# OPTIONS FOR REFORMING THE INTERACTION OF TAX AND SOCIAL SECURITY IN AUSTRALIA

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## STATEMENT OF ORIGINAL WORK AND ACKNOWLEDGMENTS

I affirm that this thesis is based overwhelmingly on original research carried out by myself. Where there has been reliance on other sources, this is clearly indicated in the references and footnotes.

I wish to thank the Department of Family and Community Services, Canberra, for allowing me access to the Hypothetical effects computer model (HEM) which forms the basis for much of the analysis carried out.

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## ABSTRACT

This Thesis considers Australia's social security system as probably the world's closest approximation to a Guaranteed Minimum Income (GMI) scheme. One important reform option is to further develop the system in a manner consistent with academic notions of a 'pure' GMI scheme.

In common with a number of other OECD countries, the pre-tax/transfer income distribution has tended to become more unequal in Australia over the past 15-20 years. To some extent the widening dispersion in earnings has been offset, in Australia, by changes in the tax/transfer system, which have made this system more progressive. One result is that new problems in the work/social security interface have emerged. Australia's flat-rate means-tested system tends to create high earnings replacement rates for low wage earners, especially for those with family responsibilities, and work disincentives due to high *effective marginal tax rates* (EMTRs) as private incomes rise.

The *New Tax System* (NTS), which commenced on 1 July 2000, was in part designed to address work disincentive issues arising from high effective tax rates in both the income tax and also the tax/transfer system. These problems were addressed, in the context of the new 10% *Goods and Services Tax* (GST), by lowering income tax rates and raising tax thresholds; simplifying the structure and administration of family assistance; raising the income test thresholds for family assistance and reducing taper rates; and providing extra assistance for social security recipients and other lower income groups. This thesis analyses the success of these measures and considers the sustainability of the current system in the face of the apparent possibility that low pay and intermittent work will become an increasing issue in the years ahead.

Finally the thesis discusses the Australian retirement income system, noting that tax and means tests operate in very complex and not always consistent ways. Some options for addressing these problems are explored.

The thesis concludes that the NTS addresses pressing problems in tax/social security interactions, but leaves other problems still requiring action. Ultimately, major systemic reform may be the only way to fully address these issues. While I will argue that the direction of such reform would necessarily be consistent with academic conceptions of the Negative Income Tax (NIT) or GMI approach, the end point we might wish to arrive at would differ from this prescription in a number of important ways.

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# CHAPTER 1: INTRODUCTION AND SUMMARY

## 1.1    Synopsis

This thesis considers Australia's social security system as probably the world's closest approximation to a *guaranteed minimum income* (GMI) scheme and, by implication, the lessons that might be learned by other countries wishing to consider such a scheme. It also considers options for further developing the Australian system, based on an assessment of existing issues and difficulties. One important option is to further develop the system in a manner consistent with academic notions of a 'pure' GMI scheme, although this raises a number of difficult issues.

In common with a number of other OECD countries, the pre-tax/transfer income distribution has tended to become more unequal in Australia over the past 15-20 years. The distribution of market incomes has also been impacted upon by labour market trends such as increases in casualisation and part-time work, increased women's labour force participation and incidence of dual-earner families, and increasing long-term unemployment.

To some extent the widening dispersion in earnings has been offset, in Australia, by changes in the tax/transfer system, such as increases in the real value of basic pensions and allowances and dramatic improvements in family assistance, which have tended to make this system more progressive. The improvements, however, have not been without costs, and new problems in the work/social security interface have emerged.

Australia's flat-rate means-tested system tends to create high earnings replacement rates for low wage earners, especially for those with family responsibilities, and work disincentives due to high *effective marginal tax rates* (EMTRs) as private incomes rise. Policy responses have (at least until recently) tended to add complexity and, in improving adequacy, to increase work disincentives. Another issue is that the system has mixed objectives: it seeks to support workforce attachment but also support mothers at home caring for young children, and these objectives can clash. The poverty alleviation objectives of the system can also conflict with use of monies to promote horizontal equity between different family types.

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the new 10% *goods and services tax*[1] (GST), by lowering income tax rates and increasing tax thresholds; simplifying the structure and administration of family assistance; raising the income test thresholds for family assistance and reducing taper rates; and providing extra assistance for social security recipients and other lower income groups.

In the future it is possible that we will see a continuing decline in the relative position of low wage earners, alongside a further slow de-regulation of the wage system. There are also pressures from academic economists for slow or no growth in award wages as a means of reducing unemployment. Typically, such economists are also concerned to offset the impact on low-income earners by social security and tax policies such as *earned income tax credits* (EITCs). These approaches are also considered in the thesis.

Finally the thesis discusses the Australian retirement income system, noting that tax and means tests operate in very complex and not always consistent ways. Some options for addressing these problems are explored. It not necessarily sensible to apply the logic of the GMI in the retirement income arena, given that government policy has moved towards the income maintenance/compulsory savings principle in this area. For this reason options such as the guaranteed minimum pension idea may be worth considering.

The thesis concludes that the NTS addresses pressing problems in tax/social security interactions, but leaves other problems still requiring action. It is undoubtedly possible to further improve the existing system by incremental reform but, ultimately, major systemic reform may be the only way to fully and finally address these issues. While I will argue that the direction of such reform would necessarily be consistent with academic conceptions of the NIT or GMI approach, I will suggest that the end point we would wish to arrive at would differ from this prescription in a number of important ways.

## 1.2   Chapter 2:  The Australian system

This Chapter briefly describes the Australian system, noting that there have been progressive developments over 90 years which have gradually had the effect of easing access conditions for many of those already in the system – like the aged. This process of gradual universalism reached its high point in the 1970s when means tests for those over 70 were abolished entirely and later when the separate asset test was abolished.

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[1] In fact values added tax – VAT.

Subsequently some of these developments were rolled back, so that now all pensions and allowances (except for the blind) are income and asset tested.

There was a parallel process of creating eligibility for more and more previously excluded groups, such as sole parents in the 1970s and carers (including carers of children) in the 1980s and '90s. As a result coverage of the system has come to be very comprehensive; moreover, the means tests have come to look less and less like the tight tests of need underlying 'social assistance' schemes in other OECD countries, and more like tests of affluence: test designed to exclude only the well-off. As part of these developments, most 'sudden death' income and assets cut-offs have been replaced by tapered tests designed to provide a continuous incentive to earn or save more.

Both in terms of the gradualism of the means test structures, and in terms of the various extensions of eligibility, the system has gradually come to have the character of a guaranteed minimum income system. The main difference is that assistance continues to be *conditional* for those who are determined to be of workforce age, healthy and not to have caring responsibilities. The other main difference is that there are in effect dual systems: the pension system, which has higher rates and easier tapers, applied to the aged, disabled, and sole parents, and the allowance system which mainly affects the unemployed and their partners (Newstart Allowance), but also applies to the partners of low-income men if they have dependent children (via Parenting Payment (Partnered) – PPP).

Particular attention is paid to the families' assistance area, which has been the focus of important and substantial change over the past 3 decades. Improving work incentives for the unemployed has also been an important policy direction.

Much of this thesis is directed at technical matters like EMTRs, progressivity of the tax/transfer system and the like. However we need to bear in mind that other aspects of the system can also have important effects. For example, there has been a general tendency in the Australian system to increase pressure on the unemployed to actively seek work under the general banner of "mutual obligations", especially for young people. Such administrative approaches to some extent provide an alternative to increasing incentives through structural features of the incentive system. However it is likely that administrative measures will be most successful if married to a system which contains appropriate work incentives.

Technical solutions to the problems of high EMTRs are available, although it must be said we know little about precisely what impact these would have on behaviour. This is an area of research towards which – as discussed in Ch 3 - we will increasingly need to direct attention.

## 1.3    Chapter 3: Work and savings incentives of social security

This chapter summarises available evidence on the work incentive effects of social security. It pays particular attention to the various methods that have been utilised by researchers in this area. Much of the literature surveyed relates to overseas rather than Australian studies, and for this reason is not always easily applied in the unique context of the Australian system. Nonetheless there is fairly persuasive evidence that social security systems influence work effort deeply and extensively. This, after all, is the justification for seeking to ameliorate design features of the system that might contribute to work and savings disincentives.

One line of research has focussed on benefit (earnings) replacement rates. After taking account of taxes and benefits such as housing assistance, net unemployment benefit replacement rates in Australia are not very different to the OECD average except for single people, for whom gross and net replacement rates are significantly lower than that average. Only for families with children do net replacement rates appear to be high (75-95%), although in almost all cases there are net financial incentives to undertake even low-paid work. The only exception is that for some people it may be advantageous to combine part-time work with allowance receipt, although the number of those actually in this situation is not great.

Studies relevant to effective tax rates and poverty traps have been another substantial line of research in Australia. We know that the EMTRs that many social security clients can be subject to are high, creating a prima facie case that work disincentives are created. However we have (at least in Australia) little direct evidence of the extent or effect of these hypothetical work disincentives. Additional evidence on this is found in studies on the incidence of high EMTRs, which suggest that the problem affects fewer families than we might have expected. However it is difficult to interpret this research, which may also be interpreted as showing that social security clients, quite rationally, avoid earning incomes in those zones where high EMTRs apply.

The direct interview approach has been a popular method, within FaCS/DSS, of examining incentive effects of programs and effective tax structures. There has been a general finding that clients do not understand the way the system is structured, and that their decisions on whether and how much they work are based primarily on other factors. While this approach illuminates the important issue of how our schemes are comprehended out in the 'real world', the reliability of the interview approach has been questioned in tax studies where it was pioneered, and where it has been found to systematically understate work disincentive effects.

There is a lot of what might be called circumstantial evidence relating benefit availability to labour force participation. Relatively low rates of participation are observed among the spouses of the unemployed, wives of pensioners, older men, and sole parents. However it is too simplistic to relate these phenomenon only to the availability of income support for these groups.

Social experimentation has been out of fashion in recent years, partly in response to the apparent failure of the US income maintenance experiments in the 1970s. However more recent re-evaluations suggest that the experiments may not have been quite so unsuccessful as they at times seemed; in particular they appear to have substantially narrowed the range of realistic income and substitution[2] effects, and also to have reduced the estimated size of these effects relative to the (even less reliable) non-experimental studies.

Prior to the income maintenance experiments, studies on taxation and work incentives had been our main source of information on income and substitution elasticities. Much of this work is based on econometric investigation using cross-sectional data; more recently use of panel data has become popular. The earlier approaches based on interview studies have been pretty much discontinued because of problems with response bias. However even with the sophisticated econometric techniques now in vogue there are formidable conceptual and measurement problems, and a very wide range of estimates from the various studies. One reasonably reliable finding is that prime age men have relatively low labour supply elasticities; women's elasticities are

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[2] Labour supply responses to both taxes and transfers can be summarised in terms of income and substitution elasticities. Income elasticity refers to labour supply response to the average tax rate (or negative tax rate, if an income transfer is involved), and substitution elasticity summarises the response to the marginal tax rate. The *compensated supply elasticity* is the summary measure of labour and substitution elasticities taken together.

much higher but there are particular measurement difficulties for women (more so for sole mothers), and the range of estimated responses is very wide. It has been suggested that changing social expectations about women's labour force participation are making their behaviour more like men's.

Studies on the impact of income transfers are briefly summarised. Much of this literature is from the US. In a survey, Danziger et al (1981) 'guesstimate' that total US labour supply is reduced by about 5% by transfers; the total loss of earnings in the economy is calculated as 3.5%. Considerable uncertainty is attached to these and similar findings.

US spending on income transfers is low by international standards. But the *overall cost of the tax/transfer system* is measured not by the cost to the budget, but rather by the economic distortions that are induced by that system. This includes not only the cost of transfers, but also the cost of the taxes that finance them. Estimates of this cost are critically dependent on estimates of labour supply elasticities: as estimated elasticities approach zero, so does economic cost, as no behaviour is changed by taxes or transfers.

In a sense this literature is not directly relevant insofar as the results are derivative of elasticity estimates obtained in other studies. However I have included this section because it is interesting, and illustrates the critical importance of labour supply elasticities in decisions about the size and design of the tax/transfer system. One very important finding is that the cost of increases in redistribution is, at the margin, very much greater than the average cost of redistribution. This explains why further expansion of the social safety net will be very much more difficult than the expansion that has occurred to date.

I was not able to find any estimates of the total economic cost of the Australian tax/transfer system. It is likely to be at least as high as that of the US system (estimates range from 3.5% to 7% of output), and – because the Australian system is larger (particularly among the workforce age group) and more progressive – economic costs may be higher. However these sorts of numbers are extremely imprecise and highly theoretical.

Looking at the labour supply of sole parents, the US evidence clearly indicates that the old Aid for Dependent Children (now Temporary Aid to Needy Families – TANF) program generated 'non-trivial' work disincentives, but also appears to show that labour

supplied would not have been much higher in the absence of the program. The transfer spillover was nonetheless high; on average studies show that $1.60 must be spent to raise the incomes of sole mothers by $1. This appears to be a fairly general finding not restricted to sole mothers; in simulations of negative income tax plans based on labour supply elasticities estimated from the income maintenance experiments, earnings reductions in two-parent families represented some 35-58% of the additional transfer cost of the program.

Benefit impacts on levels of unemployment have been of special interest to the OECD in recent years, as part of their program to explain high and rising underlying rates of unemployment in the OECD area. In the 1990s they have put a lot of weight on structural explanations focussing, inter alia, on the level of income support available to the unemployed. This evidence is briefly surveyed; there is little agreement on whether or to what extent benefits induce unemployment, but general agreement that, once unemployed, benefits act to prolong unemployment duration. However the size of this effect is debated.

## 1.4    Chapter 4: The optimal rate of tax/taper

If the social security system is to be reformed, an important question is what set of effective tax rates we might wish to put into effect. In the past, there has been an apparent consensus in the academic literature pointing towards the optimality of linear taxation. This literature is supportive of reform approaches based on a negative income tax employing a linear schedule of benefit tapers cum positive tax rates.[3] This consensus appears to have evaporated following recent studies suggesting that higher marginal tax rates on the low-income population may well be economically efficient.

However considerable reservations attach to the conclusions in the latter class of studies, and there are a number of unresolved inconsistencies, particularly in that important class of studies which relate to the marginal welfare cost of redistribution. Resolution to these questions awaits the development of more sophisticated computer microsimulation models.

On balance it would be premature to conclude in favour of either a selective or a universal policy in the Australian context in the absence of such a full-scale behavioural

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[3] A secondary implication is that income support should in general be universal, rather than selective (means-tested).

microsimulation study. However the number of contentious assumptions that will be required in such a modelling exercise (relating to behavioural elasticities and the social welfare function) probably mean that there will never be an unambiguous answer. The possibility should also be borne in mind that what may be an optimal solution for the aged, for example, might not be so for the unemployed. Such differences can in principle be modelled, assuming we know the relevant labour supply and saving elasticities, but social and political judgements (eg that the aged "deserve" a more liberal means test than the unemployed) will also continue to play an important role.

My reading of the literature is that more selective solutions will be found to be more *efficient* than universal ones on most behavioural assumptions. However I also anticipate that selective solutions will have less favourable *distributional* effects, so the social welfare optimising solution cannot be reliably predicted on the basis of our current knowledge. Given the lack of a clear mandate for any given approach, reform based on continuation of our current high/low/medium EMTR structure may be as good as any other.

## 1.5    Chapter 5: Rationalising tax and social security

In this chapter I examine problem areas remaining after the government's NTS reforms and show that it is possible to iron out the worst of current anomalies and *effective tax rate* (ETR)[4] 'hotspots' by relatively simple changes to existing policy parameters designed in particular to 'unstack' areas of overlapping means test tapers.

Moreover, the required measures might be relatively inexpensive, since it is possible to offset part and perhaps all of the other "unstacking" costs by relatively modest adjustments which phase out the remaining quasi-universal payments in the system, payments which, I argue, no longer have a clear rationale in the context of the main poverty alleviation aims of the Australian system.

The question here is whether the Government wishes to remove those bits of 'middle class welfare' remaining in the family payment system. While I do not oppose universal family assistance as such[5], the existing two-part taper in the family payments

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[4] The ETR is simply the weighted average of the EMTRs applying over a given income range. I use ETRs as useful summary measures of work incentives provided for in the system.
[5] From an economic efficiency perspective it may not matter much whether family benefits are taxed back more severely, or taxed back less and general tax rates raised to finance this. See the relevant discussion in Ingles (1997).

system represents a sort of uneasy compromise between vertical and horizontal equity objectives. I argue that a single, lower taper would achieve a sufficient measure of horizontal equity by allowing means-tested assistance to flow into the mid-ranges of the (equivalent) income distribution. Apart from the single taper proposal, it seems highly desirable that tapers on Youth Allowance (YA) and Family Tax Benefit (FTB) Parts (A) and (B) should be 'unstacked' so that they no longer overlap.

Whether Newstart Allowance and Parenting Payment (Partnered) tapers should be reduced is a difficult issue however. It may be preferable to reduce high EMTRs for allowees by action on the income tax side.

The measures discussed here are essentially alternative means of implementing the Keating/Lambert proposal for a single, sequential tapering of all Commonwealth income support payments. This, in turn, is not all that different from the Dawkins et al (1998a) proposal for a negative income tax system with a three-part rate structure, involving an initial tax/taper rate of 60%.

### 1.5.1 Keating and Lambert proposals

Keating and Lambert (1998a and b) put forward a proposal (subsequently updated to reflect NTS changes) designed to rationalise means tests for families. The method is to first establish a family's potential entitlement for assistance, and then establish their actual entitlement on the basis of their assessed means. For pragmatic reasons pensions and benefits would continue to have different free areas. However, all tapers would become 50%. At the family payment threshold of $28,200 pa, "second tier" payments would start to abate at a rate of 30%. This tier includes Family Tax Benefit, Youth Allowance (YA) and Rent Assistance (RA), "and would have included childcare assistance if that had been possible" (K&L 1998a p283).

Part of the proposal is financed by abolition of the quasi-universal component of the Family Tax Benefit – that is, a single taper for all family payments is adopted.

The K&L proposal is an interesting one. My main response is that the objectives might be achieved more simply and directly by a simple set of pre-defined thresholds, disregards, and sequential tapers applied to FP, RA and YA, as described in this chapter. The effect would be that the means tests on these payments no longer "stack".

My 'unstacking" agenda, Keating and Lambert and the Dawkins et al modified negative income tax all end up looking quite similar in terms of their ultimate effects on financial

incentives and families' disposable incomes. The main difference is that the NIT makes some payment to those not eligible for a social security categorical payment, whereas the other two proposals do not. Otherwise, the main differences arise in relation to the different means of achieving a roughly similar objective – ie, a more rational structure of effective tax rates. It is interesting that there is so much agreement among academics and policy professionals on what a desirable end product might look like.

## 1.6    Chapter 6: Fundamental reform options

### 1.6.1    Negative Income Tax (NIT)

Academic economists such as Dawkins et al (1997, 1998a) have advocated a NIT as a solution to problems of welfare complexity, high EMTRs, and low wages. In their view the NIT is a means of supporting low wage earners while at the same time allowing further de-regulation of wage setting, hopefully with the consequence of expanded job opportunities for low wage earners.

Since I have argued that the Australian social security already amounts to a form of guaranteed minimum income scheme for those categorically eligible, it can be discerned that the further step of tax/social integration through a mechanism like a NIT is not really such a radical reform.

There is no doubt that the present categorical system is complicated, cumbersome and arbitrary (see eg Perry 1995). There are apparent attractions in moving to a system where the only criterion for assistance is low income. However, there are also major problems with the NIT or GMI approach in its "pure" (ie non-categorical) form. For one thing, in order to preserve current maximum levels of benefits under a NIT with a uniform proportional tax rate, the required rate is computed by Dawkins et al to be no less than 57%. In a similar recent exercise a committee appointed by the Irish Government discovered a required linear tax rate of no less than 68% (Irish Expert Working Group, 1996).

This tax rate assumes that current patterns of work behaviour continue. Dawkins et al consider that their reforms would increase work effort and ultimately lower the cost. However, there is a risk in a non-categorical NIT is that those with incomes below the breakeven points (where tax paid equals benefits received) reduce their work effort – as they did, for example, in US experiments in the 1970s based on the NIT principle.

Another issue is that such a system cannot discriminate between those whose low income is voluntary, and those for whom it is not - ie, there would be no work test for the able-bodied unemployed. Furthermore, some individuals, notably the self-employed, are able to manipulate their affairs so as to declare an apparently low income when in fact their full (comprehensive) income may be quite adequate.

Thus using low income as the only criterion of need for assistance, while theoretically attractive, and certainly consistent with the earliest arguments for a NIT, is probably not workable. Low-income earners might be better assisted by other measures, such as those discussed in Chapter 7.

Even if all those not now categorically eligible are excluded from a linear NIT, the required uniform tax rate is still 50% (Dawkins et al 1998a). In other words, in order to reduce high EMTRs on social security clients, marginal tax rates on many other taxpayers would need to rise; in some cases, considerably. Another problem with the Dawkins et al NIT is that, in utilising a common definition of income in both the social security and taxation system, it loses the ability, in the social security means test, to discriminate between those with and those without high levels of assets holdings.

The basic problem is that if effective rates of taxation on capital income are high, the incentives to avoid tax increase commensurately. Moreover, the opportunities for avoidance are quite considerable under an income base that falls regretfully short of the full comprehensive income ideal.

Hence, despite its theoretical attractions, the NIT in its "pure" (ie linear, non-categorical) form remains an idea which would require considerable political courage to implement, and the benefits of which might not be clear-cut. That said, some of the modifications to the basic NIT proposed by Dawkins et al provide the potential for a realistic compromise: for example, the sub-options which involve a higher initial taper rate (60%), a lower tax rate on middle income earners, and continued categorical tests of eligibility.

## 1.6.2 Integration of tax and social security

Another means of fully integrating tax and social security would involve the social security system adopting the tax definition of income, and replacing means tests with tax surcharges or special tax rates on recipients of benefits designed to have approximately similar distributional impacts. The use of special tax rates would make

tax interactions very explicit and allow systematic design of desired EMTR schedules. In paying benefits, Centrelink would withhold an appropriate amount of tax (Ingles 1985).

While there are administrative problems with the integration option, they are not insuperable. The biggest drawback to this option is that the tax and social security definitions of income are now very different and in particular the "extended deeming" system of imputing returns to assets is not duplicated in the tax system. Hence an integration system would be open to all the sorts of avoidance possibilities we saw during the period that the assets component of the means test was abolished.

### 1.6.3 "Full separation" of tax and social security

Dixon and Foster (1983a and b) provide a proposal designed to ensure that pensioners subject to the income test are not also subject to taxation. The mechanism for doing this is fairly simple, involving extension and modification of the special tax rebate for pensioners. To reduce the net benefit to higher income pensioners, the taper rate would be increased to, say, 60%. The special rebate would be withdrawn at the cutout points. The effect is to abolish "churning": ie, when individuals both receive some social security payment and pay tax at the same time.

The rebate abatement rate can be set at 30% so that, combined with the normal 30% rate of income tax, the ETR of 60% applies until the rebate is fully abated. The great virtue of this plan is that a single designed effective tax rate applies right through the means test taper zone. Unlike the Dawkins et al NIT, the social security definition of income continues to apply, and thus includes imputed income from assets.

The previous government contemplated a similar system when they promised that age pensioners would be totally removed from the tax system by 1995. This did not proceed, mainly for the reasons that it was thought to be inequitable in relation to those in the workforce with similar incomes to pensioners; and to be too expensive. However these comments were in a context where there would not be offsetting changes to income test tapers and would not be relevant if the taper rate were raised, as under the Dixon/Foster proposal.

### 1.6.4 Separation applied to all additional payments

This refinement, in Ingles (1998a), is not in the original Dixon/Foster proposal, but is a logical extension of their idea. Additional payments for families (FTB and YA) and for

rent (RA) would be added to basic benefits and also tapered at, say, 60% beyond the benefit cutout points. There would be matching tax credits in the income tax system, which would start to reduce at a rate of 30% once entitlement to all additional payments was exhausted. This would maintain the ETR at 60% until the net benefit to each family type was entirely exhausted. All such rebates would be withdrawn sequentially.

Note that the 60% tax rate is not intrinsic to the proposal. Rather, the objective is that all social security clients would become subject to a designed structure of marginal tax rates – whatever that might be.

An alternative means of administration is to apply special tax scales to social security recipients. This is found to be a more workable solution.

This system would totally abolish churning – that is, where the same people receive benefits and pay income tax. It would also have the advantage that additional payments for children and rent would become subject to the tighter social security definition of income, which includes imputed asset incomes. Thus full separation becomes a very effectively targeted system.

However, there are several important difficulties. Some people would have incomes excluding them from payment, but would be otherwise able to benefit from the special tax scales applicable to social security clients. Resolution to this requires that a 'grey' category of clients be catered for, who are designated by Centrelink as categorically eligible, who receive no pension, but are able to access the special tax scales. Another difficulty concerns those who move on and off benefits over the course of the year. This requires that a part-year tax scale be applied in proportion to the time spent on benefit.

It follows that the problems are soluble, but the complications arising mean that going down this path is not as easy as might at first appear. Such complications are inevitable so long as the tax and social security systems employ different income units, income definitions, and income periods. These issues are addressed more elegantly by the full integration solution, but even here, some such issues arise because the annual income base of the income tax is simply too long to be a workable income period when needs are pressing and immediate. Only in a fully linear tax system can such problems be entirely avoided.

### 1.6.5 Harmonisation

A final option (or, more correctly, class of options) is harmonisation. Tax and means testing would be allowed to operate over the same range of income, but would do so in a co-ordinated manner so as to achieve a designed structure of EMTRs. While harmonisation is not as target efficient as full separation - because the tax definition of income takes no account of assets - this option does have the advantage of having similarities to the current system, thus easing the transition. Most reform options currently under discussion, including those implemented in the Government's NTS (Tax Package), are based on harmonisation.

While harmonisation options are generally simple, they are in many respects the least elegant. They involve the continuation of a great deal of churning and often accidental outcomes in terms of EMTRs.

## 1.7 Chapter 7: Low pay and earned income tax credits

A number of proposals for reducing unemployment in Australia focus on cuts or freezes in award wages which, by reducing the aggregate wage bill and also creating more flexibility in the dispersion of relative wages, are meant to increase employment. Typically, such proposals include (often vague) proposals to offset some of the distributional consequences by top-ups or other adjustments to the tax/transfer system. The best developed of these proposals is that of Dawkins and his collaborators, which envisages the introduction of a *negative income tax* (NIT). More recently, Keating and Lambert have developed an *earned income tax credit* (EITC) proposal as an adjunct to their wider welfare reform proposals.

Apart from the NIT and EITC there are other possible options to assist low wage earners. These include other forms of wage subsidies (eg removal of payroll tax from the low-paid); changes to existing social security parameters to reduce tapers (and improve replacement rates for the unemployed) – as provided for in the Government's Tax Package; reductions in the income tax faced by the low paid (notably increases in the tax threshold, or increases in the low income rebate); and perhaps new social security supplements for the low paid.

This chapter examines the available options and concludes that, given the current structure of the social security system, there are serious obstacles to the most common ones such as the NIT or the EITC. The NIT is already dealt with above. In Ingles

(2000d) I show that the US EITC is essentially a device to increase the progressivity of the tax/transfer system for families, and to reduce (or even make negative) tax rates on low-income families. In the Australian context, both of these results are achievable by changes to family assistance, notably by reductions in the family payment taper (which, like the EITC, both improves work incentives for low earners and gives greatest benefits at the low-middle income range). These policy instruments are not available to US policy makers.

There is a case for further reducing tax burdens on low wage earners, but options in this area tend to be very expensive and/or require targeting on a family needs basis. Reducing the tapers on Newstart and Parenting Allowance would help low wage families in a very targeted manner, but create a whole class of low income working people receiving a part-allowance, and this may not be a desirable development from either a policy or an administrative view. It would require a new philosophy as to the role of unemployment payments in particular, which have not hitherto been (widely) seen as a form of low wage subsidy. Also this strategy, while not so expensive in itself, pushes out the necessary threshold for the family payment, RA and youth allowance means test if means test "stacking" is to be avoided, and therefore has potentially significant flow-on costs.

Low wage earners can be helped in many different ways. A lot depends on the objectives we are seeking to achieve, and whom we wish to help. If we wish to ensure that low pay does not result in poverty then the present system, with minor refinements, is probably adequate to this task. For families with dependent children, substantial in-work assistance is already provided to low wage earners. In addition, low-wage couples without dependents can receive unemployment assistance if one of them is willing to seek full-time work.

For the medium term future, low full-time pay – assuming that the minimum wage of $400 pw is applied effectively - is unlikely to cause poverty for single individuals or working couples without children, so the lack of social security supplements for these groups is not an immediate issue. If supplementation were required, it should relate in the first instance to those with high housing costs. Hence one option canvassed involves changes to the rental assistance scheme to make it available to low wage earners outside of the current categorically eligible groups.

Although the current system addresses poverty, if lower minimum rates of pay were adopted as a solution to structural unemployment that might start to cause problems of excessive earnings replacement rates on moving onto benefit. The answer here (we exclude the "solution" of cutting benefits) is to ease EMTRs for those on the margins of the welfare system. This has already been done for family assistance, under the NTS.

For couples coming off allowances, EMTRs are currently very high. Two approaches are possible. One is to directly reduce allowance tapers, but this has the problems noted above.

The alternative solution is to reduce income tax payments for those on the welfare margin. This has the advantage of keeping people out of the welfare system. It also helps in terms of tax/welfare interaction generally. Many of those who would benefit from easier tapers also pay income tax; often in substantial amounts. Reducing income tax on the low paid will therefore reduce churning, compared to the lower taper option, and it also helps those outside of the formal social security system. However it is likely to be much more expensive than reducing tapers, as it is more difficult to confine the benefits to a small target group.

The EITC is one version of this strategy. It can be tightly targeted if it is based on the family rather than the individual. But it may be better to explicitly change the tax unit – particularly at the low income end – to reflect relative needs of families. A number of approaches for doing this are explored.

Another problem which policy might seek to address is that of increasing inequality, rather than poverty (the two are related, but not identical). However the policy response to this is not likely to be greatly different. Once we move from a focus on poverty alleviation to one where we are concerned about work incentives for those on the margins of the welfare system, we inevitably end up giving extra assistance to those on low to middle incomes.

A third possible objective is to "buy" award wage restraint before the Industrial Commission. In this context, a virtue of the EITC is that it would be a highly visible and saleable offset to any scheme of award wage restraint, and might make such a scheme acceptable to the Industrial Commission (and, with less likelihood, the trade union movement).

A problem with an EITC as a compensation mechanism is that it limits compensation to a sub-group of the affected population. Indeed, this is precisely its point (from a cost perspective), but it is a serious weakness from a political perspective. In particular it implies that the union movement would be extremely unlikely to support the wage/tax tradeoff as currently envisaged by its proponents.

## 1.8 Chapter 8: The retirement income system

The taxation of superannuation reflects the general turmoil over the appropriate taxation of capital income. This is not just an Australian problem, it is found all over the world. However the Australian problem is exacerbated by the fact that we have a supplementary tax on capital income called the aged pension means test, and this interacts in complex and sometimes perverse ways with the rest of the income tax system.

There are two theoretically pure ways of taxing capital income. Either would require a radical upheaval of existing arrangements. One is the *expenditure tax* (ET), which effectively exempts most capital income from tax. The other approach is the *comprehensive income tax* (CIT), but for this to work properly it requires that capital income be taxed on a fully inflation-adjusted accrual basis. For example, capital gains should be taxed each year, at the individual's marginal rate, on the difference between the start and the end values of the relevant assets, adjusted for inflation. Further, income should be imputed to items in use, of which the owner occupied home is the most important example.

Economic theory is not decisive as to which of these approaches are to be preferred. However it does suggest that intersectoral allocation of resources is improved if the one approach – either the ET or the CIT - is applied to all forms of capital income.

All tax systems in practice employ mixtures of expenditure and income tax concepts. The ET approach is typically applied both to owner-occupied homes, and in many countries, to superannuation savings. Many theorists have therefore argued that efficient asset allocation would be furthered by applying an ET regime more widely. Others have argued that this would have an unacceptable impact on the distribution of income and wealth. This is precisely the problem that would arise if the ET concept were pursued more wholeheartedly in the superannuation arena in this country.

If it were pursued, it would certainly be necessary to retain and probably tighten the pension means test in order to offset the inegalitarian consequences. However the means test can only operate as an implicit tax up to a certain point; beyond this the superannuation wealthy would enjoy a marked advantage. The means test has the additional disadvantage that it impacts alike on assets that have been taxed concessionally, and those which have not. This can contribute to marked horizontal inequities, as well as economic distortions. Finally, the means test undermines the whole conceptual basis of the ET approach and makes the exercise inherently flawed.

In consequence I do not favour that approach to reform. Rather, I would prefer to see the means test weakened, eg, by further reducing the taper from 40% to 25%. This would result in a roughly linear schedule of effective tax rates on the aged, at about 50%. Alternatively, and preferably, the pension taper could be grossed up to 50% and full separation applied, with pensioners being subject to a special tax scale. Any ETR much less than 50% necessarily imposes a disproportionate burden on the younger sections of the population.

One option would be to pay for the taper reduction by further tightening the tax regime applying to superannuation. The big problem here is that this cannot be easily done without potentially disadvantaging some lower income earners who already receive a fairly marginal benefit from investing in superannuation. The fact that some of their involvement is involuntary does not excuse this. And yet it is hard to design any tax increases that do not have adverse impact on some people's incentives to save through superannuation. The current system is based on a balance of offsetting distortions, which is not easily pushed or pulled at any one point.

I am attracted nonetheless to the fuller taxation of end benefits proposed in various forms by Knox, the Institute of Actuaries, and Atkinson et al, combined with reduction or abolition of the annuity rebate. Ideally this would be combined with a more generous scheme of rebates for employee contributions, as also envisioned in these proposals. Ideally we would end up not discriminating in any way between employee and employer contributions, and the concept of undeducted contributions would disappear. The remaining 'concession' for annuities would simply be the purchase price deduction. However all these proposals encounter various technical problems, as well as problems as to the transition.

Another option is the "guaranteed minimum pension" approach discussed in Ingles (2000c).

In the longer term we should look for a solution where the taxation of superannuation became part of a comprehensive reform of capital income taxation. However the changes likely to be necessary are so radical – whether that be a full ET or a full CIT - that it is unlikely we will see anything like this for some considerable time to come.

## 1.9   Ch 9: Conclusion

There would appear to be advantage in developing the Australian social security system in a manner more consistent with academic notions of a GMI. However there are severe obstacles to the 'pure' GMI where the only test of eligibility is low income. Rather, it seems likely that we would wish to retain some test of 'mutual obligation' as a condition for receipt of income support. In particular, I argue that we need to persist with:

1.  Categorisation – albeit with three, not 22, categories. These three are the aged (65 and over); the workforce aged who meet 'mutual obligation' requirements; and those who do not. The last group gets no income support from government, but in my proposals benefit from significant income tax cuts if their income is low.

2.  Higher effective *tax rates* for beneficiaries than for those whose incomes exceed the benefit cutouts – albeit that a linear tax schedule is proposed for the aged.

3.  Different and more comprehensive *income definitions* for beneficiaries compared to taxpayers.

4.  Different income *periods* for beneficiaries and taxpayers.

The consequence of the last three is that there must also be

5.  Different *income units* for beneficiaries and taxpayers, albeit that the family unit preferred in the welfare system must be extended some way into the positive tax system in order to create a smooth transition.

Subject to these caveats, I propose a system that is substantially based on the GMI ideal. However its implementation is by means of the "full separation" system whereby all social security benefits are withdrawn before any income tax becomes payable. The effect would be that a designed structure of marginal rates is achieved; the system becomes transparent, rational and sustainable.

# 2 CHAPTER 2: OUTLINE OF THE AUSTRALIAN SOCIAL SECURITY SYSTEM AND IMPORTANT DEVELOPMENTS.

## 2.1 The Australian system as a *guaranteed minimum income* (GMI)

This Thesis considers Australia's social security system as the world's closest approximation to a GMI scheme, and the lessons that might be learned by other countries wishing to consider such a scheme. The original concept of a GMI or *negative income tax* (NIT) was based on the logic that government's have a basic duty to intervene in the free operation of the market in order to prevent poverty, but need not do more than this: ie, they have no need to try and maintain living standards by relating benefits to previous earnings. The simplest and most logical way to prevent poverty would be to provide a minimum entitlement to support which would be progressively withdrawn as income rises (see eg Friedman 1962). Because support is withdrawn progressively (ie with tapers well below 100%), individuals would continue to have an incentive to earn more, so that the system could operate purely automatically – administrative discretions or requirements might be entirely avoided. The only criterion for assistance would be low income.

The Australian system differs from academic conceptions of a GMI or NIT in several important respects:

- It is categorical in nature; having a low income is a necessary but not sufficient condition for receiving assistance; this allows, for example, requirement that people be actively seeking work in order to receive unemployment related payments.

- There is not a single maximum rate but rather several, and also several different rates of taper (the rate at which benefits reduce as income rises).

- It is not integrated with the tax system except for family payments (although various special rebates operate to reduce tax on pensioners and beneficiaries).

- There are elements of the system which do not have a strict anti-poverty focus (as in the classic economist's conception), but instead embody various degree of horizontal equity (some family payments) and maintenance of living standards (the compulsory superannuation system, for example, as well as employer provided sick leave entitlements, motor vehicle accident compensation and worker's compensation).

Notwithstanding the various earnings-related elements, the social security system stands in the background as a safety net for those whose entitlements run out or are otherwise inadequate (or non-existent). For this reason the thesis does not deal with them except for the superannuation system, which creates particular problems of integration (Chapter 8).

Since most benefits (in particular Newstart Allowance, for the unemployed) are paid without limit as to duration, the effect is that we have what might be described as a form of GMI scheme, albeit one restricted to those able to prove eligibility under various categories – the aged, the unemployed, the sick, etc. The main difference between this system and a non-categorical GMI is that we exclude those whose low income is voluntary or difficult to measure: for example, the low-income self-employed (who are generally deemed not available for employment), and those who are not working nor actively seeking work (who would not satisfy the Newstart Allowance activity test). Another difference is that there is a family-based means test, rather than the individual entitlements envisaged in some 'basic income' proposals. This test tends to exclude 'dependent' spouses from benefits.

## 2.2    Brief overview of the income security system[6]

The Australian income security system comprises:

- the *social security system* administered by the Commonwealth Government, which is  funded from general taxation revenue and provides flat-rate, means-tested income support payments to those not expected to work (retired people, lone parents and carers), unable to work (people with disabilities and the sick) or unable to find work (the unemployed). Additional means-tested payments are available to those who pay rent in the private rental market and to assist with the costs of dependent children;

- *pensions for war veterans and their dependants,* which include both income support and compensation elements and are funded by the Commonwealth Government from general revenue;

- *a mix of compulsory and voluntary occupational superannuation,* funded by employers and employees and supported by tax concessions. This system

provides either lump sum benefits or earnings-related pensions on retirement, or a mix of both;

- *compensation arrangements for work injuries and deaths,* legislated by State/Territory Governments and providing for 'no-fault' earnings-related benefits (either as periodic payments or lump sums), financed by compulsory, risk-related premiums or levies paid by employers to commercial insurers or, in some States, governmental compensation funds;

- *compensation arrangements for road accident injuries and deaths,* which mainly provide for lump sum damages financed by compulsory annual levies on motor vehicle owners paid to commercial insurers;

- *life and contingency insurance,* which operates through commercial insurers and is essentially voluntary in nature;

- *paid sick leave,* which is mandated by legislation and provided and financed by employers. Usually this provides full or partial income replacement to sick employees for defined periods, often with arrangements whereby sick leave credits accumulate with increasing length of service with an employer; and

- *other cash and in-kind welfare benefits and services,* such as subsidised child care, public housing and transport, domiciliary and residential care services for aged and disabled people, rebates on local government property taxes for pensioners and reductions in charges for utilities such as water, electricity and gas. These are provided at Commonwealth, State and local levels, with the Commonwealth Government providing additional funds for them.

In addition, there are concessions within the personal income tax system, for example, for sole parents, dependent spouses and medical expenses (notably health insurance).

There is a general system of compulsory health insurance financed from a combination of general revenue and an income-related tax surcharge (the Medicare levy).

Housing assistance is provided in three main forms:

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[6] This overview draws heavily on Whiteford (1998 and 2000).

- the Commonwealth Government provides income support for rental housing costs in the private sector in the form of Rent Assistance payments through the social security system;

- the Commonwealth and State Governments fund the provision of public and community housing through the Commonwealth–State Housing Agreement (CSHA). Rental levels are modest, and are further reduced by a system of low-income rent rebates; and

- a new grant has recently become payable to first home owners as a form of compensation for cost increases arising from the GST.

The Commonwealth Government provides substantial *Childcare Assistance* to families to reduce the costs of child care. This assistance reduces gradually as family incomes increase, although there is a small quasi-universal component.

The *Child Support Scheme* provides financial support for children of separated parents by obtaining contributions from parents to the support of their children in accordance with their taxable income. Payments collected by the CSA are paid out to custodial parents by FaCS. Child support payments reduce the higher rate of Family Allowance for children received by custodial parents.

Since 1992, Australia has had a compulsory, occupational-based, superannuation (private pension) system. Under the *Superannuation Guarantee,* employers are required to make prescribed minimum contributions, on behalf of their employees, to complying superannuation funds. The required minimum contribution was set at 3 per cent of employee earnings in 1992, rising to 9 per cent in 2002–03; it is currently 8%.

In 1996, some 6.3 million or approximately 89 per cent of public and private sector employees were covered by superannuation. Most of the 11 per cent of employees with no superannuation fall below the income threshold for the Superannuation Guarantee. The low income threshold is being raised from $450 to $900 a month.

There are two long-standing values that provide the basis of the Australian income support system. One is that government and community responsibility to assist those in need. The other is that private provision outside the social security system is to be

encouraged as far as possible, with the income support system being primarily a safety net.

This distinguishes Australia from most other developed countries (apart from New Zealand) - the primary focus of Australia's social security system is protection against poverty. In most other OECD countries, by contrast, the primary principle is one of income maintenance across an individual's life-cycle, notably through defined contingencies such as sickness, unemployment and old age, although many have poverty relief as an important additional objective.

In Australia the income maintenance principle is mainly reflected in the mandatory *superannuation guarantee* (SG) system, although it is heavily modified by the residual pension entitlement that most people in receipt of SG benefits will also access. Benefits are flat rate and paid from general government revenue; there are no earnings-related features.

A marked departure from the 'safety net' model was proposed in 1974, when the Whitlam Labor Government wanted to introduce a 'national compensation' scheme modelled on a similar scheme in New Zealand. This would have replaced existing schemes of workers and accident compensation, as well as the disability pension, replacing them with a single earnings-related scheme. This Government also set up an inquiry into a 'national superannuation' system paying contribution-related benefits on the social insurance model, but lost office before it received the report.

There is also an extensive system of supplementary payments for families with children. This provides direct cash assistance for around 80 per cent of all families, and higher levels of assistance for those receiving basic income support benefits or in low paid jobs. Other payments include a maternity allowance, payments for all low-income parents caring for children, and assistance with child care costs. Those renting privately may be entitled to assistance with housing costs.

Benefits are effectively available on an indefinite basis, subject to the means tests. Because payments are not contributory, coverage of the system is quasi-universal, being subject only to a range of residence requirements. Payments for the unemployed are subject to an activity test. Because of the relatively relaxed income tests, it is possible

to combine receipt of income support with part-time work (and in some cases low-waged full-time work).

## 2.3 The income support system

The government income support system comprises:

- Twenty-two income support payments divided between two classes, pensions and allowances; payments are made on a categorical basis, with the most important categories being the aged, people with disabilities and those caring for people with disabilities, the unemployed, sole parents, the short-term sick, and war veterans.

  - these are designed to provide a subsistence standard of living for an adult or a couple;

- two payments in respect of dependent children;

  - these are paid at the same maximum rate to beneficiaries and low income working families;

- rent assistance, paid at five maximum rates according to family composition; and

- four income supplements.

Income support payments and most supplementary payments are income and assets tested. Eligibility for different income support payments is based on the reason a claimant is unable or not expected to support him or herself through paid work. These reasons include illness or disability, parenting or caring responsibilities, age or unemployment, and participation in full-time education or long-term training. Only the unemployment payments, currently Newstart and Youth Allowance, are subject to an activity test, although eligibility for Carer Payment is based on the level of care actually provided.

Participation in full-time paid work does not itself preclude eligibility for income support, although the allowance income test makes it unlikely that many people could combine full-time work and any income support entitlement. All payments allow recipients to combine some earnings with income support, although for several payments there is a restriction on the permissible hours of work. For example, an applicant for Newstart allowance who was already working full-time would be regarded

as not being available for work and therefore be ineligible, even though his income might be below the relevant cut-out. This provision mainly affects the self-employed.

Rates and income and assets tests are standardised for pensions and are more generous than the standard rates and income and assets tests for allowances.

All pensions plus Parenting Allowance, Maternity Allowance and Rent Assistance are adjusted twice yearly in accordance with movements in the Consumer Price Index (CPI) (in March and September), while family payments and Child Disability Allowance are adjusted once a year, in January. The single rate of pension is indexed at a minimum of 25 per cent of Male Total Average Weekly Earnings (MTAWE), with flow-ons to the married rate of pension. CPI indexation is intended to protect the real purchasing power of the pension, while maintaining the pension at 25 per cent of MTAWE is intended to allow pensioners to share in rising community living standards.

The indexation of pension to MTAWE is opening up a gap compared to allowance payments, and this will tend to increase over time due to the tendency of wage growth to outstrip price growth by around the rate of productivity growth - about 1.5% pa.

Major policy initiatives in the 1990s include the introduction of 'deeming' of a minimum rate of return on financial assets, and the integration of the various income-tested family payments to improve take-up of assistance, particularly among those in low paid work. Payments to students and the young unemployed were integrated in a single "Youth Allowance" means tested on parental as well as individual income. Changes to the family payment system are described later.

Changes were also made to the structure of income support for the unemployed. In essence, these involved the partial individualisation of the benefit system for couples. This required the spouses of unemployment benefit (Newstart allowance) recipients to claim benefit in their own right (and be work-tested, or a parent) unless they were in older age groups. The withdrawal rate on unemployment payments was reduced, with the maximum taper falling from 100 to 70%.

### 2.3.1  Means testing in the Australian system

The Australian system of social protection differs from those in most OECD countries in generally eschewing the "social insurance' approach of compulsory contributions and earnings-related benefits in favour of a flat-rate means tested system. Means-testing

arrangements are designed to 'target' social security payments to those most in need, while not discouraging self-help and financial independence for those with other resources. The definition of 'income' for the purposes of calculating a social security entitlement includes gross (before tax) employment income and deemed investment income.

In 1990-91 income-tested payments in Australia amounted to 5.2 per cent of GDP, or 90 per cent of total social security spending. The average for the OECD as a whole was 1.9 per cent of GDP and 14 per cent of social security spending (Eardley et al 1996). As a consequence, comparatively high proportions of the Australian population were subject to income-testing. The proportion of the total population in Australia receiving social assistance benefits in 1992 was nearly two and a half times the average of OECD countries, and was consistently higher for all groups apart from lone parents.

However the means tests employed are generally in the nature of tests designed to exclude the reasonably well off, rather than being meant to include only the poorest. As such, Australian means tests have sometimes been described as "affluence" tests rather than "poverty" tests.

Typically, for example, there is some "free area" below which income or assets do not affect payments, and the taper on the main allowances as income rises is 50% rising to 70% beyond certain income levels. By "pension" I mean all those payments with a pension-type means test (free areas of $106 per fortnight, single, and $188, couple, and 40% taper beyond), and by "allowance" I refer to those payments with an allowance-type means test (free areas of up to $62 per fortnight, each person, and taper of 50% up to $146 per fortnight and 70% thereafter). "Benefits" I use as a generic term covering all our payments, including family payments[7].

Tapers on pensions become 40% under the July 2000 New Tax System (NTS) (down from 50%), and 30% for family payments (previously 50%). Moreover family payments have a two-part taper with a semi-universal component which does not abate until income levels exceed $73,000 pa. This means that the cutout points even for first-

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[7] This usage is not consistent with the Social Security Act definitions of the terms 'pension' and 'benefit'. Nor is the legal terminology for the classes reflected in the names of individual payments: some pensions have 'allowance' or 'payment' in their names, only one benefit is known by the name benefit and one family payment is called a pension.

tier benefits tend to be at higher levels in the earnings distribution than are benefits paid under most "social assistance' schemes overseas.

By contrast, social assistance recipients in other OECD countries will typically face 100% withdrawal rates, before their EMTRs drop as they exit income support. Only the Special Benefit in Australia has this style of means test, and this is a tiny residual benefit available to those not meeting other categorical criteria (for example, residentially unqualified aged people).

Because of their character as affluence tests, Australian means tests have the potential to affect behaviour over quite wide bands of income. Withdrawal of benefits as income rises and "stacking' of multiple means tests can, when combined with income taxation, create very high *effective marginal tax rates* (EMTRs) for some clients.

There is a quite complicated regime for assets. 'Assets' are generally a person's financial and other property. Some items of property are not included as assets, the most significant of which is a person's principal residence.[8] Financial assets are "deemed" to earn income at a rate which is set from time to time at the prevailing level of interest rates – currently 4.5% for the initial $30,000 and 5.5% thereafter. Financial institutions typically provide special pensioner accounts paying the deeming rates, although it is possible to invest in higher yielding assets and still be deemed to earn at these rates.

In addition there is a separate assets test on most benefits (no longer on family payments), but these are set at levels that in general affect relatively few people. The assets test for allowances is harsher than for pensions, involving a "sudden death" loss of benefit if assets exceed the threshold. For pensioners there is a gradual loss of benefits on exceeding the thresholds which involves an implicit deeming rate of 19.5%. Whereas only financial assets are included under the main deeming regime, all assets except the owner-occupied home are included in the separate asset test. Higher limits apply where the client is not a home-owner.

The assets thresholds are the same for pensions and allowances, but a pension is tapered above these thresholds, by $3 per fortnight for every $1,000 of assets. For allowance

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[8] Their own home represents a substantial asset for many retirees. As at June 1995, 43% of Australian households owned their own home and 27% were purchasing, a total of 70%. In March 1997, 69% of age pensioners owned their own home.

recipients there is, instead, a "sudden death" disqualification at these thresholds. The limits are dependent upon marital status and home ownership. There is no longer – post the July 2000 changes which effectively change family payments into tax credits – an asset test for family payments. The rate of pension is calculated under both the income (including deemed income) and assets tests, and the test that results in the lower rate is the one that applies. Most (95%) pensioners are assessed under the income rather than the assets test.

Finally, there is a "liquid asset test" for Newstart Allowance applicants designed to delay eligibility for those who have left a job with a severance payout. This affects only liquid financial assets, but is quite severe, with a waiting period of up to 26 weeks being served by those whose liquid assets, at the time of applying for allowance exceed $9,000. Once on allowance, however, only the normal asset limits apply.

The amount of income a person may receive before pension is reduced (called the "free area") is dependent upon marital status and the number of dependent children. At July 2000, a single person may receive $106 per fortnight before pension is reduced and a pensioner couple may receive $188 per fortnight (combined) before pension is reduced. $24.60 per fortnight is added for each dependent child. Income in excess of these free areas reduces pension entitlement by 40 cents in the dollar (for a single person) and 20 cents each in the dollar for a couple.

These income test parameters, in conjunction with the maximum rates, produce "cut-out points" which are the private income levels at which benefit payments are reduced to zero. At July 2000, these "cut-out points" are $1,087 per fortnight ($28,260 pa) for a single person and $1,817 pf ($47,240) for a couple. For allowances cutouts are $578 pf ($15,030 pa) for singles; $1,029 pf ($26,750 pa) for couples (or more, depending on how the couple's income is distributed). By way of comparison average male weekly earnings is $39,490 pa, and $26,156 for females. The presence of dependent children, and payment of private rent, raise the cutout.

The income cutout points (with the exception of the child deduction amount) rise automatically following indexation changes to the base amounts and the free areas.

In 1969 the "tapered means test" was introduced with a 50% rather than a 100% withdrawal rate. In 1972 the pension free areas were doubled, and in 1973 the

Government abolished the means test for those aged 75 years and over, and in 1975 for those aged 70 to 74 years. In 1976 the means test was replaced by a test on income alone. The rates of the income test free pension were frozen in 1978, and in 1983 the pension for those aged 70 years and over was again subject to the income test. In 1985 an assets test on pensions was reintroduced.

As an illustration of the extent to which people qualify for payment under these arrangements, Figure 2.1 shows social security income recipients as a proportion of the pension age population from 1965 to 1999. Currently they represent some 70-75% of the total.

**Figure 2.1: Proportion of the population of age pension age receiving social security payments, 1965 to 1999**



— Proportion of population (Age Pension plus old age service pension recipients)
— Proportion of Population (Age Pension plus all service pensions minus estimate of workforce-age recipients)
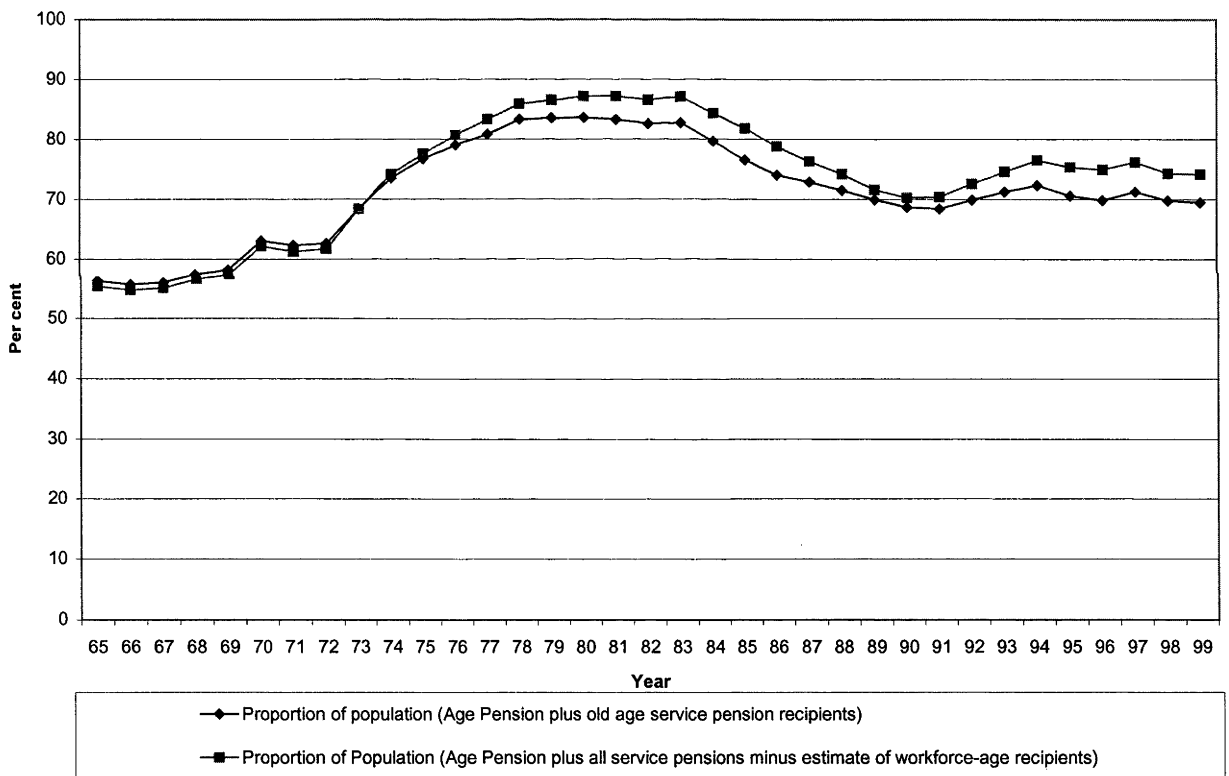
**Source: Whiteford and Angenent 2001**

## 2.3.2 Taxation issues

Most basic rates of pension and allowance are taxable, the major exceptions being payments to disability support pensioners (and wives or carers of disability support

pensioners) not of age pension age. Additional payments, such as family payments and Rent Assistance are generally not taxable, but are means tested.

Since the annual rates of most taxable pensions exceed the general tax threshold, special tax rebates are used to ensure that full year pensioners, with little or no other income, are protected from tax liability. The pensioner rebates for both married and single pensioners are increased each year to ensure that income equal to the income test free areas remains tax-free. The rebates are progressively withdrawn at higher levels of income, a process that can exacerbate high EMTRs. The same problem occurs for allowees, but the rebates are less generous, so tax liability can commence within the free areas.

Over time, the amount of rebate needed to offset the ordinary tax liability of pensioners has risen, as the value of the payments has increased much faster than the value of the tax-free threshold. Pensioners and allowees are also eligible for the range of rebates available to other taxpayers, for example the low-income rebate, sole parent rebate, the dependent spouse rebate and the zone rebate.

Partly as a consequence of the unusual nature of its system of income support, the Australian tax system differs significantly from those of other OECD countries. Total tax revenue in 1995 was 30.9 per cent of GDP compared to an OECD average of 37.4 per cent (OECD, 1996).

Taxes on income and profits accounted for 55.3 per cent of total revenue compared to an OECD average of 35.3 per cent. However, there are no social security contributions in Australia (apart from the 1.5/2.5% Medicare levy), while such contributions account for about 25 per cent of total revenue and 10 per cent of GDP for the OECD as a whole. Including the Australian mandatory superannuation scheme would change this picture, of course.

The top marginal tax rate (47%) in Australia is below the top rate in 12 other OECD countries. However, marginal rates over 45 per cent cut in Australia at income levels below that in any other OECD country apart from Turkey and Ireland. The relatively low level at which the top rate applies in Australia reflects the non-indexation of the income tax scales to inflation. Over time, this has increased its effective progressivity.

The Government has recently introduced wide-ranging reforms to taxation and social security programs. This involved the replacement of the Wholesale Sales Tax with a broad-based Goods and Services Tax (GST) – really a value–added tax (VAT) -, extensive cuts to income taxes, a compensation package for the effects of the tax changes and family assistance changes, and a range of other reforms - eg, to funding for the States.

### 2.3.3  Tax and income test interactions

Over the past 20 years there has been a substantial increase in the degree of interaction between social security and other sources of income. Overall, around 60 per cent of social security customers in December 1997 had private income in addition to their social security payments. This proportion ranges from around 10 per cent of Special Beneficiaries and 30 per cent of Newstart Allowees to 45 per cent of Disability Support Pensioners, 60 percent of Sole Parents (who receive Parenting Payment – Unpartnered) and 80 per cent of Age Pensioners. The trend to declaring increased private income has been particularly significant for sole parents.

Increasing tax interactions are very important, since more individuals come to face high effective marginal tax rates due to the overlap between income tests and the tax system. Where these tax rates act as a barrier to social security recipients from taking part-time work, they are known as "poverty traps". Where they act as a barrier to those in work from increasing their earnings they are known as a "low income trap".

An income support recipient completely reliant on payments or with very low additional income initially faces a low effective marginal tax rate, since none of their payments are withdrawn under the free area, and most social security recipients will have zero or very low income tax liabilities. However, once they are over the free area and paying income taxes, their EMTRs will increase quite significantly.

**Figure 2.2: Disposable income schedule for families (two children, 4 and 7 years)**



**Source: http://www.taxreform.gov.au**
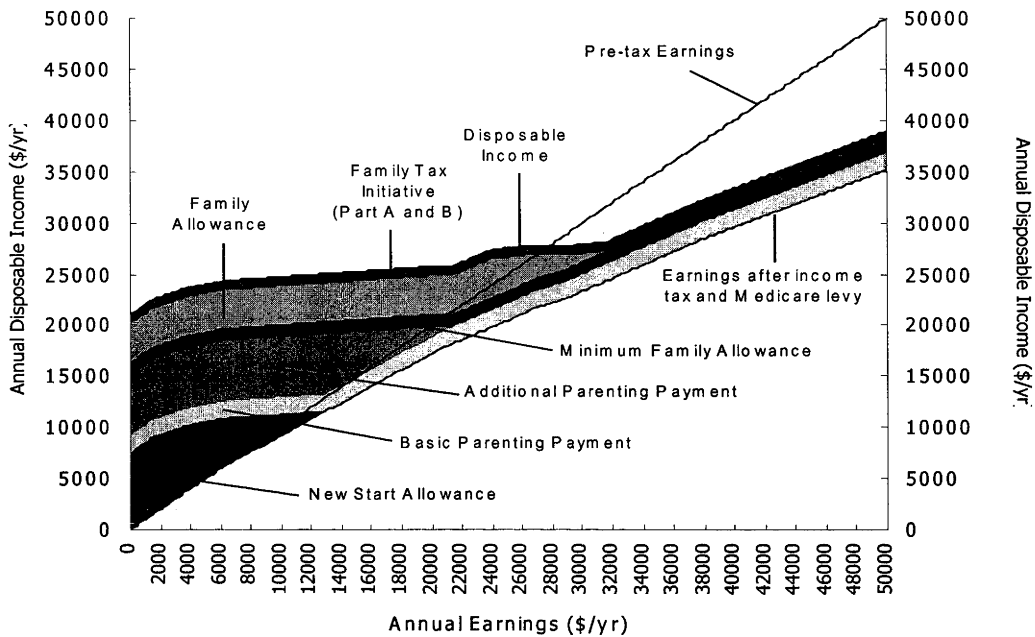
Figure 2.2 illustrates the effects of the income support and family payment systems and their interaction with the income tax system prior to the July 2000 NTS reforms. The figure shows the disposable income schedule for a single income couple with two children (aged 4 and 7 years). Without any earnings, the family received social security and family payments totalling just over $21,000. Disposable income increased only slowly as earnings increase, since social security benefits are lost, tax becomes payable, and family payments are withdrawn.

This continues to be the situation even after the NTS reforms. However the reduction in the taper on family assistance provides for greater work incentives in the incomes zones (over $28,000pa) where this reduces.

Family cash benefits are very important in reducing the dispersion of original income. But their withdrawal gives rise to effective tax rates, especially for families, that can be high over very wide ranges of income. At specific points or narrower income ranges, they can exceed 80-90 and even 100 per cent. These high EMTRs are a consequence of the high degree of targeting imposed in the Australian family payments system.

Whiteford (2000 p41) concludes that the structure of the direct tax and family benefit system in Australia is more progressive than in other OECD countries studied, a finding

that reinforces the picture of Australia as a country committed to targeting. The consequence of this progressivity is that the average effective tax rate over this wide income range is higher in Australia than in any most other countries.

## 2.4 Trends in pension and benefit receipt

Over the period 1965 to 1999, the total number of income support recipients has increased from around 900,000 to 4.3 million. Of these, some 2 million in 1999 were age pensioners or received Department of Veterans Affairs (DVA) payments.

Figure 2.3 shows social security recipients as a percentage of the total population aged 15 years and over. Between 1965 and 1999 the proportion of the adult population who were social security recipients increased from under 11 to 27 per cent[9]. These figures exclude those receiving family payment only.

**Figure 2.3: Proportion of the population aged 15 years and over receiving social security payments, 1965 to 1999**
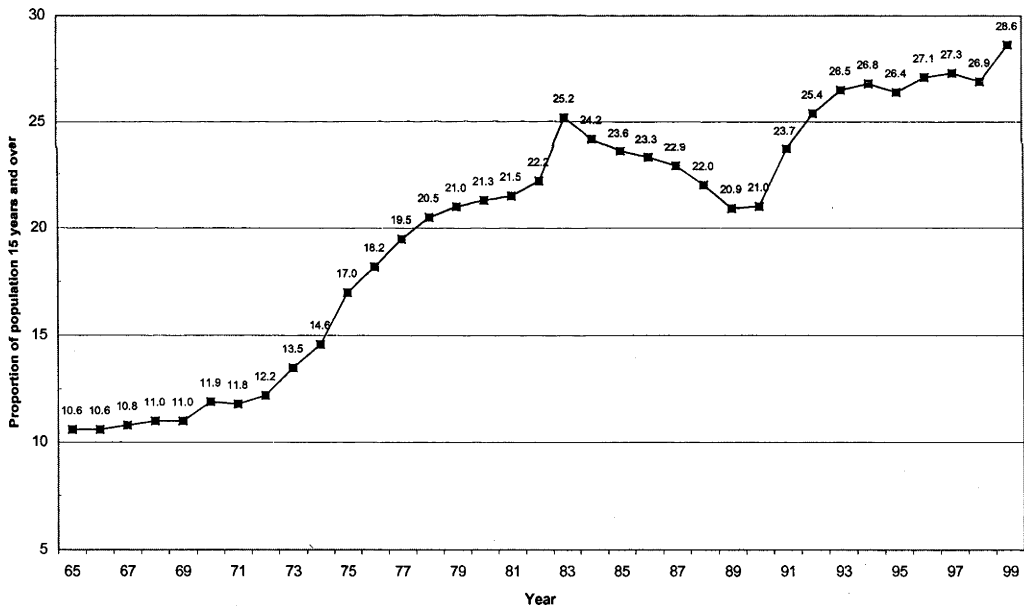


**Source: Whiteford and Angenent 2001**

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[9] The jump in 1999 is attributable to the inclusion of Youth Allowance recipients, who would previously have been in the Austudy system. These estimates of coverage are calculated as rates of receipt by comparing the total number of social security recipients and the total population. To some extent, this will give an exaggerated picture of levels of reliance on income support, as it will treat part-rate pensioners as the same as persons with no other income apart from government cash benefits.

Figure 2.3 includes the pensioner age group. Figure 2.4 shows the proportion of the workforce age population receiving a benefit. At 20% currently, this is considerably lower than the 29% shown in figure 2.3, often cited as Australia's 'dependency ratio'. Nonetheless there are concerns that even 20% is too high. The Government has recently received a report from the Reference Group on Welfare Reform (2000a and b) which has focussed on issues of welfare dependency.

