne the brunt focus more on the effects of restraining expenditure on public services, particularly the health services.

The analysis presented here has been greatly constrained by the limited data available. Nonetheless, examination of growth in cash incomes from various sources over the 1986-1990 period suggested that

- (i) no major groups experienced declines in real incomes;
- (ii) the real incomes of those reliant on the lowest social welfare rates rose substantially but other social welfare recipients experienced less rapid growth than those receiving income from employment or profits on average;
- (iii) the reduction in unemployment over the period will have contributed in itself to a fall in the numbers below absolute or

relative poverty lines, though the fact that emigration played such a major part in that reduction cannot be neglected;

- (iv) it is not possible with the available data to assess how the overall distribution of cash incomes would have changed over the period, though the likely direction of the impact of some of the major forces at work - such as the decline in unemployment and the increases in profits - can be identified.

As far as expenditure on public social services is concerned, it was seen that current social spending (excluding cash transfers) did not bear a disproportionate share of the burden of restraining expenditure over the period, relative to other spending areas, but nonetheless health spending fell significantly and education was held constant in real terms between 1986 and 1989. Public capital spending on social infrastructure, notably on housing, was where the most substantial reductions were made. The available data was analysed to see where social expenditure and services were most affected by the adjustment programme. As in the case of cash incomes, different standards could be applied to assess the distributional implications. Constraints on public spending even on services available to and used by all income groups, such as the National School system, may be particularly hard felt in poorer areas because supplementary private resources are not available. There were also certain areas, though, where expenditure would mostly benefit low-income groups which were particularly sharply curtailed - notably the public housing programme. The effects of the capital spending cuts will take some time to appear

fully, while the constraints on current social expenditure between 1986 and 1989 were eased somewhat in 1990, particularly in the health services.

So did Ireland's fiscal adjustment between 1986 -1989 or 1986-1990 constitute "adjustment with a human face"? What is most striking about the period is that fiscal adjustment was accompanied by growth in incomes and employment. This certainly meant that many of the adverse distributional features often associated with adjustment programmes, such as rising unemployment and falling real incomes for those relying on social security, were not present. The extent to which the economic growth which made this possible was produced by fiscal retrenchment, rather than facilitating that retrenchment, is dealt with in other papers.

Given this growth, was there then no "burden of adjustment"? The constraints on spending on public social services are unlikely to have been without consequences for the users of these services, even if efficiency gains were achieved, and the impact of cuts in public capital "social" investment will become more apparent over time. How their distributional effects are regarded depends both on the standard applied and the counterfactual (often implicitly) employed. A counterfactual which assumes no fiscal adjustment does not seem particularly helpful, given the consensus about the need for that adjustment. A programme which brought about the same degree of adjustment but was more distributionally benign seems a more useful point of comparison. This could

have entailed greater reliance - than actually placed - on tax increases rather than expenditure control, in order to protect public social services, but as Honohan (1991) documents, tax increases in fact made a major contribution to the adjustment achieved. A counterfactual involving the same degree of control of overall public spending may therefore be particularly relevant. Given the importance of public social spending in total current expenditure, and its relatively rapid growth compared with other areas over the adjustment period, substantially greater current expenditure on these services would clearly have made that degree of overall expenditure control very difficult to achieve.

The constraints within which any adjustment programme had to operate thus have to form the background against which distributional consequences are assessed, and will influence the standard applied. Nonetheless, an adjustment which "protected the poor" could be expected, at a minimum, to treat particularly favourably those services which mostly benefit the poor, and to attempt where possible to alleviate the effects on the poor of restraining expenditure on services utilised throughout the distribution. Applying this standard, the relatively unfavourable treatment of public housing, primary education and public hospital services, particularly without targeted interventions to protect the most vulnerable, may be questioned.

