

BUDGET 2006: IMPACT ON INCOME DISTRIBUTION AND RELATIVE INCOME POVERTY

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1. Introduction

The package of income tax changes and cash transfers in Budget 2006 provided the greatest boost to household incomes in many years. How did the impact on incomes vary across income groups? And what net effect on relative income poverty can be expected from the measures contained in Budget 2006? These questions are addressed here, drawing on analysis using *SWITCH*, the ESRI tax-benefit model. As governments often stress that the achievement of their plans requires more than a single budget, we consider the impact of Budget 2006 in the context of the overall impact of the past five budgets.

2. Measuring Distributive Impact

A tax-benefit model, based on a large scale survey, provides the most comprehensive picture of the impact of budgetary policy across the income distribution. *SWITCH*, the ESRI tax-benefit model, simulates the social welfare entitlements and direct tax liabilities of a large-scale sample of households (see Appendix). The fact that the model is based on a nationally representative survey ensures that it takes account of the wide variation across families in circumstances relevant to their tax and welfare situation.¹

¹ These estimates are calculated on the technical assumption that there is no change in labour market behaviour in response to the tax and welfare policy changes – as is the case with the estimates of distributive impact in the official Budget documentation.

We have argued elsewhere that the distributional impact of the budget is best measured relative to a “distributionally neutral” benchmark under which policy would ensure that income growth is spread evenly across income groups. The argument is a positive, not a normative one: it is difficult to assess the impact of policy against a benchmark policy which itself generates differential income growth across income groups. Official analyses of budgetary impact are based on the convention of an “opening budget”, which keeps tax credits, tax bands and welfare payment rates fixed in nominal terms. While this is useful for financial accounting, the “opening budget” would, if actually implemented, involve losses in real income for those dependent on welfare. These would arise as fixed nominal payments were eroded by inflation. Those in employment, on the other hand, would typically experience gains in real income because pay growth is usually above price inflation. This differential impact on low and middle-to-high income groups makes the conventional opening budget unsuitable as a benchmark for assessing the distributional impact of budgetary policy. A “distributionally neutral” budget, giving rise to equal growth in income across all income groups, provides a more appropriate reference point for analysis of the distributive impact of budgetary policy.²

In this article we examine the impact or first-round effect of the income tax and social welfare policy changes announced in Budget 2006, on the technical assumption of no change in behaviour. The new Early Childcare Supplement is included in the analysis. The overall impact is measured against the neutral yardstick provided by a budget indexed in line with likely wage growth of 4.8 per cent as forecast in this *Commentary*.³

3. Budget 2006: Distributive Impact

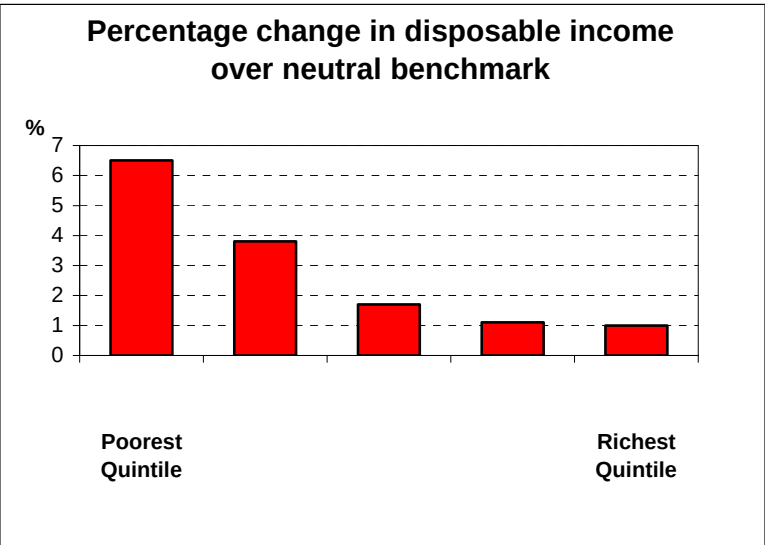
Budget 2006 involved a tax-welfare package, over and above the costs of indexation to wage growth, costing about €1,240m. This represented a boost to overall household income of about 3 per cent.

