

of incentives exists—and this could become more acute as the other factors restricting female employment become less of a problem, as a result of such measures as better job training and education. On the demand side, it seems likely that much of any growth in women's employment will occur in part-time employment—precisely where the present benefit system causes the greatest problem.

The incentive problem, in so far as it exists, is clearly worse for those entitled to means-tested benefits if the wife does not work, and worst of all for those entitled to supplementary benefit, which has an earnings disregard of only £4 per week. One solution might be simply to increase the level of the earnings disregard, but this merely shifts upwards the range of weekly hours that it is not worth working. The incentive problem for the wives of unemployed men is more accurately seen as a problem of the unit of assessment for benefit payments. When a married woman with two children, in a family where her husband is unemployed and they receive supplementary benefit, takes a job, it is not merely the supplementary benefit that is to support her, but also that for her husband and their children, which is withdrawn. It is the withdrawal of all the benefit which imposes the wide range of 100 per cent marginal rates. If the benefit unit were the individual, the benefit withdrawn would be less, allowing either a short range with 100 per cent withdrawal, or a long range with a lower withdrawal rate. However, moving to the individual as the unit of benefit assessment would be extremely expensive, since it would entitle many individual wives in quite well-off circumstances to apply for and receive benefit. Such a system seems unlikely to succeed when funds for social security are already hard pressed.

There are no easy solutions. Even reasonably generous levels of benefit to the unemployed necessarily require high withdrawal rates if expenditure is to be held at current levels. However, it would be difficult to believe that the current system is optimal. Under the Fowler reforms, the earnings disregard for the long-term unemployed or their wives will be increased to £15 per week, which may make some part-time jobs more attractive. We plan to engage in further research to examine methods of reforming the benefit system in ways which maintain its support for the poor, while reducing its disincentive effects. Such work will require a more complex model of female labour supply behaviour, but is vital if we are to succeed in designing a system which is less of a disincentive to women's work.

The Poverty Trap, Tax Cuts, and the Reform of Social Security

ANDREW DILNOT AND GRAHAM STARK*

1. Introduction

The poverty trap is probably the most frequently cited problem of the UK tax and benefit systems. It is probably also the least well understood. There is confusion about what it is, who it affects, whether it matters, and what might be done to alleviate it. Perhaps the most obvious manifestation of this is the frequent suggestion that raising tax allowances is a sensible way of solving the problem. To add to the confusion, the recent Social Security White Paper (DHSS (1985b)) proposes reforms which will radically alter both the nature of the poverty trap and the effect on it of changes in the direct tax system. In Section 2 of this article, we explain the effect of the poverty trap on an individual family. Section 3 examines the extent of the problem, using IFS models of the UK tax and benefit systems, and emphasizes the rather small number of people currently affected. Section 4 discusses possible ways of alleviating the problem, concentrating on the popular but ineffective suggestion of raising income tax allowances. Section 5 describes the impact of the proposed reform of social security on the poverty trap, and Section 6 returns to the issue of the effect of direct tax changes.

2. An Example of the Poverty Trap

The poverty trap in its most extreme form affects families in work who would find themselves worse off if they earned an extra £1. In this form it can only affect families with children who pay income tax and National Insurance, and receive family income supplement (FIS) and housing benefit. An extra £1 of earnings can lead to a 30p increase in income tax, a 9p

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Table 9.1 The poverty trap for a hypothetical household,^a November 1985 tax and benefit system

	Pounds per week					
Wage	70.00	85.00	100.00	115.00	130.00	145.00
less Tax	1.07	5.57	10.07	14.57	19.07	23.57
National Insurance	4.90	5.95	9.00	10.35	11.70	13.05
plus Family income supplement	19.50	12.00	4.50	—	—	—
Child benefit	14.00	14.00	14.00	14.00	14.00	14.00
Housing benefit	19.89	17.42	14.76	10.36	4.03	—
Net income	117.42	116.90	114.19	114.44	117.26	122.38

^a Married man and his non-working wife, with two children of primary school age, living in rented accommodation for which they pay rent of £20 p.w. and rates of £6 p.w.

increase in National Insurance contributions, a 50p reduction in entitlement to family income supplement, and a 21p reduction in entitlement to housing benefit—a total of £1.10. Table 9.1 shows how net income changes as gross earnings rise from £70 per week to £145 per week for a married man and his non-working wife, with two children of primary school age, living in rented accommodation for which they pay rent of £20 per week and rates of £6 per week.

