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Tax Relief and Partnership Pensions

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‘No-one ever got rich by passing up golden opportunities and that’s exactly what a personal pension offers you. Why? Because one of the beauties of saving for your retirement is that the government actually gives you money — and lots of it — to encourage you ... you get back every penny of the income tax you pay on the money you invest.’ Small print: ‘the value of the tax benefit depends on how much tax you pay’.

Virgin advertisement, The Guardian, 17 September 1997.

Abstract

Government support of private (occupational and personal) pensions through tax relief is an important element in the UK’s retirement income system. However, the current tax relief system is regressive, lacks transparency and is difficult to control. This paper argues that it should be replaced by a cost-neutral matching-grant or tax-credit scheme. Such a scheme would embody the ‘partnership’ idea implicit in much government policy in this area, but would be much more progressive, more open and more accountable than existing arrangements. The argument is illustrated through a comparison of the cost and distributional impact of the current system with those of an alternative tax-credit scheme.

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I. INTRODUCTION

There are currently two ways in which the government supports the provision of old-age pensions in Britain. One involves direct public expenditure on state-provided pensions, the other 'indirect' expenditure through tax relief on private (occupational and personal) pensions. The first includes the basic state pension and the State Earnings-Related Pension Scheme (SERPS); their costs amounted to £32.5 billion in 1996–97. The second involves a variety of different kinds of tax relief. As we shall see, the net cost of these reliefs is a matter of controversy and depends to a large extent on the overall structure of the tax system; a range of estimates are discussed below. However, the gross cost of reliefs is clearly substantial, amounting to over £17.5 billion in 1996–97 (Inland Revenue, 1997).

Thus the indirect form of pension support — part of what Titmuss (1968) called 'fiscal' welfare — is already quite large in comparison to direct support. As more people join occupational, personal or the proposed 'stakeholder' pension schemes, it is likely to increase yet further in significance. This raises a set of important policy questions. Should the government help private pension provision in this fashion? Is the structure of tax relief the best method of achieving the aims of policy in the area, or are there other policy instruments that could do the job better? It is to these questions that this paper is addressed.

Government assistance for private pensions can be justified as a method of encouraging individuals to make their own provision for their old age, thereby reducing pressure for increased direct expenditure on the state pension scheme.¹ More generally, such assistance can be seen as part of a 'partnership' approach towards the provision of welfare: one where the state goes into voluntary partnership with individuals, instead of either discouraging their own efforts through direct provision or coercing them through compulsory savings or other mechanisms. Thus direct spending on universal pensions, as in the UK and most European countries, acts as a positive disincentive for personal saving, a disincentive effect that is further complicated if the pension is not universal but income- and asset-tested, as in Australia.² And compulsory private pension schemes, of the kind favoured in Singapore or Chile, involve coercion, with a negative impact on individual motivation and sense of self-reliance. In contrast, partnership schemes can be seen as mobilising individual self-interest in a positive direction (as advocated, for instance, by Field (1995)), while at the same time fulfilling the more altruistic purposes of collective welfare. As one of the authors has put it elsewhere (Le Grand, 1997), they appeal to both the 'knight' and the 'knave' in human beings.

¹There is a broader issue as to the justification for *any* kind of government intervention in pension provision, direct or indirect. We do not have the space to deal with this here; see Dilnot, Disney, Johnson and Whitehouse (1994) or Barr (1993) for a discussion.

²Universal, non-means-tested, pensions have a negative income effect on work effort and saving; means-tested pensions have both a negative income effect and a negative substitution effect on work and saving.

In that tax relief on pensions is a form of government aid that accompanies individuals' personal contributions, it is a type of partnership scheme. However, it is a highly unsatisfactory one. It is only open to those who pay income tax; partly because of this, and partly because of the existence of increasing marginal tax rates with income, it is highly regressive. It is not transparent: that is, it appears in the form of tax not being paid and the people who receive it may well be unaware that there has been a reduction in their tax bill because of it. Moreover, even those who are aware of the tax reduction may not see it as a form of welfare assistance; rather, they may see it as simply the government taxing 'their' money less, and hence as involving a reduction in governmental malevolence rather than being an example of state beneficence. It is inflexible, with the amount of aid not determined by policy towards pensions but by parameters of the tax system, such as the structure of marginal tax rates. It is less accountable than public expenditure programmes, since, unlike those programmes, tax reliefs are not subject to the annual Treasury spending round or any systematic analysis of value for money. And it undermines democratic oversight of the government's tax and spending priorities by departmental select committees and the like, leading to an excessive policy concern with the costs of direct public spending to the relative neglect of tax spending (Kvist and Sinfield, 1996).

In what follows, we expand some of these arguments against pension tax relief and consider possible alternatives. More specifically, the next section describes the mechanics of the current system of relief, estimates its cost and analyses its distributional impact. Section III considers ways in which the system could be modified or replaced altogether. We then examine in some detail in Section IV a matching-grant or tax-credit scheme that, it is argued, could achieve the aims of policy far more effectively than the existing system without costing any more. There is a brief conclusion in Section V.

II. THE CURRENT SYSTEM OF TAX RELIEF

In this section, we examine first the structure of the tax reliefs currently associated with private pensions. Then we discuss their cost and continue with an analysis of their distribution by income group.

1. Structure

Pension provision is subsidised through the tax system in three main ways. First, individuals and employers do not have to pay tax on money contributed to a pension scheme. Second, pension funds get tax relief on their investment income. These tax reliefs are offset by the taxation of pensions when they are paid out; however, as is demonstrated later, this offset is only partial. Third, the lump-sum component of any pension payment is tax-free.

These entitlements are not unlimited. In particular, changes introduced by the 1989 Budget placed a ceiling on the amount that may be contributed to a pension scheme tax-free. This ceiling varies between occupational and personal pension schemes. Tax-free contributions to occupational schemes may not exceed 15 per cent of earnings, while more generous limits, varying with age, apply to personal pensions (up to age 35, tax-free contributions are limited to 17.5 per cent of salary, but this rises to 40 per cent for the over-60s). In addition, an 'earnings cap' of £87,600 (for the 1998–99 tax year) is applied to both types of scheme: that is, the earnings figure to which the relevant contribution percentage is applied cannot exceed £87,600, thus setting an overall limit on the amount that can be contributed tax-free. In consequence, the absolute amount that someone may contribute tax-free to a pension varies with the type of scheme of which they are a member, their income and, if they are in a personal pension, their age. For instance, a member of an occupational scheme earning £10,000 a year may make tax-free pension contributions of up to £1,500 a year; one earning £100,000 a year could contribute £13,140 (15 per cent of £87,600) tax-free. In comparison, a 61-year-old member of a personal pension scheme earning £10,000 may contribute tax-free up to £4,000; one earning £100,000 could contribute tax-free up to £35,040 (40 per cent of £87,600).

There are also new restrictions on the tax-free status of pension fund investment income. In July 1997, it was announced that advance corporation tax (ACT) credits were to be withdrawn. This has the implication that, while capital gains remain tax-free, dividend income accruing to pension funds is now partially taxed.

Finally, the lump-sum component of the final pension is limited to 25 per cent of the pension fund in a personal pension or one-and-a-half times final salary in a defined benefit occupational pension (subject again to an earnings cap of £87,600). The remaining part of the final pension, paid as an annuity, is then subject to income tax.

Despite these restrictions, the reliefs offer individuals saving through pension schemes considerable advantages. For instance, compare their tax situation with that of those who save through investing their own money in, say, a building society. The latter would have to find their savings out of income that has already been taxed; unlike pension savers, they would not be able to set their contributions against their tax liabilities. Further, any interest they earn on the savings will be taxed at 20 per cent (or 40 per cent if they are a higher-rate taxpayer), whereas, until last year, the interest or dividend payments earned by those saving through pension schemes would have been tax-free. The only advantage to non-pension savers would be that, unlike pensioners, they would not be taxed when they came to withdraw their savings; however, even that advantage is reduced by the fact that a large part of most pension payments (the lump sum) is tax-free.

