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Simplifying the Formal Structure of UK Income Tax

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Abstract

The tax system in the UK has developed through numerous ad hoc changes to its structure. This has resulted in a situation where the way in which the tax system is described does not readily correspond to the marginal rate schedule actually faced by taxpayers. This paper outlines the connection between the formal description of the tax system and the marginal rate schedule faced by taxpayers. It argues that the operation of the tax system would be greatly clarified if it were described explicitly in terms of its marginal rate schedule.

JEL classification: H24, D83.

I. INTRODUCTION

The basic structure of the UK income tax system has become more complex since the start of the 1990s. In particular, certain tax allowances, such as the married couple's allowance, have been converted into non-refundable tax credits, and changes to mortgage interest tax relief mean that its effect is similar to a refundable tax credit. At the same time, the basic tax system retains an allowance and rate/band structure. The combined effect of these elements means that the way in which the tax system is described does not readily correspond to the structure of marginal rates faced by taxpayers.

Presentation has always been an important consideration in the development of policies, especially in the area of income tax reform where changes have a high public profile. The way in which the current tax is expressed makes certain

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potentially desirable policies difficult to implement without changing other elements of the tax system. In addition, it allows certain plausible-sounding, but in reality spurious, justifications to be made for policy changes. This paper argues that these problems can largely be mitigated by describing the tax system in terms of the actual marginal rate schedule faced by taxpayers instead of the current use of allowances and credits.

Section II explains the operation of the rate/band structure, tax allowances and credits in terms of the effective marginal rate schedule faced by taxpayers. Section III proposes a means of describing the UK tax system in terms of this effective marginal rate schedule. It also examines some of the problems entailed by such a move. Section IV looks at a number of potential reforms to the tax system, the impact and implementation of which would be clarified by simplifying the way in which the tax system is described.

II. THE UNDERLYING STRUCTURE OF THE INCOME TAX SYSTEM

The income tax schedule in the UK is based on a rate/band structure. Each band is characterised by two things — a range of income over which the band extends and a rate at which income inside the band is taxed. The upper end of the band's income range is the band limit. The lower end of the income range will always be the limit of the band below.

In addition to the rate/band structure, the UK tax system contains a number of tax allowances. In general, a tax allowance is characterised by two elements — a restriction rate and an amount. Taxpayers can offset income up to this amount against the allowance. If the rate of tax on the offset income is less than or equal to the restriction rate, no tax is paid on the offset income. If the rate of tax is greater than the restriction rate, the offset income is taxed at the difference between the rate of tax and the restriction rate.

The UK's personal allowance is a special case of the general tax allowance where there is no restriction rate — an unrestricted allowance. In this case, no tax is paid on income offset against the allowance, regardless of the rate of tax on that income.

The final elements of the UK tax system considered here are tax credits. A tax credit is simply a reduction in the taxpayer's final tax liability. The final tax liability will therefore be the initial tax liability, as calculated in the absence of the credit, less the value of the credit. If the initial tax liability is less than the value of the credit, the final tax liability will be negative. If the credit is refundable, then people with a negative final tax liability receive some form of payment from the government. If the credit is non-refundable, then the final tax liability is set to zero but no payment is made to the taxpayer.

¹The distinction between refundable and non-refundable credits is the same as the OECD distinction between non-wastable and wastable tax credits. See OECD (1996, p. 32).

TABLE 1
Formal Tax Structure, April 1997

Allowances	
Personal allowance	£4,045
implemented as	Unrestricted allowance
Married couple's allowance	£1,830
restricted to	15%
implemented as	Tax credit
Rates	
Lower rate	20%
Basic rate	23%
Higher rate	40%
Bands (taxable income)	
Lower-rate limit	£4,100
Basic-rate limit	£26,100
Higher-rate limit	Not applicable

The married couple's allowance (MCA) in the UK tax system is described as a tax allowance restricted to 15 per cent, but this is somewhat misleading. It is not a tax allowance as defined above. The MCA is implemented as a non-refundable tax credit, the value of which is the amount of the allowance multiplied by its restriction rate.

A formal description of the elements of the UK income tax system considered here is given in Table 1. All the values are those that apply to under-65-year-olds and that came into force in April 1997.²

So how would this formal description of the tax system translate into the effective schedule of marginal tax rates faced by taxpayers?³ In the absence of allowances and credits, the marginal rate schedule would be given directly by the rate/band structure. The marginal rate on taxpayers' additional income would be the rate of the highest band at which they paid tax.

