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Author:

Whiteford, Peter

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INCOME TESTING THE TAX
THRESHOLD

Peter Whiteford

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INCOME TESTING THE TAX THRESHOLD

Peter Whiteford

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ABSTRACT

This paper discusses some recent proposals to replace the tax threshold or zero step in the income tax rate scale with income-tested tax rebates. The paper outlines the rationale for current arrangements and shows how they have developed over the past twenty years. The paper then evaluates the specific proposals made most notably by the Centre of Policy Studies at Monash University, in terms of their redistributive effects and implications for effective marginal tax rates and work incentives.

1. INTRODUCTION

At the National Taxation Summit in July 1985, as well as since that time, discussion of tax reform has concentrated on issues relating to the broadening of the tax base, notably the then proposed broad-based consumption tax, the fringe benefits tax and capital gains taxation. When considering the degree of both horizontal and vertical equity sustained by the tax system, these issues of the comprehensiveness of the base are undoubtedly of the greatest significance. Nevertheless, at the Summit considerable attention was given to the taxation rate scale, the desired degree of progressivity in the scale and various proposals for the 'abolition' of the tax threshold, with or without offsetting measures such as the introduction of tax rebates to protect low income groups.

Differing options were put forward, the best known being that of the Centre of Policy Studies (COPS) at Monash University. Other supporters of a flatter income tax scale, with or without some form of threshold, included the Housing Industry Association, the National Farmers' Federation, the Australian Council of Local Government Associations, the Australian Tourist Industry Association, and the then Premier of Queensland.

Academic economists at the Summit, with the exception of the original proponents, were generally negative about proposals to abolish or income-test the threshold. On the first day of the Summit, in discussing the Government's preferred reform option, Head had noted that 'there are, however, alternative scenarios available, some of them offering or purporting to offer to draw revenue, as it were, out of a hat, out of thin air, by taxing the threshold and in a variety of other extremely unlikely ways' (National Taxation Summit, 1985, p.70). Sieper supported the proposal to extend the pay-as-you-earn and prescribed payments systems as far as possible, but described the drawbacks of the COPS scheme in some detail. The COPS proposal was seen as capable of targeting assistance to the needy, but involved high effective marginal tax rates over the range where the rebates replacing the threshold abated, a range of incomes much wider than those then relevant to recipients of the Family Income Supplement (FIS), for example (National Taxation Summit, 1985, p.99). Apps also noted that any erosion of the threshold would shift the tax burden disproportionately on to working married women and low income earners (National Taxation Summit, 1985, p.237). Groenewegen (National Taxation Summit, 1985, p.233) stated that 'comprehensiveness in the income tax base is, in what has been announced, very spuriously achieved in the arrangements relating to the threshold. I have grave doubts and reservations which I cannot voice until I have seen the details of the arrangements'.

The strongest criticisms of the COPS proposal came at this time from the Department of Finance:

It is axiomatic that, unless and until any efficiency gains from a tax reform which is initially revenue neutral are achieved, **tax cuts for the winners can only be financed by tax increases on the losers.** It is an illusion to suppose that the higher income earners who gain from the Centre's proposals can be made to pay for part of the tax cuts from which they benefit by imposing on the 'first' part of their incomes a phantom tax schedule which is not applied to lower income earners themselves.

In espousing a 'now you see it, now you don't' tax threshold, the Centre of Policy Studies appears to have confused itself. (1985, p.9)

Despite this relative unanimity, for the Summit, others were not convinced that raising the threshold was necessarily the most equitable way of providing tax cuts (McBean, National Taxation Summit, 1985, p.173). Following this, the Prime Minister in summing up stated that it was 'appropriate for government, in the process now of discharging its obligations to move to the creation of a final package, to look at whether it may not be appropriate to look at the abolition of the threshold and, at the whole question of dependent spouse rebates and family allowances' (National Taxation Summit, 1985, p.227).

In the event, the Statement on **Reform of the Australian Taxation System** made by the Treasurer in September 1985 foreshadowed an increase in the tax threshold, its limitation to a pro-rata basis for persons entering the Australian workforce for the first time or leaving the workforce permanently, and no changes at all to family allowances or the dependent rebates (Keating, 1985, p.54).

These developments have not reduced interest in the role of the tax threshold. Further refinements of the original proposals have been made (Porter, Cox and Bascand, 1985; Freebairn, Porter and Walsh, 1987), while other commentators have also suggested either income-testing of the threshold (Grbich, 1986) or its complete abolition (Tingle, 1986).

The purpose of this paper is to evaluate the arguments for and against such changes to the rate scale. Reference is also made to the dependent rebates and family allowances where appropriate. The paper is structured as follows. Section 2 outlines the operation of current Australian arrangements and how they have developed in the last twenty years. Limited comparisons with international practices are made. Section 3 summarises the main sets of proposals. In Section 4, the arguments for and against each approach are discussed with reference to the fundamental objectives of providing a tax threshold and the criteria of equity and efficiency.

2. CURRENT ARRANGEMENTS AND HOW THEY HAVE DEVELOPED

2.1 The rate scale and the tax threshold

The key feature of the income tax system with which this paper is concerned is the zero rate step in the tax rate scale, also known as the tax threshold. Table 1 shows the rate scales in effect in 1986 and 1987, and subsequently.

The rate scale has been considerably simplified in recent years. For most of the 1950s and 1960s there were twenty-nine steps in the scale. This was reduced to fourteen steps in 1974-75 and further reduced to seven steps in 1975-76. From 1 February 1978 a four step scale was introduced, which generally¹ remained in place until the introduction of the six step scale in 1984-85. Recent changes have reduced the number of steps to five (including the zero step).

When looking at the circumstances of social security recipients and other low income groups the most significant component of the rate scale is the zero rate step. This threshold has the obvious effect of maintaining the first \$5 100 of all taxpayers' incomes free from tax. If there were no tax threshold, and taxpayers paid tax at the next rate of twenty-four per cent, then the additional tax for all taxpayers would be \$1 224 per year or around \$23.50 per week. As well, persons with incomes currently below the tax threshold would become liable for income tax for amounts up to this \$23.50 per week, depending on their incomes.

The level of the tax threshold is a major determinant of overall income tax collections and significantly affects the tax liabilities of most taxpayers as well as those of low income groups. On the basis of 1986-87 taxation statistics, it can be roughly estimated that the 7.2 million taxable individuals had more than \$36 000 million in taxable income taxed at the zero rate. If there had been no tax threshold and the twenty four per cent rate applied from the first dollar, these persons would have paid around \$8 700 million in additional income tax in 1986-87, and consequently income tax revenues would have been around twenty-five per cent higher than they actually were.

¹ There was a five step scale in 1982-83, but a four step scale was reintroduced in 1983-84.

TABLE 1: PERSONAL INCOME TAX RATE SCALES *
1986, 1987 AND AFTER

1. Tax scale Range of taxable income (\$ per annum)	Marginal Rate (cents per \$)		
	Pre December 1986	From December 1986	From July 1987
0 - 4595	0	0	0
4596 - 5100	25	0	0
5101 - 12500	25	24	24
12500 - 12600	30	24	24
12601 - 19500	30	29	29
19501 - 28000	46	43	40
28001 - 35000	48	46	40
35001 and over	60	55	49

2. Rebates (In 1988-89)			
Dependent spouse, daughter/housekeeper without children ♦		\$830	pa
Dependent spouse, with children ♦		\$1 030	pa
Sole parent		\$780	pa
Pensioner +		\$430	pa
Beneficiary ♦			
- single		\$260	pa
- married		\$600	pa

Notes:

- * Does not include the effects of the Medicare levy.
 - ♦ The dependent spouse rebate is reduced by \$1 for every \$4 by which the dependent (legal or de facto) spouse's income exceeds \$282 pa.
 - + The pensioner rebate is reduced by 12.5 cents for every \$1 by which the pensioner's taxable income exceeds \$6 892 in 1988-89.
 - ❖ The beneficiary rebates are reduced by 12.5 cents for every \$1 by which the beneficiary's taxable income in 1988-89 exceeds \$6 184 in the case of singles and \$11 059 in the case of (legal or de facto) married persons.
-

It would be a mistake, however, to describe this \$8 700 million as the 'cost' of the tax threshold, since the cost of current arrangements can only be assessed relative to the costs of alternative arrangements. But there is an unavoidable circularity - an additional \$8 700 million of revenue would finance very substantial cuts in income tax rates, but any cut in the first rate would reduce the revenue from taxing this slice of income. Moreover, a substantial part of the \$36 000 million taxed at the zero rate was made up of taxable social security payments (over \$9 000 million in 1986-87). Unless it were considered desirable to reduce the real value of those payments it would be necessary to protect this taxable income through some other means, with the consequent effect of reducing the revenue apparently available. Perhaps a more accurate indicator of the expensiveness of the zero rate step is the cost to revenue of increasing it. It is estimated that it would have cost around \$840 million in revenue foregone for a \$500 a year increase in the tax threshold in 1987-88 (Collins and Madden, 1987, p.13).