Net income falls as wages rise from £70 per week to £100 per week¹ and both FIS and housing benefit are received, and rises fairly slowly until housing benefit is exhausted at just below £145 per week. If such a family earning £70 per week were to compare its net income with that of a family earning £130 per week, it would find itself 16p per week better off than its better-paid counterpart. Such a position is clearly absurd.

3. The Extent of the Poverty Trap

While examples of the sort given above are useful for the purposes of illustrating the workings of the poverty trap, they offer no insight into its importance. If very few families are likely to be affected, we might be prepared to ignore the problem; if the numbers involved are large, it demands a good deal of attention and possibly resources. It is therefore important to know how many people are affected.

The extreme form of the poverty trap is where marginal tax rates (the amount of any increase in gross income that is lost in tax and reduced bene-

¹ In fact, to £109 per week, at which point FIS entitlement is exhausted.

fit) exceed 100 per cent. The principal culprit in this form is FIS, which was received in 1984 by only 200,000 families. Milder versions of the poverty trap, with marginal tax rates of slightly more than 80 per cent, can be experienced by recipients of housing benefit paying income tax and National Insurance contributions. Table 9.2 shows how many families of different types would face marginal tax rates in excess of 60 per cent if they received all the benefits to which they were entitled and paid all the taxes to which they were liable.

More than one-third of those facing marginal rates in excess of 100 per cent are single-parent families, 4.2 per cent of whom are in this position. There are as many couples with one or two children facing these very high marginal rates, but they form a much smaller fraction of their group, only 0.7 per cent. The frequency of very high marginal rates increases again for couples with three or more children. No pensioners or childless units face marginal rates in excess of 100 per cent. There are slightly more people in the 80–100 per cent range, and substantially more in the 60–80 per cent range although some of these are pensioners. Taken together, slightly more than 500,000 people could face marginal tax rates in excess of 60 per cent as a result of the combination of taxation and social security. This is less than 2 per cent of the 27½ million tax units in the UK, and assumes full take-up of benefit entitlement. FIS has a take-up rate of only 50 per cent

Table 9.2 Number of tax units in the poverty trap^a (in thousands, with percentages in parentheses)

	Marginal tax rate		
	60–80%	80–100%	Over 100%
Single-parent families	35 (3.7)	35 (3.7)	40 (4.2)
Couples with 1 or 2 children	105 (1.9)	35 (0.6)	40 (0.7)
Couples with 3 or more children	35 (2.8)	35 (2.8)	35 (2.8)
Pensioners	25 (0.4)	10 (0.2)	0 (0.0)
Childless units	110 (0.9)	35 (0.3)	0 (0.0)
	310	150	115

^a Figures in brackets give percentage of relevant population.

Source: IFS tax and benefit model. See Davis and Dilnot (1985) for full details.

and housing benefit of 70 per cent, so the numbers presented here overestimate the problem, although we should perhaps not use the ineffectiveness of our social security system as an excuse for not tackling its structural faults. Two further caveats should be added. First, it is not the case that a change in an individual's earnings will lead to an immediate change in benefit receipt. While housing benefit is in principle reassessed as soon as circumstances change, this is not true of FIS, which is paid at the same level for a year regardless of any change. Second, it may be that the poverty trap reduces the economic welfare of families who are not directly affected by it. People may work more or less hard than they would choose to, precisely to avoid the high marginal tax rates of the poverty trap;² the figures given in Table 9.2 and above would in this case underestimate the significance of the problem.

4. Possible Solutions

Although the poverty trap does not affect a particularly large part of the population, it is in its extreme form certainly absurd, and perhaps immoral. That government policy should encourage people to earn less rather than more is undesirable, however few people are affected. Nevertheless, it is important to bear in mind that the general problem of a band of income over which high marginal rates operate is inevitable if we wish to provide a social security system that gives net incomes which substantially exceed earnings for low-paid families with children. We cannot give everybody a higher net income than they earn. At some point we must switch from net incomes that exceed gross incomes to net incomes that are lower than gross incomes.

Consider Figure 9.1. If there were no tax and benefit system, net income and gross income would be equal, and would lie on the 45 degree line OE. Imagine a system which gives OA to people with no earnings and to those with earnings less than OB', and finances this by a lump-sum tax so that people with incomes above OC' face a zero marginal tax rate but have lower net income than gross, which puts them on the 45 degree line CD. To get from AB to CD there must be a range of income OB' to OC' over which the benefit OA is withdrawn. The line BC is horizontal, indicating a marginal tax rate of 100 per cent. Were the marginal tax rate less high, as in BF, there would be many more people affected, the cost of paying the benefit would rise enormously, and thus the size of the lump-sum tax required would also increase. It is important to note that in the UK, the density of income distribution increases very rapidly as income rises, so any

² See Blundell, Meghir, Symons, and Walker (1984) for further discussion of this point and possible ways of measuring its significance.