The marginal rate schedule in the absence of allowances is shown in the left-hand block of Figure 1. The first £4,100 of income would be taxed at a marginal rate of 20 per cent. At £4,100, the lower-rate limit would be reached and the marginal rate would increase to 23 per cent. At £26,100, the basic-rate limit would be reached and the taxpayer would start paying tax at the higher rate of 40 per cent. Under such a system, the points at which taxpayers move between

²See, for example, Tolley's (1997) and Inland Revenue Budget Press Release Rev 1, November 1996.

³The terms 'formal' and 'effective' are used here to distinguish between the way in which the system is described and the actual marginal tax rates faced by taxpayers. The terms do not have any behavioural interpretation often associated with them in economics.

FIGURE 1

Effective Marginal Rate Structure for Tax Allowances: Personal Allowance of £4,045

No allowances

Personal allowance of £4,045

Note: This figure is not to scale.

marginal rates — the effective band limits — would be the same as the formal limits on the bands as given in Table 1.

The introduction of tax allowances changes this simple structure. For unrestricted allowances such as the personal allowance, we normally employ the notion of taxable income.⁴ Taxable income is defined as gross income less the amount of the allowance.⁵ The formal limits of the bands are then quoted in terms of taxable income, as is done in Table 1.

The marginal rate schedule including the unrestricted personal allowance is shown in the right-hand block of Figure 1. If a person has no taxable income (i.e. gross income is less than the amount of the allowance), then there is no income tax

⁴Taxable income is a convenient way of implementing an unrestricted allowance. However, this method of expressing the operation of the allowance is incapable of being generalised to handle the case of restricted allowances. The use of taxable income should be seen as a simple means of making unrestricted allowances operational and not as the basis of a general description of the structure of allowances.

⁵The consequence of any other tax-relieved income is ignored for the moment.

to be paid. In effect, this introduces a zero-rate band, the width of which is the amount of the allowance — £4,045 in the case of the personal allowance.

The unrestricted allowance also increases the points at which marginal tax rates change by the amount of the allowance. Now taxpayers start paying basic-rate tax at £8,145, the sum of the amount of the allowance and the width of the lower-rate band. So while the formal lower-rate limit is £4,100, the effective lower-rate limit is £8,145. Similarly, the effective basic-rate limit is now £30,145 rather than £26,100.

This has two major consequences. The most obvious is that there is now a distinction between the formal and effective tax systems which produces confusion. For example, it is quite common to hear even relatively well-informed commentators make statements that imply that higher-rate tax is payable on gross income exceeding £26,100 rather than £30,145.

The second consequence is that the effective band limits now depend on the amount of the allowance. If the amount of the allowance is altered, in the absence of other measures, the effective band limits are also adjusted. This can have a serious effect on the presentation of potential reforms.

While the UK tax system does not contain any restricted allowances,⁶ there has been much speculation about restricting the personal allowance. The effect of a restricted allowance on the effective marginal rate schedule is identical to that of an unrestricted allowance for tax bands with rates below the restriction rate. A zero-rate band, the width of which is equal to the amount of the allowance, is introduced. In addition, the effective band limits are increased by the amount of the allowance where the band rate is below the restriction rate of the allowance.

However, the introduction of a restricted allowance does not change the band limits on bands with rates equal to or exceeding the restriction rate. Intuitively, this is because there is no additional tax relief when the rate of tax increases, as the relief is capped by the restriction rate.⁷

The marginal rate schedule produced by introducing a personal allowance restricted to 23 per cent is shown in Figure 2. As with the unrestricted allowance, the restricted allowance introduces an effective zero-rate band and increases the effective lower-rate limit to £8,145. But it does not affect the basic-rate limit. When income reaches £26,100, the next £1 of income will be taxed at 40 per cent. For an unrestricted allowance, when the rate of tax increased to 40 per cent, the allowance could be offset against the additional tax liability. However, for

⁶The MCA is a tax credit, not a restricted allowance.