The reliefs available on pension saving may also be compared with the main alternative tax-advantaged savings vehicle in the UK — Individual Savings Accounts (ISAs) — which will replace Personal Equity Plans (PEPs) and Tax-Exempt Special Savings Accounts (TESSAs) from April 1999. All such saving schemes allow individuals to accumulate interest income free of tax, but pensions are taxed on a ‘cash-flow’ basis (where contributions are tax-free and benefit payments are taxed) while ISAs are taxed on a ‘prepayment’ basis, with contributions subject to tax through PAYE but no taxes on withdrawal.³ However, though the two tax treatments are formally equivalent (Dilnot, Disney, Johnson and Whitehouse, 1994), in general people who save in the form of a pension will pay less tax than those who save via an ISA. First, individuals often pay tax at a lower rate in retirement than during their working lives, partly because of the higher age-related tax allowances which they become eligible for and partly because income tends to go down in retirement. Second, as mentioned above, the lump-sum part of a pension payment is tax-free; hence the final tax liability on pensions is further reduced.

From the point of view of savings neutrality, this apparent privileging of private pensions for tax purposes can be partly justified on the grounds that pension savings are illiquid and therefore a much less flexible form of saving than the alternatives. In addition, pension savings must at some point be converted into an annuity, the returns on which are likely to be less than actuarially fair, so further reducing demand for this form of saving (Oguchi, Kimura and Hatta, 1996). These problems mean that some form of government incentive, in excess of any incentives provided for other forms of saving, is needed if saving through private pension schemes is to be encouraged. However, the need for this incentive does not necessarily imply that the present system is the only, or even the best, way to do it. It is part of the contention of this paper that there are other ways that can be found that will better meet the aim of assisting private pensions, while at the same time furthering other social aims that the government might have.

2. Cost

The Inland Revenue (1997, Tables 7.10 and 1.6) estimates the gross cost of tax relief on private pension schemes to be £17.6 billion in 1996–97, and a breakdown of this is shown in Table 1. As this figure is for 1996–97, it omits the £3.5 billion saving on investment income relief resulting from the withdrawal of ACT credits announced in the July 1997 Budget.⁴ More importantly, this

³These terms are taken from Bovenberg and Petersen (1992). Franco (1996) also provides a useful discussion of the different ways in which savings may be taxed.

⁴Budget press releases. This is probably an upper-bound estimate of the revenue gain from this change as it ignores any alteration in the investment behaviour of pension funds and the extent to which income is taken in the form of capital gains (which remain tax-exempt) rather than dividends. As this was the expressed intention

TABLE 1
Breakdown of Gross Cost of Tax Relief on Private Pension Schemes, 1996–97

Tax relief on contributions to occupational pensions ^a	£7.0 billion
Tax relief on contributions to personal pensions ^a	£2.3 billion
Tax relief on investment income of funds	£7.9 billion
Tax relief on lump-sum pay-outs (unfunded schemes)	£0.4 billion
Total	£17.6 billion

^aFrom employees and employers. It is assumed in the following that contribution relief is blind to whether contributions come from employers or employees.

Source: Inland Revenue, 1997, Tables 7.10 and 1.6.

estimate does not allow for that part of the money lost through tax relief which will flow back to the exchequer in the future through tax payments once pensions become payable. The Inland Revenue attempts to allow for this effect by subtracting tax paid on pensions in payment at the moment (£4.8 billion in 1996–97), giving an estimate for the net cost of pension tax reliefs in 1996–97 of £12.8 billion. However, the validity of the Inland Revenue’s costing has been questioned. It is argued by, for example, Knox (1990) that future tax receipts on private pension benefits will exceed the amount of tax currently collected on such benefits, reflecting the fact that tomorrow’s pension payments will be based on the higher levels of contribution being made today.

Such forward-looking estimates of the level of future tax payments on pension benefits have been attempted by Knox (1990), Dilnot and Johnson (1993) and Hills (unpublished). Here we follow Hills’s methodology. This attempts to calculate future tax payments by estimating the effect of three factors on the amount of contribution and investment income relief that is eventually returned to the exchequer:

1. the ability to take a proportion of one’s pension fund as a tax-free lump sum reduces pension incomes, so reducing tax liabilities in retirement;
2. incomes in retirement are lower than incomes in work, and tax allowances are higher; hence tax liabilities are lower; and
3. the existence of investment income relief increases the level of pension benefits, and therefore the amount of tax collected from the retired.

of the change, it seems reasonable to expect the long-run revenue gain from the removal of ACT credits to be rather lower than £3.5 billion. It is assumed in the following that this long-run revenue gain is in fact only £2.5 billion.

The effect of (1) is to reduce the amount of contributions that are taken in the form of taxable pension benefits by around 15 per cent.⁵ The effect of (2) can be estimated by assuming that the average rate of tax on pensions in payment remains constant over time at 17 per cent.⁶ Given that the average rate of tax on pension contributions is 28 per cent,⁶ this implies that, ignoring the effect of tax-free lump sums, around 60 per cent of the revenue lost through contribution relief will eventually be returned to the exchequer in the form of tax paid on pension benefits. The effect of (3) can similarly be estimated by assuming that 17 per cent of the gross cost of investment income relief will eventually be returned to the exchequer. Using this methodology, we estimate that the amount of tax collected on pension benefits resulting from today's pension contributions will be around £6.1 billion,⁷ £1.3 billion more than is collected on pension benefits paid out today.⁸ This suggests that, including savings due to the withdrawal of ACT credits, the true net cost of pension tax reliefs is around £9 billion, rather lower than the Inland Revenue's estimate of £12.8 billion and Knox's estimate of £12 billion, but somewhat higher than Dilnot and Johnson's estimate of £4 billion.

However, Knox (1990), Dilnot and Johnson (1993) and Hills (1984a and 1984b) all raise a more fundamental objection to the methodology used above (and by the Inland Revenue), pointing out that the cost of savings tax reliefs depends on the range of alternative tax-advantaged saving options open to people, such as saving via life insurance, housing or other tax-sheltered savings vehicles. The analysis presented above implicitly assumes that the alternative to saving in the form of a pension is to save through a bank or building society savings account, where contributions and interest payments do not attract tax

⁵The tax-free lump sum is limited to 25 per cent of the pension fund in a personal pension or 1.5 times final salary in a defined benefit occupational pension. Assuming someone retires on two-thirds of their final earnings, their maximum lump-sum payment is equivalent to two-and-a-quarter years' worth of pension, between 10 and 15 per cent of the total value of their pension. Given that the majority of people with private pensions are in defined benefit schemes, the average proportion of a pension fund taken as a lump-sum payment is assumed to be 15 per cent.

⁶1996–97 figures. Taken from Inland Revenue (1997, p. 75).

⁷The cost of tax relief on pension contributions was £9.3 billion in 1996–97. The tax-free lump sum means 85 per cent of this will be converted into taxable pension benefits, so £4.7 billion ($60\% \times £9.3\text{bn} \times 0.85$) of contribution relief will eventually flow back to the exchequer, as will around £1.3 billion from tax on the higher pensions resulting from investment income relief.

⁸A similar conclusion is also reached by looking at the extent to which private pension schemes have reached a steady-state position. The fact that contributions to private pensions are currently around £33 billion while pension benefits paid out are around £28 billion (both figures derived from Inland Revenue (1997)) suggests that, as a whole, private pension schemes are still maturing, and hence future private pension payments will be greater than today's. This reflects two underlying factors. First, though membership of occupational schemes has been broadly flat for the last 30 years, the generosity of pension benefits is increasing, as is the stock of pensioners receiving occupational pension payments. Second, the growth of personal pensions over the last decade has extended the membership of private pension schemes, so a greater proportion of the retired will receive private pension payments in the future.

relief. Knox suggests that more likely investment vehicles for redirected pension saving would be PEPs or TESSAs, and estimates that if all redirected saving took this route, then the long-run net cost of pension tax reliefs would fall to around £2 billion (Dilnot and Johnson suggest the figure would be even lower). The analysis in Section IV of our alternative scheme therefore distinguishes between two scenarios — one where the £9.3 billion cost of contribution relief is available to fund the scheme, and a lower assumption where only £4.5 billion is available.