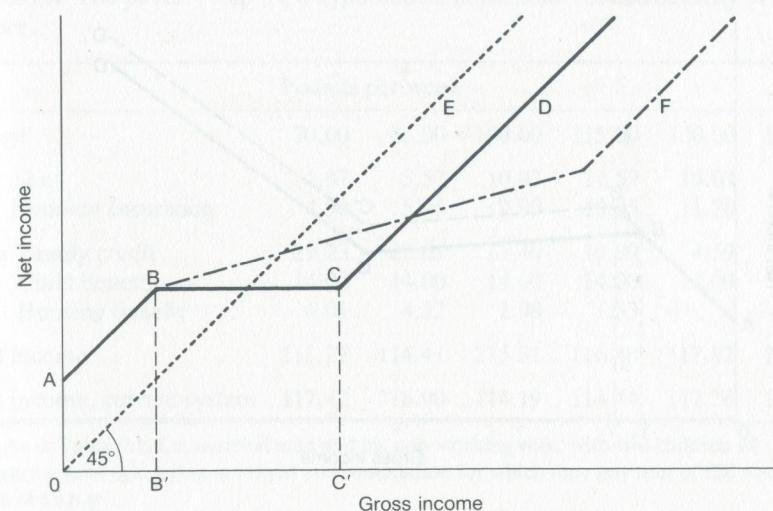


Figure 9.1 The poverty trap

increase in the range of income over which the poverty trap operates increases dramatically the number of people affected. Lump-sum taxes are of course impractical. The trade-off actually faced is between very high marginal rates on a small number of people with the current level of income tax rates on the rest of the population, and slightly lower, but still high, marginal tax rates on a larger group of the population and substantially higher direct tax rates on the rest of the population to finance increased benefit expenditure.

If changing the slope of the line is problematical, is there a way of reducing the band of income over which the poverty trap operates? That is the aim of those who suggest increasing income tax allowances as a solution to the problem. Raising tax allowances works by taking out of tax altogether those with earnings just above the current tax allowance, and thus reducing the marginal tax rate they face by 30 percentage points.

In Figure 9.2, ABCD is a simplified representation of the income schedule for a working family with children in the UK, with the range BC being the poverty trap. Raising allowances shifts the schedule to AB'C'D', reducing the marginal tax rates of anyone in the income range OY₁ to OY₂ by 30 percentage points.

Raising allowances to relieve the poverty trap is an extraordinarily wasteful and ineffective policy for a number of reasons. The married man's tax allowance in the UK is currently £66.44 per week. Family income supplement is paid to a two-child family at incomes of up to £109 per week. To

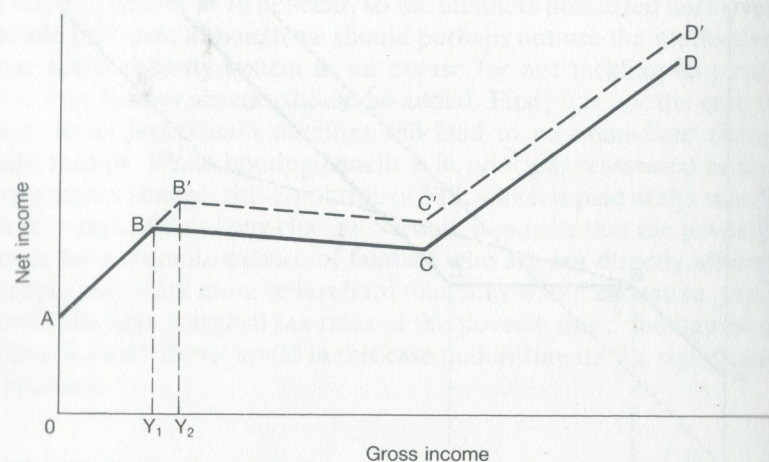


Figure 9.2 Increasing tax allowances

raise tax allowances even to this level would cost some £13 billion, requiring an increase in the basic rate of income tax to 43 per cent, and would still fail to remove families with three or more children from the poverty trap. Of those taken out of tax by an increase in tax allowances, only a very small fraction are families who could possibly be affected by the poverty trap, as shown in Table 9.3. Finally, there are far more families with earnings at the top end of the poverty trap income range than at the bottom end, so reforms aimed at the lower end of the range are bound to be less effective.

The increase in allowances in the 1984 Budget took 450,000 people out of tax; 10,000 of these were FIS recipients and therefore at risk from the poverty trap.