⁷This assumes that the allowance is restricted to a rate equal to a rate in the formal tax system, and that the amount of the allowance is less than the width of any of the bands. If this is not the case, restricted allowances introduce new effective bands into the tax system. For example, restricting the personal allowance to 20 per cent with no compensating changes to the formal limits in the tax system would mean that pensioners would be taxed at a marginal rate of 3 per cent over a range of income.

FIGURE 2

Effective Marginal Rate Structure for Tax Allowances: Personal Allowance of £4,045 Restricted to 23%

No allowances

Personal allowance restricted to 23%

Note: This figure is not to scale.

the restricted allowance, the relief is limited to 23 per cent, so the allowance cannot be offset against the additional tax liability.⁸

 8 To understand why this is the case, we need to consider how tax payments would change as income crosses the band limits as a result of the introduction of the allowance. In the absence of the allowance, when income exceeds £4,100, the marginal rate of tax on each additional £1 of income increases from 20 per cent to 23 per cent.

With an allowance of £4,045 restricted to 23 per cent, when income is £4,100, each £1 of the allowance is offset against £1 of income that is taxed at 20 per cent. As the rate of tax is below the restriction rate on the allowance, the tax on this £4,045 is completely offset. So the only tax paid is 20 per cent of the £55 of income that cannot be offset against the allowance.

When income increases from £4,100 to £4,101, the additional £1 of income will be taxed at 23 per cent. The rate of tax is equal to the restriction rate on the allowance, so the tax incurred can be fully offset at this rate. This means that all the tax to be paid on this £1 of income can be offset against £1 of the allowance. But as this £1 of the allowance was being offset against £1 taxed at 20 per cent, the amount of income that cannot be offset against the allowance increases to £56. This extra £1 of income is taxed at 20 per cent, so the effective marginal tax rate faced by the taxpayer remains 20 per cent.

This process continues until income reaches £8,145, when all the income being offset against the allowance would be taxed at 23 per cent. If income increases beyond this point, the allowance is not large enough to offset all income taxed at 23 per cent, so the effective marginal rate faced by the taxpayer moves to 23 per cent.

For a restricted allowance, the effective limits on bands where the rate of tax is below the restriction rate still depend on the amount of the allowance. The effective limits on bands whose rates are equal to or above the restriction rate are unaffected by the allowance and thus will be unaffected by an adjustment to the value of the allowance. In the case of restricting the personal allowance to 23 per cent, the formal and effective lower-rate limits differ, while the formal and effective basic-rate limits are both the same, at £26,100.

The final elements of the UK tax system considered here are lump-sum tax credits — that is, credits whose values are not dependent on the level of income. If the credit is refundable, it has no effect on the marginal rate schedule. The effective band limits are unaltered and no zero-rate band is introduced. Of course, while marginal rates are unaffected, at all income levels taxpayers are better off by the value of the credit, relative to the world in which the credit did not exist.

For a non-refundable tax credit, again the effective band limits are unaffected but in this case a zero-rate band is introduced. If the initial tax liability is less than the value of the credit, the final tax bill is set to zero but no payment is made to the taxpayer in relation to the unused portion of the credit. So no tax will be paid until the level of income reaches the point at which the initial tax liability equals the value of the credit. In effect, we have introduced a zero-rate band, the width of which depends on the value of the credit *and* the underlying rate/band structure of the tax system.

As an example, consider the operation of the married couple's allowance in the current UK tax system. The impact of the MCA on the marginal rate schedule is shown in Figure 3. As noted above, while the MCA is formally an allowance of £1,830 restricted to 15 per cent, this description is somewhat misleading. The MCA is implemented as a non-refundable tax credit worth £274.50. The £274.50 figure comes from multiplying the amount of the allowance — £1,830 — by the restriction rate — 15 per cent. To have a tax liability of £274.50, one would need to have £1,372.50 of income taxed at 20 per cent. Combining this with the zero-rate band produced by the £4,045 unrestricted personal allowance means that the effective zero-rate band for taxpayers receiving the MCA is £5,417.50.

When income reaches £26,100, the next £1 of income will be taxed at 40 per cent. The allowance is restricted to 23 per cent, so the tax incurred can only be offset at this rate. This means that 17p of the tax to be paid on this £1 of income cannot be offset against the allowance. But, in addition, there is now another £1 of income taxed at 23 per cent that cannot be offset against the allowance, so an additional 23p is due on this £1. The overall increase in tax is 40p, so the effective marginal rate moves up from 23 per cent to 40 per cent.