**Figure 2.4: Proportion of population of workforce age receiving social security payments, 1965 to 1999**



Proportion (TOTAL minus Age Pension recipients and old age service pensioners)
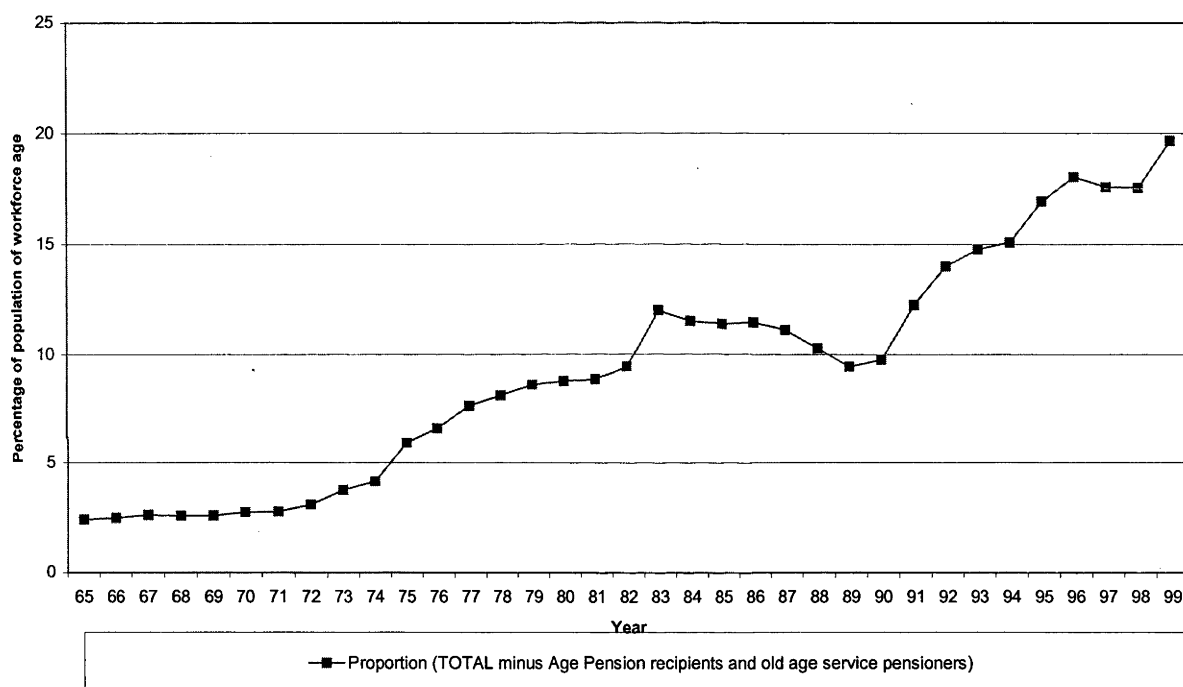
**Source: Whiteford and Angenent 2001**

Figure 2.5 shows income support incidence by age. While dependency among prime-age groups is around 20%, it rises rapidly beyond 55 years reflecting a widespread early retirement phenomenon among older males which has been observed over the past 30 years (although it may have stabilised in the past decade – see Ingles 2000a). The tendency for it to fall away among older males may be attributable to the cohort of war service pensioners, whose median age is now around 80.

**Figure 2.5: Income Support Recipients by Age and Gender, June 2000**
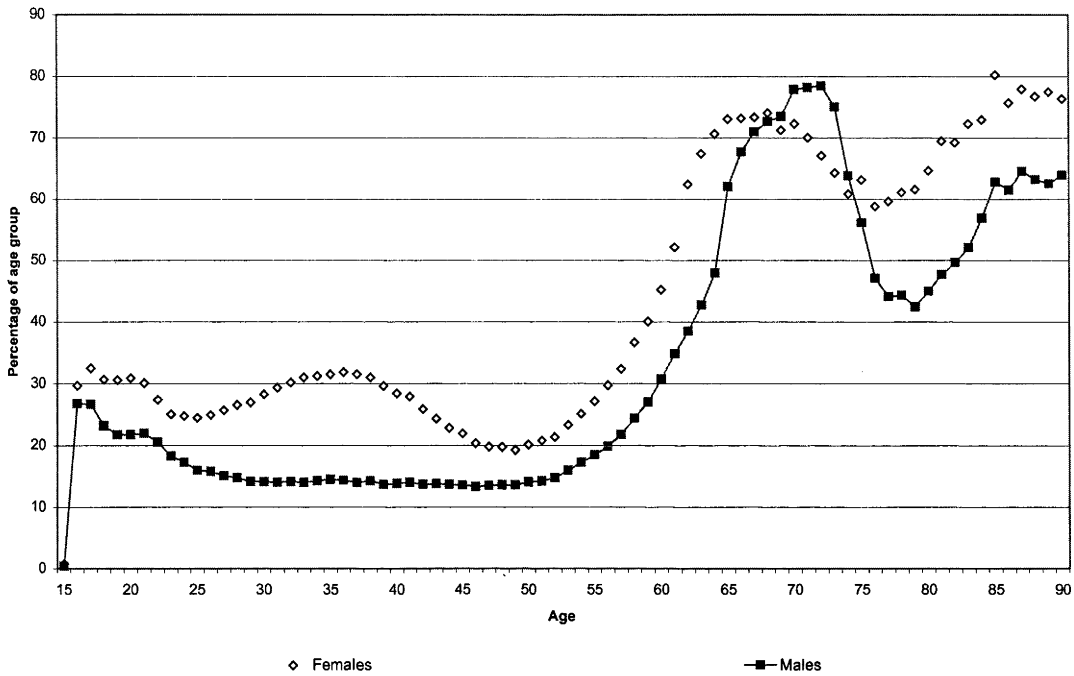


**Source: Whiteford and Angenent 2001**

## 2.5 Growth in income support spending

Over the past thirty years there has been a significant long-term increase in the level of income support spending in Australia, associated with the increase in the number of individuals and families receiving social security payments.

**Figure 2.6: Spending by the Department of Social Security, % of GDP, 1963-99**
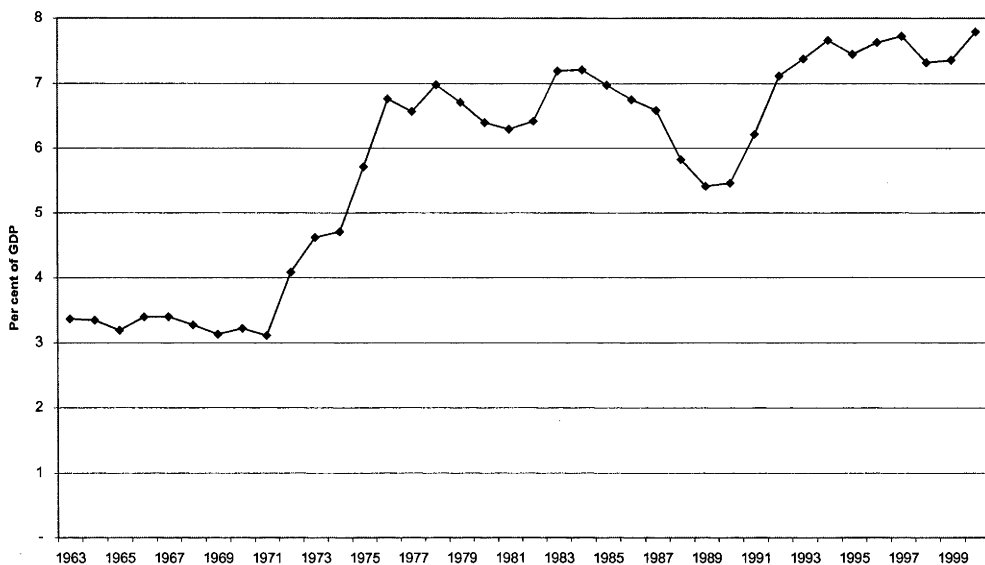
**Source: Whiteford and Angenent 2001**

Figure 2.6 shows that spending on cash transfers by the (then) Department of Social Security rose from around 3 per cent of GDP during the 1960s to 5.4 per cent in 1976, 6.8 per cent in 1983, and 7.8 per cent of GDP in 1999. Unemployment spending has been the largest single contributor to the total increase, growing from 0.03 per cent of GDP to 1.1 per cent. Other significant components of the increase include disability payments, which increased from 0.3 to just under 1 per cent of GDP, payments for widows and sole parents which grew from 0.2 to 0.6 per cent of GDP, and payments for families.

Changes in the economic and social environment have been the most significant contributor to increased spending over the past 30 years. These changes include the demographic ageing of the population, the increase in unemployment, and the increase in the incidence of lone parenthood. Demographic ageing has provided upward pressure on spending on age pensions; the aged[10] as a proportion of the total population has been growing steadily, from 10 per cent in 1971 to 14 per cent in 1997. There has also been an effect arising from workforce withdrawal among males aged 50-64. The influence of unemployment is cyclical, but the long-term trend in unemployment has been upward. Social security spending has tended to fall – or at least plateau - during periods of strong economic growth.

Policy changes have had different influences in different periods. Increases in real benefit rates for both the aged and those of working age were particularly significant in the period 1970 to 1975. The period 1975 to 1980 saw reductions in real benefit rates for the unemployed. The late 1980s saw substantial increases from higher rates of family payments. In other periods, changes in real benefit rates have played a less substantial role.

### 2.5.1 Australian spending in perspective

OECD data (Figure 2.7) indicates that spending on social security was 8.12 per cent of GDP in Australia in 1997. This is about 64 per cent of the OECD average, very much at the lower end of the league table.

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[10]Men aged 65 and over, women aged 60 and over. The phased increase in women's age pension age to 65 has not been taken into account in this discussion.

**Figure 2.7: Social Security Expenditure, OECD, 1997**
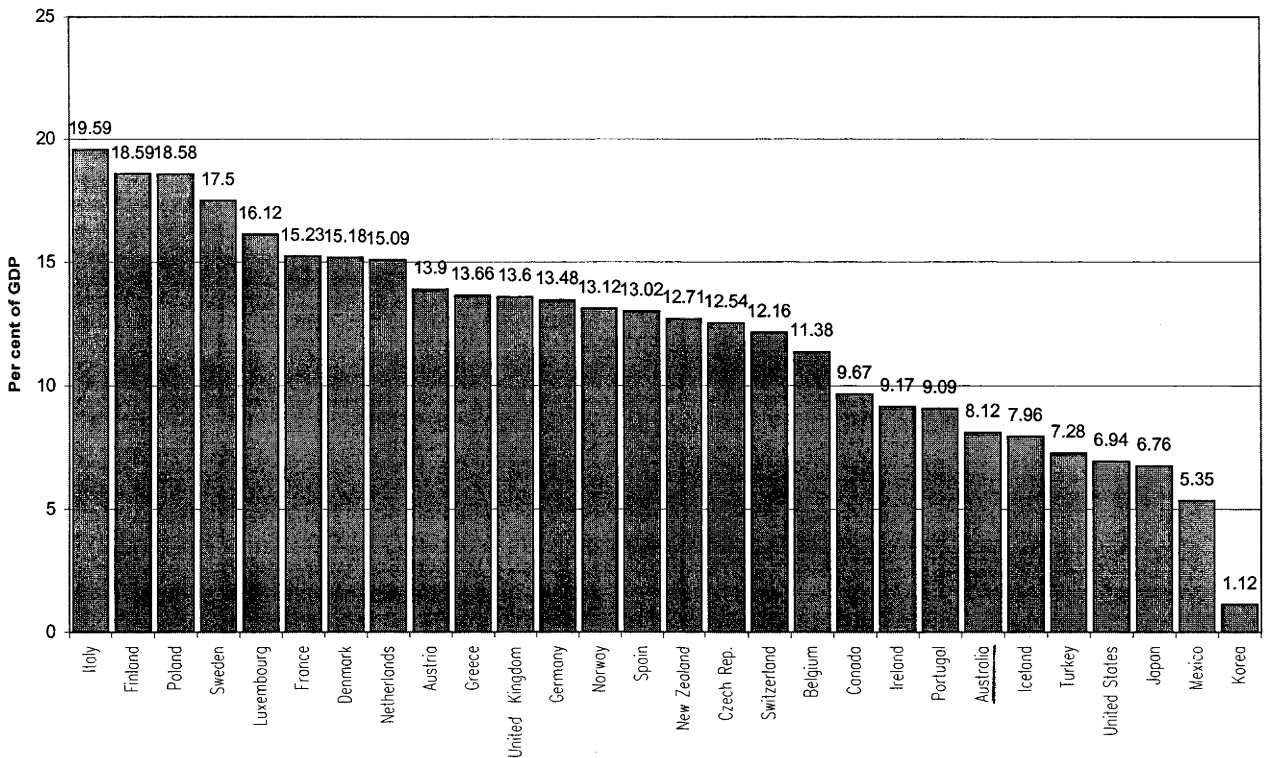


**Source: Calculated from OECD Social Expenditure Database 2001.**

Probably the most important reason for relatively low spending levels on older people is that Australia operates a targeted income support system, with flat rate benefits. The Australian pension system has been described as "radically redistributive" by an American observer (Aaron, 1992). Khan (1998) has estimated that abolition of the means test on age and service pensions would increase spending in this area by about one-third to around 5% of GDP. Khan's calculations suggest that it is the flat-rate nature of Australian benefits, rather than means testing, that most significantly reduces the average benefit level paid relative to other countries paying earnings-related benefits.

OECD studies also show that the overall distribution of direct transfers in Australia is one of the most progressive in the OECD. Atkinson, Rainwater and Smeeding (1995) estimated that in Australia in the mid-1980s the poorest group received nearly eight times as much in social security transfers as the richest group. In all other countries apart from France the ratio is less than 3 to 1. In Sweden, Japan and Italy the richest 20 per cent actually received more in transfers than the poorest income quintile.

The progressivity of the transfer structure does not necessarily mean that the Australian system is more effective at redistribution. The degree of redistribution achieved by a benefits system depends on the quantum of benefits as well as the progressivity of the formula for allocating benefits. It is the quantum of *redistribution*, not the quantum of taxes or benefits separately, that determines the redistributive effects of a tax-benefit system. Redistribution is a function of the distribution of the differences between taxes and benefits as a proportion of income.

International comparative research (Whiteford 1997) suggests that the Australia transfer system is very redistributive despite the low level of overall spending. The degree of targeting is so pronounced that the level of net redistribution to the poorest 30 per cent is significantly higher than in many other countries with much higher spending.

The degree of equality in the income distribution and the level of poverty are also affected by the pre-tax and transfer distribution of income. An important issue is whether the Australian system of social protection has adverse behavioural effects that impact on the underlying level of inequality and poverty. If this is so, the apparently marked redistributive impact of the system may be over-stated.

## 2.5.2 The generosity of benefits

International comparisons of the generosity of benefits are difficult. The most common form of comparison involves the use of replacement rates, whereby the level of net benefits of defined types of individuals are compared with the disposable incomes of wage earners in similar family types. These sorts of comparisons tend to show Australia as having very low levels of benefit generosity, precisely because the Australian system lacks earnings-related features. Thus, by European standards, the Australian pension replacement rate of 25 per cent of average male earnings appears to be extraordinarily low.

Because of differences in the role of employer social security contributions, it has been argued that replacement rates - which compare benefit levels to wage rates - do not provide consistent measures of benefit generosity across countries (Whiteford, 1995). The preferred methodology in his study therefore was based on comparisons using absolute benefit levels adjusted by purchasing power parities. He estimates that the standard rate of age pension for a single person in 1991 when adjusted using OECD purchasing power parities was higher than the comparable minimum benefits in 20

OECD countries, apart from Canada, Iceland, Luxembourg, and the Netherlands. This study suggests that rather than being very low the Australian safety net is set at a relatively high level. Rankings varied by family types, however.

These measures are complicated by the substantial differences between social assistance and social insurance benefits in other countries. Apart from Australia and New Zealand, only a few countries applied fairly uniform benefit levels across both systems.

Another way of looking at the 'generosity' of the Australian system is to calculate the general income tax rate required to abolish all means tests. This is something like 57%. To keep this in perspective, the required tax rate in Ireland was calculated to be 68% (see references in Chapter 6). One problem with this indicator is that it depends on the comprehensiveness of the income tax base relative to 'real' national income.

## 2.6    Developments in family assistance

Family payments have been an area of almost constant change over the last 25 years, with further radical changes in the NTS. Over time, family assistance has evolved from a scheme where horizontal equity[11] was a predominant goal – principally based on tax deductions for wage earners with dependant wives and children – to one where prevention and/or relief of poverty has become a main focus. However horizontal equity has continued to be an important, albeit residual, objective. Thus, family payment has a two-step means test, with first-tier benefits abating at modest incomes levels but a modest quasi-universal component continuing up to a family income of over $73,000 pa.

The philosophy of universal assistance by way of cash payments to families reached its high point in 1976, when tax rebates in respect of children were "cashed out" and merged with the then universal (but low rate) Family Allowance system. These universal benefits were gradually unwound during the late 1970s and 1980s as pressure increased to means test so-called "middle-class" welfare, partly to offset the costs of large increases in assistance for low income families, described below.

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[11] By "horizontal equity" I mean that people in like circumstances should be treated equally, and conversely that those in unlike circumstances – such as those with and those without family responsibilities – should be treated differently in recognition of their different needs.

Starting in the 1980s, there were very large improvements in in-work benefits available to families. The *Family Income Supplement* (FIS – later Family Payment) scheme introduced in 1983 had marked similarities to its UK predecessor, and very similar motives for its introduction. Initially it had a threshold set at around the cutout point for receipt of unemployment benefits, and a taper (abatement) rate of 50%.

FIS was introduced partly (or mainly) as a result of concerns about work incentives, and later increased in large part because of concerns about poverty. The flat-rate nature of the benefit system, allied with the additional payments available for the children of beneficiaries, meant that *earnings replacement rates* (ERRs) for low income earners on becoming unemployed could be very high if they were married to a non-earner and particularly if they had dependents.

For example, Saunders, Bradbury and Whiteford (1989) found that whereas the median replacement rate for all families was only 30%, replacement rates increased with number of children. For couples with children the median ERR was 40%; for sole parents, 60%. A large number of families with three or more children faced replacements rates of 90% or higher. These estimates post-date the introduction of FIS, implying that the increase in ERRs with increasing family size was even more severe before 1982.

Extension of children's benefits to low income workers generally had the effect of reducing replacement rates or, equivalently, increasing incentives for unemployed family heads to take up work. At least one recent study has suggested, however, that the improvements in ERRs brought about by the introduction of FIS have not been sustained into the late 1990s (Redmond 1999). The reason is the continuing decline in the relative wages of low-income earners.

In 1987 the then Prime Minister, Hawke, pledged that "By 1990 no Australian child will be living in poverty". The central element of the 1987 "Family Package" was a major new payment – *Family Allowance Supplement* (FAS)– which replaced FIS, provided higher payments, and a more liberal income test. Explicit benchmarks of adequacy, specified as percentages of the married rate of pension, were also introduced. One result was that the number of children in families receiving means-tested assistance rose from 93,000 in 1987, to 353,000 in 1988.

The extension of *Rental Assistance* (RA) to low income families in 1987 also helped improve ERRs. Previously, Commonwealth rental assistance had been confined to social security beneficiaries. RA does not start to abate until all first-tier family benefits (now FTB(A)) are exhausted. This means that RA is payable to families up to quite reasonable incomes – typically in excess of $35,000 pa. A negative side effect is that such families continue to be subject to high effective tax rates until their RA is exhausted.

In 1988 the Government announced moves towards the eventual full integration of FAS with the then universal *Family Allowance* in a new *Family Payment* (FP) system. This was phased in over several years, and fully effected from January 1993. Integration, as originally recommended by the Social Security Review (Cass 1986), was expected to bring several benefits:

- create a single, readily accessible family payment system

- improve take up, and simplify movements between payments

- ensure continuity of entitlement for families moving in and out of the benefit system

- remove poverty traps associated with loss of RA and child payments on returning to work.

In 1991 there were 456,000 children in families receiving family payment. By 1993 this had climbed to 661,000. In 1986 a family with one child under 13 lost all FIS with a family income half (50%) of the median for that family type; by 1996 this cutout had risen to 72% of the median. For a family with two such children, the relevant cutouts moved from 54% of median earnings to 80%. The NTS changes will further raise cutouts for first-tier assistance, to around the median income level.

Other important changes during the 1990s included reducing taper rates on unemployment payments, and improving incentives for the wives of unemployed men to work by introducing a partly individual basis of assessment. There has also been a widespread movement away from paying benefits to women on the basis of their assumed workforce incapacity (or dependence on a man), and towards requiring women to be actively seeking work (or eligible under some other category). Accompanying this

development, *Parenting Payment* was introduced to provide a non-activity tested payment recognising parenting as a valid activity in its own right.

As taper rates on allowances were eased, it also became necessary to increase the low-income threshold for family payment. Otherwise, people coming off allowances (and who were eligible for the full rate of family payment while on them) could be subject to "sudden death" loss of part of their family payment. This is an issue that the NTS addresses explicitly. The effect is that family payment thresholds are now set at about 60% of median incomes for families with dependent children (currently the threshold is $28,200 pa, if one child, for first tier payment, and $73,000 for the second tier). Moreover the first-tier benefits do not fully abate until family incomes are well into the medium family income bracket.

The increase in threshold and reduction of taper designed into NTS will further remove FIS/FAS/FP from its origins as a tightly means-tested benefit for a small group of poorer people, and make it much more of a mainstream family benefit, one which reduces only gradually as family income rises above the thresholds. Figure 2.8 shows trends in the proportion of children living in families receiving income-tested payments increased from 11.5 per cent in 1978 to 43 per cent in 1999.

**Figure 2.8: Proportion of children in families receiving income-tested payments**

**Source: Whiteford and Angenent 2001**



*Percentage of the total number of children aged 0 to 15 years of age*

*Year*

● Children of income support recipients

□ Children in low income families

▲ Total children in families receiving income tested
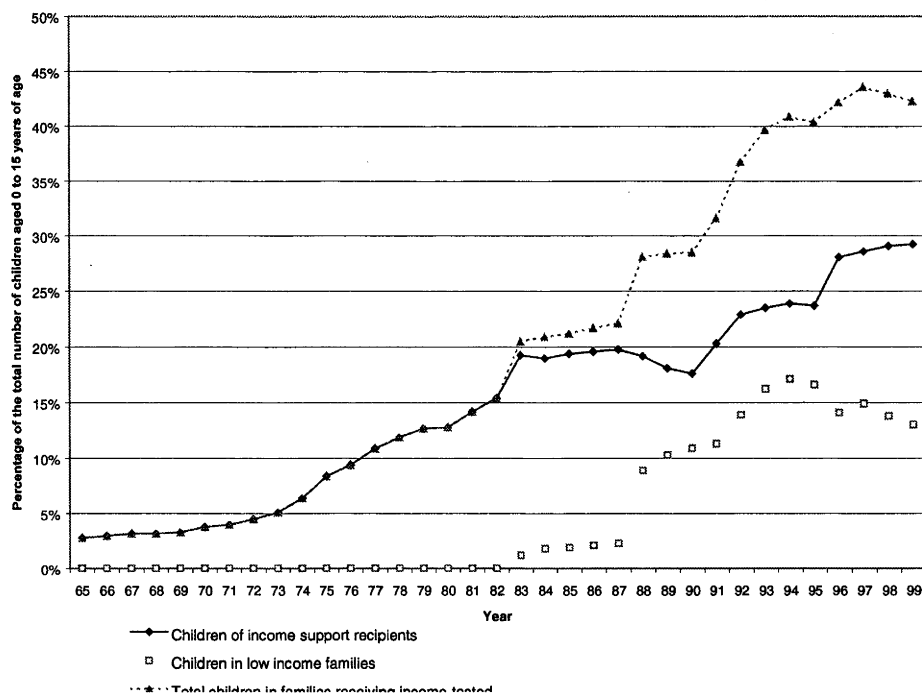
Source: **Whiteford and Angenent 2001**

## 2.7 Protection for non-family individuals and couples

In general single low wage earners that do not have dependent children receive relatively little or no assistance. The implicit assumption is that single people without child dependents, and who are employed full-time, are able to support themselves from their earnings. On current trends it is unlikely that this assumption will be called into question. An adult's full-time wage would need to be below about $300 pw for them to be eligible for payment under the allowance income test. Currently, the lowest full-time wages in most awards are over $450 a week, and the minimum wage is $413.40 pw.

In the case of a couple, the July 1995 changes introducing a partly individual basis of assessment means that, where one partner is in a low wage job, the other can get assistance (subject to the means test) if he or she is prepared to seek full-time work. This means that the social security system will supplement the income of the couple, through that partner, up to the point where their total earnings is around $550 a week, depending on the distribution of income within the couple – or higher, if Rent Assistance is payable.[12]

Although I have likened the Australian system to a GMI, in the case of Newstart Allowance the fact that a worker may have an income below the cutout points does not automatically qualify him or her for assistance. In the case of a couple with children, one partner can apply for Parenting Payment (Partnered) –PPP – which is an automatic entitlement. The other will need to apply for Newstart. If there are no dependent children then both will need to apply for and be eligible for Newstart in their own right.

If he/she is already a full-time worker, he/she is regarded as employed and is therefore not eligible. While it unlikely that a full-time worker on an award rate would be below the cutout point, an increasing number of workers are not paid at award rates. There are also many self-employed that declare incomes below the cutouts. The self-employed are not usually able to satisfy the test of being available for work. If an applicant is a part-time worker, he or she may be eligible for part-rate provided he is available for and actively seeking full-time work. Likewise, if the worker is initially unemployed and

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[12] Note that for a couple where one is on payment, RA is payable at the full rate for the couple.

then obtains a part-time job, he/she can remain in receipt of partial Allowance so long as he continues to seek full-time work and his/her income is below the cutout points.

There is some potential for confusion and possible inequity in this system, and it may be that we will need to rethink the current rules at some time in the future. That said, it is unlikely that simple solutions will be found, short of converting the system to one where low income is the only relevant test. However there are serious disadvantages to this sort of non-categorical GMI, as I will discuss in Chapter 5.

## 2.8    Trends In earnings dispersion and income distribution

For many years there has been a widely held view that Australia was characterised by a relatively equal distribution of earned income. This view goes back to the turn of the century. One of the most cited sources for this view was Lydall's (1968) survey of earnings inequality, which concluded that among 25 countries surveyed, Australia and New Zealand along with Czechoslovakia and Hungary had the lowest degree of dispersion of (pre-tax) employment income.

The conclusion that Australia has had a relatively compressed earnings distribution for individuals, while initially based on fairly suspect data, is supported by recent OECD studies, which include a wider range of countries and also considers the distribution of female earnings.

The evidence from LIS and from OECD sources is consistent with the view that, at least up until the early 1990s, Australia had a relatively equal distribution of income from earnings. The distribution of earnings for full-time workers (both male and female) is more compressed than most other OECD countries, with the notable exception of Scandinavia; there is a lower incidence of low pay in Australia than in many other countries apart from Belgium and (probably) the Scandinavian countries. One explanation for this finding is that Australia's centralised wage-fixing institutions continue to compress wage differentials.

The distribution of equivalent family incomes differs from that of wage incomes for several reasons. One is the relative incidence of zero or small part-time earnings, something the Australian system may encourage. Another is that incomes are assumed to be shared within families, so fragmentation of the population into sole parents and single individuals tends to increase measured dispersion. Another reason is that there

are now many two-earner couples, and conversely, many no-earner couples. This tends to increase family income dispersion. Also, Australia has a relatively high proportion of children in households where there is no full-time wage earner, a finding which may reflect to some degree the work disincentives facing a low-wage spouse if the other spouse is unemployed.

Cross-national studies of poverty and inequality in developed nations – such as the OECD study by Oxley et al (1997) – tend to find that Australia is:

- Towards the upper-middle of the range of countries in inequality of equivalised market incomes;

- Around the middle of the range in inequality of net disposable incomes, after taking taxes and transfers into account; and

- In the lower middle of the range in the proportion of people in poverty (see below).

Such findings clearly reflect the priority given to the poverty-alleviation objective in the Australian system.

### 2.8.1 Trends in poverty and adequacy of payments

Since the alleviation of poverty is one of the primary objectives of the Australian income support system, poverty reduction efficacy could be regarded as a key measure of the success or otherwise of social security spending.

In assessing the impact of the system on trends in poverty, there are a number of conflicting considerations. On the one hand, levels of unemployment and of non-participation among men have increased substantially. These trends, together with the increase in the extent of sole parenthood, are likely to have contributed to an increase in the extent of vulnerability to poverty among people of workforce age. They are also likely to be associated with significant changes in the composition of the low-income population. In the past it was the retired elderly who were most likely to be in poverty, whereas now it appears to be lone parents and the unemployed.

In general, the pre-tax/transfer equivalent income distribution in Australia has tended to become more unequal over the last 15-20 years, a trend also observed in many other OECD countries. However, measurement and conceptual difficulties make it hard to be precise about the exact dimensions of this trend, and it is still subject to considerable

debate, with movements in the Gini coefficients not always statistically significant. Thus, while there is consensus that market income inequality has widened, there is no real consensus on the extent of that widening. There has been a plethora of academic studies in this area, using different methods (and sometimes different data) to reach sometimes quite different conclusions.

Other trends in labour markets – casualisation and part-time work, women's labour force participation, dual-earner families, and increasing unemployment (especially long-term) – have also tended to impact adversely on the distribution of market incomes.

This would normally have been expected to increase poverty, other things being equal. It appears, however, that in Australia the widening dispersion in market incomes has been offset at least partly (and possibly wholly) by changes in the tax/transfer system which have tended to make this system more progressive (Harding and Szukalska 1999, 2000).

Media attention on poverty and inequality studies has tended to focus on the gloomiest. Academic studies with titles like "The disappearing middle', "The disappointing decades 1970-1990" (Gregory 1993) or "An ever rising tide?: Poverty in Australia in the eighties" (Saunders and Matheson 1991) have attracted media attention, but sometimes reached conclusion of debatable validity. Poverty measurement has been a remarkable growth industry in Australia, although it must be said that there is no consistency as to its output (see Whiteford 1998 for a summary of findings). There are about as many poverty measures as there are publications on this topic.

Peter Saunders (1994) found that the tax/transfer system lessened the degree to which the inequality of disposable income grew, but did not reverse it. Similarly he found that the incidence of poverty had risen to a remarkable degree: by 60% on one measure. One of Saunders' measures using the 'Henderson poverty line' put the incidence of poverty at 17% of the population in the early 1990s, compared to the roughly 10% found by the Henderson Poverty Inquiry in 1975.

Other prominent researchers have suggested that while the distribution of market incomes had become more unequal over the 1980s, government tax/transfer policy had been very effective in offsetting the increasing inequality of market incomes, and in preventing growth in the incidence of poverty.

Partly in frustration at spending so much money for such apparently poor (or at least contentious) results, the previous Government commissioned a study in 1994 which was to assess trends in incomes and income distribution inclusive of both cash and non-cash benefits such as education, health, child care and housing (Johnson, Manning and Hellwig 1995).

The study found that all household types experienced an increase in their average equivalent social wage income of around 9% between 1981-82 and 1993-94; that the share of disposable income for the least well-off households increased, while that for the top quartile declined slightly; and that the "social wage" had both increased in value and also had a progressive effect. Further, groups targeted for special assistance, such a sole parents, had improved their relative position. One of the impressive achievements of the 1970s and 1980s had been the marked reduction in measured poverty amongst the aged.

The Johnson et al study is not likely to be the last word on this issue. However this saga does illustrate the difficulties that can arise in measuring income distribution and poverty, even in a single country using fairly consistent time series data. Moreover, even if public policy has managed to hold back the tide of rising inequality, there is no intrinsic "rightness" in maintaining any given initial level.

Rather, the "right" level of inequality must ultimately be defined in relation to the times and conditions that prevail. Nonetheless, there is at least some comfort in the apparent finding that public policy has contributed to social cohesion – at least as regards measured incomes – over the last two rather difficult decades.

## 2.9 Problems at the work/social security interface

These gains have not been without costs, and new problems in the work/social security interface. As noted earlier, Australia's flat-rate means-tested system tends to create high earnings replacement rates at the bottom end, and these have tended to rise notwithstanding increases in in-work assistance. This is partly reflective of declining earnings in the lowest quartile of the income distribution. Moreover, means testing of family benefits can create work disincentives due to high EMTRs as private incomes rise. Policy responses have tended to add complexity and, in improving adequacy, to increase work disincentives.

"Poverty traps" for social security beneficiaries have been studied for many years. In the late 1980s there was a concerted effort to address these issues, through the "Poverty traps reduction package". This package was mainly aimed at increasing free areas – ie, the amounts beneficiaries could earn before benefits start to taper away. For example, Rent Assistance was no longer tapered at a 100% rate within the free area, but rather tapered after the basic payment was fully abated, and at the same rate.

However, poverty traps for working families had been less well documented, partly because they were a more recent phenomenon. They arose first, from the introduction of FIS cum FAS, and subsequently from large increases in real rates of family assistance. A further important factor was the extension of rent assistance to working families. Finally, in easing poverty traps, policy changes have sometimes merely shifted high EMTRs into other income zones where they can do even more harm.

In "Low income traps for working families" (Ingles 1997), I documented the very high effective tax rates (ETRs) that families could face when trying to increase their earnings. High ETRs arose from the interaction of the first-tier Family Payment (AFP) taper - 50% - and income tax, typically at a rate around 35%.

This paper provided calculations of the average effective tax rate faced by a family raising its earnings from the Family Payment threshold (then $23,000 pa) up to the cutout point for the first tier of family payment. I found that the typical ETR for a family earning over this range was in the order of 90%; for families with several children, or receiving rent assistance (which tapers *after* first-tier family payment cuts out), the range of income subject to a high ETR could be very wide. For example, for a family with 3 children receiving RA, the gain in disposable income by increasing private income from $441 pw to $758 pw (ie by $317) was only $36: an ETR of 89%.

For some families, and depending on income splits within the family, ETRs could exceed 100%. This was particularly likely if receipt of family payment coincided with receipt of another means tested benefit such as student assistance for an older child, or State rental housing benefits.

## 2.10  Government's *New Tax System* (NTS) July 2000

In the 1998 general election, both parties were promoting policies designed to reduce effective tax rates faced by families. However, the Government's package of reforms

(Costello, 1998) was the more radical of the two, and the government was re-elected on this platform.

The NTS was designed to address problems arising from high effective tax rates in both the income tax and also the tax/transfer system with particular attention paid to problems in the social security system described above, such as work incentives, complexity, and the adequacy of support for low wage earners outside of the social security categorical groups.

The centrepiece of the package was a "goods and services tax" (GST), more commonly known overseas as a "value added tax" (VAT). Although part of the price impact of the GST is offset by the abolition of a range of existing indirect taxes, it still generates substantial additional revenue which, together with projected fiscal drag, suffices to fund quite substantial reductions in marginal rates of income tax. The aggregate price impact of the 10% GST was about 2%.

Almost as radical as the GST was the swingeing reform of family assistance implemented in the NTS. Twelve family benefits (8 cash payments and 4 tax benefits) were simplified to three:

- Minimum Family Allowance, Family Allowance and Family Tax Benefit part A combined with Family Tax Assistance Part A to become *Family Tax Benefit Part A (FTB(A))*;

- Basic Parenting Payment, Guardian Allowance and Family Tax Payment Part B combined with Dependent Spouse Rebate, Sole Parent Rebate and Family Tax Assistance Part B to become *Family Tax Benefit Part B (FTB(B))*; and

- Childcare Cash Rebate and Child Care Assistance became a single *Child Care Benefit*.

Further detail is provided in *Attachment A*.

As part of this reform all "sudden death" cutouts were abolished and replaced by uniform tapers of 30%. The 50% taper previously applied to family payment and Rent Assistance also reduced to 30%, which, in combination with the reductions in marginal tax rates mentioned earlier, dramatically lowered EMTRs facing families. The new structure took effect from July 2000.

Another change is that FTB(A) and (B) both became deliverable through the tax system. A New *Family Assistance Office* (FAO) was set up as a joint venture between Centrelink and the Tax Office, to deliver FTB. The primary carer within the family has a choice as to how they wish to receive the assistance – either through regular payments to their bank account, reduced deductions from their or their partner's pay-packet, or an end-of-year tax credit.

There are some marked similarities between these reforms and those recently implemented by the UK Government. The UK Government has converted its social security benefit for in-work families (Family Credit) into a new "Working Families Tax Credit" (UK Government 1988). This also involves a reduction in the taper rate from 70 to 55%. These rates are not directly comparable with ours because they apply to net – ie after tax – income, not gross income as in Australia. The effect of the UK reforms, like the NTS, is that most families became subject to ETRs of less than 70%.

Under the UK changes, family credit is normally claimed by the working spouse but can be claimed by the mother as a cash payment. Cash payments are made to those, such as social security beneficiaries, who are presumed to have income too low to benefit fully from a tax credit.

## 2.11 Issues likely to arise in the future

In the future, it is possible and perhaps likely that we will see a continuing decline in the relative position of low wage earners, alongside a continuing de-regulation of the wage (ie industrial award) system. There are also pressures from academic economists for slow or no growth in award wages as a means of reducing unemployment. Typically, such economists are also concerned to offset the impact on low-income earners by compensatory social security and tax policies.

Recently, for example, five eminent economists in an open letter to the Prime Minister suggested a 4-year freeze on awards, the impact of which was to be offset by a new tax credit (Dawkins et al 1998b). The proposal was expected to reduce the aggregate growth in real wages by some 3-4%; "This should reduce the level of unemployment by 1.5 to 2 percentage points below the level that would otherwise be obtainable, to about 5 to 5.5%".

Obviously the proposal depends on estimates as to the elasticity of labour demand with respect to the real wage level, and particularly on the demand for less skilled people. I make no comment on these aspects. The current rate of unemployment is 6.7%, reflecting the long boom of the 1990s. If current improvements are sustained an unemployment rate of 5 or 5.5% might be achievable, notwithstanding continued annual increases in the minimum wage. These are awarded by an independent body, the Conciliation and Arbitration Commission.

Nonetheless it seems likely that proposals for wage engineering will continue, and that irrespective of government policy in this area, continuing developments such as globalisation will continue to put downward pressure on wages at the low-skilled end of the spectrum. It is also quite likely that governments will seek to avoid the deleterious consequences for social cohesion by providing additional assistance for families dependent on low wages.

While such policies are rejected by trade unions, it is interesting to note that a very similar set of policies was effected under the Labor Government of 1983-1995. Under the "Accord" with the peak trade union organisation, the ACTU, the union movement exercised real wage restraint in return for improvements in the "social wage' provided by government – whether through the tax/transfer system, expenditures in areas such as health and education, or regulation on employment conditions such as the "superannuation guarantee".

Economic analysis of the Accord period has generally indicated that this policy was successful in promoting wage restraint and employment growth, although as always such findings are not uncontentious. Further, as the Johnson et al study cited earlier indicates, these policies were reasonably successful in terms of their impact on the living standards of the working population. It must be conceded, however, that productivity growth was not particularly strong during the Accord period. By contrast the 'long boom' of the 1990s has seen strong growth in productivity and wages, but has had a less marked impact on employment.

It is now well understood that regulation of wages is a fairly blunt instrument for addressing poverty and inequality. The reason, as Richardson and Harding (1998) have pointed out, is that people receiving low wages are often part of families which are not so badly off. "People receiving low wages are well spread through the distribution of

family incomes. This makes Living Wage adjustments a very blunt equity device" (Dawkins et al 1998b).

## 2.12 Conclusion

The economic and social pressures faced by the income support system in the last two decades have been similar to those affecting many other industrialised countries. They include:

●an ageing population;

●increased long-term unemployment;

●changes in work patterns, with increased female labour force participation, increased incidence of part-time work, and reduced labour force activity among older males; and

●an increasing diversity in family structures and life patterns such as a large rise in the number of lone parents.

These pressures have resulted in increased social security coverage of the population, together with demands for increases in the levels of payments.

Reforms over the past decade have focused on several areas:

●increased coverage and extensions to eligibility, for example, for families dependent on low wage employment and carers of elderly and disabled people;

●increased adequacy of payments through, for example, substantial increases in family payments and rent assistance and the regular indexation of virtually all payments;

●an increased emphasis on targeting payments to those in need;

●introduction of 'mutual obligation' measures like "Work for the dole' (the dole being Australian argot for unemployment payments), based on the concept that all people have the right to and should participate in society to the maximum extent possible;

●reforming payments in such a way as to provide families with more support in balancing workforce participation and child-rearing responsibilities.

There are concerns that the future ageing of the population in combination with a relative shrinking of the employed workforce will place strains on the Australian welfare state. Australia already has a comparatively very tightly targeted social security system, and a direct tax system with a highly progressive rate structure. In the past two decades, spending restraint has been mainly achieved through tighter targeting. Continuation of this approach would either further increase EMTRs applying to social security customers, or if targeting is pursued through categorisation, the complexity of the system may be increased.

The Australian model gives more emphasis to poverty alleviation than most other systems, mainly achieved through targeting of benefits. The system is relatively low cost (in terms of spending as a percentage of GDP), reflecting the operation of the means tests and the provision of flat rate rather than earnings related benefits. While the overall system is more means-tested than those of any other OECD country, the means tests used are actually more relaxed than those typically applying in social assistance schemes in Europe and America.

Thus, the effects of means testing is felt much higher up the income distribution than is typical in social insurance systems. This approach is associated with relatively high EMTRs on low income working families, even though overall levels of taxation are low by the standards of OECD countries.

The New Tax System addressed pressing problems in the tax/social security system. In particular it provided for a drastic simplification of a very complicated system of family assistance, and a rationalisation and improvement in work incentives for families. However, there will be a continuing need to adjust policy instruments in order to address likely emerging problems in the future, given the pressures arising from widening inequality of market incomes and the very strong arguments for providing incentives to help keep social security clients in contact with the world of work.

Much of this thesis is directed at technical matters like EMTRs, progressivity of the tax/transfer system and the like. However we need to bear in mind that other aspects of the system can also have important effects. For example, there has been a general tendency in the Australian system to increase pressure on the unemployed to actively seek work under the general banner of "mutual obligations", especially for young people. Such administrative approaches to some extent provide an alternative to

increasing incentives through structural features of the incentive system. The problem is, as always, to get the balance right.

Technical solutions to the problems of high EMTRs are available, although reducing EMTRs for some inevitably means increasing them for others. It must also be said we don't really know much about precisely what impact such changes would have on behaviour. This is an area of research towards which – as discussed in Ch 3 - we will increasingly need to direct our attention.

## 2.13  Attachment A: NTS measures in social security[13]

**Income Tax Cuts**

The tax-free threshold for all taxpayers will be increased from $5,400 to $6,000, benefiting low-income earners. The table below outlines other changes in income tax rates.

These income tax cuts represent reduction in marginal tax rates for about 95 per cent of all individual taxpayers.  Combined with other changes, the effective marginal tax rate of low and middle income working families will be reduced over a substantial range of income.

Details of income tax cuts

| Current Income Tax Scale | | Reform Package Income Tax Scale | |
|---|---|---|---|
| Taxable income ($) | % | Taxable income ($) | % |
| 0-5,400 | 0 | 0-6,000 | 0 |
| 5,401-20,700 | 20 | 6,001-20,000 | 17 |
| 20,701-38,000 | 34 | 20,001-50,000 | 30 |
| 38,001-50,000 | 43 | | |
| 50,001+ | 47 | 50,001-75,000 | 40 |
| | | 75,001+ | 47 |

**Simplifying and restructuring family assistance**

Incentives to work and save are provided by reducing the family benefits withdrawal rate from 50 per cent to 30 per cent and increasing the income threshold for family payments from $24,350 to $28,200. These measures benefit around 375,000 families. Further details are provided in 5.7 (Appendix A).

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[13] This is a verbatim copy of a sheet issued by the Government at the time.  Hence the use of the future tense.

**Pensions**

All pension and benefit rates will increase by 4% initially. In addition, the Government is committed to ensuring that the single rate of pension does not fall below 25 per cent of male total average weekly earnings.

A 2.5 per cent increase in the income test free areas will be applied to social security, veterans and student income support payments.

The income test for pensions eased by reducing the taper rate from 50 per cent to 40 per cent, a measure which will:

- enable all 845,000 part-rate pensioners to keep an extra 10 cents of pension for every dollar of income they receive above the income test free areas;

- benefit self-funded retirees with modest incomes who will become eligible for a part-rate pension; and

- improve incentives to save for retirement by increasing the returns from such saving at the time that people retire.

The overall cost of increases in, and adjustments to, pensions and benefits will be over $3 billion in 2000-01 and around $1.8 billion per year thereafter.

# 3    CHAPTER 3: INCENTIVE EFFECTS OF WORKFORCE AGE PAYMENTS

## 3.1    Introduction

This chapter aims to gauge the incentive effects of income support payments, to help provide a context for the discussion of policy approaches that follows in later Chapters.

My general approach has been to survey available surveys rather than the detailed research literature.  This latter task would have been enormously time-consuming. Nonetheless there are certain areas in which no relevant or timely surveys exist, notably in respect of the Australian literature, and in these areas I have sometimes had recourse to original sources.

The survey is organised according to the various methods that have been employed to assess work incentive effects, and subsequently according to the various client groups typically of interest.

## 3.2    What research methods have been used?

**A. Indirect:**

1. replacement rate and income difference calculations, especially for unemployment benefits     (see eg. EPAC 1988b, Whitlock 1994)

2. calculations of effective marginal tax rates (EMTRs)

3. incidence of high EMTRs using microsimulation (eg. Harding and Polette 1995)

4. direct interview approach (eg. Puniard and Harrington 1993), and

5. circumstantial evidence, such as low labour force participation among spouses of unemployed men, (sometimes supplemented by econometric testing -eg. Bradbury 1995).

**B  Direct measures of labour supply effects using econometric techniques:**

1. social experimentation (notably the US income maintenance experiments in the 1970s)

2. national cross section or time series evidence

3. cross national comparisons  ( eg OECD 1994)

4. use of panel data to obtain time series evidence for individuals, and

5. microsimulation (using elasticities derived from other techniques) to generalise results of hypothetical policy changes.

## 3.3    Indirect measures of labour supply effects

### 3.3.1  Replacement rates

Most of this work concerns benefits for the unemployed. In 1995, the OECD calculated an overall index of gross replacement rates of 31%. The comparable figure for Australia was around 28% (Chart 2.2 in OECD 1996a).

However this gross figure does not take account of taxation, family benefits, social assistance and so on. Net replacement rates can therefore be much higher than 30%. High net replacement rates create an "unemployment trap", defined as a situation where a family may not be better off in work than on benefit. The OECD note: "In particular, the unemployment trap for families with children can be particularly pronounced. ...In work expenses, in particular for child care, can eliminate any financial reward from working. ...Furthermore, lack of knowledge about tax and benefit systems can lead the unemployed to conclude that incomes in work are too uncertain to risk giving up their low, but secure, benefit income" (1996a p.26).

In addition to the unemployment trap, there is a risk of a "poverty trap" if, as in Australia, benefits are means tested. Also, means testing based on family income may leave no incentive for the spouse of an unemployed person to seek work. Historically, the labour force participation rate of spouses of the unemployed has been low in Australia, although a number of factors other than the poverty trap may be important in explaining this.

The OECD calculated the following net replacement rates for 1994:

**Table 3.1:** *net replacement rates* **(NRRs) for single earner households, 1994 at average production worker income**

|  | In first month of unemployment (no social assistance) | | | In 60th month of unemployment (includes social assistance) |
|---|---|---|---|---|
|  | couple, no chn (%) | couple + 2 chn (%) | couple, 2 chn, h/sing benefit | couple, 2 chn, housing benefit (%) |
| Aust. | 49.00 | 64.00 | 71.00 | 71.00 |
| OECD Av. (a) | 60.00 | 68.00 | 73.00 | 67.00 |

*(a) Unweighted OECD average.*          *Source: OECD 1996a, Table 2.1 p.31.*

It can clearly be seen from this Table that although replacement rates in Australia have been low compared with the OECD (unweighted) average, net replacement rates are much closer to the average (especially for couples and those with children), and those for long-term recipients are actually higher. In fact short-term and long term replacement rates are the same in Australia, whereas the insurance-type schemes common overseas tend to cut out after a fixed period, forcing reliance on typically much lower rates of social assistance.

Since unemployment beneficiaries typically have lower earnings expectations than other workers (Saunders et al 1989),[14] the OECD also conducted a similar replacement rate analysis at the level of 2/3 the average production workers earnings. This is summarised, for Australia, in Table 3.2.

**Table 3.2:** *net replacement rates* (NRRs) **for single earner households, 1994, at 2/3 average production worker income level**

| | couple, no children | couple + 2 children | couple, 2 chn, housing benefit | | couple, 2 chn , housing benefit |
|---|---|---|---|---|---|
| | | | | In 60th month of unemployment (includes social assistance) | |
| | In first month of unemployment (no social assistance) | | | | |
| Aust. | 66.00 | 76.00 | 78.00 | | 78.00 |
| OECD Av. | 68.00 | 73.00 | 77.00 | | 80.00 |

*Source: OECD 1996a Table 2.2*

Generally, net replacement rates are considerably higher at the level of 2/3 the average production worker's income. Again, the Australian figures for net replacement rates are very close to the OECD averages (except for single people, not shown in the Tables, where the Australian gross and net replacement rates are considerably lower). Further information on Australian replacement rates for minimum wage earners is in Appendix A to Chapter 7.

Net replacement rate calculations are interesting but ultimately still only "broad brush" in concept. A more refined approach is to use micro-simulation modelling to compare the incomes of those currently employed with what they might expect to receive if they became unemployed. The OECD (1996a) presents results from such an exercise for 14 countries including Australia (pp.33-37).

In broad terms the results confirm the picture from the hypothetical cases in Table 3.2.

In Australia and the US the most common replacement rate is in the 21 to 40% range. This low rate in Australia reflects the high incidence of single people amongst the unemployed, and the relatively low benefits for single people in this country (OECD 1996a p.32). In other countries the most common replacement rates are typically higher, ranging from 40 to 100%.

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[14]Also, wage offers for unemployed people are found to be about 12% lower than offers to employed, but otherwise identical people: a phenomenon known as "wage scarring" (Bradbury et al 1991).

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In Australia, Whitlock (1994) comprehensively surveyed replacement rates. She examined "exit" replacement rates for the unemployed, and "entry" replacement rates for those currently employed who might become unemployed at some future time.

Whitlock shows that replacement rates have risen considerably in Australia in the post-war period, in common with most other countries. In particular there was a significant increase in the early 1970s, and this was (roughly) maintained into the 1990s. Further, rent allowance was extended to the long-term unemployed in 1986, and has subsequently become available to all the unemployed except those aged under 18. In addition the income test has been liberalised. "The rise in the real value of family allowances increases the monetary gain from combining part-time work with income from unemployment payments (Whitlock 1994 pp.6-7). However, activity (work) tests have been tightened in recent years.

The combination of rising numbers of unemployed, rising structural unemployment and increased real values of unemployment benefits have created concerns about work incentives (Moore, 1997). Further, greater inequality in earnings (Gregory 1993) has probably increased actual (as opposed to hypothetical) replacement rates for low-income earners.

Saunders et al (1989) examined entry replacement rates for families with full-time workers. For the vast majority (92%) of families, they found replacement rates between 25 and 75%. Less than 1% faced an estimated replacement rate over 100%.

Bradbury et al (1991) examined the exit replacement rates of hypothetical families receiving unemployment benefits. Replacement rates are calculated for current beneficiaries (for whom wages are estimated), and ex-beneficiaries (for whom unemployment benefits are estimated). Their main finding was that the average person leaving unemployment could expect a more than doubling of their income unit disposable income. This finding applied both in 1986 and 1991.[15]

Single people generally had low replacement rates. For those over 30, the median replacement rate was 35-39%. At least 90% of young people had replacement rates below 50%. Replacement rates for couples without children were between 61 and 72%.

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[15]There is a potential problem with selection bias in data on labour market transitions. An unemployed person deterred from taking a job because of a high NRR will not have an observable exit replacement rate. Those we do observe taking jobs are those who, by definition, are not deterred.

Families with children had the highest median replacement rates. For families in receipt of Additional Family Payment (AFP) in 1991, the median replacement rate was 77%. AFP has been successful in reducing the very high replacement rates previously facing families since it increases disposable income when employed (Whitlock 1994 p14). However Redmond (1999) suggests that the ERR improvements bought about by the introduction of AFP have been gradually eroded by the increase in earnings inequality experienced in the 1980s and 1990s.

Whitlock's 1994 study uses a similar methodology to Saunders et al (1989), and survey data from the 1989-90 income distribution survey. The main difference is that she tests whether all employed workers are better off remaining employed, not just full-time workers (p15). In 1990, part-time workers represented 21% of the employed workforce. For all families, Whitlock found a median replacement rate of 30%. For 94% of families, the replacement rate was between 20 and 80% (p15). Replacement rates rose with the number of children, as one might expect.

For single people and couples without children, the median replacement rate was 30%, with 85% of them facing replacement rates of 20-50%. For couples with children the median replacement rate was 40%, with 88% facing replacement rates of 30-80%. For sole parents the median replacement rate is 60%. It is only among families with three or more children that a large number face replacement rates of 90% or more.

For the sample as a whole, 2.5% of families face replacement rates in excess of 100%. Obviously non-financial considerations are important in the decision of such families to work. Also, Chapman and Oliver (1999) have pointed out that many individuals will still find it pays to work in such a situation if they expect that, as a result, their wage rate will increase in the future.

Whitlock then examines replacement rates compared to several minimum award rates, chosen as the lowest federal awards payable to a substantial number of employees. In broad terms replacement rates are not found to be high for single people or sole parents (median replacement rate = 58%). For couples, they are higher (median replacement rate = 80%), but even at the highest replacement rate of 92% (for a couple with one partner on the minimum metal trades award), the family is found to be $24pw better off working than not. Whitlock suggests that: "It does not seem likely that this income

differential would be sufficient to encourage an employed person to take unemployment payments instead" (1994, p20).

Where people can combine part-time work and benefit receipt, replacement rates are higher, exceeding 100% for some couples. Perhaps surprisingly, this is not a new phenomenon, but it has become more marked following liberalisation of the unemployment benefit means test in the 1990s. However allowees combining regular part-time work with benefit receipt will generally be in income zones where high effective tax rates apply, such that they will have a strong incentive to work either less hours or, alternatively, to jump right out of the poverty trap zone by working more hours.

Whitlock concludes that "..the value of unemployment benefits does not generally seem to be sufficiently high to discourage people from working " (p16). This is, of course, very much a matter of judgement.

Another indirect approach to estimating work incentives is that of calculating the absolute financial gain from working as a dollar amount. One example is Bradbury et al (1988), as re-calculated in EPAC 1988b. This EPAC report concluded that 70% of families would experience an income drop of $150 pw upon one member becoming unemployed, while less than 5% would experience a decline of less that $75 pw (p.36). However these numbers take no account of the possibility of combining part-time work with unemployment benefit receipt.

While replacement rate calculations are *indicative* of possible work disincentives, they are not really able to tell us whether or to what extent a supply response is occurring. Economic theory predicts that almost *any* level of unemployment benefits will discourage work among *some* marginal participants. Obviously the degree of discouragement will increase as replacement rates rise; the real question is the elasticity of the work disincentive relative to the replacement rate, and this cannot be measured except by econometric methods in which the replacement rate is an explanatory variable. For this reason replacement rate calculations, while interesting and important tools for international and intertemporal comparisons, are best regarded as being - at best - only a very rough guide to the incentive effects of payments.

### 3.3.2 Effective tax rates (ETRs) and "poverty traps"

This has been another substantial line of research in Australia and overseas: see, eg, EPAC 1988, Whiteford et al 1989, Gallagher et al 1992, and Ingles 1997.

Whitlock (1994) compared schedules of *effective marginal tax rates* (EMTRs) for unemployed people in 1973, 1983 and 1993. Her charts 6.1 and 6.2 show that in general improvements in benefit levels and in extra payments for children have resulted in high EMTRs extending over progressively longer income ranges, although in some cases there have been reductions in the highest EMTRs, especially compared to 1973. Dollery and Fletcher (1997) examined poverty traps for the young unemployed, finding that disincentive effects are pervasive for young people and those on low wages, especially part-time workers.

EPAC (1988a) also looked at EMTRs facing families, taking into account payments outside the Commonwealth social security system such as Austudy, childcare assistance and state housing rental rebates. A more recent review of such evidence, particularly relating to families, is in Ingles (1997) and Chapter 5.

The OECD (1996a) summarises evidence on poverty traps and EMTRs (called METRs in their study) across a number of countries. The OECD procedure is however somewhat obscure, since it is hard to believe that EMTRs for countries can be summarised by a single rate (OECD 1996a, Table 2.4, p44). That said, however, it is clear that many other OECD countries apart from Australia face a similar problem. Moreover, it is a growing one, as countries find unemployment insurance needs to be supplemented by other forms of means-tested assistance in the face of high levels of structural unemployment and rising welfare dependency.

The OECD suggest that "Where the marginal rates are high over a relatively wide range of earnings they indicate a breaking of the link between effort and reward which reduces work incentives" (1996, p.45). Further, high EMTRs, in conjunction with work-related expenses, can give rise to a "poverty trap" where attempts to supplement a low income can actually leave a family worse off. Finally, the incentive for a spouse to work can be affected by the unemployment of the other spouse (on which more later): "This pattern - low participation by wives of unemployed men - is increasingly observed in other countries as greater numbers receive means-tested benefits" (OECD 1996a p.46).

### 3.3.3 Incidence of high *effective marginal tax rates* (EMTRs)

Do high EMTRs actually affect behaviour? A first step is to document the number of income units subject to high EMTRs. We have some Australian evidence on this from Polette (1995) and Polette and Harding (1995). Using the NATSEM[16] microsimulation model, they find that relatively few families are subject to high EMTRs. In most cases family income falls either below or above the income ranges where high EMTRs apply. The number of families affected by very high EMTRs has been reduced by the NTS, but the number on EMTRs of 60% and over is increased (Beer and Harding 1999). However there are still less than 7% of all income units so affected.

Findlay and Jones (1982) and Bascard and Porter (1986) also estimated the distribution of EMTRs, in order to calculate the efficiency costs of taxation in Australia (see Section 3.5). More recently Campbell and Bond (1997b) have also estimated the distribution of EMTRs in Australia, finding that they are generally higher than the average EMTRs published by Harding and Polette.

### Table 3.3: Average EMTRs from two studies

Disposable income decile

|  | 1.00 | 2.00 | 3.00 | 4.00 | 5.00 | 6.00 | 7.00 | 8.00 | 9.00 | 10.00 |
|---|---|---|---|---|---|---|---|---|---|---|
| Harding/ Polette | 0.06 | 0.23 | 0.35 | 0.32 | 0.29 | 0.31 | 0.3O | 0.32 | 0.36 | 0.38 |
| Campbell/ Bond | 0.33 | 0.33 | 0.44 | 0.7O | 0.55 | 0.48 | 0.37 | 0.45 | 0.43 | 0.43 |

*Source: Campbell and Bond (1997b) Table 1, p155. Figures for Campbell and Bond refer to weighted EMTRs.*

The C&B estimates show much higher EMTRs in all deciles, but particularly in lower income deciles. There are several reasons for the different results of these two studies. The most important is that the Campbell and Bond study includes indirect taxes, and also government in-kind benefits (some of which reduce in value as incomes increase). Another is that families were grouped by disposable equivalent family income in H&P, and by disposable household income in C&B. A final reason is that H&P exclude some families (see Campbell and Bond for a discussion of these differences).

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[16] National Centre for Social and Economic Modelling, University of Canberra.

The Campbell and Bond estimates are designed for the purpose of estimating the efficiency costs of the tax/transfer system, and are more appropriate than H&P for this purpose. In particular they are a more comprehensive measure of the overall tax "wedge" which is the source of efficiency loss from taxation. However the H&P measure may be useful for other purposes where indirect taxes and in-kind benefits are not relevant.

It is difficult to interpret the apparent finding that relatively few households are affected by high EMTRs. For example, it cannot be ruled out that social security clients are responding quite rationally to such tax rates by avoiding declaring incomes that fall in the affected zones. If this is the case, then high tax rates are having profound behavioural effects but they are not being picked up in this sort of study. To answer this requires recourse to a model embodying behavioural estimates, something that has not yet been done in Australia. This is an important issue I will return to later.

### 3.3.4 Direct interview approach

This approach involves asking people (a) whether they are aware of aspects of the social security system that might affect their behaviour (such as means test free areas and tapers), and (b) how they (think that they) have responded to these perceived features. Often, such questions have been asked as part of the evaluation of particular policy initiatives. Two examples are in the DSS evaluation of Parenting Allowance (Chan and Wilson 1996), and the survey of sole parent pensioners and unemployment beneficiaries (Puniard and Harrington 1994). This last study in particular was aimed, inter alia, at determining client's understanding of the effects of income tests and the tax system.

Puniard and Harrington refer to a 1986 survey of sole parent pensioners indicating that "a majority did not understand the income tests applied by DSS, or the implications for the rate of income support when earning income (Crompton 1987)" (p.2). Their own survey indicated a similar lack of knowledge by unemployment beneficiaries (pp9-10). However there was some tendency to view the income test as harsher than it actually is (p10). Moreover, "despite the lack of detailed knowledge of means testing as measured by the questionnaire, some respondents nonetheless had a general idea of how it affects their disposable income" (p8).

A similar lack of knowledge among clients is revealed in Chan and Wilson's (1996) evaluation of parenting allowance (PgA): "In general, PgA respondents were unaware

of how their, or their partner's income, would affect their payments. Most respondents understood that if they gained employment, their PgA would be reduced until it was cut out. ...The effect on income of PgA and its possible impact on the decision process was minimal for most respondents" (p45). Further, "..it appears that families do not consider the availability of income supplement or the problems with EMTRs as crucial factors in determining their participation in paid work" (p46).

The direct interview approach has been a popular method, within the Department of Social Security (now FaCS), of analysing incentive effects of programs. This is probably because it is relatively simple and the results can be analysed without severe technical difficultly. However the approach has been found, in tax studies where it was pioneered, to systematically understate incentive effects (see Brown 1983, pp.50-51). In this field such methods have been largely superseded be newer approaches. The basic problem is that the interview approach only measures perceptions, not actuality. People may not understand how incentives affect them, but be affected nonetheless. More contemporary techniques bypass the issue of perception and seek to measure incentive effects from observed behaviour.

## 3.4    Direct measures of labour participation effects

### 3.4.1    A note on income and substitution elasticities

Results of econometric studies of labour supply response are usually summarised in terms of elasticities. Elasticity is a measure of the proportional responsiveness of one variable (eg hours worked) to the change in another variable (eg the after-tax hourly wage). For example, an elasticity of one means that a one- percent fall in the net hourly wage rate induces a one- percent decrease in hours worked.

Taxes create two separate effects. First, they reduce net income. This "income effect" is expected to induce labour supply: if our income is reduced, we will normally try and compensate by working more. Their second effect is to reduce the rate at which we can "trade" hours of leisure for dollars. A fall in the net hourly wage rate is expected to create a "substitution effect" discouraging work effort. These two effects tend to cancel each other to some extent; the net effect is the actual (uncompensated) labour supply response to a tax rise.

It is important for many purposes to disentangle income and substitution effects. For example, a rise in the pension rate without any change to means tests will have a pure

income effect for current recipients, and we may wish to estimate their likely labour supply response. The income effect is the impact on labour supply if income rises or falls in lump sum fashion, ie, without any change in the net wage rate at the margin. This is measured by the "total income elasticity", which is expected to be negative (a fall in income induces a rise in labour supply).

The substitution effect is the impact of changing the net wage at the margin without any change in total net income; this is measured by the "compensated substitution elasticity", which is normally positive (a rise in the net wage rate induces a rise in labour supply). The two effects combined give the "uncompensated substitution elasticity", which can be positive or negative. A negative sign means that labour supply will rise if the net wage rate falls (ie if tax rises). This can happen when income effects are stronger than substitution effects and, perhaps surprisingly, is not an unusual finding for prime-age males. Most other groups in the labour market exhibit positive uncompensated substitution elasticities; ie their labour supply falls if taxes rise.

Although taxes have impacts on labour supply that are ambiguous, *a priori,* the same cannot be said of means-tested social security transfers. For transfer recipients income and substitution effects work in the same direction - ie, to depress labour supply. The question is, by how much?

### 3.4.2 Social experimentation

This approach became popular in the US in the late 1960s and 1970s when the government sponsored four large-scale social experiments to measure individual labour supply responses to different levels of benefits and taxes under various negative income tax (NIT) plans. The last of these experiments, which ran for five years, ended in 1982. Results of these experiments are summarised in Whiteford (1981) and more recently in Munnell (1987).

Munnell suggests that "..the results for labour supply responses are quite robust across sites, populations and treatments ... Generally, the experiments caused moderate reductions in work effort. The responses were greater among women ... Weighted averages of income and substitution effects from the four experiments imply a much smaller responsiveness to guaranteed income disincentives than do most non-experimental estimates, and they also fall in a far narrower range. [However] ..earnings reductions would offset at least part of the income gains to the poor produced by the

plan..." (pp3-4). And, while the overall work reduction is small (about 10% in aggregate among recipients), earnings loss among recipient breadwinners amounted to as much as 40-58% of their additional payments. This loss is less severe for sole mothers (some 10-20% of additional transfer costs), presumably reflecting their pre-existing eligibility for payments such as Aid for Dependent Children (AFDC).

However these interpretations of the results were criticised by some participants in the Conference. For example Ashenfelter (in Munnell 1987) pointed out that some, indeed the greater part, of the reduction in work effort is spurious, since it reflected income under-reporting by participants as checked against, eg., social security payroll tax records. Further, he regards the estimates of income and substitution effects (see below) as reflecting econometric models based on the prior beliefs of investigators (pp.4-5). Nonetheless, all the experts agreed that "...the experiments refined the estimates of individual's responses to net wage rates, measured by using variations in taxes, and to unearned income, demonstrated by using variations in guaranteed income.." (p20).

Burtless (1987) distinguishes three different types of labour supply estimates produced by the experiments. The first was obtained by measuring the simple difference between the work effort of people who were assigned to experimental negative income plans and that of people who were assigned to the control groups (p22).

A second type of estimate is produced by using structural econometric models of work effort response. Such models allow decomposition of income and substitution effects, thus allowing analysts to generalise the findings of the experiments over a much wider range of plans and populations. Experimental results were used in this way to predict the consequences of both the Nixon and Carter welfare reform proposals, and have been used in numerous academic studies.

The third kind of estimate is really a derivative of the second; that is, the use of microsimulation to generalise the results and produce estimates of various plans' impacts of aggregate labour supply, the distribution of income and so on.

Burtless notes that from a scientific viewpoint the most reliable set of estimates of work response is produced by the first method - ie, simple differences relative to control. "It is inherently more difficult to decompose the overall response into income and substitution effects, although in this respect the experiments possess substantial advantages over non-experimental sources of data. The experimentally based

simulations of national response are [even] more problematical ... Unfortunately, from the perspective of their policy usefulness, the three kinds of estimates of response would rank in the reverse order" (Burtless, pp24-25).

Burtless presents a useful summary of income and substitution elasticities, averaged across a large number of studies based on results of the four experiments (Table 3, p34, reproduced below as Table 3.4). He compares these results with non-experimental results also averaged across a large number of studies.

**Table 3.4: Estimates of income and substitution effects from experimental and non-experimental studies**

| subjects | number of studies | uncompensated substitution elasticity | compensated substitution elasticity | total income elasticity |
|---|---|---|---|---|
| men - NIT (a) | 21.00 | -0.02 | 0.09 | -0.11 |
| men - non-experimental | 26.00 | -0.10 | 0.28 | -0.38 |
| women - NIT | 20.00 | -0.07 | 0.18 | -0.11 |
| wives - NIT | 14.00 | 0.17 | 0.24 | -0.07 |
| female heads - NIT | 11.00 | -0.04 | 0.14 | -0.18 |
| women - non-experimental | 38(b) | 1.36 | 1.37 | -0.01 |

*(a) weighted for scale of NIT experiment*

*(b) excludes lowest and highest five estimates from 48 studies.*

*Source: Burtless (1987) Table 3, p34.*

These estimates can be compared with Keeley's (1981) survey of the non-experimental literature, which gave a means estimate of uncompensated and compensated elasticities for married men of -0.11 and 0.10, respectively, with 1.28 and 1.05 as the corresponding figures for married women. Moffitt and Kehrer's (1981) survey offers similar averages, with generally lower elasticities found in the experimental results.