3. Distribution

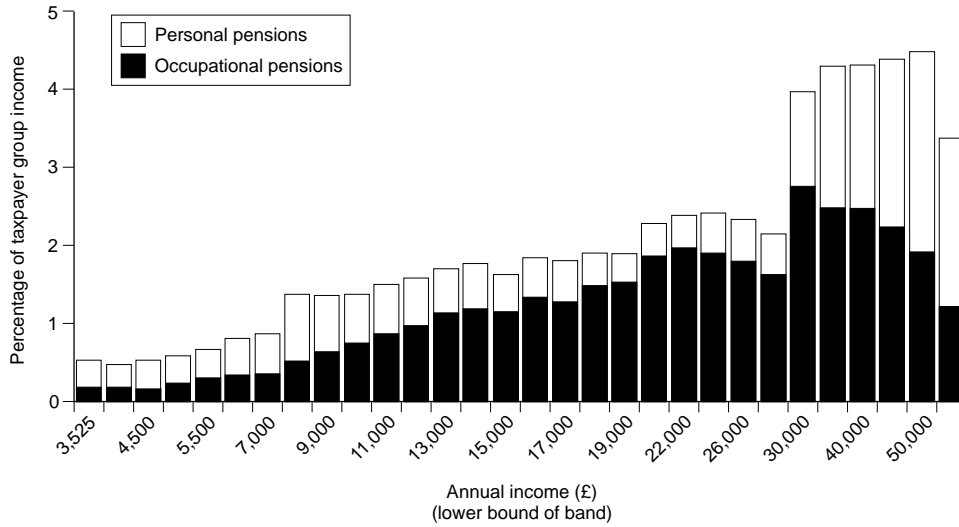
Estimates of the distributional effect of the overall system for taxing pensions are not easy to obtain. Data limitations prevent us obtaining any estimate of the distributional effect of tax relief on lump-sum payments; and it is difficult (and of limited usefulness) to estimate the distributional effect of tax relief on investment income, because, at least for defined benefit schemes, it is not possible to allocate the assets of pension funds to their members, and because the changes to ACT mean that any estimates based on previous years are of only limited relevance to the current situation. We therefore confine our analysis to the distributional impact of tax relief on pension contributions.

Figure 1, based on Table A.1 in the Appendix, shows the distribution of contribution relief on both occupational and personal pensions by income group of taxpayers in 1996–97.⁹ Employers' contributions are grossed up from employees' contributions so that the total cost of contribution tax relief equals £9.3 billion (see above). The graph and table illustrate a strongly regressive pattern, with, for instance, those on incomes over £100,000 receiving an amount equivalent to 3.3 per cent of their income, compared with 0.5 per cent for those on incomes between £3,525 and £4,000. Overall, half the benefit of tax relief on pension contributions goes to people with incomes over £25,000 (the top 10 per cent of taxpayers) and a quarter to people with incomes over £45,000 (the top 2.5 per cent of taxpayers).

⁹Throughout this article, estimates of the distributional effect of contribution relief show the value of this benefit relative to the aggregate income of all taxpayers in the income band. However, a more accurate picture might be provided if pensioners' income were excluded from the denominator, so that the value of contribution relief is shown relative to the aggregate income of working taxpayers only. Such estimates are presented in Agulnik and Le Grand (1998), but changing the denominator in this way makes very little difference to distributional outcomes.

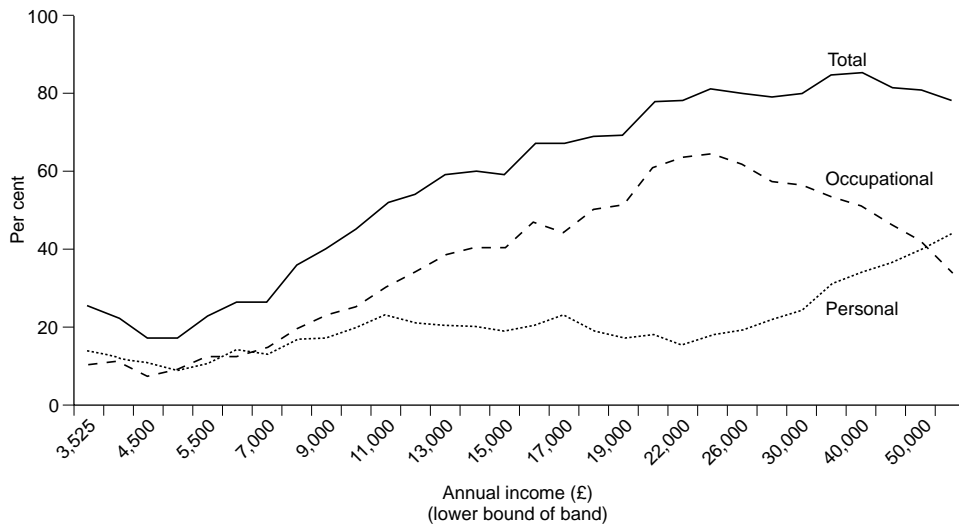
We have also produced estimates of the distributional effect of contribution relief using the simulation model POLIMOD, constructed from Family Expenditure Survey data by the Microsimulation Unit at Cambridge (see Redmond, Sutherland and Wilson (1996) for a description of the model). For occupational pensions, the model revealed a very similar pattern to that derived from Inland Revenue data. However, a limitation of the model is that personal pensions could not be included, and, given their importance, it seemed preferable to concentrate here on the Inland Revenue estimates.

FIGURE 1
Value of Pension Contribution Tax Relief



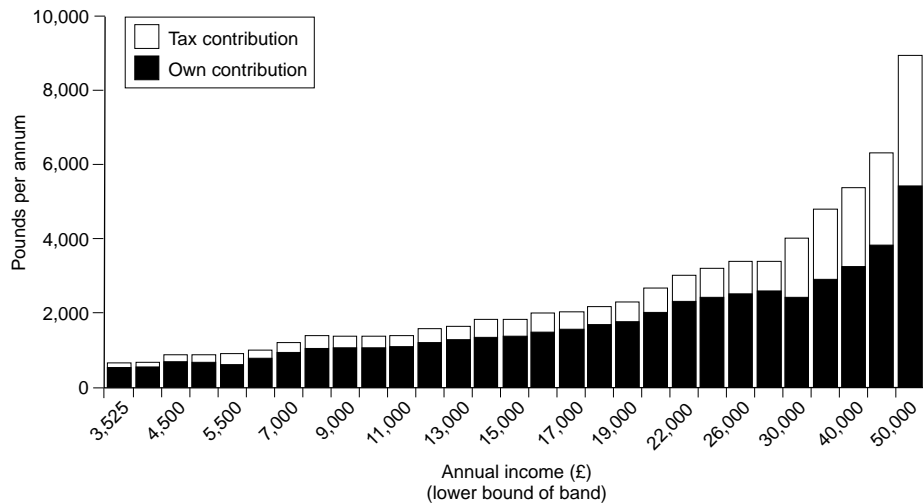
Sources: Inland Revenue, 1997, Table 3.8; Inland Revenue, unpublished.

FIGURE 2
Percentage of Taxpayers Contributing to a Private Pension Scheme



Sources: Inland Revenue, 1997, Table 3.8; Inland Revenue, unpublished.

FIGURE 3
Average Per Capita Pension Contribution including Tax Relief



Sources: Inland Revenue, 1997, Table 3.8; Inland Revenue, unpublished.