Patterns of spending within sectors, as much as total social spending, may be what is crucial for the impact of

fiscal retrenchment on the poor. This is where the limitations on the data available become most obvious. Very little indeed is known about the impact of retrenchment on services at micro-level, or how these have affected different income groups - a reflection of the general absence of micro-studies for the public services. When added to the lack of up-to-date national survey information on household incomes, the dispersion of incomes from different sources, and patterns of utilisation of services, this means that only the most tentative conclusions about the distributional effects of Ireland's fiscal adjustment can be reached. This paper has aimed to clarify the issues involved in making such judgements, see how much can be said with the information available, and highlight the areas where more information is urgently needed if the distributional impact of public policies is to be reliably assessed.

Footnotes

1. This term was introduced by UNICEF, which played a major role in focusing attention on the issue - see Cornia, Jolly and Stewart (1987). See also World Development Report 1990.
2. "The poor have borne the brunt of the cutbacks, ... Cuts in healthcare, in education and in social welfare have led a major cumulative effect in that they have tended to hit the same group of people" - CMRS Justice Commission, 1988, p. 8.
3. McAleese, 1990a, p. 18 and 27.
4. See Callan, Nolan *et al.*, (1989) Ch. 9. Sawhill (1989).
5. See Callan, Nolan *et al.*, (1989), pp. 132-133.
6. Suppose the initial distribution of incomes is represented by a vector $Y_{i1} \dots Y_{ij} \dots Y_{iE}$ with incomes ranked from lowest to highest, and the distribution in the final year is $Y_{F1} \dots Y_{Fj} \dots Y_{FE}$ ranked on the basis of income in the final year. The distinction is between comparing Y_{i1} with Y_{F1} etc., and comparing Y_{i1} with Y_{i1} - the initial and final income of the poorest person in the initial year.
7. See Bane and Ellwood (1986), Duncan *et al.*, (1991).
8. See Saunders (1990), Callan (1991).
9. See *Economic Review and Outlook 1991*, Table 12, p. 44, Table 14, p. 45.
10. See the detailed analysis in the recent report for the NESO (1991).
11. Simply comparing cross-section sample data for 'before' and 'after' years would also miss this important influence on the way the distribution changed.
12. This is used as an illustration of a heavy mortgage, since similar guidelines were used by lending institutions to determine the maximum loan available.
13. Those in rural areas receiveing of either long or short-term unemployment assistance also benefited from the "levelling up" of the non-urban rate to the urban rate and would have experienced a further increase of about 3 percentage points.
14. Falling to 20 per cent after about 6 months.
15. The figure is designed to show the incentive structure facing those in employment, rather than the replacement rates which might be relevant to a choice between employment and unemployment. The tax and social welfare changes up to the 1991 Budget have been included to give the current picture, but that for 1990 would be similar. The shape and location of the schedules vary with the number of children, but the major shift over time illustrated in the figure also emerges for other family types.

16. The method of valuing the entitlement to a medical card is rather crude, but is adopted here for comparing purposes; see NESC (1990) p. 235.
17. See Callan, Nolan *et al.*, (1989) Chapter 10 for an analysis of the likely extent of non-take up of FIS in 1987.
18. See for example the analysis of cyclical effects on the UK income distribution in Nolan (1987), or for the US Blinder and Esaki (1978), Blank (1991).
19. This remains the case when debt servicing is excluded from current expenditure.
20. The published statistics on day cases begin only in 1987, and show a large increase between 1987 and 1988, but this is partly due to improved comprehensiveness in the returns from hospitals.
21. The percentage of the population with VHI cover rose from 29 per cent in 1986 to 31.5 per cent in 1989 (not including those who obtained cover only for the charges in public wards).
22. Between 1981 and 1988, VHI premia rose by 46 per cent in real terms (Report of the Commission on Health Funding 1989, Table 8.3, p. 138).
23. See Rottman and Reidy (1988), Chapter 4, especially Table 4.6, p. 96.
24. See Rottman and Reidy (1988), Chapter 4, especially Table 5.2(b), p. 111.
25. Since the items covered by the subsidies make up a larger proportion of household expenditure at low than at average incomes, the CPI would understate the effect on prices for low-income households.
26. See Murphy (1984) for evidence on the regressivity of Irish indirect taxes.