It should be noted, as this discussion suggests, that there are alternative ways of achieving the effects of the zero rate step. Since this step reduces all taxpayers' tax liabilities, it would be possible to apply the twenty-four per cent step from the first dollar of income, and provide a general rebate of tax of \$1 224 to all taxpayers. In terms of taxpayers' annual disposable incomes, the effect would be the same as that of the current system.

In fact, the zero rate step has only been included in the rate scale since February 1978. Immediately prior to this there was a rebate of the general sort just described. This rebate was introduced in the 1975-76 financial year. Up to that time there had been a more complicated system under which an effective threshold applied only to low income earners. In 1974-75, for example, the last year of this low income threshold, taxpayers faced a rate of 1 cent in the dollar on the first \$1 000 of taxable income, 7 cents in the dollar on the next \$1 000 of taxable income, and so on. Persons with taxable incomes up to \$1 040 per year paid no tax at all, however, while persons with higher incomes paid tax on all their taxable income, including the first \$1 040. This arrangement was modified by phase-in provisions broadly similar to current Medicare levy phase-in arrangements. In the 1974-75 case, persons with incomes of \$1 040 per year and above paid tax at the rate of 66.7 cents in the dollar on incomes above \$1 040 until at \$1 061 they reached the tax liability they would have had under the standard scale, whereupon they rejoined it.

It should also be noted that the basic threshold does not or did not necessarily bear directly on social security recipients. Until 1973-74, pensions paid to persons of age pension age were not taxable, and pensions to those below age pension age (with the exception of invalid pensions) did not become taxable until 1976-77. In addition,

between 1964-65 and 1973-74 there was an age allowance which provided further protection for persons of age pension age. This was replaced by an age rebate, which was then subsumed by general changes in 1975-76. Until 1982-83, the basic level of pension was below the tax threshold, and in that year a special pensioner rebate available to all pensioners, irrespective of age, was introduced. Rebates for beneficiaries were introduced in 1984-85. Because of these arrangements, at no stage in this period did pensioners with little or no income apart from their pensions have to pay tax. In contrast, between 1976-77 and 1984-85, beneficiaries faced increasing tax liabilities, but the exemption from tax of additional benefit for children in March 1984, together with the introduction of beneficiary rebates and the extension of the DSR to de facto couples in 1984-85 now protect beneficiaries without private income from paying tax.

2.2 The dependent rebates and family allowances

The effects of the tax threshold are further extended for different family types through the operation of the dependent rebates. The most important dependent rebates currently provided in the Australian system are the dependent spouse rebate (DSR) and the sole parent rebate (SPR). The effective tax liabilities of families are also significantly affected by the provision of family allowances (and the family allowance supplement).

The DSR is payable to taxpayers with a financially dependent spouse, at a rate of \$830 per year for those without dependent children and \$1 030 for those with dependent children. The rebate is reduced by \$1 for every \$4 by which the dependent spouse's income exceeds \$282 per annum, with the effect that the \$830 rebate is extinguished once the spouse's income reaches \$3 602 per annum and the \$1 030 rebate is fully phased away when the spouse's income reaches \$4 402. There is also an income test on the incomes of dependent children for the purposes of eligibility to the higher rate of DSR, with the effect that once the child's income exceeds \$1 785 per annum the higher rate is not available. In 1984-85 approximately 706 000 families received the benefit of the higher rate at a cost to revenue of around \$640 million, and nearly 400 000 couples received the lower rate at a cost to revenue of around \$240 million (Australian Taxation Office, 1986, p.48).

The sole parent rebate of \$780 per annum is available to single, widowed or divorced persons who have the sole care of a dependent child or dependent student, whose separate net income does not exceed \$1 785. In 1984-85 some 122 000 families benefited from this rebate at a cost to revenue of some \$83 million (Australian Taxation Office, 1986, p.48).

Family allowances are a cash payment made by the Department of Social Security to families with eligible children. Current rates are \$22.80 per month for families with one child, \$55.35 for two children, \$94.35 for three children, \$133.35 per month for families with four children, and an extra \$45.55 per month for each additional child. Family allowances are not taxed, but since October 1987 they have been subject to an income test, which reduces the level of payment by 25 cents for each \$1 of joint family income exceeding \$50 000 pa (plus \$2 500 pa for the second and subsequent child). At 30 June 1988 around 1.9 million families with 3.8 million children received family allowances, at an estimated cost in 1988-89 of around of \$1 300 million.

Family allowances replaced the previous system of child tax rebates in 1976, and thus in their origins as well as their practical effects, they can be considered analogous to the dependent rebates. The effect of the tax rebates is to return to eligible persons the tax for which they would otherwise have been liable. The rebates and family allowances in combination therefore increase the effective tax thresholds for different types of families. Table 2 illustrates the effective tax thresholds applicable to different types of families in 1988-89 as a consequence of adding the effects of the relevant rebates and family allowances to the basic threshold and adding the effects of family allowances to the two tax thresholds available to two income couples.

2.3 Current arrangements in perspective

Table 3 shows the level of the basic tax threshold for a single person since 1964-65 in nominal and real terms and expressed as a proportion of average weekly earnings (AWE).² The most notable features of this table are the decline in the real value of the basic threshold up to 1970-71, followed by a series of substantial real increases which reached a peak in 1978-79, when the threshold was 35 per cent of average weekly earnings. Since 1978-79 the real value of the threshold has declined substantially, and is now 40 per cent below its 1978-79 peak, although still considerably higher than it was in the 1960s and early 1970s.

Other things being equal, a real decline in the level of the threshold would imply that the tax liabilities of low income groups would have increased since 1978-79, although they should be lower than in the first part of the period surveyed. Other things have not been equal, however, and it is therefore necessary to take account of changes in rebates and family allowances, changes in tax rates and new spending programs before reaching firm conclusions about overall trends in the well-being of different types of taxpayers.

² Refers to total average weekly earnings for adult males.

**TABLE 2: EFFECTIVE TAX THRESHOLDS FOR DIFFERENT FAMILIES,
AUSTRALIA 1988-89**

Family or Income Unit Type	Effective Tax Thresholds	
	\$ pa	%
Single person	5 100	100.0
Sole parent, one child	9 490	186.1
Sole parent, two children	11 117.5	218.0
Couple, one spouse employed, one child	10 531.7	206.5
Couple, one spouse employed, two children	12 159.2	238.4
Couple, both spouses employed, no children	10 200	200.0
Couple, both spouses employed, one child	11 340	222.4
Couple, both spouses employed, two children	12 990	254.7

Note: Family allowances are treated as a tax rebate.