On balance Burtless finds that the experimental estimates imply a smaller response to disincentives than most non-experimental estimates. Further, they fall in a far narrower range. The experimental results are also described as more robust, because of the "large

amount of experimentally induced random variation in net wages and non-wage income levels ... The experiments thus appear to have achieved their major goal. They have substantially reduced our uncertainty about the size and work effort reductions in response to wage rate and income changes " (1987 p38). Unfortunately for US advocates of welfare reform, the estimated earnings reductions turn out to be high relative to the additional transfer cost of simulated programs: in simulations of NITs based on the estimated labour supply assumptions, earnings reductions in two parent families represented some 35-58% of the additional transfer cost of the program. Put another way, for the most generous plan tested, it costs about $1.89 to transfer an additional dollar to the poor (p45). On these figures, Arthur Okun's famous "leaky bucket"[17] is indeed rather leaky.

Taken alone, the negative total net labour supply responses of both men and women (ie uncompensated supply elasticities) estimated from the experimental responses indicate that more work will be supplied as taxes rise. The reason NITs nonetheless turn out to reduce labour supply has already been suggested, and is as follows. The small net labour supply effects for men and women are made up of larger partial effects (income and substitution) operating in opposite directions. In the positive part of the tax system, these partly offset each other, and labour supply is relatively insensitive to the tax rate. But in the negative part of the system - ie., below the breakeven levels of income[18] - these income and substitution effects are operating in the same direction, to reduce labour supply. Income effects will also tend to dominate substitution effects in the income zones immediately above the breakeven levels.[19]

Two caveats should be made about the experimental estimates of supply elasticities. First, they may understate longer-term labour supply responses. There is some evidence of this from the experiments themselves (p46). Second, at least part of the apparent labour supply response is known to have been a reporting phenomenon rather than a real

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[17]Arthur Okun (1975) likened moves to equalise incomes as transfers of money using a "leaky bucket'; because of adverse incentive effects the cost to taxpayers is greater than the benefit to recipients. Lambert (1988) noted that on some assumptions the "leak" could exceed the size of the bucket.

[18]The breakeven income level is that level of income where positive tax paid by the income unit equals transfers received. Above this level income units become net taxpayers; below it they are net beneficiaries of the transfer system.

[19]If the uncompensated supply elasticity of a group, such as prime age men, is zero, their labour supply will be unaffected by a uniform percentage tax, since income and substitution effects cancel. If

reduction in work effort. It is difficult therefore to predict the consequences of a full-scale national program with its associated benefits control measures and the like.

The experimental findings offer some support for Akerlof's (1978) hypothesis on the economics of "tagging": that is, that benefits should be provided more generously to families whose earnings are less responsive to work disincentives.

### 3.4.3 Studies on taxation and work incentives

Prior to the income maintenance experiments this had been our major source of information on income and substitution elasticities. While much of this literature has concentrated on the positive tax system, the results can, at least in theory, also be applied to the tax-transfer system. Some more recent studies have modelled the tax-transfer system explicitly.

Brown (1983) provides a useful survey of this literature. He lists the various methodologies that have been applied:

- interview approach

- cross-sectional econometric studies

- experimental approach,

and points to formidable conceptual and measurement problems, particularly in the econometric approaches which characterise much of the work in the field.

From his survey of the econometric evidence, particularly the more sophisticated later generation models, Brown concludes that "..it would be a mistake for policy makers to assume that labour supply is not responsive to tax changes. The evidence suggests both that people are responsive and that modelling this response very carefully is important. Precisely how responsive people are is still an open question, but it does seem reasonably well established that the price [ie uncompensated] elasticity for men is low and negative" (p81).

As noted in the previous section, the general range of income and substitution elasticities found in the non-experimental studies is higher than that found in the experimental studies. However both types of studies suggest that women's' labour

the tax is progressive, the average tax rate will everywhere be less than the marginal tax rate and so we can expect some disincentives at each income level. A NIT has a similar (albeit stronger) effect.

supply is much more responsive than that of men, and that their price elasticity is positive. Brown notes that existing elasticity estimates may be less firmly based for women than for men. In the more recent literature the "new view" of women's labour supply is that such supply is elastic, not because they are women, but because a lot of women are at the extensive margin of the labour market. On this view men with marginal labour force attachment are also likely to have positively elastic labour supply response.

Leibfritz et al (1997), in a survey of the effect of taxes on labour supply, note that the main hypothesis underlying empirical research in this area are:

- men and unmarried women, as primary earners, have little choice about labour participation and normally work full-time, so their labour supply should be relatively inelastic

- married women are more likely to be sensitive to tax wedges, since they normally face a wider choice set (which includes household production)

- lone mothers are by definition primary earners but their labour supply decisions are highly conditioned by the welfare system

- all mothers with children face high fixed costs connected with childcare.

These hypotheses may be losing relevance as male participation rates have fallen and those for females have risen in recent years. Hence female elasticities estimated on the basis of past experience may exaggerate their response (p40).

The estimates summarised in Leibfritz et al's Table 11 suggest that supply elasticities for women are large, around 0.5 or even higher, and participation elasticities are often as high as 1, although lower in more recent studies. This Table, comprising results of 22 studies, is summarised, by calculating medians, in Table 3.5 below.

## Table 3.5: Median estimates of labour supply elasticities

|  | uncompensated wage elasticity | compensated elasticity (substitution effect) | income elasticity (income effect) |
|---|---|---|---|
| married women | 0.88 | 0.90 | -0.18 |
| men | -0.10 | 0.28 | -0.32 |
| lone mothers | 0.76 | 1.28 | -0.24 |

*Source. Calculated from Leibfritz et al (1987) Table 11, p59.*

*Note. Income and substitution effects should sum to give the uncompensated elasticity. They do not do so in this table because the medians refer, in each case, to different studies.*

Elasticities for men are negligible, or even slightly negative. Lone mothers' appear to have roughly similar responses to married women, albeit possibly greater substitution effects. However studies also suggest that women's supply response may be uneven, as at low hours the response is large and positive, whereas at full-time hours the response drops suddenly and becomes more like that for men - ie negligible or negative, suggesting that the income effect starts to dominate. There is also evidence that female labour supply is influenced by other household income, usually that of the husband (p41).

The median uncompensated elasticity of 0.88 for married women may be on the high side. Blundell (1997a), reviewing similar estimates, notes that "There is still debate over the sensitivity of these labour supply estimates to small changes in specification, and studies adopting more robust procedures tend to find slightly smaller elasticities. *An elasticity of about 0.5 for married women is a fairly robust result*, and higher elasticities such as those found in the studies by Hauseman and Kaiser et al partly reflect an upward bias from the participation response" (p19) [emphasis added].

Married women's decisions whether to work or not potentially exhibit the largest response to taxation. A particularly important issue is the presence of fixed costs of work; this interferes with the estimation of the participation response. Nonetheless a large number of studies in different countries point to a large participation effect that is "probably reasonably well determined and around unity" (Blundell 1997a, p20).

To estimate a total economy elasticity of labour supply, one approach is to derive a weighted average across the labour force. The Congressional Budget Office (1996) has done this for the United States; the result is a US elasticity of between 0 and 0.3%. Taking the midpoint (0.15) suggests that a tax cut would induce a modest supply response; half of this would be from people joining the labour force, and half from an increase in hours worked. Most of this response would come from married women. However Blundell (1997a) has commented that "There can be no single, representative labour supply elasticity, as different individuals face both different incentives and

different responses to those incentives" (p 7). Blundell's preference is for a full-blooded micro-simulation approach - see below.

Despite the finding that women have high labour supply elasticities, "cross-country difference in female participation rates appear to be only weakly, and sometimes even perversely, correlated with difference in overall tax wedges... And, despite rising taxes, participation rates of women have been on a strong rising trend in OECD countries.. Thus taxes were not the main factor driving women's participation, but may have had important effects at the margin" (Leibfritz et al 1997 p42).

In the 1980s top marginal rates of tax were cut sharply in the US and a number of European countries. This appears to have resulted mainly in more entry of married women into the labour force, although higher incomes were reported by both married and single upper-income taxpayers (p42). It is important of course, to distinguish income reporting and actual labour supply effects, although for some purposes (such as estimating revenue from a tax change) the distinction is unimportant..

Another recent survey of tax and labour supply is that of Blundell (1997b). This article reflects the increasing attention that is being given to microsimulation modelling, reflecting the facts that

- different individuals face different marginal tax rates

- different groups respond differently to such rates.

In his exhaustive survey of male labour supply Pencavel (1986) noted that the small and negative labour supply responsiveness of prime aged men derived from early econometric analysis that had been challenged in the "second generation" studies developed by Burtless and Hauseman (1978) and Hauseman (1981). However the Hauseman procedure has been shown to be sensitive to mis-specification and measurement error; more robust recent techniques appear to point (again) to smaller elasticities (MaCurdy et al 1990), or to at least indicate sensitivity to the measurement of marginal tax rates and non-taxable other income.

For married women these sensitivity issues are even more critical " ...once it is recognised how influential, and unreliable, the estimated wage effect on participation can be [see Mrotz (1987) on the US and Blundell et al (1987) on the UK].... It is easy to show that many of the large elasticities of female labour supply are simply and

extrapolation of the wage effect to participation ... This distinction between participation and hours of work is an example of how potentially important features of the labour market are often ignored in simulation models" (Blundell 1997a p10). Another important issue is the joint response of a household to a tax change: if a tax rise reduces household income, the (positive) income effect on the women's labour supply can largely offset the negative substitution effect (Blundell 1997a p18, Table 6).

Also, withdrawal of welfare benefits can produce quite complex interactions in household labour supply, which are difficult to model. And, if there are a lot of marginal rate "kinks" (as there are), empirical results can be further misleading (Blundell 1997b p.9).

In contrast to Brown, Blundell asserts that "By far the most reliable picture of labour supply responses concerns married women although.... the range of estimated elasticities is large " (1997b p10). He agrees that prime age males probably have low, negative elasticities, although he finds "many fewer believable studies of male labour supply" (p11). As alluded to above, male working hours are relatively constrained, compared to females, and supply response is correspondingly difficult to model and test.

For lone parents, empirical results tend to be more recent and therefore less well established. There are particular methodological problems that make the results for this group fairly divergent (p12).

Gruber and Saez note: 'A number of influential articles, such as Hausman (1981) and Boskin (1978) argued that behaviours such as labor supply and savings were very elastic with respect to their prices... a large body of subsequent literature, however, suggested that these behavioural elasticities were actually rather modest (Slemrod 1990)...over the past few years, however, a new literature has emerged which has pointed out that ...other responses such as the form of compensation, unmeasured effort, and compliance may ultimately determine taxable income, and these may be more elastic with respect to taxation. Feldstein (1995) in particular observed that it is the overall elasticity of taxable income which is relevant for assessing the implications of tax changes for revenue raising" (Gruber and Saez 2000 p3).

These researchers find that the overall elasticity of taxable income is about 0.4; but the elasticity of real income, not including tax preferences, is much lower. This overall elasticity is primarily due to a very elastic response among taxpayers with incomes over

$US100,000 pa, with an elasticity of nearly 0.6, while for those below this level the elasticity is only one-third as large. This finding has two policy implications: first, that tax preferences are to be avoided, and second, that the optimal tax structure might be degressive in character, consisting of a large demogrant that is rapidly taxed away for low income earners, with lower marginal rates at high income levels.

Estimates of labour supply elasticities are an essential input into dynamic microsimulation[20]. Hence the uncertainties noted above must affect the reliability of such microsimulation. Nonetheless Blundell is a keen advocate of this approach to enhancing our understanding of tax and benefit reform, and of likely responses at the disaggregated level. I agree with this judgement. It is after all, better to be partly right than wholly wrong, and using static microsimulation to assess policy change, *especially changes explicitly aimed at affecting behaviour*, can (except by accident) only give wholly wrong answers.

It is interesting to note that the interview technique, on which the pioneering studies of tax effects were based, is no longer used in taxation research. The results are regarded as simply too unreliable. It seems likely that the same conclusion will eventually apply to the uses of the interview technique in research on social security work incentive effects.

### 3.4.4  Estimates of labour supply functions using panel data

This is a relatively new field, reflecting the scarcity of panel data prior to the 1980s. However it is a rapidly growing one. Panel data allow the incorporation of life cycle models which, at least in theory, might be expected to have some advantages over the usual cross-sectional econometric approach for estimating labour supply elasticities. A particular advantage is that particular individuals and households can be followed through time, so that their individual response to changing circumstance is not "washed out" in the same way as in normal time series data. In this way many of the problems of heterogeneity which bedevil normal econometric analysis can be controlled for.

However a survey by Laisney et al (1992) indicates that these hoped-for gains have yet to be realised in practise. Laisney et al note: "Concentrating first on the elasticities obtained for both men and women, it is clear that the variance of the "guesstimate" is

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[20] Static microsimulation assumes unchanged labour supply in response to policy changes. The case for dynamic microsimulation is discussed in the Appendix to this Chapter.

not much lower for life cycle models using panel data than for models estimated on cross sections ... the cross section results of Mrotz (1987) on the great sensitivity of elasticity estimates, based on a single linear labour supply specification to exclusion restrictions, choice of stochastic assumptions and estimation methods, extend to panel data studies. ...Even in fairly homogeneous groups [of specifications] the variability is considerable. This points out the fragility of the results. Clearly more work is needed on refinement of the economic specification [etc.]..." (p460).

## 3.5    Findings on behavioural responses of particular groups

There is a lot of circumstantial evidence that workforce participation among certain groups is influenced by the availability of social security benefits. However, great care is needed in separating benefit effects from other possible influences, at a time when we are seeing great social and economic changes, which must by themselves affect workforce participation. Virtually every study cited which has sought to disentangle benefit and other effects has found the former to explain less than half, and in some cases less than a quarter, of observed differences or declines in workforce participation. This is also the conclusion in the literature on the early retirement phenomenon, discussed later in this section.

This section considers the following groups

- sole parents

- the unemployed and their spouses

- the disabled

- older unemployed people and early retirees.

### 3.5.1  Sole parents

It has long been argued that the level and availability of income support for sole parents has contributed to the number of low income sole parent families. Sole mothers in Australia work less than married women: Colledge notes that Australia shares with the UK the distinction of having a low rate of labour force participation among sole mothers, and of also having a sole mothers' participation rate lower than that for married mothers (1991 p11). For other OECD countries it was either the same or higher. In May 1990 the participation rate for married mothers was 61% compared to 53% for sole mothers (p13). Bradshaw et al (1996) confirm this finding.

Most of the difference in sole parent and married women's participation rates appears to relate to part-time work. In 1990, the overall percentages in full-time employment were very similar for married mothers and sole parents, at about 25-27%; in contrast the part-time employment rate for sole mothers was only 60% of that for married mothers (20% vs 33%).

There are possible reasons for these differences apart from sole parents' benefits. For example, sole parents may have younger children, be less well educated and so on. However Ross and Saunders' (1993) study gives some support to the view that the relatively low part-time employment status of sole parents results from the financial disincentives associated with the poverty trap (p118). That said, they also conclude that "sole mothers respond to labour market signals in much the same way as married mothers, with the important exception that they ... are much more responsive to changes in access to other sources of income - particularly government cash transfers but more generally to all non-wage income sources" (p131).

Recent policy initiatives such as the JET scheme have specifically sought to increase labour supply among sole parents, and there is evidence that this is having an effect. The proportion of sole parent pensioners with earnings has risen from 9% in 1983 to 24% in 1995. However, there may be mechanical reasons for this increase, as well, such as the rise in the real value of the sole parent pension over this period. This, along with increases in free areas, automatically extends the range of incomes eligible for SPP.

Whiteford and Bradshaw (1994), in a survey of 17 countries, found some evidence for a positive relationship between the level of benefits and the level of sole parenthood, although there was not a clear relationship between the structure of benefit systems for sole parents and their behaviour. Other studies have found that while financial incentives to work are perceived to be important, they are not as important as other factors such as the availability of child care (Kalb 1999 p40).

The labour supply of sole parents has been an issue of considerable interest in the US; in a review of incentive effects of the US welfare system, Moffitt (1992) notes: "The extraordinarily low levels of work effort and earnings among welfare recipients have long been suspected of being partly the result of [long term welfare dependency and work] disincentives" (p.1).

In the US context, 'welfare' means means-tested benefits mainly provided at state level, and not social insurance (which is called 'social security'). In practice welfare has come to mean mainly single parents benefits (AFDC), food stamps, Medicaid and housing assistance. Moffitt notes that "..any significant labor supply effects of the transfer system will be found only among female heads" (p5).

He first considers time series evidence, which appears to show a close correlation between the explosion in AFCD caseloads in the late 1960s and rises in the average real benefit. However, some of this correlation is mechanical in origin; as benefits rise or tapers reduce, coverage automatically rises because more of the existing sole parent population become eligible (pp.10-11).

Female heads in the US have relatively low levels of labour supply. However these are not lower than those of single (never married) women, or those of married women. Sole mothers work, on average, about the same as all other women, and generally earn more: " ...it is not obvious that there is a "problem" with low work effort among female heads. Likewise their earnings do not obviously imply that there is any problem with their level of human capital" (p14).

Moffitt summarised research on the labour supply effect of AFDC, noting that Danziger et al (1981) indicated that the research shows that AFDC generates 'non-trivial' work disincentives. This suggests that, in the absence of AFDC, female heads would work more than other mothers. A mid-point disincentive estimate is that AFDC mothers, who now work 9 hrs per week on average, would work 14 hrs per week in the absence of the program: not a high level in any case. However this amount of lost earnings is a high fraction of AFDC transfers: for every dollar transferred, 37c appears to 'leak out' in the form of reduced earnings. Put differently, $1.60 must be spent to raise the income of female heads by $1 (pp.16-17).

But labour supply effects of welfare are by no means sufficient to explain the high rates of poverty among female heads; "...most AFDC women would, apparently, be poor even in the absence of the AFDC program" (p41).

One interesting finding in this literature concerns the impact of reducing the benefit reduction rate (ie taper). This is nominally 100%; in practice less, due to earnings credits, childcare deductions and the like. The labour supply effect of reducing the benefit reduction rate is theoretically indeterminate: some existing recipients should be

incentivized[21], whereas new recipients brought into the system are expected to work fewer hours. "The econometric evidence on this issue now strongly suggests that the labour supply effects of old and new recipients essentially cancel each other out ...[making it] extremely unlikely that the benefit reduction rate can be used to achieve significant gains in work effort among the low income population" (Danziger et al 1981 p41). This appears to be a fairly robust result across a number of studies, and is one reason that NITs and the like are no longer in fashion in US welfare debates.

Swan and Bernstam (1988) have criticised unintended consequences of sole parents benefits, suggesting that 'becoming a single parent could be a sensible career choice" (p226). Moffitt finds little evidence of such an effect: "...the econometric estimates of family structure effects are not large enough to explain long run declines in marriage rates and, in any case, are incapable of explaining recent upward trends in female headship, because welfare benefits have been declining. Thus the welfare system does not appear to be capable of explaining most of the long run trend or any of the recent trend of increasing numbers of female headed families in the United States" (p 43 ).

Kalb's (1999) survey concludes that "The studies of ...sole mothers indicate that financial incentives may have some effect, in particular some form of wage subsidy seems to be effective. The estimated size of this effect, however is not clear and varies considerably over the different studies. Generally, it does not seem to be large, particularly when compared to the effect of an additional child age five or below" (p49).

### 3.5.2  Benefit impacts on levels and duration of unemployment

Do unemployment benefits increase recorded levels of unemployment? Studies of replacement rates provide impressionistic evidence but are not really capable of answering this question. In principle it should be capable of econometric analysis, and many studies of this type have appeared. In Australia, the broad conclusion was that the real level of unemployment payments affects the aggregate unemployment rate, but not to a marked extent (Whitlock 1994 p26). Estimates have ranged from elasticities of zero to 0.4.

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[21]I am indebted to the US for this useful addition to the English language. Our current Prime Minister at one time sought to popularise the term 'incentivate', but it never caught on.

A slightly different proposition is that an increased rate of unemployment benefit leads to an increase in the take-up of unemployment payments. Again, researchers have found some link, but there is no agreement on the size (Whitlock 1994 p.27).

UK studies found no strong evidence that unemployment benefit levels impact on inflows onto unemployment benefit. US studies indicate some effect, but this may well reflect demand as well as supply side influences. That is, employers may use unemployment insurance as a subsidy supporting fluctuating employment patterns (Atkinson and Micklewright 1991).

The most durable finding in the literature concerns benefit duration. A number of studies in the 1970s and 1980s found that unemployment benefit levels impacted on average period spent on benefit. For example, Layard, Nickell and Jackman (1991), in a survey of the international literature, suggest that there is consistent evidence of a duration effect but results vary widely: elasticities range from 0.2 to 0.9. Their own work suggests that a 10 percentage point fall in the replacement rate will lead to a fall in the unemployment rate of 1.7 percentage points. Note, however, that most of these studies relate to unemployment insurance systems, which are very different from Australia's. However Australian studies have also found some duration effect of benefit levels (see Whitlock's (1994) survey).

Layard et al's simulation of a 10% fall in replacement rates leads to the question of policy relevance: such a fall in the replacement rate would imply a benefit cut of around $30 pw (single and married), and around $45 pw for couples with children (Whitlock 1994 p.27).

A further proposition that has been tested is that benefits of long or infinite duration increase not only the average duration, but also the number of long-term unemployed. This cannot be easily tested in Australia, since unemployment benefit has always been available for an unlimited duration. US estimates in the 1980s suggest that extending the duration of unemployment insurance by one week increases mean duration of unemployment by 0.1 to 0.2 weeks. Estimates for Canada and later estimates for the US show somewhat higher elasticities (Whitlock 1994 pp.27-28).

Finally there is a group of studies that assess the impact of activity testing. Layard et al (1991) found that tight administration of unemployment benefits appeared to have a marked influence on outflow from unemployment.

The OECD tends to be somewhat hawkish on the relationship between benefit generosity and the rate of unemployment. The OECD Jobs Study (1994) notes that previous cross-national studies had failed to find any correlation between countries' unemployment benefit rates and their levels of unemployment (p172). This evidence is updated and re-examined in this study; the result appears to point to a rather high elasticity of one, at the mean, between the summary measure of benefit entitlement and the unemployment rate (p179).

This estimated elasticity is "larger than the elasticities of individual supply response estimated in microeconomic studies of the duration of benefit entitlement on the duration of unemployment spells using large cross-section data sets. These elasticities are in the range 0 to 1.0 (according to Atkinson, 1987), or 0.2 to 0.9 (according to Layard et al., 1991)... Such an estimate should be understood as including the effect of responses by firms (eg. increased use of layoffs) and workers (eg. increased wage demands) when benefits change" (OECD 1994 p.179). However, a significant part of any increase in unemployment caused by benefits may not reflect an actual reduction in employment. Rather, it may indicate a decrease in the number of people reported to be out of the labour force (p191).

The OECD Jobs Study provides other evidence of a benefit - unemployment rate link, albeit one which may take many years to actualise following rises in real benefit levels. This includes:

1. evidence that GMI- type benefits lead to claims from unemployment beneficiaries, in the long run, at least several times greater than the number who appeared to be eligible at the time of introduction of the payment (pp194-195);

2. US and Canada: evidence of a growing unemployment rate gap between the US and Canada, associated with more generous unemployment benefit levels and conditions in Canada (pp195-196)

3. Finland and Sweden: evidence following benefit reforms and rising real benefits

4. Belgium and Norway: unemployment benefits for part-time workers appear to create a substantial unanticipated clientele (pp198-200)

5. The Netherlands: disability benefit reforms encourage early retirement (pp200-201).

The OECD note that if benefit administration can be kept tight, the potential disincentive effects of benefits can be largely contained. However adverse demand side shocks which cause rapid increases in unemployment can cause previously well-functioning administrations (such as Sweden's, before the 1990s) to be overwhelmed. Then, if people get used to living on benefit, it may be difficult for a variety of reasons to again place them in employment. This can create a ratchet effect so that future economic shocks cause further increases in unemployment to a yet higher level, a phenomenon known as hysteresis.

The OECD has long been concerned about high and rising unemployment in the OECD area generally. Its explanation for unemployment hysteresis is now very clearly focussed on institutional impediments to labour market clearing, notably the tax and benefit systems. While its research on benefit/unemployment links might be seen as ideologically based, and the results need further testing and academic debate, it would be a mistake not to regard them as an important and serious contribution to the debate.

Atkinson and Micklewright (1991) have critically reviewed much of the literature of benefit impacts on unemployment. They clearly demonstrate that this is a very difficult topic and one not easily conducive to simplistic econometric estimation techniques. For example, "- the theoretical literature on unemployment benefit largely ignores important institutional features of actual social security schemes ... Unemployment compensation is often treated as if it were simply the wage of the unemployed... [in fact] only a fraction of the unemployed receive UI, a fact that is frequently overlooked" (pp 1688-89). Further, "Although reference is made on occasion to the relevance of search activity to the conditions of eligibility for benefit ... this is not typically made explicit in the analysis of the effects of unemployment compensation" (p1700).

The bottom line is that these well-regarded researchers are extremely sceptical about a lot of the research that has been conducted in this area, and about the apparent consensus on certain findings such as the impact of benefits on average duration. Atkinson (1987) concludes: "..the initial simplicity of findings with regard to incentive effects tends to disappear when the issue is investigated in more detail." Kalb argues that "If this is true, not much can be said about the effect of unemployment benefits on people's labour market behaviour, except that it is unlikely to be large (as far as can be inferred form the studies currently available) (1999 p24).

In conclusion, it is difficult to summarise the literature on unemployment and benefits. That higher benefits induce more people into the labour market seems clear. It is also reasonably well established that duration limits affect behaviour. Whether higher benefits actually reduce the number of people working is much less easy to determine.

### 3.5.2.1 Low labour force participation among spouses of the unemployed

Contrary to the apparent results of the interview approach, statistics on labour force participation among the wives of unemployed men appear to indicate a very large disincentive effect (Whiteford 1987, Pech 1991, and Bradbury 1995). In 1991 the employment rate for these wives was 28%, compared to 65% for the wives of employed men. This phenomenon is also observed in a number of other countries, such as the UK, where unemployment insurance is supplemented by means-tested assistance.

On the face of it, a husbands' unemployment should create a strong incentive for the wife to seek work - the "additional worker effect" (Scherer 1978). In practice, the reverse appears to apply. Moreover, this phenomenon appears to be becoming more marked. Pech (1991) notes that while women with employed husbands increased their employment rate from 47 to 60% in the decade to 1988, the wives of unemployed men made no sustained employment gains during this period (p 29).

Explanations for this phenomenon have tended to focus on disincentives inherent in the family income test for unemployment benefit. This is particularly marked in the UK system; once Unemployment Insurance (UI) runs out, assistance is paid to the family which reduces, beyond a disregarded amount, pound for pound. A UK review by Cooke (1987, cited in Pech 1991)) concluded that the discouraged worker effect outweighs the additional worker effect, and this is particularly marked when income support is subject to joint income testing.

However there are a number of possible reasons why wives of unemployed men might have low employment rates, unrelated to benefit. Such wives are not a random sample but rather are likely to differ from the norm in relation to factors such as

- education

- age

- location.

Collectively, such factors are known as "heterogeneity".

Bradbury (1995) calculates, on the basis of 1991 data, that "unlike the situation in the UK, variations in [such] characteristics are sufficient to explain all the employment rate gap in Australia" (p50). This study is based in part on cross-sectional econometric analysis and in part on analysis of DSS panel data. It should also be noted that the rate of withdrawal of benefit as family income rises is, in Australia, less harsh than in the UK.

Bradbury suggests "..two-thirds of the employment rate difference between these two groups exists prior to the husband becoming unemployed. Of the remaining one-third, most can be accounted for by the low employment rates of women whose husbands have low probabilities of exit from unemployment benefit ... In other words heterogeneity is much more important than state dependence.. Education and age homogamy between spouses plays a part - but only a small part. Surprisingly regional characteristics seem to be even less important. For the present ... most of this heterogeneity must be described as unobservable." (p68). Sociologists might find explanations in concepts such as the "underclass".

There is a problem with the apparent finding that two-thirds of the employment rate difference of wives existed prior to the husband becoming unemployed. That is, it fails to account for multiple unemployment spells (which register as single spells of low duration in the data), which have been found in UK panel surveys to reduce the likelihood of the wife working. This clearly illustrates the pitfalls that can arise from the use of cross sectional data, and casts serious doubt on Bradbury's main finding of 'no benefit effect'.

Bradbury concludes, however, that "...this does not mean that economic factors such as income tests are unimportant in influencing wives employment patterns. This may be true, but an alternative explanation is that the price effect of the income test is more or less offset by the income effect of the household's fall in income." (p69).

This conclusion is restated, more clearly, in King et al (1995): "...a small net effect is possibly the outcome of large disincentive effects of the social security income test being offset by equally large incentive effects from the need to supplement family incomes" (p5).

King et al supplemented cross-sectional econometric analysis with a small-scale interview survey. None of the 75 respondents reported decreasing their labour force activity in response to their partner's unemployment; 24 said they increased it (pp.9-10). Among those not looking for some or more paid work, financial disincentives ranked 6th on a list of 7 reasons for not doing so (p11). However the sample is not large.

Overseas econometric analysis, controlling for heterogeneity factors, suggests that "..the shortfall in employment rates of women married to unemployed men cannot always be explained by these [heterogeneity] factors alone" (OECD 1996 p35). In the UK researchers have estimated shortfalls of between 10 and 40% that could be directly attributed to the husband's unemployment. "This pattern - low participation by wives of unemployed men - is increasingly observed in other countries as greater numbers receive means-tested benefit" (OECD 1996 p35).

Reforms to the unemployment benefit system following the White Paper on Employment and Growth (Commonwealth of Australia 1994) introduced a reduced taper across some range of income and a partly individual basis of assessment. Initial indications are that these changes have been successful in inducing greater reported earnings among the unemployed (Warburton et al 1999).

### 3.5.3 Disincentives for disabled and sick people

In principle, one might expect the effect of financial incentives for the sick and disabled to be weaker than for able-bodied people. It is not clear, however, that this expectation is backed up by the empirical research.

In Leonard's (1986) review of the US literature, he concluded that disability transfer programs led to a reduction in labour supply, with the benefit level being the most important factor. However most research had concentrated on older men, and little was known about younger men, and women. Bound and Waidman (1992) estimate that up to a quarter of the twenty percentage point decline in participation among 55-64 year old men between WW2 and the late 1980s can be accounted for by disability insurance. They argue that while the number reporting themselves as disabled has risen over time, true health status has not changed, so that the increased number reporting disability is a reflection of the extent to which the disability program induces early retirement. In Canada, Hyatt (1996) found that increasing benefits might reduce employment.

Kalb concludes that, from the studies surveyed, "..the level and acceptance rates of disability benefits may have some importance in the labour market decisions that disabled people make. However, many studies emphasise the fact that people participating in these welfare programs often face impairments that can make it hard to find and keep employment at a level which provides them with adequate incomes" (1999 p57).

### 3.5.3.1    Wives of disability support pensioners

In general women who indirectly qualify for income support because of their husband's eligibility have low employment rates. This is partly a mechanistic feature of means tests - those on higher levels of family income will automatically be disqualified. However it may also reflect a disincentive effect. One study in Australia concerned wives of disability support pensioners. This survey, by King and McHugh (1995) was of an exploratory nature, involving interviews with a small sample of 57 women. Of these, 10 women had increased their labour force participation at the time her partner began receiving DSP; another 9 women had decreased theirs (p.6). The researchers concluded: "...any disincentives of income testing are broadly balanced by the incentives to supplement income" (p11). This conclusion is similar to that reached in studies of the wives of the unemployed, although clearly much work remains do be done in this area.

### 3.5.4    Labour force participation of older men and women

Aggregate labour force participation rates of men have been falling for a number of years, while those for women have been rising. This phenomenon has been particularly marked for older men, and young men and women (relating to participation in education) - see Chart 1. There is some speculation that disability support pension has been a form of early retirement pension for some older men. Unemployment benefit activity tests have been deliberately eased for some older unemployed. Finally, there has been a cohort of ex-servicemen who became eligible for service pension (payable at age 60) in the late 1970s; this appears to have been associated with a marked decline in labour force participation among men 60-65 (Chart 1). Chart 2 shows the same information for older women. For those aged 50-64, aggregate dependence on social security in 1997 was 34%, up from 27% in 1978, and 31% in 1988.

The strong trends towards early retirement evident among males in the 1970s and early1980s are now moderating. The percentage of those not in the labour force or unemployed peaked at 54% in 1983-85, and has since declined to 46%. Bacon (1997) suggests that "the increase in early retirement has slowed and ...it might even have stabilised" (p32). Bacon shows age-specific retirement rates from full-time work; the S-shaped curves for both males and females in each of the 45-49, 50-54 and 55-59 age groups all appear to indicate that we have been through a transition to a new equilibrium which may well prove to be sustained. In the US, similarly, Quinn (1998) suggests that there has been a marked break from the previous sustained downward trend in older men's labour force participation, a phenomenon also noted in several other OECD countries.

On the other hand there are factors, such as the spread of occupational superannuation, which will tend to make early retirement more affordable for some. Superannuation coverage of the workforce has increased from some 40% in 1983 to 92% (National Commission of Audit 1996 p323). Increased usage of some social security benefits such as Disability Support Pension (DSP) will also support earlier retirement for those with some level of disability.

There are a number of explanations for early retirement. These include the observation that the generation of workers now retiring have enjoyed relatively secure economic conditions for much of their working lives, and have accumulated wealth, homes and the like, allowing them the opportunity to choose leisure over further work. Other factors adduced as explanation are the increased incidence of second income earners in families, and the rising spread of occupational superannuation. Finally, the availability of social security benefits may be important.

Anderson et al (1997) consider the impact of pensions and social security on labour force participation by older males in the US. In 1947 almost 55% of married males over 65 were in the labour force, but by 1985 that figure had fallen below 20%. For those over 55 the trend started later. In 1957 90% of married males between 55 and 64 were still in the labour force, but in 1985 the figure had fallen below two-thirds. Anderson et al find that social security and (private) pension changes can explain perhaps a quarter of the decline amongst those aged 55-64, but none of the decline among the 65- plus group. Among the 'residual' factors explaining the trend to earlier retirement are increased real wages, greater opportunities for leisure activities, changing social

preferences and expectations, and the changing structure of jobs. Other explanations involving health insurance are also possible. Certainly, earlier retirement is not a uni-dimensional phenomenon.

Quinn argues that "The simplest explanation for the long-run decline in the labour supply of older American workers is wealth…For many current retirees, this general national prosperity has been augmented by windfall gains from two sources – a strong real estate market and large and unexpected increases in social security benefits" (1998 p6). Although the Australian age pension is very different to US social insurance, the same general comment could well apply here. Some researchers have attributed most of the decline in the participation of older US men to rising social security wealth; others about one third – still a substantial fraction (Quinn 1998 p7).

Also important have been employer pension plans - especially those of the defined benefit variety - which contain incentives to early retirement. Anderson, Gustman and Steinmeier (1997) focussing on the 1969-89 period, attribute about a quarter of the reduction in men's full time work to changes in employer pensions and social security together.

So why has this changed in recent years? One hypothesis, in the US, is that changes in incentives to retire have had and will continue to have a permanent impact on work by older Americans. The other is that temporary cyclical factors are responsible, and that when the current upswing ends, the long-run decline will resume. Quinn attempts to disentangle long term and cyclical influences using regression techniques. He concludes that, even allowing for a strong economy, there has been a clear break-out from previous trends: "Although the strong economy is important, I believe that there is also a new attitude to work late in life, encouraged by public policy initiatives that have changed the incentives facing older Americans. These incentives work." [Quinn 1998 p9, emphasis added]. While the choices and incentives facing retiring workers are very complex, "Considerable research using the RHS22 has established that workers do behave as though they understand and respond to both Social Security and [employer] pension incentives" (Quinn 1998 p16).

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22 Retirement History Study, a 10-year longitudinal study of about 8,000 older Americans sponsored by the US Social Security administration.

The idea that accumulated wealth and the increased incidence of second income earners in the family has enabled many to choose early retirement seems inconsistent with the observation that many older Australians are on means-tested social security payments related to unemployment and disability. Also, there is evidence from surveys that some early "retirement" is involuntary: those involved do not realise that they have in fact retired, like it or not, until they have been unsuccessfully seeking work for some time.

Some of the contemporary employment problems experienced by older workers may have their origins in relatively low average education and skill levels (OECD 1998c, p50). We might therefore expect to see a diminution of current trends to early retirement (particularly the involuntary component) as better-educated and more adaptable younger people pass through the relevant age brackets. Also, greater mechanisation and reduced requirements for hard physical effort should reduce the impact of age disadvantage in employment, although a conflicting trend is the tendency for some new technologies to make life more difficult for some older workers.

### 3.5.4.1    Voluntary or involuntary?

Modelling by the Treasury's Retirement Income Modelling Unit (RIMU) suggests that there are three distinct retirement peaks for men, the initial one being at age 55 (the preservation age); the second at 60 (the retirement age in many superannuation schemes), and the largest at age 65 (pension age). These peaks – which are also found in most other countries – are strongly suggestive of at least some policy impact on retirement decisions.

Involuntary retirement is normally the result of retrenchment followed by a period of unemployment and active job seeking and a gradual realisation that a new job will not be forthcoming. Voluntary retirement is related to lifestyle choices either not to continue working, or not to actively seek work following redundancy or retrenchment. In practice there is likely to be a considerable "grey area" between these two extremes. Older workers may agree, for example, to accept a redundancy package and be prepared to take the chance that they may or may not be able to find other work thereafter.

In examining labour market statistics, older workers appear not to suffer from any marked disadvantage in the labour market (Department of Family and Community Services - DFaCS -1999, Ingles 2000c). However, the average duration of unemployment is greater for older age groups: "This suggests a hard core of

unemployed older males with an average duration of unemployment at close to two years" (O'Brien 1998, p14).

The fact that the unemployment rate among older workers is not high may be due in part to the discouraged worker effect and associated withdrawal from the labour force. Older workers who lose their jobs appear to have great difficulty in finding another job and are at great risk of entering long-term unemployment or of, eventually, withdrawing entirely from the labour force. The decline in labour force participation is most marked for those with low levels of skills and/or education.

Many older workers face barriers to their continuing employment or re-employment. The availability of lump sum termination payments at age 55 has made this a de-facto early retirement age. In one survey, most employers thought of an "older worker" as one of about 50 years of age or, in some cases, as low as 45. The majority of 55-64 year olds believed that age discrimination commences at or below age 45 (Unikowski 1996 p27). Certainly, older workers are now more likely to be made redundant or retrenched than are younger ones, in marked contrast to earlier "last on first off" policies.

### 3.5.4.2   Evidence on "Push vs Pull"

Once unemployed, older workers face a high risk of remaining unemployed because of negative employer perceptions regarding their efficiency. Disability, sickness or lack of skills may be further obstacles, and re-training opportunities are often felt to be the preserve of younger workers. Also, the trend towards part time and casual work may mean that there may be fewer opportunities to obtain work based on the traditional 40-hour week.

An ABS survey in 1996 appeared to show that the extent of induced or involuntary early retirement is quite marked compared with voluntary early retirement (Cornish 1997). In total 81% of male retirees aged 45 or over and 64% of women reported "induced" retirements motivated by constraints such as employment problems, health problems (both of self and others) and compulsory retirement or redundancy.

Unikowski (1996) reports: "Around one-fifth of male early retirees, and one quarter of females, gave their preferences for more leisure as the reason for their retirement... Ill health or injury is of far greater significance as a cause of male early retirement than any other voluntary or involuntary factor, accounting for almost half of male early

retirements. The reasons for women's early retirement are more evenly divided between ill health and preference for leisure and family reasons, in that order" (p26).

However, the respondent's health status is self-assessed: ill health may be a more socially accepted reason for early retirement than the preference for leisure, and is a pre-requisite for receipt of DSP (Unikowski 1996 p26). Cornish concludes that there are two distinct early retirement patterns. The first is "voluntary"; the second and more common pattern was "induced" in the sense that while some element of choice may have existed, the retirement was actually initiated by factors beyond the individual's control. "In total, approximately four in five men and two in three women who retired early over this period reported retirements consistent with the concept of induced early retirement" (1997 p14).

There are difficulties in interpreting this survey evidence. There is some concern in the literature, for example, about the utility of self-reported health status as a measure of actual health problems. Poor health may be used to rationalise early retirement, being seen as more socially acceptable than a simple preference for leisure. Another problem is that the results of these surveys may reflect the particular economic conditions prevailing after the recession of the early 1990s, rather than any more general tendency.

In the US, self-reported survey evidence on reasons for retirement is now regarded with a great deal of scepticism (see Quinn et al 1990, Chapters 2 and 3). A person in poor (but not disabling) health is likely to give health as a reason for retirement; whereas in fact the real reason was the interaction of poor health and the availability and amount of social security and/or retirement benefits. The two sets of forces interact deeply and extensively. Also, answers to these sorts of questions have been found to depend on the exact manner in which they are asked (ibid p47).

Modern research using longitudinal data sets and sophisticated measures of financial incentives tends to give answers to these questions in direct contradiction to the earlier tradition of self-reported reasons for retirement. Such data "...permits researchers to study the objective circumstances that existed prior to the behaviour under study and, thereby, to supplement the explanations given by the respondents themselves... Early evidence suggested that the overwhelming reasons for retirement were health and labour market constraints, and that very few people retired voluntarily. Modern research suggests the opposite – that many Americans do leave their career jobs voluntarily"

(Quinn et al 1990 p122-123). It is also quite possible that there has been a real trend over time, with an increasing proportion of voluntary quits.

For Australia, induced retirement was found by Cornish to be associated with reliance on government pensions/benefits. It is interesting that around one-quarter of voluntary early retirees in Cornish's survey also reported pensions/benefits as their main source of income (1997 p16). This is consistent with the view that social security is being used to support some voluntary early retirement in Australia.

The debate here is about supply vs demand theories of employment. Those attuned to the view that the real problem is inadequate demand for older workers will argue for sympathetic government policies and avoiding coercion. The other view is that greater supply will induce greater demand – through, for example, falls in relative wage rates, through pressures on employers to retrench less selectively, and through financial pressures on retirees not to leave jobs.

### 3.5.4.3     Does the social security system induce early retirement?

There is an argument that the incentive to retire early is embedded in the ratio of income from employment to income from superannuation plus social security. A simple "eyeballing" of the retirement age trend graph and the graph of real social security payment rates in Australia would appear to indicate a correlation between the two series: prima facie evidence of an induced retirement effect. This would be reinforced by calculation of earnings replacement rates when one takes account of the relative stagnation of male wages in the lowest quartile of the income distribution.

However, such an exercise can be deceptive. While age pension replacement rates (ie, income in retirement as a percentage of pre-retirement earnings) are one determinant of retirement behaviour, there are many others. Replacement rates in Australia are very much at the low end of the OECD average except for those on low incomes (OECD 1998b). A study by Johnson (1999) similarly indicated that retirement incomes in Australia are very much at the low end of the OECD spectrum, although Whiteford and Bond (1999) showed that this conclusion might be modified by a fuller definition of income taking into account housing and other assets, as well as government social expenditures.

In addition to the real level of publicly provided retirement benefits, the OECD argue that implicit tax rates on pre-retirement earnings are an important determinant of the retirement age.[23] In many countries continued work at older ages is heavily taxed either because the age pension benefit formulae provide diminishing returns, or because of the benefits foregone such as those for unemployment or disability. According to the OECD's calculations, the implicit tax rate on work from 55 to 64 is, in Australia, 21% (1998c Table 5). This is at the low end of the international spectrum.

Gruber and Wise (1998) call this implicit tax "the tax force to retire". They report a "strong correspondence between the tax force to retire and unused labour capacity" (p161-2). (Labour capacity is measured in relation to the difference between labour force participation rates among older workers in the 1960s, and now.) A regression of unused capacity against tax force explained 82% of the country variation in unused labour capacity. Moreover, Gruber and Wise observe that changes in early retirement provisions precede changes in labour force participation.

Simple correlation appears to corroborate the OECD's findings that "incentives to retire early have a potentially strong effect on activity rates of older people" (OECD 1998c p187). Econometric results suggest that a 10 percentage point increase in the implicit tax rate for those aged 55-64 leads to a drop in male participation of 3.5 percentage points. On this basis the implicit tax rate in Australia would have reduced male participation in this age range by over 7 percentage points. If other non-employment benefits such as DSP were included, the implicit tax rate and hence implied employment impact might be even larger.

However, the implicit tax on older workers cannot be easily removed, since in the Australian context it would probably need to involve a drastic tightening of eligibility conditions for paying benefits to such workers, many of whom might not easily find jobs. Tightening eligibility for DSP, for example, is likely to lead to increased claims for unemployment and sickness benefits. The OECD note that "the removal of disincentives to work may need to be accompanied by labour market reforms that promote job opportunities for older workers" (1998b p192).

Atkinson and Creedy (1996) simulated individual's work-to-retirement decisions using an optimal choice model to calculate an individual's best route through the "retirement

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[23] Based on the *Working Paper* by Blondal and Scarpetta (1998b).

maze". While a large number of simplifying assumptions had to be made, the authors found that

current policies provide a significant incentive to retire early; and the pension means test – at least hypothetically - has a substantial impact on the choice of the retirement age and the allocation of assets at retirement.

An alternative view is that public policy may have little impact on retirement decisions. Several US studies have found that, despite the marked trend towards earlier male retirement in the 1970s and 1980s, changes to pension plans and social security entitlements probably explained only a third or a quarter of these trends, with the remainder being accounted for by other factors. These include rising real wages, changes in disability insurance, changes in tastes for retirement and changes in the industrial distribution of jobs (Anderson et al, 1997 p.4, Quinn et al 1990).

Several studies predict that changes to the US Old Age, Survivor's and Disability Insurance (OASDI) system designed to make the system actuarially fair to older retirees will have relatively little impact on the average retirement age. The normal retirement age in OASDI will rise from 65 to 67 in gradual steps starting in the year 2000, and the delayed retirement credit from 3% pa to 8%. This is predicted to cause the number of individuals working full-time between the ages of 65 and 68 to be 4-6 points higher than under the pre-1983 rules (Gustman and Steinmeier, 1985).

The recent New Zealand experience provides a rather different picture. Starting in 1992 the age of eligibility for the NZ superannuation scheme is being raised from 60 in 3 month increments every six months, and will reach 65 in 2001. According to one researcher, the estimated behavioural effect is for a staggering 30.5 point increase in participation among those 60-64, although with the policy affecting only 55% of this group it translates into a predicted 16.8 point overall rise (Maloney, 1997b p29). Most surprisingly, this policy has not been accompanied by greater unemployment among the 60-64 group. Much of the increase in participation appears to have been accommodated by people simply staying longer in their existing jobs.

Such a result is not simply transferable to the Australian situation. There is a considerable difference between the NZ superannuation pension and other social

security benefits for those below pensionable age, and also a considerable difference in means tests (NZ super is universal)[24].

To conclude, international comparative experience suggests that "..the overall package of non-work benefits (disability, early retirement, and unemployment) for older workers also affects their employment rates strongly" (OECD 1994, p191). In the US, Quinn et al conclude in their survey: "Circumstantial evidence points to our public and private retirement income systems as likely influences [to early retirement]" (1990 p233). Kalb also concludes that "...retirement, (long-term) unemployment and disability are more or less interchangeable and interdependent. Changes to one scheme can have effects on the inflow into other schemes" (1999 p60).

## 3.6    Overall impact of income transfers

Danziger et al (1981) provide a comprehensive survey of this literature, noting that "..there is no consensus on the economic and redistributive effect of transfers" (p976). Their article is essentially about the US social security system. Virtually all the research surveyed is econometric in nature. They conclude as follows:

Old Age , Survivors and Disability Insurance (OASDI)

- While most studies suggest that the labour supply and retirement decisions of the aged are negatively affected by OASDI (notably it contributes to earlier retirement), the size of the disincentive is not agreed (p.987). Danziger et al suggest that, on balance, up to half of the 25 percentage point decline in the participation rate of men over 65 in the last 25 years might be attributed to the program.

- While the studies concur that disability insurance benefits may have induced some, particularly older males, to leave the workforce, the size of the effect has not been established. One study suggests that DI lowers the participation rate of 45-54 year old men by 2 percentage points.

Unemployment insurance (UI)

- Danziger et al suggest that "...a positive relation between unemployment insurance and duration of unemployment appears robust" (p.993). Their best estimate is that a 10% increase in the gross replacement rate raises average duration by a week.

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[24] It is taxable, so to this extent is reduced with rising personal income. Until

Aid for dependent children (AFCD)

- Virtually all studies find negative labour supply effects among sole mothers. However the coefficients very widely. A ballpark figure is that AFDC reduces work effort of the average recipient by about 600 hours per annum (p.993).

Danziger et al provide a "guesstimate" of how much higher total labour supply would be if all income transfer benefits were eliminated. This amounts to 4.8% of total hours worked by all workers. However since additional supply would be partly unemployed, and because those receiving benefits tend to have below average wage rates, the total loss of earnings in the economy is calculated to be about 3.5% (p.999). The authors regard this as an "upper bound", not as a reliable figure. This figure does not include the effect of taxes which finance welfare; Burtless and Hauseman (1978) suggest that taxes and transfer payments together may reduce total labour supply in the US by about 5%. However, there is more consensus on redistributive effects: "Our review suggests that the incidence of poverty is about 75% lower and the Gini coefficient about 19% lower than in the absence of transfers" (Danziger et al p.1019).

The authors go on to calculate the size of the leak in Okun's bucket - which they find to be about 23 cents in every dollar of transfer expenditure. (Transfers equalled about 15.2% of total earnings in 1978, and 3.5/15.2 = 0.23.) This suggests that it cost $1.30 to transfer $1 to the poor, not taking into account labour supply effects amongst taxpayers. This is about half of the leak estimated in Munnell (1987) for NIT programs. The two estimates may not be inconsistent: Danziger et al point out that an expansion of the current system would yield a less favourable trade-off than currently exists. They conclude that "...reductions in, or the elimination of, current benefits will increase income poverty and achieve only small increases in work effort and savings. Finally, the research findings are too varied, too uncertain, and themselves too coloured with judgement to serve as more than a rough guide to policy choices" (p1020).

## 3.7    Overall efficiency cost of the tax/transfer system

A number of studies have attempted to estimate the cost of the transfer system taking account of the impact of the taxes that finance the system. Such studies are relevant to

recently a special surcharge also applied.

work incentives, because efficiency costs are normally calculated by reference to labour supply reductions among both transfer recipients and taxpayers. Typically, such studies also concern themselves with the cost of marginal expansions of the tax/transfer system, and find that the cost of further expansion is, at the margin, very high. However such estimates are highly theoretical, and some doubt must attach to how we should interpret these results, especially since there can be considerable variation in the estimates.

An important paper in this literature is that of Browning and Johnston (1984). They used microdata for the US to estimate current effective tax rates and then applied a range of plausible elasticity estimates to calculate the total labour supply effect. On their preferred parameter values (implying an average uncompensated elasticity of 0.2, and compensated elasticity of 0.3), they suggest that "... the effect of the existing tax and transfer system on labour supply has been relatively modest, if these parameter values are valid. The median household with an ATR [average tax rate] =0.1 and MTR [marginal tax rate] = 0.4 has reduced labour supply about 3% as a result of the tax-transfer system, while low-income households (ATR = -0.41, MTR = .54) have probably reduced labour supply by 20 percent or so. Taking all households together, we estimate a total reduction of labour supply caused by the tax-transfer system of 5.2 percent " (p190).

This estimate is comparable with the 5% estimate of Danziger et al and also Lampman (1980), who found a total tax/transfer effect of 7 percent.[25] It should be noted that none of these are measures of the true economic cost of the tax/transfer system, which ought to include an estimate of the value of increased leisure when labour supply declines. Typically, estimates of welfare cost taking leisure into account are about one-third to one half those that relate only to labour supply (see Browning and Johnston p.197, Bascard and Porter (1986) pp.363-364).

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[25] Actually, Lampman's is an estimate of the loss of US labour supply relative to the situation had transfer expenditure been maintained at 9 percent of GDP (as it was in 1950) rather than the 21 percent prevailing in 1976. Moreover it is an estimate of benefit effects, and does not include taxes apart from benefit tapers. This implies that the total tax/transfer effect could be much higher; possibly in the order of 15-20%.

However the methodology is very unsophisticated (see Lampman 1980 p143); Lampman also points out that given the generally low productivity of those whose labour supply is affected, the output loss is considerably less than 7 percent (p144). Interestingly, Lampman suggests that older men and disabled persons are the groups most responsive to increases in guarantees; there has been virtually no empirical work on this in Australia.

Considering Danziger et al's assessment of the distributional impact of the US tax/transfer system, most researchers would probably find these estimates of the cost of that system plausible. What is perhaps less acceptable is Browning and Johnson's calculation that any expansion of that system would be extremely costly at the margin. Specifically, the disposable income of upper-income households is depressed by $9.51 for each dollar net increase in the incomes of lower-income households. If the offsetting value of leisure is included, the marginal cost is estimated to be $3.49 (p.175).

In terms of Okun's bucket, this means that at the margin each dollar of cost to upper income households only provides a benefit to lower income households of 29 cents, a leakage of 71 percent. Browning and Johnston also suggest, surprisingly, that the US welfare system has already pushed the limits of redistribution close to its outer efficient value. The income of the lowest quintile of households is estimated to be at 92.5 percent of its maximum value. Redistribution beyond the Rawlsian "maximin" point[26] would actually start to lower the income of the poorest households. It must be said that few students of comparative social policy would agree that the US system is close to the point of maximum feasible redistribution.

Browning and Johnson conclude by noting that "..the marginal cost of less income inequality is surprisingly high even when supply elasticities are relatively low" (p201). This conclusion has been supported in other studies, although with some reservations. Another important conclusion is that the magnitude of compensated supply elasticities (substitution effect) is the major influence on the trade-off between equality and efficiency; even on the relatively narrow rage of compensated elasticities considered, from 0.2 to 0.45, the trade-off showed wide variation (p202). This is a serious problem, since this ratio is far from being well determined in the empirical literature.

Browning (1993) defends his 1984 estimate of the marginal efficiency cost of redistribution, arguing that if anything it is an understatement (p4), particularly if lifetime rather than annual redistribution is being assessed.

Bascard and Porter (1986) use an approach similar to Browning and Johnson to estimate the marginal cost of the Australian tax/transfer system, but use somewhat lower

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[26]Rawls (1971) proposed that society should pursue equality up to the point where no further gains to the poorest of household are possible. Since this implies a social welfare function that gives no weight to increments in the welfare of upper income groups, most people would regard this as the extreme limit of feasible income redistribution policies.

elasticities. Their preferred estimates incorporate an uncompensated elasticity of 0.04 and compensated elasticity of 0.19. As with Browning and Johnson, elasticities are assumed to be higher for low-income households, and lower (or even negative) for high-income ones (p359).[27] The overall cost ratio for tax transfers was found to be 4 (ie it costs upper income taxpayers $4 in order for lower income ones to be better off by $1). However taking account of the value of increased leisure reduced this cost ratio to 2.3. Even this latter figure implies that each dollar of cost to upper income households provides only 44 cents to beneficiary households. "In other words 56 per cent of the intended redistribution has "leaked out" along the way" (p364). Unfortunately, Bascard and Porter confine their research to the marginal cost of transfers and do not calculate the cost of the current system.

Bascard and Porter also find that the marginal efficiency cost of helping low income households is reduced if that assistance is selective. (Previous studies such as Browning and Johnson's had all assumed a linear income tax.) However this finding is subject to serious reservations; Browning (1993) finds that "..moving from a linear income tax to a more general NIT type of policy does not produce a substantial decrease in the marginal cost of redistribution" (p.24). This whole issue is discussed in Chapter 4.

Campbell and Bond (1997b) use a methodology similar to Browning and Johnson and Bascard and Porter, and elasticities based on Australian estimates by Apps and Savage (1989). The average household's uncompensated supply elasticity is 0.065 and compensated elasticity is 0.141. They find that a demogrant that raises the income of target groups by one dollar reduces the disposable income of non-target groups by $2.72, in comparison with the $4.03 estimate of Bascard and Porter. Accounting for leisure, a marginal expansion of the tax/transfer system would cost $1.76 for each dollar transferred to net gainers (compared with $2.30 in B&P).

It is not altogether clear why C&B's estimates diverge from those of Bascard and Porter. The elasticities assumed are similar, although they follow a slightly different pattern - they tend to be lower for high-income groups and higher for low-income groups. Another reason is that Bascard and Porter allocate corporation taxes to households. Finally, Campbell and Bond solve for a new equilibrium level of labour

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[27]This is not based on studies of elasticity by income class, but rather is a property of the equations used to estimate behavioural effects. Nonetheless the elasticities that fall out of this procedure are not implausible.

supply whereas B&P consider only first round effects; however this appears to only contribute 2 or 3 percent to the difference and in any case is in the wrong direction.

There have also been a number of estimates of the marginal cost of raising government revenue. While not directly relevant to this essay, they are interesting insofar as they help to indicate the relative contributions of the tax and the transfer system to efficiency loss. Campbell and Bond (1997a), updating the 1982 estimates of Findlay and Jones, found a dead-weight loss in the range of 19-24 cents for every dollar of tax revenue raised. (Ballard et al (1985) had estimated a marginal efficiency cost of between 17 and 56 cents for the US.)[28] It appears to follow that the marginal efficiency cost of transfer expenditure is in the order of 52-57 cents, for each dollar spent. While it is no doubt a gross simplification to imply that the cost of the benefit system can be imputed by subtracting the cost of raising taxes from the total cost of the tax/transfer system (computed using a different methodology), this is broadly consistent with estimates from other sources.

It would seem safe to conclude that while estimates of the marginal efficiency cost of redistribution are interesting and important, we are still a long way from pinning down the actual magnitudes involved. A significant reservation, as Browning has noted, is that the estimates pertain to transfer programs that operate like negative income taxes - ie, without categorisation or work tests (1993, p4). In addition, there is no Australian estimate of the overall (as distinct from marginal) efficiency cost of the tax/transfer system.[29] Using the Browning and Johnson figure of a 5.2% reduction in labour supply as the benchmark, we can see several influences tending either to raise or lower the comparable Australian figure. Those raising it are

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[28]Freebairn (1995) criticises the generality of studies on the welfare cost of taxation, most of which report preferred estimates of the marginal welfare cost of a dollar of tax revenue at 20 cents or more. "One key assumption of these models seems inappropriate ..[ie] that wages adjust so as to equate the demand for and supply of labour" (p121). Instead, he uses a "sticky wage" model with provision for involuntary unemployment. (p124), and finds that average tax rates are important and perhaps more important than the marginal tax rate which is the sole tax variable in the conventional model (p129). By contrast the elasticity of labour supply is a relatively unimportant variable in the sticky wage model. Freebairn argues that there is no deadweight loss associated with a tax increase on labour supply in the presence of a constant sticky wage; however, in the absence of any data on the stickiness of wages this article provides no clear answer as to what is the marginal welfare cost of taxation.

[29]Findlay and Jones estimated the efficiency cost of labour supply distortions from taxation at 5% of wage income; Bascard and Trengove (1990) estimated them at 2% of GDP.

- the Australian welfare system is more comprehensive, and for poorer people significantly more generous

- except for sole mothers and the working poor, there is more reliance on means tests in the Australian system, .

On the other hand,

- Australian estimates of labour supply elasticities tend to be lower

- Australian estimates of marginal deadweight cost tend to be considerable lower, and these could be expected to be reflected in any estimate of aggregate welfare cost.

However we cannot be entirely assured that these are reliable findings. On balance the 5% figure may be a reasonable estimate of the total output cost of the Australian tax/transfer system, at least until better evidence comes to hand.

Lambert (1990, p99)), using an optimal tax model (with the usual simplifying assumptions), calculated that over a wide range of equity-efficiency trade-offs the output cost of a 1% reduction in the Gini coefficient is approximately 1%. Since studies have generally shown the Australian tax/transfer system reduces inequality substantially (eg from a Gini of .5 to .3), the implication is that output is reduced some 20 percent. However all such studies take as their counterfactual the pre-tax/transfer income distribution, rather than the hypothetical distribution if there were no taxes and transfers. Presumably this latter measure, which is the one theoretically most appropriate, would show a lesser actual reduction in inequality and hence a smaller output cost.

In this context it is interesting to note a recent OECD finding (1998e) that the distribution of earnings in Australia is among the most unequal of all member countries studied, whereas the progressivity of taxes and transfers is among the greatest. The net result is that the post- tax/transfer income distribution is roughly in the middle of the pack (see Table 3.7, from table 3.5, OECD p 25). The problem is this: is our earnings distribution inherently unequal, due to some structural feature of the Australian economy, or does it reflect incentives inherent in a highly progressive tax/transfer system? If the latter is the case the system may indeed be creating some serious loss of output. It must be said, however, that international comparisons of income and earnings

distributions are fraught with difficulty, and this OECD conclusion differs from those of other studies.

## 3.8    Conclusion

We now know quite a lot about incentive effects of the social security system in general, and workforce age payments in particular, notwithstanding some grave reservations about the detailed results and research methodologies. Certainly it is no longer tenable - if it ever was - to pretend that incentive effects are unimportant.

However our knowledge is patchy and uneven. Research tends to have an underlying ethical agenda. It has not been regarded as an issue in Australia, for example, that the age pension (not to mention private superannuation) may induce early retirement, whereas there has been a lot of attention on benefits for those supposed to be working or at least capable of working, such as the unemployed and their wives. Sole parents and the disabled fall some where between these two extremes in terms of the ethical dimension and the associated degree of research interest. I am not suggesting that this is inappropriate, but we do need to be conscious of such undeclared biases.

It is also notable that researchers in this field tend to be divided into hawks and doves; the former with a strong belief in the importance of financial incentives and a general antagonism to high benefit levels and allowed durations, and the doves with an underlying view that financial incentives are basically of second-order importance. The latter tend to be strong supporters of the welfare state, and of improvements to it. In practice both camps are able to find econometric evidence to support their beliefs. My own view is that financial incentives do matter, sometimes significantly, but that some level of induced labour market withdrawal is a necessary price to pay for a civilised society, and for a dynamic capitalist society which is relatively accepting of structural change. And, while I do not hope for major gains flowing from the policy changes to be discussed in this thesis, I do view an appropriate incentive structure as an important pre-condition – a foundation, if you like – onto which other parts of a sustainable welfare system can then be built. If you haven't got the foundations right, you can be pretty sure that nothing you build onto them will work properly.

Another important conclusion is that researchers need to get into the business of behavioural microsimulation in order to be able to get a handle on the likely labour supply impacts of possible policy changes. This approach is discussed in the Appendix.

## 3.9    Appendix: behavioural microsimulation and policy evaluation

The objection to incorporating behavioural responses in modelling has always been that

- we don't know the pre- tax/transfer income distribution, and/or

- we don't know the relevant income and substitution elasticities.[30]

Harding (1993), for example, argues that ".. econometric studies designed to assess the magnitude of behavioural change have produced such wildly divergent estimates of the relevant elasticities that it appears that the most that can be done is to present the results for a number of different estimates... the Dutch Social and Cultural Planning office decided to exclude behavioural response because of concern about the value of the elasticities, while Statistics Canada arrived at a similar conclusion on labour supply...".[31]

These objections are not valid. Our current static policy simulations in fact assume that the existing income distribution and the pre-tax/transfer distribution are one and the same; analogously, they assume an uncompensated substitution elasticity of zero. These assumptions lead to a certain set of results in any policy simulation, *results that are almost certain to be incorrect.* This is especially a problem when simulating policy changes *designed to produce behavioural changes.* By substituting a more realistic set of behavioural assumptions we at least have a chance of getting results which are "in the ballpark"; this must be better than being almost certainly wrong. This will be particularly important in modelling major change options with marked behavioural impacts, such as a NIT.

Another point to note is that there are many possible sources of error in microsimulation models (see Betson 1990) and additional sources of error in dynamic models that predict change over time. While behavioural microsimulation will induce further sources of error, it is far from clear that they will necessarily add to, rather than reduce, errors arising from these sources.

Haveman (1996) notes of microsimulation models: "The more advanced of these models take account for estimates of the responses of individuals to the relative price

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[30]Actually, (a) and (b) amount to the same thing, since if (a) is known (b) can be deduced and visa versa.

and income effects of the policy. Micro data simulation models that incorporate such behavioural elasticities are generally viewed as more reliable than models that ignore behavioural effects. This is so even though available behavioural response estimates vary widely. While the use of such models has become accepted in the United States and Canada, they are not generally available in many OECD countries" (fn.10, p 38).

The starting point for behavioural assumptions might be the results of the US income maintenance experiments. Although these estimates are now somewhat old, and relate to another country, they are at least statistically robust and appear, moreover, to avoid what appears to be a consistent over-estimation bias in elasticity estimates based on cross-sectional or time series data. The income maintenance estimates should of course be kept under review as new and hopefully better estimates come to hand. One source of new information will be feedback from the modelling process itself. If, for example, the model were to under-predict a behavioural response to an actual policy change, we could then revise the relevant elasticity estimates upwards.

Further, a behavioural microsimulation model will make it possible to test the sensitivity of policy to a range of possible behavioural parameters. Again, this is something that is simply not possible with our current static microsimulation approach.

It should be possible to build a behavioural component onto an existing microsimulation model (such as Stinmod). Short-cut algorithms are available which would allow this to be done quite quickly. For example, the Browning and Johnson approach only requires knowledge of the average and the marginal effective tax rate (together with estimates of aggregate income and substitution elasticities) in order to estimate behavioural change.[32] However the modelling procedure adopted may need to be quite complicated if we are seeking more exact solutions, especially to major policy changes where quite substantial changes in clients budget constraints are envisaged (see Creedy and Dawkins 1999).

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[31]Wolfson (1990) notes of the Statistics Canada model that " the capacity for behavioural modelling may be added in the future" (p366).

[32]As an approximation of labour supply response to tax changes, Browning and Johnson (1984 p. 187) use the formula $Y1 = (1\text{-}MTR^b)(1 + aATR).Yo$, where Y1 is labour supply, MTR and ATR are the marginal and average tax rates, and Yo is labour supply with no taxes or transfers. The parameters a and b can be changed to describe a spectrum of possible labour supply responses; (b) is related to the substitution effect and (a) captures the income effect.

A further useful development of such a model would be to explicitly test trade-offs between equity and efficiency, in a manner analogous to "optimal tax" methodologies. This technique requires the specification of some index of inequality aversion, such that any change in output consequent on the labour supply response to a policy change is translated into a net increment or detriment to social welfare, taking into account the distributional consequences.

In modelling a NIT, for example, this would allow the estimation of an optimal guarantee level and associated tax rate for each degree of inequality aversion and each specified set of behavioural assumptions.

This matrix will not tell us what policy we should adopt. But it will give us a range of feasible parameter values under a range of realistic assumptions. Moreover in testing policy alternatives, it may tell us whether one policy choice consistently dominates another, over a range of parameter values. If it does, we can be pretty sure that it is the right way to go.

Such a matrix underlies the discussion of possible policy changes which follows in this thesis. The implicit evaluation criterion for any change is to jointly optimise equity and efficiency so as to maximise "social welfare". Lacking a formal model to calculate this my approach is necessarily somewhat intuitive or heuristic; but the underlying theoretical model is clear, nonetheless.