There are two reasons for the regressivity of pension contribution relief. First, the propensity for people to be in a private pension scheme increases with their income, so that 80 per cent of people with an income of £25,000 or more are in a private pension scheme compared with less than 30 per cent of people with an income of £7,000. This is illustrated in Figure 2. The figure also shows that there is a difference between personal and occupational schemes, with membership of occupational schemes rising steadily as incomes increase to £25,000, then declining thereafter, while membership of personal pensions is flat between £12,500 and £25,000, before climbing for the very well off.

The second reason for the regressivity of pension contribution relief is the fact that people can claim back tax at their marginal rate, so that the absolute amount of tax relief that someone gets rises with their income (see Figure 3). Moreover, higher-rate taxpayers receive proportionately more tax relief than basic-rate taxpayers, reflecting the higher marginal rate at which they pay tax.

The distributional effect of the current system of tax relief on pension contributions can also be expressed in the form of a Gini coefficient, where 0 represents complete equality and 1 represents complete inequality. Using Inland Revenue data, we have calculated that the effect of income tax is to reduce the Gini coefficient for the 26 million people who pay such taxes from 0.382 to

0.342.¹⁰ However, the inequality-reducing effect of the income tax system would be even greater without tax relief on pension contributions, with the Gini coefficient falling to 0.335 when such reliefs are removed.

One objection to the above analysis is that, by ignoring tax paid on pensions in payment, it overstates the regressive nature of the tax system surrounding pensions. However, we believe that, if anything, the opposite is more likely to be the case. This is because the real value of the current cash-flow system for taxing pensions accrues to people who pay tax at a lower rate in retirement than during their working lives. Admittedly, one group to benefit are those who retire on very low incomes, such that they are no longer liable to income tax at all. But, by definition, pensioners in this group are not very well off, with annual incomes under £5,400 in the 1998–99 tax year (though couples and older pensioners receive slightly higher tax allowances). Therefore, even if a large number of people with small private pensions fall into this category, the overall loss to the exchequer is likely to be small. Far more important are the group of people who pay higher-rate tax for all or part of their working life but retire on incomes such that their pension benefits are taxed at the basic rate. Less than 2 per cent of pensioners pay tax at the higher rate, while around a tenth of the work-force fall into this category (Inland Revenue, 1997 and unpublished); we conjecture that the vast majority of people currently receiving contribution relief at the higher rate will therefore gain substantially from the existing system. Hence the foregoing analysis of the distribution of contribution relief probably understates the advantages enjoyed by higher-rate taxpayers relative to people further down the income distribution.

III. PROPOSALS FOR REFORM

We have seen that the present system of tax reliefs has a number of undesirable features. These include its lack of transparency for pension contributors; its ‘invisibility’ in the public accounts; and its regressivity. There are two basic ways in which it could be reformed. The first is to retain the principle of tax relief but to change the parameters of the system through, for instance, confining relief to the basic rate of tax. The second is to abolish tax relief altogether and replace it with a system of aid involving direct expenditures. We examine the second idea in some detail below; however, first we need to give some idea as to why we do not consider the first alternative to be satisfactory.

It is easiest to illustrate the argument with respect to the proposal for confining tax relief to the basic rate. Although this would indeed lessen the regressivity of the system, it would not change the position of those who do not pay tax or who pay tax at less than the basic rate; hence its impact would be

¹⁰All Gini coefficients are calculated using the computer program INEQ devised by Professor Frank Cowell at the LSE.

limited. More fundamentally, it would do nothing to increase the transparency of the system; indeed, if anything, it would increase its complexity, especially for those unfamiliar with the language of tax accountancy. The system would still escape the controls and democratic oversight applied to direct expenditure. Finally, any such proposal on its own would reduce the amount of government aid being offered to private pensions: that is, it would not be revenue- or expenditure-neutral.

A more technical argument can also be made against limiting relief to the basic rate. At the moment, individuals immediately pre-retirement who expect to retire on an income of more than £30,000 are indifferent between whether they pay money into their pension scheme or keep it in a building society account: very little interest will accrue in either case and their total tax rate will remain 40 per cent in both cases, though the timing of the tax payment will differ. However, if contribution relief were restricted to 23 per cent, they would find their pension savings being taxed at an effective rate of 57 per cent, while the tax bill on their building society savings would be unchanged. For younger people, the advantages of not being taxed on the capital gains of pension funds will probably outweigh this consideration, but, depending on the level of expected returns from pension saving, it is likely that anyone within five years of retirement who expects to continue to be a higher-rate taxpayer will cease contributing to their pension fund altogether. While this raises few problems of vertical equity, such an age-related effect may be problematic from the point of view of horizontal equity. Moreover, it might create administrative problems for firms operating occupational pension schemes, as their better-off older employees would start to opt out of company provision as they approached retirement.

A more imaginative solution than limiting tax relief to the basic rate would be to abolish the system of 'indirect' aid through the tax system and to use the revenue obtained to finance a direct system of aid. More specifically, one or more of the existing reliefs could be replaced with a system of matching grants. So, instead of giving tax relief on pension contributions, the government could offer to match individuals' contributions with a direct grant. The matching rate could be £ for £: that is, for each pound contributed by the individual, the state would also contribute a pound. Or, if that were considered too generous, the matching rate could be less: two-thirds or one-half, for instance. As with the present system, there would be a cap on the amount of contribution that could attract such assistance.

We concentrate below on a scheme with the matching rate set at 66p per pound of pension contribution. This is equivalent to the position that higher-rate taxpayers are in today, where, for every £60 of pension contribution (from an individual's post-tax income), the state effectively contributes another £40. To put the example another way, of every £100 of pension contribution made from a higher-rate payer's gross income, £40 constitutes tax relief. The effect of our

scheme is therefore to level up the treatment of lower- and basic-rate taxpayers with that received by higher-rate payers.

The administration of the matching-grant scheme could in fact be integrated with the tax system, in which case it might be appropriate to refer to the grant as a 'tax credit'. The experience of the Inland Revenue in dealing with the complexities of the tax relief system suggests the new scheme would raise few practical difficulties, and the Revenue would be the obvious administrative agency. Moreover, keeping responsibility for state support for private pensions with the Inland Revenue would help maintain the administrative simplicity of occupational schemes, where employers effectively distribute state support on behalf of the Revenue. The key difference with a tax relief system would be that, with refundable tax credits, the amount of support depends solely on the amount of pension contribution and is blind to the amount of tax an individual pays.

A matching-grant or tax-credit scheme would have several advantages over the present system. It would be transparent: government aid would not be buried in the complexity of the tax system and individuals would see that they were being helped directly. As an item of direct government expenditure, or as an annual change in the level of the tax credit, it would be subject to systematic parliamentary scrutiny. Under a matching-grant system, the aid would be available to everyone, not only to those who pay tax; and under both systems, the amount of aid would not vary with the tax rate. Hence it would be considerably more progressive (or less regressive) than the present system.

IV. A TAX-CREDIT SCHEME IN PRACTICE

To illustrate some of the arguments in the previous section, we have investigated how a matching-grant or tax-credit scheme might work in practice. We assume that tax relief on pension contributions is abolished, with consequent savings of £9.3 billion (see Section II), and in its place we establish a direct partnership scheme with a matching rate set at 66p per pound. It is also assumed that only those people who are currently contributing to a private pension do so in the future and that these are all taxpayers; hence we refer to the scheme as a 'tax-credit scheme' as, by definition, only taxpayers would benefit from it.