TABLE 3: LEVEL OF BASIC TAX THRESHOLD, 1964-65 TO 1988-89

Year	Level of Tax Threshold		
	Nominal (\$ pa)	Real ¹ (\$ pa)	% of AWE
1964-65	416	2 431	15.3
1965-66	416	2 345	14.7
1966-67	416	2 285	13.7
1967-68	416	2 210	13.0
1968-69	416	2 156	12.0
1969-70	416	2 087	11.1
1970-71	416	1 991	10.1
1971-72	416	1 863	9.1
1972-73	1 040	4 396	20.8
1973-74	1 040	3 890	18.0
1974-75	1 040	3 334	14.3
1975-76	2 519	7 153	30.5
1976-77	2 846	7 265	30.5
1977-78	2 402	7 745	32.2
1978-79	3 893	8 192	35.3
1979-80	3 893	7 438	32.1
1980-81	4 041	7 057	29.3
1981-82	4 195	6 637	26.6
1982-83	4 462	6 330	25.4
1983-84	4 595	6 096	24.1
1984-85	4 595	5 845	22.6
1985-86	4 595	5 393	21.1
1986-87	4 890	5 249	21.1
1987-88	5 100	5 100	21.0
1988-89	5 100	4 880	19.9

¹ In 1987-88 prices

A detailed exercise of this sort is outside the scope of this paper.³ Table 4, however, provides a basis for evaluating trends over time in the overall treatment of different types of taxpayers at different levels of income by comparing the average tax rates applying, after taking into account the effects of the dependent rebates and family allowances and family allowance supplement where appropriate. The first part of the table shows that the average tax rates of low income groups are as much affected by changes in the lower rates of tax as by changes in the level of the threshold. While Table 3 showed that the real value of the threshold increased substantially over this long period, Table 4 shows that average tax rates for single, low-income people also increased substantially - from 7.4 to 14.4 per cent, an increase of nearly 95 per cent in the average tax rate. In contrast, the increases in average tax rates were 69 per cent for a single taxpayer with a gross income equal to average weekly earnings and 61 per cent at twice AWE. It is also notable that for the period since 1983-84, when there have been reductions in the real value of the tax threshold, average tax rates for low income taxpayers have declined, a consequence of the cut in the first rate from 30 to 24 per cent. It can be concluded therefore that suggestions that the threshold or changes in the level of the threshold have in some sense been 'over-generous' are not meaningful in themselves - changes in the entire range of tax-transfer instruments must be taken into account.

Before turning to international comparisons, two further features of Table 4 are worth noting. First, both for couples with and without children increases in average tax rates have been proportionally greater over this period for those at AWE than for those at twice AWE. Second, the increases in average tax rates around AWE have generally been higher for those with children than for those without.⁴ This emphasises the importance of considering the impact of family allowances and the dependent rebates on overall tax liabilities.

³ See Moore and Whiteford (1987) for further details.

⁴ The very substantial reductions in average tax rates for those with pre-tax incomes of half of AWE is a result of the introduction in 1983 of the Family Income Supplement (FIS), a program directed towards very low income families with children, and the more recent Family Allowance Supplement (FAS). FIS/FAS has been treated as a refundable tax credit for the purposes of these comparisons, but it should be noted that the apparent level of take-up of the program is low.

**TABLE 4: AVERAGE TAX RATES AFFECTING DIFFERENT TAXPAYERS,
1964-65 TO 1985-86**

1. Single persons

Year	Average Tax Rate (%) by Income Level		
	0.5 AWE	AWE	2 AWE
1964-65	7.4	13.9	23.5
1965-66	7.9	14.7	24.8
1966-67	8.4	15.5	25.9
1967-68	8.9	16.2	26.8
1968-69	9.6	17.2	28.1
1969-70	10.3	18.3	29.5
1970-71	10.1	17.8	28.1
1971-72	11.3	19.6	30.4
1972-73	10.3	18.3	28.9
1973-74	11.6	20.5	31.5
1974-75	9.5	20.6	35.9
1975-76	10.5	21.9	33.4
1976-77	10.5	21.9	33.3
1977-78	9.6	21.2	30.8
1978-79	9.8	21.7	31.0
1979-80	11.9	22.5	32.2
1980-81	13.2	22.6	32.5
1981-82	15.0	23.5	33.8
1982-83	15.1	22.9	33.8
1983-84	15.5	22.8	35.1
1984-85	14.6	22.6	36.4
1985-86	14.4	23.5	37.8
1986-87	14.1	23.8	37.6
1987-88	14.0	23.7	34.4
1988-89 e	14.6	24.4	35.1

**TABLE 4: AVERAGE TAX RATES AFFECTING DIFFERENT TAXPAYERS,
1964-65 TO 1985-86 (CONT'D)**

2. Couple, One Income From Employment, No Children

Year	Average Tax Rate (%) by Income Level		
	0.5 AWE	AWE	2 AWE
1964-65	4.6	11.3	21.5
1965-66	5.1	12.1	22.8
1966-67	5.6	13.0	23.9
1967-68	5.9	13.5	24.8
1968-69	6.5	14.5	26.1
1969-70	7.2	15.7	27.5
1970-71	7.4	15.5	26.5
1971-72	8.5	17.3	28.7
1972-73	7.7	16.0	27.3
1973-74	9.1	18.3	30.0
1974-75	5.5	18.5	34.5
1975-76	0.9	17.1	30.9
1976-77	0.0	16.6	30.7
1977-78	0.0	15.7	28.1
1978-79	0.0	16.2	28.3
1979-80	2.0	17.5	29.7
1980-81	1.6	16.8	29.6
1981-82	4.5	18.2	31.2
1982-83	5.6	18.2	31.5
1983-84	6.8	18.4	32.9
1984-85	6.5	18.5	34.4
1985-86	6.8	19.7	35.9
1986-87	6.9	20.3	35.8
1987-88	7.2	20.3	32.7
1988-89 ^e	8.1	21.2	33.5

**TABLE 4: AVERAGE TAX RATES AFFECTING DIFFERENT TAXPAYERS,
1964-65 TO 1985-86 (CONT'D)**

3. Couple, One Income From Employment, Two Children*

Year	Average Tax Rate (%) by Income Level		
	0.5 AWE	AWE	2 AWE
1964-65	-3.6	5.9	17.9
1965-66	-3.0	6.8	19.2
1966-67	-2.1	7.8	20.5
1967-68	-1.9	8.1	21.1
1968-69	-1.0	9.4	22.6
1969-70	0.1	10.7	24.3
1970-71	0.9	11.1	23.6
1971-72	2.3	13.0	26.0
1972-73	1.6	11.6	24.4
1973-74	3.5	14.2	27.4
1974-75	-1.8	15.0	32.2
1975-76	-1.9	11.9	28.3
1976-77	-9.5	11.8	28.3
1977-78	-8.6	11.4	25.9
1978-79	-8.0	12.2	26.3
1979-80	-5.3	13.9	27.9
1980-81	-4.8	13.6	28.0
1981-82	-1.1	15.4	29.8
1982-83	-4.7	14.0	29.4
1983-84	-14.6	13.9	30.6
1984-85	-15.7	14.3	32.2
1985-86	-15.9	15.7	33.9
1986-87	-15.6	16.5	33.9
1987-88	-16.8	16.8	30.9
1988-89 ^e	-17.3	17.9	32.3

* Family Allowance and Family Income/Allowance Supplement are treated as refundable tax credits.

^e Estimated.

Source: Derived from Moore and Whiteford, 1987, and personal calculations.

2.4 International comparisons

International comparisons are notoriously difficult to make, not least in this area because the progressivity of tax scales and the level of the effective threshold under different tax systems can be affected by the presence or absence of social security contributions and of income taxes imposed by other levels of government. Moreover, as noted when assessing changes over time, the degree of progressivity in income tax arrangements is a product of interactions between the level of any effective threshold, the number and width of further rate steps, and the effects of tax rebates, credits or allowances provided for differing purposes. Most importantly, the comprehensiveness of the income tax base can vary widely between countries and simple comparisons will generally not identify these important variations.

Consistent, comparative studies are always out-of-date. The OECD study of **Income Tax Schedules: Distribution of Taxpayers and Revenue** (1981) is no exception, but may throw some light on the issues under discussion. This study compares tax schedules in eighteen countries at various points in time between 1975 in the case of Italy and 1981 in the case of Sweden. The reference year for Australia was 1978-79. Given the range of reference years and the probability of significant changes over what in most cases is the best part of a decade, the comparisons should be treated as tentative.

The OECD survey showed that five of the eighteen countries (Australia, Belgium, France, Germany and Norway) provided zero rate steps as the first step in the schedule, two more (Austria and Italy) provided basic tax credits which would have a similar effect to that of a threshold, and a further ten (Canada, Denmark, Greece, Ireland, Japan, the Netherlands, Portugal, Turkey, the United Kingdom and the United States) provided basic tax allowances unrelated to income and that would also have a similar effect. In the remaining case (Sweden), apart from a small allowance (deduction) for work-related expenses, tax credits were limited to those with children.