## Chart 1:  Males - full-time work
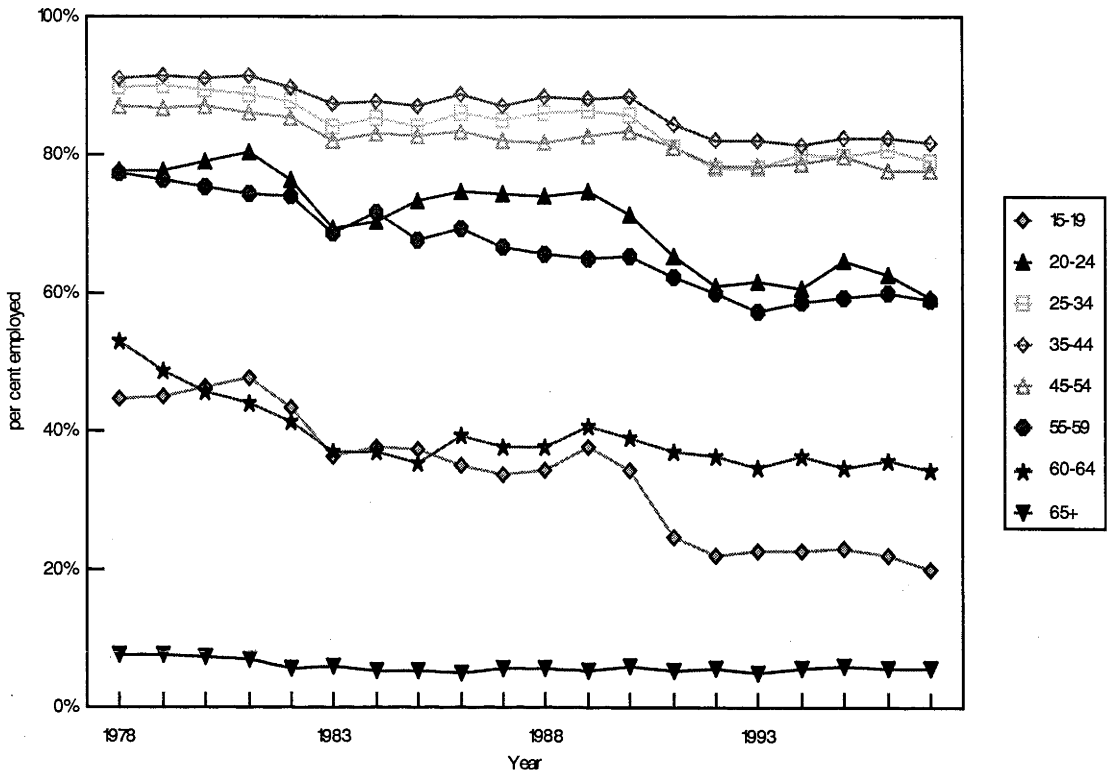


## Chart 2:  Women - full-time work



**4**
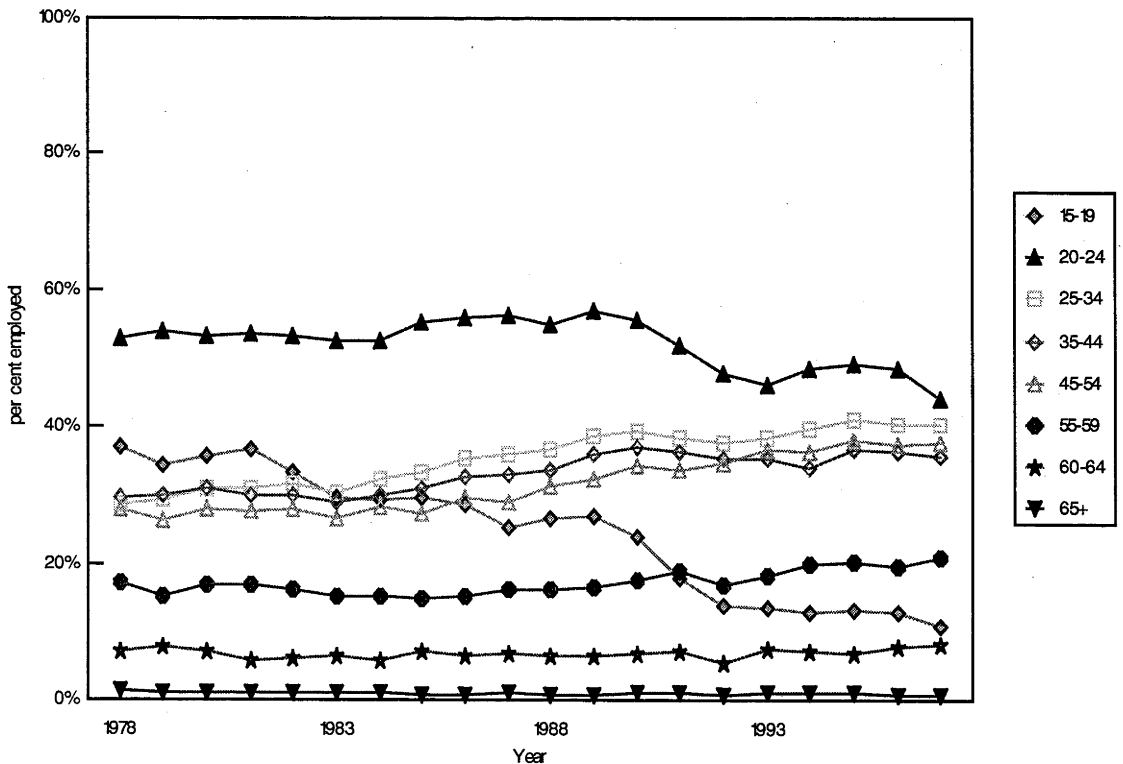
# CHAPTER 4: UNIVERSAL AND SELECTIVE BENEFITS (REFLECTIONS ON OPTIMAL RATES OF TAX AND TAPERS)[33]

## 4.1    Introduction

In evaluating reform options it is necessary to have a clear view about what we are trying to achieve.  Too often the aim is expressed in simple terms like "getting rid of poverty traps", without any clear idea of where in the income distribution higher tax rates are to be moved, and which sorts of income units are to pay[34].

There is a large social policy literature about universality versus selectivity (see eg Eardley 1997, Deacon and Bradshaw 1983).  While the following discussion emphasises the purely economic, this is not to suggest that well-known criticisms of means testing such as 'social inclusion', intrusive inquiry, stigma, low take-up and the like are in any way unimportant.  However, this Chapter focuses on the *economic* arguments for or against selectivity.

In evaluating universality versus selectivity it is necessary to be clear precisely what is the difference.  Jackson (1982) argues that the difference between the universal and the selective approach is that the former involves lower EMTRs at lower income levels but higher rates at some higher levels.  Selective approaches, by contrast, involve higher EMTRs on low-income earners.  "Indeed the difference in the patterns of [effective] marginal tax rates *is the essential distinguishing feature of universal and selective programs*" (Jackson 1982, p21).  Sadka *et al* (1982) note that once the issue of income testing is framed in general terms, the issue becomes simply: 'What is the pattern of optimal tax rates by income class?' (1982, p292).

*Target efficiency* is a measure of the proportion of transfers that accrue to people below the poverty line.  A goal of maximising target efficiency, which is implicit in much of the popular debate about "middle class welfare", therefore implies that a transfer scheme should have no free area and a 100% taper.  But such a scheme might be neither economically efficient nor welfare maximising.  It is now widely recognised among serious policy analysts that target efficiency is a very poor measure of the overall *economic efficiency* of a transfer program.  A further important issue is the need to jointly maximise efficiency and equity.

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[33] This is an edited version of Ingles 1998b.
[34] Ultimately such questions can only be sensibly framed in terms of "optimal tax" analysis, which seeks to jointly maximise both output and social welfare, based on some explicit index of inequality aversion.

In theory the efficiency of the transfer system should be maximised *simultaneously with the efficiency of the taxes that finance it;* this may or may not involve higher EMTRs on program recipients than on taxpayers generally, and this is a question that can only be resolved empirically, not by recourse to *a priori* notions like target efficiency.

These issues are not just of theoretical interest. Reform proposals, such as those of Dawkins *et al* (1997, 1998a) for a negative income tax (NIT), illustrate that the issue of the optimal structure of marginal rates will continue to be an important one. Later Chapters in this Thesis consider the case for reducing tapers on social security benefits; typically these reductions need to be financed by increasing tax rates on the general population, so the trade-off between the benefits and costs of such measures are an important issue.

### 4.1.1 A note on terminology

There is a great deal of confusion about terminology in the literature. I will use *guaranteed minimum income* (GMI) as a generic term covering NITs, Basic Income and the like, as well as referring to the minimum income level guaranteed by any of these schemes. A NIT is normally understood as a GMI scheme separate from the normal tax system; usually a NIT involves an initial tax rate higher than the normal positive tax rate. In a linear NIT[35], by contrast, the negative and positive tax rates are the same, so the negative and positive tax systems can be integrated.

Creedy and Dawkins note that "…the meaning attached to these terms is not consistent in the literature, so it seems useful to describe the main alternatives in terms of 'basic income with flat tax' (BI/FT) and 'means-tested with graduated tax' (MT/GT) schemes." …"Criticism of a BI/FT scheme tends to focus on the high level of the constant marginal rate required to finance the basic income..". "In a MT/GT system, lower income groups face much higher marginal tax rates than higher income groups, creating a strong incentive for them not to participate in paid employment." (1999 p61)

A *basic income guarantee* (BIG) is also sometimes known as a *demogrant* scheme; it involves payment of the GMI to all citizens, and taxation of all incomes. It differs from the linear NIT only in that the latter nets out positive tax liability against negative tax

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[35] Sometimes called a credit income tax (CIT). These definitions are similar (but not identical) to those of Haveman (1996a).

eligibility at source, and therefore involves substantially less "churning"[36] than a demogrant scheme. Whether churning is important is, however, not at all clear (see Chapter 6).

## 4.2    Basic issues in means test design

Three main issues are important in designing means tests:

- the base for assessment ( ie. the definitions of income, the time period and the income unit)

- the income test taper(s), and

- the income test threshold (or thresholds, if there is more than one taper).

I will set aside for this chapter the question of the appropriate definition of the assessment base (issue No.1 above), and concentrate on issues 2 and 3, the taper and the thresholds.

Traditionally, it has been held that there is an inherent trade-off between the competing objectives of minimising public expenditure through tight targeting, and creating incentives for self-help through more relaxed free areas and means test tapers. On this view it was pretty much a matter of judgement, and political choice, which parameter settings were adopted. One of the contentions of this chapter is that, at least in theory, it is possible to do better than that. In practice, however, it will be found that science has no exact solutions.

## 4.3    Optimal rate of tax (taper)

I first consider the optimal taper rate (also known as the *benefit reduction rate* - BRR), bearing in mind that the actual taper which applies at any level of income needs to be calculated by reference to both the tax and social security systems. In practice quite complicated computer models are used to do this; the results are often shown graphically by plotting the *effective marginal tax rate* (EMTR) against private income.

A typical graph for a client of the Australian social security system shows a low or zero initial tax rate (the free area), rising quite sharply to around 50-70% at the income level where the taper cuts in, with humps where some higher rates apply due to tax

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[36] Churning means that recipients of transfer payments also pay tax, which has the effect of reducing their net transfer receipts. Churning is held to be inefficient because a smaller, single transfer would have the

interactions and, in the case of allowances such as Newstart, the cut-in of the 70% taper. Then the marginal rate drops abruptly back to the normal tax rates, although if there are dependent children it jumps again to around 60% over the income range where family payment (FTB) is tapered. Subsequently it falls again to the tax rate of around 30%, then gradually rises to 50% reflecting the progressive structure of positive tax rates. Chapter 5 provides some examples.

Oliver (1997) suggested a theoretical approach to determining the optimal taper rate. The approach is initially based on the concept of a *Laffer curve* - ie a graph showing revenue raised plotted against the marginal tax rate. The US economist Laffer suggested that as the marginal tax rate rises, revenue would at first rise and then peak before starting to fall, so that beyond a certain point higher tax rates become incapable of raising additional revenue - indeed, counterproductive. Analogously, tighter targeting of welfare benefits is suggested by Oliver to become, at some point, counter-productive from the point of view of saving government expenditure. Oliver's Figure 2 shows an "inverted Laffer curve" (a graph of assumed total government outlay plotted against the benefit withdrawal (taper) rate) which implies that expenditure is minimised with an EMTR well below 100%.

Oliver then points out that the point of minimal government expenditure is not necessarily the point of greatest economic efficiency. That point is achieved when the marginal efficiency cost of raising a dollar of revenue is equal to the marginal efficiency cost of saving a dollar of expenditure. Oliver's figure 3 shows that this point (plotted using the rule of thumb originally attributable to Harberger (1969) that the *deadweight cost* - ie the economic cost - of an income tax is approximately proportional to the square of its rate) is very likely to be at a taper rate rather less than the rate at which expenditure is minimised.

In fact it can be shown, using the Harberger rule, that if elasticities of labour supply are approximately constant across income classes, efficiency losses are minimised by a schedule of EMTRs which is roughly constant. If this proportional tax is allied with cash demogrants or refundable tax credits, it creates a progressive structure of average tax rates. The tax rate and guarantee rate can be modified to achieve any desired degree of progressivity in the tax/transfer system. Indeed, "optimal tax" analysis generally

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same effect as the higher transfer less taxation clawback.

indicates that welfare is maximised by an approximately constant marginal rate of tax, such that the *basic income/flat tax (BI/FT)* type of solution appears indicated. But such analysis is characterised by "simplifying and debatable assumptions... particularly as to social preferences on the distribution of income and the pattern of labour supply elasticities.." (Oliver 1997, p2).

There are two difficulties with the Oliver approach, which operate in opposite directions. One is the hypothesis that, in relation to the benefit withdrawal rate, a Laffer curve actually exists. Its existence is problematic due to the mechanical effect that easing taper rates automatically increases the eligible population as cut-out points rise up the income scale, and the effect of this on expenditure can outweigh any gains due to greater income declarations amongst the originally eligible population. This appears to lead towards the possibility of a "corner solution", if cost is the only concern, involving a 100% taper.

The second difficulty is that Oliver's analysis is concerned only with economic efficiency and does not take explicit account of income distribution objectives. However, efficiency and distribution need to be maximised simultaneously.

In theory, there are two approaches that can be used for the computation of optimal tax/taper regimes. *Optimal tax* analysis is one means of answering questions about the efficiency and redistributive impact of alternative tax regimes. Higher taxes and transfers create more redistribution, on the one hand, and therefore raise total social welfare on the assumption of diminishing marginal utility of income. On the other hand higher taxes and transfers induce less work effort, the extent of that reduction being estimated by using behavioural parameters (income and substitution elasticities). The optimal tradeoff between these opposing forces is then computed using an artificial or hypothetical income distribution, with the assumed social welfare function[37] (inequality aversion) and behavioural parameters plugged in.

By contrast, *behavioural microsimulation* uses a sample of the actual population in order to answer such questions (see Appendix to Chapter 3). First, a random sample of households drawn from an income or expenditure survey is used to characterise the pre-reform status of a representative group of the nation's families. In the second step relevant characteristics such as disposable incomes and net wage rates are adjusted to

what they would be after the simulated reforms were implemented, but before any changes to work effort. Finally, hours of work and earnings are adjusted to account for labour supply responses resulting from the simulated plans, based on pre-existing estimates of labour supply elasticities. The appropriate tax-transfer schedules are then used to compute post-reform disposable incomes after all the labour supply adjustments have taken place. A final step is to calculate total social welfare under alternative plans using an explicit index of poverty or inequality aversion, analogously to the optimal tax procedure.

### 4.3.1 Arguments for a constant marginal tax rate

Analysis in the 1970s and 1980s using optimal tax and microsimulation techniques generally tended to favour more universal approaches. When an explicit index of inequality aversion was used to weight the measure of total output in the economy[38], it has generally been found that higher tax rates on low income earners are not desirable.

Kesselman and Garfinkel (1978) compared means-tested and universal provision in a two-class model, allowing for incentive effects. By holding the condition of the poorer class constant, they tested the conditions that made the richer class better off. Creedy (1996, p161) notes that this procedure has the advantage of using the weaker value judgement underlying Pareto efficiency rather than a specific social welfare function.

Kesselman and Garfinkel found that the efficiency of income testing depends upon how the elasticity of labour supply varies by income class. If the compensated wage derivative of labour supply (the change in labour supply per unit of change in the net wage rate) either increases or remains constant as income increases, then income testing is economically efficient. But they also found that for reasonable estimates of the differences in the compensated elasticity of labour supply across income classes, the economic efficiency gains or losses from income testing were so small as to be inconsequential for policy purposes. The differing administrative costs of alternatives were therefore a relatively important consideration.

Sadka *et al* (1982) conducted a microsimulation using five groups of workers and an explicit social welfare function. They used two different sets of labour supply

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[37] Such functions require the specification of an explicit index of inequality aversion. See Creedy 1996.

estimates: one in which the poor respond more than the non-poor to tax changes, and one in which their responses are identical. Not surprisingly, they found that the NIT is optimal in the former case while in the latter case (which they believe is more realistic), the CIT is optimal. But they also found that the efficiency cost of being wrong is small.

This theoretical finding appears to be supported by the results of microsimulation experiments conducted by Betson *et al* (1982) and by Dickert *et al* (1995), which allow for different labour supply responses by men, women, and sole parents. Such techniques allow for the evaluation of program changes affecting not just benefit recipients, but also taxpayers in general, as well as those on the borderline of eligibility who can change their behaviour in order to qualify.

Estimates of labour supply elasticities are obviously a critical input into the simulation, although it is also possible to test the sensitivity of results to different elasticity assumptions. In their simulations Betson *et al* use labour supply responses estimated from the Seattle-Denver Income maintenance experiments. These are subject to a number of reservations, although some researchers feel that the experimental findings are more reliable than the non-experimental ones, which typically yield higher labour supply elasticities (see Burtless 1987, and Chapter 3). In general Betson *et al* are confident of these parameters as they affect low and middle income groups, but have reservations about the estimates for upper income groups, particularly wives, who were not well represented in the income maintenance experiments.

Subject to that qualification, Betson *et al*'s results throw interesting light on the universal-selective debate. The simulation performed analyses the choice between a negative income tax (NIT) and a credit income tax (CIT) plan. The essential difference is that the NIT is a selective program; it imposes high tax rates on low-income earners as benefits are withdrawn. By contrast the CIT imposes uniform tax rates on all income earners.

Betson *et al*'s (1982) simulations suggest that in terms of economic efficiency it really doesn't matter much which way we go. These simulations imply that none of the major NIT or CIT reforms considered would have very detrimental effects on earnings or economic efficiency, and they could even have modest positive effects.

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[38] One simple approach is to adjust total output by the factor 1-G, where G is the Gini index of post-tax/transfer inequality. Since a higher G denotes greater inequality, weighted output is depressed as

Kesselman (1982) compares efficiency under a NIT versus that under a CIT, taking into account administrative efficiency. The CIT assumed here is in fact a demogrant scheme: benefits are paid to everyone, and financed through proportional taxes. The NIT by contrast pays benefits only to low income persons. Kesselman argues that the administrative savings from adopting a CIT in lieu of a NIT are in the order of US$2,000M per annum. Further, because the income tested NIT has two or more different tax rates, it induces people to (a) alter the timing of income receipts, in order to maximise their benefits, and (b) alter their marital status or living arrangements. It has long been argued in the tax reform literature that there are major administrative and other advantages in moving towards a proportional tax structure, and this study of Kesselman's in effect generalises these findings to the tax/transfer system.

Lambert (1990) evaluated a range of transfer schemes using an "output possibility curve" specified in terms of arithmetic mean income and the Gini measure of inequality. He used as his general tax form a "dual rate negative income tax (NIT)"; when the taper and tax rates are equal the resulting linear tax was called a "credit income tax (CIT)". Allowing for labour supply effects, he found that "1... Any dual rate ...NIT can be improved upon by another dual rate NIT with a higher threshold - and by a flat-rate CIT with a higher threshold". This finding reinforces from a different perspective the thesis of Kesselman and Garfinkel (1978, p.215), that the CIT offers "minimal disruption of laissez-faire principles..." (op cit p97). Further, "2. Dual rate NITs for which marginal tax rate exceeds benefit withdrawal rate offer scope for further improvement" (p98), and "3. Redistribution schemes designed to secure perfect equality below the tax threshold [ie with a 100% BRR] are inferior to all others" (op cit p99).

In Australia Creedy (1994) has compared means-tested and universal transfer schemes using microsimulation techniques applied to a synthetic income distribution. Creedy generalised these results using a social welfare function based on individual utility on the assumption that leisure has a positive value. In addition the welfare functions used include the Atkinson as well as the Gini measures of inequality; these imply very different social evaluation functions. The main finding is that...'the optimum marginal rate of linear tax will always produce both a higher value of social welfare, and a lower poverty measure, than any modified [selective] scheme' (Creedy 1994 p.10). This

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inequality rises (G is always greater than 0 and less than 1).

conclusion is re-iterated in Creedy 1996: "...the maximum value of social welfare (for both the Atkinson- and Gini-based abbreviated welfare functions) is higher with the linear tax than with the two-rate schedule" (p163).

An interesting refinement in Creedy's 1996 study is the extension of the analysis to allow for the relief of poverty as an important or primary objective, reflecting the focus of those who use the target efficiency measure to justify the use of means testing (p161). However even with this objective, "...the *optimum* marginal rate in the linear tax will always produce both a higher value of social welfare, and a lower poverty measure, than any modified minimum income guarantee scheme. The difference is more marked the greater the degree of inequality aversion of the welfare function" (p165).

## 4.3.2  Arguments for tight targeting

More recently, there have been several studies that have cast doubt on this apparent academic consensus in favour of a constant marginal tax rate. One is the finding that the NIT approach to tapering does not necessarily induce greater work effort than do more targeted approaches. Evidence from the US Aid for Dependent Children (AFDC) scheme suggests that easing of the program taper rules in 1967 (from 100 to 67%) and the subsequent reintroduction of the 100% rate in 1982 had very little net effect on labour supply, partly because: "The econometric evidence on this issue now strongly suggests that the labour supply effects on old and new recipients essentially cancel each other out, at least over the relevant range of guarantees and BRRs [*benefit reduction rates*]"... (Moffitt 1992, p41).

In effect, although current recipients are 'incentivized' by easing taper rates, the newly eligible population is disincentivized. Although this is as predicted by economic theory, we have not in the past had empirical estimates as to the relative magnitudes of incentive and disincentive effects. It must however be said that these results cannot be generalised to the Australian situation, since they may also reflect peculiarities in the US setting such as the relative lack of government support for child care costs.

Bradbury (1999) surveys optimal tax theory and what it says about the optimal structure of EMTRs. He notes that while no simple answers emerge from the literature, it has begun to clearly identify the factors that might be important. These fall into two categories: aspects of the empirical reality of labour supply and skills, and normative assumptions about the goals of social policy (p.iii).

In the traditional welfare optimisation framework, the fact that low skilled workers may withdraw from the labour force because of a transfer program is not necessarily a bar to the program. The utility they gain from greater leisure is evaluated positively. But if poverty alleviation is the social goal, rather than welfare maximisation, no value is placed on the leisure of the poor (in some frameworks it may even have a negative value). Compared to a welfarist measure, a poverty alleviation perspective tends to lead to somewhat higher marginal rates, especially at the low end, driven by the need to focus resources on those below the poverty line.

Two things seem clear from Bradbury's survey. First, a U-shaped or falling structure of marginal rates may well be called for, rather than a constant marginal rate[39]. In simulations with relatively inelastic labour supply, and assuming that poverty alleviation is emphasised rather than welfare maximisation, some research suggests that marginal rates at the very lowest end (ie the 10th percentile) of the wage distribution should be close to 90%.

Second, administrative issues are also important. If fully effective labour incentive programs (such as workfare) are available, it can be optimal to tax the least skilled workers at a marginal rate of 100%. However, attention needs also to be paid to the demand side of the labour market, and how this might interact with measures to increase labour supply.

There is a large and diverse literature available in the US about the elasticity of taxable income with respect to tax changes, some of it discussed in the previous chapter. Gruber and Saez (2000) find that the overall elasticity of taxable income of about 0.4 is primarily explained by a very elastic response among taxpayers with incomes over $US100,000 pa. They note that "…the substantial concern currently expressed about the distorting impact of high implicit tax rates at the bottom of the income distribution may be overblown... the distributional advantages of tightly targeted tax subsidies [such as the EITC] may outweigh the efficiency costs of high implicit marginal rates on the lower middle income taxpayers, as is illustrated by the high optimal rates in this bracket in our simulations" (G&S 2000 p33). This finding implies that the optimal tax structure

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[39] Sometimes called "degressive", a word used rather than "regressive" because falling marginal rates can co-exist with rising *average* rates in the presence of cash transfers, and it is the average rates which determine the progressivity or otherwise of the system.

might consist of a large demogrant that is rapidly taxed away for low-income earners, with lower marginal rates at high-income levels.

A related view supporting tight targeting is that, if we are to means test, its better to get it over with quickly so that the adverse incentive effects of benefit withdrawal do not extend too far into the income distribution. The OECD, in its *Jobs Study* (1994), mounts an interesting argument for having either tight targeting, or none at all. It suggest that in paying a means tested unemployment benefit, the average effective marginal rate across the working population can be minimised by either 100% tapers, or complete universality.

This is demonstrated, for a hypothetical income distribution, in Table 9.11 of the Report. This considers an economy where unemployment benefits are set at ten units and there is a roughly normal distribution of earnings. This Table is reproduced below (Table 4.1) with the addition of the two end rows, showing the effect of 12.25 and 0% BRRs, respectively. This last calculation approximates a non-categorical demogrant scheme. In addition, the ETRs are re-calculated to show the impact of the positive taxes necessary to finance benefits, assuming they are levied equi-proportionately on all non-benefit income.

### Table 4.1: average effective tax rates: hypothetical case

| income | no of people with such income | total income received | BRRs: | 100.00 | 50.00 | 33.30 | 25.00 | 12.25 | 0.00 |
|---|---|---|---|---|---|---|---|---|---|
| 10.00 | 100.00 | 1000.00 | | 100.00 | 51.20 | 36.50 | 31.00 | 28.60 | 28.60 |
| 20.00 | 200.00 | 4000.00 | | 0.00 | 51.20 | 36.50 | 31.00 | 28.60 | 28.60 |
| 30.00 | 300.00 | 9000.00 | | 0.00 | 1.20 | 36.50 | 31.00 | 28.60 | 28.60 |
| 40.00 | 300.00 | 12000.00 | | 0.00 | 1.20 | 3.20 | 31.00 | 28.60 | 28.60 |
| 50.00 | 200.00 | 10000.00 | | 0.00 | 1.20 | 3.20 | 6.00 | 28.60 | 28.60 |
| 60.00 | 100.00 | 6000.00 | | 0.00 | 1.20 | 3.20 | 6.00 | 28.60 | 28.60 |
| TOTAL | 1200.00 | 42000.00 | | | | | | | |
| | | | av. ETR | 8.30 | 13.70 | 19.90 | 24.80 | 28.60 | 28.60 |
| | | Memo. item: | OECD figures | 8.30 | 12.50 | 16.70 | 18.80 | 12.25 (a) | 0.0 (a) |

*Source: OECD 1994 Table 9.11, p266; ETRs recalculated to show effect of financing taxes.*

*(a) These figures not calculated by OECD but are based on their methodology. This method gives increasingly misleading results as the cost of the scheme rises.*

The OECD infers from its Table that disincentives, as reflected in the average ETR, might be minimised by making benefits either wholly means-tested (100% BRR) or fully universal (zero BRR - p267). In fact the latter conclusion is erroneous, and appears to arise from not including the impact of the taxes necessary to finance the scheme. This is made clear from a comparison of the average ETRs calculated on the OECD method, and those re-calculated by myself to include financing costs (last two rows of Table 4.1). On this mathematics, and with the normal income distribution assumed[40], a highly selective scheme would appear likely to always result in the lowest average EMTR. The OECD also suggests that this conclusion would be buttressed if the average EMTR were weighted by income to which it applied, rather than to the number of persons.

A further argument for a short and sharp means test is that, otherwise, some among the unemployed may find it worthwhile to combine part-time earnings with benefit on a more or less permanent basis. The OECD argues that the experiences of Belgium and Norway, where unemployment benefit means tests were liberalised to allow more part-time work, illustrate this problem: both employers and employees altered their behaviour to take advantage of the possibility of working part-time while claiming benefits. The result was a "costly growth in the incidence of part-time work among people who would otherwise be working full-time" (OECD 1994, p.198). However the OECD notes that a 100% taper has a marked effect on the workforce participation rates of wives (1994, p 271).

The OECD recognises that the arguments for a "short and sharp" means test, based on the mathematics shown in Table 4.1, depend on a number of assumptions: first, that the earnings distribution is roughly normal, second, that labour supply disincentives are minimised by minimising the average marginal tax rate, and third, that we are concerned with total employment rather than with total hours worked. Their following comments relate to these points.

1.  As regards the earnings distribution, the OECD argues that whereas the assumption of a normal (or at least a lognormal) distribution may be

appropriate for prime age males, it is not so for sole parents and married women. A 100% BRR on family income would place many such women in a poverty trap (p267). Hence, "the argument for high BRRs for benefits in order to minimise average marginal rates looks rather weaker for females than it does for males" (p269). However policy options also include other methods, such as disregards or subsidies for child care costs.

2.  The optimal tax/benefit schedule is sensitive to the relative elasticity of labour supply for low earners as compared with high earners. There is some evidence that high marginal rates on high earners have less cost in terms of work disincentives (p269).

3.  "The result of exceptionally high marginal rates for those with low incomes may be a reduced attachment to the workforce. The link between effort... [and reward] is broken, leading to potential disillusionment with the formal job market , and reliance on other sources of income" (p270).

Even if one accepts the argument for a short sharp means test, it is by no means clear that the taper rate should be 100%. Oliver's (1997) analysis shows the theoretical possibility that this would not be cost-minimising for taxpayers. Lambert (1990) calculates, using an optimal tax model, that "the withdrawal of cash benefits at a 100% rate against earnings does not, in general, minimise the marginal rate faced by taxpayers" (p102).

### 4.3.3  Studies on the marginal welfare cost of redistribution

By contrast, Bascard and Porter (B&P 1986) have sought to demonstrate that selective transfers involve less efficiency costs than universal ones. This demonstration was part of a study to establish the marginal efficiency cost of redistribution in Australia. The study initially follows the procedure of Browning and Johnson (1984), who posit a redistributive demogrant scheme which provides equal per capita transfers funded by a one percentage point increase in existing effective tax rates. On this methodology, B&P find that the marginal cost of a dollar net increase in income among poorer households is $2.30. However, where alternative redistributive schemes involving some targeting

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[40] In fact a lognormal distribution is found to better fit actual populations.

are adopted, the ratios of loss to gain were reduced to 1.5 and 1.6[41] respectively; well below the cost of the universal scheme.

Campbell and Bond, who broadly follow the B&P methodology, find a somewhat lower efficiency cost of transfers ($1.80 for the demogrant) but, consistent with B&P, some benefit from selectivity: confining the demogrant to deciles 1-5 reduces the efficiency cost of transfers to $1.20 (1997 p190). However it is not clear whether, or how, the necessary higher tax rates in deciles 5-6 were modelled in this study.

These findings are subject to serious reservations. Both B&P and Browning (1993) model the higher marginal rates on low-income earners that are a necessary corollary of greater selectivity. However B&P confine this higher rate to the third quintile of earners (pp.364-365). Browning, in stark contrast to B&P, models a higher rate for all households below the NIT breakeven points, and finds that "marginal cost cannot be reduced simply by using a lower break-even level and restricting transfers only to those with quite low earnings. Indeed, the opposite is true". (1993, p22). Further, "...moving from a linear income tax to a more general NIT type of policy does not produce a substantial decrease in the marginal cost of redistribution" (p24). Since Browning (with Johnson, 1984) is one of the pioneers of research in this area, his comments carry considerable weight.

### 4.3.4 Conclusion on the optimal taper rate

As the qualifications attached to the OECD analysis make clear, neither the 'minimise economic inefficiency' nor the 'get it over with' approach is really satisfactory. The optimal set of taxes and tapers depends upon the labour supply elasticities of the relevant groups, the density of the income distribution over the zone where tapers apply, and the degree of inequality (or poverty) aversion in one's social welfare function. The theoretically appropriate approach to determining optimal tapers therefore requires a detailed micro-simulation model showing the actual distribution of income among the target group. To this must be added estimates of relevant labour supply elasticities, disaggregated as necessary according to earnings, sex and so on. Adjustments must also be made for labour supply effects among the non-target (taxpaying) population. To test whether a proposed change to BRRs is a welfare improvement compared to the old

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[41] The figure given in B&P is 1.1. Campbell and Bond (1997c p190, fn. 1) note that this appears to be a misprint and provide the figure of 1.6.

requires the further step of specifying some explicit index of inequality aversion, which is used to adjust the new measure of output.

Clearly this is a hairy and complex task. In Australia optimal tax theorists such as Creedy (1996) have attempted it for a hypothetical income distribution; it has not been done on a full micro-simulation basis. However there is no reason in principle why it could not be attempted. In practice the results would have to be presented in the form of a sensitivity matrix using for example, labour supply elasticities in the high, medium and low range, and a similar range of inequality aversion indicators (see Appendix to chapter 3). Only if one policy was found to dominate another across a substantial number of cells could we be reasonably confident of its superiority.

## 4.4    Optimal tax on families

If a uniform tax rate were to apply to all income beyond the basic transfer payments, the effect would be to convert family assistance to a universal basis[42]. That is, at any given level of private income a family will be better off than a non-family by the amount of the supplements for children. These can be very substantial, especially for older children and students. This is one reason for the high costs of the Dawkins et al NIT.

As with the question of the optimal tax/taper rate, it probably doesn't matter much in economic terms whether family assistance is universal or selective: there are countervailing arguments in both directions. Selective assistance implies higher ETRs on families than on individuals and childless couples with similar levels of income, and consequently lower general tax rates; the economic cost of the high ETRs on families weigh against the gain from the latter. Nor is it clear which is the more equitable solution. Some may feel that relatively well off families have made their own choice to have children, and require no community subsidy in consequence.

My view is that so long as family assistance is not tapered too steeply with rising income, there is no real problem with a selective system of family assistance and the associated higher effective marginal rates that must in consequence apply to families. But what is 'too' steep must ultimately be a matter for judgement; in Ingles (1997) I argued that (then) current EMTRs on families were so steep that they could easily cause "switching" among the rank order of family well-being, and thus violate conventional

notions of horizontal and vertical equity. Moreover such EMTRs provided virtually no allowance for the extra costs, like childcare, necessarily incurred by a second income earner in earning an income. In Ch 5 I show that the NTS package addresses these problems effectively, by reducing family payment tapers to 30%.

Should this taper be lower than that for both pensions and allowances? In the case of pensions the 40% taper combines with income tax to produce an ETR of around 60%, which is also the ETR produced by the combination of 30% family payment taper and 30% income tax. So policy has – possibly accidentally – landed at a point where a 60% ETR is achieved throughout. In the case of allowances and Parenting Payment (Partnered), however, the initial ETR is close to 80%, so the 60% ETR for families is a step down.

As argued earlier, the justification for this might be that it makes sense to have a high taper in the initial range of low income where they affect relatively few people, but once we are in income zones where a considerable number of families are present, the rate should not be too draconian. Moreover there are horizontal equity benefits from spreading family assistance into a range of income brackets. Certainly my view is that the current situation is theoretically defensible and a great improvement on the previous situation where ETRs of 80 and 90% prevailed through the family taper zones.

## 4.5    The free area

I have not seen explicit attention given to free areas in optimal tax analysis. Normally the assumption is made that the poor are to be helped by the basic guarantee payment, and all income above this is to be taxed at the calculated necessary rate. From a tax policy and administration perspective, there are obviously advantages in taxing all income at a single uniform rate. For example, it makes source withholding much easier, and reduces the gains from income splitting and other avoidance devices. Dawkins *et al* do not explicitly discuss free areas but appear to contemplate their effective abolition as part of the proportional income tax under the NIT.

Free areas are important because, if tapers are eased without downward adjustment to free areas, the overall costs to revenue could be significant. There is also a possibility that benefits would be perceived to extend too far up the income scale, creating

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[42]Universal payments are those paid free of means test. Payments that are reduced as income rises are

invidious comparisons (in a categorical system) relative to the non-eligible working population. Moreover the free areas for family payments are roughly related to the cutout points for basic pensions and benefits. The two tapers cannot be allowed to overlap to any great extent, without causing a zone where EMTRs exceed 100%, so that if benefit cut-out points rise so too will the family payment threshold need to rise, with associated cost implications.[43]

It can be questioned whether there is any remaining theoretical justification for free areas in the social security system. Prior to the invention of the tapered means test in the 1960s free areas would have had some benefit in terms of incentives to work and save, but once the 50% pension taper was introduced (along with the possibility of other tapers) they really have ceased to have a consistent rationale. They create a kink in the budget opportunity set facing clients, which must cause a strong tendency for their incomes to cluster below that point. This can indeed be observed in income statistics for income support recipients, especially for the aged.

On the basis of this sort of *a priori* reasoning it seems highly likely that a combination of no free area, a higher basic rate and/or a lower taper will always dominate (in terms of social welfare) an equal cost combination involving some free area, on virtually any reasonable assumptions about the income distribution of the relevant client group, the relevant labour supply elasticities, and the degree of inequality or poverty aversion specified. If the benefit cutout point is taken as a given, *any* free area will always require that tapers be higher than otherwise. From the viewpoint of work incentives, there is a strong presumption that any tradeoff involving lower tapers and lower free areas will be beneficial.

Why then do we persevere with free areas? First, the arguments above have not been widely disseminated or understood. Moreover they are at this stage only theoretical and have yet to be backed up by testing with microsimulation. The political difficulty of withdrawing an existing benefit is also an important factor: pensioners with low private incomes would be losers, whereas the gainers from lower tapers would be further up the income scale[44]. (However free areas could be phased out fairly quickly, without losers

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referred to as "selective".

[43] These comments are less relevant for the aged, who are unlikely to have dependent children.

[44] Note that this would also be an issue under the Dawkins *et al* NIT, despite their assertion that the basic option "leaves no existing social security recipient worse off" (1997 p2).

in nominal terms, if they were reduced at each indexed pension rise). Another difficulty with any reform meant to have behavioural responses is that the costs are short term, whereas the hoped-for benefits in terms of behavioural responses are likely to emerge only over time. Finally, our current budgetary mechanisms commonly provide little weight to hoped-for long term behavioural change - partly reflective of our inability, with existing models, to satisfactorily model such change.[45]

An additional explanation for at least some free areas, like the additional income disregard for each dependent child, may be that they were originally intended to compensate for inadequacies in additional payments, and in childcare support. It is questionable whether such an explanation would have any current validity.

An important argument for free areas has been administrative: "assessing and paying a part-rate benefit is a considerable administrative load and also imposes compliance costs. Ignoring a small amount of income avoids these costs for most recipients" (Oliver 1997 p.7). However this argument is really an assertion, albeit a frequent one, without supporting evidence. Prior to the reform of rent assistance in the mid-1980s there was in fact a minimal free area - $2 pw - for this benefit, and it is not clear that this created administrative problems. Moreover, the administrative argument ignores the potential simplification attendant upon a single proportional tax on all private income, noted above. The administrative costs argument might (or might not) justify the allowance free areas of $31 a week; it would not appear to justify the pension ones.

A final argument for free areas is that there are fixed costs involved in work and the initial income required to cover these ought not to not be taxed. This argument would, however, also appear to suggest free areas closer to those now provided for allowances than those for pensions. The biggest cost of work for many people is childcare, but this is subsidised under a separate scheme.

Surprisingly, the "poverty traps reduction package" introduced in the mid-1980s concentrated almost entirely on raising free areas, not on reducing tapers. The consequence was that the problem of high EMTRs was moved out to other zones in the income distribution where the interaction with the tax system became even more acute. It may be that some "poverty traps" were converted to 'low income traps' in this

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[45] A project (MITTS) is currently being pursued by the Melbourne Institute to rectify this. See Creedy and Dawkins 2000.

process, but it is hard to see that this provided any real long-term remedy to the underlying problem of high EMTRs.

By contrast the "Working nation" changes reducing allowance tapers and introducing a partly individual basis of assessment were effective in reducing the very high EMTRs that had previously prevailed in relation to allowances, although with EMTRs in some income ranges still close to 90% (Chapter 5), it might be questioned whether these changes have gone far enough.

The family payment (FTB) free area ($28,200 with one child, plus $624 for each extra child) is obviously a different kettle of fish. These are not only basic income support payments, but also supplements meant to provide horizontal equity between low-income families with and without children. In practice the free areas need to be at least as high as the cutout points for Newstart and Parenting Payment, otherwise the tapers will stack. This is pretty much the current situation, except for some issues that are discussed in Chapter 5.

## 4.6    Should tapers be common to all categorically eligible groups?

Economic theory tells us that we can usefully differentiate between categories of payees according to their different elasticities of labour supply, etc. In theory this could provide a rationale for different means tests regimes (and for different rates). In practice our current rate and means test structure has never been explicitly justified along these lines, and probably could not be. Moreover the informational requirements for such an optimisation strategy are extreme. The very act of categorisation creates incentives for people to attempt to move into favoured categories. Often we have very little basis for choosing one category over another (sickness, invalidity, mature age unemployment), and the dividing lines are inevitably arbitrary. If people have some flexibility in choosing their preferred income support payment, behavioural effects could be totally at odds with those that might originally have been predicted.

An important issue is whether there ought to be a systemic discrimination in favour of long-term clients. There is some argument for this in relation to maximum *rates*: whereas short term recipients may be thought able to run down their assets for some period, long term recipients may run out of assets to run down. The Budget Standards study (Saunders *et al* 1998) shows that asset depreciation can potentially be a very important item in clients' budgets. However, the current system poorly identifies long-

term and short-term clients. Moreover the appropriate response to this issue would probably be a supplement payable after a certain time on the system, not differing tapers.

Another issue is whether there ought to be different tapers for age pensioners compared to those of workforce age. This issue has become more cogent under the 40% pension taper in the Government's tax package (NTS). The economic argument for this might be that the aged have a long time to plan for their retirement, so that the behavioural effect of means testing is greater. This argument assumes that the elasticity of saving with respect to the net rate of return is greater than the elasticity of work with respect to the net wage rate, although both have been the subject of controversy in the literature and, if anything, it seems more likely that savings respond to net returns *more* inelastically than does work effort, especially work effort of those with a marginal attachment to the labour force. On the other hand it seems likely that the *form* in which savings are held is very elastic with respect to the tax rate, with the present system strongly favouring exempt forms such as the owner-occupied house. This provides an argument for a lower taper on retirees.

On balance I don't see a strong *economic* argument for discriminating between the aged and other client groups in respect of tapers. However this is a tentative conclusion in the absence of any firm economic evidence on behavioural effects. If superannuation tax concessions were further reduced the argument for a more relaxed taper on age pensions (compared to workforce age payments) might have more force, in order to maintain a reasonable net rate of return on retirement savings.[46] This argument is discussed more fully in Chapter 8.

## 4.7    Conclusion

The previous apparent consensus in the academic literature pointing towards the social optimality of linear taxation appears to have evaporated following recent studies suggesting that higher rates on the low-income population may well be economically efficient. However considerable reservations attach to the conclusions in the latter class of studies, and it must be said that there are a number of unresolved inconsistencies, particularly in that important class of studies which relate to the marginal welfare cost

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[46] It must be conceded that this argument is weakened by the presence of an increasing element of compulsion in superannuation savings.

of redistribution. Resolution to these questions awaits the development of more sophisticated computer microsimulation models allowing for behavioural response to tax changes, and allowing the injection of specific value judgements as to the desirability of the distribution of incomes which flows from alternative policies.

On balance it would be premature to conclude in favour of either a selective or a universal policy in the Australian context in the absence of such a full-scale behavioural microsimulation study. However the number of contentious assumptions that will be required in such a modelling exercise (relating to behavioural elasticities and the social welfare function) probably mean that there will never be an unambiguous answer. The possibility should also be borne in mind that what may be an optimal solution for the aged, for example, might be quite different to that for the unemployed. Such differences can in principle be modelled (assuming we know what are the relevant labour supply and saving elasticities), but social and political judgements (eg that the aged "deserve" a more liberal means test than the unemployed) will also continue to play an important role which cannot easily be modelled.

My reading of the literature is that more selective solutions will be found to be more *efficient* than universal ones on most behavioural assumptions. However I also anticipate that selective solutions will have less favourable *distributional* effects[47], so the social welfare optimising solution cannot be reliably predicted on the basis of our current knowledge. The bottom line is that we should 'hasten slowly' in moving to any current structure of effective tax rates radically different to that now prevailing.

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[47] This is not necessarily an obvious result. The optimal tax literature has examined these issues within the framework of the maximisation of a social welfare function which incorporates both equity and efficiency goals. It is difficult to separate out a purely distributional result in this context (even the Rawlsian SWF implies a concern with efficiency issues). Given that inequality-averse SWFs tend to imply higher tax rates, it is possible that concern with distributional issues might lead to more selectivity than the reverse.

# 5   CHAPTER 5:  RATIONALISING THE INTERACTION OF TAX AND SOCIAL SECURITY

## 5.1   Introduction

This chapter considers options for addressing problems in the way the tax and social security systems interact.  These include

- complexity (in both systems), with associated lack of clarity, loss of client understanding, possibilities of poor take-up, and lack of equity (see eg Harding 1997b, Dawkins *et al* 1998a);

- *high effective marginal tax rates* (EMTRs) over some income ranges due to tax and means test interactions, with associated "low income traps"[48] (Ingles 1997, Beer 1998);

- "notches", where there is a 'sudden death' loss of benefit at some point;

- means test "stacking" - ie, where two or more means tested benefits are withdrawn over the same range of income;

- "churning", meaning that some clients both receive benefits and pay tax at the same time; and

- lack of support for many low wage earners just outside the boundaries of the transfer system, with pressures for yet more targeted payments for low-income earners (Dawkins and Freebairn 1997).

These problems are sufficiently extensive to create the likelihood of perverse effects on work and savings, particularly for those at the margin of the labour force.  In addition, the fact that the two systems overlap widely, such that many clients are liable to tax and means testing on the same income, implies that administrative and compliance costs are likely to be unnecessarily high.

The starting point for this chapter is the social security reforms – the simplification of family payments and reduction in tapers - contained in the Government's New Tax System (NTS – Costello 1998).  These reforms substantially reduce "Low income traps for working families" as described in Ingles 1997.

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[48] A term which I will use in preference to "poverty traps", since not all areas of high EMTRs are confined to those in poverty.

This chapter argues that while these reforms are very positive they could have gone further. Particular problem areas remaining include:

- "stacking" of means tests for the new Family Tax Benefit (FTB) and Youth Allowances, which creates high *effective tax rates* (ETRs);

- stacking of means tests for FTB parts (A) and (B), causing disincentives for secondary income earners in particular; and

- high ETRs for couples on the allowance margins (ie on single incomes just above the minimum wage).

These problems are detailed below, and some remedies suggested. However it must be recognised at the outset that dealing with ETR problems is like dealing with a rubber ball that bulges in places: pushing in the bulge at one spot inevitably causes it to bulge somewhere else. High ETRs can be levelled down only by raising tax rates for others, or taxes in general. Ultimately the question becomes one of the optimal structure of tax rates on both the beneficiary and the non-beneficiary populations, one which I discussed in Ingles 1998b. That article concludes that the case for a linear structure of marginal tax rates is not unambiguous, and that there may be merit in the current approach of high effective taxes on low incomes – at least until better information is available on the effects of changing tax/taper rates.

The NTS provides for a sweeping reform of the family payment system (details in Appendix A). One part of this is a substantial increase in family payment thresholds, to avoid "sudden death" losses for some people coming off benefit. Further, there is a cut in the taper on family payment[49] from 50% to 30%. I will show that this keeps ETRs below 75-85% over the relevant taper zones, a substantial improvement on existing ETRs.

However, the reform of family assistance raises a number of issues. The means test for the new "Family Tax Benefit" Part A – FTB(A) - overlaps with that for the old Austudy cum new Youth Allowance. These interactions are potentially quite serious. There is therefore a case for action in relation to Youth Allowance thresholds and tapers in multiple child families. The specific proposal contained here could be implemented for

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[49]Family payment is a generic term covering the old minimum and base rate family allowance, and the new "family tax benefit" under the NTS.

a comparatively modest cost of around $200-300m pa., assuming no behavioural change.

Further, stacking between the means tests for FTB (A), FTB (B), and Parenting Payment (Partnered) has the potential to be a problem in terms of the work incentives facing spouses with young children. This can be addressed for little or no net cost provided we are willing to accept some redistribution within the family payment system. The specific option proposed is that FTB(B) be added to the base rate for FTB(A), and abolished as a separate payment. This means that there would no longer be any circumstances where the two payments could abate simultaneously.

The Keating and Lambert (1998a and b) proposal for aggregating all family payments and tapering them sequentially would be one means of rationalising means test interactions. However I will argue that it could be substantially implemented by the strategy outlined here of unstacking FTB, Youth Allowance and possibly Rent Allowance by provision of appropriate disregards in the relevant means tests. Nonetheless it provides a useful concept for guiding further reform.

Outside of the families area, another set of reform options involves reductions in tapers on basic income support payments, notably the allowance taper which remains at 50% cum 70% under the NTS (the pension taper reduces to 40%). However there are problems with reducing the allowance taper; it is expensive, and it extends assistance further up the income scale to people whom many might not consider to be "in need". It can thus exacerbate inequities between those in, and those outside of, the categorically eligible population. Finally, it can create problems for the family payment system, given that family payments cannot sensibly commence to taper until after basic income support is fully abated. I conclude that, while a single taper of 60% might be a useful short-term reform goal, priority needs to be given to reducing taxes on all low-income families - irrespective of whether they are working or in the allowance system.

### 5.1.1 Some basic parameters

Social security terminology is not always clear. In this chapter I will refer to *pensions* as being all those benefits having a pension-like means test - ie a $53/$94 pw free area and 40% taper (including the aged, Disability Support pensioners and sole parents who now receive "Parenting Payment - Unpartnered" – PPU). *Allowances* are those benefits

having an allowance income test: ie a smaller $31 pw free area and 50/70% taper (see below). *Benefit* is a generic term covering both pensions and allowances.

The pension withdrawal rate on income in excess of the free areas was reduced from 50 to 40% under the NTS. By contrast the allowance system parameters are almost unchanged, apart from small increases in thresholds. The free area for the main allowance-type benefits (Newstart Allowance (NSA), Parenting Payment (Partnered) (PPP) etc) is $31 pw, for each adult. The initial taper is 50% but this rises to 70% beyond $72 pw, except in the case of a Parenting Payment (Partnered) Allowee for whom the second step now occurs at $121.50 pw.

For pensions, the income unit is the couple; for Newstart Allowance/PPP couples it is an amalgam of individual and combined income unit. The personal income test applies to each of a married couple. However, once the high-income earner ceases to receive Newstart Allowance/PPP any additional income received by them tapers the partner's payment at 70%.

By contrast the tax unit is predominantly the individual, although this is modified by the dependent spouse rebate (DSR) and the Medicare levy. The interaction of the individual tax unit and the couple unit mainly used in the social security system is the cause of some of the problems in social security and tax interactions, an issue I address explicitly in Chapter 6.

Most basic pensions and allowances are taxable, Disability Support Pension (DSP) being a notable exception. However a system of rebates operates to protect full-rate beneficiaries from being subject to tax. Family payments and Rent Allowance are not subject to taxation. The reason for this is that to assess these as taxable income would lower the effective tax threshold for families, and therefore undermine the adequacy of these payments unless they were grossed up considerably – thereby increasing the apparent level of welfare outlays without having any effect on the actual adequacy of the payments themselves.

If a benefit is not taxable the taper rate and tax rate can be added to give the EMTR applying. If it is taxable, the interactive effect means that the EMTR is less than the sum of those two rates, since tax applies to the increment to private income less the loss of benefit. A similar procedure applies when two means tests are "stacked": ie, it is not always appropriate to simply add their taper rates in order to calculate the EMTR.

## 5.1.2 Means test tapers and EMTRs

The effective tax rate which applies at any level of income needs to be calculated by reference to both the tax and social security systems. In practice, quite complicated computer models are used to do this; the results are often shown graphically by plotting the EMTR against private income. It is usual to also plot *disposable income* on the same graph, since the two are closely related.[50] Chart 5.1 shows an example, for an allowee couple as at July 2000.



Chart 5.1: EMTRs and disposable income
NSA/PPP Allowee couple - rates at July 2000
No children, paying private rent of $200.00pw,
100% of private income to head
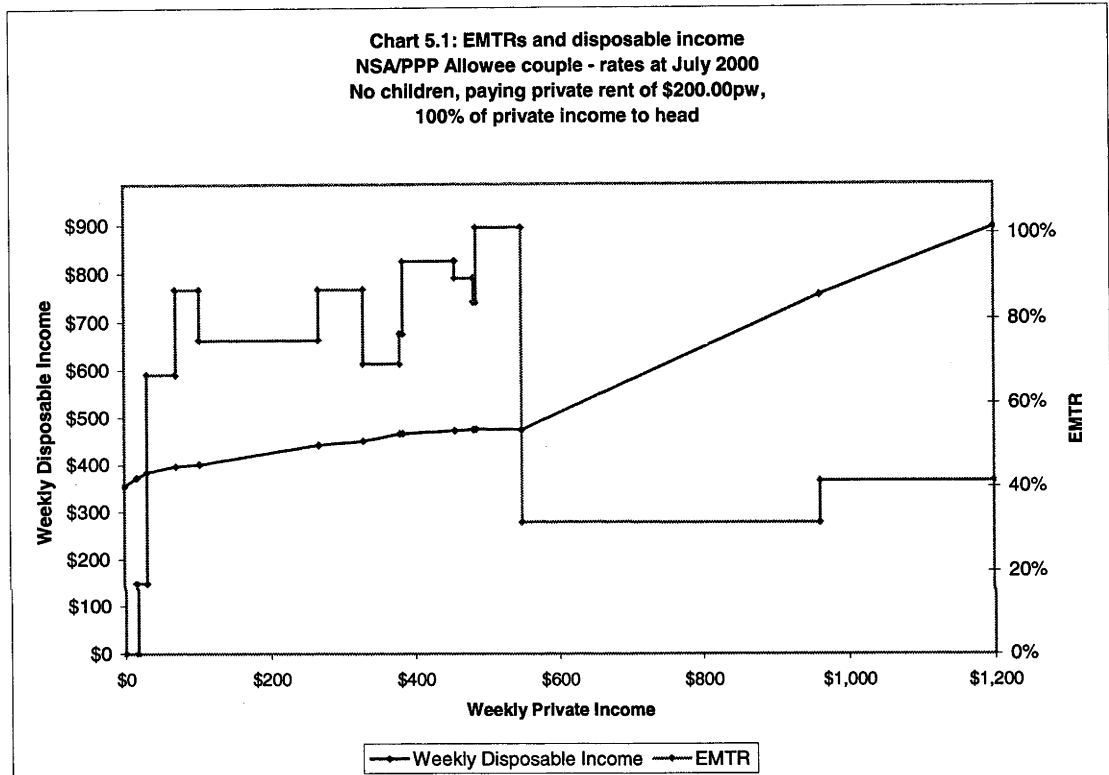
It must be stressed that these sort of calculations necessarily embody a range of simplifying assumptions, such that the EMTRs shown are somewhat theoretical and may not reflect the actual incentives facing a family at a point in time. For example, in the case of Youth Allowance the income tests normally relate to a prior financial year, whereas the calculations assume that all income tests operate on a current annual basis – or, equivalently, that income is spread evenly over and within years, such that the exact definition of the income period makes no difference to the outcome. This is one reason for uncertainty about the behavioural impact of high EMTRs.

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[50]Mathematically, the derivative of the disposable income graph with respect to private income gives the effective marginal gain, which equals 1-EMTR.

High EMTRs show as dips or plateaus in the *disposable income* line. People find it difficult or impossible to improve their net income position by earning more over such ranges. Chart 5.1 shows that an allowee couple gains relatively little from earnings between $50 and $500 pw. High EMTRs affect most basic allowance payments, notwithstanding the 1994 reforms to Newstart Allowance and related payments reducing the maximum rate of taper from 100% to 70% and introducing a partly individual basis of assessment.

## 5.2    Impact of the government's New Tax System (NTS)

EMTR graphs can conveniently be reduced to summary measures of *effective average tax rates* (EATRs), calculated over a given range of income. This is the basis of Table 5.1, which summarise effective tax rates affecting a range of client family types in $100 bands up to $1,000. This table illustrates that there are some bands of income where families either gain marginally by earning extra income, or in some cases may go backwards.

This Table shows two "hotspots" where very high ETRs (over 85%) continue to occur even after the implementation of the NTS. The first set relate to allowee couples with an income of between $400 and $500 a week. In this income range loss of allowance (taper = 70%) co-exists with income tax of up to 30%, resulting in ETRs over 90% and hence very small net gains.

Another problem area concerns spouses of low wage earners in the income range $100 to $200 a week. This is where the loss of family payments can become a serious work disincentive (ETRs exceed 85%), especially if childcare costs were to be taken into account.

Table 5.2 summarises effective average tax rates for a range of families, and the impact that the NTS package has had. It has eight columns, with the odd columns prior to the NTS and the evens, after. Cols 1and 2 show EATRs calculated over the range from the benefit free area to the cutout point; Cols 3 and 4 show EATRs over the family payment threshold to the cutout; Cols 5 and 6 combine Cols 1 and 3; 2 and 4; and Cols 7 and 8 calculate the EATR from nil income – ie, taking into account the impact of the free areas.

TABLE 5.1

# NET INCOME GAIN TO FAMILY UNIT FROM INCREASING EARNINGS BY $100 INCREMENTS FOR VARIOUS FAMILY TYPES AT JULY 2000

## Basic Allowances and Family Tax Benefits

| Family/Income Status | Rent Assistance | Maximum Benefit pw | Net Gains Made Over $100 per week Gross Private Income Ranges | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | $0-100 | $101-200 | $201-300 | $301-400 | $401-500 | $501-600 | $601-700 | $701-800 | $801-900 | $901-1001 |
| Single NSA, no children | without RA | $175.20 | $45.58 | $21.58 | $24.63 | $78.89 | $66.23 | $68.50 | $68.50 | $68.50 | $68.50 | $64.65 |
| | with RA | $215.90 | $45.58 | $21.58 | $19.53 | $43.29 | $66.23 | $68.50 | $68.50 | $68.50 | $68.50 | $64.65 |
| NSA/PA couple, no children | without RA | $316.20 | $45.58 | $24.49 | $21.13 | $21.29 | $10.85 | $68.50 | $68.50 | $68.50 | $68.50 | $64.65 |
| | with RA | $354.70 | $45.58 | $24.49 | $21.13 | $21.29 | $6.75 | $34.10 | $68.50 | $68.50 | $68.50 | $64.65 |
| NSA/PP (partnered) couple, | without RA | $388.17 | $45.58 | $24.49 | $27.79 | $31.39 | $12.28 | $52.69 | $47.61 | $70.00 | $70.00 | $66.15 |
| | with RA | $435.77 | $45.58 | $24.49 | $27.79 | $31.39 | $11.15 | $44.82 | $38.50 | $38.50 | $58.51 | $64.65 |
| NSA/PP (partnered) couple, | without RA | $446.83 | $45.58 | $24.49 | $27.79 | $31.39 | $12.28 | $43.69 | $38.50 | $38.50 | $38.50 | $44.96 |
| | with RA | $494.43 | $45.58 | $24.49 | $27.79 | $31.39 | $12.28 | $43.69 | $38.50 | $38.50 | $38.50 | $44.96 |
| Min. wage/PP | without RA | $576.07 | $41.79 | $17.27 | $47.76 | $48.89 | $64.14 | $68.50 | $68.50 | $68.50 | $68.50 | $48.50 |
| (partnered) couple, | with RA | $623.67 | $41.79 | $17.27 | $47.76 | $48.89 | $36.23 | $48.81 | $68.50 | $68.50 | $68.50 | $48.50 |
| SPP (single), 1 child | without RA | $310.21 | $79.23 | $42.30 | $39.10 | $36.07 | $36.18 | $30.29 | $46.11 | $68.50 | $68.50 | $64.65 |
| | with RA | $357.81 | $79.23 | $42.30 | $39.10 | $36.07 | $36.18 | $30.29 | $38.50 | $38.50 | $58.51 | $64.65 |
| SPP (single), 2 children | without RA | $368.87 | $82.70 | $42.30 | $38.26 | $36.88 | $42.00 | $21.03 | $38.50 | $38.50 | $66.41 | $64.65 |
| | with RA | $416.47 | $82.70 | $42.30 | $38.26 | $36.88 | $42.00 | $21.03 | $38.50 | $38.50 | $38.50 | $44.96 |

Source: FACS Modelling Unit, 'A New Tax System' (ANTS) model.

NOTES:

* The Federal minimum wage is $400 pw in July 2000.

Calculations for the one child scenarios assume that the child is under 5 years of age and for the two children scenarios, that 1 is under 5 years and 1 is between 5 and 12 years of age. Where both partners are on income support, calculations assume private income is received by NSA partner. Where one partner is on a minimum wage, calculations assume private income is received by their spouse.

The following is a guide to the colour codes:

| italics | Net Gains of between less than $15 per week |
|---|---|
| bold | Net Gains of between $15-30 per week |

# Table 5.2: COMPARISON OF EFFECTIVE TAX RATES: PRE- AND POST- the NTS (JULY 2000)

| | pre ANTS | post- ANTS | pre ANTS | post- ANTS | pre ANTS | post- ANTS | pre ANTS | post- ANTS |
|---|---|---|---|---|---|---|---|---|
| FAMILY TYPE | pension ETR | | AFP ETR | FTB ETR | combined ETR | | ETR from zero | |
| 1 sole parent, I child, RA | 0.62 | **0.61** | 0.89 | **0.61** | 0.71 | **0.62** | 0.64 | **0.57** |
| 2 sole parent, 2 children, RA | 0.64 | **0.62** | 0.89 | **0.65** | 0.74 | **0.63** | 0.66 | **0.58** |
| 3 sole parent, 3 children, RA | 0.65 | **0.61** | 0.91 | **0.69** | 0.78 | **0.66** | 0.70 | **0.61** |
| 4 sole parent, 2 children | 0.63 | **0.62** | 0.89 | **0.67** | 0.72 | **0.63** | 0.63 | **0.57** |
| 5 NSA/PPP couple, I child, RA 100:0 income split | 0.81 | **0.76** | 0.90 | **0.62** | 0.81 | **0.69** | 0.77 | **0.66** |
| 6 NSA/PPP couple, 2 children, RA 50% split | 0.78 | **0.76** | 0.75 | **0.58** | 0.80 | **0.67** | 0.74 | **0.64** |
| 7 NSA/PPP couple, 2 children, RA 100 split | 0.81 | **0.76** | 0.88 | **0.63** | 0.80 | **0.68** | 0.77 | **0.66** |
| 8 single NSA, no children, RA | 0.82 | **0.80** | | | | | 0.76 | **0.73** |
| 9 single NSA, no children | 0.79 | **0.78** | | | | | 0.72 | **0.70** |
| 10 NSA couple, no children, RA 100 split | 0.85 | **0.83** | | | | | 0.80 | **0.78** |
| 11 NSA couple, no children RA, 50% split | 0.80 | **0.79** | | | | | 0.73 | **0.71** |
| 12 single age pensioner, no children RA | 0.73 | **0.63** | | | | | 0.65 | **0.57** |
| 13 single age pensioner, no children | 0.68 | **0.61** | | | | | 0.60 | **0.55** |
| 14 Age pension couple, RA, 100 split | 0.76 | **0.65** | | | | | 0.68 | **0.59** |
| 15 Age pension couple, no children 100 split | 0.74 | **0.63** | | | | | 0.65 | **0.57** |
| **NOTES** | | 1 child - under 5; 2 children; 1 under 5 and 1 5-12; 3 children add child 13-15. | | | | | | |
| ETR: effective tax rate | | RA - receives maximum Rent Allowance | | | | | | |
| AFP: additional family payment | | PPP - Parenting payment (partnered) | | | | | | |
| FTB: family tax benefit | | NSA - Newstart Allowance | | | | | | |

Although Col 4 shows lower EATRs than do the other columns, it is interesting that the EATRs so calculated are still all over 57%, and as high as 78%.

Table 5.3 shows the percentage point reduction due to the NTS for each of these family types. The NTS has had a marked impact on family payment ETRs, reducing them by between 12 and 30 percentage points. The "low income trap" for families, which I described in Ingles (1997), can therefore be regarded as pretty well resolved except for the specific problems I will discuss.

## Table 5.3: reduction in ETRs under the NTS

| FAMILY TYPE | benefit ETR | family payment ETR | combined ETR | ETR from zero |
|---|---|---|---|---|
| 1 sole parent, I child, RA | 0.01 | 0.28 | 0.09 | 0.07 |
| 2 sole parent, 2 children, RA | 0.02 | 0.24 | 0.11 | 0.08 |
| 3 sole parent, 3 children, RA | 0.04 | 0.22 | 0.12 | 0.09 |
| 4 sole parent, 2 children | 0.01 | 0.22 | 0.09 | 0.06 |
| 5 NSA/PgA couple, I child, RA 100:0 income split | 0.05 | 0.28 | 0.12 | 0.11 |
| 6 NSA/PgA couple, 2 children, RA 50% split | 0.02 | 0.17 | 0.13 | 0.10 |
| 7 NSA/PgA couple, 2 children, RA 100 split | 0.05 | 0.25 | 0.12 | 0.11 |
| 8 single NSA, no children, RA | 0.02 | | | 0.03 |
| 9 single NSA, no children | 0.01 | | | 0.02 |
| 10 NSA/PgA couple, no children, RA 100 split | 0.02 | | | 0.02 |
| 11 NSA/PgA couple, no children RA, 50% split | 0.01 | | | 0.02 |
| 12 single age pensioner, no children RA | 0.10 | | | 0.08 |
| 13 single age pensioner, no children | 0.07 | | | 0.05 |
| 14 Age pension couple, RA, 100 split | 0.11 | | | 0.09 |
| 15 Age pension couple, no children 100 split | 0.11 | | | 0.08 |

Source: calculated from Table 2
NOTES: see notes to Table 2

It is interesting to note that ETRs for sole parents do not fall by much, despite the 10 percentage point reduction in their taper. This appears to be due, in part, to the 'cashing out' of the sole parent rebate in an expanded Family Tax Benefit Part B. As such, the benefit no longer reduces sole parent EMTRs over the initial range of taxable income.

Prima facie, it would be desirable if the range of EATRs between client types and across income cells were such that all clients had a continuous incentive to increase their declared income.

Whether it is optimal to have a single marginal rate across all these cells, or a high/low/medium rate structure like that under the current system is an issue discussed in Ingles 1998b. This Chapter will propose reforms on the assumption that the current structure of effective tax burdens will not be too radically changed in the short term: that is, that a high/low/ medium rate structure will continue to prevail, and that allowances will be 'taxed back' more quickly than pensions. This assumption is not critical, however, and the major policy options proposed in Chapter 6 provide the flexibility to move the overall rate structure in any desired direction.

One final point deserved some attention. The typical EMTR graph for social security recipients looks like a high rise city block with peaks, troughs, protuberances and spikes[51]. Is this a problem that needs attention?