⁹For credits where the value is dependent on income, such as the US Earned Income Tax Credit, the effect on the marginal rate schedule will naturally be determined by the specific rules governing the credit.

FIGURE 3 Effective Marginal Tax Rate Structure for the MCA

Person not receiving MCA

Person receiving MCA

Note: This figure is not to scale.

However, the effective lower-rate limit is not affected by the MCA, so this will remain at £8,145 (£4,100 plus the effect of the £4,045 unrestricted personal allowance). The *effective* width of the band of income taxed at 20 per cent is only £2,727.50, rather than £4,100. The extension of the zero-rate band produced by the MCA has, in effect, 'eroded' the effective width of the 20 per cent band.

In summary, both unrestricted and restricted allowances introduce a zero-rate band, the width of which is equal to the amount of the allowance. With unrestricted allowances, the effective limits on all tax bands, in terms of gross income, are increased by the amount of the allowance. For restricted allowances, the same is true for bands whose rates are below the restriction rate. The limits on bands with rates equal to or in excess of the restriction rate are unaffected by the allowance. Lump-sum tax credits have no effect on the band limits, but non-refundable credits introduce a zero-rate band. The width of this band is determined by the amount of income at which the initial tax liability equals the value of the credit.

Given this, we can see how the formal description of the tax system can be translated into the effective marginal rate schedule faced by taxpayers. The personal allowance, but not the MCA, increases the effective band limits. The personal allowance and the MCA both introduce a zero rate. The zero-rate band introduced by the MCA effectively erodes the width of the lower-rate band, so that taxpayers face a marginal rate of 20 per cent on £2,727.50 of gross income, rather than on £4,100.

III. AN ALTERNATIVE WAY TO DESCRIBE THE TAX SYSTEM

Section II described how the formal structure of the tax system can be translated into the schedule of effective marginal rates faced by taxpayers. This formal structure is at best unhelpful and at worst misleading to those with limited understanding of its operation. It introduces differences between the formal and effective limits and widths of bands, and also means that the effective band limits are dependent on the amount of the allowances. Some of the undesirable consequences of this are discussed in Section IV.

Here we propose a simpler means of describing the tax system — that it is stated explicitly in terms of the effective marginal rate structure faced by taxpayers. This would be both simpler and more informative than the present system, and would also avoid the problems raised in Section IV. There are a number of complexities that would arise under this system and they are discussed here. However, it should be noted that these arise mainly from the fact that the new description would lay bare some of the eccentricities of the current tax system, rather than introducing new quirks of its own.

Table 2 shows how the tax system could be described in terms of its effective marginal rate structure for those under 65. This involves replacing the existing system of allowances and credits with a zero-rate tax band. The limit on the zero-rate band would differ depending on whether or not the MCA was received. The

TABLE 2

Income Tax System Described Using Zero-Rate Band for Those Under 65

Rates	
Zero rate	0%
Lower rate	20%
Basic rate	23%
Higher rate	40%
Bands	
Zero-rate limit	£4,045
Zero-rate limit (married couples)	£5,417.50
Lower-rate limit	£8,145
Basic-rate limit	£30,145

TABLE 3

Current Effective Marginal Rate Schedule for Pensioner Under 75 with MCA

Description	Upper limit	Rate
	(gross income)	
Zero-rate limit	£7,608.75	0%
Lower-rate limit	£9,320	20%
Income limit for age additions	£15,600	23%
Taper on personal allowance	£17,950	34.5%
Taper on MCA	£20,660	30.5%
Basic-rate limit	£30,145	23%
Higher rate	Not applicable	40%

quoted band limits correspond to the effective band limits faced by taxpayers. There is now no need to understand how unrestricted allowances, taxable income and tax credits operate. All that is required is an understanding of how the basic rate/band structure operates.

Currently, those over 65 receive higher personal and married couple's allowances. These additional allowances are tapered away when income exceeds a certain level — £15,600 in 1997–98. There are two points to be considered. First, the higher personal allowance, being unrestricted, affects the lower-rate limit as well as the point at which pensioners start paying tax. ¹⁰ Second, there is the question of how the taper on the allowances should be applied once income exceeds the income limit. Currently, the taper is applied to the personal allowance, and then to the MCA if it is being received. In both cases, the additional allowance is decreased by 50p for each additional £1 of income until the allowances are equal to the allowances received by non-pensioners. These tapers produce a marginal tax rate of 34.5 per cent while the personal allowance is being tapered and 30.5 per cent while the MCA is being tapered. The effective marginal rate structure for taxpayers aged between 65 and 75 receiving the MCA is shown in Table 3.