Two scenarios are examined. Under the first scenario, the government moves the tax system in the direction of comprehensive income taxation (CIT). Such an approach would mean that, apart from savings put into pension schemes, investment income would generally be subject to tax. As such, alternative ways to shelter investment income from taxation would not be available, and the argument that the net saving from abolishing contribution relief would be less than the immediate saving, as Knox's and Dilnot and Johnson's analyses suggest, would hold little force. Hence the full saving from abolishing contribution relief could be used to fund the matching-grant scheme. However, moving in the direction of CIT would involve difficult political choices. ISAs

would need to be abolished, or a low cap placed on lifetime contributions. The tax advantages of investing in property would also have to be reduced, involving not only the abolition of mortgage interest relief but also, potentially, the imposition of capital gains tax on owner-occupied housing (above an appropriate threshold). A more rigorous regime for the taxation of bequests would also probably be required. Against this, the tax base under CIT would be broader than that under today's tax system; hence tax rates on earned income would be lower.¹¹ Moreover, given the distribution of wealth in the UK, comprehensive income taxation would also be more progressive.

The alternative scenario is that the government moves in the direction of expenditure taxation (ET), where investment income would not be subject to tax. In this case, the long-run saving from abolishing pension contribution relief will be substantially less than the initial saving. Hence, rather than spending all of the money saved on the matching-grant scheme, under this scenario the government would need to put some money aside, in the form of reducing the national debt so that interest payments gradually fall, in order to cover reduced tax receipts in the future. This in turn reflects the fact that, under ET, all money displaced from pension saving would be shifted to alternative savings vehicles where, in contrast to the CIT regime, investment income would not be taxed. Hence abolition of pension contribution relief would not involve any additional revenue accruing to the exchequer through the taxation of income generated by savings, though the shift from vehicles taxed on a cash-flow basis (pensions) to those taxed on a prepayment basis (such as owner-occupied housing or ISAs) would result in large immediate savings. For ease of exposition, we assume that all savings displaced from pensions flow into ISAs, which under this scenario would have very high or no limits on annual and lifetime contributions, so that it is the cost of this scheme which is the focus for analysis.¹²

For illustrative purposes, we assume that, under the expenditure tax scenario, half the savings from abolishing contribution relief will be needed to fund the tax relief associated with ISAs. Therefore, by assumption, only £4.5 billion is available to fund the matching-grant scheme under ET. This assumption broadly reflects the fact that, though the cost of investment income relief will be

¹¹King (1980) provides a thorough analysis of the relative economic merits of comprehensive income taxation and expenditure taxation. We do not attempt to go over the arguments discussed by King in detail, but note that, in a world of low and stable inflation, the argument that CIT will arbitrarily distort investment decisions holds considerably less weight than it did 20 years ago when, as Meade (1978) suggests, indexation was well nigh impossible.

¹²Even if the existing contribution rules for ISAs are kept in place, the cost of the scheme is likely to grow substantially in the future. Official estimates suggest that the cost of TESSAs and, particularly, PEPs has grown dramatically since their introduction, from a combined cost of £245 million in 1990–91 to £1.25 billion in 1997–98 (HM Treasury, 1997). Their cost was expected to reach £1.7 billion by 2001, and such exponential growth is likely to continue under ISAs, particularly if no lifetime limit is placed on contributions. Under such a scenario, the effect of abolishing pension contribution relief would be to swell the amount going into ISAs, and hence add further to these costs.

unchanged under ET, the prepayment regime associated with ISAs results in a higher average tax rate than the cash-flow regime associated with pensions. While the budget of the scheme will therefore be lower under this scenario than under CIT, there will nevertheless be some scope to introduce a redistributive tax-credit scheme without breaching our constraint of revenue-neutrality.

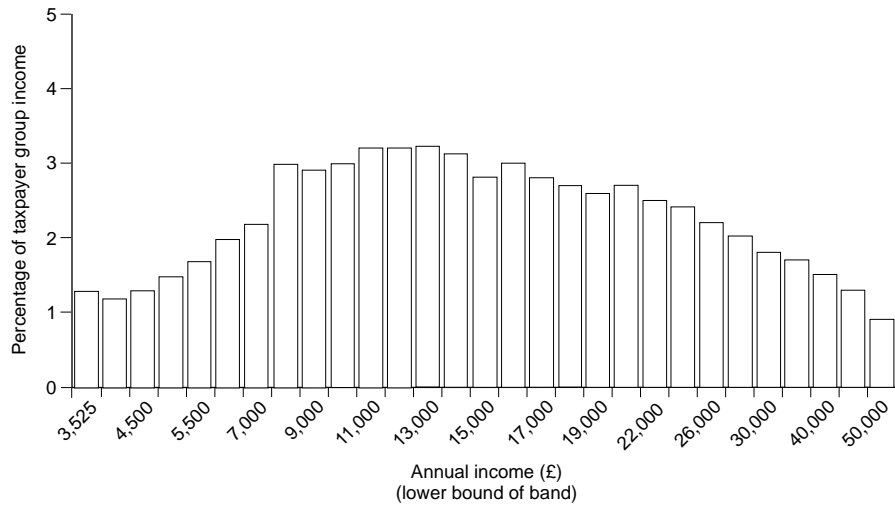
Under CIT, where the full £9.3 billion is available to fund the scheme, we calculate that, at a matching rate of 66p per pound, the maximum annual amount of state aid would be limited to £735, so that an individual would receive tax credits on all their pension contributions up to £1,100 (assuming contributions are made from post-tax income, higher-rate payers might equivalently contribute £1,835 from their pre-tax income). In contrast, under the ET scenario, where only £4.5 billion is available to fund the scheme, we calculate that the maximum annual amount of state aid would be £340, allowing an individual to receive tax credits on up to £510 of pension contributions annually.

The scheme has been constructed on the assumption that there would be no behavioural consequences resulting from the proposed changes: that is, pension contributions and original income levels remain unchanged, regardless of the system of government aid offered. This is obviously unrealistic, but the present state of the art for these kinds of calculations offers little opportunity to explore different assumptions about how savings behaviour may alter. The exception concerns pension contributions above the contribution limit for aid; it is assumed that these drop to zero, since, given the illiquidity of pensions, it would be irrational for individuals to continue to save in this form.

We look first at the CIT scenario. The distributional impact of the scheme, in terms of the value of support expressed as a percentage of post-tax income, is illustrated in Figure 4, which may be compared with Figure 1 earlier. It is based on Table A.2 in the Appendix, which may similarly be compared with Table A.1.

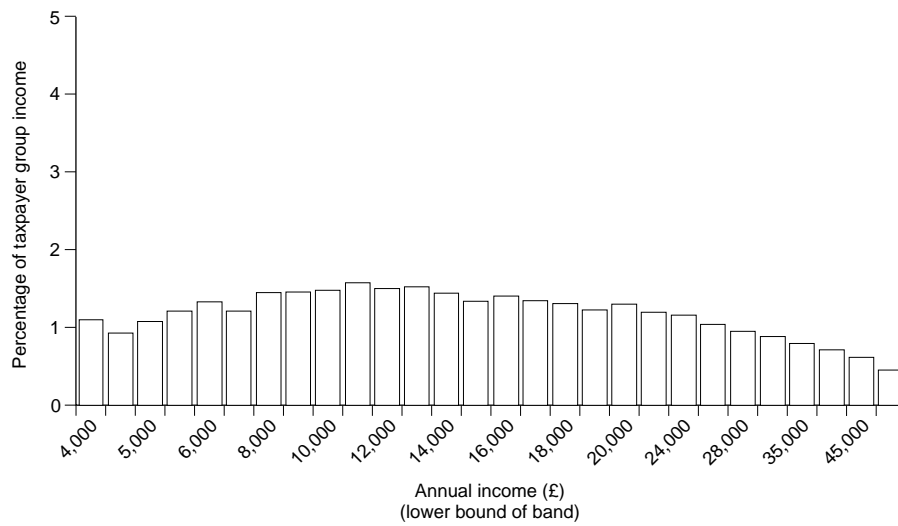
As can be seen, the tax-credit scheme performs much better than the current system in terms of its distributional impact. For instance, those earning between £3,525 and £4,000 receive 1.3 per cent of their income as a tax credit, compared with 0.9 per cent for those earning between £50,000 and £100,000, and the scheme actually becomes progressive over a wide range of the income distribution. Despite this, the fact that the existing tax relief system is so regressive means that everyone earning up to £26,000 benefits from the new scheme, assuming that they contribute an average amount to their pension for someone on their earnings. However, it is worth noting that those earning more than £12,000, and making average pension contributions, only qualify for support on a proportion of their existing pension contributions under the new scheme. The reason why people earning between £12,000 and £26,000 gain in aggregate is that the additional income resulting from the higher matching rate is greater than the loss caused by the reduction in the maximum amount of pension contribution.