Policy analysts find this sort of thing aesthetically displeasing. Whether it constitutes an actual problem, however, is another question. Certainly clients are unlikely to be fully aware of how this affects them, and in my view the important thing is the average ETR calculated over some sufficiently wide range of income, such as shown in Tables 5.1 and 5.2.

The other important thing is that the graph of disposable income should rise fairly smoothly with income; if anomalies in the EMTR schedule cause marked dips and hollows in the disposable income line then they should be regarded as a policy problem. One aim of the options presented here will be to smooth out such anomalies.

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[51] In some cases, the EMTR spikes are of infinite height, as reflected in the "sudden death" losses (notches) in the disposable income line. These spikes are not shown on the graphs.

### 5.2.1 How extensive is the high EMTR problem?

Work on the distribution of EMTRs by income class (eg Harding and Polette 1995, Beer 1998) suggests that "only 6 per cent of the population, just over half a million people, face EMTRs in excess of 60%" (Beer 1998 p266). Beer and Harding (1999) put this figure at 7%. On these figures, EMTRs may not be a burning issue.

However, Beer also notes that the figures are likely to be underestimates due to certain exclusions. These include childcare, HECS[52], and state housing rental rebates (p265). Beer observes: "...individuals with very high incomes are escaping high EMTRs while those with low-middle incomes ... are most likely to face high EMTRs" (p268). Further, she notes a high proportion of individuals with children in the high EMTR ranges (pp268).

Beer and Harding (1999) indicate that the NTS reforms, while lowering the family payment tapers and reducing the peaks in EMTRs, spreads them across a wider range of family incomes: "...potentially about 85,000 single income families with children have been newly drawn into the shade-out range for Family Tax Benefit Part A -...and will for the first time face EMTRs above 60 per cent" (p21). This is of course an inevitable result of "levelling down" peak EMTRs by shading tapers into other income ranges. The authors also notes that the "vast majority of those who face high EMTRs also have wage and salary income" (p10).

A particular problem in interpreting work on the distribution of EMTRs is that we really do not know the extent to which the existing income distribution is already influenced by the EMTR schedule. For example, among the pensioner population we find a very high incidence of individuals with incomes below the free area who, on the Harding/Polette and Beer measures, face an EMTR of zero. But would they have such low incomes if there were no pension means test?

Another problem is that EMTR studies don't pick up the effect of losing various allowances and concessions if income exceeds relevant thresholds. Cowling (1998), using the results of a client survey, suggests that the loss of these "- most notably the Health Care Card, Rent Assistance and State Government concessions on energy, water, sewage, municipal rates and transport ...– was much more significant in the decision-making process than any consideration of payment thresholds and taper rates" (p28).

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[52] Higher Education Contributions Scheme, under which repayment of tertiary loans is a percentage of income above a threshold. Details are in Ingles 1997.

The argument for fixing up high EMTRs is not really founded in empirical studies of their current impact. Rather, it is based on the notion that

1. high EMTRs are unfair[53] to the affected clients;

2. we don't know how much damage they are doing, although we suspect them of being equally as damaging in the social security system as they are in the direct tax system (where a lot of effort has gone into reducing them); and

3. it's not necessary to take the risk. The problem is fixable; technical solutions are available which don't necessarily cost a lot and have other advantages in terms of income redistribution objectives, so why live with it?

That is not to deny that it would be extremely useful if more were known about how high EMTRs actually affect behaviour.

## 5.2.2  Free area for family payment

The full rate of Family Tax Benefit and Rent Allowance is paid automatically to those receiving any basic income support payment (called 'auto-max' FTB). When clients cease to be eligible for such a payment, they receive only the part-rate applicable to their new income situation. Hence, there can be "sudden death" losses for clients on reaching the cutout points. (This is also referred to in the literature as a "notch" problem.)

The NTS increased the threshold for the new integrated family payment (Family Tax Benefit Part A) to $28,200. This almost addresses the "sudden death" problem for allowees, and indeed would have done so fully but for the 1999 Budget decision to expand the range of the initial 50% taper for Parenting Payment (Partnered) from $62-142 to $62-245 a fortnight. This has the potential to create notch problems, depending how the couple's income is split. This could be addressed by lifting the FTB(A) threshold slightly.

In a similar manner some pensioner couples, who also receive the full rate of family payment automatically, can suffer a "sudden death" loss if their income exceeds the pension cutouts[54]. Single pensioners (sole parents) are not affected by the notch problem,

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[53] In the economic (ie optimal tax) literature 'fairness' is most often considered to be a function of average rather than marginal tax rates, so there is no presumption that a high marginal rate on the poor is inherently unfair. Nonetheless the fact that a high marginal rate on the poor makes it hard for them to climb out of poverty does appear to have an equity dimension, particularly in the popular discourse.

[54] For pensioner couples, this loss was $ 36.50 pw with one child; $72.60 pw with two, and $87.05 pw with a third child aged 13-15, pre-NTS. The loss for a pensioner/allowee couple was similar. Post NTS notches are shown in the Table.

since their pension cuts out below the family payment threshold. Such problems are exacerbated for pensioners after July 1, due to the lower pension taper of 40%. The following table shows the extent of the notch on the assumption that the couples' income is split 100:0 (in the case of pensioners the results are not very sensitive to the income split).

**Table 5.4 "sudden death loss" ($ pw) on exceeding pension cutout: July 2000**

| DSP/PPP couple | No RA | With RA |
|---|---|---|
| 1 child under 5 | 41.10 | 88.70 |
| 2 children (<5, 5-12) | 80.80 | 128.40 |
| 3 children (<5, 5-12, 13-15) | 134.20 | 134.20 |

Chart 5.2 shows how the disposable income of a DSP/PPP couple falls markedly at this notch point (numbered 8 on the chart). The result, in this 3-child example, is that the couple gains almost no income from earnings in the range $500 to $1,000 pw. However there are not many pensioners with children in the relevant income ranges. There are also rules on how many hours someone on DSP can work and still be considered "disabled".



Chart 5.2: DSP/PPP couple at July 2000
Children under 5 = 1, children 5-12 = 1, children 13-15 = 1,
Paying no rent, 100% of private income to head
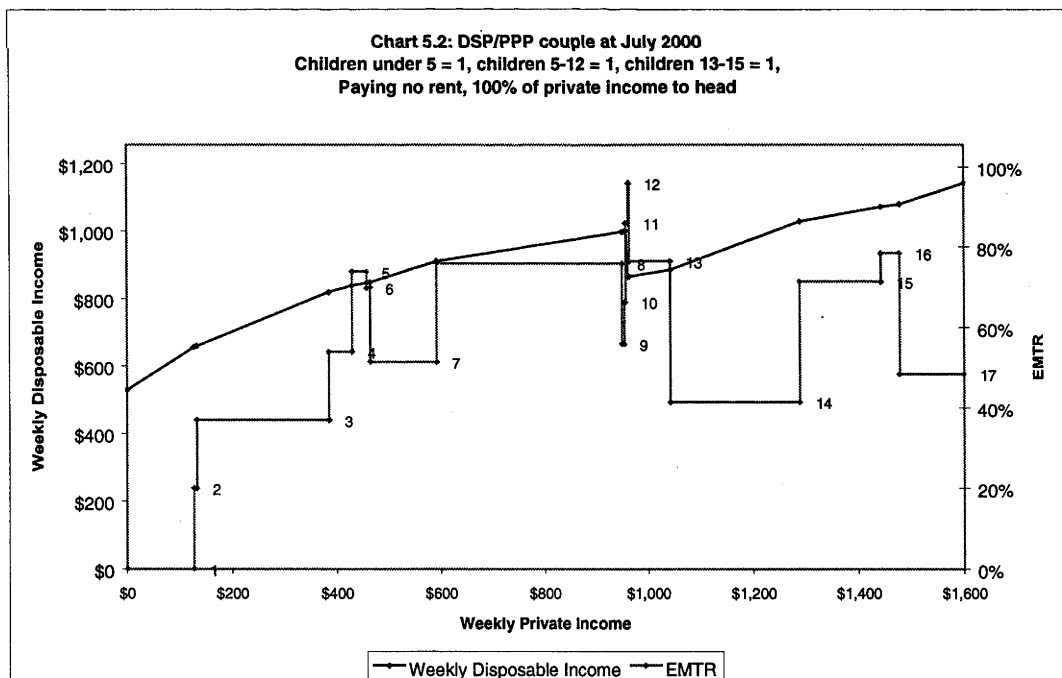
It would be expensive to push out the family payment thresholds to levels approaching the new pension cutouts which, for a couple, are well in excess of average weekly earnings. One solution here might involve the abolition of pension type payments for those under age pension age, and the creation of a "single workforce age payment" means tested closer

to allowance lines. Only those aged 65 or over would be entitled to the more generous pension means test. Age pensioners would not be eligible for FTB, although they could apply for a workforce age payment if this was to their advantage. Very few age pensioners have dependent children.

### 5.2.3 Two-step or one-step taper?

The Government's NTS combined

- Minimum Family Payment

- Family Allowance Supplement, and

- Family Tax Payment (FTP) part A

into a single Family Tax Benefit (FTB) Part A with a maximum rate slightly higher than the previous combination of payments, and lower taper of 30%[55].

The FTB(A) continues to have the same two-part taper as the pre-NTS system, albeit that sudden death losses of basic family payment around the $70,000 annual family income level no longer occur, these being replaced by another 30% taper on incomes exceeding $73,000 pa.

The problem with the two-part taper – which admittedly is an established part of the family payment system - is that it makes the system into a hybrid which is not consistently directed towards either poverty alleviation or horizontal equity. In terms of welfare, such a two-part taper can in theory be improved upon by a single, lower taper that costs the same. The reason is that the single taper redistributes from higher income to middle income families, and is thus unequivocally redistributive, and does so with very little or no net cost in terms of incentives, since all those now subject to the first tier of the taper and most of those subject to the second tier face a lower EMTR. Only those families between the first-tier cutouts and the second tier thresholds face an increased EMTR.

Ingles (1997) and Keating and Lambert (1998a) propose a similar reform. Ingles suggested that a single 25% taper would be approximately cost-neutral compared with the (then) current system; K&L a 30% taper (theirs is higher due to other changes involved in their proposal, as described later in this Chapter). However, there would be some losers on

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[55]It is a pity it does not take the opportunity to abolish the large family element of FA, which has no consistent rationale in the current system. It was brought in at a time when supplements for children were very low compared to current levels, and designed to ameliorate the risk of poverty among larger families.

medium to high incomes (around $35-65,000), notably those with only one or two children.[56] Such families do not gain sufficiently from the lower taper to compensate them for the loss of minimum FTB(A).

Following the NTS changes, a lower single taper of around 20% might be cost neutral. Specifically, minimum FTB(A) of $18.70 a week would be abolished, and FTB(A) grossed up to $58.10 pw (ages 0-12) and $73.65 pw (13-15). A single taper of, say, 20% would apply. The impact of the proposal on a family with three children is shown in Chart 5.3. It can be seen that families earning between $600 and $1200 pw gain; there are some losers on family incomes between $1200 and $1400 pw. The pattern of gains and losses varies with family size, but is basically redistributive in favour of low and middle incomes.

**Chart 5.3 NTS vs proposed 20% single FTB(A) taper, Couple with 3 children and 100:0 income split**
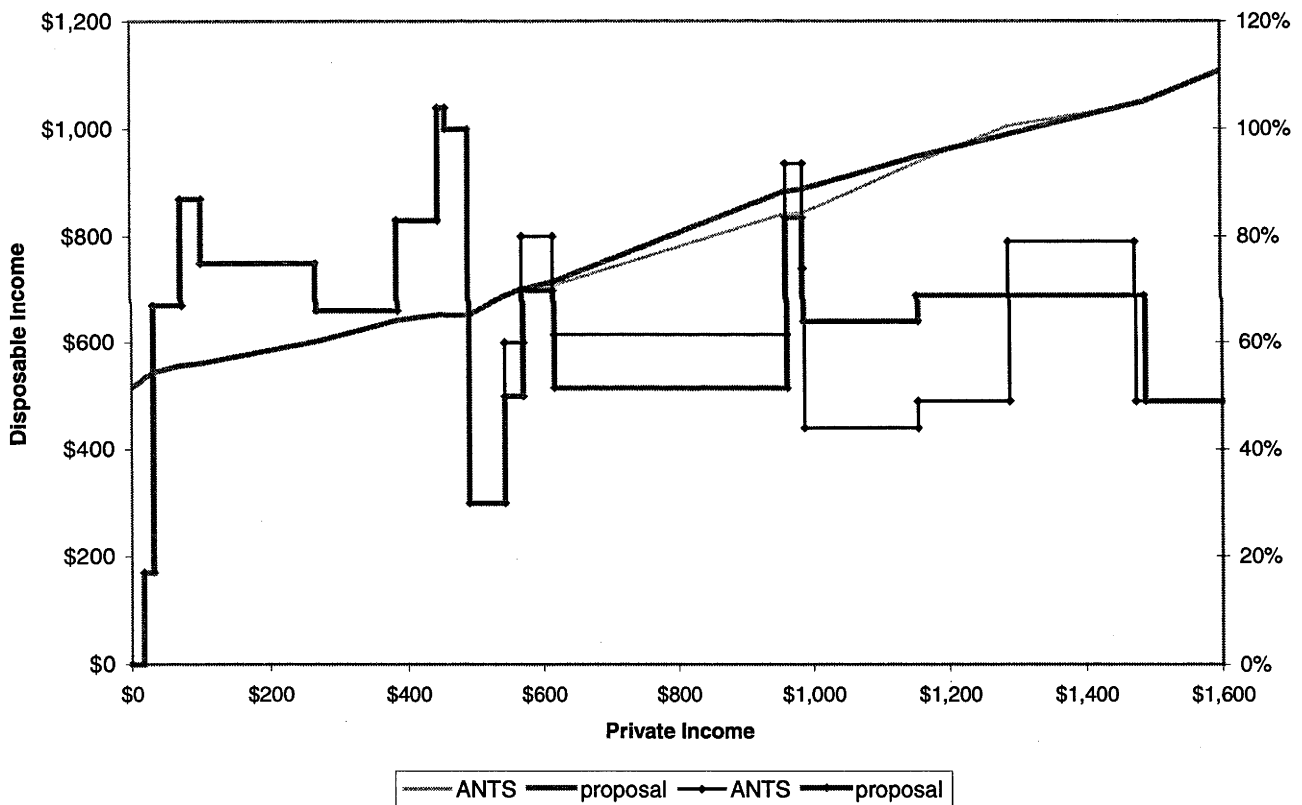


### 5.2.4  Youth Allowance  and family payment overlaps

Quite severe ETRs can be experienced by those families with a Youth Allowance child in addition to family payment children. The Youth Allowance threshold was not raised under

[56]An option would be to "grandfather" current entitlements so that there were no current losers (although

the NTS, leaving it, at \$24,388, well below the new \$28,200 threshold for FTB(A). While there are additional disregards for other children under Youth Allowance, they are not always sufficiently high to prevent overlapping tapers.

In consequence, for many families the presence of a Youth Allowance child in addition to other dependent children will result in their being some income range where ETRs exceed 100% - ie, where disposable income actually falls as private income rises. This problem is illustrated in Table 5.5, which shows some very small and even negative net income gains among families earning additional income in the ranges \$400-\$800 pw. The issue is recognised in the Report of the Reference Group Welfare Reform (2000b p30), (McClure Report), and a recommendation made that it be fixed.

there would be prospective ones).

# Table 5.5　NET INCOME GAIN TO FAMILY UNIT FROM INCREASING EARNINGS BY $100 INCREMENTS FOR VARIOUS FAMILY TYPES AT JULY 2000

## Youth Allowance and Family Tax Benefit Interaction

| Family Income Status | Rent Assistance | Maximum Benefit pw | Net Gains Made Over $100 per week Gross Private Income Ranges | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| | | | $0-100 | $101-200 | $201-300 | $301-400 | $401-500 | $501-600 | $601-700 | $701-800 | $801-900 | $901-1,000 |
| NSA/PP (partnered) with 1 YA recipient | without RA | $418.15 | $45.38 | $24.22 | $21.39 | $10.39 | ($10.08) | $37.13 | $43.50 | $46.32 | $68.50 | $64.65 |
| | with RA | $438.27 | $45.38 | $24.22 | $21.39 | $10.39 | ($10.08) | $19.82 | $40.69 | $46.32 | $68.50 | $64.65 |
| NSA/PP (partnered) with 2 children and 1 YA recipient | without RA | $528.15 | $45.38 | $24.22 | $24.54 | $31.39 | $9.95 | $33.04 | $9.47 | $18.38 | $53.53 | $64.65 |
| | with RA | $576.29 | $45.38 | $24.22 | $24.54 | $31.39 | $9.95 | $33.04 | $9.47 | $13.50 | $23.53 | $51.40 |
| NSA/PP (partnered) with 1 child and 2 YA recipients | without RA | $567.07 | $45.38 | $24.22 | $24.54 | $31.39 | $9.95 | $29.91 | ($2.60) | $18.50 | $22.76 | $52.82 |
| | with RA | $615.21 | $45.38 | $24.22 | $24.54 | $31.39 | $9.95 | $29.91 | ($15.53) | ($11.50) | $17.55 | $52.82 |

*Source:* FACS Modelling Unit, 'A New Tax System' (ANTS) model.

NOTES:

It is assumed that 100 per cent of private income accrues to the head (ie. main earner).

Calculations for the single YA recipient only scenario assumes NSA/Parenting Payment (partnered) parents with the YA child aged 16-17 years of age.

The one YA recipient scenarios assumes NSA/Parenting Payment (partnered) parents with the YA child aged 16-17 years and two FTB children - one 5-12 years and one 13-15 years of age.

The two YA recipients scenarios assumes NSA/Parenting Payment (partnered) parents with one YA child aged 16-17 years, the other aged 18-25 years and one FTB child 13-15 years of age.

The following is a guide to the colour codes:

| | |
| --- | --- |
| *(bold itals)* | Net Losses |
| **bold** | Net Gains of between $0 and $20 per week |
| [  ] | Net Gains of between $20 and $30 per week |

The extension of the parental income test to the young unemployed involved in the Youth Allowance scheme has greatly increased the numbers subject to stacking. Keating and Lambert estimated that up to 40,000 families will be affected by stacking between FTB and Youth Allowance (1998b p287). However, it should be noted that, notwithstanding such problems, these families are still better off under the NTS.

Chart 5.4 shows EMTRs for a couple with 2 Youth Allowance and 2 other children. The very long range of private incomes where disposable income gains are extremely small – and in some ranges negative - ($50-800 pw) is quite apparent.

**Chart 5.4: NSA/PPP couple with YA children at July 2000**
**Ch.< 5 = 0, Ch. 5-12 = 1, Ch. 13-15 = 1    Pay no rent, 100% of priv. Inc. to head,**
**Student YA's = 2, Unemployed YA's = 0**
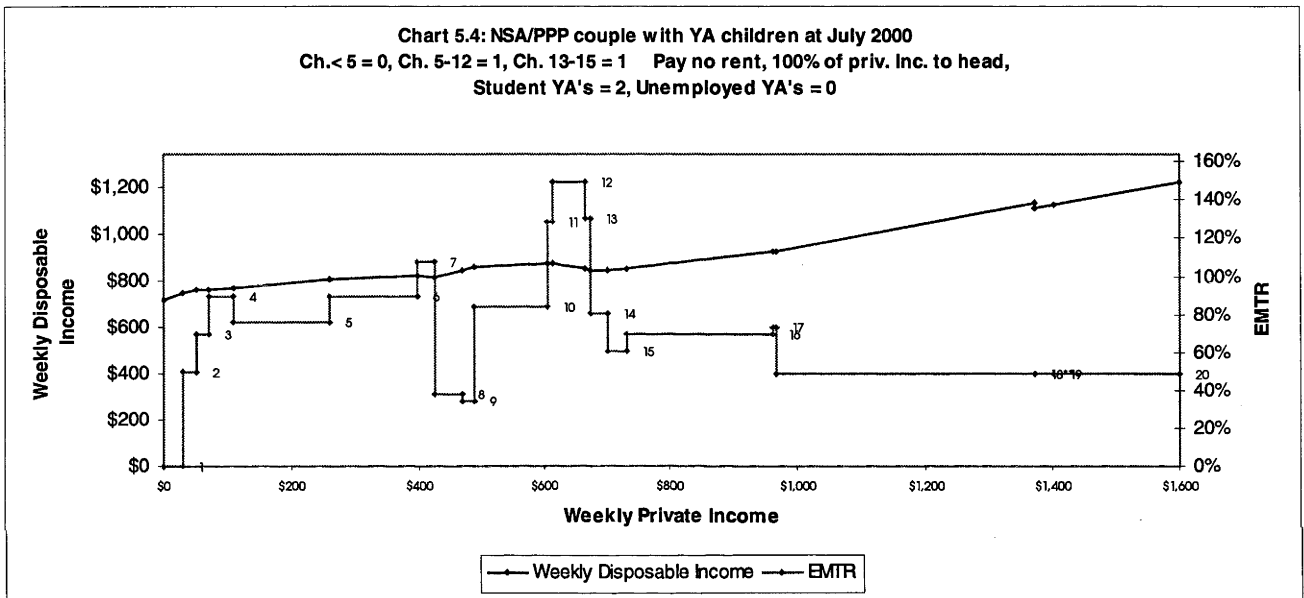


There are other problems with Youth Allowance. One is a notch problem similar to that for pensioners with dependent children. A family coming off an income support allowance (and therefore receiving auto-max Youth Allowance) can suffer a "sudden death" loss of that Youth Allowance. A further concern is that certain additional benefits are lost when a dependent child moves onto Youth Allowance – notably Guardian's Allowance and Rent Allowance. Thus, the family may be better of on FTB(A) than Youth Allowance, notwithstanding the higher maximum rates under the latter.

The second problem has been partially addressed by extending the age limit and creating a special YA rate for FTB(A). However, giving families a choice as to which benefit to receive is not really a long-term solution to such problems. First, a rational choice requires a high degree of knowledge as to the relevant provisions. Second, the system fails to discriminate between families on the basis of relative need. It is well established in

equivalence scale research that costs of children rise with age, whereas the system fails to consistently direct extra assistance to some families with older dependent children. A fuller resolution would need to involve incorporating Youth Allowance into an integrated family payment system for all children up to, say age 21.

### 5.2.4.1    Option for integrating YA and family payment income tests

This 'unstacking' option, described in detail in Appendix B, addresses three issues:

1. stacking between the allowance means test and the Youth Allowance taper over the income range $24,388 and $28,200 pa (this can give rise to a "sudden death" loss of up to $1200 pa in "auto" Youth Allowance);

2. stacking between the taper on the new FTB(A) and Youth Allowance (the 30% and 25% tapers are additive once the Youth Allowance disregard of $1230 for the first sibling under 16 is used up, causing EMTRs of over 85%). This could cause a significant work disincentive for families in the income range $30,000- $40,000 (the exact range depends on number and age of Youth Allowance and non-Youth Allowance children); and

3. the Youth Allowance income test stacks on itself if there is more than one Youth Allowance child, since existing disregards of $3,790 per Youth Allowance sibling are insufficient to prevent this occurring. Such stacking can lead to EMTRs of over 80%, or higher if there are also non-Youth Allowance dependent children.

Unstacking the whole system will be costly. A possible cost offset would be to raise the Youth Allowance taper from 25 to 30%; this would appear to be a logical move in any case, assuming the family payment taper remains at 30%.

### 5.2.4.2    Conclusion: Youth Allowance reform

The effect of the three options in Appendix B, taken together, would be to create a situation where (apart from Rent Allowance), Youth Allowance and FTB(A) were very close to an integrated system. Except for renters, no family would lose more than 30 cents in the dollar of welfare benefits as private income rises. Combined with the standard income tax rate of 30%, EMTRs would be close to 60% for most affected families (except Rent Allowance recipients also receiving Youth Allowance). Although this is still high, it is probably sustainable: Table 5.6 and Chart 5.5.

**Chart 5.5: impact of integration on disposable income:
couple with one child 13-15 plus two YA children**
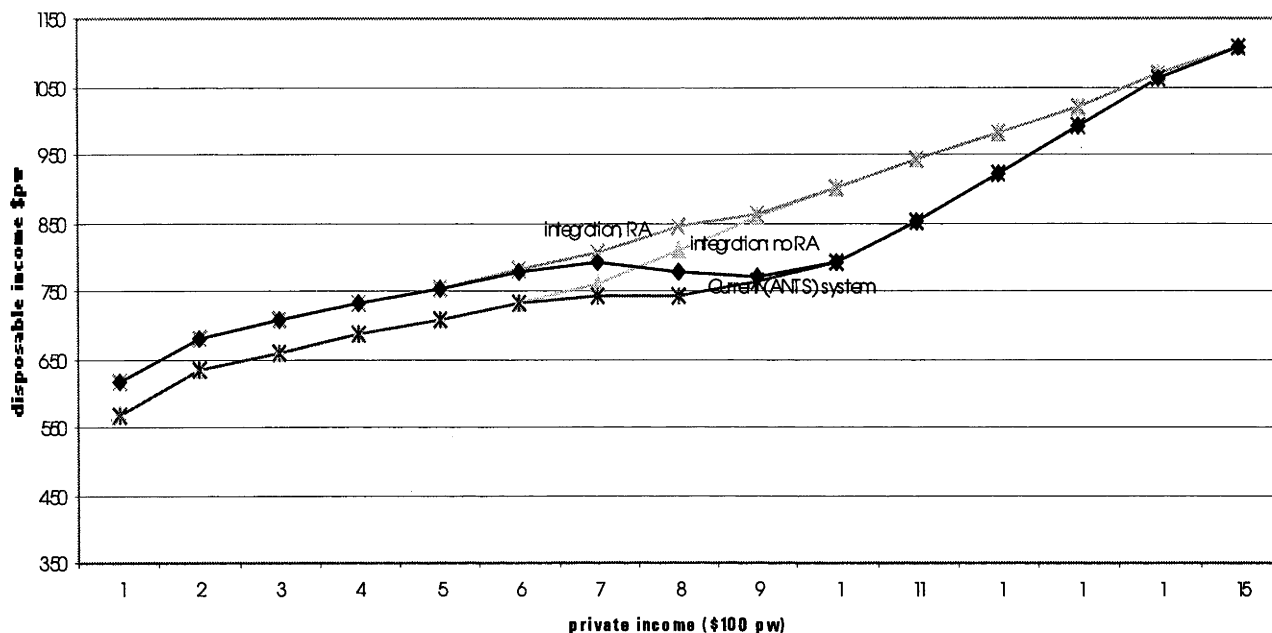


The total cost of the "unstacking" package comes to an estimated $200-300 million pa (the higher cost applies if the taper is left at 25%). There would be few if any losers from the package, with the higher thresholds overcompensating for the slightly higher (30%) taper. An estimated 40% of families currently receiving part-rate Youth Allowance would benefit.

Stacking will continue to be an issue for those receiving Youth Allowance and Rent Allowance, and for those receiving FTB(B). It may be appropriate to allow Rent Allowance to stack with Youth Allowance, as is now done. Alternatively, tapering of Youth Allowance could be held off until Rent Allowance is exhausted (an option consistent with Keating and Lambert's proposals (see below).

Full integration of Rent Allowance and Youth Allowance requires that Youth Allowance disregards be set sufficiently high such that all Rent Allowance is lost before Youth Allowance starts to taper (or visa versa). For larger families, these thresholds could be very high indeed: see the discussion of Rent Allowance options below.

# Table 5.6: Impact of proposed YA integration scheme relative to July 2000 (ANTS)

## Youth Allowance and Family Tax Benefit Interaction at July 2000

| Family Income Status | Rent Ass/ce | Max Benefit pw | Net Gains Made Over $100 per week Gross Private Income Ranges (income split 75:25) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | $0-100 | $101-200 | $201-300 | $301-400 | $401-500 | $501-600 | $601-700 | $701-800 | $801-900 | $901-1,000 |
| NSA/PP (partnered) with 1 YA recipient | nil | $418.15 | $66.10 | $26.10 | $26.10 | $21.20 | $20.30 | $13.10 | $46.90 | $49.90 | $72.10 | $72.20 |
| | with RA | $438.27 | $65.90 | $26.30 | $26.10 | $21.20 | $20.30 | ($4.20) | $44.10 | $49.90 | $72.10 | $72.20 |
| NSA/PP (partnered) with 2 children and 1 YA recipient | nil | $528.15 | $65.95 | $26.30 | $26.10 | $21.20 | $24.90 | $13.50 | $12.80 | $22.00 | $56.70 | $72.20 |
| | with RA | $576.29 | $66.00 | $26.20 | $26.10 | $21.30 | $24.90 | $13.40 | $12.80 | $17.20 | $26.70 | $58.90 |
| NSA/PP (partnered) with 1 child and 2 YA recipients | nil | $567.07 | $66.00 | $26.20 | $26.10 | $21.20 | $24.90 | $11.10 | $0.70 | $22.20 | $25.80 | $59.60 |
| | with RA | $615.21 | $66.00 | $26.20 | $26.10 | $21.30 | $24.90 | $11.00 | ($12.20) | ($7.80) | $20.60 | $59.60 |

## Impact of integration proposals

| Family/Income Status | Rent Ass/ce | Maximum Benefit pw | Net Gains Made Over $100 per week Gross Private Income Ranges (income split 75:25) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | $0-100 | $101-200 | $201-300 | $301-400 | $401-500 | $501-600 | $601-700 | $701-800 | $801-900 | $901-1,000 |
| NSA/PP (partnered) with 1 YA recipient | nil | $418.20 | $66.10 | $26.20 | $26.40 | $21.10 | $20.20 | $28.10 | $41.80 | $42.10 | $69.80 | $72.20 |
| | with RA | $438.30 | $66.10 | $26.20 | $26.40 | $21.20 | $20.10 | $10.80 | $39.00 | $42.10 | $69.80 | $72.20 |
| NSA/PP (partnered) with 2 children and 1 YA recipient | nil | $528.15 | $66.17 | $26.21 | $26.32 | $21.18 | $24.90 | $27.36 | $37.83 | $47.00 | $56.03 | $42.12 |
| | with RA | $576.29 | $66.17 | $26.20 | $26.33 | $21.18 | $24.90 | $27.35 | $37.83 | $42.13 | $26.02 | $28.87 |
| NSA/PP (partnered) with 1 child and 2 YA recipients | nil | $567.10 | $66.10 | $26.30 | $26.30 | $21.20 | $24.90 | $27.30 | $50.80 | $47.90 | $42.20 | $42.10 |
| | with RA | $615.20 | $66.20 | $26.20 | $26.30 | $21.20 | $24.90 | $27.30 | $37.90 | $18.00 | $36.90 | $42.10 |

NOTES:

It is assumed that 75 per cent of private income accrues to the head (ie. main earner).

Calculations for the single YA recipient only scenario assumes NSA/Parenting Payment (partnered) parents with the YA child aged 16-17 years of age.

For the one YA recipient scenarios assumes NSA/Parenting Payment (partnered) parents with the YA child aged 16-17 years and two FTB children - one 5-12 years and one 13-15 years of age.

For the two YA recipients scenarios assumes NSA/Parenting Payment (partnered) parents with one YA child aged 16-17 years, the other aged 18-25 years and one FTB child 13-15 years of age.

The following is a guide to the cell formats

*bold italics*  Net gain is negative

**bold**  Net Gains of between $0 and $15 per week

plain  Net Gains of between $15 and $25 per week

## 5.2.5  Stacking between FTB(A), FTB(B) and Parenting Payment (Partnered)

Parenting Payment (Partnered) tapers after the spousal income exceeds $32 pw, at the rate of 50/70%.  The FTB(B) tapers at 30% on spousal income in excess of $32 pw, up to a cutout of either $8,750 pa (child 5-15) or $10,500 pa (child 0-4).   The two tests stack, implying high effective tax rates on spousal income, especially where the partner is a low wage earner.  This is illustrated in Chart 5.6, which shows that EMTRs for a spouse of a minimum wage earner (2 children, pay rent) are very high between $40 and $200 pw.

Chart 5.6 - spouse incentives: ANTS - NSA/PgA couple with 2 children at July 2000
Ch.<5=1, Ch. 5-12=1, Ch. 13-15=0    Pay priv. rent of $200 pw, head earns min wage
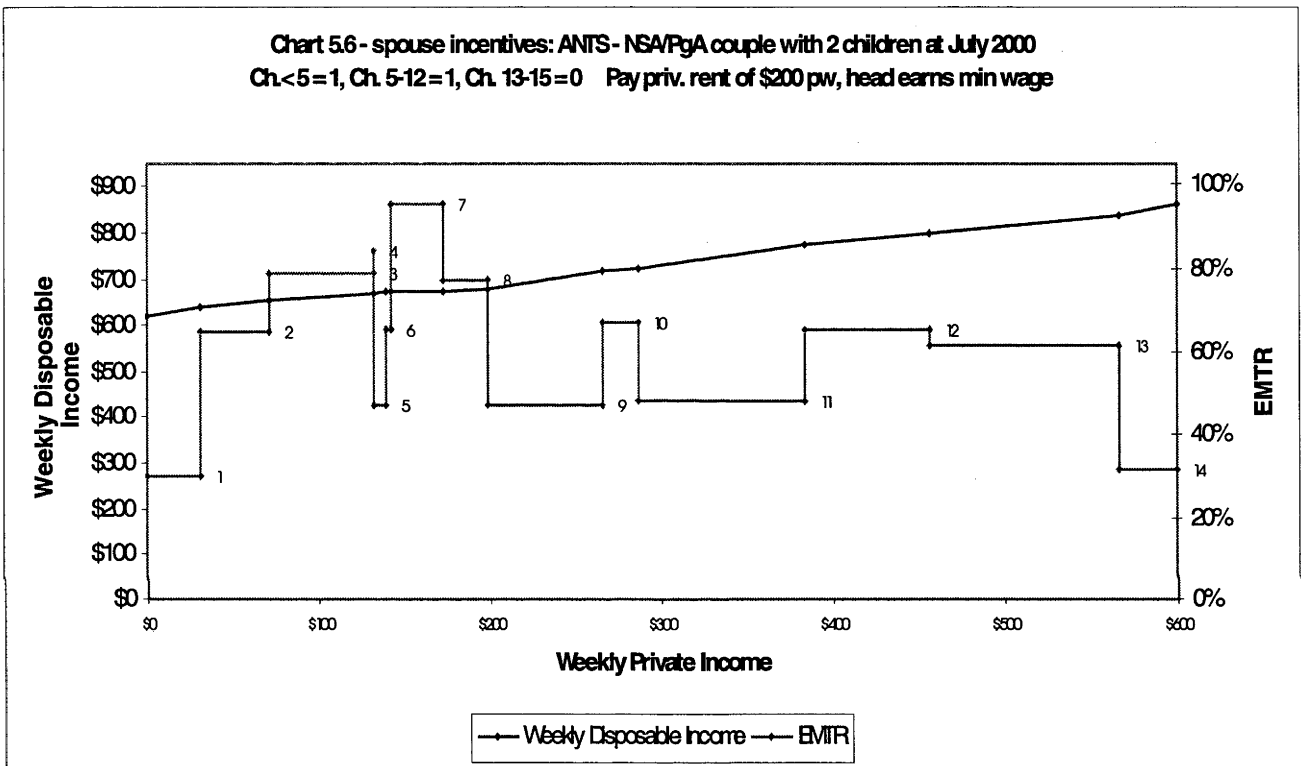


If the spouse is considering a job, and her husband's income is $28,200 pa, FTB (B) will stack with FTB (A), with the two payments tapering away simultaneously at the rate of 30% each. With childcare costs, this could result in a substantial disincentive to her working.  The fact that Childcare Assistance also commences to taper above $28,200 (at the rate of 10%, one child or 15%, if two or more) does not help this situation.

It should be noted that these stacking problems are not new.  Partly they are due to the loss of the couple's residual allowance over the income range between the husband's earnings[57] and $28,200 and, prior to the NTS, FTB(B) had a "sudden death" spousal income limit of $4,777 pa.  Clearly, it is preferable to have a more gradual taper as under the NTS, despite

stacking problems. However it would be even more preferable to get rid of such problems entirely.

The basic issue here is that the social security system has moved beyond its traditional poverty-alleviation function and, through FTB(B), taken on the additional role of compensating for some of the *indirect* costs of young children - notwithstanding that it is paying this assistance to many people who are entirely outside of the workforce and for whom indirect costs are therefore a somewhat tenuous concept. Since this assistance then has, for cost reasons, to be withdrawn as family income rises, the necessary implication is that there must be high EMTRs on working mothers.

One solution is to get compensation for indirect costs out of the social security system and back into the tax system – eg, as a reinvigorated dependent spouse rebate. However I appreciate that this view is totally at odds with developments in the social security system during the 1990s. The other possible solution is to cash out compensation for indirect costs as a supplement to existing basic rates. This would result in a single FTB system replacing FTB(A) and (B); the maximum rates required to avoid any losers would be as follows[58]:

| Age | $pa |
|-----|-----|
| 0-4 | 5,616 |
| 5-12 | 4,831 |
| 13-15 | 5,639. |

This Table makes explicit another of the problems introduced into the system once we start compensating for the indirect costs of children. That is, the maximum rates of assistance first fall, then rise, with increasing age of the child. This is contrary to the results of research on the relative (direct) costs of children. However, the option of a single FTB with such a rate structure does at least make the system transparent.

There may indeed be a case for providing some childcare assistance as a direct payment to mothers of young children, although the appropriate balance between cash assistance and

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[57] It is not easy to totally obliterate sexist assumptions without making the meaning incomprehensible. For this reason I have persevered with the traditional male breadwinner model in explaining the current system, although it is technically no longer applicable.

[58] While these rates fully compensate one-child families, they over-compensate families with two or more children, who currently receive FTB(B) only once. Hence a cost-neutral reform would necessarily involve lower rates and tend to under-compensate smaller families.

fee reimbursement is itself a difficult issue. A neat compromises is perhaps to make assistance for children independent of the age of the child, at least up to age 12, a structure now being pursued in the UK and which would not be very different to the system I propose above.

Chart 5.7 shows one example of the consequences of this option for EMTRs and disposable income. In general the 'front loading" of EMTRs for the spouse is reduced, but at the possible cost of backloading them higher up the income scale. Another important consequence is that the disposable income curve rises more smoothly over the important income range of $150 to $400 pw.

**Chart 5.7: comparison of ANTS vs FTB(B) unstacking option: spouse incentive, couple with one child 0-4, receiving RA**
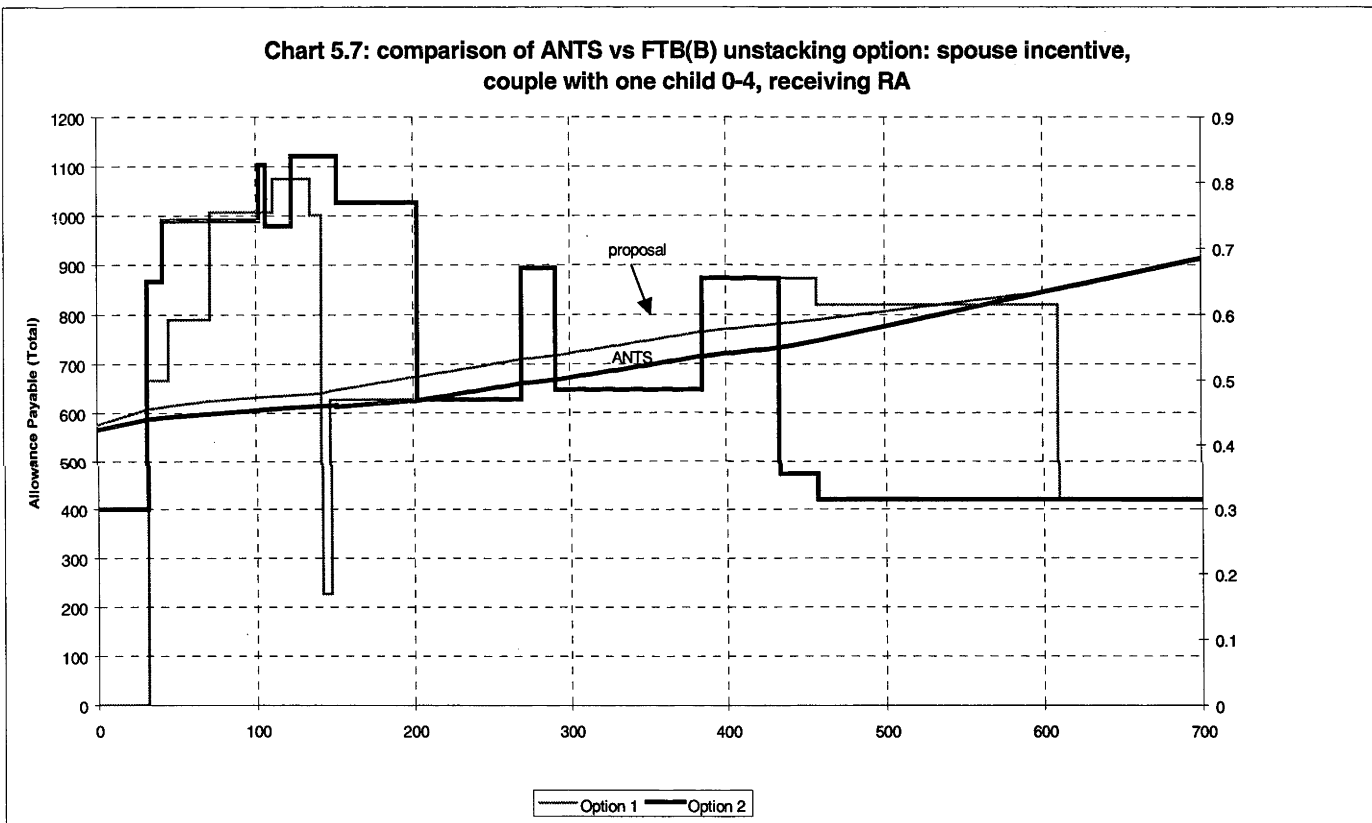


Cashing out FTB(B) as a supplement to FTB(A) payments has two main consequences (apart from easing EMTRs on working mothers). First, it provides substantial additional assistance to low income families where the mother is working. In this example she is a net gainer on any personal income between nil and $600 pw. Second, it reduces assistance to high-income families where the mother is not working[59]. The incentive effects are likely to be favourable, on balance, to the workforce participation of low-income mothers.

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[59] Assuming that access to the DSR is also restricted for such families. This proposal would suggest that the DSR for those without children be abolished.

## 5.2.6 Childcare assistance

Childcare assistance tapers beyond $28,200 pa family income at a rate of 10% if one child; 15% if two or more. Higher tapers apply where family income exceeds $66,000 pa (see Appendix A). This creates a stacking problem with the FTB taper.

It would be highly desirable if the taper on childcare assistance could be reformed to avoid stacking problems with means tests on other payments. In the UK system, for example, childcare assistance is part of the total *Working Families Tax Credit*, and abates sequentially.[60] This would also be possible in Australia and indeed this is the treatment suggested by Keating and Lambert (see below), although they were unable to cost it because of data limitations.

An implication of treating childcare in this manner is that the cutout point for combined family payments, rent assistance and childcare assistance could be very high indeed, more so if the FTB taper were further reduced. With four children, for example, the cutout would be well over $70,000 pa. The issue is, should this be regarded as a problem?

I suggest that it should not. Childcare assistance could validly be regarded as a horizontal equity-type payment, and indeed a logical alternative to our current means tested system would be a straightforward tax deduction ore rebate for childcare costs. For this reason I have no concern about a system which allows childcare assistance to flow to quite high-income earners, particularly those with several children. Equivalence scale research tells us that such a family, on $70,000 pa, would not be better off than a childless couple on something like $35,000 pa[61].

Another argument in support of such an approach is that research on comparative fertility has suggested that fertility is higher, other things equal, in those countries that actively support working mothers' labour force participation (McDonald 1997). In this manner having children should not need to become an enormous sacrifice, in terms of foregone

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[60] Strangely enough, this is not true of housing assistance in the UK, which is a separate scheme and can stack quite severely with other tapers. In Australia this is only true of state housing rental rebates, and Commonwealth RA does not stack. Hence the Australian and UK systems are opposite. Since secondary incomes are found to be more sensitive to incentives than primary ones, it may be the UK solution is a better one.

[61] The validity of this point depends on the 'revealed preference critique' of equivalence scales (discussed elsewhere) not being valid. On this critique the presence of wanted children does not reduce the welfare of the parents.

earnings. Family policy in Australia will increasingly have to consider fertility as an important aim, in the context of sharply falling fertility rates and an ageing population[62].

## 5.3    Keating/Lambert proposals

The Keating and Lambert proposals, briefly described earlier (and in more detail in Appendix C) are designed to rationalise means tests for families. The method is to first establish a family's *potential* entitlement for assistance, and then establish their *actual* entitlement on the basis of their assessed means. For pragmatic reasons pensions and benefits would continue to have different free areas. However, all tapers would become 50%[63]. At the family payment threshold of $542 pw ($28,200 pa), "second tier" payments would start to abate at a rate of 30%. This tier includes FTB(A) and (B), Youth Allowance and Rent Assistance, "and would have included childcare assistance if that had been possible [ie amenable to costing using NATSEM's (Stinmod) microsimulation model]" (K&L 1998b p283).

Part of the proposal is financed by abolition of the quasi-universal component of FTB(A), and also of FTB(B). In general the K&L proposal is a sensible one, albeit that the administrative details need elucidation. My main comment is that the objectives can be achieved more simply and directly by the options set out above (single taper for FTB(A), Youth Allowance unstacking and FTB(A) and (B) integration), which combined have a very similar effect to the Keating and Lambert plan but a simple set of pre-defined thresholds and sequential tapers. The other outstanding issues relate to allowance tapers and Rent Allowance, as discussed below.

## 5.4    Reduce allowance tapers?

K&L propose an allowance taper of 50%. A 20 percentage point taper cut results in a net decrease in EMTRs of 16 percentage points (Chart 5.8)[64]. This would address the 'hot spots' found among the allowance ETRs, but at the cost of blowing out the cutouts and exacerbating the notch problem unless the FTB(A) threshold were further raised.

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[62] See Ingles 2000a. Singapore, with a serious fertility problem, has recently announced a substantial 'baby bonus' for second and subsequent children.

[63] Note that this proposal pre-dates the 40% pension taper in the NTS.

[64] Reducing tapers will reduce EMTRs, but not quite to the same extent. If the allowance is taxable, the extra tax payable will offset some of the benefit of the taper reduction. If a 70% taper is reduced to 50%, and the tax rate applicable is 20%, then the old EMTR is $(70 + .2*30) = 76\%$, and the new EMTR is $(50 + .2*50) = 60\%$.

**Chart 5.8: allowee couple: ANTS vs 50% allowance taper ( income split 100:0; max RA)**
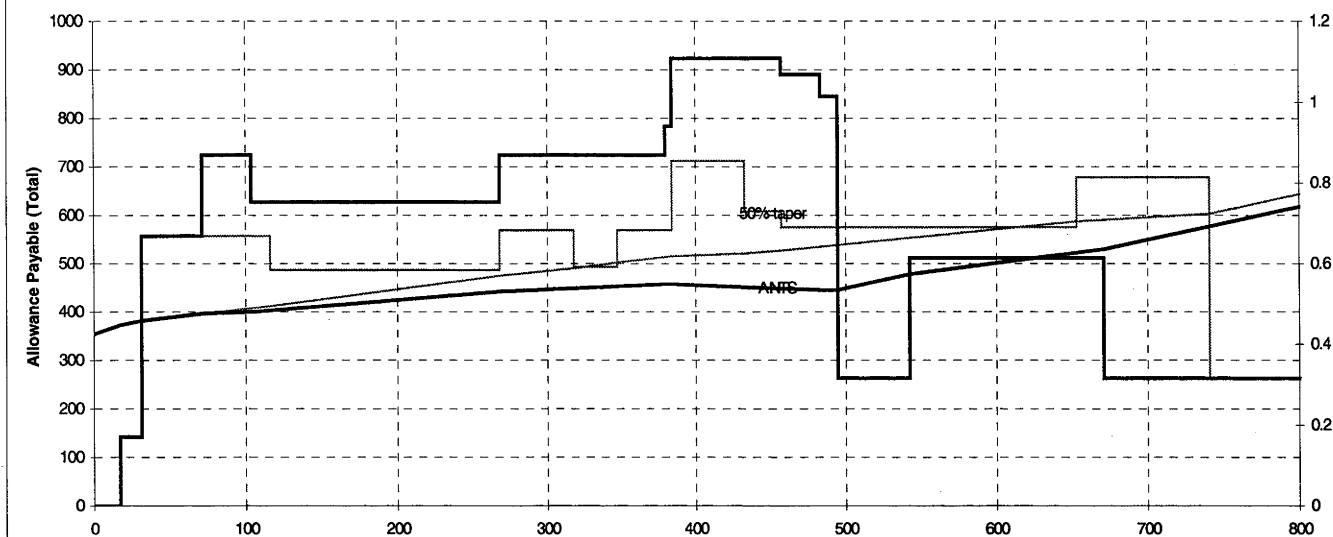


One advantage of reducing allowance tapers is that it reduces horizontal inequities as between allowees and pensioners. At the moment, for example, there is a very substantial incentive for clients to apply for a Disability Support Pension, for example, rather than Newstart or Sickness Allowance. While the higher basic rate for singles is one aspect of this, so too are the much more lenient means test conditions.

This is illustrated in Chart 5.9, comparing single Newstart Allowees with single Disability Support Pension recipients (both receiving Rent Allowance). The Chart shows that an initial differential of $25 pw in favour of the Disability Support Pension recipient becomes as high as $213 pw at around $350 pw of private income. This is caused by the large difference in free areas and tapers for the different clients (the non-taxation of Disability Support Pension also contributes to this). Rate and taper differences may also be manifested in the increasing rate of take-up of Disability Support Pension among the older working age population (see Ingles 1998c and 2000a).

**Chart 5.9: Newstart allowance vs DSP, single with RA**



Legend: newstart — Disability support pension — newstart — Disability support pension
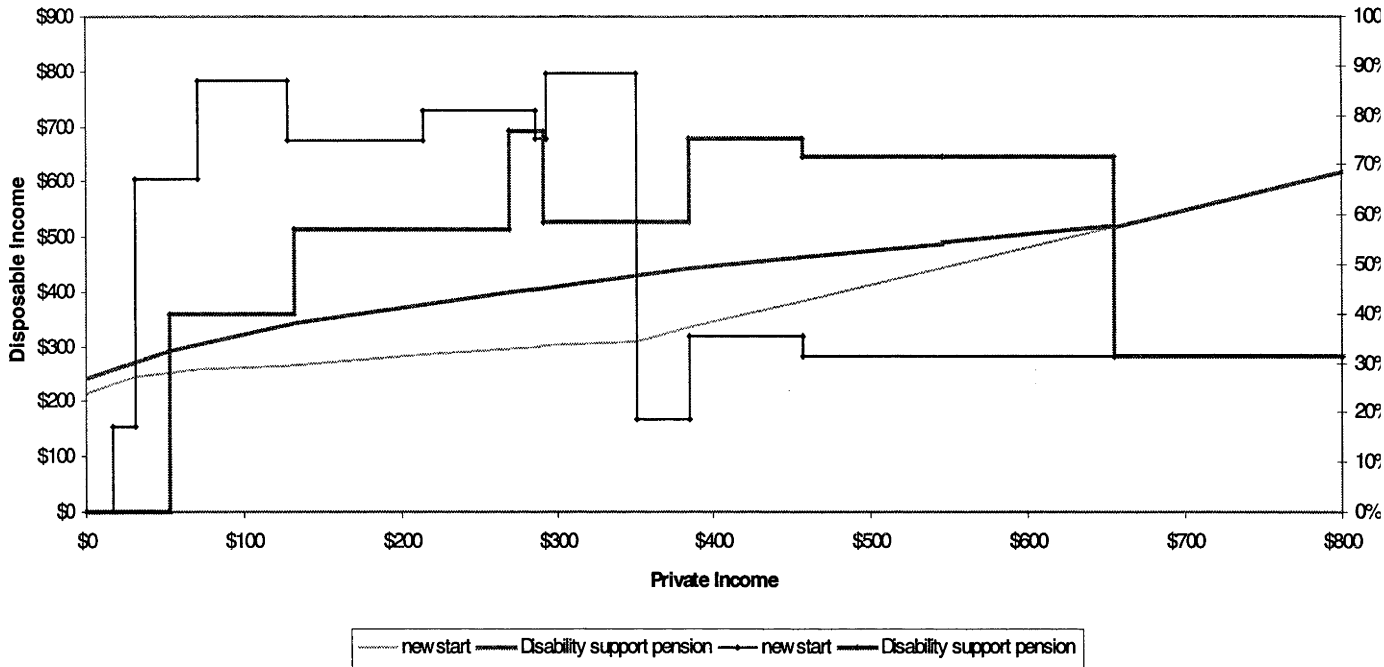
A similar issue arises for sole parents as opposed to mothers who are in a couple. In the case of a 2 child family, the initial rate differential in favour of the couple, already quite low at $416 vs $494 pw (a ratio of .84), actually reverses at higher income levels and at a private income of $494 becomes negative, at up to $24 a week extra for the sole parent, before the two disposable income lines ultimately converge. The superimposed EMTR graph in Chart 5.10 shows that this reversal is due to the lower (40%) NTS taper on Parenting Payment for sole parents. I find it hard to believe that the Government had this result in mind when they designed the NTS measures.

**Chart 5.10: sole parent vs couple, 2 chn + RA**
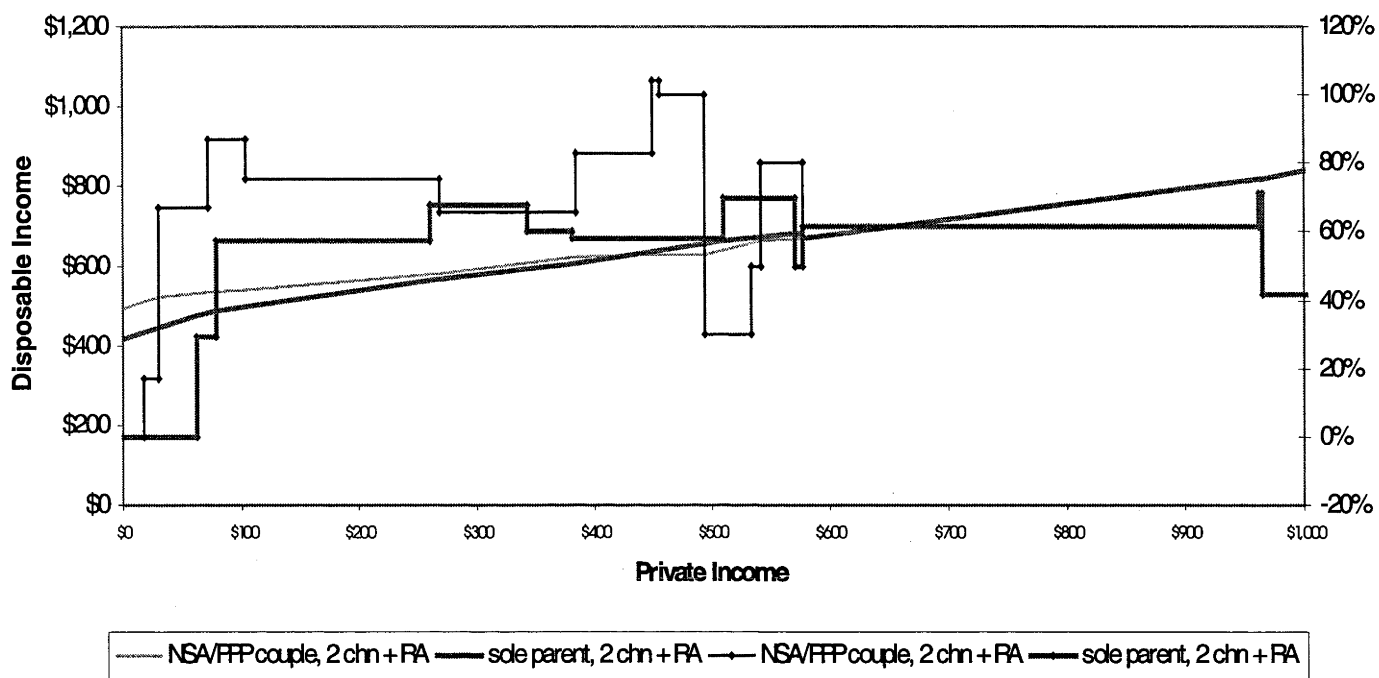


Such anomalies can be addressed either by reducing allowance tapers or tightening pension ones. Reducing tapers can be quite expensive, and extends benefits to relatively high-income levels – compared, for example, to low full-time wages. For example, reducing the pension taper from 50 to 40% in the NTS moved the age pension cut-out points from $21,320 pa (singles) and $35,620 pa (couple), to $25,649 and $43,030 pa, respectively.

Currently, there are many full-time workers who have income below the allowance cutouts but are ineligible for allowance because of the work test. It would cost some $3 billion pa to extend eligibility to them. I do not argue for this because it implies a role for unemployment payments quite different to the current philosophy, and also because of the difficulty in measuring the incomes of the self-employed. But I do suggest that further extension of the allowance cutouts may not be a high priority; rather, priority should be placed on reducing tax on low-income families whether or not they are in the allowance system. While this will be more costly it will help to preserve work incentives and maintain horizontal equity.

The cost of fully aligning the allowance with the pension means test (including $3 billion from extension of eligibility to full-time workers) is estimated to be as high as $14 billion pa, with a further $2 billion flow-on from the necessary increase in the FTB(A) threshold.

Instead, pension tapers for those of working age could be dragged back more into line with those already applying to allowances, possibly with some small adjustment to iron out EMTR "hotspots". The ultimate aim might be a "single workforce age payment" with a simple common taper of, say, 60% and utilising the existing allowance free areas of $31 pw per adult. This would blow out the benefit cutout to about $30,400 pa for a couple (income split 50:50 – see Chart 5.11) with a consequent need to raise the family payment threshold by $2,200 pa, but overall the cost would be relatively containable.

**Chart 5.11 Allowee couple EMTR (income split 50:50): ANTS vs single 60% taper**
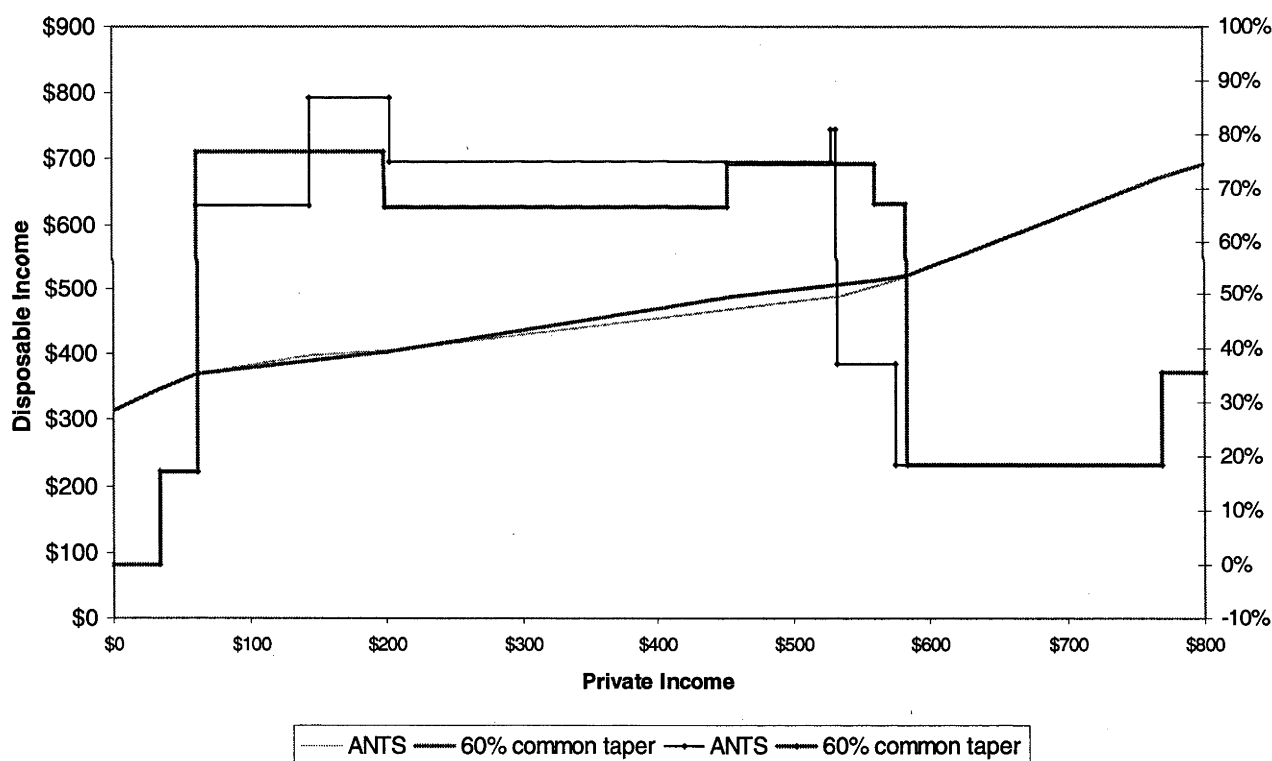


The concept of a single workforce age payment has been endorsed in the interim and final reports of the Reference Group On Welfare Reform (2000a and b), albeit that the report is rather light on detail. The basic problem is that a common payment based on pension conditions is probably not affordable unless the behavioural response were very large; whereas one based on allowance conditions would result in significant losses among some Disability Support Pension and sole parent (Parenting Payment - Unpartnered) recipients.

Basic rates could be standardised among the workforce aged, bringing the allowance rate up to the pension rate (possibly with some reduction for those under say 25), but could be supplemented by special allowances such as for costs associated with disability.

Raising all allowance rates to the pension maxima would cost some $700m in a full year, but this cost will escalate progressively if the allowances were – like pensions - indexed to Male Total Average Weekly Earnings (MTAWE). There would be further costs associated with any easing of means test parameters for allowances, and some savings from pulling back Disability Support Pension and sole parent means test parameters towards those prevailing in the allowance regime. There would also need to be abolition of the "sudden death' asset test now applying to allowances[65].

The bottom line is that the social security measures in the government's Tax Package have undercut what should arguably be the ultimate aim of commonality in rates and tapers across the workforce age population, and compounded serious horizontal inequities which already exist within the system. The lower pension taper could have been restricted to the aged, where – as Chapter 8 discusses - different considerations (notably relating to savings incentives and interaction with superannuation tax) apply.

## 5.5 What should be done with Rent Assistance

There are a number of anomalies in the current system of rent assistance, State and federal. Commonwealth Rent Assistance for those without children tapers beyond the pension or allowance cutout points, and at the same rate - ie, 50% for pensioners and 70% for allowees. However assistance for those with children tapers out beyond the cutout points at the same 30% rate as for basic family payments. State public housing rent assistance phases out at around 20-25% from a family income of around $20,000 (depending on family size), and thus stacks extensively with family payments and even allowance tapers. As I showed in Ingles 1997, this can cause serious disincentives.

Because of the large differences between the Commonwealth and State schemes, the Industry Commission (1993) recommended moving Commonwealth rental assistance to a State housing- type formula. Such a move was not then desirable in the case of families because it would, at the time, have caused very serious stacking problems with the 50% family payment means test taper.

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[65] One option is its replacement with a single graduated deeming regime applying to all financial and non-financial assets. This need not necessarily imply a net cost if the deeming rate were high enough

There are several options for Rent Allowance. The most generous is that Rent Allowance not taper until all maximum family payments are lost. This is the solution employed in the NTS, and also proposed by Keating and Lambert - who extend the principal to Youth Allowance payments as well, and wished to extend it to childcare payments. One obvious problem is that family payment cutouts rise significantly as the taper rate is reduced, with a corresponding rise in the costs of Rent Allowance.

A less generous option (at least for families) is that Rent Allowance be de-coupled from the family payment system and, as recommended by the Industry Commission (1993), be paid on similar lines to State Housing Rental Rebates (SHRRs), meaning that Rent Allowance would be allowed to stack with other means tests in the family payments system.

With the family payment taper reducing to 30% under NTS, or even 20% under the proposals in this chapter, this stacking problem could perhaps be lived with. Stacking with basic allowance tapers could be resolved by indexing the Rent Allowance and SHRR thresholds to the allowance cutout points.

This option creates the potential for savings that could be redirected to other parts of the Rent Allowance system. If, for example, Rent Allowance were de-coupled from benefit payments to non-family couples and individuals and the taper reduced to that applying to families, RA would be transformed from an out-of work benefit mainly restricted to clients, to an in-work benefit that tapers only moderately with rising income[66]. Current inequities as between state housing clients and Commonwealth social security clients would be substantially ameliorated.

There is a horizontal equity argument for allowing Rent Allowance to flow to quite high income households, since renters at all income levels have less resources than homeowners (but not necessarily homebuyers). On this argument Rent Allowance is a sort of rough compensation for the non-taxation of imputed rent. This argument supports the "long-tail" Rent Allowance taper.

There is, conversely, a horizontal equity argument of making Commonwealth and State rent assistance more similar, one that supports allowing the tapers to stack. This argument is somewhat weakened, however, by the very large differences in maximum assistance

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[66] Currently , where there are no dependent children RA tapers as a continuation of the allowance or pension taper applicable; ie, at 70 or 40%.

provided by the two systems.[67] It ought to be the ultimate goal that the two systems converge.

There is also the issue of horizontal equity between homeowners, homebuyers, and renters. The first best solution to this is simply to gross up all payments in the system to include an adequate component for housing costs, (including supplements for high cost areas like Sydney), and then tax back imputed income from wealth including housing wealth. Since this is unlikely to obtain political support in the near (or even the distant) future, the second best solution is to support the regular payments made by renters and also *homebuyers with small amounts of equity in their homes*. In the UK, for example, an extensive system of Housing Assistance helps home purchasers as well as renters.

The government, in the GST compensation package, has chosen to revive the approach of a lump sum $7,000 subsidy for first homebuyers. Very few people mourned the passing of the original First Home Owners Scheme in the 1980s. One option is that this subsidy should ultimately be abolished and be replaced by an extension of Commonwealth Rent Assistance to homebuyers based on means testing comprehensive assets – ie including housing equity. Only in this manner can a comprehensive and neutral system of low income housing assistance be achieved.

Whether such a system of housing assistance should be tapered sequentially with other family and Youth Allowance payments, or allowed to stack, should be decided at the time by reference to the tapers ultimately decided on. If, for example, the family payment taper were reduced to 20% (as proposed earlier in this Chapter), a stacked housing assistance taper of say 20% could perhaps be tolerated.

## 5.6    Conclusion: the NTS and associated reforms

The measures discussed here are essentially alternative means of implementing the Keating/Lambert proposal for a single, sequential tapering of all Commonwealth income support payments. This, in turn, is not so different from the Dawkins et al (1998a) proposal for a negative income tax system with a three-part rate structure and an initial 60% marginal rate. I show, however, that it is possible to iron out the worst of current anomalies and ETR 'hotspots' by relatively simple changes to existing policy parameters.

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[67] The value of state rental assistance typically exceeds Commonwealth Rent Allowance by a substantial margin - see Industry Commission 1993.