Table 9.3 Individuals relieved of tax by a 30 per cent increase in tax allowances

	Per cent
Wives	39
Pensioners	34
Single people	9
Childless couples	9
Couples with children	6
Single parents	3

Table 9.4 The poverty trap for a hypothetical household:^a Social Security White Paper

	Pounds per week					
Wage	70.00	85.00	100.00	115.00	130.00	145.00
less Tax	1.07	5.57	10.07	14.57	19.07	23.57
National Insurance	4.90	5.95	9.00	10.35	11.70	13.05
plus Family credit	29.23	22.61	17.40	10.99	4.59	—
Child benefit	14.00	14.00	14.00	14.00	14.00	14.00
Housing benefit	6.01	4.32	2.98	1.33	—	—
Net income	113.27	114.41	115.31	116.40	117.82	122.38
Net income, current system	117.42	116.90	114.19	114.44	117.26	122.38

^a As in Table 9.1. i.e. married man and his non-working wife, with two children of primary school age, living in rented accommodation for which they pay rent of £20 p.w. and rates of £6 p.w.

5. The Impact of Social Security Reform

The Social Security White Paper proposals substantially rationalize the interaction between direct taxes and means-tested benefits. FIS and housing benefit are to be recast. FIS is to be replaced by family credit. Entitlement to family credit is to be based on net income after the deduction of income tax and National Insurance. The withdrawal rate for family credit is to be 70 per cent. Thus for someone paying income tax and National Insurance, an increase of £1 in earnings will lead to 30p more income tax, 9p more National Insurance, and 42.7p less family credit $[(1.00 - 0.39) \times .70]$ —a total of 81.7p. Housing benefit is to be simplified, and the withdrawal rates increased to 60 per cent for rent and 20 per cent for rates. Entitlement will be based on income after tax and National Insurance, and including family credit and child benefit. For someone on housing benefit as well as family credit, income tax, and National Insurance, an additional 14.6p of benefit entitlement will be lost from an extra £1 of earnings $[(1.00 - 0.817) \times 0.80]$, giving a total of 96.3p.

Thus benefit entitlements are now to be calculated sequentially, with entitlement at each stage being calculated on the basis of net income up to that stage. The implication of this is that it will now be logically impossible to face a marginal tax rate of 100 per cent or more, provided only that the withdrawal rates are less than 100 per cent. However, as we shall see below, many more people than before will now face marginal tax rates only slightly below this level.

Table 9.4 shows how benefit entitlement and net income would change

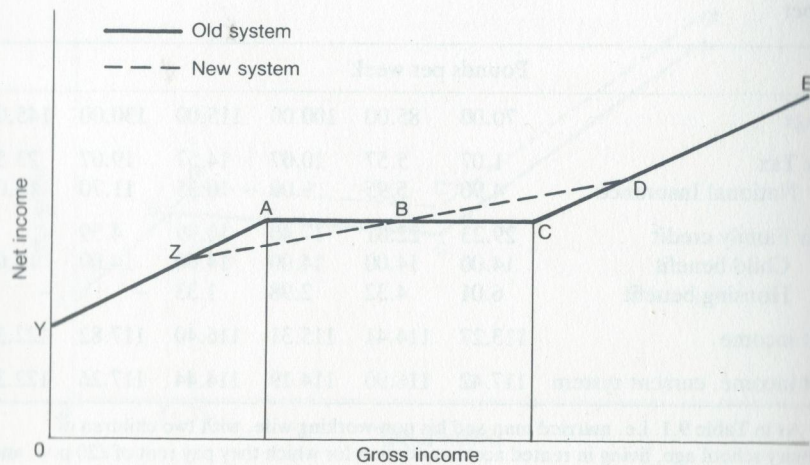


Figure 9.3 The poverty trap after the reform of social security

for the hypothetical family in Table 9.1 under the new social security system, and the net income under the current system.

Net income rises steadily, although slowly, under the proposed system, and is lower than under the current system at gross incomes below £100 per week and then higher until £145 per week. The solution to the poverty trap chosen by the Government is illustrated in Figure 9.3 as the line ZBD. Net incomes are lower for those between Z and B, and higher for those between B and D. Marginal rates are lower for those between A and C, and higher for those between Z and A and between C and D. Thus although the maximum marginal rate has fallen, the number with marginal rates in excess of 80 per cent rises substantially, from just over 250,000 to almost 700,000. The rise is this great because not only has the band of income over which such high marginal rates operate widened, but also the range of the income distribution into which they now stretch is much denser than at lower incomes.