The provision alternatively of a zero rate step, a rebate or an allowance did not have any clear relationship to other features of the various scales. The number of steps in the scales ranged from three in Denmark to thirty-two in Italy; Australia with four steps had the second lowest number of rates at the time. The top marginal rate ranged from 39.6 per cent in Denmark to 83 per cent in the United Kingdom (1977-78), although in Denmark local government income taxes increased the top effective marginal rate to 62.5 per cent, and Swedish local government income taxes increased the top rate to 87.6 per cent. After taking account of the effects of local income taxes (but not social security contributions) Australia's then top marginal rate of 61.5 per cent was comparatively low: the German rate of 56 per cent was lowest, followed then by France,

Greece and Ireland at 60 per cent, then Australia, followed by Austria at 62 per cent and the remaining twelve countries with rates generally in excess of 70 per cent.

Table 5 provides details of the distribution of taxpayers and tax yield either solely at the first (non-zero) rate or at the highest marginal rate. Six countries covered more than forty per cent of taxpayers with the first marginal rate, but three of these countries (Australia, Denmark and Germany) had a few fairly wide steps while the others (Italy, Portugal and the United Kingdom) had ten or more steps.

While the highest marginal rate affected very few taxpayers in all the countries surveyed (the highest coverage being 5 per cent in Ireland), about half the countries derived more than 5 per cent of total tax yield from this bracket. Of the four countries deriving more than 20 per cent of their total tax yield from the last rate, three (Ireland, Portugal and Turkey) had last rates of 60 per cent or higher. The substantial yield from this high rate probably reflects the structure of the income distributions of those societies and the relative significance or otherwise of income taxes in the overall system.

These comparisons have been and are by nature inconclusive. I would draw no lessons from these data except one. That is that comparisons suggesting that taxation changes in Australia must move in one specific direction or another, because of international trends, should be treated with caution. One example of an incorrect and misleading comparison is provided by Tingle (1986, p.47) who, among others, suggests that because international competitiveness is crucial in the design of personal tax scales, that to avoid a 'drain' of skilled personnel, Australia must attempt to match the apparent personal income tax rates achieved by proposed reforms in the United States. This suggestion is made without any acknowledgement that the United States tax system produces higher marginal rates through the operation of income-tested tax credits and tax surcharges, and not only requires social security contributions, but also that most states raise their own income taxes.⁵

3. CRITICISMS AND ALTERNATIVES TO THE THRESHOLD

3.1 Is the threshold necessary?

The tax threshold has two main effects. The first is to contribute to the overall progressivity of the rate scale, and the second is to protect low income earners from paying tax.

⁵ See McLure (1986) for further details.

TABLE 5: EFFECTS OF FIRST* AND LAST RATES OF INCOME TAX SCHEDULES

COUNTRY	PERCENTAGE OF TAXPAYERS		PERCENTAGE OF YIELD	
	(1)	(2)	(1)	(2)
	SOLELY AT FIRST RATE	AT LAST RATE	FROM THOSE SOLELY AT FIRST RATE	FROM LAST RATE
Australia	90	0.8	68	7.7
Austria	5	*	9	*
Belgium	3	0.1	*	1.8
Canada	1	0.2	*	4.2
Denmark	66	4.2	30	24.5
France	5	0.8	*	7.9
Germany	55	*	20	1.8
Greece	7	*	*	6.9
Ireland	11	5.0	1	29.5
Italy	40	*	7	*
Netherlands	23	0.2	3	7.0
Norway	17	0.2	1	6.0
Portugal	59	0.1	8	21.3
Sweden	18	0.6	4	4.4
Turkey	4	0.3	*	23.1
United Kingdom	95	0.2	76	4.8
United States	4	0.1	4	1.8

Notes: ♦ The schedule rate in the first non-zero rated bracket is referred to as the first rate, and consequently in countries with a zero rate step, the figures refer to the first non-zero rate.
 * The figure is less than 0.05 per cent.

Source: OECD, 1981:20, 24.

The threshold is in itself a progressive measure, since the provision of a zero rate step followed by positive tax rates results in an increasing proportion of income being paid in tax as taxable income rises, or alternatively, the marginal rate of tax must always exceed the average rate, given a zero step.

With respect to the second objective, it can be argued from an ability-to-pay perspective that only discretionary income should be subject to tax and that therefore whatever the level of income required for the provision of the necessities of life as well as the basic costs of earning that income should be effectively free from tax. This approach also suggests that provisions should be made for family circumstances within the basic tax structure. Given that the Australian social security system is designed to provide a minimally adequate level of income support, it has generally appeared reasonable to argue that pensioners and beneficiaries should not bear tax if they have no other resources but their income support payments. This objective is substantially met through the tax threshold, supplemented by the dependent rebates and the income-tested social security rebates.

Apart from these equity considerations, the provision of a zero rate step has the effect of simplifying tax administration by removing large numbers of persons who would otherwise have low tax liabilities from the requirement to submit returns, unless tax has already been withheld through PAYE or other arrangements. The provision of a zero rate step can also be considered to promote efficiency goals since low income earners can participate in the labour force and earn nearly \$100 per week before they are required to pay tax.

The provision of a tax threshold had been the subject of critical debate, however, even before current arrangements evolved.⁶ These criticisms are of two main types. The first arises from the nexus between average and marginal rates of tax. To produce any given level of revenue, the availability of a zero rate step must require a higher marginal rate for taxpayers with income above the threshold. According to Bascand and Porter, 'it would seem that the total efficiency costs of providing all with a tax-free threshold, and the required higher marginal tax rates, outweigh the higher excess burdens for some individuals or households associated with having either a means-tested or a strict categorical welfare scheme' (1986, p.355).

The second leg of these arguments is the closely related proposition that the provision of a threshold for everyone is not necessarily the most target efficient means of ensuring that low income earners do not pay tax. The Draft White Paper noted:

⁶ See Taxation Review Committee (1975, p.188-190) and Treasury (1974, p.20-23), for example.

As a means of providing that low income earners do not bear tax, however, the tax-free threshold is a very expensive concession in terms of taxation revenue foregone since all taxpayers enjoy the threshold regardless of size of income. It is, moreover, a generous concession in that many taxpayers with a low taxable income (eg second income earners, students working part-time, part-year workers, large wealth-holders) are not genuinely needy in the sense of having to rely solely on that income for support. (1985, p.110)

A related concern is that the provision of a threshold may facilitate income splitting, and thus undermine horizontal equity, since families who can avail themselves of income splitting will have significantly lower tax liabilities than those who cannot.

The efficiency arguments against the threshold have been developed and elaborated primarily by the Centre of Policy Studies at Monash University. COPS also appear to suggest that abolition of the threshold would be equivalent to a widening of the income tax base (Bascand, Boyd et al, 1985, p.2-3), as does Grbich (1986, p.107-108) who suggests, however, that this impression is 'merely a heuristic, an imperfect means of quantifying the impact of particular shifts which depend on a suspension of disbelief'.

3.2 The COPS approach

Table 6 provides details of the Centre of Policy Studies proposed tax scales, as set out most recently in Porter, Cox and Bascand (1985). This scheme involved a three step scale with a bottom rate of 20 per cent applying from the first dollar of income and a top rate of 40 per cent. Social security pensioners and beneficiaries would be protected from paying tax by making their payments non-taxable and the free areas (zero rates) in the relevant income tests would be increased by \$20 per week. It was suggested that consideration could be given to reductions in the pension taper rate, currently 50 per cent.

To protect other low income earners, new refundable tax credits would be provided, but these would have been reduced at a rate of 30 per cent for family incomes above thresholds varying according to family circumstances. The effective scales produced by the interaction of the credit reduction and the basic scales are shown in the third part of the table. For example, a single person would be provided with an effective threshold very slightly higher than the then zero step (\$4 595 before December 1986). Since the credits would be refundable (ie paid out in cash to those below the threshold), there is an effective marginal rate of 20 per cent applying from the first dollar of income. This is because the amount of credit received is reduced on account of any other income.