FIGURE 4
Value of a Tax-Credit Scheme under Comprehensive Income Taxation



Sources: Derived from Inland Revenue (1997, Table 3.8) and Inland Revenue (unpublished).

FIGURE 5
Value of a Tax-Credit Scheme under Expenditure Taxation



Sources: Derived from Inland Revenue (1997, Table 3.8) and Inland Revenue (unpublished).

The distributional impact of the scheme under the ET scenario is illustrated in Figure 5, based on Table A.3 in the Appendix. The reduced budget of the scheme, and hence the lower contribution cap, means that many more people lose from the scheme than under the CIT scenario. On average, people earning £12,000 a year or more would be worse off, and average pension contributors throughout the income scale would find themselves coming up against the pension contribution cap. However, under this scenario, all the displaced pension saving could be contributed to an ISA, where investment income would continue to be free of tax. On a lifetime basis, individuals above the contribution cap would therefore be better off than under the CIT approach. So, while the number of losers would be larger, the extent of losses would be smaller and, rather than being concentrated on the richest, they would be spread further down the income scale.

1. Problems with the Scheme

Policymakers might have three concerns about the proposed scheme. First, they might be concerned that it will strengthen the existing tendency of new firms to establish defined contribution, rather than defined benefit, pension schemes, and that existing defined benefit schemes would be unable to adapt to a different set of tax relief rules and would have to be wound up.

There are two difficulties with the tax-credit scheme that employers with defined benefit schemes would need to tackle. Foremost is the issue of what should happen to better-paid employees whose pensions are likely to be affected by the cap. To take an illustrative example, under the present regime, a company might contribute £6,000 annually to their pension fund in respect of an employee earning £60,000 and would receive tax relief on all of this contribution. Under the CIT scenario, the tax-credit scheme would result in support only being available on the first £1,800 of contributions from pre-tax income; hence there would be £4,200 of contribution that would not qualify for support. The company would then face a choice between maintaining existing contributions (paying the additional money into some other savings vehicle), increasing the take-home pay of the affected individual or using the money in some other way. It is not immediately apparent which of these routes a company might choose, though affected employees will obviously try to ensure that their overall remuneration does not fall. However, there is no obvious reason why this might cause employers to wind up their pension schemes altogether.

A secondary issue is how the benefits offered by occupational schemes might alter under our proposed scheme to reflect the new contribution rules. We believe the most likely outcome of a tax-credit scheme would be that employers and/or trustees of pension funds will impose a cap on the maximum amount of pension that their scheme will pay out. For instance, a scheme might award pensions on the basis of an individual's final salary up to a maximum limit, so

that, in the above example, the individual might qualify for a final pension of two-thirds of £30,000, even though they are earning £60,000 when they retire. If this reduction in the pension fund's liabilities exceeds the reduction in contributions (as would probably be the case), the issue arises of whether the benefit of this surplus should accrue to the employer or to the scheme's members. It is therefore possible that occupational schemes will not use the additional tax support for low earners to offer them better pensions, but there is little reason to think that the changes we propose would end occupational provision.

The second set of concerns about the proposed scheme relates to the reduction in the level of pension-related savings that it brings about. Based on the assumption that no contributions are made above the ceiling for tax relief, and assuming there are no other behavioural changes, we estimate that the amount contributed annually to pension funds will fall by around £10 billion, from £33 to £23 billion, under the CIT scenario, and by £22 billion under the ET scenario. A potential implication of this is that the scheme will cause the level of *economy-wide* savings to fall, and hence reduce the UK's growth potential. We do not believe this concern is warranted. Under the ET scenario, there would be little or no fall in the overall stock of savings, as alternative investment vehicles would be almost as tax-advantaged as pension savings. Indeed, we assume above that the effect of the scheme under ET would be to alter the form in which savings are held, so that the initial tranche of individuals' savings would flow into pensions, and beyond the cap all further savings would flow into ISAs.¹³ Overall saving levels would be unchanged.

In contrast, under the CIT scenario, it is arguable that there will be some reduction in overall saving levels, as people above the cap would not have access to other forms of saving where investment income could be taken free of tax. Such a fall in saving may not be a problem. As Ruggeri and Fougère (1997) conclude, in a small, open economy such as the UK, links between saving and investment are likely to be weak. Therefore, even if the overall level of saving does fall, domestic investment may well be unaffected. But, more importantly, a priori it is not possible to tell whether a fall in the level of economy-wide saving would in fact result from introducing these proposals.¹⁴ The effect of a matching-

¹³If the government is more concerned with achieving a society-wide minimum retirement income standard than with individual replacement rates in retirement, and seeks to achieve such a minimum through means-tested benefits, then such a system would make sense. A large incentive to accumulate a basic amount of pension entitlements would be offered, thus helping to counter the saving disincentives associated with income- and asset-tested retirement benefits, but beyond this amount, all forms of saving would be treated equally.

¹⁴International evidence suggests that the most likely effect of tax reliefs is to alter individuals' choice of saving instrument rather than the overall amount of saving. After looking at a range of econometric studies, the OECD (1994, p. 62) concludes: 'To summarise, econometric studies using large micro-data sets on individual households find strong evidence that marginal tax rates affect the decision to hold certain assets and liabilities.... Governments are therefore likely to be able to influence the composition of household saving by

grant or tax-credit scheme on saving behaviour is difficult to determine as the income and substitution effects for low earners tend in opposite directions and, as their relative importance is unknown, it is not possible to determine whether, overall, the scheme will increase or decrease the propensity of low earners to save. However, for high earners, and older low earners in personal pension schemes, we must also take into account the effect of the system of compulsory pension contributions linked to SERPS.

In effect, the system for contracting out of SERPS obliges all employees in defined benefit occupational schemes to contribute 4.6 per cent of their salary between the lower and upper earnings limits to their pension scheme, while for personal pension holders the system of age-related rebates means that between 3.8 per cent and 9 per cent of their earnings between the lower and upper limits is automatically contributed to their pension via the system of contracted-out rebates. This means that employees earning at or above the upper earnings limit (£485 a week in the 1998–99 tax year) must contribute a minimum of £830 per year to their pension, while older workers in personal pension schemes must contribute even more. Given our scheme's low limit on the amount of pension contribution qualifying for tax relief, some employees would have little tax relief allowance left after they had made their compulsory contributions, and hence would be able to make few voluntary contributions. As such, there would be no additional incentive for such workers to save as the substitution effect will barely exist, while the income effect will still tend to reduce overall saving, at least for those who do not qualify for higher-rate tax relief at the moment. Therefore the effect of the scheme may be to reduce the overall amount saved by people earning around the upper earnings limit.¹⁵ We cannot, however, tell whether this effect would be significant, and whether any reduction in saving by better-off individuals would be outweighed by increased saving by low earners.

A third possible consequence of the new scheme that might worry policymakers is that it will cause the future level of private pension payments, and hence the tax collected on such payments, to fall, increasing the long-run net cost of pension tax reliefs. If the government moves in the direction of expenditure taxation, this argument clearly holds true (hence our assumption that only £4.5 billion is available to fund the scheme under this scenario). However, if the government moves in the direction of comprehensive income taxation, this argument does not hold. The reduced amount of saving in the form of pensions resulting from the proposed scheme will also reduce the cost of investment income relief, as the stock of assets attracting relief gradually declines. As the revenue loss from investment income relief and the revenue gain from taxing

choice of tax policy, even if there is no clear evidence (which there is not from these studies) that the overall level of saving will be affected'.