In what follows we use *SWITCH* to analyse the impact of Budget 2006 relative to the distributionally neutral yardstick provided by a budget indexed in line with the *Commentary*’s forecast wage growth of 4.8 per cent. Figure 1 shows the percentage gain in income for five equal sized income groups (“quintiles”), ranked from poorest to richest. Gains for the poorest quintile are 6.5 per cent, and close to 4 per cent for the second quintile. By contrast, gains for the top two quintiles are close to 1 per cent.

² For a fuller discussion of these issues see Callan, Keeney and Walsh (2001).

³ Our results differ from those of the Department of Finance (published on Budget day as Annex B to the Minister’s speech, dealing with “poverty proofing”), because that analysis was undertaken using the general convention governing the “opening budget”.

Figure 1: Distributive Impact of Budget 2006 Measured Against Wage-indexed Budget



Thus, our analysis, based on a nationally representative sample, indicates that Budget 2006 strongly favoured low-income groups, with smaller percentage gains for those on higher incomes.

Table 1: Distributive Impact of Budgets for Past 5 Years and Budget 2006

Quintile of Income Per Adult Equivalent	Budgets 1995 to 2001	Budgets 2002 to 2006	Budget 2006
	Percentage Change in Income, Actual Policy over Neutral Benchmark		
Bottom	-1.9	17.4	6.5
2 nd	3.1	8.2	3.8
3 rd	11.8	3.1	1.7
4 th	13.7	1.6	1.1
Top	12.5	0.4	1.0
All	10.5	3.1	1.8

How does this compare with the distributional impacts seen in recent budgets? On balance, budgets over the five years have worked in a similar direction to that shown for 2006, with substantial percentage gains for those at the bottom of the distribution and very limited gains towards the top of the distribution.⁴ This is, of course, in marked contrast to the pattern found for budgets in the latter half of the 1990s, when policy led to substantial gains for middle and upper income groups, but failed to keep pace with wage indexation for those in the bottom group.

⁴ For analysis of budgetary impacts year-by-year over this period see Callan, Walsh and Coleman (2004).

4. Budget 2006: Impact on Relative Income Poverty

What of the impact on relative income poverty? This is one of the key indicators of progress agreed by the EU Council at Laeken. Moreover, although it is not a specific target under the National Anti-Poverty Strategy it is clearly relevant to the long-term evolution of poverty (see Whelan *et al.*, 2003).

The central indicator agreed at Laeken was the proportion of the population falling below 60 per cent of median income. Our calculations suggest that the immediate impact of Budget 2006 will be to reduce this figure by about half a percentage point. Our analysis also looks at cut-offs of 50 and 70 per cent of median income (Table 2 below), and finds slightly larger impacts at these cut-offs.⁵

Table 2: Impact on Relative Income Poverty, Budget 2006 and Budgets 2002-2006

Poverty Threshold as Percentage of Median Income	Percentage Point Change in Head Count
Budget 2006	
50 per cent	-0.8
60 per cent	-0.4
70 per cent	-0.7

While the head count is perhaps the most commonly used measure of poverty, it has several well-known deficiencies.⁶ Even if the number of people below a poverty threshold is unchanged, one may reasonably regard poverty as falling if the poverty population see their incomes brought closer to the poverty threshold. The “poverty gap” measure takes this factor into account by summing up the gap between the incomes of poor persons and the poverty threshold. Under this measure, the gap is reduced equally by an increase in the income of a very poor person or a moderately poor person. A “distribution sensitive” measure can be used to give more weight to an increase in income for a very poor person.

We also go beyond the most commonly quoted “head count” measures of poverty to measures which take account of the depth of poverty (the poverty gap) and those which give added weight to persons further below the poverty line. In this way we can take account of policy effects which do not result in a reduction in the head count of poverty, but which do improve the situation of those who are still below the income poverty line.

⁵ “The fact that the head count measures at different income level respond differently to the policy changes (with greater reductions at the 50 per cent and 70 per cent levels than at the 60 per cent level) arises from the particular focus of the head count measure on movements of individuals’ incomes above and below that cut off. Alternative measures are discussed below.”