TABLE 6: CENTRE OF POLICY STUDIES' PROPOSED TAX SCALES**1. Nominal Tax Scales**

Range of Taxable Incomes (\$ per annum)	Marginal Rate (cents per \$)
0 - 20000	20
20001 - 35000	30
35001 and over	40

2. Refundable Credits

Type	Level	Reduction Rate (cents per \$)
Singles - Version 1	\$920	30 from \$8000 pa
Couples, no children - Version 1	\$1950	30 from \$10000 pa combined
Couples, with children - Version 1	\$1950 plus \$730 for each child up to 3 children	30 from \$11400 combined

3. Effective Tax Scales

Range of Taxable Income (\$ per annum)	Marginal Rate (cents per \$1)
A) Single Persons	
0 - 4600	(20)
4601 - 8000	20
8001 - 11067	50
11608 and over	Refer to nominal scale
B) Couples, no children	
0 - 4600	(20)
4601 - 8000	20
8001 - 11067	50
11608 and over	Refer to nominal scale
C) Couples, two children	
0 - 11400	(20)
11401 - 13660	(50)
13661 - 20000	50
20001 - 22767	60
22767 and over	Refer to nominal scale

Incomes between the effective threshold and the point at which the credit starts to reduce would also be subject to a 20 per cent marginal rate. Taxpayers with incomes in the range in which the credit is reducing would face an effective marginal tax rate of 50 per cent, because the 30 per cent abatement rate must be added to the basic 20 per cent rate. Taxpayers with incomes above the credit cut-out point would be subject to the basic scale, facing the 20, 30 or 40 per cent marginal rate as appropriate to their incomes. Such taxpayers would receive no benefit at all from the credit and would thus pay tax at the 20 per cent rate on all of their income up to \$20 000 per year.

The effective threshold for couples would be higher than that provided by the then current system for both one-earner and two-earner families, but the credit would be income-tested on the basis of joint income. Those with children would receive higher credits again. While it is not clearly stated in any of the COPS publications, it appears that an additional credit of \$730 would be provided for each child 'up to three dependent children'. What happens thereafter has not been stated. Consequently, the illustrative example used in Table 6 assumes two dependent children.

At the same time (1985), the Centre of Policy Studies also presented an alternative scale, in which the only difference was that the credits would not begin to reduce until significantly higher income levels.

A further edition of this general approach was provided in Freebairn, Porter and Walsh (1987). Details of this proposal are in Table 7. This 'Option T' provides for a nominal two step scale - the basic rebate for individuals would be much lower than that shown in Table 6 and would be reduced by 50 cents in the dollar for incomes over \$10 000 pa. In addition this would be a rebate, not a refundable credit.

Refundable credits would, however, be provided for couples without children as well as for families with dependent children. Those credits would have been higher than in the previous option and would also have abated at a 50 per cent rate (assumed illustratively to apply from the then current FIS threshold).

In contrast with earlier COPS proposals, Freebairn, Porter and Walsh (1987) state that pensions and benefits would remain taxable; indeed non-taxable payments (eg invalid pensions, rent assistance, additional pension and benefit for children) would be made taxable, but all payments would be 'grossed-up' by about 25 per cent so that no losses would accrue to this group. The overall implications of this are unclear, since pensioners and beneficiaries would also need to receive at least some benefit from the refundable credits, eg to offset the effects of the abolition of family allowances.

TABLE 7: CENTRE OF POLICY STUDIES - OPTION T

1. Nominal Tax Scales

Range of Taxable Incomes (\$ per annum)	Marginal Rate (cents per \$)
0 - 18000	20
18000 and over	30

2. Rebates

Type	Level	Reduction Rate (cents per \$)
Basic	\$500	50 from \$10000 pa

3. Family Income Supplements

Group	Level	Reduction Rate (cents per \$)
Sole Parents	\$30 per week plus \$20 per week per child	50 from \$12896 pa
Couples, no children	\$40 per week	50 from \$12896 pa
Couples, with children	\$40 per week plus \$20 per week per child	50 from \$12896 pa

4. Effective Tax Scales

	Range of Taxable Income (\$ per annum)	Marginal Rate (cents per \$1)
A) Single Taxpayer	0 - 2500	0
	2501 - 10000	20
	10001 - 11000	70
	110001 and over	Refer to nominal scale
B) Sole parent, one child	0 - 12896	(20)
	12897 - 12926	(70)
	12927 - 18000	70
	18001 - 18096	80
	18097 and over	Refer to nominal scale
C) Couple, no children (single income)	0 - 10400	(20)
	10401 - 12896	20
	12897 - 17056	70
	17057 and over	Refer to nominal scale
D) Couple, two children (single income)	0 - 12896	(20)
	12896 - 15155	(70)
	15155 - 18000	70
	18001 - 21216	80
	21217 and over	Refer to nominal scale

It should also be noted that this proposal is not revenue-neutral. It was explicitly designed to collect around \$5 000 million less in revenue. This shortfall would be funded by reductions in public expenditure, notably in the areas of education, health, labour market programs and income security.

3.3 The Grbich proposal

Table 8 provides similar details for the Grbich (1986) proposal. This basic tax scale would also have three steps, but with a bottom rate of 25 per cent and a top rate of 45 per cent. It appears that all low income earners, including social security recipients, would be protected by a system of diminishing rebates or credits. These would be much higher than those proposed by COPS, but would be reduced by 35 cents in the dollar from the first dollar of income. It is not stated whether it would be individual or family income that is taken into account. The credits would vary according to the activity and family responsibilities of recipients.

The accumulation of tax liabilities together with the reduction in the credit would mean that a single working person, for example, would not actually be paying tax until taxable income exceeded \$10 333 per year, whereupon he or she would face an effective marginal tax rate of 60 per cent (25 per cent tax plus 35 per cent rebate reduction). In this example, taxpayers with incomes between \$10 333 and \$17 715 would face the 60 per cent marginal rate. Those with incomes of \$17 716 and over would determine their tax liabilities with reference to the basic scale and would not benefit from the credit.

Several important details of this system remain obscure. It is not stated whether dependent spouses are entitled to a basic credit in their own right. It appears that working spouses would be entitled to an additional credit only if the dependent adult was an invalid. The proposal also suggests that the social security system would be integrated with these new credits, which would be 'partially' refundable. It appears that this means that current social security recipients would receive the credits as cash payments, and that the child related payments for families would also be payable in cash.

TABLE 8: INCOME TAX SCALES PROPOSED BY GRBICH

1. Nominal Tax Scales

Range of Taxable Incomes (\$ per annum)	Marginal Rate (cents per \$)
0 - 28000	25
28001 - 40000	35
40001 and over	45

2. Rebates

Type	Level	Reduction Rate (cents per \$)
Personal	\$5200	35 from \$0
Expenses of work	\$1000	35 from cut-out of personal credit
First Child/Invalid Relative	\$1500	35 from cut-out of other rebates
Other children	\$600	35 from cut-out of other rebates
Rental supplement	\$1500	35 from cut-out of other rebates

3. Effective Tax Scales

	Range of Taxable Income (\$ per annum)	Marginal Rate (cents per \$)
A) Single Person Not Working	0 - 8677 8668 - 14858 14859 and over	0 60 Refer to nominal scale
B) Single Person, Working	0 - 10333 10334 - 17715 17716 and over	0 60 Refer to nominal scale
C) Couple, both working no children	Each treated as working, single person	
D) Couple, one working no children*	0 - 12834 12835 - 22000 22001 and over	0 60 Refer to nominal scale
E) Couple, one working two children*	0 - 16334 16335 - 28000 28001 and over	0 60 Refer to nominal scale

Note * These calculations are based on the assumption that a dependent spouse is not entitled to the basic personal credit, and in this case assumes the dependent spouse is an invalid. If non-working spouses were to be eligible for the personal credit, then the effective threshold and the range over which the 60 per cent rate applies would be extended significantly.

4. ASSESSMENT OF THE PROPOSALS

In considering the proposals, it is necessary to bear in mind both the criticisms made of current arrangements and the objectives of the alternatives. In general, the alternative tax scales purport to address four broad areas of concern:

- (i) promoting economic efficiency - the COPS and Grbich plans claim that the disincentive effects of the current more progressive tax scale can be reduced by their alternatives;
- (ii) maintaining fairness or equity in the income tax system - all proposals suggest that the needy should not be disadvantaged;
- (iii) more closely integrating taxation and social security provisions; and
- (iv) broadening the income tax base - for example, through the facilitation of extensions to withholding tax arrangements and a reduction in income-splitting.

4.1 Equity aspects

A good measure of the distributional implications of different tax scales can be provided by a comparison of average tax rates applying at different levels of income. Similarly, differences in marginal tax rates provide one indication of likely incentive effects. Table 9 provides details of both the average and marginal rates of tax produced by the proposals for various types of taxpayers at different income levels and compares these with the effects of the pre-December 1986 and post-July 1987 tax scales. The 1985 COPS (1) and the Grbich results should in general be compared with the effects of pre-December 1986 scales, while the 1987 COPS (2) proposal should be compared with the post-July 1987 scales (still current).