¹⁵Ending the system whereby compulsory pension contributions attract tax relief would eradicate this problem; it would also put private pension schemes on a level playing field with SERPS, contributions to which do not attract tax relief.

pensions in payment are roughly equal, these two effects may be netted off.¹⁶ Hence a reasonable approximation of the net long-run cost of pension tax reliefs under CIT is simply the £9.3 billion cost of contribution relief. In other words, under CIT there is no reason to expect the long-run cost of our proposals to differ significantly from their short-run cost. Indeed, the long-run cost of the scheme may be lower than the short-run cost if spending on means-tested retirement benefits is taken into account.

2. Variants of the Scheme

We have also looked at two variants of the tax-credit scheme: a ‘low’ variant which uses the revenue from abolishing tax relief on pension contributions to fund a scheme with a matching rate set at 50p per pound, and a ‘high’ variant with a matching rate of £ for £. For convenience, we only show results for the CIT scenario.¹⁷ In each case, there is a limit on the amount of contributions that attract this aid, the limit being set at a level such that the total aid given does not exceed the £9.3 billion cost of contribution relief. This has the effect that, under the low variant, state support is capped at £896 per year, resulting in a maximum pension contribution (from post-tax income) of £1,792. In contrast, under the high variant, state support is capped at £705 per year which, because of the £-for-£ matching rate, means only pension contributions up to this level attract support. The two variants therefore illustrate the policy trade-offs that the government faces in this area. The low variant shows how the scheme could be made less redistributive, hence reducing its impact on pension saving (which we calculate would fall by around £5 billion). Conversely, the high variant shows how the scheme could be made more redistributive, increasing its impact on pension saving (which would fall by around £13 billion) but, potentially, having a larger effect on the propensity of low earners to save.

TABLE 2
Inequality in Aid Received by Private Pension Contributors

<i>Scheme</i>	<i>Gini coefficient</i>
Current system	0.454
Tax-credit scheme (CIT scenario)	0.040
Low variant (50p for £)	0.147
High variant (£ for £)	0.005

Source: See text.

¹⁶The similarity between the cost of investment income relief and the revenue gain from tax on pension benefits is coincidental: prior to the July 1997 Budget, investment income relief exceeded tax collected on pension benefits by around £3 billion.

¹⁷While the contribution caps for each variant would be substantially lower under ET, the direction of effects would be similar and the argument would not be substantially affected.

TABLE 3
**Government Aid to Private Pensions and Inequality in Post-Tax Income
 (all taxpayers)**

<i>Scheme</i>	<i>Gini coefficient</i>
Without tax relief	0.335
Current system (with tax relief)	0.342
Tax-credit scheme (CIT scenario)	0.334
Low variant (50p for £)	0.336
High variant (£ for £)	0.333

Source: See text.

Tables 2 and 3 show some of the distributional consequences of alternative versions of the tax-credit scheme. Table 2 uses changes in Gini coefficients to show the differences in *inequality in the actual aid received by pension contributors* under the scheme. It is apparent that inequality in aid received is dramatically reduced compared with the present system. The reduction increases with the size of the ‘match’, with the £-for-£ system virtually eliminating it.

Table 3 shows Gini coefficients for the *inequality in post-tax income for all taxpayers* for five distributions: without contribution tax relief, with contribution tax relief (the current system), under the tax-credit scheme (CIT scenario) and under the two variants of the scheme. Not surprisingly, the differences are not large; £9.3 billion (the amount available for distribution) is small when compared with an aggregate for post-tax incomes of £350 billion. But what is of more interest is the direction of change. Tax relief on pension contributions actually increases inequality in post-tax incomes. In contrast, the tax-credit scheme reduces it, although the low variant of the scheme increases it, but by significantly less than the current system.

V. CONCLUSION

The present system of aid for private pensions is regressive, opaque, inflexible and not readily susceptible to Treasury or parliamentary scrutiny. The same resources could be used to fund a tax-credit or matching-grant scheme that would, by definition, cost no more but would be superior in all these respects. It would be much less regressive; indeed, depending on the matching rate, it could actually be progressive over wide ranges of the income distribution. It would be much more transparent to its beneficiaries. It would set its own parameters, instead of them being set by the tax system; it would therefore be more flexible. And it would be much more amenable to expenditure scrutiny.

Perhaps the only disadvantage of the proposal is one of perception: switching from tax reliefs to matching grants could be seen as a way of raising both taxes

and government expenditure, and this might create political difficulties. However, since the actual impact on the government's fiscal position would be neutral, this would be simply a labelling problem; and perhaps the tax-credit phraseology would help if there are asymmetric constraints on tax and public expenditures. Overall, it would be a pity if an idea were evaluated simply on terminology and not on its real merits.

APPENDIX

See tables on following pages.

REFERENCES

References follow tables.

TABLE A.1
Distribution of Pension Contribution Tax Relief by Income Group

Lower bound of income band (£ p.a.)	Average income (£ p.a.)	Number of people claiming tax relief (thous.)	Number of taxpayers (thous.)	Cumulative number in income band as % of all taxpayers	Average contribution pre-relief (£ p.a.)	Average value of tax relief per claimant (£ p.a.)	Total pension contribution (£ p.a.)	Cost of tax relief for each income group (£ billion)	Cumulative cost of tax relief (£ billion)	Tax relief as % of group income (pre-tax)
3,525	3,775	141	547	2.1%	531	133	664	19	19	0.5%
4,000	4,240	135	582	4.4%	555	139	694	19	37	0.4%
4,500	4,731	130	714	7.1%	703	176	878	23	60	0.5%
5,000	5,244	162	885	10.6%	710	178	888	29	89	0.6%
5,500	5,747	196	861	13.9%	727	182	909	36	125	0.6%
6,000	6,470	440	1,610	20.1%	797	199	997	88	212	0.8%
7,000	7,514	455	1,730	26.8%	952	238	1,190	108	321	0.8%
8,000	8,466	573	1,600	33.0%	1,062	317	1,379	182	502	1.3%
9,000	9,489	572	1,440	38.6%	1,048	313	1,361	179	681	1.3%
10,000	10,531	653	1,450	44.2%	1,042	311	1,353	203	885	1.3%
11,000	11,475	664	1,270	49.1%	1,062	317	1,379	211	1,095	1.4%
12,000	12,490	671	1,240	53.9%	1,177	351	1,528	236	1,331	1.5%
13,000	13,449	686	1,170	58.5%	1,269	379	1,648	260	1,591	1.7%
14,000	14,457	636	1,060	62.6%	1,380	412	1,792	262	1,853	1.7%
15,000	15,476	585	984	66.4%	1,377	411	1,788	241	2,094	1.6%
16,000	16,478	574	862	69.7%	1,486	444	1,930	255	2,349	1.8%
17,000	17,477	513	763	72.7%	1,532	458	1,990	235	2,583	1.8%
18,000	18,477	496	719	75.4%	1,670	499	2,169	247	2,831	1.9%
19,000	19,494	415	605	77.8%	1,737	519	2,256	215	3,046	1.8%
20,000	20,985	931	1,200	82.4%	2,010	600	2,610	559	3,605	2.2%
22,000	22,957	748	953	86.1%	2,273	679	2,952	508	4,113	2.3%
24,000	24,917	539	663	88.7%	2,408	719	3,127	388	4,501	2.3%
26,000	26,984	445	558	90.9%	2,568	767	3,336	341	4,842	2.3%
28,000	28,969	329	418	92.5%	2,560	765	3,325	252	5,093	2.1%
30,000	32,246	503	630	94.9%	2,370	1,580	3,950	795	5,888	3.9%
35,000	37,234	296	354	96.3%	2,833	1,889	4,722	559	6,447	4.2%
40,000	42,358	194	229	97.2%	3,185	2,124	5,309	412	6,859	4.2%
45,000	47,344	123	151	97.8%	3,765	2,510	6,275	309	7,168	4.3%
50,000	65,402	370	455	99.5%	5,329	3,553	8,882	1,314	8,482	4.4%
100,000	195,778	98	126	100.0%	12,514	8,342	20,856	818	9,300	3.3%

Sources: Inland Revenue, 1997, Table 3.8; Inland Revenue, unpublished.