Moreover, the required measures are relatively inexpensive, in the case of Youth Allowance adding up to no more than $200-300m in a full year (note that this is a small amount in the context of the whole social security budget). What is more, as Keating and Lambert have shown, it is possible to offset part and perhaps all of the other "unstacking" costs by relatively modest adjustments which phase out the remaining quasi-universal payments in the system, payments which have no clear rationale in the context of the main poverty alleviation aims of the Australian system.

The question here, however, is whether the Government is willing to abolish those bits of "middle class welfare" remaining in the family payment system. While I do not oppose universal family assistance as such[68], the existing two-part taper might be regarded as an uneasy compromise between poverty alleviation and horizontal equity objectives, and I also note that a substantial measure of horizontal equity is achieved by low tapers which allow means-tested assistance to flow into the mid-ranges of the (equivalent) income distribution.

Apart from the single 20% family payment taper proposal, it seems highly desirable that the main parts of the Youth Allowance and FTB(A) unstacking exercise should proceed. Whether Newstart Allowance and Parenting Payment (Partnered) tapers should be reduced is a difficult issue however. The main problem is that this would exacerbate horizontal inequities vis-à-vis low-income earners not in the categorical system, such as the self-employed. I conclude that a single taper of 60%, with the current thresholds, may be as far as can sensibly be gone at this time. Alternatively, drastic action could be taken to reduce income taxes on allowees along with other low-income earners, as proposed in Chapter 6.

My 'unstacking" agenda, Keating and Lambert "family accounts" and the Dawkins et al modified negative income tax all end up looking quite similar in terms of their ultimate effects on financial incentives and families' disposable incomes.

The Australian income support system is very close – certainly the closest in all the OECD area - to academic views of a pure NIT system, except for some aberrations around the edges, and the presence of activity tests. Further and more fundamental reforms aimed at enhancing the operation of this system are discussed in Chapter 6.

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[68] From an economic efficiency perspective it may not matter much whether family benefits are taxed back more severely, or taxed back less and general tax rates raised to finance this. See the relevant discussion in Ingles 1997.

## 5.7    Appendix A: The NTS changes to assistance for families[69]

To accompany the changes to the personal income tax system, the Government will introduce substantial reforms to the various forms of assistance provided to families through the income tax and social security systems. These reforms will boost the amount of the income tax cuts that families receive, substantially improve work incentives for low and middle income families and simplify the complex array of assistance provided currently to families.

Extra assistance is provided to families by extending the Family Tax Initiative (FTI), introduced by the Government in January 1997, at a cost of over $2 billion in 2000–01.

The FTI currently provides an increase in the tax-free threshold of $1,000 for each dependent child, plus an extra $2,500 for single income families with a child aged under 5 years. From 1 July 2000, these thresholds will be doubled to $2,000 and $5,000 respectively. The effect of this is that all single income families (including sole parents) with a child under 5 years will have an effective tax-free threshold of $13,000. This is made up of the new $6,000 tax-free threshold plus $2,000 for one dependent child and the further $5,000 provided to single income families with young children. Overall, such families have a tax-free threshold that is more than double the general $6,000 threshold.

For families, the doubling of the FTI means:

- an increase in assistance of $140 a year (a 70 per cent increase) for each dependent child; and

- an extra $350 a year (a 70 per cent increase) for single income families with a child aged under 5 years.

**Other elements of the families package.**

Improving incentives for families to work, including the unemployed

The current system of assistance for families, particularly the overlap between the various income tests for benefits, results in disincentives for low and moderate-income families to work. Many families face an effective marginal tax rate of 85.5 per cent or more if they increase their income.

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[69] This is an edited version of the Governments Tax package summary as released on the Treasury Website. See also Costello 1998.

To remove these overlaps and disincentives, the Government will, from July 2000, ease substantially the income test for Family Allowance by:

· increasing the level of income at which it begins to be income tested from $24,350 a year (for one child) to $28,200 a year; and

· reducing the income test taper rate from 50 per cent to 30 per cent.

These measures provide substantial extra income to help lower income families raise their children and improve work incentives. They ensure that unemployed families will not incur a sudden drop in Family Allowance (and hence income) when they leave the income support system, improving incentives for them to obtain a full-time job.

At the same time, these measures, combined with the tax cuts, will ensure that low income working families will have much better incentives to improve their circumstances. For example, their effective marginal tax rate will drop from 85.5 per cent to 61.5 per cent over a substantial range of income.

**Simplifying the structure and delivery of Family Assistance**

Building on these increased levels of assistance and greater work incentives for families, the Government proposes to greatly simplify the structure of assistance for families, with effect from July 2000. The new structure will reduce the types of assistance for families through the tax and social security systems from twelve to three.

**Family Tax Benefit, Part A**

First, it is proposed that the four forms of assistance provided to help families with the costs of raising children [ie Minimum family Allowance, family Allowance, Family Tax Payment (FTP) part (A) and Family Tax Assistance (FTA) part (A)] will be merged into one benefit, the Family Tax Benefit, Part A (FTB (A)). This will:

- have the same rate structure as the programs it replaces (ie maximum and minimum rates), but with the extra $140 a year for each dependent child outlined above;

- use the relaxed income test for Family Allowance outlined above for the maximum benefit (ie a threshold of $28,200 a year and a 30 per cent taper rate);

- replace the 'sudden death' income tests for minimum Family Allowance, Family Tax Payment (FTP) and Family Tax Assistance (FTA) with a single relaxed income test for

the minimum FTB(A) of $73,000 a year (plus $3,000 a year for each child after the first) and a taper rate of 30 per cent;

- abolish the assets test that applies currently to Family Allowance and minimum Family Allowance; and

- be increased annually in line with movements in the Consumer Price Index (CPI) in the same manner as applies currently for Family Allowance.

**Family Tax Benefit, Part B**

Second, it is proposed that the six forms of assistance provided to single income families (including sole parents) [Basic Parenting Payment, Guardian Allowance, Family Tax Payment Part B, Dependent spouse rebate (with children), Sole parent rebate, and Family Tax Assistance part B] will be merged into a Family Tax Benefit, Part B (FTB (B)). This will:

- have a similar rate structure to the current system (ie with the level of assistance being higher where the youngest child is aged less than 5 years), but with

- the additional $350 a year for single income families (including sole parents) with a child under 5 years outlined above;

- an additional $61 a year, where the youngest child is aged 5-16 years, meaning that a single-income family with two children aged over 5 years receives an additional $341 a year comprising $280 plus an additional $61;

- for couples, replace three different income tests on the non-working partner's income with one test that has a free area of $1,616 a year and a 30 per cent taper (thereby increasing the cut-out point for assistance from $6,090 a year to $10,500 for a family with a child aged under 5 years):

- this will greatly improve work incentives for primary carers (who are usually women);

- abolish the FTA/FTP income test on the working partner's (or sole parent's) income that applies currently from $65,000 a year; and

- be indexed annually in line with movements in the CPI in the same manner as applies currently to Family Allowance.

**Child Care Benefit**

Third, it is proposed that the two forms of assistance available to help families with the costs of childcare outside the home will be merged into one. The new benefit will greatly simplify government assistance for childcare costs, enabling families to receive all assistance with childcare through the one program and under one set of rules. The Child Care Benefit will provide:

- maximum assistance (for 50 hours of work-related care per week) of $116.40 a week per child in formal care, with an additional $11 a week loading where there are 2 children in care and a $32 a week loading for 3 or more children in care;

- for informal work-related care, the maximum level of assistance is $20.10 a week per child in care (for 50 hours of care);

- a single income test, with a family income threshold of $28,200 a year (for formal care) and taper rates of:

    · 10 per cent for one child in care;

    · 15 per cent and (above $66,000) 25 per cent for 2 children in care;

    · 15 per cent and (above $66,000) 35 per cent for 3 or more children in care;

- the income test will not apply for incomes above $78,400 (one child in care). This will, in effect, maintain entitlements to assistance (equivalent to that available under the Childcare Cash Rebate at the 20 per cent rate) for higher income families.

Compared to the current system, the Child Care Benefit will provide an increase in the maximum level of assistance of $7.50 a week. This will be of particular benefit to 200,000 lower income families, who receive the maximum level of assistance.

**Delivery of family assistance**

The Government's reform of family assistance will also simplify and integrate the delivery of such assistance to Australian families. Currently, the 12 forms of assistance for families are delivered through a combination of Centrelink, the Tax Office and the Health Insurance Commission. A new Family Assistance Office (FAO) will be set up within the Tax Office to deliver the new simplified set of family assistance programs.

The FAO will be a joint venture between Centrelink and the Tax Office that will specialise in delivering assistance to families. It will enable families to deal with just one agency and one set of rules. The primary carer in the family (generally the mother) will have a choice

as to how they wish to receive their assistance either through regular fortnightly payments to their bank account, as reduced tax deductions from their (or their partner's) pay-packet or as an end-of-year lump sum through the tax system.

## 5.8    Appendix B: Youth Allowance unstacking proposal

The following proposals address the issues identified in the text.

1. Align the Youth Allowance threshold with the new FTB(A) threshold at $28,200 pa. The cost is estimated at $100 million pa.

2. Provide disregards for siblings under 16 in the Youth Allowance means test sufficient to fully exhaust FTB(A) entitlement before the Youth Allowance taper cuts in.

The necessary disregards, after July 1, are as follows:

Under 13                  $6593 pa

13 - 15                   $9216 pa

These compare with current disregards of $1230 for a first sibling under 16; $2500 for second and subsequent. The cost is $85m pa. The effect of the higher disregards is that all FTB(A) would exhaust before the Youth Allowance income tests cuts in, so EMTRs will not normally exceed 55%.[70]

The Youth Allowance income test stacks on itself if there is a Youth Allowance sibling – that is, payments for both siblings can taper simultaneously. This stacking is ameliorated but not abolished by virtue of the relatively high disregard for second and subsequent Youth Allowance children. High EMTRs for families with several dependent Youth Allowance recipients could be addressed by increasing the Youth Allowance sibling disregard or, equivalently, by the reintroduction of variable tapers for families with different numbers of such dependents.

Splitting tapers is preferred to higher disregards because this allows all Youth Allowance recipients to receive their appropriate rate of allowance. In terms of the families' aggregated entitlement to Youth Allowance, the two approaches are identical. [71]

3. Raise the taper for Youth Allowance from 25% to 30%, and re-introduce split tapers of 15% for 2 Youth Allowance children; 10% for three. Abolish the existing sibling concessions ($3,790 for other Youth Allowance siblings, $7,400 for two Youth Allowance children living away from home). The cost is negligible: an estimated $11 million. The

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[70] However, they could exceed this because YA will continue to stack with rent allowance and, in some cases, the taper on FTB(B).
71 Some previous versions of AUSTUDY did allow variable tapers where there was more than one AUSTUDY recipient.

savings from the higher taper (applying to the three-quarters of families with a single Youth Allowance child) almost offset the costs of the split tapers (which benefit the other quarter of Youth Allowance families).

4. Standardise income period definitions by moving the Youth Allowance test from previous financial year to current financial year, as for FTB (A). (No costing available: this would probably provide some savings.[72])

These options would pave the way for an possible full integration of Youth Allowance and FTB(A) up to, say, age 21, as a single scheme with common income definitions, etc. This should be the long-term aim of reform in this area.

5. One outstanding issue in the YA area is the personal income test applied to the individual YA recipient, in addition to the family income test. The individual test for students is derived from the Austudy system; there is a free area of $236 per fortnight ($6,136 pa) and a taper of 50% up to $8,216 and 70% beyond. The young unemployed, by contrast, have taper parameters derived from the Newstart allowance system; ie a free area of $62 per fortnight ($1612 pa), a 50% taper to $142 per fortnight ($3692 pa), and a 70% taper beyond.

This is clearly anomalous in itself, and the student taper is anomalous if it were desired to introduce a common workforce age allowance. On the other hand the parameters proposed for such an allowance (free area of $1612 pa and a 60% taper) could be a substantial disincentive to a student's part-time or vacation earnings, and moreover appear harsh when one considers that this applies in addition to the parental income test. I would suggest, therefore, that the test on a dependent's own earnings should be simply an extension of the parental test, so that in effect the payment to the student or unemployed young person becomes independent of the distribution of earnings within the family. This implies that a simple 25 or 30% taper should apply to the student's own income, but this should only apply once the families' total income threshold is exceeded.

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[72] The FTB system now uses a full current year basis, with end-of year reconciliation through the tax system. The Youth Allowance income test is based on income in the tax year two or at most one year prior (with some exceptions for, eg, the self-employed). It would appear a logical step to reconcile these very different income assessment periods by using a thoroughgoing current income basis. (This would be essential if FTB and Youth Allowance were to become fully integrated.)

## 5.9 Appendix C: Keating and Lambert proposal for reform of family payments

Keating and Lambert (1998a and b) put forward a proposal designed to rationalise means tests for families. This proposal is updated in their Submission to the Senate Inquiry into tax reform (K&L 1999). Their EITC scheme is actually an adjunct to this proposal.

K&L's method is to first establish a family's potential entitlement for assistance, and then establish their actual entitlement based on their assessed financial means. For pragmatic reasons, pensions and allowances would continue to have different free areas. However, all allowance tapers would become 50%. At the new family payment threshold of $28,200 pa "second tier" payments would start to abate at a rate of 30%. This tier includes FTB(A), FTB(B), Youth Allowance (YA) and Rent Assistance (RA), and would ideally have included childcare assistance.

Part of the proposal is financed by abolition of the quasi-universal (second tier) component of the Family Tax Payment. The net cost of the proposal is estimated as $1.1 billion, or $1.6 billion inclusive of allowance taper reform. This compares with the ANTS family package of $2.3 billion in 2000-01.[73]

The reason that the K&L plan can unstack all these payments, reduce allowance tapers and still be cheaper than the NTS system of family payments is that the latter still involves considerable "horizontal equity" type payments. For example, after first tier FTB(A) is exhausted, a flat rate payment continues to be made up to family income of $73,000 pa. Similarly, FTB(B) is tested only on the spouse's income, not that of the working partner.

The K&L plan not only provides for a single taper but also effectively adds FTB(B) and (A), so that both taper on the combined parental income. The same effect could be achieved under the present system if FTB(B) were abolished, and replaced by higher payments for younger children in the FTB(A) rate structure. The effect would be to make the age/rate structure for family benefits almost flat. I advocate a similar reform in Chapter 5.

Bits of detail in K&L need clarification. One problem is that the new family payment threshold of $28,200 only makes sense if the allowance taper continues to be 50/70%.

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[73] These costings are prior to the rate rises in the NTS Mk ii. They are used here for ease of comparison.

Otherwise, the family payment and allowance tapers interact to produce a "sudden death" loss of FP on coming off an allowance. This could be resolved in the proposal by setting the new threshold at approximately $33,500, which is the new maximum allowance cutout point with a 50% taper.

There is no discussion of the administration of the K&L scheme. In 1991 the NZ Government, with a similar system of means tested family assistance to that in Australia, put forward a new vision for social security named "family accounts" which appears to have been very like the K&L plan, with the addition of means-tested health services (St John 1993, p39). Full integration was to proceed in steps, since existing provisions could not be placed on the new basis overnight. St John notes: "After considerable effort and expense, the work on family accounts was finally abandoned in mid-1993. It was an idea that proved complex and unworkable" (1993, p.40). However, some of the difficulties appear to have related to the inclusion of health benefits in the plan (see Boston and St John, 1999).

Family accounts proved unworkable because the modern family cannot be easily defined and its circumstances put on a smart card, as the 1991 idea of 'global abatement' proposed. Using the family unit presupposes some stability in its structure and is desperately complicated by the fragmentation of the modern family, older children being dependent for longer, blended families and the like.

K&L is less ambitious than NZ family accounts and the administrative difficulties should not be insurmountable. K&L's objectives might be achieved simply and directly by introducing a set of pre-defined thresholds, disregards, and sequential tapers applied (using a common income period) to FTB, RA and YA. If RA were included in the option, and if allowance tapers were reduced to 50% (with consequent adjustment to the new FTB threshold), the aims of the K&L plan would be achieved.

I conclude that the K&L plan, suitably developed, might be a good one, but its financial feasibility may depend on Government's willingness to abolish the remaining quasi-universal family payments. This in turn depends on the relative importance one attaches to EMTR problems in the system compared with meeting horizontal equity concerns amongst middle and upper income groups. Alternatively one could proceed in this direction without abolishing the quasi-universal payments, but the net cost could be quite high.

# 6 CHAPTER 6: TAX AND SOCIAL SECURITY INTERACTIONS PART TWO: FUNDAMENTAL REFORM OPTIONS

## 6.1 Introduction

Chapter 5 described current problems in the interaction of the tax and social security systems, analysed the impact of the new tax system reforms, and proposed a number of reforms aimed at further addressing problems of high effective tax rates and associated work disincentives.

This chapter takes the analysis a step further by considering more major structural reforms which could address such problems in a systematic manner, and allow the implementation of a designed set of effective tax rates (ETRs) for social security clients and taxpayers.

There are four main classes of reform options, namely:

1. **Negative Income Tax (NIT) or Guaranteed Minimum Income (GMI)**

2. **integration of tax and social security,** abolishing separate social security means tests and using a system of income tax surcharges and/or special rates to recoup benefits as income rises

3. **full separation of the two systems,** using special tax scales or tax rebates to avoid tax cutting in until benefit entitlements are fully exhausted; and

4. **full (integrated) coexistence,** such that the combined tax and social security tax rates approached a desired configuration.

The notion that the tax and social security systems should he more closely integrated has had considerable currency in Australia and overseas. In Australia, it reflects current concerns about high ETRs, with consequent disincentives to earn additional income or to save for retirement. While a number of *ad hoc* rebates have been introduced (and increased) in order to exempt basic rate pensioners and beneficiaries from liability to income tax, this approach falls short of providing long term solutions and can create new problems of its own. For example, withdrawal of such tax rebates increases effective tax rates over the income range it is withdrawn.

With 4 million welfare clients at any one time (and more over the course of a year) as compared with some 8 million taxpayers, it might be questioned whether it is appropriate to maintain two separate administrative systems, each with their own rules, definitions and procedures, and both charged with essentially the same role: reducing net disposable income

according to some measure of need. If the net value of social security benefits could be withdrawn through the positive tax system, administrative burdens on Centrelink could be reduced, compliance facilitated, and ease of understanding greatly improved. This is the reasoning behind advocacy of the NIT and similar reform proposals.

## 6.2    The Negative Income Tax (NIT) Or Guaranteed Minimum Income (GMI)

The current system provides benefits to the poorest in our society in a manner not too far removed from a NIT or GMI scheme, albeit of the categorical (and conditional) type. The main condition is that a person who is assessed as being able to work – that is not aged, disabled, a carer or parent, or sick – is expected to actively seek work. However it is a GMI characterised by poor design, excessive complexity, and unwanted overlaps with the tax system and other income transfers. It must be said, however, the Australian system is very redistributive and manages to be significantly more generous to the poorest than the OECD average, when the purchasing power of basic benefits is compared rather than replacement rates (Whiteford 1997, p48).

Admittedly, the current system's ability to help the poorest is achieved by something of a subterfuge: clients often do not understand the extent of the very high effective tax rates they face, and these are in part the secret of the scheme's ability to redistribute. However they are also one of its major weaknesses. There are also social and political difficulties created by helping the very poorest, while doing relatively little for those just outside this group. These difficulties are manifested in recent proposals to provide extra assistance, such as earned income tax credits (EITCs), to low wage earners: see Ingles and Oliver (1999a and b), and Ingles (2000). But the EITC proposal does not sit easily with Australia's system which is essentially based on the GMI approach, and which already provides substantial in-work assistance to low-income families.

There are several radical NIT or guaranteed minimum income (GMI) options that have been proposed to address design problems. The most recent is the NIT proposal of Dawkins *et al* (1997, 1998a), although this is one in a long list of similar proposals stretching back to the Poverty Inquiry (Henderson, 1975) and beyond. One of the important contentions of this chapter is that it is not necessary to so radically overhaul the whole structure of the tax/transfer system in order to achieve many of the benefits being sought.

The basic philosophy underlying the GMI approach involves rejecting categorisation (by age, disability etc.) as a criterion for assistance in favour of using low income as the sole indicator of need. But the NIT in its pure (ie non-categorical)[74] form has a number of significant problems. These include:

- the very high tax rates required across the whole population if the basic income guarantee level is to be at the same rate as existing categorical payments (this is estimated as 57% by Dawkins *et al* - 1997 p2),

- the consequent possibility of a significant general work and saving and/or tax avoidance response

- the apparent extension of assistance to those whose need may not be great, such as those voluntarily not in the workforce

- if the tax definition of income is adopted in the unified system, as proposed by Dawkins *et al*, the social security system loses the ability to distinguish those with substantial assets.

Given the problems of taxpayer resistance already being encountered in the income tax and the likely efficiency implications of placing further weight on this tax, this seems unlikely to be generally acceptable. On equity grounds alone one could question the appropriateness of placing further weight on a definition of income already widely regarded as deficient in measuring real command over resources (unless there is a thoroughgoing reform of the tax base towards a more comprehensive income definition, possibly including the inclusion of imputed asset income[75]).

There is also the issue of the likely public reaction if benefits were payable without any test on work intentions. The Commission of Inquiry into Poverty felt that its proposed GMI would not damage work incentives because 'Australians have no respect for the bludger' (Henderson 1975, p.391). In contrast, the Taxation Review Committee argued that GMI schemes seemed likely to have 'consequences for incentives to work and save which make it impossible to consider such a scheme seriously' (Asprey 1975, p. 180).

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[74]"Non-categorical" implies that the full negative income guarantee would be available to all those with sufficiently low incomes, without reference to their eligibility under categories such as the aged, invalid, unemployed etc.

[75]As proposed, for example, by D Dixon (1985).

The Committee of Inquiry into Poverty (Henderson 1975) and the Priorities Review Staff (1975) both recommended a shift toward a GMI system integrating benefit withdrawal into the positive tax system. Neither the Poverty Inquiry nor the Priorities Review Staff actually went so far as to advocate the removal of all forms of categorisation, as implied by the pure form of GMI. Rather, they would have applied one level of income guarantee to existing categorical groups and a lower level to others. The effect would have been to diminish, but certainly not eliminate, the effects of categorisation. Since for many taxpayers the effect of the low guarantee would be broadly similar to that of the existing tax threshold, the overall distributional impact would be broadly similar to the existing system.

Similarly, Dawkins *et al* proposed a number of modifications that allow the required linear tax rate to be reduced:[76]

- The first sub-option (1b) involves lowering the guaranteed minimum income (GMI) level by 25% to reduce the required tax rate to 45%. Dawkins *et al* correctly note that this approach is "unlikely to be acceptable" (p19).

- The second Option (2) tapers out the tax credits on middle incomes, defined as between $30,000 and $80,000. Basic benefits must be cut by 19% in order to achieve the target 45% nominal tax rate, and the tapering out of credit causes the effective tax rate to rise over the taper range.

- Option (3) is similar to (2), but with an initially higher tax rate of 60%, a nominal rate of 30% on middle incomes (but a higher effective rate due to the tax credit taper) and a nominal and effective tax rate on incomes over $80,000 of 50%.

- Option (4a) proposes the continuation of some degree of categorisation. Current categorically eligible groups would receive a full GMI; the remainder of the population would be eligible for a GMI equal to 25% of the maximum. In this "two tiered" GMI system (which is quite similar to Henderson's original proposal), the flat tax is computed to be 52% (p23).

- Further sub-options (4b and 4c) might allow the flat tax to be reduced to 50%, but all involve a higher effective rate at some point in the income distribution (pp24-25).

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[76] These options are drawn from Dawkins et al 1997. Dawkins et al 1998a provides an essentially similar proposal, but with some modifications.

What this illustrates is very simple. That is, it is very difficult for a NIT to avoid most of the issues that underlie difficulties in the existing system - principally categorisation and high tax rates on low-income earners - if any new system is to be socially and politically acceptable. (This is quite aside from any questions as to its economic credibility).

Given this, and all the problems that will therefore remain - proving eligibility, definition of the income unit, the time period for assessment, etc - it might seem preferable to stick with the current system for the moment and adopt a more incremental approach, albeit paying particular attention to low income earners.

It is interesting to note the differences between Dawkins *et al*'s costing and those of the Poverty Inquiry. The Poverty Inquiry thought that a pure GMI would involve a financing tax rate of 50% (Henderson 1975 p74); Dawkins *et al* suggest 57%. The Poverty Inquiry's two-tier GMI involved a 35 or 40% general tax rate; Dawkins *et al* suggest 52%. While there are some differences of detail, the main differences between now and 1975 are the greater coverage of the social security system, and the higher real and relative rates of benefit for some groups, such as children. These have made a GMI an even more difficult proposition than it was in 1975. However the introduction of a GST has eased EMTR problems for some groups (see Chapter 5), and should lower the required NIT tax rate.

Some specific issues with the GMI are:

1.  Is it desirable to avoid categorising the population into various eligible groups,

2.  Is a linear benefit withdrawal-cum-tax rate optimal?

3.  Should additional assistance needs to be directed to low wage earners (Dawkins 1996)?

These are discussed below.

### 6.2.1  To categorise or not?

There is no doubt that the present categorical system is complicated, cumbersome and arbitrary (see eg Perry 1995). There are apparent attractions in moving to a system where the only criterion for assistance is low income. However, there are also major problems:

- such a system cannot discriminate between those whose low income is voluntary, and those for whom it is not - ie, there would be no work test for the able-bodied unemployed; and

- some individuals, notably the self-employed and those with substantial asset incomes, are able to manipulate their affairs so as to declare an apparently low income when in fact their full (comprehensive) income may be quite adequate.

In relation to the first point, current policy is moving dramatically away from the concept of a social security payment as an unconditional entitlement for those of working age, and current rhetoric focuses instead on the idea of 'mutual obligations' (see eg. Reference Group on Welfare Reform, 2000a and b).

On the second point, it is interesting to note that the Youth Allowance means test attempts to better assess the real income of the self-employed by using the so-called "actual means test", which involves a mixture of wealth and consumption measures. However there are major difficulties with this test. When applied to the pension system in the late 1970s the test on income only gave rise to widespread "income rigging' practices, resulting in the re-imposition of the asset test. Until such issues are resolved, using low income as the only criterion of need for assistance, while theoretically attractive, is probably not workable.

For these reasons I will assume that some form of categorical system will continue to operate. However some of the options discussed in this chapter have the effect of sizeably reducing differences in the treatment of those categorically eligible and those not, and this will generally be a desirable direction for reform. Low income earners might be best assisted by measures such as raising the tax threshold, since this involves much reduced measurement and incentive problems (see the discussion on "convergence" later in this Chapter).

### 6.2.2 The optimal tax/taper rate

Dawkins *et al* estimate that even if categorisation were retained, the linear tax/taper rate required to finance existing maximum benefits would need to be 50%, if it were uniform across income classes (1998a p251).

Raising the benefit withdrawal rate can reduce the general tax rate; the appropriate trade-off between these two is a difficult issue. "Optimal tax" theory has tended to suggest that a linear rate is optimal, but this conclusion is by no means universally accepted and depends on the limitations inherent in optimal tax analysis. There may in fact be good economic reasons for a higher initial marginal rate (Chapter 4).

Suffice to say that the precise way this question is answered probably does not matter too much, if considered purely in terms of economic efficiency. From a horizontal and vertical equity perspective, however, it is highly desirable that ETRs do not exceed, say, 75% over any substantial income range. Otherwise, because of childcare, travel and other costs, there is no effective gain from working - and for the retired, little incentive to invest in assets subject to asset test or deeming provisions.

Chapter 5 showed (Table 3) that ETRs for some of our payments are in fact in excess of the 75% figure, although implementation of the NTS has reduced ETR problems for families. It is mainly in the allowance area (Newstart Allowance and Parenting Payment (Partnered)) that high ETRs now arise. There can be disincentives to move from part-time to full-time employment and/or for a spouse to take up employment if a couple is in receipt of these payments.

In Chapter 5 I argued that high ETRs for allowees are best addressed by action on the tax side, rather than further lowering tapers. Reducing tapers exacerbates horizontal inequities between those categorically eligible for payment and those not, and there is already a substantial group of low income earners not eligible for any categorical payment. The size of this group is indicated by the $3 billion estimated cost of extending eligibility for Newstart allowance to full-time earners[77].

### 6.2.3  Low wage earners

Low wage earners are a policy concern partly because of the increasing dispersion of earnings in Australia (see eg Gregory 1993), a problem we share with a number of other OECD countries, and partly because a number of economists have argued for pursuing increased earnings dispersion in order to allow the creation of more jobs (Dawkins *et al* 1998b). Dawkins (1996) and Dawkins and Freebairn (1997) have argued the economic benefits of moving towards a more decentralised (ie market oriented) wage system, while using the social security system – either through a NIT or an EITC - to prop up the incomes of those who would otherwise be disadvantaged - notably the low-skilled.

The NIT proposal is not without adverse consequences for work[78]. Low wage earners can be helped in many different ways. If we wish to direct additional assistance to those not in

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[77] Many of these would be self-employed people currently excluded by the activity test – ie, they are not regarded as 'available for work'.

[78] Dawkins et al suggest that a NIT would "provide a safety net for all families without dulling incentives to enter paid work. Indeed, it could be expected to improve the incentive to work [by virtue of reducing poverty

the social security system but with earnings below the existing tax threshold, then the NIT or refundable tax credit approach may be required. But it seems more likely to me that our main concern should be the deteriorating position of those on low full- or nearly full-time earnings - ie, with incomes well above the current tax threshold (Ingles and Oliver 1999).

It follows that the most direct way to help the relevant target group is by reform of the tax rate structure. One option is an EITC; another is to substantially raise the tax threshold and, if necessary, finance this by imposing a higher initial marginal rate (currently 17%). The effect of the higher initial rate is to quarantine the benefits of the threshold increase to low income earners[79]. As described later, however, there are problems in a policy of raising both thresholds and the first marginal rate; it can actually exacerbate the EMTR problems described above. Hence the preferred policy approach canvassed later in this chapter is to apply a partial family basis to the tax structure, extending the lowest (17%) tax bracket from $20,000 pa to $29,000 pa for couples.

The New Tax System (NTS) increased the tax threshold to $6,000, or effectively $6,882 inclusive of low-income rebate. Single income families with a young child are claimed[80] to have an effective tax threshold of $13,882, made up of the new $6,000 threshold plus $2,000 for one dependent child and a further $5,000 for single income families with a child under 5 years of age under FTB(B), plus $882 from the low income rebate.

There is a dubious logic in paying a *refundable* tax credit – in fact a cash benefit - such as the FTB(B) and calculating a tax threshold as if that were a conventional tax rebate. It is true that the family is at least as well off in cash terms. But families in receipt of FTB(B) in fact face positive tax rates at income levels well below $13,882, particularly if some of that income is earned by the spouse.

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traps and low income traps]" (1997 p413). While it cannot be ruled out that reform of low-income traps may improve work incentives for those now subject to them, it is wrong to imply that a NIT would necessarily improve aggregate incentives to enter paid work. In the US NIT experiments conducted during the 1970s, an aggregate loss of labour supply of around 10 percent among recipients was found (see Burtless 1987). While this would vary in the Australian situation depending on a number of parameters, the predicted effect on work effort by low wage earners currently outside of the current social security system is certainly negative. This is because income and substitution effects are both operating in the same direction below the NIT breakeven point, to depress labour supply. This must be counted as a cost to be offset against the hoped-for benefits of moving towards a more deregulated wage environment.

79 One objection to raising the tax threshold is that this is not target-efficient, because it benefits high-income earners, secondary earners, income splitters and the like. This objection is partly addressed by the claw-back proposal in the text. Moreover, the usual remedy proposed - to means test the threshold - can involve a structure of effective marginal rates which is rather strange, involving a middle income zone where such rates are higher than at high incomes.

[80] In the New Tax System literature.

Hence individuals, couples and families on quite low incomes are presently required to pay income tax. One reason for wishing to reduce their tax burden is both to decrease interactions between means tests and income tax, and to increase the rate at which the incomes of social security beneficiaries "converge" with the incomes of those who have no categorical eligibility. The issue of convergence is discussed later in this Chapter. In that section I conclude that one option for full tax-social security integration requires that tax thresholds be set at the cutout points for receipt of basic benefits, and that – as a matter of financial necessity - beyond those points quite high tax rates should apply.

## 6.3    Integration of tax and social security

Integration has great theoretical attraction, as stressed, for example, in the Report of the Taxation Review Committee (Asprey, 1975). It is based on the question of whether it necessary to maintain two separate administrative systems, each with their own rules, definitions, and procedures, and each charged with a very similar function: ie, to supplement or reduce net disposable income according to some measure of need.

"If the net value of social security benefits could be withdrawn through the positive tax system, administrative burdens on the DSS could be reduced, compliance facilitated, and ease of understanding greatly improved" (Ingles 1985). In a like manner, Dawkins *et al* argue that "Part of the complexity of the tax transfer system arises simply because taxes and transfers are administered separately" (1998a p240).

While the NIT is one approach to integration, there are others. In Ingles (1985) I showed how integration broadly based on the current system might proceed. Separate social security means test would be abolished and replaced by special tax scales for those in receipt of a social security payment. The scales, which could be designed to broadly replicate the effective tax rates now applicable, would be applied to the joint income of pensioner and allowee couples, as under the current system.

The Asprey Committee was favourably disposed to eliminating social security means tests in favour of relying on the positive tax system to modulate net benefits according to need. The report envisaged the use of a separate rate scale superimposed on the standard rate structure, noting that while such an arrangement would be a…"complicating element in the administration of the normal tax system …it would allow a simplification of the public finances as a whole by the abolition of the existing complicated means tests" (Asprey 1975, p.179).

The Meade Committee, which studied options for taxation reform in the United Kingdom, was similarly attracted to the possibility of dispensing with separate social security means tests in favour of reliance on the general tax system, suitably modified, to claw back net benefits as private incomes rose (Meade 1978, pp.269-307). A member of that Committee subsequently collaborated in a book proposing a wholesale reform of the United Kingdom social security system based on use of the refundable tax credit mechanism. That proposal also involved amalgamation of taxation and benefits payment administrative systems through combined local offices (Dilnot et al. 1984), similar to the new Family Assistance Office set up to administer the FTB in Australia.

The Poverty Inquiry had argued that, short of a full GMI, taxation and means test arrangements should at least be consistent. While they felt that capital gains should be taken into account for pension purposes, "pension practice should seek to follow changing income tax definitions in this matter".

While the practice of 'income rigging' eventually moved the Government to re-impose an asset component in the means test, it could well be argued that the problem being encountered in the pensions area were only a reflection of more general problems in the tax treatment of capital incomes. It is far from obvious that the test of 'ability to pay' in the tax system should differ from the test of 'need' in the pension system, when in fact the different tests apply to so many of the same people, and interact over the same ranges of income.

Different definitions of resources are thus one obstacle to integration of tax and means tests. Other problems are the different assessment units (the social security system generally combines income of spouses) and differences in the time period to which assessments apply - whether that be the financial year (tax), the anniversary of take-up (pensions), or the fortnight (unemployment and sickness benefit). Clearly, these differences are major obstacles to integration. That is not to say that they are insuperable.

In early papers on this issue, Dixon and Foster of the then Social Welfare Policy Secretariat (1983a and b) argued that full integration was not then feasible and may in fact be undesirable because of the different redistributive objectives of the tax and social security systems. Also, there would be objections to changing the tax system from an individual to a family unit basis and the alternative - changing the social security system to an individual basis - is not likely to be feasible in terms of cost. It would imply, for example, access to unemployment benefits for many married women presently precluded

by their husbands' income. Dixon and Foster concluded that it was more feasible to consider arrangements under which pensioners who are subject to means tests are not also subject to personal income tax.

### 6.3.1 The case for full integration

While the Dixon-Foster proposal does achieve significant reduction in administrative overlap and effective tax rates, it is not intended to achieve full integration with the tax system. Indeed, its basic logic is to achieve full separation. While this may ultimately prove to be a suitable direction for reform (see next section), it would seem desirable that the possibilities for full integration at least be explored, since the attractions, at least in theory, are considerable. The social security and taxation systems can easily be seen as two sides of the same coin - we seek to support those who need it, and to finance that support from those who have the capacity to pay. Withdrawing benefits as incomes rise is similar in its incentive and distributional effects to taxation. There may be good reason, therefore, to standardise our tests of 'need' and 'ability to pay' in a single coherent system.

In considering similar proposals for reform in the United Kingdom, Dilnot et al (1984) suggest: 'In Britain and elsewhere, the two systems grew up separately because they operated for two essentially distinct groups of people. One class of people paid taxes, and another received benefits. The two administrations developed in different buildings and in different styles. If it had been envisaged that one day most people would be both taxpayers and benefit recipients, it is inconceivable that things would have developed this way . . . The school-leaver obtaining his first job, the newly redundant worker, the person planning to retire, the newly bereaved widow, will provide the same information and answer rather similar questions for both the Inland Revenue and the DHSS[81]...' (p.86).

The situation in Australia is not very different. In relative terms tax liability now extends much further into the income distribution than it did in the formative years of social security. The extent of overlap between taxpayers and social security recipients is considerable and will continue growing under the impact of the NTS measures. Quite apart from it being cumbersome, many find onerous the necessity to pay even small amounts of income tax when their benefits are already being means tested.

The case for some degree of integration would appear therefore to be strong:

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[81] The UK Dept of Health and Social Security

- administrative duplication could be eliminated in payments and assessment systems;

- compliance costs could be eased for clients of the system;

- enforcement would be facilitated by concentrating the resources of the two systems;

- ease of understanding would be facilitated; and

- current difficulties in defining the period of income assessment might be reduced or even eliminated.

Overall, a much cleaner and fairer system could be expected to eventuate: Chart 6.1.

In the proposal that follows, emphasis has been placed on more or less replicating the main incentive and distributional features of the existing system, not because these are necessarily appropriate but so that the issues of administrative reform can be clearly separated from the substantive policy issues of the appropriate means test structure. Nonetheless, some changes are incorporated into the proposed system simply because it would be almost impossible, administratively, to structure a sensible integrated system around all the diverse characteristics of the present system. Where possible, current schedules of effective

**Chart 6.1: Integration**

breakeven level
(beneficiary reverts to
ordinary tax scale)

special tax scale

ordinary tax scale
(Note: tax payable
from zero since
pension is taxable)

EMTR

70%
60%
50%
40%
30%
20%
10%
0%

private income ($'0000)
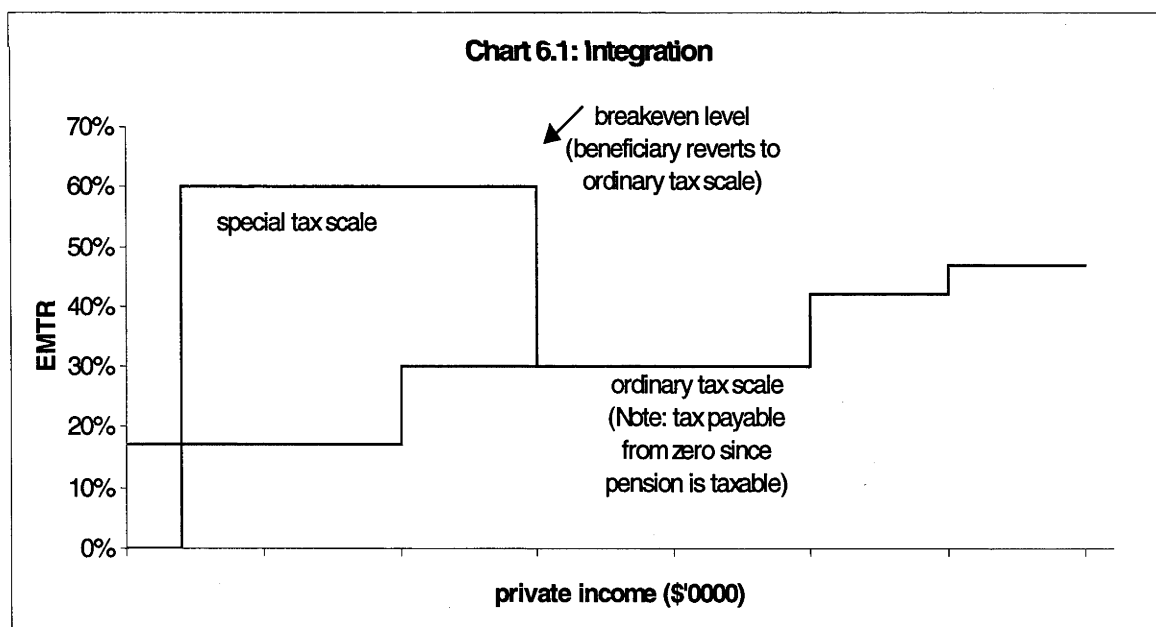
tax rates have been 'smoothed' to iron out the worst of current inconsistencies.

## 6.3.2 Details of the full integration proposal

### 6.3.2.1 Pensioners

Separate social security income tests would be abolished and replaced by special tax scales applicable to those in receipt of a social security pension. For those on pension for less than the full financial year, a special part-year tax system would be adopted, along the lines of Dixon and Foster's (1983b) proposal. The normal tax system would apply on a pro-rata basis for that part of the year when not in receipt of pension; the special pensioner rate would apply, also on a pro-rata basis, for the remainder of the year. These scales would be applicable to the joint income of pensioner couples, as under the present income test.

Pensions would be entirely freed from tax. This is not essential to the proposal but is administratively convenient, since it means that the special scales need not be altered each time there is a general rate increase.

The special pensioner tax scale is as follows. For each dollar of non-pension income above $2,756 a year, a tax rate of 60 cents would apply. For couples, the first step would be $4,880. These limits correspond to the current pension 'free areas'. The tax rate of 60 cents in the dollar is higher than the 40% pension taper and, indeed, than the top marginal rate of personal income tax. But as Chapter 5 showed, it is in fact reflective of the rates applicable over wide ranges of pensioner incomes, under the NTS.

These withdrawal rates would result in break-even points, where there is no further advantage in remaining on the pension, at levels of income broadly similar to the pension cutouts now applying. At these points, the pensioner would be automatically transferred back to the normal taxation system. There would be end-of-year tax reconciliation, so no pensioner would be advantaged or disadvantaged by failure to transfer back to the tax system at the appropriate time. Most pensioners, once on the system, would simply remain on the special rate scale over the full financial year.

Centrelink would act as a withholding agent for the Tax Office, by deducting appropriate amounts from the pension on the basis of compulsory income declarations. (This is in fact possible under the present system, but declaration is not compulsory and few pensioners do declare.) The Tax Office would be responsible for end-of-year reconciliation, enforcement and compliance.

There will clearly be occasions where pensioners under- or over-declare income, or simply do not know what their taxable income is likely to be. (This also occurs under the current system.) In order to avoid large end-of-year reconciliations, withholding should be based on cumulative adjustments, in a similar manner to the present pension system.

### 6.3.2.2 Possible problems

For FaCS/Centrelink the administrative task would not be all that different to the current one, except for the need to liaise with the tax office to effect end-of-year reconciliations. In general, these would not be large. For full-year pensioners, the system should have withheld appropriate amounts on the basis of the cumulative assessment procedure.

There will be a problem in allocating income between periods on and off pension. In general, income subject to PAYE withholding will be allocated to the pay periods over which it was earned. Other income (eg. from capital) will need to be spread over the special and normal tax periods on a pro-rata basis.

This may appear to be an unnecessary complication. An alternative procedure would be simply to apportion total annual income between the special and normal tax periods on a pro-rata basis. This would have the considerable advantage of being even-handed as between part-year and part-time earnings - the latter being discriminated against under the current system. But there would also be important problems. Those coming onto pension after being in the workforce for part of the year might find themselves with little residual entitlement. Those leaving pension to take up work would find themselves having, in effect, to pay back part of the pension already received, since many in this position would find themselves with a large end-of-year tax liability. Hence the use of only the financial year basis of assessment may not be feasible.

The need to administer a joint tax unit may cause some problems for the Tax Office. However, it is not a complete departure from previous practice, since such a unit now applies for assessing eligibility for the dependent spouse rebate and the Medicare levy.

Some of these difficulties might be resolved by a more thoroughgoing integration of the respective roles of social security and the tax office. Dilnot et al. propose, for the United Kingdom, that the tax office be integrated with benefits administration so that the local office of the joint organisation would be the normal point of contact with the tax or benefit system for the average person. In Australia a similar system has been established for the

new body (the Family Assistance Office - FAO) which now administers family payments. It may be, however, that this degree of integration is not necessary to substantially achieve the potential administrative advantages.

While the administrative obstacles appear to be superable, a significant obstacle to integration is the differences in the tax and social security income definitions. In general, it would appear to be desirable to standardise to the tax definitions, although widening of the tax base would clearly improve the equity and effectiveness of the joint system.[82] The desire to maintain a separate assets component in the social security system is an important reason for preferring the full separation option described in the next section.

### 6.3.2.3    Allowances

Unemployment (Newstart) and Sickness Allowance would be subject to essentially the same system as pensioners, the only difference being that the 60 per cent tax rate would apply beyond $31 a week of private income for both single and married beneficiaries, and an 80% per cent rate beyond $71 a week.[83] These tax rates broadly preserve the existing structure of net benefits, although there might be a case for some easing of the 80 per cent rate in the light of the other features of the system - see below.

As in the case of pensioners, it would be inappropriate for Centrelink to pay benefits on the basis of cumulative income over the financial year to date of application, since needs are likely to be immediate when the event giving rise is unexpected. Rather, entitlement will need, as now, to be based on a fortnightly income assessment, and a part-year tax scale would apply for periods on and off benefit.

As Dixon and Foster (1983b) have shown, adoption of the part-year tax assessment basis can imply an offset to the value of unemployment benefit received if the recipient returns to work. In the extreme case where a high rate of income is earned over a short period of time - as in the case of some seasonal workers - the full value of the benefit would be progressively withdrawn so that it became more akin to a loan.

This feature may not be unattractive, and is in part replicated in current eligibility rules for seasonal workers. Dixon and Foster note that under the current system an individual can

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[82] Some problems also attach to the different treatment of maintenance payments and compensation payments in the social security system.
[83] The system could be designed to replicate the partial individual basis of the current system.

receive both the value of the tax threshold and the progressive rate structure, as well as any person or benefit received in the year. Under this alternative treatment, they can access only one of these forms of 'income support' at any one time.

These arguments are similar to those put forward in the report of the Taxation Review Committee: 'in the cases of those social service payments that are normally of a short-term character, especially sickness, retraining and unemployment benefits . . . needs may be urgent and substantial, the poverty very great but essentially temporary. The recipient may well be out of it again before very long. Over a year in which he had months of acute need, fully meriting assistance on equity grounds, he may prove retrospectively to have had an acceptable total income. The community might be prepared to give temporary assistance more promptly and with a less sparing hand if, when the recipient is subsequently restored to financial comfort, he repays via the tax system some or even all the help.' (Asprey 1975, p. 179)

As in the case of pensions, this procedure should not give rise to large end-of-year reconciliations. The current system tends to result in tax refunds for those who are unemployed for part of the year, since the PAYE procedures tend to over-deduct for part-year income earners. By contrast the part-year tax system would result in more exact deductions. However, some form of compensation might be justified for the harsher treatment of part-year earnings, along the lines of Asprey's argument that the community can be more generous if the 'loan' is repayable. Such compensation could take the form of higher basic rates, or an eased income test, or both.

The current system treats part-week earnings while on benefit rather harshly, part-year earnings (while off benefit) much more liberally. There would appear to be much to be said for a more even compromise between these two extremes, even if that is a perhaps unintentional side effect of the desire to achieve greater administrative integration with the tax system.

### 6.3.2.4    Family payments

Under the NTS, family payments have been integrated into the tax system. There would appear to be a number of potential benefits: the relationship of benefits to income will become more certain and more immediate, and the extensive resources of the tax system can be used to check and facilitate compliance. Entitlement to family payment is based on

the estimated joint income of the parents for the current financial year, using such information as pay notices and previous year tax returns.

Assessment based on income over the full financial year is more feasible in the family payment system because it is meant only to be an income supplement; it is not designed to provide full support for a family. However there will still be cases where a family, previously on a high income, suddenly has need of a benefit and where it may not be desirable to reduce supplements for family needs on the basis of previous high income. For these sort of reason the current situation that a family on an allowance receives the full rate of FTB(A) automatically will continue.

Such income support recipients are quarantined from the full end-year reconciliation. Otherwise, they could find themselves not only with high EMTRs on moving into the workforce - which would be dependent on what point of the financial year they made the move - but also (depending on income while in work) a potential liability to pay back some and perhaps all the family payment they had received while on income support. It would be easy to incur a net tax debt in these circumstances, even taking into account the over-withholding of PAYE tax that occurs for part-year earners.

While this could be regarded as horizontally inequitable as between part-year income support receipt and part wages, versus low full-year wages, the alternative of full reconciliation would likely lead to even worse problems.

The most radical option is application of the full 'tax credit' principle whereby benefit entitlement would offset any tax liability so that only the appropriate net benefit would be paid to, or tax be paid by, the recipient unit. This is the approach adopted in the new UK Working Family Tax Credit (WFTC) system. The obvious advantage is that running adjustments as incomes change will be made by employers through the PAYE system. A major disadvantage, however, is that it becomes more difficult to direct assistance to mothers if they are not working. There could also be high compliance costs for employers, a problem in the UK.

The full separation proposal in the next section deals with this issue in neat manner by ensuring that people are either in the benefit system – in which case they receive the appropriate amount as a direct payment – or in the tax system, but not both. Problems only arise in the case where a family is close to the edge of one system, and crosses over to the

other from time to time. This problem is addressed by the imposition of a special part-year tax rate.

### 6.3.3 Conclusion - integration

The proposal demonstrates that the obstacles to integration of pension and tax are not as great as have sometimes been thought. In particular, differences in the period of assessment and the income unit need not stand in the way of reform. However the compromises necessary in order to achieve full integration might reduce the apparent attraction of going down this road and Centrelink, in taking over the function of withholding the correct cumulative amount of tax, may be embarking on a task not all that different from that it now undertakes in administering pension and allowance means tests.

A particular problem, not so apparent at the time of writing my 1985 article, is the very different income definitions prevailing in the two systems. It can be questioned whether such definitions have now diverged so greatly that the integration option is no longer practicable.

These differences include the inclusion of imputed asset income in the social security means test, the disallowing of negative property incomes, and the inclusion of certain work-related fringe benefits. Returning to a tax definition would amount to the abolition of the asset test and the income deeming provisions resulting, in effect, in a test of income only. This proved completely unviable in the late 1970s and early 1980s. If the tax definition of income were to become more comprehensive (say, by including a deemed income component as a sort of minimum tax on capital income – see Dixon 1985), then the full integration proposal might be worth looking at again.

The asset test issue aside, the compromises necessary to achieve administrative feasibility may reduce the apparent attractions of going down the full integration road. In part, these reflect the aim, in this exercise, of replicating the distributional effect of the current system and might be eased by adoption of a more uniform withdrawal rate. This helps address both the part-year tax scale issues, as well as the issue of how to deal with different income splits within the family. With a fully proportional NIT system these issues disappear entirely.

I conclude that a fully integrated system is the ideal we might aspire to over the long term, but its effective implementation would require a degree of tax base reform that is not currently conceivable.

## 6.4    Full separation

Full separation, while theoretically less attractive than full integration, may be a more feasible option at the current time. Dixon and Foster (1983b) provide a detailed proposal, the objective of which is to ensure that pensioners subject to the pension income test are not also subject to taxation. To reduce the net benefit to higher income pensioners, the taper rate would be increased to, say 60%. The special rebate would be withdrawn beyond the pension cutout points. The rebate abatement rate can be designed such that, combined with the normal rate of income tax, the ETR of 60% applies until the rebate is fully abated (Chart 6.2).

**Chart 6.2: full separation using special tax rebate**

loss of special tax rebate

pension taper

ordinary tax scale

EMTR

private income ($'0000)
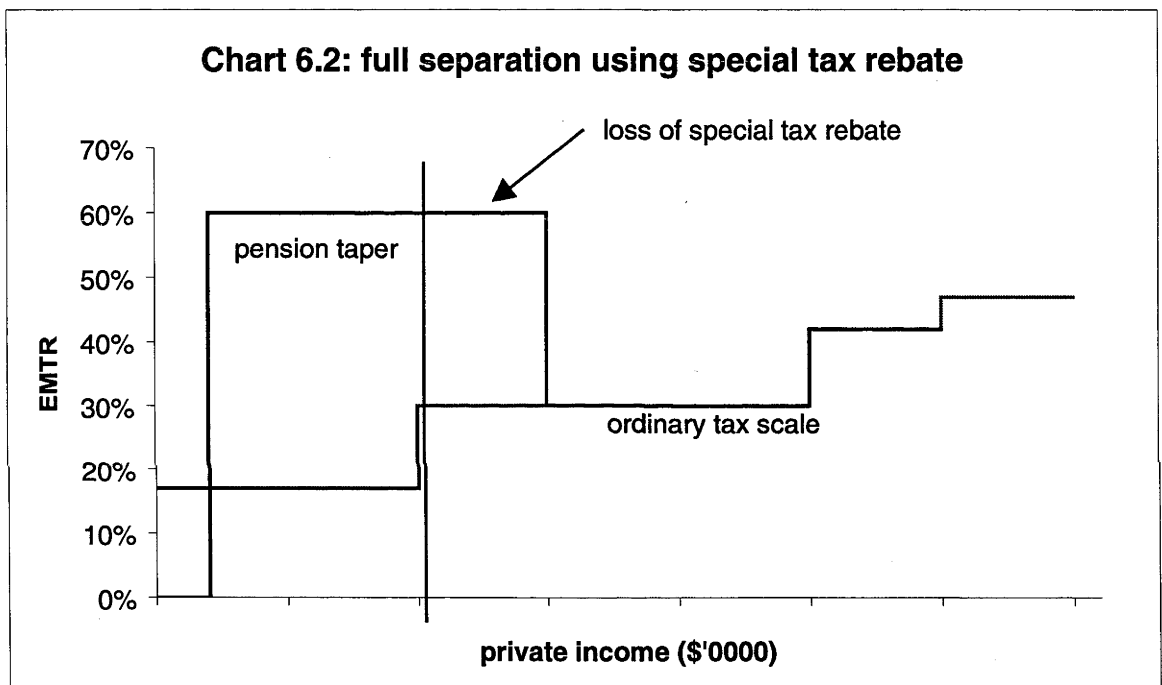
As with the integration approach described above, a special part-year tax system could be applied to those entering or leaving the pension system in any year, in order to simplify administration and to prevent a high income in part of the year prohibiting assistance at other times when it is needed.

The previous government contemplated a similar system, when they promised that age pensioners would be totally removed from the tax system by 1995. The mechanism for doing this is fairly simple, involving extension and modification of the special tax rebate for pensioners.

The Aging Agendas' Review of the pension means test (Barber *et al* 1994) recommended against the Government's promised move, finding that it would create incentives for

current non-pensioners to become eligible for pension; be inequitable in relation to those in the workforce with similar incomes to pensioners; and be expensive. However these comments were in a context where there would not be offsetting changes to income test tapers, and would not be relevant if the taper rate were raised as under the Dixon/Foster proposal.

### 6.4.1 Separation applied to all additional payments

This refinement is not in the Dixon/Foster proposal, but would appear to be a logical extension of their idea.

Additional payments for families (FTB and Youth Allowance) and for rent would be added to basic benefits and also tapered at 60% beyond the benefit cutout points. There would be matching tax credits in the income tax system, which would start to reduce at a rate of 30% once entitlement to all additional payments was exhausted. The combination of 30% income tax (the standard rate under the NTS) and 30% loss of rebate would maintain the ETR at 60% until the net benefit to each family type was entirely exhausted. All such rebates would be withdrawn sequentially.

This system would virtually abolish *churning* (see below). It would also have the advantage that additional payments for children and rent would become subject to the tighter social security definition of income, which includes imputed asset incomes. Thus full separation becomes a very effectively targeted system.

### 6.4.2 Details of operation

There are two alternative ways of operating the scheme. The first is to utilise special rate scales but allow people to flip back to the normal scale once that were to their advantage. The second, as described above, is to use special credits. The following discussion uses the first procedure – special tax scales - since it avoids a lot of practical difficulties that arise because tax obligations depend on income splits within the family.

As with the integration proposal, where a client was on the system only part of the year, income for the year would be pro-rated and the special and ordinary tax scales would apply in that proportion.

**Proposed cutouts ($pa)**

Single allowee        13,759

Allowee couple       25,147

Single pensioner     19,859

Pensioner couple    33,210

There would be higher cutouts for those with children and/or those renting privately. Note that these cutouts are lower than those currently prevailing. However clients are not disadvantaged thereby, since they are not paying tax. If their income are just above the cutouts they are paying reduced tax by virtue of the special income tax rate scale.

**Special tax scales**

For pensioners, the special tax applies at the rate of 60% above thresholds equal to the cutouts calculated above. For allowees without children, the special rate is, say, 75%. The allowee or couple would have recourse to the ordinary tax scale as soon as this was to their advantage; the Tax Office would make this calculation automatically[84].

The effect of the special rate scale is to have a family unit of taxation at lower income levels. At higher levels, taxpayers revert to the quasi-individual unit. It would be consistent to do this in a more whole-hearted manner; that is, to abolish the dependent spouse rebate both for those with, and those without children. Only low-income earners would continue to benefit from the de facto DSR implicit in the higher tax threshold for couples and families. This has the additional advantage of creating some savings for use within the restructuring package.

The special tax scales would be modified where there were dependent children, or where rent assistance was payable. In these cases the scales would have a higher threshold, calculated as follows[85].

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[84] These levels are estimated by calculating the tax that would otherwise be payable at the cutout income levels (assuming no special rebates), dividing this by the required additional withdrawal rate (ie the difference between the special and the ordinary tax scale), and adding this figure to the cutouts.

[85] Note that this proposal in effect amalgamates the proposed new FTB(A) and FTB(B) by providing a maximum rat‹ equivalent to the maximum provided under these two payments if the wife is not working. The combined payment is then tapered on the basis of the joint spousal income, unlike FTB(B), which is independent of the income of the primary income earner. This scheme is therefore better targeted, albeit that it is more generous to families where the‹ is a secondary income earner and young children.

The maximum rates envisaged are generous to families with young children, compared to estimates of relative costs provided by equivalence scale studies. They thus in effect provide some compensation for some of the indirect costs as well as the direct costs of young children, of the sort associated with childcare and the like. Tax package is similarly generous where the mother does not work, but withdraws assistance very quickly when she does (due to the "stacking" of means tests for FTB(A), FTB(A) and possibly Parenting Payment. Economic theory, and estimates of relevant net wage/labour supply elasticities tell us that it is necessary to provide reasonable workforce incentives for secondary earners such as mothers with children.

For each child

|  |  | Add $ pa |
|---|---|---|
| Age | 0-4 | 7805 |
|  | 5-12 | 6568 |
|  | 13-15 | 7928 |

Similar calculations would need to be made, and higher thresholds apply, where there were Youth Allowance children.

Where rent assistance was payable, the special tax scales would rise using the same formula, thus allowing all Rent Allowance to taper before taxation commenced. This formula has the effect of detaching rent assistance from basic allowances, and paying this as an in-work benefit to all low-income earners paying higher levels of private rent. (I have argued for this elsewhere as a means of improving work incentives and incomes for low wage earners – see Ingles and Oliver 1999a.)

### 6.4.3  Integration with the normal tax system

Note that some people have incomes too high to receive pension (albeit below the breakeven points), but would otherwise be eligible. The answer here is that, in the case of pensioners, the special rate scales should apply to the whole of the potentially eligible group: all those aged over 65, for example (and residentially eligible for pension?), and all sole parents.

For working families to receive the benefit of the special tax scale at least one of them would need to be assessed by Centrelink as unemployed, disabled or sick, notwithstanding that their spouse's income may preclude them from eligibility for any direct payment.

There are administrative and other costs associated with this part of the proposal. In effect Centrelink would need to test eligibility not only for its own clients, but also for putative clients in the borderland between part-rate eligibility and the income breakeven points for the special rate scale.

However the magnitude of this task should not be overstated. These are the same people who would otherwise continue to receive a part-rate payment under existing tapers. The special tax scale ought to be regarded as really an extension of the welfare system, and

worthy of attention in its own right as looking after the all-important work/social security interface.[86]

To summarise, the above issues with the separation option, while soluble, do illustrate the difficulties involved in having two different definitions of means in the tax and social security systems. The integration option, by contrast, has a single definition of means and therefore avoids the 'grey area' of people who are ineligible for social security, but not liable to tax. It follows that integration should be regarded as the most satisfactory long-run solution to these problems. Separation provides a good interim solution while leaving open the possibility of a more substantial integration of the two systems at a later stage.

### 6.4.4 Abolition of churning

"Churning" is the phenomenon whereby some beneficiaries also pay tax, and some taxpayers receive benefits. In economic terms churning may not be all that important. If we net out all tax transfers in a single negative or positive tax payment, the marginal incentives facing people will be unchanged. An extreme example is the choice between a demogrant, combined with a linear tax, compared to a NIT with the same level of guarantee and same linear tax rate. Government expenditure would be much lower under the NIT option, notwithstanding that all average and marginal tax rates would be unchanged.

Nonetheless the appearance, under systems which involve churning, that people are paying a lot of tax may be economically important. Economists tend to give perceptions much less importance in tax policy discussion than they perhaps deserve. For this reason it would appear desirable to avoid churning to the extent that it is administratively convenient.

Churning is not easy to measure accurately. The OECD measures churning in Australia as 6.5% of private income - almost the lowest for the whole of the OECD area. This measure is based on the Household Expenditure Survey 1993-94. For each decile of households, transfers are compared with direct taxes, and whichever is lower is then calculated as a percentage of private *income* in that decile (in fact the correctly weighted figure is 4.5% - see Whiteford 1998). Using the same procedure, but calculating churning as a percentage

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[86] In the long term, the real solution here is to align the tax thresholds with the allowance cutouts, and have a high initial marginal rate (in order to quarantine the benefits to those with modest incomes). This approach, which in effect creates a categorical GMI, is outlined in the Section on Convergence.

of total *transfer expenditure*, rather than income, I find it to be almost one-third (32.5%): some $16 billion pa.

This is a large over-estimate. In essence it assumes that there is one income unit in each decile. In fact each decile comprises a huge variety of different household types, including some which combine several income units. An accurate measure of churning would require the use of a full micro-simulation model, and compare direct taxes and transfers for individual income units. A fully comprehensive measure would also include indirect taxes and benefits. Further, even if churning could be entirely eliminated on a current income basis, there would still be churning as measured on an annual basis as beneficiaries move into the workforce and become taxpayers, and visa versa.

But the main point is that even if avoidable churning is, say, 7-10% of total transfers, this corresponds to a huge dollar expenditure in the Federal budget: around $4-5 billion annually. If this could be eliminated, there would be a large reduction in the apparent size of government. This may be of particular importance in an environment where the increase in indirect taxation will see a big rise in government transfer expenditure just to maintain the current real value of transfer benefits.

Churning is entirely avoided by the combination of full separation of basic benefits and of additional payments described in the previous section. Further, because the asset test operates over the whole of the payment system, the combined system is more effectively targeted than any of the other proposals in the chapter.

### 6.4.5   Similarities with NIT and Keating/Lambert proposal

This scheme has many similarities with the Dawkins et al (1998a) scheme for a categorical GMI with a higher (60%) tax rate on social security clients. It is also very similar to the Keating and Lambert (1998b) scheme for rationalising tapers on benefits and family payments. This scheme envisaged amalgamating all additional payments for children, rent and students (and possibly childcare) and tapering them sequentially at a common 30% rate, thus avoiding overlapping tapers. It should really be regarded as an alternative means of implementation. However, it has several advantages compared to K&L's plan and also the Dawkins *et al* modified (categorical) GMI, viz:

1.  Rather than EMTRs being a somewhat unpredictable outcome of tax interactions (in K&L), they become a single designed rate.

2. "Churning" is abolished. Those who receive welfare transfers do not pay tax; those who pay tax do not receive transfers. This would result in a considerable reduction in the apparent level of government transfer spending.

3. The system is very effectively targeted, since for those who receive net payments it relies on the social security definition of income, which is tighter than the tax one, and includes an asset test[87].

### 6.4.6 Convergence: using separation to achieve a categorical GMI

The basic idea underlying the non-categorical GMI is that all those on similar low incomes are similarly in need of assistance. *Convergence* is a less extreme form of the same idea.

By convergence, I refer to the reduction in the gain from being in a categorical group as income rises. Achieving rapid convergence is one way of reducing the distortions brought about by categorisation, and thereby achieving better horizontal equity as between people on similar incomes. In general, a means-tested system like the Australian one achieves convergence at the benefit cutout points. The current system achieves fairly rapid convergence for allowees, but much less so for pensioners (the cutout point for a pensioner couple under the NTS is in excess of $45,000 pa). My comments on convergence apply mainly to the workforce aged; in the case of age pensioners different considerations such as savings incentives apply.

Convergence can be maximised by (a) abolishing free areas, (b) maximising benefit tapers and (c) minimising tax on non-categoricals with incomes less than cutout points. At the extreme this would imply having a 100% taper on benefits, and setting tax thresholds equal to cutout points[88]. Clearly, there is a trade-off between the objectives of rapid convergence, and those of work/saving incentives.

A less extreme form might have a taper of say 75%, and tax thresholds correspondingly higher ($15,371 pa, single, and $25,147 pa, couple). This could be partly financed by an increase in the initial and second marginal tax rate, which (for revenue neutrality) would

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[87] Note that this scheme would re-introduce an asset test for family payments, which was abolished with the introduction of Family Tax Benefit in the July 2000 new Tax System.

[88] Kesselman and Garfinkel (1978 p186) actually call this a 'fully integrated' system: "This approach sets the personal exemption in the positive tax equal to the break-even income level in the NIT". By contrast the earlier proposal on separation is what they call an 'overlapping' system: "This approach sets the personal exemption below the break-even income level...The overlapping scheme has been popular in articulated NIT proposals, because it does not carry the large revenue cost of raising personal exemptions to the desired break-even income level" (p187), but "...distortive efficiency depends upon a host of empirical magnitudes." (p201)

need to become something like 35 or 40%. (Another financing option is increased indirect taxation.) In this manner the proposal for full separation can be made into a categorical GMI with a three-rate effective tax structure: eg. 75-35-50%. Unlike previous GMI proposals in Australia there would be no lower-tier GMI for non-categoricals, the high tax threshold serving the same purpose.

This proposal, to be fully effective, would require either a partial family unit tax system, or an increased spouse rebate – which would need to again become available to couples with children. Some will be horrified at the proposal for an increased spouse rebate or a partial family unit tax system. However it is a logical consequence of greater tax/social security integration. Currently the tax system is based predominantly (but not wholly) on the individual; the social security system mainly on the couple. Since an individual basis of entitlement is not possible in the social security system - it is not affordable[89] - the two systems can only be made more compatible by moving the tax system at least partially towards a family basis. As suggested under the Section dealing with *Separation*, the spouse rebate could be clawed back with rising family income in the same manner as proposed for other special tax rebates, so that at higher income levels that tax system would revert to an individual basis.

One ameliorating feature is that, with more uniform tax rates, the differences between the two approaches become less significant. It should also be noted that the spouse rebate in this proposal is the exact analogy of the NIT payment for a spouse under the Dawkins *et al* proposal.

The nicest feature of this means of implementing a categorical GMI is that those outside the social security categorical groups, while not gaining access to a payment, would benefit from very substantial tax-free areas. This would greatly improve equity between those low-income earners with and those without categorical eligibility.