All of these proposals involve a substantial redistribution of taxation liabilities. While those receiving the full value of the rebates will generally not pay higher taxes, both average and marginal tax rates will increase for those in the rebate reduction range⁷, and average tax rates will also increase for some groups above the rebate cut-out point. For example, a single person with an income of \$11 068 per annum would be paying 20 per cent of this in tax under the 1985 COPS proposal, while a single working person with a taxable annual income of \$17 716 would be paying 25 per cent of this under the Grbich

⁷ This is not necessarily the case for all those who would be affected by the Grbich proposal, because of the substantial real increases in the value of the threshold. On the other hand, the most recent COPS proposal (1987) involves a substantial reduction in the threshold for single persons.

TABLE 9: AVERAGE TAX RATES UNDER DIFFERING INCOME TAX SCALES

A. Single Taxpayers

Average Tax Rates (%)					
Income (\$ pa)	Pre Dec 1986 Scales	COPS 1	Grbich	Post July 1987 Scales	COPS 2
5 000	2.0	1.6	0	0	10.0
7 500	9.7	7.7	0	7.7	13.3
10 000	13.5	16.8	0	1.7	15.0
12 500	15.8	20.0	10.4	4.2	20.0
15 000	18.2	20.0	18.7	6.6	20.0
17 500	19.9	20.0	24.6	8.4	20.0
20 000	22.3	20.0	25.0	0.0	21.0
22 500	24.9	21.1	25.0	2.2	22.0
25 000	27.1	22.0	25.0	4.0	22.8
27 500	28.6	22.7	25.0	5.5	23.5
30 000	30.3	23.3	25.7	6.7	24.0
35 000	32.8	24.3	27.0	8.6	24.9
50 000	41.0	29.0	31.4	4.7	26.4
100 000	50.5	34.5	38.2	1.9	28.2

Marginal Tax Rates (%)					
5 000	25	20	0	0	20
7 500	25	20	0	24	20
10 000	25	50	0	24	70
12 500	30	20	60	29	20
15 000	30	20	60	29	20
17 500	30	20	60	29	20
20 000	46	30	25	40	30
22 500	46	30	25	40	30
25 000	46	30	25	40	30
27 500	46	30	25	40	30
30 000	48	30	35	40	30
35 000	60	40	35	49	30
50 000	60	40	45	49	30
100 000	60	40	45	49	30

**TABLE 9: AVERAGE TAX RATES UNDER DIFFERING INCOME
TAX SCALES**

B. Couples, Single Income, No Children

Average Tax Rates (%)					
Income (\$ pa)	Pre Dec 1986 Scales	COPS 1	Grbich	Post July 1987 Scales	COPS 2
5 000	0	(-19.0)	0	0	(-21.6)
7 500	0	(-6.0)	0	0	(-7.7)
10 000	5.2	0.5	0	3.5	(-0.8)
12 500	9.2	10.4	0	7.6	3.4
15 000	12.6	17.0	8.7	11.1	13.1
17 500	15.1	20.0	16.0	13.7	20.0
20 000	18.1	20.0	21.5	15.9	21.0
22 500	21.2	21.1	25.0	18.5	22.0
25 000	23.7	22.0	25.0	20.7	22.8
27 500	25.7	22.7	25.0	22.4	23.5
30 000	27.6	23.3	25.7	23.9	24.0
35 000	30.5	24.3	27.0	26.2	24.9
50 000	39.3	29.0	31.4	33.0	26.4
100 000	49.7	34.5	38.2	41.0	28.2

Marginal Tax Rates (%)

5 000	0	(20)	0	0	(20)
7 500	0	(20)	0	0	(20)
10 000	25	50	0	24	(20)
12 500	30	50	0	24	20
15 000	30	50	60	29	70
17 500	30	20	60	29	20
20 000	46	30	60	40	30
22 500	46	30	25	40	30
25 000	46	30	25	40	30
27 500	46	30	25	40	30
30 000	48	30	35	40	30
35 000	60	40	35	49	30
50 000	60	40	45	49	30
100 000	60	40	45	49	30

TABLE 9: AVERAGE TAX RATES UNDER DIFFERING INCOME TAX SCALES

C. Couples, Single Income, Two Children

Average Tax Rates (%)					
Income (\$ pa)	Pre Dec 1986 Scales	COPS 1	Grbich	Post July 1987 Scales	COPS 2
5 000	(-44.5)	(-61.5)	(-55.2)	(-44.6)	(-63.2)
7 500	(-29.6)	(-34.3)	(-36.8)	(-32.4)	(-35.5)
10 000	(-19.0)	(-20.7)	(-27.6)	(-22.9)	(-21.6)
12 500	(-7.6)	(-9.9)	(-22.1)	(-13.5)	(-13.3)
15 000	6.9	(-0.1)	(-9.8)	0.6	(-0.7)
17 500	10.2	7.2	0.2	8.7	9.4
20 000	13.8	12.5	7.7	11.5	18.0
22 500	17.4	17.8	13.5	14.7	22.0
25 000	20.3	19.3	18.1	17.2	22.8
27 500	22.6	20.3	22.0	19.2	23.5
30 000	24.7	21.1	23.5	21.0	24.0
35 000	28.0	22.4	25.1	23.7	24.9
50 000	37.6	27.7	30.1	31.2	26.4
100 000	48.8	33.8	37.5	40.1	28.2

Marginal Tax Rates (%)					
5 000	0	(20)	0	0	(20)
7 500	0	(20)	0	0	(20)
10 000	25	(20)	0	24	(20)
12 500	80	(50)	0	29	(70)
15 000	30	50	(35)	79	70
17 500	30	60	60	29	70
20 000	46	60	60	40	80
22 500	46	60	60	40	30
25 000	46	30	60	40	30
27 500	46	30	60	40	30
30 000	48	30	35	40	30
35 000	60	40	35	49	30
50 000	60	40	45	49	30
100 000	60	40	45	49	30

- Notes:**
- 1) The example of the Grbich scales used are not applicable to social security recipients, who are entitled to **refundable** basic tax credits. Other taxpayers are entitled to refundable credits only in respect of their children.
 - 2) Where average or marginal tax rates are bracketed, negative tax liabilities apply, ie taxpayers are receiving net transfers.
 - 3) Family allowances and family income supplement are included in the calculations for families with children where relevant.

arrangements. Under the tax scales applying prior to December 1986, single persons would not have had an average tax rate of 20 per cent until their incomes exceeded \$17 738 per year, nor would they have had an average tax liability of 25 per cent until their incomes reached \$23 304 per year.

Consequently, for example, all single taxpayers with incomes between \$11 000 and \$17 000 under COPS (1985) and between \$17 700 and \$23 300 under Grbich would have been paying more income tax, with the increase greatest for those just above the point at which rebate abatement commences.

For single taxpayers, the 1987 COPS proposals involve an even more regressive redistribution of income, compared to the actual post-July tax scales. Because the effective value of the threshold is halved, average tax rates increase for all those with incomes up to about \$22 000 pa. For couples without children average tax rates decline on incomes below about \$13 000, increase for those with incomes up to about \$23 000, and again decline thereafter. Couples with children face lower average tax rates up to combined incomes of about \$15 000 pa but then face higher average tax rates on incomes as high as \$35 000 pa. A single income couple with two children and an annual income of \$25 000 (around AWE) would pay about \$1 400 pa (\$27 pw) more in tax under 'Option T' than they would under current arrangements.⁸

The three sets of proposals also involve a **relative** shift in tax liabilities on to single income families with children, among those with incomes above the rebate cut-out point. This is because the dependent spouse rebate would no longer be available, and the average tax rates of single income families vis-a-vis individuals would be modified only by the provision of family allowances (except under 'Option T', which also subsumes family allowances). In a somewhat contradictory manner, both COPS schemes, however, would tend to favour single income families over two income families in the income ranges over which the rebate is available either in full or part, because the rebate would be reduced according to joint income.