The difference in effective lower-rate limits between pensioners and non-pensioners could be reflected by continuing to allow the lower-rate limit to vary under the new system, so that pensioners have higher lower-rate limits than non-pensioners. However, the tax system would be more straightforward if there were only a single lower-rate limit. In this case, pensioners could be compensated by a higher zero-rate limit than would be implied by the current personal allowance in order to prevent there being losers from the change.¹¹

¹⁰The basic-rate limit is unaffected by these additional allowances, as they have been tapered away before it is reached.

¹¹Note that this is effectively the route taken to prevent pensioners losing from the restrictions to the MCA in 1994 and 1995.

TABLE 4

Possible Effective Marginal Rate Schedule for Pensioner Under 75 with MCA

Description	Upper limit	Rate
	(gross income)	
Zero-rate limit	£7,785	0%
Lower-rate limit	£8,145	20%
Income limit for age additions	£15,925	23%
Taper on additional zero-rate limit	£20,660	33%
Basic-rate limit	£30,145	23%
Higher rate	Not applicable	40%

The second issue is how the gains from the additional allowances should be tapered once income exceeds the income limit. We could, of course, explicitly include the tapering bands in the marginal rate schedule used to describe the tax system. However, this is rather inelegant, and there is no reason to retain the two marginal rates that derive from the MCA being a tax credit rather than an unrestricted allowance. A better idea would be to use a single taper rate. Withdrawing the additional level of the zero-rate limit at 50p for each £1 above the income limit translates into an effective taper rate of 33 per cent. The income limit on age allowances could be adjusted to prevent anyone losing from these changes to the taper. A possible marginal rate schedule, which prevents anyone from losing, for taxpayers aged between 65 and 75 receiving the MCA is shown in Table 4.

In terms of its impact, mortgage interest tax relief (MITR) is basically a refundable tax credit.¹² The value of the credit is the interest paid on the first £30,000 of outstanding debt on the mortgage. As such, MITR is a lump-sum credit, in the sense that its value is unrelated to income, so it does not affect the marginal rate schedule. So how would such a relief fit into a tax system that is described in terms of this schedule?

Historically, MITR operated as an unrestricted allowance. The amount by which it reduced tax liability depended not only on the mortgage, but also on the marginal rate at which tax was paid. Additionally, relief used to be given directly through tax codes. Currently, the vast majority of MITR is paid at source and its value is unrelated to income. ¹³

Under any new system, MITR would best be described as a benefit contingent on having a mortgage, in the same way as child benefit is a benefit contingent on having dependent children. Unless refundable tax credits are paid through the tax

¹²The vast majority of MITR is given at source, with the payment being made directly to the lender. A small amount is still paid through the tax system.

¹³For further details, see *Inland Revenue Statistics* 1996, p. 62.

system, there is little rationale for including them in the formal structure of the tax system.

This leads to the wider consideration of tax-relieved income. Certain income is not subject to income tax. An example in the UK is income disposed of as pension contributions within certain limits. Any such reliefs, where the income is entirely exempt from tax, are easily dealt with by reducing the amount of income for tax purposes.

However, in certain cases, income is only partially tax-relieved. For example, there was much speculation before the last Budget that the relief on income disposed of as pension contributions would be restricted to 23 per cent. How could such partial relief be granted under the proposed tax system?

One possibility would be to have band limits that varied according to individual circumstances. For example, relief could be provided by increasing the zero-rate limit by the amount of the income attracting tax relief. Provided the amount of the relieved income was less than the width of the lower-rate band, tax relief would be granted to all taxpayers at a rate of 20 per cent. If the zero-rate limit exceeded the lower-rate limit, then the effective lower rate would disappear from the tax system and part of the relief would be received at 23 per cent.