TABLE A.2
Distribution of Tax Credit by Income Group: Comprehensive Income Taxation

Lower bound of income band (£ p.a.)	Average income (£ p.a.)	Number of people claiming tax credit (thous.)	Number of taxpayers (thous.)	Cumulative number in income band as % of all taxpayers	Average contribution pre-credit ^a (£ p.a.)	Average value of tax credit per claimant (£ p.a.)	Total pension contribution (£ p.a.)	Cost of tax credit for each income group (£ billion)	Cumulative cost of tax credit (£ billion)	Tax credit as % of group income (pre-tax)	Average amount better off per capita ^b (£ p.a.)
3,525	3,775	141	547	2.1%	531	354	885	50	50	1.3%	31
4,000	4,240	135	582	4.4%	555	370	925	50	100	1.2%	31
4,500	4,731	130	714	7.1%	703	468	1,171	61	161	1.3%	37
5,000	5,244	162	885	10.6%	710	474	1,184	77	238	1.5%	48
5,500	5,747	196	861	13.9%	727	485	1,212	95	333	1.7%	61
6,000	6,470	440	1,610	20.1%	797	531	1,329	234	566	2.0%	83
7,000	7,514	455	1,730	26.8%	952	634	1,586	289	855	2.2%	104
8,000	8,466	573	1,600	33.0%	1,062	708	1,770	406	1,261	3.0%	139
9,000	9,489	572	1,440	38.6%	1,048	699	1,747	400	1,660	2.9%	153
10,000	10,531	653	1,450	44.2%	1,042	695	1,737	454	2,114	3.0%	173
11,000	11,475	664	1,270	49.1%	1,062	708	1,770	470	2,584	3.2%	204
12,000	12,490	671	1,240	53.9%	1,103	735	1,838	493	3,077	3.2%	208
13,000	13,449	686	1,170	58.5%	1,103	735	1,838	504	3,582	3.2%	209
14,000	14,457	636	1,060	62.6%	1,103	735	1,838	467	4,049	3.1%	194
15,000	15,476	585	984	66.4%	1,103	735	1,838	430	4,479	2.8%	192
16,000	16,478	574	862	69.7%	1,103	735	1,838	422	4,901	3.0%	194
17,000	17,477	513	763	72.7%	1,103	735	1,838	377	5,278	2.8%	186
18,000	18,477	496	719	75.4%	1,103	735	1,838	365	5,642	2.7%	163
19,000	19,494	415	605	77.8%	1,103	735	1,838	305	5,947	2.6%	148
20,000	20,985	931	1,200	82.4%	1,103	735	1,838	684	6,632	2.7%	105
22,000	22,957	748	953	86.1%	1,103	735	1,838	550	7,182	2.5%	44
24,000	24,917	539	663	88.7%	1,103	735	1,838	396	7,578	2.4%	13
26,000	26,984	445	558	90.9%	1,103	735	1,838	327	7,905	2.2%	-26
28,000	28,969	329	418	92.5%	1,103	735	1,838	242	8,147	2.0%	-23
30,000	32,246	503	630	94.9%	1,103	735	1,838	370	8,516	1.8%	-675
35,000	37,234	296	354	96.3%	1,103	735	1,838	218	8,734	1.7%	-965
40,000	42,358	194	229	97.2%	1,103	735	1,838	143	8,876	1.5%	-1,176
45,000	47,344	123	151	97.8%	1,103	735	1,838	90	8,967	1.3%	-1,446
50,000	65,402	370	455	99.5%	1,103	735	1,838	272	9,239	0.9%	-2,291
100,000	195,778	98	126	100.0%	1,103	735	1,838	72	9,311	0.3%	-5,917

^aAdjusted for ceiling.

^bAcross all of income group.

Sources: Derived from Inland Revenue (1997, Table 3.8) and Inland Revenue (unpublished).

TABLE A.3
Distribution of Tax Credit by Income Group: Expenditure Taxation

Lower bound of income band (£ p.a.)	Average income (£ p.a.)	Number of people claiming tax credit (thous.)	Number of taxpayers (thous.)	Cumulative number in income band as % of all taxpayers	Average contribution pre-credit ^a (£ p.a.)	Average value of tax credit per claimant (£ p.a.)	Total pension contribution (£ p.a.)	Cost of tax credit for each income group (£ billion)	Cumulative cost of tax credit (£ billion)	Tax credit as % of group income (pre-tax)	Average amount better off per capita ^b (£ p.a.)
3,525	3,775	141	547	2.1%	510	340	850	48	48	1.3%	29
4,000	4,240	135	582	4.4%	510	340	850	46	94	1.1%	27
4,500	4,731	130	714	7.1%	510	340	850	44	138	0.9%	21
5,000	5,244	162	885	10.6%	510	340	850	55	193	1.1%	27
5,500	5,747	196	861	13.9%	510	340	850	67	260	1.2%	32
6,000	6,470	440	1,610	20.1%	510	340	850	150	409	1.3%	35
7,000	7,514	455	1,730	26.8%	510	340	850	155	564	1.2%	27
8,000	8,466	573	1,600	33.0%	510	340	850	195	759	1.4%	8
9,000	9,489	572	1,440	38.6%	510	340	850	194	953	1.4%	11
10,000	10,531	653	1,450	44.2%	510	340	850	222	1,175	1.5%	13
11,000	11,475	664	1,270	49.1%	510	340	850	226	1,401	1.5%	12
12,000	12,490	671	1,240	53.9%	510	340	850	228	1,629	1.5%	-6
13,000	13,449	686	1,170	58.5%	510	340	850	233	1,863	1.5%	-23
14,000	14,457	636	1,060	62.6%	510	340	850	216	2,079	1.4%	-43
15,000	15,476	585	984	66.4%	510	340	850	199	2,278	1.3%	-42
16,000	16,478	574	862	69.7%	510	340	850	195	2,473	1.4%	-69
17,000	17,477	513	763	72.7%	510	340	850	174	2,647	1.3%	-79
18,000	18,477	496	719	75.4%	510	340	850	169	2,816	1.3%	-110
19,000	19,494	415	605	77.8%	510	340	850	141	2,957	1.2%	-123
20,000	20,985	931	1,200	82.4%	510	340	850	317	3,274	1.3%	-202
22,000	22,957	748	953	86.1%	510	340	850	254	3,528	1.2%	-266
24,000	24,917	539	663	88.7%	510	340	850	183	3,711	1.1%	-308
26,000	26,984	445	558	90.9%	510	340	850	151	3,862	1.0%	-341
28,000	28,969	329	418	92.5%	510	340	850	112	3,974	0.9%	-334
30,000	32,246	503	630	94.9%	510	340	850	171	4,145	0.8%	-990
35,000	37,234	296	354	96.3%	510	340	850	101	4,246	0.8%	-1,295
40,000	42,358	194	229	97.2%	510	340	850	66	4,312	0.7%	-1,511
45,000	47,344	123	151	97.8%	510	340	850	42	4,354	0.6%	-1,768
50,000	65,402	370	455	99.5%	510	340	850	126	4,480	0.4%	-2,612
100,000	195,778	98	126	100.0%	510	340	850	33	4,513	0.1%	-6,224

^aAdjusted for ceiling.

^bAcross all of income group.

Sources: Derived from Inland Revenue (1997, Table 3.8) and Inland Revenue (unpublished).

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