These proposals generally provide protection for low income taxpayers and social security recipients, as well as redistribution to those with very low incomes. Indeed the Grbich credits provide an effective threshold more than twice as high as currently available. On the basis of 1984-85 data, this could exempt up to 25 per cent of current taxable individuals from tax and reduce income tax receipts by more than \$1 000 million

⁸ It should be noted that the results given in Table 9 do not correspond to those shown in Freebairn, Porter and Walsh (1987). I have not found it possible to duplicate their results. At least part of the difference arises because they understate the combined current value of FIS and Family Allowances by around 15 per cent (about \$7 pw).

(Australian Taxation Office, 1986, p.28). The tax increases on middle income taxpayers would have to be correspondingly greater under the Grbich approach than under the COPS proposals. In both cases, however, the magnitude of the tax increases are such that it is difficult to imagine government implementation of these approaches. For example, around 40 per cent of taxpayers not entitled to rebates had incomes in the ranges where average tax rates would increase under the COPS (1985) proposals. Some of these individuals would in fact be members of two income families, while at the top of these ranges the actual tax increase would be comparatively small. Nevertheless, considerable political courage would be required to present tax increases on low to middle income individuals and families as a tax cut.

It should be noted that removal of the threshold to cut the top marginal rate must be regressive, even if the threshold were only taken from those facing the highest marginal rate. This is because all higher income taxpayers would lose the benefit of the threshold, but this would be a flat increase in tax, while the overall gains from the reductions in the highest marginal rates would increase with income.

The distributional implications of these schemes are defended by their proponents in a number of ways. Porter, Cox and Bascand (1985) argue that static comparisons of the type presented above can be misleading. First, many low income individuals belong to high income families and conversely many high income individuals may have high expenditure requirements, eg because of the presence of dependent children (1985, p.276). Second, static figures do not reflect the possible behavioural changes such as increased work effort or greater honesty in declaring income. Finally, many low income people can expect to have higher incomes later in their life cycles and would accept immediate losses for longer term gains.

It is certainly true that static comparisons of losses and gains can be misleading and that account should be taken of redistributive effects of reforms within a broader context and a longer time frame. Such an analysis may not necessarily lead to the conclusions reached by COPS and Grbich, however. For example, the conventional life cycle model of the provision of social security suggests that taxpayers might be willing to pay higher taxes in times of prosperity in order to guarantee some level of protection when their fortunes are less certain. The COPS approach is the reverse of this proposition, that is, they argue that lower income earners will be willing to pay higher taxes if they believe that their future incomes will increase and they will then pay lower taxes than under the current system. Some persons who have reliable expectations of higher incomes later in life may find this view acceptable, but others will not. Tertiary students resisting the imposition of fees do not generally seem attracted by the notion that they will in the long

run be winners if government revenues are increased in this way. Ex-tertiary students in high income occupations tend to find this logic more acceptable.

In any case, substantial numbers of low and middle income taxpayers would not have reasonable expectations of higher future incomes. For example, just over 50 per cent of 50 to 59 year old taxpayers (around 400 000 persons) had taxable incomes less than \$16 000 in 1982-83, and it would be over incomes up to that sort of level that these schemes would increase average tax rates. In addition, while it is certainly true that younger taxpayers tend to have lower taxable incomes, not all younger taxpayers will be upwardly mobile over their working lives.

The question of secondary earners is more complex. It cannot be simply assumed, however, that secondary earners are only found in high income households. For example, on the basis of 1981-82 Income and Housing Survey data, it appears that of the 1.9 million (effectively) dual-income families, around 570 thousand or 30 per cent were in income units with **combined** incomes less than AWE, and a further 300 000 were in units with combined incomes less than 1.5 times average weekly earnings. Moreover, the two COPS and the Grbich proposals advantage, rather than disadvantage, very high income, two-income families. This is because two income couples are each treated as single individuals above the rebate cut-out points, and each partner can benefit from the substantial cuts in the higher marginal rates. To this extent, these proposed tax scales do not serve their apparent rationale.

Interestingly, the COPS argument that high income individuals may have higher expenditure requirements than low income persons because of the presence of dependents (1985, p.276) could presumably be taken to support greater recognition of these costs at all income levels. In fact, their approach leads in the opposite direction.

COPS also argue that, in the long run, wage and salary packages will be adjusted to reflect the changing tax regime. This is an optimistic view, and, in any case, any effect of this sort should work both ways. That is, those lower income wage and salary earners who face higher taxes could be expected to seek higher pre-tax incomes. If these adjustments are required in order to maintain equity for higher income salary earners vis-a-vis lower income groups, they are supportable on the same basis for middle income taxpayers.

4.2 Efficiency implications

The primary argument put forward by COPS and Grbich in favour of their proposals is that they would have positive effects on economic efficiency. These improvements would occur because of the reductions in marginal tax rates on high income earners. For

example, the 1985 COPS proposal and the Grbich proposal would have reduced the top marginal rate (then 60 per cent on incomes over \$35 000 pa) to 40 and 45 per cent respectively.

It must be recognised, however, that if reductions of this sort would have a positive effect on economic behaviour then the increases in marginal rates consequent upon the income-tested credits must have a negative impact. In this context, Table 9 should be referred to again. The effect of the Grbich proposal is to shift the then top 60 per cent marginal rate on to taxpayers with incomes around \$12 500 to \$17 500 pa on to couples without children and incomes around \$15 000 to \$20 000 pa, and couples with two children, for example, and incomes between \$17 500 and \$27 500 pa.

The various COPS proposals also increase marginal tax rates on lower to middle income earners by roughly the same orders of magnitude. The range of incomes over which these high marginal rates apply would be less than under Grbich, but because the average tax rates would be higher, ie, in general, those with even lower incomes would be paying more tax than under the Grbich proposal.

Two further points can be made. First these proposed tax scales reinforce the arguments made by their proponents - there is a nexus between marginal and average rates of tax. That is, in revenue neutral circumstances, reductions in average and marginal rates of tax on high income earners can only be achieved by increasing average and marginal rates on some groups of lower income earners.

Second, one of the main aims of tax reform in the 1980s has been to ameliorate the effect of higher marginal rates on average income earners. A particular concern was with the impact of the 46 per cent marginal rate on those with average incomes prior to the Government's tax reforms. Despite the changes made over recent years, those on around average weekly earnings still face a marginal rate of 40 per cent, and inflationary increases in incomes will lead to increasing numbers of modest wage earners being subject to this comparatively high rate.

Income-testing of the threshold appears to exacerbate rather than reduce this problem. For example, the COPS (1987) proposal involves an 80 per cent marginal tax rate on families with children and incomes around \$20 000 pa, where now there is a 40 per cent rate. Whatever their actual impact on economic behaviour, threshold income-testing proposals are counter-productive as a means of reducing political pressures due to high marginal tax rates at average income levels.

It could be argued that this specific problem will reduce in importance over time. This will only happen if the credits or rebates are not indexed to increase with inflation. But

if these credits are not indexed, then average tax rates on low to middle income earners must also rise.

Grbich's main argument in this context is that the higher effective marginal tax rates consequent upon the introduction of an income-tested credit are a necessity in order to insure that scarce welfare dollars are being targeted to the very poor (1986, p.108).

COPS defend their proposals by arguing that the reductions in marginal tax rates on higher income earners have a positive effect on work behaviour that outweighs the negative effects of income-testing. They derive 'weighted average marginal tax rates' (WMTR) applicable to the community as a whole as well as to specific income groups. These WMTRs incorporate indirect as well as direct taxes, and COPS argue that the community average WMTR will be significantly lower under their proposal than under either the then current scale or an indexed tax scale.

As noted by Bascand and Porter (1986, p.367) this approach gives rise to policies that other commentators, eg Apps and Savage (1986, p.352), argue would reduce economic efficiency. In particular, Apps and Savage argue that the results of labour supply studies indicate that tax disincentive effects for secondary earners and lower income groups such as female-headed families are substantially greater than those for prime age males.

Apps (1986) explores this issue in further detail. In assessing possible disincentive effects, she notes that 'the studies must demonstrate that the social welfare losses associated with switching to less progressive marginal tax rates and higher rates for lower income earners and working married women are outweighed by the efficiency gains from reduced disincentive effects' (1986, p.43).

In essence this is what COPS argue - the disincentive effects of the increases in marginal rates for some groups of taxpayers are more than offset by the positive effects of marginal rate reductions over broader range of incomes.