This proposal, while theoretically interesting, shares some of the drawbacks of the Dawkins *et al* and other NIT options. Because it is highly redistributive, it has the potential to have negative implications for work incentives and tax evasion. In other words convergence – horizontal equity – is achieved at the expense of efficiency.

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[89]This is not strictly true. One could design, for example, a system of individual tax credits and a proportional tax (possibly involving supplements for those living alone). However, the tax credit for the second earner in any couple would be the de facto equivalent of the DSR, and has all the same distributional implications.

This trade-off might, at least on the face of it, be ameliorated by use of heavier indirect taxation. But ultimately, indirect taxes are just as much a part of the tax 'wedge' as direct taxes. Marginal incentives ought really to be measured by reference to both the direct and indirect tax systems. It follows that a strategy of increasing indirect taxes only reduces EMTRs by virtue of the partial and incomplete way in which these are measured in our conventional tax/benefit models, which confine themselves to direct taxes (as used in Chapter 5). Ultimately, in assessing the utility of tax mix changes, one confronts the same trade-offs that characterise the optimal tax/taper problem.

The same effect as an increase in indirect taxation could be implemented directly by a continuation of a low income tax rate coinciding with the taper range – in other words, pretty much what we have now, with a lowered rate for couples as proposed below. However the tax mix change option has two advantages:

- the (direct) tax/benefit system starts to look more logical

- heavier use of indirect taxation may help lower the *perceived* burden of taxation, and perceptions are not unimportant in peoples' behavioural responses to taxation.

A program of tax threshold and bracket increase on a family unit basis provides one solution to problems of social security and tax integration. Certainly it might provide a neater solution than the use of ad hoc devices such as the Earned Income Tax Credit (EITC), although one advantage of the EITC is that – at least on the US model – it introduces a form of family unit taxation[90].

A disadvantage of raising tax thresholds and marginal rates together is that any gradual process will actually *exacerbate* high EMTR problems for allowees on the run-out of the allowance taper. Only if the tax thresholds are completely aligned with the allowance cutouts is this problem avoided. It follows that any gradualist program of change needs to focus on the family unit issue, with priority to be given to the combined income range where really high EMTRs occur: $20,000 pa to $29,000 pa. Specifically, for couples the 17% tax bracket could be extended from $20,000 pa to $29,000 pa, providing tax reductions for the couple of up to $1,170 pa - $22 a week. This would provide interim relief from EMTR problems, pending more substantial structural change.

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[90] For a discussion of EITC issues see Ingles (2000d).

**Chart 6.3: Harmonisation**



Chart showing EMTR (%) on the vertical axis from 0% to 70%, and private income ($'0000) on the horizontal axis. Labels include "loss of RA and/or FTB", "pension taper", and "ordinary tax scale".
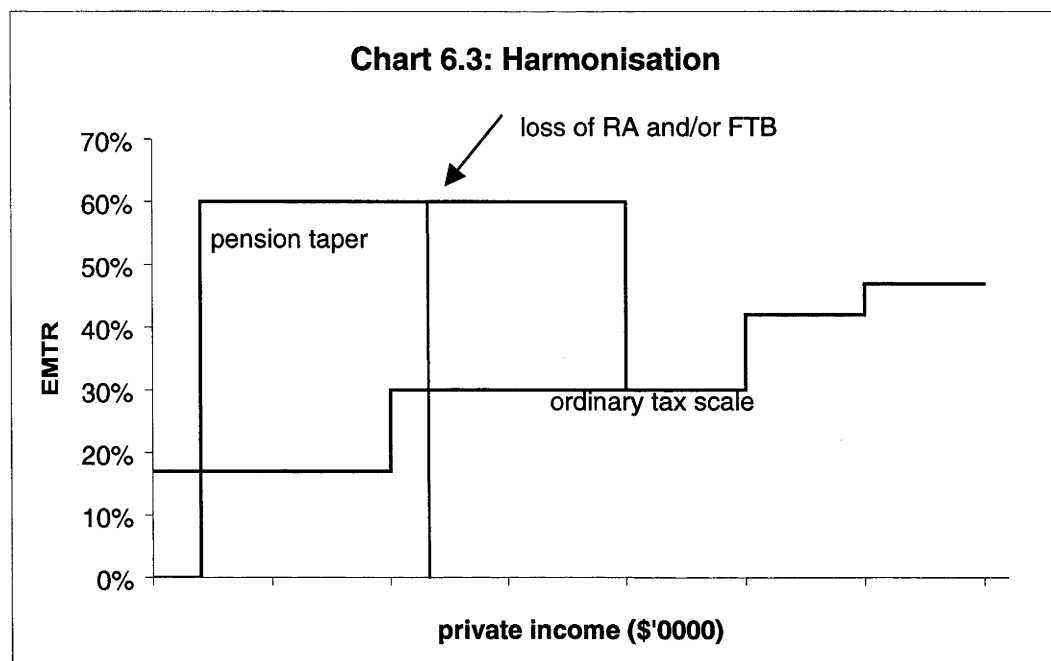
Ultimately a categorical NIT based on *full separation* of tax and social security and reform of the income tax rate structure to reduce income taxes on low-income *families*, is my preferred medium-term model for reform.

## 6.5 Harmonisation

In some ways this is the least difficult of the four main reform options considered here, it being less of a departure from current arrangements than either full integration or full separation. In essence, pension tapers and tax would continue to operate as at present, but they would be coordinated in such a way that the combined withdrawal rate comprised a rational whole (Chart 6.3).

It should be noted that harmonisation is not as well targeted as full separation. The reason is that the pension means test, with its broader base, does all the initial work under the separation option, whereas it combines with the tax system under the harmonisation option. Further, harmonisation is administratively more cumbersome. That said, harmonisation might be an acceptable second best. The reform options discussed in Part 1 of this set are all forms of harmonisation.

## 6.6 Conclusion

The proposals contained herein indicate that a large smorgasbord of options exist for rationalising tax and social security interactions. It is important that they be rationalised, because the current system doesn't always make a lot of economic sense and in all

likelihood has profound implications on incentive to work and save for some, perhaps many, people. However, the "iron law" of income redistribution is such that rationalisation will involve some very hard decisions.

The basic problem is that peaks in EMTR schedules can only be levelled by imposing higher EMTRs in income ranges and on taxpayers whose EMTRs are currently low. Moreover, the lower the income ranges where EMTRs are being "levelled up", the more effective is this process. Moreover, horizontal equity and the aim of convergence require that average tax rates not be increased (and preferably fall) for those not categorically eligible for any payment, yet below the cutout points.

The Government's NTS Package achieves substantial benefits in relation to EMTRs for many low income (and some high income) families, and for pensioners. However considerable problems will remain, which, while they can be addressed in part by further incremental reform, preferably require redress through broad systemic change. While Keating and Lambert have put forward one possibility, and Dawkins et al another, my own preference is for a system not too greatly different to the modified GMI set out in this Chapter, based on *full separation* of tax and social security basic payments, combined with dramatic increases in tax thresholds – to the allowance cutouts - and (unavoidably) in the initial and second marginal rates.

If this system were thought to involve too severe an increase in the effective progressivity of the tax system, this could be mitigated by either retaining a low rate of income taxation on incomes below the cutouts (utilising a family income unit) or by an increase in the relative weight of indirect taxation, utilising the GST. I recognise that the latter option is not one currently favoured by either political party.

# 7    CHAPTER 7: OPTIONS FOR ASSISTING LOW WAGE EARNERS

## 7.1    Introduction[91]

Low wages are a concern partly because of the widening dispersion of earnings in Australia, which has tended to cause a shift in poverty away from previously vulnerable groups (such as the aged) and towards low-income earners.

Several proposals for reducing unemployment in Australia argue for cuts or freezes in award wages which, by reducing the aggregate wage bill and creating more flexibility in the dispersion of relative wages, are meant to increase employment. Typically, such proposals include (often vague) proposals to offset some of the distributional consequences by top-ups or other adjustments to the tax/transfer system. The best developed of these proposals is that of Dawkins and his collaborators (1997, 1998a), which envisages the introduction of a negative income tax (NIT). More recently, Keating and Lambert (1999a and b) have developed an earned income tax credit (EITC) as an adjunct to their wider welfare reform proposals.

Apart from the NIT, there are other possible options to assist low wage earners. These include an EITC as used in the United States; other forms of wage subsidies (eg removal of payroll tax from the low-paid); changes to existing social security parameters to reduce tapers (and improve replacement rates for the unemployed), reductions in the income tax faced by the low paid (eg through increases in the tax threshold, or increases in the low income rebate); and perhaps new social security supplements.

This Chapter examines the available options and concludes that, given the current structure of the social security system, there are serious obstacles to the most common ones such as the NIT or the EITC. There is a case for further reducing tax burdens on low wage earners, but options in this area tend to be very expensive and/or require targeting on a family needs basis. Reducing the tapers on Newstart and Parenting Allowance would help low wage families in a very targeted manner, but – as argued in Chapter 4 - the general use of such allowances as forms of wage subsidy introduces contentious issues, and would also have

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[91] This Chapter is based on a Paper presented at the National Social Policy Research Conference, 21-23 July 1999, Sydney, by David Ingles and Ken Oliver (1999a), an edited version in the Conference Proceedings (Ingles and Oliver 1999b) and Ingles 2000d.

potentially significant cost implications for family and youth payments, if means test "stacking" is to be avoided.

Instead, a strategy of targeted reductions in income tax is preferred, which might be payed for either by rises in the 'standard' tax rate or by an increase in the weight of indirect taxation. These cuts should take the form of large rises in tax thresholds targeted on a family unit basis, consistent with the main options discussed in Chapter 5.

## 7.2    Trends in poverty and the distribution of income

In general, the pre-tax/transfer income distribution in Australia has tended to become more unequal over the last 15-20 years, a trend also observed in many other OECD countries (eg Gregory 1993). However, measurement and conceptual difficulties make it hard to be precise about the exact dimensions of this trend.

Other trends in labour markets – casualisation and part-time work, women's labour force participation, dual-earner families, and increasing unemployment (especially long-term) – have also tended to impact adversely on the distribution of market incomes. This would normally have been expected to increase poverty, other things being equal. It appears, however, that in Australia the widening dispersion in market incomes has been offset at least partly, and possibly wholly, by changes in the tax/transfer system which have tended to make this system more progressive (Harding 1997a). In particular families with dependent children have been considerably protected by improvements in the family payment system (Harding and Szukalska 1999, 2000). This is particularly so if non-cash ("social wage") transfers are included in the calculation (Johnson et al 1995).

Policy changes have had a particular emphasis on child poverty. Harding and Szukalska (H&S 1999) estimated, using a relative poverty line, that child poverty in Australia fell by about one third between 1982 and 1995/6. This reduction is mainly attributable to a halving of the chance of a child being in poverty, if there were no parental income earners, from 70 to 35%. This in turn reflects large increases in social security benefits for those with dependent children in this period. However, the poverty risk with one or two earners in the family, at 9% and 8 % respectively, was virtually unchanged over the same period (see H&S 1999 figure 8 p22).

More recently, H&S (2000) updated these estimates to 1997/98. Depending on the poverty line utilised – all relative [92]– child poverty fell by about one-third over 1982 – 1997/8, but may have risen slightly in the post-1995/96 period. Notably, there is an increased likelihood of children in a (wage or salary) working family being in poverty in the latest period, up from 3.6% in 1995/6 to 5% in 1997/98. Such children represented almost a quarter of all dependent children in poverty in 1997/98.

(I here use "poverty" as a shorthand for "relative low income", which – consistent with H&S - is a measure of a family's equivalent income relative to median household income. Families with equivalent incomes less that 50% of the median (or average) are defined as poor, consistent with OECD and international practice. Practitioners in this field, though, recognise that poverty measures are inevitably somewhat arbitrary.)

On H&S's measures poverty after housing costs has fallen much less sharply, being fairly steady at around 21-22% over 1982 to 1997/98. While it is possible that rent assistance recipients now rent better accommodation, or that some part of the benefit of higher RA has been shifted to landlords, the data do not indicate that these have been large factors. Rather, "…there appeared to be a compositional shift in the characteristics of children in after-housing poverty, with children living in self-employed and social security dependent households moving out of poverty and those living in wage earning households moving in" (H&S 1999 p25). The same conclusion is repeated in H&S (2000), with the caveat that the strong growth in average incomes in recent years is not reflected in allowance rates, which are tied to prices, not incomes: "The incomes of unemployed families with children fully dependent upon social security increased by much less than both average and medial community incomes during this [1995/6 – 1997/8] period..." (H&S 2000 p31).

Children living in wage earning households had experienced far greater increases in their housing costs than children living in other types of families, primarily because their families were purchasing their homes and grappling with relatively high mortgage

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[92] The lines used are the Henderson line, and the Henderson equivalence ratios applied to half average income and half median income, and the OECD line, which also uses half median income but a different set of equivalence ratios. Child poverty increased on the Henderson line, but this line – which is indexed to household disposable income per capita - grew as a proportion of both average and median incomes.

repayments" (H&S 1999 p32). While to some extent this may reflect burdens voluntarily assumed it is nonetheless cause for concern.[93]

The studies cited have concentrated on child poverty. In general there has been an implicit assumption that single people and couples without children are able, if working, to sustain themselves adequately from their wage income.

With current trends in income distribution, it may be a matter of having to keep "running harder" for redistribution policy to keep up. In the future, it is possible that we will see a continuing decline in the relative position of low wage earners, alongside a continuing de-regulation of the wage (ie: industrial award) system. While safety net adjustments granted by the Australian Industrial Relations Commission (AIRC) in recent years may mitigate such trends in the short run, their long-run sustainability is open to question if they push against market forces. Indeed, there are pressures from academic economists for reducing growth in award wages as a means of reducing unemployment. Typically, such economists are also concerned to offset the impact on low-income earners by social security and tax policies. This Chapter discusses possible policies for achieving this outcome.

## 7.3    Proposals for wage/tax trade-offs

The "five economists" in an open letter to the Prime Minister suggested a 4-year freeze on awards, the impact of which was to be offset by a new tax credit (Dawkins et al 1998b). They expected this to reduce the aggregate growth in real wages by some 3-4%; and reduce the level of unemployment by 1.5 to 2 percentage points to about 5 to 5.5%. However, the ACTU dispute the effect on aggregate wage growth of a freeze – see pp50-51 of Dawkins (1999).

Dawkins et al propose that new tax credits be introduced to compensate low-income families. However, they give no details as to how the proposed credits would operate, or what they might cost. Alternatively, they suggest that a NIT might be introduced. This approach is analysed in some detail in Dawkins et al 1997, 1998a. In its most recent form (Dawkins 1999), the NIT is to be combined with an EITC. The EITC achieves the

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[93] Given the long-term lock-in a mortgage-financed home purchase represents, this finding, based on the 93-94 SIHC, may be a product of shorter-term movements in interest rates. An alternative explanation is that people were 'caught' by the sustained high nominal interest rates of the 1980s and early 90s.

immediate objective of compensating low wage earners; the NIT the long-term objective of reducing EMTRs.

Obviously, the wage-tax tradeoff proposal depends on estimates as to the elasticity of labour demand with respect to real wage levels, and particularly on the demand for less skilled people (see below). Irrespective of one's position on these issues it seems likely that proposals of this sort will continue and, irrespective of government policy in this area, developments such as globalisation will continue to put downward pressure on wages at the low-skilled end of the spectrum. Policies for supporting the incomes of low wage earners will therefore continue to be in the public attention. A particular aspect of this problem is to retain adequate incentives to work for those whose incomes are not far above basic rates of social security payments.

## 7.4 Incidence of low pay versus the incidence of unemployment

It is now well understood that regulation of wages is a blunt instrument for addressing poverty and inequality. The reason, as Richardson and Harding (R&H 1998b) have pointed out, is that people receiving low wages are often part of families that are not so badly off. "People receiving low wages are well spread through the distribution of family incomes. This makes Living Wage adjustments a very blunt equity device" (Dawkins et al 1998b).

The R&H study finds that the low paid in 1994-95 are evenly divided between the sexes, spread across the age groups, have no formal educational qualifications, and are probably married. One third have dependent children (p9). About one-quarter of low wage men are non-students still living at home; R&H note that their income may not provide a useful measure of their real living standards[94].

A substantial proportion of low wage workers live in families in the upper half of the equivalent income distribution – generally because they live in a family where another person also earns an income. Low waged workers are distributed fairly evenly throughout the distribution of equivalent disposable income. While a disproportionate number are found in the bottom three or four deciles, substantial numbers are also found in all but the highest decile. "The comparison with the 1980s does not give much grounds for concern that low wages are increasingly precipitating families into the bottom of the income

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[94] Of course, they may be living at home precisely **because** they are low paid.

distribution. Low wages are modestly linked with low family income, but no more in 1994-95 than in 1986" (R&H 1998b p13).

Many low earners are in families with relatively high-income (p15); receipt of multiple incomes (mainly involving a spouse) is an important reason for this. Another reason is that many are not supporting children. A single person who receives the minimum wage for a full week's work will be located in the *middle* of the equivalent income distribution.

Nonetheless, families with a low wage earner are about twice as likely to be "in poverty" (14.3%) as wage and salary earners generally (6.7% - p23). The poverty risk increases only slightly if there are children – indicative of the effectiveness of strategies to combat child poverty in the late 1980s (Harding and Szukalska 1999). Poverty rates are very high for low wage earners aged less than 21, (33%) but many of these are non-student children living at home with their parents, and presumably benefit from the totality of resources available to the family. The families most likely to be in poverty are those with no earners at all. **On the statistical picture presented, no pay is a greater contributor to poverty than low pay**.

This is confirmed by Harding and Richardson (H&R 1998) in their study of unemployment and income distribution. They find that the unemployed have much lower personal and family (equivalent) incomes than their wage and salary earner peers – on average, around 40%. This reflects the fact that the unemployed, and especially the long-term unemployed, rely overwhelmingly on government cash benefits. Only one-fifth of the unemployed live in families which rely mainly on wage and salary income. (H&R 1998 p145) Conversely people who are employed, even part-time, overwhelmingly live in families which support themselves from their own earnings. This indicates a problem of 'workless families', one specifically identified in the McClure Report on Welfare Reform (Welfare Reform Working Group 1999, 2000)

Whereas H&R calculate a poverty rate for all adults of 8% (or 12% if the higher poverty line for those in the labour force is used) for unemployed adults the poverty rates are 28% and 45% respectively. The poverty rate among families that declare at least $1 of wage and salary income is only 2%, or 4% using the higher line. Similarly, whereas poverty is very low among children living in families with some wage and salary income, at 3 or 6%, this rate jumps to 27 or 50% among dependent children in unemployed families. These

rates may be overstated to the extent that twenty percent of the unemployed live at home with their parents – though not perhaps by choice.

The unemployed, unlike the low-waged, are clustered very heavily at the bottom end of the equivalent income distribution. Just over two-thirds of male unemployed, and over half of female unemployed, were in the bottom two deciles of equivalent disposable income in 1994-95. This picture is very similar for the long term unemployed, suggesting that " …the big difference in income is associated with movement between employment and unemployment, rather than the duration of unemployment" (H&R 1998 p154).

The overall impression one gets is that **low wages *per se* are not an overwhelming social problem, whereas unemployment is**. Unemployment is more strongly associated with poverty than is a low wage;  "It follows that a redistribution from low wage earners to unemployed people would make the overall distribution of income more equal." (H&R p160)  This is an uncomfortable conclusion for some social policy analysts. However, it is not at all clear whether reductions in minimum wages would necessarily effect such a redistribution.

The OECD (1998) also concludes that the distributional case for minimum wages is weak. "The fact that low paid workers are not highly concentrated in poor households suggests that increases in minimum wages, in most cases, are likely to have a limited impact in cutting overall family poverty rates" (p.viii).  However, the OECD goes on to note that the balance of evidence suggests that the minimum has no significant effect on overall adult unemployment, but there is some effect on youth unemployment. Overall, the OECD suggest that "If minimum wages are set carefully, they can improve the material well-being of some low wage workers, have some positive effect on work incentives and limit the extent of earnings inequality…But minimum wages are not *the* solution for family poverty…"(p.ix).

It is important to be careful in interpreting the Australian income distribution statistics. While unemployment is associated with a high probability of low income, there are lots more wage earners than there are unemployed. Thus, only 18% of the people in the poorest three deciles (ranked by equivalent family income) are unemployed, while 60% of those in these deciles are entirely outside the labour force, 15% have jobs, and the balance

(7%) are self-employed.[95] In other words, there are more poor people with jobs than there are unemployed poor. A transfer of income from poor people with jobs to poor people looking for work may not improve overall income equity.

A related issue is the extent to which those on low pay cycle in and out of unemployment, and visa versa – perhaps implying that the unemployed may not be net gainers from reducing low pay levels. Also, given mobility into and out of low paid employment, incidence rates for a single cross-section understate the proportion of the population that is affected by minimum wage policies (OECD 1998b p54).

While acknowledging that minimum wages are not as well targeted at reducing in-work poverty as means-tested in-work benefits, the OECD note some problems with the approach of relying on in-work benefits alone: "...means-tested benefits ... may lead to a fall in the wages of low-paid workers; and they can be very expensive. This suggests that there may be some scope to complement in-work benefits with a national minimum wage" (OECD 1998 p32 and pp55-56). In particular, both minimum wages and in-work benefits can reduce the "unemployment trap" by raising the rewards of work relative to unemployment income (ibid p57).

The issue, it seems, is not whether there should be complete de-regulation of minimum wages, but rather what level they should be set at, and what complementary tax/transfer policies should be implemented. I do not, in this Chapter, seek to take any position on the debate about the wage/tax tradeoff. However, it does seem likely that, on present trends, low wages will increasingly become an issue for the social security system and for our society in general, irrespective of any explicit decision to freeze or slow the growth in awards. And while our current system is, on the analysis contained in here, surprisingly resilient to such trends, there are areas where there are reasonable grounds for concern. For this reason an explicit policy response – or approach - appears to be very desirable.

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[95] These figures are from Harding and Richardson (1998). Their analysis is based on comparing the unemployed and low paid and their position in the total income distribution. An alternative methodology is to compare the position of these groups with the *workforce age* population. This approach also suggests that low pay and unemployment are *both* important contributors to low income. Thus, those not in the labour force make up 37% of the poorest working age income decile, with 34% of that decile being employees, 19% being unemployed and 10% self-employed.

## 7.5 Main options for directing additional assistance to low wage earners

### 7.5.1 Current assistance for low wage earners

It is not always recognised that Australia already has in place a substantial system of in-work assistance for low wage earners with family responsibilities, as detailed in Chapter 2.

In contrast, single low wage earners who do not have dependent children receive relatively little or no cash assistance under the current system. The implicit assumption is that single people without child dependents, and who are employed full-time, are able to support themselves from their earnings. A single adult's full-time wage would need to be below about $270 pw for them to be eligible for payment under the allowance income test. Currently, the Federal Minimum Wage is $400.40 a week.

In the case of a couple without children, there can be some access to cash assistance if one or both members are categorically eligible for Newstart allowance. The July 1995 changes introducing a partly individual basis of assessment mean that, where one partner is in a low wage job, the other can get assistance (subject to the means test) if he or she is prepared to seek full-time work. This means that the social security system can supplement the income of the couple, through that partner, up to the point where their total earnings is $28,000 pa - around $550 a week – or higher, if Rent Assistance is payable.[96] If a low waged couple have children, one may be eligible for Parenting Payment (Partnered), irrespective of the other's possible eligibility for Newstart allowance.

The bottom line is that the social security system already provides substantial in-work assistance to those low wage earners most likely to be at risk of poverty, and there are options to further develop the existing system in ways supportive of low-waged work.

The following are the main options considered in this Chapter:

1. the negative income tax

2. earned income tax credits

3. wage subsidies for low wage earners (including reductions in payroll taxes, and hours-conditioned in-work payments)

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[96] Note that for a couple where one is on payment, RA is payable at the full rate for the couple.

4.  changes to social security parameters (including major reforms to rationalise EMTRs) and to rent assistance, and

5.  reductions in income tax burdens on the low-paid.

It should be noted that these are not always mutually exclusive approaches – for example, Garnaut, one of the 'five economists' proposing an earned income tax credit, sees this as a transitional instrument in the path to a full negative income tax system (Garnaut 1999, pp9-10).

### 7.5.2   The Negative Income Tax (NIT)

As noted in chapter 5, the NIT in its pure (ie non-categorical)[97] form has a number of significant problems, as well as its well-publicised advantages. These problems include:

-   the very high marginal tax rates required across the whole population if the basic income guarantee level is to be at the same rate as existing categorical payments (this is estimated as 57% by Dawkins et al 1997);

-   the consequent possibility of a more general work and saving and/or tax avoidance response;

-   the apparent extension of assistance to those whose need may not be great, such as those voluntarily not in the workforce, or those self-employed who are able to declare artificially low taxable incomes; and

-   if the tax definition of income is adopted in the unified system, as proposed by Dawkins et al, the social security system loses the ability to distinguish those with substantial assets.

Chapter 5 makes the point that it is very difficult to avoid most of the issues that underlie difficulties in the existing system if any new system is to be socially, politically and economically acceptable. Given this, it might seem preferable to stick with the current system and adopt an incremental approach, albeit paying particular attention to low income earners.

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[97]"Non-categorical" implies that the full negative income guarantee would be available to all those with sufficiently low incomes, without reference to their eligibility under categories such as the aged, invalid, unemployed etc.

### 7.5.2.1    Conclusion on the NIT

The NIT is probably not practicable in its pure form.  However in the modified form which retains categorical tests of eligibility and a higher initial tax rate, the NIT is a very attractive concept, and one that is not greatly different in its effects to the current tax/transfer system, assuming that it were to be reformed to rationalise tapers and tax interactions.  In particular the modified NIT could achieve many of the same objectives as the single workforce age payment (SWAP) proposal, which is designed to remove unwonted differences between payments, and reduce incentives to access favoured payment categories.

That said, there are also serious difficulties to even the modified NIT (as modified by Dawkins et al) approach to reform:

- It doesn't handle the issue of capital incomes very well, unless there is a wholesale reform of the income tax base (eg, including deemed income from capital).

- It is not clear how the administration would be handled in practice, especially the transition from the negative to the positive tax system.  (The simplest system, of a universal demogrants and uniform tax rates, is the NIT least likely to be achievable, and in any case does not sit well with the 'mutual obligation' philosophy that now underpins much thinking about welfare reform.)

- It is hard to find a single definition of income that simultaneously allows the credit to effectively address current need while preventing manipulation of the timing of earnings to maximise entitlement.

In addition it is not widely understood that the modified NIT also has drastic implications for the structure of income tax rates.  As discussed in Chapter 6, the necessity for the situation of categoricals and non-categoricals to 'converge' implies that for non-categoricals the tax threshold should equal the break-even income levels for categoricals (ie, around $15,500 for singles, if the initial tax rate is 60%), and that the tax rate above these levels should be the "standard" rate – ie, around 45%.

### 7.5.3   Earned income tax credits (EITCs)

Earned income tax credits have been advocated in Australia by the ALP in the 1998 federal election (see above), by Keating and Lambert (1998a and b), and by some economists who see these as a useful trade-off for restraint in award wage growth. They have been advocated or adopted in several OECD countries as part of measures to "make work pay" (see Kalisch et al 1998 Table 5.8). However, the US EITC remains by far the largest scheme of this sort.

The principle features of an EITC which distinguishes it from a conventional tax credit are, first, that it is based on earned, not total income, and second that it is not simply a maximum payment which abates as income rises beyond the threshold. Rather, it rises over some earnings range, before being phased out. For this reason I do not regard the new *Working Families Tax Credit* in the UK nor the NZ *Independent Family Tax Credit* [98] as EITCs, although they do have some incentive features such as (in the UK) the 15/30 hours of work rule (see 2.4.2 below).

### 7.5.3.1   Opposition Election Proposals

In the 1998 election, the Australian Labor Party (ALP) proposed a set of income tax cuts using credits, the value of which reduced as income rose. These are very similar in effect to an EITC ("A fairer tax system *with no GST*" – ALP 1998). Labor proposed a "tax credit for working families" worth up to $3,300 pa for a family with two children. The credit was to be restricted to earned incomes.

This credit is broadly modelled on the US EITC (see below for details). It was to phase in at the rate of 10 cents in the dollar, up to a maximum income of $30,000 pa for one child, plus $3,000 for each extra child up to four. Maximum credit would apply over a plateau range of $10,000 pa (ie up to $40,000), and then phase out at a rate of 15 cents in the dollar. Thus, it would fully phase out at roughly $60-75,000, depending on the number of children present.

By way of comparison, the US EITC pays 40 cents in the dollar up to an income of about $15,000 pa, ($AUS equivalent) reaching a maximum of $6,000 and phases out at the rate

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[98] The NZ CTC is a payment given on the basis that there is no benefit income and is not an hours of work incentive as such. Its existence is highly contentious as its exacts a punishment on families – especially larger families – who are forced on to benefit by unemployment, sickness or the like.

of around 20 cents above $20,000. The EITC is fully abated when the family income reaches $50,000.

It can be seen that the ALP proposal was pitched much more to the middle income group than is the US EITC. This reflects the anti-poverty focus of the US measure, whereas this focus is catered for in the Australian context by direct cash benefits. The ALP proposal can be clearly discerned as a means of focussing tax cuts on a particular target group.

### 7.5.3.2    Keating and Lambert proposal for EITC

This proposal accompanies the K&L (1998a) plan for a major revision of income tests, which would lower EMTRs for allowees and families. As explained earlier, the main part of the plan involves grouping all family assistance payments, Rent and Youth Allowance, and tapering them sequentially at a 30% taper. With the EMTR for allowees and low income families coming close to 60% (taking account of the 30% marginal income tax rate) the overall effect of the K&L scheme is actually very similar to the modified categorical NIT proposed by Dawkins et al.

K&L note that an earnings credit implies an increase in EMTRs over the income range where it is phased out. In their plan, this is addressed by incorporating the credit within the group of family payments that are phased out at the common 30% rate. The earnings credit would be introduced at a low rate initially and gradually increased over 3 or 4 years, "… possibly as a trade-off for economic reform and/or wage restraint and to offset any drift towards greater wage dispersion and inequality" (p15). In the first year it would be equivalent to 2% of a low-paid employees earnings, or a little over $10 a week tax-free. It would be paid in full up to the same threshold as for Family Payments, $28,200 pa.

Because the earnings credit would be combined with family assistance payments, the level of income at which it was tapered would vary according to the size of these other payments. For single individuals and couples without children, there are no such payments so the cutout (on the latest version[99]) would be $28,200 pa. Beyond that the credit reduces at a taper of 30%. This level of threshold avoids the taper overlapping with social security allowance tapers.

K&L calculated that 2.4 million low wage earners (out of a total of 9.3 million) would benefit from this earnings credit if it were combined with the other elements of their

proposed new system. The estimated cost is just over $1 billion pa, or about 0.4% of the total wage bill. The cost would rise in subsequent years if it were to be raised as part of a 4-year program of wage restraint, reaching $4.5 billion in the fourth year.

If confined to families with dependent children, in the first year an estimated 860,000 families would benefit at a cost of $460 million. By the fourth year the cost trebles to $1.4 billion. However, limiting the credit to families with dependent children would undermine its credibility as an offset to any award wage freeze.

The proposed credit is very similar to a cut in the first marginal rate of income tax, partly financed by an increase in tax on incomes above the allowance/family payment cutouts. However the cut, and increase, are on a family unit rather than an individual basis.

The K&L EITC proposal is an interesting add-on to their main welfare reform agenda. However it is difficult to implement if the rest of their reform agenda is not in place.

### 7.5.3.3    The US Earned Income Tax Credit (EITC)

The US EITC was originally introduced in 1975 as a way of relieving the burden of social security payroll tax on low-wage working parents (Sholtz 1996). It has grown substantially since its inception, and in 1997 cost the federal government $US27 billion (about 2% of total federal receipts). In Australia this would be equivalent to around $5 billion pa. The recipient population is over 20 million families. The EITC has been described as the "cornerstone of the Clinton Administration's welfare reform agenda" (Dickert et al 1995 p42).

The EITC is a refundable credit against the Federal income tax. Its distinctive feature, as opposed to more common forms of welfare, is that at low income levels the credit increases with earnings.

Between 1990 and 1996 the maximum EITC increased from $1,023 to $3,200 (1992 dollars) for a family with two children. Following cuts to welfare and related payments to sole parent families[100], it now costs almost twice the $16 billion spent on traditional 'welfare'.

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[99] Australian Financial Review 16.11.98

[100] Formerly Aid for Dependent Families (AFDC), now a much more restrictive program as Temporary Aid for Needy Families (TANF).

Currently, three separate schedules apply: one for taxpayers aged 25-64 with no children (this is relatively minor, at $306 pa), one for taxpayers with one child and one for those with two or more children. The credit rate for a taxpayer with two children is 40 cents in the dollar up to an income of $US 8,900 pa, reaching a maximum of $US 3,556, and phases out at the rate of 21.06% above $US 11,610. By the time the family income reaches $US 28,495 the EITC is fully abated.

The maximum weekly benefit is $US6.21 for taxpayers without children; $41.38 for those with one child, and $68.38 for those with two or more children. About 18 million single individuals and families receive the credit, but some 2 million of these receive no tax refund since the credit serves to partially offset their tax liability.

Thus the scheme acts as a marginal earnings subsidy: the effective tax rate on low incomes is *negative*. Within the phase-in range, an extra dollar of earnings brings in $1.40 to the household. Another feature of the scheme is that it applies to *family* income, and there is no differentiation between couple and sole parent families. The effect is that it is relatively generous to sole parents, and indeed they comprise the bulk (60%) of beneficiaries. This also reflects the low earnings prospects of this group, which, in the US, is disproportionately black, Hispanic, and/or poorly, educated.

Another interesting feature of the scheme is that the bulk of benefits are paid as an end-of-year tax refund. Since 1979, eligible taxpayers have been allowed to receive a proportion of their credit in advance of annual filing of tax returns; however, this option is taken up by less than 1% of claimants.

For poor families, this gives rise to what might appear to be a significant cash-flow problem. This is partially addressed by the availability of food stamps, which are paid monthly. "In the US, food stamps are the most important source of immediate income supplementation for the working poor; ...in practice the EITC acts more as an end-of-year reward than a real-time incentive for undertaking a few more hours of work" (Walker and Wiseman 1997 p412-3).

### 7.5.3.4    EITC issues

The US EITC has been analysed in terms of a number of issues. These include

1.  Do marginal earnings subsidies have any role in optimal tax/transfer schemes?

2.  Does it reduce the wage paid by employers?

3.  What are its incentive effects?

4.  Does it create a too-severe "marriage penalty"

5.  Is there potential for fraud?

6.  Involving the tax office in the assessment of "need"

7.  Should benefits be delivered through the tax or the welfare system?

8.  How effective is the EITC in combating poverty?

Detailed examination of these issues is in Ingles 2001. The findings are summarised below.

1.  Do marginal earnings subsidies have any role in optimal tax/transfer schemes?

    - The answer here is that such subsidies reduce EMTRs arising from the interaction of tax and social security benefits. If such reductions are required, an obvious alternative is to do this directly through one or both of these systems.

2.  Does it reduce the wage paid by employers?

    - The answer is that it may do, but this can be helpful if wages would otherwise be above their market clearing levels.

3.  What are the incentive effects of the EITC?

    - This is a complicated question. While an EITC reduces EMTRs in the phase-in range, it reduces average (but not marginal) tax rates in the plateau range, and increases EMTRs in the phase-out range. Its overall impact on work effort is theoretically indeterminate. Empirical studies have tended to find that the EITC creates a strong participation effect which brings in additional (mainly sole parent) workers, which is offset partly but not wholly by a substitution effect on existing workers (mainly mothers) operating in the opposite direction - that is, to reduce labour hours.

4.  Does it create too severe a "marriage penalty"?

- It seems not. The marriage penalty created by the US EITC has not been proved to affect behaviour. In any case, it is no greater than that created by normal welfare schemes assisting sole parents, such as the Australian Parenting Payment (Unpartnered).

5. Is there potential for fraud?

- Fraud has been a serious problem with the US EITC, with overpayments of some 25-30% of total program spending. It is not clear whether recent efforts to stem the overpayment problem have been successful. Canada has abandoned its small EITC program partly because of compliance problems.

6. Should the tax office be involved in the assessment of "need"?

- Using the Tax office to run a welfare program creates several difficult issues. The inability to means test against assets is one example. Another problem in the Australian context is that an EITC based on family income would necessarily have to treat de facto and married couples in the same manner. In one sense, this is not a problem in the US system, since only a formal definition of marriage applies.

7. Should benefits be delivered through the tax or the welfare system?

- The main effect of an EITC in Australia would be to reduce effective marginal tax rates on low-income earners. This points to the possibility, if such an effect is desired, of effecting such reductions directly through modifications to extant tax/transfer policies.

8. How effective is the EITC in combating poverty?

- The US EITC takes about 1 million families out of poverty, and raises the incomes of another 6 million poor families. It is therefore reasonably *effective*; doubts revolve around how *efficient* it is. Many of the recipients of the EITC have incomes that place them above the (admittedly meagre) US poverty line, even before receipt of the credit. The breakeven income in the EITC is well above the poverty line for most families. It has been estimated that approximately half of total EITC payments go to households with incomes above their poverty lines. The fraction of total EITC payments that directly reduce the poverty gap is just over one-third.

Thus, it is clear that the EITC is not nearly as well targeted as traditional anti-poverty programs. This is exacerbated by non-compliance (see 5 above).

### 7.5.3.5   Conclusion on the EITC

The EITC is essentially a device to increase the progressivity of the tax/transfer system for families, and to encourage work by reducing (or even make negative) effective tax rates on low-income families. In the Australian context, both of these results might be achievable by changes to social security tapers and/or changes to the income tax rate structure, and indeed the NTS has already moved us down this path.

Australia, unlike the US, already provides very substantial assistance to low income earners with dependent children. Indeed, it has what might be described as a full guaranteed minimum income (GMI) for sole parents, and a partial GMI for couples with dependent children. A country operating a welfare system substantially based on the GMI principle might not want or need an EITC, since most relevant objectives can be achieved by manipulation of the GMI parameters.

That said, the issue of work incentives for those at the bottom of the income distribution has attracted increasing comment in Australia in recent years. Reducing tapers on allowances would extend recent developments for the Australian social security system to provide extensive cash assistance to low income families, and has the potential to assist low earner couples (and to a lesser extent individuals) without dependent children. But an extensive system of in-work cash benefits might appear strange, if many of the same people who receive benefits are also paying income tax. An alternative direction for reform is one of targeted reductions in income tax. As argued in Chapter 6, this also helps to address tax/taper interactions.

I conclude that the EITC may be good policy in the US, which lacks a comprehensive welfare safety net. In countries which do have such a net – like Australia – the case for such a credit is less clear-cut and alternative policies are available to reduce EMTRs on, and increase the incomes of, the working poor. If it were nonetheless desired to proceed down this track, it would be possible – and important - to design it with current EMTR issues very much in mind.

One difficulty with income tax cuts as an alternative to an EITC is that, as noted earlier, most low wage earners are not in poor families. This means that simply raising the tax

threshold, for example, is a poorly targeted strategy[101]. The aim might be to reduce tax on a *family* income basis but this might require some sort of family unit tax base, at least at the low-income end of the scale, with additional threshold increases where there are dependent children.

From this perspective, a virtue of the EITC is that – on the US model – it would have a family unit basis. It could also be a step in the direction of a more sustainable structure of EMTRs in the Australian tax/transfer system.

However, the long-term role of an EITC is less clear. It might only be a matter of time before any new credit was scrapped and its effect embodied in the formal structure of income tax rates. This would be more likely if there were a sustained effort to rationalise tax/social security interactions. The outcome of such an effort would see a designed structure of marginal rates on welfare recipients and low wage earners; in such an ideal system – of which the negative income tax is one of several options - an EITC would have no obvious place. Indeed, its effect would be to disturb that designed structure of effective tax rates in perhaps anomalous ways.

### 7.5.4 Other wage subsidies

#### 7.5.4.1 Wage rate subsidy

The wage rate subsidy was widely discussed in US policy circles in the 1970s (see Browning 1973) and, inspired by other US welfare reforms, and has now been revived somewhat (see for example Phelps (1997) and Layard (1996)). Under this approach, wage rates would be supplemented by, say, one half the difference between some target wage rate and the recipients market wage rate. This increases the net wage rates of all recipients by declining amounts as the market wage approaches the target wage rate. In effect, the wage rate subsidy creates a reduction in EMTRs that diminishes as the wage rate approaches the cutout point. This can be shown to have advantages in terms of work incentives.

Browning (1994) argues of the wage rate subsidy that "…it produces results just like the phase-in range of the EITC, but without the disadvantage of a phase-out range". However,

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[101] The claim that low wage earners are in high-income households and therefore we don't have to worry about them is contentious. It implies a degree of income sharing which may not occur in practice, and possibly undesirable dependence – eg when low income children cannot afford to leave home,

he also notes of the earlier literature on wage rate subsidies that "...the general conclusion seemed to be that it had severe enough defects to make it undesirable. These defects included administrative problems and the difficulty of targeting benefits on those with low incomes" (p42).

Despite its theoretical advantages, the wage rate subsidy has a serious practical obstacle, that its calculation requires knowledge of not only the employees' pay but also the hours. Whereas pay is relatively easy to verify, hours are not. A more administratively convenient form is a simple subsidy against pay, but this is no different to an EITC (albeit one based on the individual earner rather than the family).

A low wage subsidy has resurfaced in a back door way in the current Australian policy debate, in the form of proposals to remit payroll tax on low income earners (see eg Debelle and Borland 1998, p357)[102]. Presumably this policy means that, instead of payroll tax thresholds/exemptions being based on the aggregate size of the firms payroll, they would be based on the fortnightly or annual pay of the individual employee.

Such reform proposals could involve administration and compliance problems, similar in some ways to the problems with wage rate subsidies already alluded to by Browning (albeit that the problem of determining hours worked would not arise). Whereas current state payroll taxes provide an incentive to firms not to grow above the exemption limit, the proposed alternative would provide an incentive to part-time work.

That said, the proposal is no different in principle to the low earnings thresholds embodied in many or most social insurance contribution rate structures. Many countries are looking to reduce payroll tax burdens on low wage earners, it being widely accepted that the real incidence on such taxes is on the net pay of those workers (OECD 1999 p97). In Australia there is already a similar implicit threshold of $450/900 per month under the Superannuation Guarantee. Those with income under this are not compelled to make SG contributions.

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[102] A potentially important difference is that the wage rate subsidy might be paid direct to the employee, whereas the payroll tax remittance benefits the employer. Economic theory predicts that both approaches have the same long-run behavioural implications, but the differences might be important in the short run, especially where interaction with an existing minimum wage is an issue. Where there is a minimum wage (as in the US and Australia) there may be merit in seeking to mitigate its potentially adverse employment effects by an accompanying payroll subsidy. In effect, this argument sees the subsidy as a sort of compensating distortion.

There is no barrier in principle to making the general structure of payroll tax more like that of a social security contribution with an explicit low-pay threshold. Indeed, it would seem likely to be a considerable improvement on the current situation, though it may have administrative disadvantages.

It should also be recognised that the low wage exemption proposal limits the available net cuts in taxes to 5-6%, which is the existing payroll tax rate (it varies slightly between States, as do the exemption levels). That said, however, the policy does offer the possibility of a substantial short-term cuts in the cost of employing low wage earners. By setting an appropriate low pay threshold, it could yield the same revenue as current payroll taxes. If the proposal were revenue-neutral, many firms would face approximately the same aggregate payroll tax burden as they now do. Firms with disproportionate numbers of low wage or short-time workers would benefit, whereas small firms with well-paid workers would be disadvantaged.

Overall, the drawback of the scheme (after the initial structural impacts are accommodated) is that it creates an incentive for part-time work, and many part-time workers are part of well-off families. That said the existing structure of the payroll tax has no particular economic rationale so, on balance, I believe the approach suggested is both feasible and likely to be effective.

### 7.5.4.2    Employment or hours-conditioned in-work payments

These are used in the UK and Ireland (see OECD 1999 p96), and have been experimented with in Canada. Eligibility for an in-work income supplement such as those for children depends not only on low income, but also on working a certain minimum number of hours. For example, the UK *Working Families Tax Credit* is paid only to families who work at least 16 hours a week. In addition, there is a further program aimed at encouraging nearly full-time work, defined as 30 or more hours a week.

At first glance it may seem an unnecessary complication to vary payments according to hours as well as income. After all, the one is reflected in the other. That said, there might in fact be economic benefits. The reason is that the introduction of an hours criterion makes a welfare payment more akin to a wage subsidy. The hours requirement virtually turns the supplement into a wage rate supplement. This has the work incentive benefits already discussed in the previous section. Further, it helps draw a clear line between

unemployment payments and in-work benefits. This may reduce any stigma associated with the latter (while possibly worsening that associated with the former), providing further incentive to work.

In Canada, the Self-Sufficiency Project begun in 1992 tests the use of time-limited earnings supplements to help lone parents leave welfare. The earnings supplement equals half the difference between the earnings of a lone parent and a reference income level (around $Can30-37,000). That sounds very much like a NIT. The difference is that eligibility for the supplement is also subject to an hours requirement, so that plan members have to work at least 30 hours per week. This "...prevents those who were already working full-time from substantially reducing their work hours (an effect that some earlier financial incentive programs had)..." (Lin et al 1998). It might be added that it also prevents new participants from combining supplement receipt and income from part-time work

This Canadian experimental project has apparently been quite successful. The proportion of lone parents working full-time (who are in the experimental group) has doubled after eighteen months; it has raised the average income of the group by $178 per month (compared to an expenditure increase of $55 per month), and it has reduced the fraction of families below the 'low-income threshold' by 12 percentage points.

The issue for Australia is whether we wish to stick with the (hoped for) simplicity of our GMI approach, or supplement it with new tools such as employment conditioned benefits. Such tools probably make more sense, in our system, if allowance taper rates continue to be high. The alternative is to go down the road of reducing EMTRs within the existing framework.

### 7.5.5  Changes to social security parameters

If assistance was reduced more gradually and predictably with increasing private income, the system would become much friendlier to low income earners. At the same time earnings replacement rates when on benefit would improve: that is, become lower.

#### 7.5.5.1  Means Test Tapers and Effective Marginal Tax Rates (EMTRs)

High ETRs arise from both tapers and payment of income tax. Although an EITC is therefore a possible means of addressing this issue, another response is to reduce the taper

on allowances, from its current 70% (beyond an initial free area and 50% taper zone). Yet another is to reduce income taxes on low-income recipients generally.

As argued in Chapter 4, there are theoretical and practical reasons for believing that a single linear tax rate, or at most a two- or three-part tax, would be a better way to achieve a roughly similar distribution of net benefits to the current system. It can be shown that, if benefits are withdrawn at a moderate rate, a low income earner will always be better off working than on benefit, provided he or she can combine work and benefit income.

This is so even under the high ETRs that characterise the current system. An allowee couple (renting) is entitled to maximum payment of $364 a week. If one partner is able to earn the minimum wage set by the Commission ($413pw) a naive calculation of replacement rates gives a figure of 88%. In fact this couple is potentially eligible for a part-benefit[103] giving them a disposable income of $474 pw, and their actual replacement rate is 77% - still high, but not unsustainably so, particularly since the part-benefit has an activity test attached to it. Current earnings replacement rates at the minimum wage are detailed in Appendix A.

For such a couple, the impact of a large fall in the minimum wage would be drastically attenuated by the increase in part benefit that flows out of that fall (provided that the spouse is eligible for an allowance). Only single beneficiaries would not benefit from this mechanism.

A reduction in allowance tapers to, say, 50% would reduce ETRs for allowees to roughly 65% and improves the ERR for the minimum wage couple to 69% (compared with 75% under the current system). With a 20% lower minimum wage the ERR becomes 72% (compared with 79% under the current system).

This also illustrates the down side of using the unemployment benefit system as a general system of low wage support. That is, it is relatively inexpensive for clients to reduce their hours of work. If the client in the above example were able to halve his hours, while his wage would fall from $413 to $206, the couple's disposable income would fall by only $44, from $474 to $430 pw. This problem, that the system may become a subsidy for part-time work, can be partly addressed by reducing the EMTR. Thus, with a 65% taper, the fall in disposable income on working only half time increases to $70pw.

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[103] Assuming that the non-working partner is willing to seek work, or has dependent children.

As argued in Chapter 5, one problem with a relaxation of allowance tapers is not so much the direct cost – likely to be under $500m – but the flow-on cost if the family payment threshold is to be lifted sufficiently to prevent "sudden death" loss of automatic full-rate FP on coming off an allowance. The other problem is that of horizontal equity between allowees and those outside of the categorical system, a problem that I suggest creates a strong argument for income tax cuts rather then taper cuts. The improvements to ERRs flowing from ETR decreases are the same whatever the source of those decreases.

### 7.5.5.2    Rent assistance options

Another option might be to reform the Rent Allowance (RA) means test to extend RA further into the income distribution. RA for families currently tapers after all FP is lost, and at the same rate: 30%. By contrast, RA for allowees tapers, once the basic allowance is lost, at the allowance taper rate of 70%. If this were reduced to the same 30% rate proposed for families, and provided free of activity test RA could be transformed from a benefit essentially restricted to our categorical clients, to one which is a general form of in- or out of-work assistance to low income earners facing high rental costs.[104] There would also be an improvement in earnings replacement rates for such people. Other options for improving RA were discussed in Chapter 5.

### 7.5.6  Income tax rate structure

In general, the effect of an EITC is to increase the progressivity of the tax/transfer system. It reduces EMTRs on low-income earners (including those currently affected by high EMTRs under the allowance tapers), and increases them on those further up the income scale. Given the current pattern of EMTRs on low-income earners, this may be desirable.

Looking at the Keating and Lambert plan, their proposed tax credit is very similar to a cut in the first marginal rate of income tax, partly financed by an increase in tax on incomes above $28,200. However the cut, and increase, is on a family unit rather than an individual basis. Further, the tax rate increase is at income levels dependent on the size of the family.

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[104] A logical extension of this principle would be that assistance should become available to low income earners with high housing costs, whether they be for rent or for repayment of a mortgage. However, it should be noted that the government has already foreshadowed a new scheme of homebuyer assistance as a means of compensating for the price impact of the GST. It should also be noted that homeowners are generally tax favoured as compared to renters – although this is not true of those with very low levels of equity in their home.

In the US the EITC is mainly confined to families. This restricts the cost. However, this might not be possible in the Australian context if the goal is to fully offset the impact of cuts in real award wages, which would fall across the board. That said, however, there might be some groups we would not wish to compensate. Low wage earners are found right across the distribution of equivalent family incomes, and include for example young people still living at home with their parents, and second income earners in relatively well off households. Whereas the latter group is automatically excluded by the family basis of the EITC, (on the US model) the former is not.

Another issue is that if compensation were limited to *earners,* those on low capital incomes might well be aggrieved. Pensioners and the like are already finding their incomes reduced by declining interest rates.

This leads to the question of what might be done using the current system in order to achieve roughly the same impact as an EITC.

There is certainly a case for reducing income tax burdens on low wage earners. Many individuals and families with relative low incomes are required to pay income tax. For families with children, their incomes are then supplemented by direct family payments and rent assistance. This sort of "churning" seems to be inefficient[105]. While an EITC is one means of addressing this inefficiency, there may be other approaches.

If we wish to direct additional assistance to those not in the social security system but with earnings below the existing tax thresholds, then the refundable tax credit approach may be required. However, it is arguable that our main concern should be the deteriorating position of those on low full- or nearly full-time earnings - ie, with incomes well above the current tax thresholds (details are below).

### 7.5.6.1    Current tax thresholds

The NTS has increased the tax threshold to $6,000, or an effective $6,882 inclusive of low-income rebate of $150 pa. Single income families with a young child now have an effective tax threshold of $13,882, made up of the new $6,000 threshold plus the equivalent (through FTB(B) cash benefits) of $2,000 for one dependent child and a further $5,000 for single income families with a child under 5 years of age, plus $882 from the

low income rebate. The fact that FTB(A and B) are refundable tax credits complicates these tax threshold calculations. In practice positive EMTRs commence at familial incomes below the calculated tax threshold. The loss of Basic Parenting Payment as spousal income rises beyond $1560 pa, combined with the loss of FTB(B) as her income rises beyond $4587 pa, has a similar effect.

What this means is that the effective tax threshold for a family varies greatly, depending on the distribution of income within the family.

### 7.5.6.2 Possible policy options

Raising the tax threshold is expensive. With almost 8.5 million taxpayers, a $1,000 pa increase in the threshold costs about $1.5 billion. This could be partly financed by imposing a higher initial marginal rate (currently 17%). The effect of the higher initial rate is to quarantine the benefits of the threshold increase to low income earners. For example, a $5,000 pa threshold increase could be recouped by the first rate step ($20,000) if the initial marginal rate were raised from 17 to 26.4%.[106] Only those with incomes between $6,882 and $20,000 would benefit, with the maximum gain being $850 at the new threshold level of $11,000.

Juggling the parameters allows the gains to be extended to any desired income level. For example, the first marginal rate might be 30%, and the threshold becomes $12,067 pa.

One objection to raising the tax threshold is that this is not target-efficient, because it benefits high-income earners, secondary earners, income splitters and the like. This objection is partly addressed by the proposal to raise the initial marginal rate, although it remains true that many low-income earners who would benefit are in families with high incomes. However, working spouses are less advantaged, through the loss of DSR or family payments as their income rises.

Another reason for wishing to raise tax thresholds is to decrease interactions between means tests and income tax. However, tax thresholds apply to *individual taxpayers*. If the

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[105] Although it can be defended as a means of intra-family income redistribution – the tax is taken from the principal earner and paid to the principal carer (that is, transferred 'from wallet to purse').

[106] Note that this policy is not revenue neutral. Rather, it is designed to confine any net benefit to those taxpayers below the designated income point.

emphasis is to be on greater assistance for low-income *families* (including couples) our options become more difficult.

Extra assistance equivalent to an increase in the family tax threshold could be achieved through increase in the spouse rebate or its social security equivalent, Basic Parenting Payment (BPP). The problem with the latter is that it extends benefits right to the bottom of the income scale, and so does not improve incentives. In practice there would need to be an offsetting decrease in the main (income support) component of Parenting Payment. The practical effect would be to decrease that component of PP subject to familial means testing, and increase that component which is only means-tested on the spouse's income. A problem with both approaches is that they confer additional benefits right up the family income scale if there is a non-earning spouse.

In Ingles (1998a) I suggested that there is a case for a partial family unit basis to the income tax. The aim is to smooth tax and transfer interactions; since the transfer system is necessarily based on the family unit (the alternative being too expensive and perhaps inequitable)[107], this forces the tax system to adopt a similar unit, *especially at the bottom end*. This is already the case with the Medicare Levy, whose 'shade-in' provisions take into account income by the taxpayer's spouse[108].

If the spouse is not working then using the DSR to achieve the higher threshold for a couple spreads assistance all the way up the family income scale. An alternative approach would be to change the low-income rebate (LIR) so that there was a separate, higher rebate for a couple (compared with a single taxpayer) and a separate, combined income withdrawal threshold. The rebate could be quite large, or at least could be phased in so that it became large. This would be a back-door means of implementing a family unit tax structure for low-income earners.

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[107]This is not strictly true. One could design, for example, a system of individual tax credits and a proportional tax (possibly involving supplements for those living alone). But the tax credit for the second earner in any couple would be the de facto equivalent of the DSR, and has all the same distributional implications.

[108] The peculiarity and complexity of the Medicare levy shade-in provisions is a good illustration of the difficulties of reconciling a family-based welfare system with an individually based tax system. When the levy was introduced it had to be designed in this way because a principal aim was to exempt from the levy any group which got free medical services before the introduction of Medicare. This included those with social security concession cards whose eligibility depended on their **joint** income.

In the current benefit system, the rate for a couple is roughly 165% of that for singles. Applying this ratio implies that if the threshold for singles is $6882, that for couples should be $11,470.

Suppose, for example, that the LIR for singles was not $150 pa but $1,000, and that for couples was $2,000. The effective tax threshold for singles would become (6,000 + 1,000/.17 = $11,882; and for couples with one earner, (6,000+ 2000/.17) = $17,765 (or $23,764 with two earners). However the revenue costs of this proposal are likely to be considerable[109], and it would exacerbate some high EMTRs over the Newstart allowance/PP taper range.

To implement a family unit tax system more thoroughly, the tax threshold could be abolished and replaced entirely by low income rebates of, say, $2,000 for singles and $3,000 for couples. This would produce tax thresholds of $11,765 and $17,647 respectively: amounts approximating the respective at-work poverty lines for such families.[110] If it were further desired to reduce the benefits of a family tax base at higher income levels, this could be achieved by abolition of the DSR. This would still leave the issue of families with children gaining equivalent benefits through Basic Parenting Payment. Perhaps this, too, could be abolished, by integration with FTB(A) (as suggested in Chapter 5). The effect would be to have a fully family-based tax system at the low-income end, a transition through the middle income ranges, and a fully individual basis at the top end.

Some will be horrified at the proposal for an increased spouse rebate or a family unit tax system. However it is a logical consequence of greater tax/social security integration. Currently the tax system is based predominantly (but not wholly) on the individual; the social security system mainly on the couple. Since an individual basis of entitlement is not possible in the social security system- it is simply not affordable - the two systems can only be made more compatible by moving the tax system at least partially towards a family basis[111]. And while the EITC is one means of achieving this, there are advantages in seeking a more systematic set of design changes.

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[109] The LIR will shade out above a threshold of $20,000; there would appear to be logic in setting this threshold lower for singles (say, $12,500). This would create some savings. For singles, this has the effect of increasing the marginal rate beyond the LIR threshold from 17% to 21%; for couples with one earner over $20,000, the marginal rate increases from 30% to 34%.

[110] $12,659 for the single person, and $16,934 for the couple. This is not to endorse the Henderson lines, which have well known deficiencies, but they are the only ones in common use which provide for costs of working.

[111] This is a matter of some contention. There have been moves to partly individualise the allowance means test in Australia, and in NZ the National Superannuation pension has the individual as the unit for entitlement. This is both popular and considered affordable.

A complication is that the Tax office would need to assess who is and who is not a couple, lest individuals living together are advantaged relative to married couples. This is already a contentious area in income support policy. It requires a degree of intrusion into people's domestic arrangements that may not be permitted to the Tax office.

Another reason for wishing to raise tax thresholds is both to decrease interactions between means tests and income tax, and to increase the rate at which the incomes of social security beneficiaries "converge" with the incomes of those who have no categorical eligibility. The issue of convergence was discussed in Chapter 6.

## 7.6 Conclusion

Low wage earners can be helped in many different ways. A lot depends on the objectives we are seeking to achieve, and whom we wish to help.

If we wish to ensure that low pay does not result in poverty then the present system, with minor refinements, is probably adequate to this task (Option 1). For families with dependent children, substantial in-work assistance is already provided to low wage earners, and this system has been extended under the NTS. In addition, low-wage couples can receive unemployment assistance if one of them is willing to seek full-time work. For the medium term future, low pay is unlikely to cause poverty for single individuals, so the lack of social security supplements for these groups is not an immediate issue. For working couples without children, supplementation is available through Newstart allowance if one is on the minimum wage and the other is willing to actively seek work. If further supplementation were required, it should relate in the first instance to those with high housing costs. Hence the option discussed earlier to change the rental assistance scheme.

Although the current system addresses poverty, any reductions in real minimum rates of pay may start to cause problems of earnings replacement rates, notably for couples. The answer here (I exclude the "solution" of cutting benefits) is to ease EMTRs for those on the margins of the welfare system. This is already being done for family assistance, under the NTS. For couples coming off allowances, EMTRs are currently very high. Two approaches are possible. One is to directly reduce allowance tapers (Option 2). A problem with this strategy is that, while not expensive in itself, it pushes out the necessary threshold for the family payment means test and therefore has significant flow on costs.

Another possible problem is that it creates a whole class of people receiving a part-allowance, and this may not be a desirable development from either a policy or an administrative view. Easing allowance tapers would extend already-existing trends for them to become in-work supplements for low paid workers. This would require a new philosophy as to the role of unemployment payments in particular, which have not hitherto been (widely) seen as a form of low wage subsidy.

The alternative solution is to reduce income tax payments for those on the welfare margin (Option 3). This has the advantage, compared to Option 2, of keeping people out of the welfare system. It also helps in terms of tax/welfare interaction generally, which cause significant EMTR problems. Many of those who would benefit from easier tapers also pay income tax; often in substantial amounts. Reducing income tax on the low paid will therefore reduce churning, compared to the easier taper option, and it also helps those outside of the formal social security system, thus aiding horizontal equity. However it is likely to be considerably more expensive than reducing allowance tapers, as it is more difficult to confine the benefits to a small target group.

The EITC is one version of this strategy (Option 3a). It can be tightly targeted if it is based on the family rather than the individual. But it may be better to explicitly change the tax unit – particularly at the low-income end – to reflect relative needs of families. A number of approaches for doing this were explored in Chapter 6. The most thoroughgoing reform involves setting tax thresholds at the allowance cutouts. This involves differential thresholds for single, couples and families.

Another problem which policy might seek to address is that of increasing inequality, rather than poverty (the two are related, but not identical). However the policy response to this is not likely to be greatly different to Options 2 and (especially) 3. Once we move from a focus on poverty alleviation to one where we are concerned about work incentives for those on the margins of the welfare system, we inevitably end up giving extra assistance to those on relative low to middle incomes, and this may need to involve an increase in the effective progressivity of the tax/transfer system.

A third possible objective is to "buy" award wage restraint before the Industrial Commission. In this context, a virtue of the EITC is that it would be a highly visible and saleable offset to any scheme of award wage restraint, and might make such a scheme more publicly acceptable. However, it might only be a matter of time before the credit was

scrapped and its effect embodied in the formal structure of income tax rates. (In saying that I acknowledge that I would have made the same comment about the Medicare Levy, twenty-five years ago, and the Low Income Rebate, six years ago, and been completely wrong!)

A problem with an EITC as a compensation mechanism is that it limits compensation to a sub-group of the affected population. Indeed, this is precisely its point (from a cost perspective), but it is a serious weakness from a political perspective. In particular it implies that the union movement would be extremely unlikely to support the wage/tax tradeoff as currently envisaged by its proponents.

I conclude that the preferred policy approach, over the longer term, is to totally integrate the tax and social security systems by a policy of setting tax thresholds at the allowance cutouts, with different thresholds for individuals, sole parents, and couples, along with differential thresholds where there are dependent children. Thus, all social security payments would taper out before tax applied (full separation). Beyond the thresholds quite high tax rates of around 45% would need to apply; if this were thought to involve a too-dramatic increase in the progressivity of the tax/transfer system the available options are to either increase the weight of the GST, or to maintain a fairly low income tax rate below the thresholds, preferably not more than, say, 10%.

## 7.7    Appendix A: Earnings Replacement Rates

The replacement rate is a concept applicable to a particular or a representative individual. The gross replacement rate is the ratio of the gross income he or she would receive on benefit, compared to his current or prospective wage income. The net replacement rate (NRR) is the ratio of disposable income on benefit to disposable income while receiving that wage. The disposable income concept can be further refined to include the value of any fringe benefits that might be received in and out of work.

Prospective income is a dynamic concept which should ideally take account of the likelihood that income will rise over time due to on-the-job training and skills acquisition. This means that static RR calculations are usually overestimates.

Typically replacement rates are calculated for representative individuals receiving the minimum wage, half of average earnings, and the like. A recent publication is Redmond (1999).

A number of macroeconomists have modelled Australian unemployment since the early 1970s and suggest that the "raw" (or naive) NRR – the relation of maximum benefits to average net wages – is what has set a 'floor' to the rate of unemployment. There are some technical problems with this approach – in particular results are often driven by the use of an inappropriate and untypical NRR – that for privately renting single people.

The group with the highest NRRs (families with children), and who therefore are the group most likely to have an incentive problem, have been given ever-more generous in-work benefits over the 80s and 90s. In fact the major purpose in giving these in-work benefits was precisely to prevent increases in NRRs for this group. The design of these benefits has arguably created other incentive problems (see Ingles 1997) but it has prevented, or at least limited, the 'unemployment trap' for this group.

The Tables below show some indicative NRRs for a family where the head receives the minimum wage and the spouse is not working. In each case it is assumed that the family receives its maximum social security entitlement. This means that the spouse either receives a part-parenting allowance or, if there are no children, applies for Newstart in her own right and receives a part-payment.

| replacement rates June 2000, prior to the NTS, no RA | | | | basic payment | minimum wage | ratio |
|---|---|---|---|---|---|---|
| | NSA/PGA | SINGLE | | 168 | 334 | 0.50 |
| | | COUPLE | | 304 | 411 | 0.74 |
| | | | 1 Child | 369 | 461 | 0.80 |
| | | | 2 children | 424 | 516 | 0.82 |
| | | | 3 children | 521 | 650 | 0.80 |
| | | | | | | |
| | sole parent | | 1 child | 276 | 472 | 0.58 |
| | | | 2 children | 331 | 531 | 0.62 |

## July 2001

# Earnings replacement rates for minimum wage earners

| | with rent allowance | | | no rent allowance | | |
| --- | --- | --- | --- | --- | --- | --- |
| | Max. benefit | disposable income | ERR | Max. benefit | disposable income | ERR |
| singles | 223 | 355 | 0.63 | 179 | 355 | 0.50 |
| single with one child | 363 | 569 | 0.64 | 312 | 517 | 0.60 |
| single with two children | 422 | 630 | 0.67 | 370 | 578 | 0.64 |
| couple | 364 | 474 | 0.77 | 323 | 432 | 0.75 |
| couple + 1 child | 443 | 574 | 0.77 | 392 | 523 | 0.75 |
| couple + 2 children | 501 | 632 | 0.79 | 450 | 581 | 0.77 |
| couple + 3 | 581 | 712 | 0.82 | 529 | 660 | 0.80 |
| couple + 4 | 676 | 807 | 0.84 | 625 | 756 | 0.83 |

Note: minimum wage is $413.40 in July 2001;

One child under 5, second child 5-12; third child 16-17 on YA; 4th child 18-25 on YA

Benefit parameters are under the NTS; July 2001 rates.

# 8 CHAPTER 8: INTERACTION OF THE AGE PENSION MEANS TEST AND THE TAXATION OF SUPERANNUATION

## 8.1 Introduction

It is argued in earlier Chapters that the Australian social security system is probably the closest in the world to a negative income tax (NIT) or guaranteed minimum income (GMI). For a believer in the (categorical) NIT or GMI principle, the retirement income system in Australia presents something of a conundrum. Why have a contributory tier, and associated superannuation tax concessions? Clearly, there is a difficulty in reconciling a pure NIT solution directing assistance to the most needy with the desire to encourage retirement savings generally and enhance living standards of the retired.

In the UK debate, echoes of the old poor law and the twenties "dole" (with its associated family means test) continue to persist in the remarkable academic and public disquiet with any suggestion of a major role for means tested benefits. For example, LeGrand has argued that means testing promotes "knavish" behaviour... "which is at once both rational and, from society's point of view, irresponsible...It would clearly be disingenuous for the government to simultaneously exhort people to save while operating a policy which penalised them for so doing" (1997, cited in Agulnik 1999 p9). Yet retirement income policy in Australia could be described exactly thus.