⁶ For example, a transfer of income from a very poor person to someone just below the poverty threshold, bringing him or her just above the threshold, is counted unambiguously as a reduction in the head count of poverty.

Results for these more sophisticated measures suggest that budgetary policy in 2006, and from 2002 to 2006, may have a more substantial impact on poverty than head count measures indicate. For example, the head count measure of poverty at 60 per cent of median income is reduced by about 8 per cent by Budgets 2002 to 2006. But the poverty gap measure is reduced by 27 per cent.

Table 3: Impact on Relative Income Poverty, Budget 2006 and Budgets 2002-2006

Poverty Threshold as Percentage of Median Income	Percentage Reduction In: ¹		
	Head Count	Poverty Gap	Weighted Poverty Gap
Budget 2006			
50 per cent	-8.8	-13.6	-9.4
60 per cent	-2.3	-7.9	-10.0
70 per cent	-2.9	-5.4	-7.8
Budgets 2002-2006			
50 per cent	-33.2	-42.8	-40.7
60 per cent	-7.6	-27.1	-35.8
70 per cent	-6.9	-18.1	-27.6

Notes: 1. In order to compare across the three measures, we use the percentage reduction in the initial poverty measure (rather than, for example, the change in percentage points).

5. Conclusions

A systematic analysis, using *SWITCH*, the ESRI tax-benefit model, reveals that the direct tax and welfare provisions in Budget 2006 – including the new Early Childcare Supplement – were strongly progressive. Gains for the bottom quintile (the poorest 20 per cent of the population) were over 6 per cent, while those for the top income groups were close to 1 per cent. This pattern reinforces the impact of Budgets in the 2002 to 2005 period. The net impact over the last 5 years has been a boost to incomes in the lowest income groups of between 8 and 17 per cent, while incomes in higher groups have seen small percentage gains.

The net impact on the head count of poverty at 60 or 70 per cent of median income has been limited. However, more sophisticated measures taking into account the depth and distribution of poverty indicate a stronger impact.

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Appendix: **SWITCH**: the ESRI tax-benefit model

Tax-benefit models are needed for a comprehensive assessment of the effects of tax and welfare policy changes, taking into account the wide variation in individual and family circumstances relevant to welfare entitlements and tax liabilities. *SWITCH*, the ESRI tax-benefit model, is a well-established tool for analysing the "first-round" effects of tax and welfare policy changes. The version of *SWITCH* used in the present analysis is based on the 2000 *Living in Ireland Survey*, a large-scale nationally representative survey of households undertaken by the ESRI. The model database has been adjusted to ensure that it reflects recent changes in incomes, employment, unemployment and population – and draws on projections of such changes for the year 2006 to provide a suitable framework for the analysis of Budget 2006.

The model uses detailed information on individual and family circumstances (including information on wages and hours of work for those in paid employment, and on labour force status and receipt of social welfare benefits for those not in paid employment) to assess the social welfare entitlements and tax liabilities of each family in the database. The model can therefore simulate for each family the disposable income they would receive under actual policy, or under alternative policies of interest.

Using these detailed calculations it is possible to summarise the impact of policy changes in many different ways. Here we focus in particular on how the average gain or loss varies depending on the income of the family. Family units are ranked by income, adjusting for differences in family size and composition using a simple equivalence scale: 1 for the first adult in the family, 0.66 for a second adult and 0.33 for children. Thus, a married couple with a disposable income of €200 per week would have an "equivalised" income of just over €120 (i.e., €200 divided by 1.66). A married couple with one child would have an equivalised income of just over €100 (i.e., €200 divided by 1.99 (=1+0.66+0.33)). Families can then be divided into equal sized groups (5 "quintiles" or 10 "deciles), from poorest to richest.

One underlying technical assumption is that labour market behaviour and wage rates are the same under each policy; but the model can shed light on how such behaviour may change by identifying the impact of policy changes on financial incentives to work. For a study of behavioural labour market responses to tax and welfare changes see Callan *et al.* (2003a).