The COPS proposal substantially increases marginal tax rates across the range of income over which the rebate is withdrawn. Since the rebate is income-tested on joint income, secondary earners in the relevant income ranges can face the 50 per cent marginal rate from the first dollar of their income. While this may apply in a restricted range of cases, the width of relevant income ranges increases with the number of children.

Apps (1986) strongly criticises the labour supply assumptions adopted by COPS. In brief, these are based on US labour supply elasticities derived by Browning and Johnson, who rank households on joint money income and calculate a single elasticity for each decile of joint income by weighting elasticities of husbands and wives according to hours

worked. Apps rejects this approach as producing an aggregation bias, since in effect the higher wage elasticities of wives are partly assigned to their husbands.

Resolution of this debate is beyond the scope of this paper. On the basis of the arguments advanced in Apps and Savage (1986) and Apps (1986), it must, however, be seriously doubted whether the proposed cuts in marginal rates on high income groups would in fact offset the disincentive effects of increases in marginal rates on lower income earners.

4.3 Integration of taxation and social security

Each of the proposals under consideration suggests different methods of integrating the taxation and social security systems.

Grbich would make his basic refundable credits payable only to social security recipients, but would also provide the child-related credits to those with children. The COPS (1985) proposal involves the exemption of social security payments from tax. In contrast, the latest COPS proposal would make all social security payments taxable, including currently non-taxable payments, such as invalid pensions and additional payments for children and renters. In order to compensate for this and the effects of the reduction in the basic threshold for single persons, social security payments would be 'grossed-up' by about 25 per cent.⁹

Each of these proposals, therefore, attempts to provide an alternative to current arrangements affecting the interaction between the taxation and social security systems. Exemption of income from tax, however, produces many problems. The exemption of any specific income source from taxation raises issues of horizontal equity, and in the case of income tested payments increases effective marginal rates of tax on recipients over the income ranges where the benefits are being reduced and tax is payable. This is because the reduction in a non-taxable benefit does not reduce the tax liability on the private income producing benefit reduction. This problem currently occurs in a small number of circumstances; the exemption of all pensions and benefits would increase the number of such cases. For example, a single age pensioner can on current pension rates have nearly \$12 000 of private income before pension entitlement is extinguished. Under the current system those with sufficient private income face an effective marginal tax rate of 62 per cent in those ranges where their pension is reduced and they pay tax at the 24 per cent rate (ie 0.5 plus 0.5 of 0.24). Under the COPS (1985) proposals, those

⁹ In fact, if single invalid, war widow and war disability pensioners were not to suffer a detriment, the 'grossing-up' factor would have to be around 30 per cent.

with private incomes between \$4 601 and \$8 000 would face an effective tax rate of 70 per cent (ie 0.5 plus 0.2), while those with incomes from other sources between \$8 000 and \$12 200 would face an effective marginal tax rate of 100 per cent. That is, for every dollar earned over \$8 000 they would lose 50 cents of pension and pay 50 cents in tax.

While we may not be concerned about the work incentives of age pensioners, this problem could be more salient for sole parent pensioners and the wives of invalid pensioners, for example. Other incentive problems could also arise under the 1985 COPS proposal because low income working families could pay more tax, have lower disposable incomes and face higher effective marginal tax rates than beneficiary families. For example, a couple without children receiving unemployment benefit and rent assistance would have had an income of \$9 730 per year in 1986-87. Following the Government's poverty trap initiatives, they would also have been able to earn an additional \$1 560 per year without their benefit being reduced, nor being liable for tax. Thus they could attain a total income up to about \$11 300 per year without facing either any reduction in benefit or any tax. In contrast, under the 1985 COPS scheme a single income working family with a taxable income of \$11 300 would have faced a marginal tax rate of 50 per cent in this range and would have been liable for around \$700 a year in tax.

Perhaps in recognition of the problems raised by making social security payments non-taxable, the 1987 COPS proposal involved maintaining and extending the taxability of benefits. This is the correct direction in which to move, but problems remain. 'Grossing-up' and taxing produces a presentational difficulty - while the real after-tax level of pension may stay the same, both nominal social security outlays and taxation revenues increase. Moreover, if those currently receiving non-taxable payments are not to be disadvantaged, and real expenditures are not to increase, then differential rates of payment must be introduced. The system will become more complex as a result.

The Grbich proposal raises different problems, because pensions and benefits would remain taxable, but, apart from those with children, social security recipients would be the only group to receive the tax credits in a refundable form. For example, a single age pensioner received a pension of around \$5 500 per year in 1986-87. Under Grbich's scheme, they would have been liable for tax of \$1 375, but would also be entitled to the basic refundable credit of \$5 200 less the reduction of \$1 925 (0.35 of \$5 500). The end result would have been that the real income of a single age pensioner would have been increased to about \$7 400, or by about 34 per cent. Most pensioners and beneficiaries without private income would enjoy similarly substantial real increases in payments. The results would have been progressive, but not revenue-neutral.

4.4 Conclusion

The COPS and Grbich approaches to income-testing of the tax threshold have generally involved a number of dubious claims.

The most important point to note about the threshold is that it is a step in the rate scale and not an exclusion of income from tax. It is therefore not accurate to describe proposals to reduce or to income-test the threshold as a means of broadening the income tax base. The income below the threshold is already taxable income and any effective taxation of this income simply involves a shift in existing tax liabilities.

Income-testing options expand the tax base only to the extent that the abolition of the threshold facilitates the introduction of more general withholding tax arrangements. The provision of refundable credits, however, would automatically give many taxpayers income in excess of the tax to be withheld. It would of course be possible to strengthen and extend existing withholding arrangements, such as the prescribed payments system (PPS), without any changes at all to the threshold.

The provision of the tax threshold, in combination with the dependent spouse rebate, provides little reward for income splitting. Under the current scale, the threshold provides a tax reduction of \$1 224, but this advantage is reduced by the loss of either the \$830 or \$1 030 spouse rebate. Thus the effective tax reduction provided by the threshold arrangements for income splitters is only \$394 for those without children and \$194 for those with children. The advantages occurring to high income couples who are able to split their incomes arise from the differences between marginal rates. Thus, while the COPS and Grbich approaches would reduce the attractions of income-splitting, this is due to reduced progressivity, not the 'abolition' of the threshold.

It should be emphasised that income-testing the threshold simply involves the redistribution of current tax liabilities. While in most cases those with the lowest incomes could be protected from the regressive effects of these changes, those with slightly higher but still modest incomes could face significant increases in both marginal and average rates of tax, while the highest income earners would receive the largest benefits from marginal rate reductions.

Both Porter, Cox and Bascand and Grbich suggest that the higher effective marginal tax rates generated under their proposals are a consequence of tightly directing welfare assistance to the poor. This is certainly true in the case of conventional social security payments, but it is misleading to suggest that the redistribution of tax liabilities among middle income taxpayers is an unavoidable consequence of a 'welfare' measure. For example, the Grbich scheme involves the imposition of an effective marginal tax rate of

60 per cent for single income families with two children and incomes between \$16 335 and \$28 000 per year. Where there are three or more children, the effective marginal tax rate can rise to 70 per cent on incomes above \$28 000. Such families are not in receipt of a targeted welfare payment.

Perhaps the most misleading aspect of threshold abolition proposals is the claim that they actually involve the abolition of the threshold, when in fact the effects of the threshold are provided for many taxpayers through rebates or credits. This point has been made by the Taxation Review Committee (Asprey) in discussing tax allowances and rebates:

.... these are in fact exactly equivalent to making the first step a zero-rate one; and they mostly serve to conceal the abrupt rise in the effective marginal rate when, at the point of exhaustion of the allowance or the rebate, the marginal rate of the tax scale begins to be effective. Universal tax allowances or non-reimbursable tax rebates are merely techniques for altering the actual progressivity of the tax scale. It seems altogether simpler and less confusing to determine the progressivity of the income tax on its merits in the one obvious place: in the scale. The issue of the amount of tax to be levied on low incomes should not be obscured by artificialities. (1975, p.189)

In this sense, it is irrelevant to suggest that the current threshold is an 'inefficient' means of protecting the poor. The threshold is an important component of the current level of progressivity achieved in the personal income tax structure. The case for changes to the threshold must therefore involve judgements that either a more or less progressive distribution of tax liabilities is desirable.

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