The facts that band limits would not only vary across groups but also across individuals, and that relief would be granted at a higher rate if the amount of relieved income increased, make this option unattractive. The latter problem could be avoided by increasing the lower-rate limit as well as the zero-rate limit.¹⁴

An alternative method would be to grant the relief as a non-refundable tax credit at a fixed rate, deducting the credit after the initial tax liability has been calculated. As the motivation of the proposals in this paper is to clarify the marginal rate structure, it seems undesirable to retain the idea of non-refundable tax credits which mean that the structure is obscured. The tax credit is, of course, identical to a movement in the zero-rate limit, but the calculation of the exact implied zero-rate limit is reasonably involved in the case where the zero-rate limit exceeds the lower-rate limit.

There is no conceptually clear way to introduce partial reliefs on certain forms of income. The use of tax credits provides the most easily implemented means of introducing such relief, but there is a tension between such measures and the driving force behind the proposed reforms. However, it should be borne in mind that the treatment of partially relieved income is already a conceptually complex area of the tax system.

¹⁴This would be identical to granting relief as a restricted allowance at 23 per cent, provided the amount of relieved income is below the basic-rate limit.

IV. ISSUES CLARIFIED UNDER A SIMPLIFIED DESCRIPTION OF THE TAX SYSTEM

One of the aims of the proposals outlined in Section III is to produce a tax system in which the description of potential reforms corresponds more closely to their actual impact. This section looks briefly at three areas, each of which has received a large amount of attention in recent years, where the proposals above would clarify the issues.

The first case looks at the effect of the introduction of a 10 per cent starting rate, a reform which is seemingly straightforward but in reality produces some rather unexpected results. In the second case — the extension of personal allowances — a potentially desirable reform is made more difficult to implement. In the final case — restricting the personal allowance to the basic rate — there is a justification often given for the change which at first sight appears plausible but on closer examination proves to be less clear-cut.

1. The Introduction of a 10% Starting Rate

The MCA introduces an effective zero-rate band, the width of which is determined by the rate/band structure of the underlying tax system. The current MCA, with a value of £274.50, produces a zero-rate band of £1,372.50 given that the starting rate of tax is 20 per cent. Reducing the starting rate of tax to 10 per cent would double the width of the resulting zero-rate band to £2,745.

However, the MCA does not affect the level of the effective limits on tax bands. So the effective width of the 10 per cent band would be reduced by £2,745. If the formal width of the 10 per cent band were less than £2,745, it would be completely eroded by the MCA. No taxpayer receiving the MCA would ever pay tax at a 10 per cent marginal rate, despite the fact that the formal description of the tax system would include a 10 per cent band. As it would cost more than £5 billion to introduce a 10 per cent band with a width of £2,745, it seems unlikely that any 10 per cent band introduced in the near future would exceed this width.

While there is nothing technically wrong with introducing a 10 per cent tax rate, it would seem rather odd to announce one when the effect for a large proportion of taxpayers would actually take the form of increasing the point at which they start paying tax, rather than taxing any of them at a 10 per cent marginal rate.

¹⁵For example, suppose the existing lower-rate band were replaced by a 10 per cent band covering £2,000 of income. £2,000 of income taxed at 10 per cent produces an initial tax liability of £200, which is less than £274.50, the value of the MCA. To have an initial tax liability of £274.50, taxpayers would have to have £2,000 of income taxed at 10 per cent and £323.91 taxed at 23 per cent. Allowing for the personal allowance, this means that taxpayers receiving the MCA would start paying tax when their income reached £6,368.91. But the 10 per cent band limit would be £6,045 (the £2,000 width of the band and the £4,045 personal allowance), so the band would be completely eroded by the MCA. Indeed, the effective width of the basic-rate band would be £323.91 less than suggested by its formal description.

TABLE 5

Possible Income Tax System Incorporating a 10% Starting Rate for Those Under 65

Rates	
Zero rate	0%
Starting rate	10%
Basic rate	23%
Higher rate	40%
Bands	
Zero-rate limit	£4,045
Zero-rate limit (married couples)	£5,417.50
Starting-rate limit	£6,045
Starting-rate limit (married couples)	£7,417.50
Basic-rate limit	£30,145

This problem derives from the fact that the effective zero-rate limit varies between those who receive the MCA and those who do not, while the effective 10 per cent rate limit would be the same for both groups. Under the reformed description of the tax system proposed in Section III, it would be straightforward to introduce a 10 per cent band that meant that all taxpayers would face a 10 per cent marginal rate at some point. All that is needed is a 10 per cent band limit that, like the zero-rate limit, varied across groups. Table 5 reproduces Table 2 but replacing the lower-rate band with a 10 per cent band that has an effective width of £2,000 for all taxpayers. ¹⁶

2. Increasing Personal Allowances

While it might be desirable to increase the income level at which people first become liable to pay tax, the point is often made that an increase in the personal allowance disproportionately benefits taxpayers with higher marginal rates. ¹⁷ This is because the allowance increase not only raises the point at which people first become liable to pay tax but also increases the lower- and basic-rate limits. This implies that higher-rate taxpayers receive greater cash gains than basic-rate taxpayers, who in turn receive more than lower-rate taxpayers.