6. Tax Cuts in the New System

The new benefit system will react differently to changes in the direct tax system. Benefit entitlements under the current system are unaffected by changes in the amount of tax paid, while under the new system, a reduction in tax will lead to an increase in net income, and thus a reduction in benefit entitlement which will offset the original tax reduction. For someone

Table 9.5 Number of tax units in the poverty trap (in thousands): the effect of a 30 per cent rise in allowances under the current and proposed systems

	Marginal tax rate		
	60–80%	80–100%	Over 100%
Current system	310	150	115
—with allowance rise	350	100	70
Reformed system	1,400	700	0
—with allowance rise	1,475	400	0

Source: IFS tax and benefit model. See Davis and Dilnot (1985) for full details.

receiving both family credit and housing benefit for rent and rates, all but 6 per cent of any tax cut will be absorbed by reduced entitlement to benefit. So for people who continue to be entitled to benefit, net income will be almost unaffected by a change in the tax system. Marginal rates are also insulated from the tax system. If someone receiving family credit and housing benefit, and paying income tax and National Insurance,³ were to be taken out of tax by an increase in allowances, his marginal rate would fall from 96.2 per cent to 94.4 per cent. The smallness of this reduction is the result of the high withdrawal rates of the new family credit and housing benefit.

Families in the poverty trap will gain very little in net income from a reduction in the direct tax burden, and families taken out of tax will face a negligible reduction in their marginal tax rate. There is one group which can both gain net income and see a substantial reduction in the marginal tax rate they face. Families with small entitlements to either family credit or housing benefit can be floated off benefit altogether by tax cuts, and would thus see a substantial reduction in their marginal rate. Increasing allowances under the current system takes a small number of people out of the lower end of the poverty trap. Increasing allowances under the proposed reformed system will take a larger number of people out of a less extreme version of the poverty trap, but they will be a different group—those at the top end of the poverty trap income range affected. Table 9.5 illustrates this point. A 30 per cent rise in tax allowances, which would cost some £6 billion,⁴ would reduce the number facing marginal rates in excess of 80 per cent by around 100,000 under the current system, and by 300,000 under the reformed system.

³ Say at a rate of 7 per cent.

⁴ The net cost under the Fowler system will be slightly lower, since benefit entitlements are now reduced.

7. Conclusion

The poverty trap arises from the complex interaction of the direct tax and means-tested benefit systems. Under the current system, a small number of families with children face marginal tax rates in excess of 100 per cent. The problem of high marginal tax rates in some region of the income distribution is essentially intractable if a social security system at or above the current level is to be maintained; in particular, raising tax allowances is a very ineffective means of alleviating the poverty trap. The proposed reforms of the social security system will make it impossible for marginal tax rates in excess of 100 per cent to be faced, but many more people will face a less extreme form of the poverty trap, with marginal tax rates over 80 per cent. Raising allowances under the new system will take more people out of the less extreme version of the poverty trap, but they will be a different group from those taken out by increased allowances under the current system. Nevertheless, using the tax system to manipulate problems caused by the social security system will continue to be very expensive and relatively ineffective.

The Take-Up of Supplementary Benefit: Gaps in the 'Safety Net'?

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1. Introduction

Non-take-up of social security benefits—the fact that not all of those eligible for benefits claim them—is widely acknowledged to be one of the most serious problems facing the social security system (see, for instance, Atkinson (1984) and Dilnot, Kay, and Morris (1984)). It means that the welfare system is to some degree ineffective in delivering the assistance its own provisions acknowledge as necessary. Non-take-up of supplementary benefit (SB) has caused the most widespread concern and attention, both within and outside government, as a result of the critical role of SB in the social security system. SB (formerly called National Assistance) has frequently been termed a 'safety net' benefit because it provides a minimum standard of living to those (in eligible categories) who have either no or very low incomes from other sources—including other benefits. The analysis of SB non-take-up therefore seems central to an understanding of poverty and a pre-condition for the design of effective social security reforms.

In 1981 (the most recent year for which figures have been published) the Department of Health and Social Security (DHSS) estimated that 1.4 million families did not claim a total of £760 million of SB entitlement (an average of £10.50 per week each—or approximately £15 in 1987 prices). This represented a take-up rate of 71 per cent of those entitled. The first purpose of this article is to provide estimates of SB take-up that are at once both more recent and more detailed, using data from the 1984 Family Expenditure Survey (FES). This in itself will, we hope, provide some contribution to the debate about the current extent and seriousness of the problem.

* At the time of writing this article, Vanessa Fry was a lecturer at the University of Essex and a Research Associate of the Institute for Fiscal Studies, and Graham Stark was a Research Officer at IFS.

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