References

- BANE, M.J. AND D.T. ELLWOOD, 1986. "Slipping Into and Out of Poverty: The Dynamics of Spells", *Journal of Human Resources*, Vol. XXI, No. 1, pp. 1-23.
- CALLAN, T., 1991. *Income Tax and Social Welfare Changes: Microsimulation Modelling and Analysis*, forthcoming, Dublin: Economic and Social Research Institute.
- CALLAN, T., B. NOLAN and B.J. WHELAN, D. HANNAN, S. CREIGHTON, 1989. *Poverty, Income and Welfare in Ireland*, Dublin: Economic and Social Research Institute, General Research Series Paper No. 146.
- CENTRAL STATISTICS OFFICE, 1983. *Redistributive Effects of State Taxes and Benefits on Household Incomes in 1980*, Dublin: Stationery Office.
- CENTRAL STATISTICS OFFICE, 1989. *Household Budget Survey 1987 Volume 1: Detailed Results for All Households*, Dublin: Stationery Office.
- CONFERENCE OF MAJOR RELIGIOUS SUPERIORS, 1988. *Pre-Budget Submission*, Dublin: CMRS.
- CORNIA, G.A., R. JOLLY and F. STEWART, 1987. *Adjustment With a Human Face: Protecting the Vulnerable and Promoting Growth*, Oxford: Oxford University Press.
- DUNCAN, G., B. GUSTAFSSON, R. HAUSER, P. HAUSMAN, D. LAREN, H. MESSINGER, R. MUFFELS, B. NOLAN, J.C. RAY and W. ROGERS, 1991. *Poverty Dynamics in Eight Countries*, presented at Conference on "Poverty and Public Policy", Paris, January.
- HONOHAN, P., 1991. "Fiscal Adjustment in Ireland in the 1980s", paper presented to Conference on "Ireland's Successful Stabilisation? Problems and Prospects", Dublin, September.
- MCALEESE, D., 1990a. "Ireland's Economic Recovery", *Irish Banking Review*, Summer, pp. 18-32.
- MCALEESE, D., 1990b. "Expansionary Fiscal Contraction", paper to Dublin Economics Workshop Policy Conference, Kenmare, October.
- MURPHY, D., 1984. "The Impact of State Taxes and Benefits on Irish Household Incomes", *Journal of the Statistical and Social Inquiry Society of Ireland*, Vol. XXV, Part 1, pp. 55-120.
- NATIONAL ECONOMIC AND SOCIAL COUNCIL, 1990. *A Strategy for the Nineties: Economic Stability and Structural Change*, Dublin: NESC.
- NATIONAL ECONOMIC AND SOCIAL COUNCIL, 1991, *The Economic and Social Implications of Emigration*, Dublin: NESC.
- NOLAN, B., 1991. *The Utilisation and Financing of Health Services in Ireland*, Dublin: Economic and Social Research Institute, forthcoming.

- NOLAN, B., 1992. "Equity in the Finance and Delivery of Health Services in Ireland" in A. Wagstaff, E. van Doorslaer and F. Rutten (eds.) *Equity in the Finance and Delivery of Health Care*, Oxford: Oxford University Press, forthcoming.
- ROTTMAN, D. and M. REIDY, 1988. *Redistribution Through State Social Expenditure in the Republic of Ireland 1973-1980*, Dublin: National Economic and Social Council.
- SAUNDERS, P., 1990. "Employment and Poverty in Australia in the 1980s". Dublin: Economic and Social Research Institute, Seminar, October.
- SAWHILL, I., 1988. "Poverty in the US: Why Is It So Persistent?" *Journal of Economic Literature*, Vol. XXVI, pp. 1073-1119.
- WORLD DEVELOPMENT REPORT, 1990. *Poverty*, Oxford: Oxford University Press.