There is, of course, an easy solution to this problem. To keep the effective limits the same in terms of gross income, one could simply reduce the level of these limits when they are quoted in terms of taxable income. So if £100 were

¹⁶For those under 65, this reform is identical to introducing a £2,000 10 per cent band under the current system and converting the married couple's allowance from a tax credit to an allowance of £1,372.50 restricted to 23 per cent.

¹⁷For example, the then Shadow Chancellor, Mr Gordon Brown, cited this argument as a reason for cutting the starting rate of tax in preference to increasing personal allowances (Letters to the Editor, *Financial Times*, 22 November 1995).

added to the personal allowance, the formal basic-rate limit would be reduced by £100 to £26,000. Both before and after such a change, taxpayers would move into higher-rate tax when their income reached £30,145.

The problem with this solution is that it often confuses those who are not entirely clear as to the structure of the tax system or leads to the proposal being dismissed as some form of sleight of hand. Given that increases in personal allowances often provide a more sensible alternative to other tax policies, it is unfortunate to see them dismissed in this way. The problem arises solely because the way the tax system is described means that the effective band limits are dependent on the amount of the personal allowance. Explicitly describing the tax system in terms of the effective marginal rate schedule would allow the zero-rate limit to be increased, moving people out of tax, without any need for adjustments to the lower- or basic-rate limits.

3. Restricting the Personal Allowance

In recent years, there has been a large amount of speculation about restricting the personal allowance to 23 per cent. As Section II showed, this would mean that the effective basic-rate limit would be reduced by £4,045. One argument in favour of such a move is that the effective basic-rate limit would no longer depend on the value of the personal allowance, so the allowance could be increased without larger cash gains going to higher-rate taxpayers.

But two other arguments are often made for the restriction of the personal allowance. The first is that people do not understand what this means, so it is a good way of raising revenue. If we are interested in a transparent tax system, this must be considered a reason against, rather than in favour of, restricting allowances. The second argument has a more plausible initial ring to it, that personal allowances are worth more to higher-rate taxpayers, so some notion of 'fairness' can be employed to justify the removal of this anomaly.

But the fact that the personal allowance is worth more to higher-rate taxpayers again derives from the way we describe the tax system. If the current personal allowance were abolished, basic-rate taxpayers would lose £930.35, of which £809 would be caused by the removal of the effective zero-rate band and £121.35 would be caused by the reduction in the lower-rate threshold. Higher-rate taxpayers would lose an additional £687.65 from the reduction in the basic-rate limit.

It is not so much that there is one thing — the personal allowance — that is worth more to higher-rate taxpayers, but that the removal of the personal allowance produces three changes, one of which — the reduction in the basic-rate limit — would increase the tax liability of higher-rate taxpayers. If any notion of fairness were to be employed to justify a restriction to the personal allowance, it should also be able to justify a reduction in the effective basic-rate limit by £4,045, which is an identical change in terms of the tax structure faced by

taxpayers. The nature of this argument is made clearer if the change to the basicrate limit is explicit, rather than being obscured behind an alteration to the operation of a tax allowance.

V. CONCLUSIONS

The current way in which the tax system is described has developed through a series of historical changes. These have led to a situation in which the way we speak about the tax system hinders rather than helps the understanding of its workings and the impact of potential changes. With a new government committed to restructuring the tax system, it would be desirable if, at the same time, a greater degree of clarity were introduced.

This paper has outlined an alternative means of describing the tax system in terms of the effective marginal rate schedule faced by taxpayers. The main benefit of such a move would be a greater degree of transparency in the way the current system works. As the examples in Section IV show, this increased transparency would be helpful in clarifying the actual impact of proposed reforms to the system.

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