The problem with the current means test can be stated as follows:

- it can induce moral hazard by making the cost of not saving for retirement relatively low (at least for some people over some ranges and types of assets);

- it distorts savings into exempt or well-treated forms like the owner occupied home; and

- it can make early retirement cheap, since for some, running down assets may have little impact on living standards on attaining pensionable age.

The economic cost of means testing can be reduced by making the means test more gradual. It is interesting to note that for the aged in Australia, the ETRs in place after the implementation of the New Tax System (NTS) and the 2001 budget changes[112] average out at around 55% over a wide range of incomes (figures 8.1 and 8.2). Is a further reduction in

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[112] These raised tax thresholds for the aged to $20,000 pa (singles) and $32,612 (couples). The value of pensioner rebates phases out beyond these levels so that the value of the extra tax threshold is progressively withdrawn as income rises further.

taper (from 40 to say 25%) justified? It would create an ETR of around 50% for the aged (figures 8.3 and 8.4). Different income splits within couples affect the ETRs but not dramatically (figure 8.5).

I argue in this Chapter for such an approach. The further step of means test abolition may be attractive in conjunction with certain proposals for the heavier taxation of superannuation but may not otherwise be warranted. Payment of a universal pension in New Zealand has generated considerable policy instability (St John 2001). Politicians find it hard not to see a means test free pension as an affront to budgetary and commonsense logic. This would also be the case in Australia with its long history – and public acceptance – of means testing and the strains likely to be imposed by the demographic ageing of the population. Further, there are 'optimal tax' arguments for an effective tax rate on pensioners at around the 50% level.

A 50% tax rate may sound high, but this is inevitable on the maths of the NIT approach. Dawkins et al have shown that a linear NIT paying the same maximum benefits as at present, and retaining categorical eligibility, would require a uniform tax rate at around 50% for the whole population. To this extent, the British (and continental) arguments for universality are based on a misconception. As tapers reduce, general taxes rise, so that ultimately selective and universal benefits become exactly the same. The necessary linear tax rate is a simple mathematical consequence of the general level of other government expenditure, the rate of pension and its relativity to the general level of taxable incomes.

NZ has what is essentially a GMI scheme for the elderly, one which under the previous surcharge arrangements could easily be rationalised as a NIT (as has been argued, for example, by St John 1991). In Periodic Working Group (1997) a tax credit option to rationalise the tax/surcharge treatment of NZ superannuation was proposed.

I also argue that the means test could be further rationalised by abandoning the separate assets test and returning to something more like the "merged means test" that prevailed in Australia up until the mid-1970s, modified to reflect current costs of annuities.

### 8.1.1 The means test

The age pension means test is at the centre of many criticisms of the retirement income system. It should be said in its defence that it reduces age pension expenditure by over $4 billion pa (but less, net of income tax that would be clawed back), and also that it helps

improve horizontal equity as between the aged and low-income workers. That said, it probably imposes considerable costs in terms of its behavioural effects, and its impact on retirement savings incentives may be the opposite to that which superannuation tax concessions are meant to achieve.

Ross (1997), in a thoughtful article, has pointed to a number of adverse behavioural consequences of the current superannuation system and its interaction with the age pension means test. These include:

- confusion and uncertainty about the way the system works;

- the creation of a new planning and advisory industry because of the complexity of the rules surrounding both systems and the frequency of changes to them;

- widespread perceptions of unfairness due to the opportunities for double dipping and the high effective tax rates over some ranges of pensioners' income and assets;

- the expenditure of considerable time and effort to minimise the amounts which fall within the definition of income and assets for means test purposes;

- questionable value of superannuation saving for some people; and

- a general lack of security about what retirement benefits will turn out to be.

This last is a general feature of defined contribution plans. Burtless (2000) demonstrates for the US that pensions under private plans (as an alternative to US Social Security, a generally unfunded system) would generally have been adequate but varied markedly depending on the year of entry and retirement. Potential pension outcomes varied from 20% to 110% of earnings. Inflation risk was also marked. In Australia this potential variety of outcomes, while an inherent feature of our private superannuation system, is heavily circumscribed by the age pension system. In this respect, at least, high EMTRs act to mitigate the potential range of outcomes inherent in our private superannuation system.

Ross further argues that the existence of the test creates a generally negative effect on attitudes to retirement saving, and leads to investment decisions which are driven by the aim of maximising the pension rather than allocating assets appropriately - for example, older single people may remain in inappropriate housing because of the effect on their level of assets were they to sell up.

## 8.1.2 Inconsistency between means testing and tax concessions

Ross concludes ... "Fundamentally, we have:

- Two complex systems (age pension/social security and superannuation) which have conflicting effects - the means test ... discourages saving for retirement, while the superannuation system is designed to encourage it.

- A compulsory superannuation system ... which encourages the use of lump sums before entitlement arises to the means-tested age pension." (1997 p9).

The Institute of Actuaries makes the same argument: "At present there is a basic conflict between the two pillars of the system. The superannuation system is designed to encourage saving for retirement. In contrast, saving is discouraged by the age pension system..." (1998 p1).

Knox et al argue that..."there exist considerable horizontal inequities within the system ... the relationship between lifetime earnings and net retirement income is not progressive in some cases, and in other circumstances is actually regressive. The major cause of this problem is the very high effective marginal rates faced by many retirees caused by the combination of means test and income taxation" (1997 p13).

In Ingles et al (1982) it was suggested that the policy of combining superannuation tax concessions with a means-tested age pension system had inherent inconsistencies, and that for the same total expenditure a means-test free age pension, combined with reduced tax concessions, would be much more neutral both in relation to the income tax system and also the treatment of the retired – while leaving net incentives to save for retirement unaffected.

The Institute of Actuaries has argued for a somewhat similar approach. Its proposal is designed to be revenue-neutral. It removes the age pension means test and offsets the cost by "increasing the taxes payable by middle and higher income earners on superannuation benefits and on income after becoming an age pensioner... equity would be maintained because those who pay the additional taxes would receive higher age pension income" (1998 p2). This last point is demonstrated formally in simulations by Atkinson, Creedy and Knox (1995 and 1997).

In a later article, Ross (1999) argues that having a tax system that encourages retirement savings and a means test system that discourages it means that the systems are not complementary, but competing. Ross calls for a means test free pension, financed either by a tax clawback on higher income earners [surely just another and possibly inferior form of means test!] or by reducing the value of tax incentives for higher income earners by changing tax rates or reducing reasonable benefit limits. The Senate Standing Committee on Community Affairs (1988) advocated a very similar policy. In fact, the Government's NTS implicitly moved policy in this direction by reducing pension tapers and reducing the value of tax concessions (this is automatic when income tax rates fall).

## 8.2 Options for modifying the age pension means test

In an article in the AFR of 15.9.99, Creedy and Dawkins pointed to possible benefits from abolishing the means test, and suggest that the economic efficiency gains would dominate the revenue costs. This issue – which has been a hardy perennial in Australian politics - will not go away; on the contrary it will become more cogent as the SG brings more and more retirees into income ranges affected by the pensions means test.

Another concern with the means test, in the context of an ageing population, is that it may contribute to early retirement. For many people the means test makes early retirement relatively cheap, in the sense that they can use up some of their superannuation assets prior to pensionable age while making relatively little sacrifice of their consumption standards on attaining pensionable age. With the predicted demographic ageing of the population, Australia can ill afford losing productive workers to early retirement (see Ingles 2000a).

### 8.2.1 Cost of means test abolition

Abolition of the means test is expensive, with a gross cost of some \$4 billion pa. With a likely tax clawback of around 30%[113], this translates to some \$2.8b net[114]. It could also be argued that women aged 61-64 should not benefit from means test abolition, which would further reduce the current cost. On the other hand, over the longer term the cost becomes much higher, due to the ageing population. RIMU have projected that a universal pension

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[113] Many of those who would benefit from abolition would be on higher marginal tax rates.
[114] The cost of various State government concessions might also need to be included.

would cost an additional 2% of GDP by 2050[115]. In other words, the long-term cost of a universal pension is roughly double that currently prevailing.

If we assume that each 10-percentage point reduction in taper costs a bit less, and that women under 65 are not included, an illustrative cost schedule for taper reductions might be as in Table 8.2.

**Table 8.2: cost of age pension taper reductions**

| Taper to (%) | Gross $m | Net $m |
|--------------|----------|--------|
|              |          |        |
| 30           | 1300     | 1000   |
| 20           | 1100     | 800    |
| 10           | 900      | 600    |
| 0            | 700      | 400    |
| **totals**   | **4,000**| **2,800** |

The cost of a 25% taper – which I argue might be an appropriate objective – would now be around $2 billion gross, or about $1.5 billion net. However, as noted above, these costs will rise markedly over time. (I emphasise that these are "ballpark" figures, and also they assume pro-rata reductions in the severity of the asset test.)

It is interesting to note that, while it was estimated prior to the NTS on July 1 2000 that some 40-60,000 new age pensioners would be brought into the system by the 40% taper, in practice this has turned out to be less than 15,000 to date – of whom almost half were already eligible. It appears that data on pensioners' assets and incomes is incomplete, and also that extrapolation based on 'normal' distributions gave misleading results. In practice it may be that those who were previously just outside the cutouts had already organised their affairs so as to become eligible, thus causing a 'hollowing out' of the income distribution just outside the old cut-out points. If so, this appears to substantiate claims

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[115] In current dollars that would be $12b, and on a net basis, $8 billion pa. This estimate pre-dates the 40% taper and would now be some 25% lower.

that the means test has a good deal of influence on the ways in which pensioners organise their affairs.

## 8.2.2  Issues in means testing

Means test taper reductions are economically sensible if the cost of saving a marginal dollar is greater than the cost of raising a marginal dollar through the tax system, and should be pursued up to the point that these marginal costs are equivalent. While the marginal (economic) cost of means testing is undoubtedly very high – in terms of the behavioural distortions it gives rise to  - so to is the marginal cost of taxation, at least as estimated by various studies documented in Chapter 3.

I here consider the option to further reduce the age pension taper to, say, 25%. On the one hand this reduces ETRs for pensioners to around 50%, at a net cost of around $1.5 billion. On the other hand it can easily be inferred that raising this amount from, say, the income tax, would require a very small addition to marginal rates on 8m taxpayers, compared to the very significant reductions it confers on marginal rates for some half-million pensioners likely to be affected.[116]

Unfortunately we have no 'cost of means testing' studies which would allow us to evaluate these costs, relative to the cost of raising a marginal dollar of tax revenue. However we do know that economic distortions are minimised where the marginal effective tax rate is everywhere the same, save that it should be lower where behaviour is most responsive to changes in the tax rate. In the case of the aged, whose workforce participation is very low (under 10%), the behaviour in question is the *elasticity of investment in assessable assets* with respect to the effective tax rate on them.

While there is no consensus in the literature about the elasticity of total saving with respect to the net interest rate, there is a strong consensus that there is a very substantial elasticity in relation to the allocation of assets to taxed and untaxed (or lightly taxed) classes. In other words, economic theory might provide a justification for lower effective tax rates on retirees than on workers.

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[116] While there are just over 2 million age/service pensioners, 2/3 of these have incomes under the current free area and are not affected by taper liberalisation. There is another small group of people who would be brought into the pension system; this would number less than 100,000.

Leaving aside this possibility, and assuming that we are seeking to equalise marginal rates, does not necessarily mean means test abolition. As noted in Chapter 5, Dawkins and his associates have estimated that, under a categorical NIT providing the same basic benefits as the current system, the required marginal tax rate *on all income* is 50%. In other words if retirees face effective marginal tax rates (EMTRs) of less than 50%, the working age population must face higher rates. Dawkins' advocacy of a means test free pension is apparently inconsistent with his advocacy of a NIT, and resolution of this inconsistency requires that an EMTR of 50% be sought for the aged.

Modelling shows that such a tax rate is not difficult to achieve. Figures 8.3 and 8.4 show EMTRs with a 25% pension taper. In all cases, it appears that the effect is very similar to a 50% effective tax rate. (The exact rate depends on income splits within the couple – see Figure 8.5. Another complication is the treatment of assets, which I will come back to.) The cost of around $1.5b net is not a large amount in the context of total age pension expenditure. It could be financed by a relatively small addition to marginal income or consumption tax rates, a fact which underscores the likelihood of net economic efficiency gains overall.

It should be borne in mind that even if there is no explicit means test the ETR on pensioners beyond the tax thresholds[117] is still at or around 45%, reflective of the income tax clawed back. This is illustrated in Figure 8.6.

It should also be noted that most of the efficiency gains from reducing EMTRs come from the first tranche of reductions. This reflects Harberger's classic (1968) finding that efficiency cost of taxation is a function of the *square* of the tax rate. In other words reducing the means test taper by half is likely to yield up to three-quarters of the potential efficiency gains, compared to those from abolishing it entirely. Indeed, if elasticities of saving and working are equal, there may be *no* gains to be had from reduction in pension EMTRs below 50%, entailing as they would relatively higher taxes on wage earners.

In an earlier paper on optimal tapers (Ingles 1998b), I suggested that there were no obvious reasons for maintaining different tapers on pensions and allowances, given that evidence of savings vs work elasticities was tentative and elusive. Taxing saving creates a distortion between current and future consumption; taxing work creates a distortion between work

and leisure. Economic ("optimal tax") theory does not provide a clear case for favouring the one over the other, and empirical work has yielded mixed results.

In Chapter 4, I modified my view on the desirability of maintaining equality between pension and allowance tapers. The reason is that a high taper on allowances maintains a situation where most workers earn incomes beyond the cutout points in the allowance system. This is not true of pensioners, and the argument for a single marginal rate right through the pensioner income distribution is, in my view, much more persuasive.

It is not obvious that equity is furthered by reductions in the pension taper. The people who would benefit are on average reasonably well off, and probably better off than many working families who would be paying the taxes to finance this reduction. There are ways, however to address this issue. It should be noted that it is a transitional one - if current retirees had paid higher taxes all their working lives to finance a universal age pension, no one could complain when they themselves come to receive it. One option is to finance the taper reduction by reductions in superannuation tax concessions, such that future retirees are not, on average, gainers from the reform. However, there are difficulties with this, as discussed later in this chapter.

### 8.2.3 Alternative means for implementing a 50% effective tax/taper rate

In Chapter 6, I discussed three alternative approaches to tax and social security interactions: harmonisation, integration, and separation. The 25% taper proposal is an example of *harmonisation*, whereby tax and means tests are designed to dovetail to achieve the EMTR result sought. The disadvantages of this approach are that it falls short of achieving a fully linear EMTR structure; it requires duplication of administrations, and it continues to involve different income and related definitions. The other two approaches avoid these problems.

*Integration* could be achieved by jettisoning the means test entirely and imposing a 25 percentage point tax surcharge on non-pension income beyond the free area. While I am attracted to the simplicity of the concept, in practice it would lead us back to a situation similar to that prevailing after the abolition of the assets test in 1976, with the same opportunities for avoidance and the like. Put simply, the current income base is not a

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[117] The pension is taxable income, so that tax thresholds applying to *private income* are less than $20,000/$32,612. Those on such incomes would be receiving a substantial part-rate pension.

sufficiently sturdy platform for operating tax rates of around 50%, a problem exacerbated by changes to the taxation of capital gains. This was also the NZ experience when there was a tax surcharge on 'national superannuation' pensions in that country.

*Separation* is a more attractive option at this time. This would involve returning to a pension taper of 50%, but raising pensioner tax rebates by sufficient to prevent any income tax liability arising while in receipt of a part-rate pension. Rebates would then phase out at a 20% rate so as to maintain an EMTR of 50% until they were fully exhausted. One advantage is that the tighter pensions income and assets test operates over the *whole* of the low to middle income range, so maximum targeting is achieved.

The rebate system, however, has some problems in its application and my preferred solution would be to provide for *special age-related tax scales*. For those aged over 64 these would have thresholds equal to the revised pension cutouts (recall that they will fall somewhat under the proposed 50% taper), a couple basis for assessment, and a tax rate of 50% beyond the thresholds. Pensioners would revert to the normal individual tax scale as soon as this was to their advantage; this point would be dependent on the income split within the couple. These special tax scales would be available to the whole of the (residentially qualified) population aged 65 and over, so as to avoid discontinuities for those at the pension/tax interface.

### 8.2.3.1 Should this plan be financed from general tax increases or reductions in superannuation tax concessions?

There are obvious attractions in financing taper reductions from superannuation tax, but quite large practical difficulties. The attractions arise from a simple theoretical argument. Suppose that the marginal rates of tax on savings and earnings were initially optimised. Suppose we then lower the effective tax on saving by reducing the pension taper. This implies that the mix of tax would no longer be optimal, and that some higher tax on savings is required in order to restore the initial, optimum tax mix. Superannuation saving is the obvious place to make such an increase, since it is specifically benefited by pension taper changes.

Further, the maths appears favourable to a tax/means test trade-off. The cost of tax concessions for occupational superannuation was estimated at $9.4 billion in 1998-99[118], falling to an estimated $8.7 billion for 2000-2001 (reflective to the reduced income tax rates under the NTS). However there are difficult issues in costing this particular "tax expenditure" (see Bateman and Piggott 1992b, and Clare 1998) and this figure may be on the high side. Nonetheless, it is clearly more than adequate – if it could be had – to finance a taper reduction with a net cost of $1.5 billion. Another advantage of this source of funding is that it will automatically rise in the future, and thus offset part of the rising cost of taper reduction.

There are two theoretically pure ways of taxing capital income, including superannuation. Either would require a radical upheaval of existing arrangements. One is the expenditure tax (ET), which as explained in Appendix 2 to this Chapter effectively exempts capital income from tax. The other approach is the comprehensive income tax (CIT), but for this to work properly it requires that capital income be taxed on a fully inflation-adjusted accrual basis. For example, capital gains should be taxed each year, at the individual's marginal rate, on the difference between the start and the end values of the relevant assets, adjusted for inflation. Further, income should be imputed to items in use; the owner occupied home is the most important example.

Economic theory is not decisive as to which of these approaches are to be preferred. However it does suggest that intersectoral allocation of resources is improved if the one approach is applied to all forms of capital income.

All tax systems in practice employ mixtures of expenditure and income tax concepts. The ET approach is typically applied both to owner-occupied homes, and also to superannuation, in most other countries. Many theorists have therefore argued that efficient asset allocation would be furthered by applying an ET regime more widely, and in particular to superannuation savings. Others have argued that this would have an unacceptable impact on the distribution of income and wealth. This is precisely the problem that would arise if the ET concept were pursued more wholeheartedly in the superannuation arena in this country.

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[118] 1999-2000 Budget Paper No 1 "Budget strategy and outlook 1999-2000", Appendix B pp6-20.

If on the other hand we assume that the CIT rather than the ET is an appropriate basis for taxing superannuation, there is still the question of whether we can actually find another $1.5b – that is, in addition to the $5b pa currently reaped - from the superannuation 'honey pot'? One problem is that the Treasury Tax Expenditure methodology assumes that people's behaviour is not different under alternative tax treatments. It also assumes that the alternative to investing in superannuation is to invest in alternative, fully taxed investments. Clearly, this is unlikely.

Another problems is that, under the current superannuation tax structure, the main options are an increase in contributions and/or fund earnings tax, at 15%, or in lump sum tax (16.5% on amounts over $90,474). The problem arises mainly at the bottom end of the income distribution, where the 15% tax on superannuation contributions and fund earnings is only just below the 17% marginal tax rate which applies, since 1 July 2000, below $20,000 pa of taxable income.

Hence for some low-income earners superannuation saving is only very slightly tax-advantaged and – because it is locked away for so long - is therefore a very unattractive alternative to other uses for the money. Increasing the tax at any of the points identified above could exacerbate this problem. Rothman's (2000) analysis clearly suggests that concessionality mainly applies to middle and higher income earners. For them, some increase in superannuation tax might be possible, but this runs into an area already complicated by the introduction of the superannuation surcharge. One option discussed in Appendix 2 is to raise additional revenue from the surcharge itself. Another is to raise tax rates on end-benefits, but it is hard to do this in an equitable manner while superannuation contributions are also taxed.

A further problem with clawing back the cost of taper reductions through superannuation tax is that it cannot be assumed that the initial tax rates on savings and earnings are in fact optimal. Thus, we cannot rule out the possibility that taper reductions should optimally be financed from raising taxes on wage incomes, not just retirement savings.

The bottom line is that while there may be a theoretical argument for financing taper reductions from changes to superannuation tax, easy options are not available. Questions about equity are also important, although from a lifetime equity perspective it may not matter very much if one pays slightly higher taxes while working, if you then receive

higher benefits while retired. On the other hand, there may be little point in handing out windfall gains to the better off among the current generation of retirees.

Ultimately, while economic theory might point in the direction of lower EMTR on age pensioners, it provides little guidance on whether that should be financed from general tax increases, or higher taxes on superannuation.

## 8.2.4 Treatment of assets

The NTS reduction in the pension taper has increased the tension between the pension income test and its associated "deeming" regime, and the separate assets test. The deeming regime affects all *financial assets*, but applies at a relatively low rate (now 5% up to $30,000, and 5.5% beyond) which varies with the general level of interest rates – one which pensioners find is easily achieved or even exceeded. The assets test has a high threshold but in effect deems income from *both financial and non-financial assets* at a very high rate. This is because the asset test takes the form of a fixed deduction in pension - $3 per fortnight - per $1,000 of assets held.

With a 50% taper the assets test in effect imputed a marginal return of 15.6% on affected assets. With the taper having fallen to 40% but the asset test being unchanged, the implicit deeming (imputation) rate rose to 19.5%. With a taper of 25%, the implicit deeming rate would double, to 31.2% pa. While apparently draconian, it must be emphasised that these are *marginal* rates, and average rates – taking into account the large asset thresholds – are much lower. Nonetheless, it is the marginal rates that are likely to cause behavioural effects for people with asset holdings above or close to the thresholds.

Since a neat alternative exists, there seems to be no real reason to persist with a separate assets test. That alternative is a return to the "merged means test" that existed prior to 1976. Under that test, all financial and non-financial assets were in effect deemed to earn at a rate of 10% pa; that amount was added to any earned or pension income and the pension taper applied to the total. The 10% rate was originally based on the cost of an annuity for a man aged 65; I argue below that on the same logic this rate should now become 6-7%. But while the *marginal rate* would thus be much lower than the 19.5% imputed by the current asset test, the *average rate* for many would be higher; there would be no separate asset thresholds but rather, imputed asset income above the income free areas would be fully assessed. Thus, the change is likely to yield net savings.

There is an inconsistency at the heart of current deeming arrangements; that is, the deeming rate drifts up and down from time to time reflective of general interest rates, which are themselves in part a product of variations in the actual or expected rate of inflation. In real (inflation adjusted) terms, investment earnings follow a much narrower band. Put another way, pensioners are actually disadvantaged by combinations of high interest cum-deeming rates and high inflation, and advantaged by the reverse combination. This does not show up in the short run (with higher interest more than compensating for reduced pension), but becomes very clear over the long run as pensioners' real assets reduce. Taxation accentuates this effect.

Instead, I propose the introduction of what would amount to a revitalised merged means test. The deeming rate would be fixed at the average cost of an *indexed life annuity* for a person aged 65. This would give a rate of around 6-7%[119]. This could be applied to all assessable[120] (financial and non-financial) assets in the manner of the old merged means test, and would be invariant to the general level of interest rates and the rate of inflation. The separate assets test would be abolished. An ancillary advantage is that it would make quite explicit the Government's desire to direct people into income stream investments. A final advantage is that it would yield savings, which could partly finance the reduced pension taper proposed.

## 8.2.5  Guaranteed Minimum Pension (GMP) scheme

This is another interesting route to means test abolition. In its 'classical' form the basic idea is that benefits from the compulsory superannuation tier would have to be taken in income (life annuity) form, and the GMP would top this up to an acceptable basic standard. The implicit means test in the classic GMP involves a 100% taper and would be restricted in its application to income from the compulsory superannuation tier (Ingles 2000c).

The main modification I make to this 'classic' proposal is to extend the recommended system to all superannuation benefits (excluding undeducted employee contributions), not just the SG tier. Also I am not sure that there is any case to tighten the implicit means test structure (ie beyond the 40% taper in July 2000). Tightening certainly reduces costs, but at

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[119] The 6% rate is more relevant to females, 7% to males. Annuity costs vary from time to time; the options are either to take an average or to allow for fluctuations to be reflected in the deeming rate. For indexed annuities cost variations are relatively small.

the expense of reducing the net return to superannuation investments. Return to investment becomes more important if non-compulsory superannuation is included in the proposal.

In Ingles 2000c, I conclude that the GMP idea has merit, but there would need to be resolution of a number of practical and conceptual difficulties. One attractive variation on the basic proposal would require retirees to "purchase" their (universal) age pension by paying an up-front sum of a proportion of their retirement benefit. This overcomes a lot of the problems involved in requiring SG recipients to take up annuities (see Appendix 3). A further variant of this proposal is simply to combine a higher tax on superannuation end benefits with means test easing or abolition.

In a tax policy sense higher taxes on end benefits are best achieved in a context where the superannuation contributions tax is abolished, and all superannuation contributions by employees become fully deductible. The simplest approach is a full EET[121] tax regime. If this were not thought appropriate – and see the problems discussed in Appendix 3 – a sub-option is to also tax fund earnings. This puts superannuation taxation on a footing somewhere between the comprehensive income and the expenditure tax base.

Any combination of reduced taper and higher (superannuation) benefits tax overlaps with the GMP approach in terms of lifetime redistributions. Introduction of a 25% taper and financing it by higher taxes on end-benefits could be phased in such that only new cohorts paying the heavier end-benefit tax would be eligible for the eased taper, so there would be no net costs to the budget. In a distributional and efficiency sense, the outcome is very similar to the GMP idea, while retaining some internal consistency within the social security system as a whole.

I am less attracted to the GMP approach of a full-fledged universal pension financed by an even heavier final benefits tax, although I would nonetheless see it as a great improvement on the current system. In this latter approach, phasing-in is very straightforward, with only those paying the higher tax to receive the universal pension entitlement. Phasing in might be on the basis that for each of 40 years, an additional 1/40th of the age pension would be

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[120] I assume that the owner –occupied home would continue to be exempt, although I agree with the late Prof. Fred Gruen – in his 1986 asset test report - that it should not be (and all pensioners, not just renters, would receive a pension rate designed to cover reasonable housing costs).

[121] Exempt contributions, exempt earnings, and tax benefits at full marginal rates.

paid free of means test. In this manner the means–tested component would eventually reduce to zero.

## 8.3   Conclusion

The GMP idea makes it possible and affordable to abolish the age pension means test. However it is not clear if the pension taper should be reduced below, say, 25%. Most of the efficiency gains are achieved by the first tranche of taper reduction. Optimal taxation of superannuation-cum-retirement savings necessarily involves integration of tax and means test provisions. It does appear reasonable to trade-off pension taper reductions for higher end-benefits taxation of superannuation, but there will be substantial transitional issues in moving to any new system.

In the longer term we should look for a solution where the taxation of superannuation is reformed as part of a comprehensive reform of capital income taxation. However the changes likely to be necessary are so radical – whether that be a full ET or a full CIT - that it is unlikely we will see anything like this for some considerable time to come. But irrespective of any such developments, there is a good economic case for changing the age pension means test to implement a 50% ETR, and if such a change were effected it would also provide a good opportunity to tighten the existing taxation of superannuation benefits such that the changes could be defended as preserving, on balance, net incentives to save for retirement.
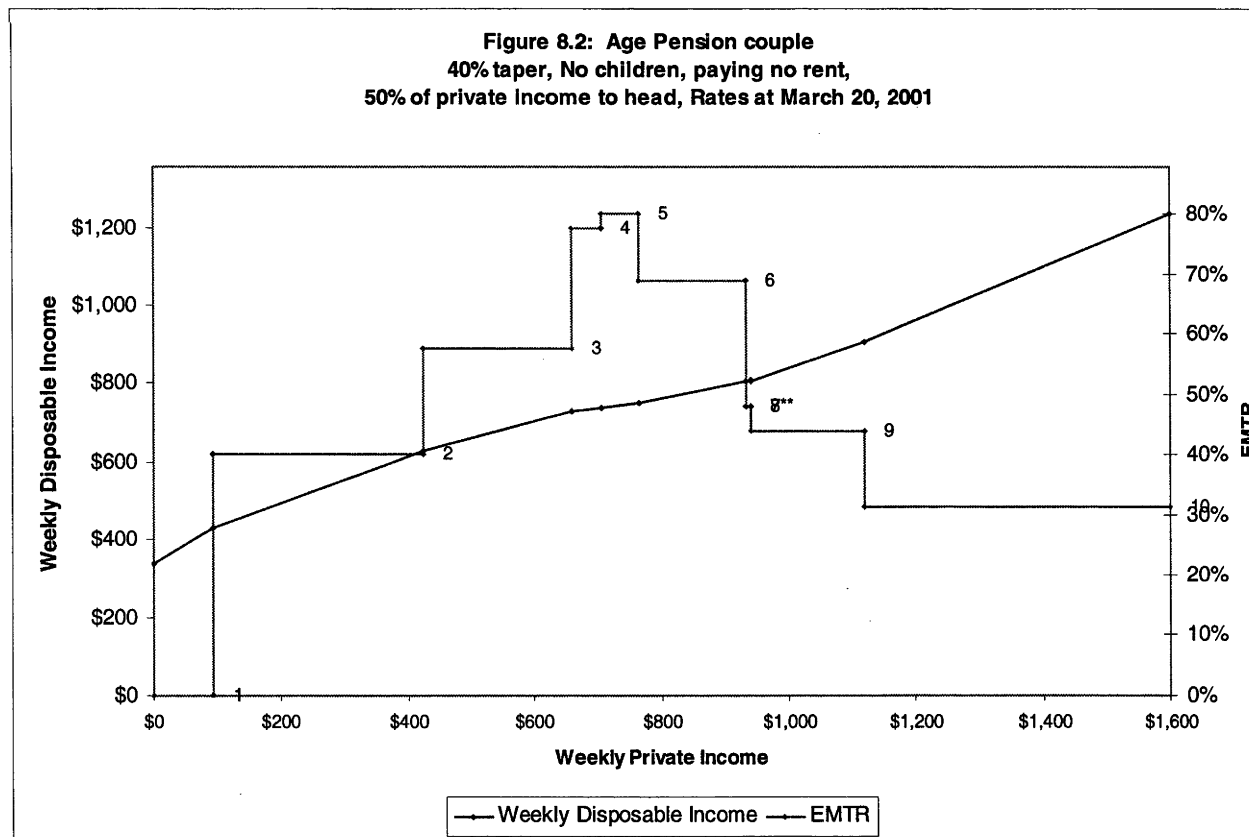
## 8.4 Figures

### Figure 8.1: Single Age Pensioner - Rates at March 20, 2001
**40% taper, No children,**
**Paying private rent of $0 pw.**



### Figure 8.2: Age Pension couple
**40% taper, No children, paying no rent,**
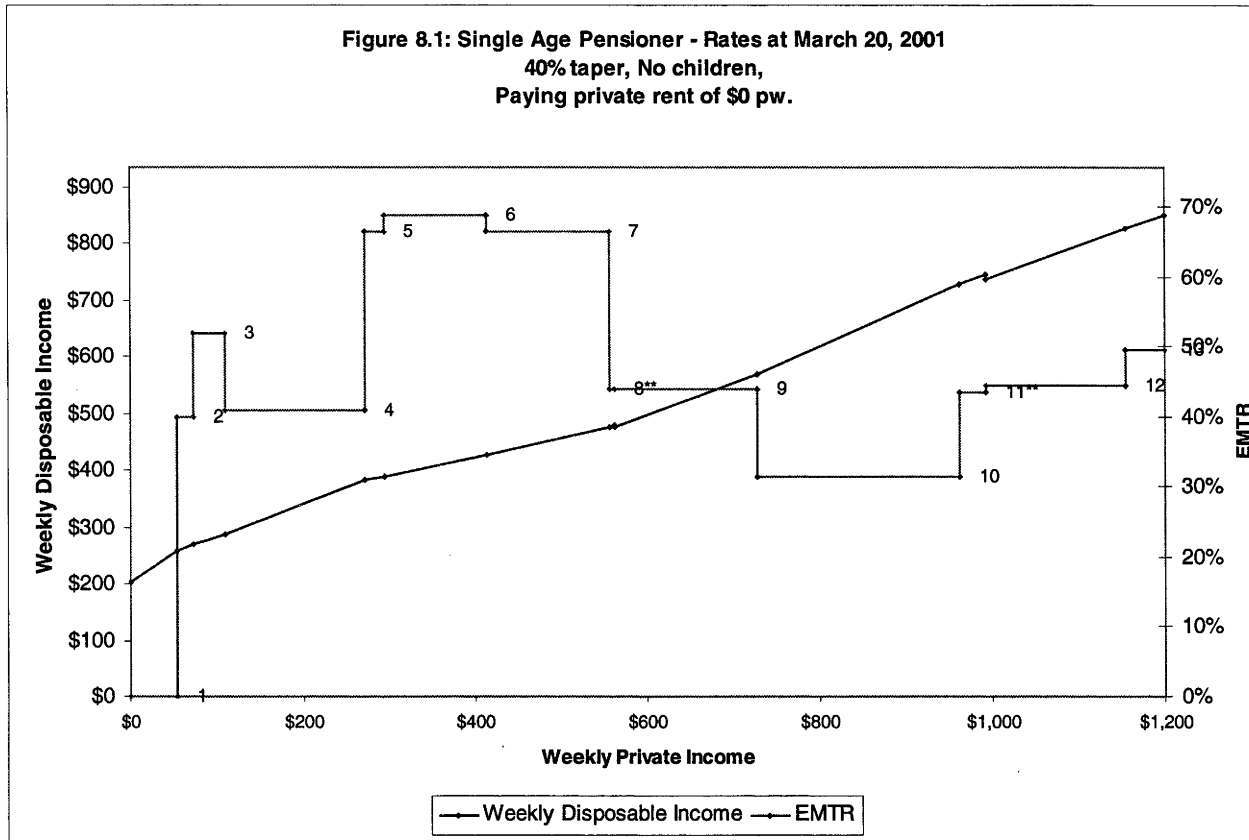**50% of private income to head, Rates at March 20, 2001**

**Figure 8.3: Single Age Pensioner - Rates at March 20, 2001**
**25% taper, No children,**
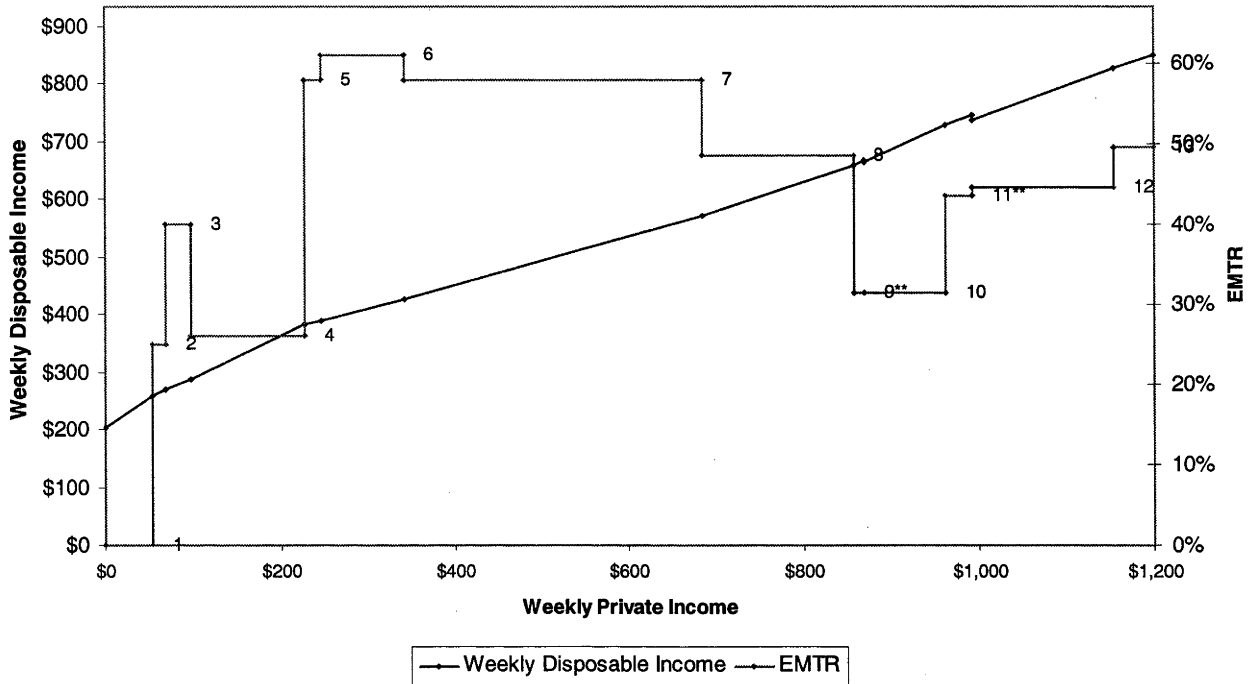**Paying private rent of $0 pw.**



**Figure 8.4: Age Pension couple, 25% taper**
**No children, paying no rent,**
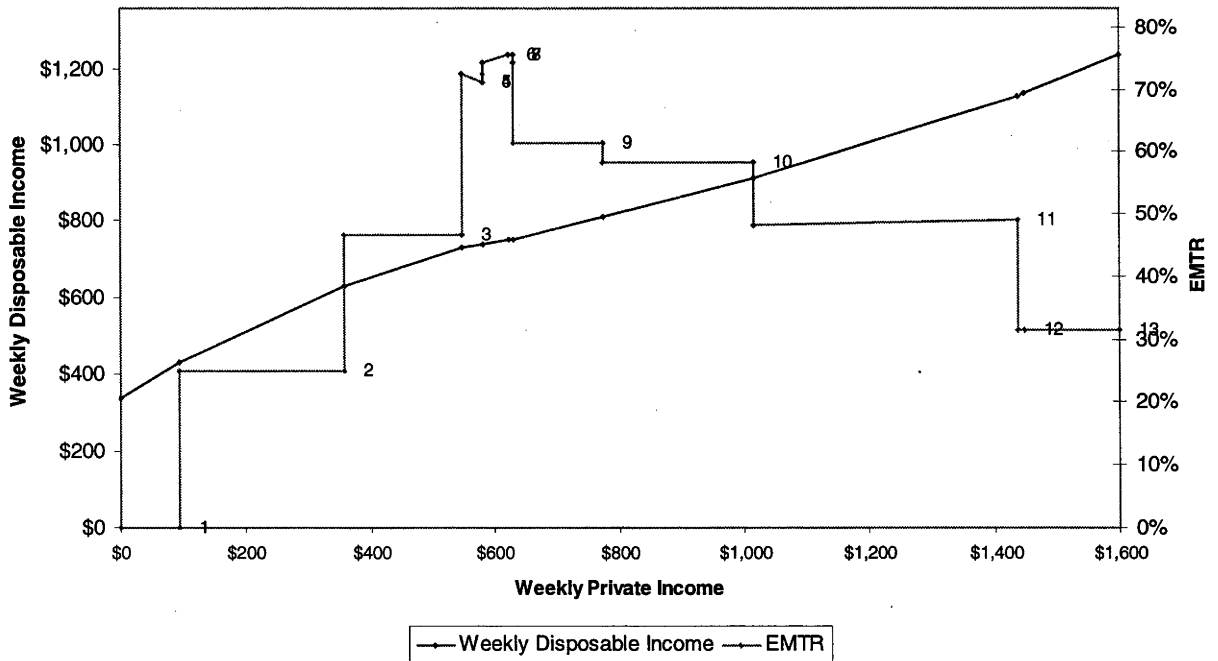**50% of private income to head, Rates at March 20, 2001**

**Figure 8.5: Age Pension couple**
**25% taper, No children, paying no rent,**
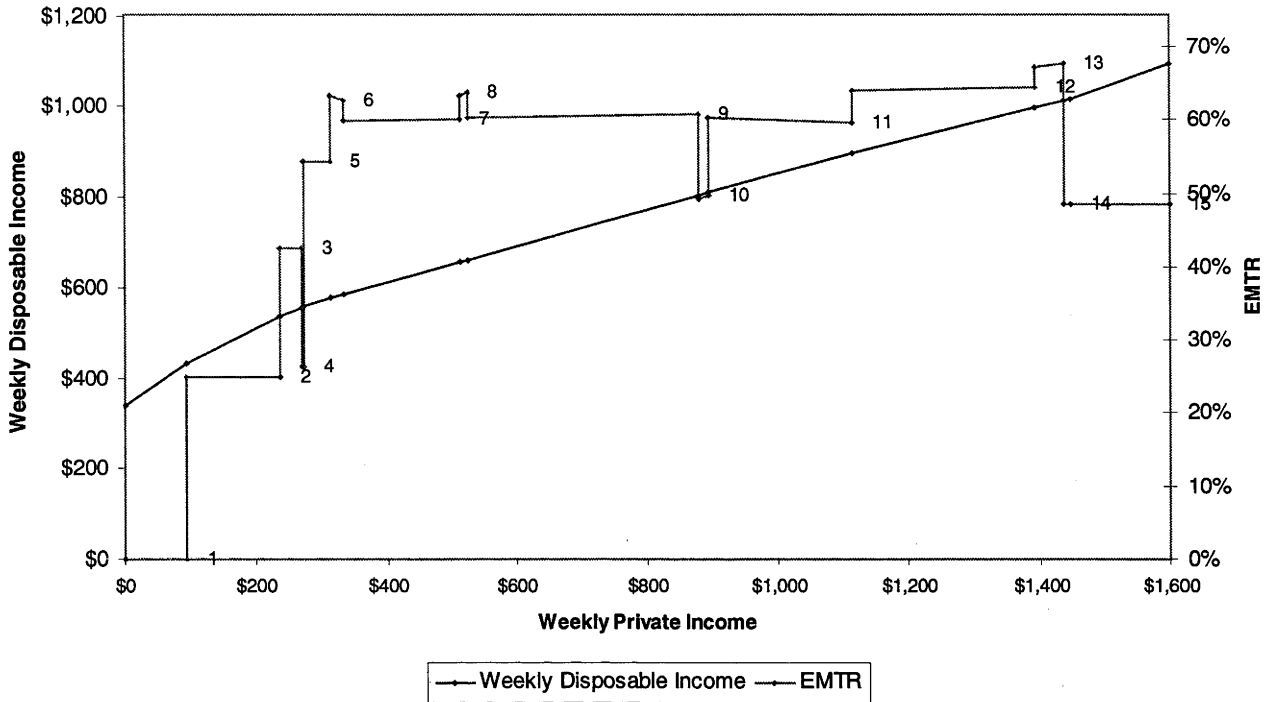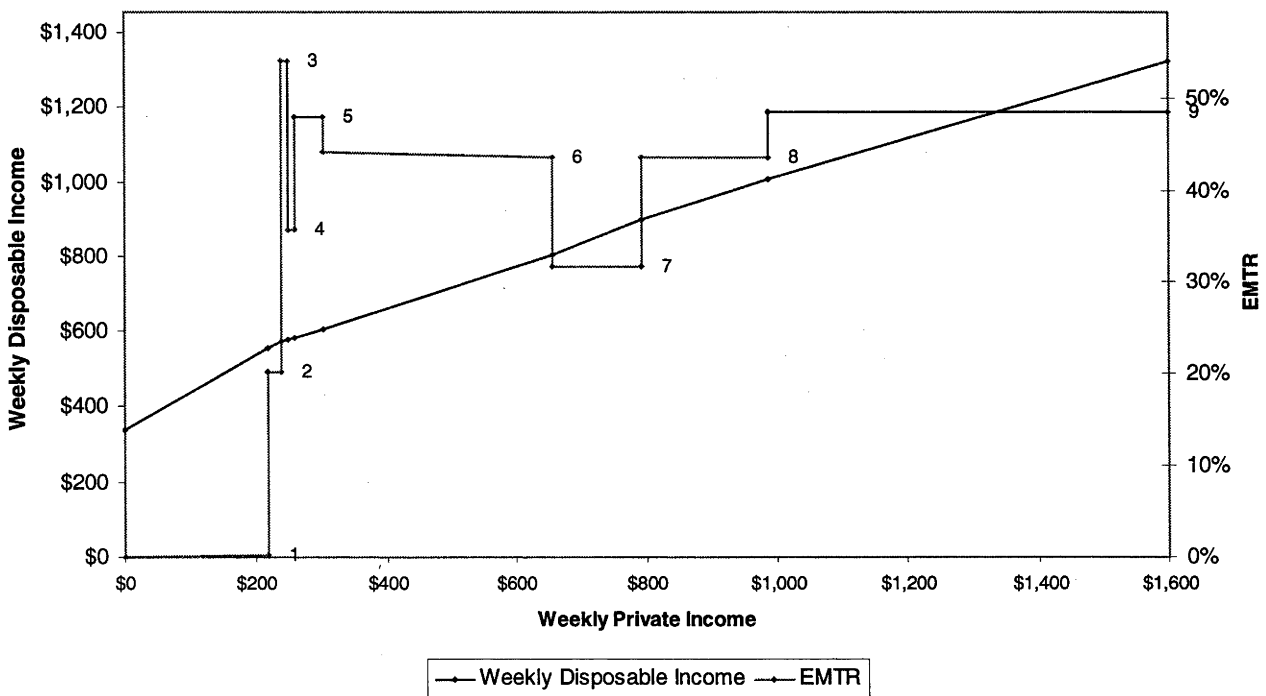**100% of private income to head, Rates at March 20, 2001**



**Figure 8.6: Age Pension couple**
**No means test, No children, paying no rent,**
**100% of private income to head, Rates at March 20, 2001**

## 8.5    Appendix 1: taxation treatment of superannuation[122]

**Contributions**

Contributions to complying superannuation funds are fully tax deductible to employers up to the age based deduction limits set out below[123]:

| Age of employee | Deduction limit |
|-----------------|-----------------|
| Under 35 | $10,929 |
| 35 to 49 | $30,356 |
| 50 and over | $75,283 |

'Self-employed persons' (whose income from an employer is less than 10% of their total income) get a full tax deduction on the first $3,000 of contributions plus 75% of the remaining contribution up to the age based deduction limits.

**Taxation**

Employer and tax-deductible personal contributions are included in a complying superannuation fund's income and taxed at a nominal rate of 15%.

**Surcharge on contributions**

All employer, certain 'golden handshakes' and tax deductible personal superannuation contributions made by or for high income earners are subject to a surcharge of up to 15%. The surcharge is phased in over the income levels of $78,208 to $94,966 effectively increasing by 1% for each additional $1,118 of income from $78,208. These limits are indexed annually to movements in average weekly ordinary time earnings.

**Taxation of superannuation fund earnings**

The earnings of complying superannuation funds are taxed at a nominal rate of 15% (non-complying funds are taxed at a rate of 47%). Company tax imputation credits are available

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[122] This appendix is adapted from DFaCS (1999) Appendix B. The amounts cited are indexed and would now be somewhat higher.
[123] These amounts apply from July 1 1999 and are indexed annually.

to funds, and they also benefit from a 10% capital gains tax on assets held longer than I year. Hence, the effective rate can sometimes be much less.

**Reasonable Benefit Limits**

The amount of concessionally taxed superannuation benefits a person is allowed to receive over his or her lifetime is limited by Reasonable Benefit Limits (RBL). The table below shows the lump sum and pension RBLs. The pension RBL is available provided at least 50% of the total benefits received by a person are taken in the form of a pension or annuity satisfying the pension and annuity standards.

| Reasonable Benefit Limits (Amount)[124] | |
| --- | --- |
| Lump sum RBL | $485,692 |
| Pension RBL | $971,382 |

**Eligible Termination Payments**

Eligible Termination Payments (ETP) are lump sums usually paid on retirement or resignation from a job and include 'golden handshakes', payments from superannuation funds, Approved Deposit Funds and Retirement Savings Accounts. ETPs are taxed differently from other income. They are broken down into several components (although not all ETPs have every component). Each is taxed in a different manner and subject to various rebates.

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[124] These limits are for 1999/2000. They are indexed annually to average earnings. For pensions and annuities, the RBL relates to the capital equivalent value.

| ETP COMPONENT | Maximum Tax Rate (including 1.5% Medicare levy) |
|---|---|
| **Post June 1983 component** – refers to superannuation benefits accrued with respect to employment or fund membership after 30 June 1983. This component is the amount of the ETP reduced by the total amount of all the other ETP components. These benefits are taxed according to whether the fund earnings were taxable and the age of the benefit recipient, as follows.<br><br>**Person less than age 55:**<br><br>• **Taxed element**: a post-June 1983 component is a taxed element if the payer is subject to 15% tax on investment earnings of the fund (ie. Most superannuation funds).<br><br>• **Untaxed element**: a post-June 1983 component is an untaxed element if the payer is not subject to 15% tax on investment earnings (eg. some government superannuation funds and golden handshakes for employees).<br><br>**Person 55 years or over:**<br><br>• **Taxed element:**<br>   – from $0 to $93,731<br>   – balance<br><br>• **Untaxed element:**<br>   – from $0 to $93,731<br>   – balance | <br><br><br><br><br><br><br>21.5%<br><br><br><br>31.5%<br><br><br><br><br><br><br>0%<br><br>16.5%<br><br><br><br>16.5%<br><br>31.5% |
| **Pre July 1983 component** - the amount of an ETP that relates to superannuation benefits accrued with respect to employment before 1 July 1983. | 5% of amount is tax at marginal tax rat |
| **Undeducted contributions** – member contributions (since 1 July 1983) not subject to a tax deduction (not included for RBL purposes - see below). | Exempt |
| **Capital Gains Tax (CGT) exempt component** – an exemption from CGT (on a total maximum capital gain of $500,000) can be claimed on the sale of a small business where the proceeds are used for retirement. | Exempt |

| | |
|---|---|
| **Concessional component** - until 1 July 1994, this included any approved early retirement scheme payment, bona fide redundancy payment or invalidity payment. From 1 July 1994, ETPs no longer have a concessional component, except where an ETP with a concessional component was rolled over (transferred to) a complying superannuation fund before 1 July 1994, and subsequently paid out by the fund. | 5% of amount is taxe at marginal tax rate |
| **Post June 1994 invalidity payments** - the recipient's disability must be verified. | Exempt |
| **Non-qualifying component** – that part of an ETP that represents investment income accruing between the time of purchasing an annuity (other than by a rollover) and the time of payment. | Full amount taxed a marginal tax rates |
| **Excessive component** – the amount of an ETP in excess of a person's RBL. | 48.5% |

## Rebates

### Low income superannuation rebate

An employee who receives any form of employer superannuation support (but is not a 'self employed person') is entitled to a tax rebate of up to $100 for personal contributions made to a complying superannuation fund, provided the employee's assessable (ie, gross) income is less than $31,000. The tax rebate is 10% of the lesser of: $1,000 reduced by 25 cents for each dollar of the taxpayer's assessable income over $27,000 or the amount of the contribution actually made. These amounts are not indexed.

### Low income spouse rebate

A contributing spouse is entitled to receive an 18% rebate for contributions up to $3,000 a year to a superannuation fund or RSA of a spouse with assessable income below $10,800 a year. The rebate phases out on a dollar for dollar basis, so it is no longer available where the low-income spouse's assessable income is over $13,800 a year. These amounts are not indexed.

### Pension and annuity rebate

Where a person receives an ETP annuity or pension from a taxed superannuation fund and the person is 55 or more years of age, the person is entitled to a tax rebate, at 15%, on the assessable part of the annuity or pension payment that is not in excess of the person's RBL.

## 8.6   Appendix 2:  taxation issues in superannuation

### 8.6.1  Introduction

New Zealand and the Czech Republic are the only OECD countries without tax concessions for superannuation savings, and even in New Zealand that policy is under periodic attack.  However, is has been argued by a number of commentators that a policy of reducing superannuation tax concessions and paying a means test free age pension would have several major advantages:

- "double dipping" would cease to be an issue;

- the incidence of net government benefits for retirement incomes would become flat across income classes, or mildly progressive taking into account the tax on age pensions;[125]

- the tax treatment of superannuation could be simplified; and

- the overall tax treatment of savings could be made more neutral.

However, although governments have moved to reduce superannuation tax concessions over the last 15 years, and the current Government has eased the pension taper to 40%, this last step is at odds with Australia's preference for means testing.  Another issue is the potential for unwarranted windfall gains to existing pensioners, some of whom have benefited from substantial superannuation tax concessions in the past.

Nor is it without new complexities on the tax side (including transitional issues), and possible implications for the aggregate volume of saving.[126]  It should be noted, however, that now that a growing slice of superannuation is compulsory, some observers have suggested that the argument that tax concessions are needed to induce private provision has lost some of its economic logic (see references in Edey and Gower 2000).

Complexity is endemic in the current system.  The tax on contributions comprises three different systems: employer (15% tax), employee (not deductible) and self-employed (rebateable up to a limit of $3,000 pa).  There are additional rebates for spouses and low

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[125] Even a flat rate benefit is progressive, measured as a proportion of incomes.

[126] Although if such a policy change were cost neutral, it seems likely, prima facie, that it would be neutral with respect to the aggregate incentive to save for retirement.  This argument is qualified however by the possibility that governments have different rates of time discount to individuals.

income earners. Investment income is taxed two different ways (complying and non-complying) and there are thirteen different ways of taxing benefits, depending on how and when they were originally financed, and/or how they are taken (see Appendix 1).

For those actually retired, tax is equally complex. Superannuation pensions and annuities financed by "rolling over" lump sums enable investors to defer lump sum tax, and the investment earnings that back these income steams are tax free. Further, a significant part of the income stream carries a 15% rebate. In some cases investors find that it pays them not to 'roll over' retirement lump sums into an income stream product but rather to pay the lump sum tax in the first instance, in order to benefit from a tax-free component from undeducted contributions. This is more likely if they have some pre-1983 component in the lump sum – only 5% of this is taxable.

### 8.6.2  Ideal tax benchmarks

There are two possible theoretically pure tax treatments of superannuation. One is the comprehensive income tax (CIT) ideal, which is the basis for the Treasury Tax Expenditure Statement (TES). This treatment involves taxing superannuation as if it were personal income, at two stages: when contributions are made either by or on behalf of the employee, and when income is earned in the fund. In both cases, the tax rate theoretically applicable is the marginal rate of the individual. Tax having been levied at these stages, there is no case for taxing end benefits.

The other theoretically pure treatment is the cash-flow expenditure tax (ET), under which taxes are levied neither on contributions nor on income, but end benefits are fully taxed, when payed out, as income to the individual. If benefits are payed as a lump sum but rolled over into another account, tax should be deferred until the benefits are actually withdrawn. Taxing final benefits is much more favourable to the saver than the CIT, because (assuming constant tax rates) tax deferral raises the real return on saving[127]. One advantage of the ET is that it provides a consistent treatment across both funded and unfunded superannuation.

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[127] Other assumptions (such as differential discount rates between the states and consumers) are required to prove a net social benefit from such a switch, holding discounted revenue constant.

Although the CIT has been the conceptual benchmark for major tax reform exercises in the past (eg Asprey 1975) it has proved impossible to implement in practice, since it would need to involve

- full taxation of capital gains on an annual accrual basis;

- full inflation adjustment (only real income/gains to be included); and

- full adjustment for economic depreciation of the underlying assets.

By contrast a full ET should in theory be easier to implement, since it can be approximated either by

- taxing only earned income (eg a payroll tax), including any superannuation contributions made by an employer on an employees behalf; or

- taxing on a cash-flow basis (ie, the CFET): savings such as superannuation fully deductible; consumption of savings brought fully to account at the individual's marginal rate.

I will not try and prove the economic equivalence between a payroll tax and a cash-flow ET; this can be found in any text on the subject[128]. But the important point is that under an ET the returns to saving are equal to the underlying economic returns on the asset those savings purchase. Suppose the real interest rate on superannuation fund investments is 6%, and the income tax rate 30%. The real return to the saver under an ET will also be 6%; under the CIT, 4.2%. While this difference may appear slight, it makes a huge difference to the lump sum accumulated over a lifetime.

Economic theory is not decisive about whether the CIT or the ET approach is preferred as the 'touchstone' of an ideal tax system. The Asprey Committee (1975), for example, adopted the CIT as the benchmark for their ideal tax system but also saw merit in the ET approach in relation to long-term savings such as superannuation. The 1993 Fitzgerald report on National Saving agreed that the "ideal benchmark for a pro-saving tax regime" was an ET, but the costs to revenue were such that it "should only be pursued after the government had lifted the saving performance of the public sector".

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[128] In fact the equivalence is not complete, and depends for example on exempting from the ET expenditure financed from the sale of assets held prior to its introduction. Otherwise, it also acts as a form of lump sum tax on assets. Another difference is that the CFET taxes 'pure' profits.

As a practical matter, the CIT can be implemented through a regime taxing superannuation contributions and earnings at the individual's marginal rate, and exempting end benefits. This approach is known by the shorthand appellation of **TTE** (Tax contributions, Tax earnings, and Exempt benefits). The ET, by contrast, can be implemented by an **EET** regime, where **T** is at the individual's marginal rate. (**EET** and ET should not, however, be confused.)

An EET regime has very significant practical advantages, in avoiding all the problems associated with measuring individuals' marginal rates at the time contributions are made and earnings received, as well as avoiding problems of imputation for defined benefit schemes. TTE, by contrast, has the advantage of yielding revenue more immediately. Whether it yields more revenue overall is a moot point, and this depends on the elasticity of superannuation savings with respect to the effective superannuation tax rate. Our current system combines elements of both approaches by taxing at all three points (TTT) but taxing concessionally at each point and, overall, much more concessionally than a pure CIT. This is reflected in the Treasury's $8.7 billion estimate of the cost of this 'tax expenditure'.

The ET is more neutral with respect to the savings/consumption choice but, in effectively exempting capital income from the tax base, forces the imposition of higher tax rates on earnings which themselves distort the work/leisure choice. This tradeoff between competing distortions can only be resolved by recourse to "optimal tax" methodologies; they have not been found to be decisive for either tax base.

The practical (or 'second-best') arguments for an ET is that we already exempt a large slab of capital income through the exemption of imputed rent on owner occupied housing (and other forms of tax reduction such as gearing[129]); exempting superannuation yields therefore makes the inter-sectoral allocation of savings and capital more neutral. Bateman and Piggott (1999 p19) argue that "If housing is granted tax preference, as it is in most countries, including Australia, it is especially important that superannuation savings be offered equivalent tax preference, otherwise distortions between assets are introduced and these can be very damaging to economic efficiency". The 'second best' counterargument is that we (attempt to) tax most forms of financial assets with the CIT approach, and

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[129] Gearing is not inherently concessional. Problems arise because we tax capital income using a mixture of accrual and realisation concepts, and exclude half of capital gains.

exempting superannuation distorts saving into this particular institutional form. It also creates horizontal inequities between those with, and those without, access to employer-sponsored superannuation, this being the most tax-sheltered form[130].

It is a strange feature of the public debate on superannuation tax that relatively little attention is paid to the age pension means test. This is a very important component of the taxation of end benefits and ought to be part of any optimal tax "solution". Since the distinguishing feature of an ET is that returns to savers are equated to economic yields on the real assets those savings finance, combining an ET with a means test on the pension immediately vitiates this identity and thus hopelessly compromises the whole economic case for having an ET in the first place. The two different approaches are simply not reconcilable; the reality is that any politically and financially feasible superannuation and pension system will reduce net returns to many if not most savers to some extent, and the only real question is "by how much, and for whom?" After this is answered, we can then consider alternative means to implement the desired distribution of effective tax rates.

Arguably, that ideal distribution of marginal net yields to retirement savings might look something like figure 5 below. In this figure almost a full economic yield (assumed to be 6%) is achieved for low-income savers; for high-income savers, the end result is much closer to 3%, assuming a top marginal rate of 50%. Such an outcome could be approximated, for example, by a CIT combined with means test abolition. By contrast an EET combined with a means tested age pension results in a return profile which falls over the pension income test range, more steeply over the asset test range, but then slowly rises again once individuals have assets beyond the cutouts: Figure 5.

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[130] Which is the reason superannuation features in most 'salary sacrifice' arrangements.
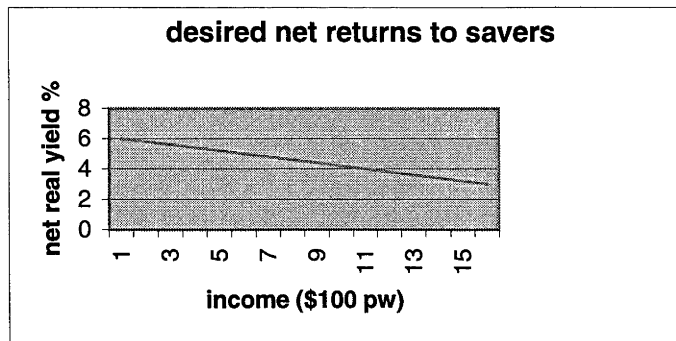
**desired net returns to savers**

Figure 5 relates only to the *marginal* benefits from saving, whereas overall redistribution is a function of the average income received in retirement. Knox and Cornish (1999) propose that retirement benefits should be related to input (lifetime contributions or taxes), but that there should be progressive redistribution within the system. They suggest that this might be achieved by the combination of a universal pension together with a taxed actuarial pension (eg. the SG).

By contrast marginal yields under the current system (while still broadly progressive) are much flatter, with yields to low income earners affected by contributions and fund earnings tax, yields to middle income earners also affected by the age pension means test, and yields to high income earners by the superannuation taxes and surcharge (but not the means test).

One effect of neglecting to consider tax and means tests together is that some of the same people who call for superannuation tax to be made more concessional also call for measures (like compulsory annuities) to make the means test more effective - notwithstanding that the net effect of the two measures may simply wash out in terms of its impact on the budget and on disposable incomes in retirement.

Net returns to superannuation saving could be improved by moving to an ET superannuation tax regime or by abolishing or reducing the pension means test taper. The former may or may not improve the overall neutrality of capital income taxation; the latter certainly would. However, the latter option may cut across the basic guaranteed minimum income concepts presently underlying the current social security system.

### 8.6.3 Cost of tax concessions

The Treasury, in its annual Tax Expenditure Statement (TES) puts the cost of superannuation tax concessions at $8.7 billion in 1999-2000. These costing have been extensively criticised.

The ground for criticism have been several:

1. that the CIT is not an appropriate benchmark, and the ET is;

2. that the costing does not take account of the likelihood that, if concessions were less, much superannuation saving would divert to other tax sheltered forms where revenue would not be greater (ie, they assume no behavioural effect);

3. that the costing does not take account of offsets from age pension savings; and

4. that the costing is on an annual cash flow basis only, and does not take proper account of future taxes that will accrue as a result of superannuation savings.

The answer to the criticisms, at one level, is that the TES costing does not purport to be more than what it is: ie, a point in time estimate of tax forgone using conventional tax expenditure methodologies, which don't generally allow for possible behavioural change. However, this answer is trite, in the sense that it doesn't help answer the policy questions surrounding the tax concessions.

Brown has noted that "we cannot interpret the TES estimates ...as a time series of the cost of the tax concessions or project those estimates forward to assess the impact of the concessions in the future. This is because, even assuming no behavioural change, the TES estimates do not take account of the erosion of the initial revenue gain that would arise because of the higher taxation eroding the superannuation tax base" (1993a p10). In particular, this implies that "simply projecting the annual tax expenditures will overstate the ongoing revenue gains from abolishing the tax concessions" (p11).

Access Economics (1998) has prepared an alternative costing based on the ET benchmark, and taking account of savings on age pension expenditures. On their figures, superannuation, far from being undertaxed in 1996-97, was *overtaxed* to the extent of $775 million. Access asserts that this over-taxation was likely to be growing. Interestingly, this total comprises over taxation of funded superannuation of $1,693 million, offset by under-taxation of unfunded super of $917 million. (This suggests that there might desirably be some re-balancing of the two components, even if total revenue is to remain unchanged.)

Further, self-provision through superannuation was estimated to reduce pension expenditure by $924 million in that year. This was regarded as a conservative figure: "It excludes, for example, the increase in tax receipts from pensioners" (p5). Together, these

two figures suggest that "superannuation was overtaxed to the extent of … $1,699 million in 1995-96" (Access 1998 p4.) ASFA has used these Access costings to justify their preferred EET superannuation tax regime.

If the over-taxation compared to a pure ET is only $775m, we are paying an enormous cost in complexity and economic distortion for very little revenue gain. This, on the face of it, would appear to be a compelling argument for moving to a fully-fledged ET regime for superannuation. But even if we did this, distortions arising from the age pension means test would still persist, so that it is not obvious that the system is optimised by having a liberal regime for superannuation savings accompanied by a tough regime for those non-super savings, and/or superannuation savings, large enough to impinge on the pension means test.

### 8.6.4 Inappropriateness of the ET as a benchmark for costing superannuation tax concessions

Much of the argument about the cost of superannuation tax concessions is based on the use of the ET benchmark. It can be easily shown that it is inappropriate as a basis for such costings. The reason lies in the economics of the "second best" and its practical application, optimal tax theory. This section concludes that the arguments for such a tax treatment are not sustainable in the context of a general effort to tax investment income on comprehensive income principles, but also that – given the extent of departures from the comprehensive income ideal - theory does not provide precise guidance about the optimal taxation of superannuation (nor, indeed, about the optimal taxation of capital income in general).

It is true that the ET achieves theoretical neutrality between consumption and savings.[131] It does this by effectively exempting the return on savings from the tax base. Bateman and Piggott note that "As a proportion of revenue, capital income taxes are generally estimated to generate an efficiency cost of between 20 and 50 cents for every dollar of revenue raised at the margin" (1999 p22).

Ifa tax base comprising labour income only were non-distorting, then the ET would be ideal. But it is not. The general theory of the second best tells us that the elimination of

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[131]Brown (1993a p9) notes that the ET benchmark is "..most appropriate if we wish to examine the effectiveness of the superannuation tax concessions in overcoming the distortion in savings decisions inherent in an income tax system".

one distortion in the economy, while other distortions persist, will not necessarily push us in the direction of an overall superior solution. In terms of our particular issue, taxing labour income distorts the work/leisure choice, whereas taxing capital income distorts the savings/consumption choice. Ironically, academic estimates of the marginal costs of raising revenue from taxes on labour are about the same order as those for capital taxation cited by Bateman and Piggott - see eg Campbell and Bond (1997a) and Bascard and Porter (1986).

The optimal mix of labour and capital taxation depends on the relative severity of these distortions. In particular, *the optimal tax on capital income is highly unlikely to be no tax –* that is, an ET. It can equally be stated, however, that the comprehensive income ideal is also highly unlikely to yield the optimal tax on capital income. This creates the economic rationale for, eg, the schedular tax systems used in some Scandinavian countries, where interest and dividend income is taxed at some flat rate which is less than the highest marginal rate of income tax (practical reasons are also important in choosing this approach). Our current tax regime for superannuation has elements of the schedular approach, but less so now that the surcharge has been introduced. A schedular approach applies to the investment income of funds, with a uniform 15% tax rate.

The question is further complicated by the presence, in the income tax, of selective exemptions such as those favouring owner-occupied housing. Such exemptions – if we assume that the first-best option of abolishing them is unavailable – create inter-sectoral distortions that push the optimal tax on capital income more towards the low end. But even so it is still unlikely to be zero. Moreover, whatever it is, it is *prima facie* likely that the optimal tax rate would be one that applies equally to superannuation and non-superannuation saving. The presence of a means test, however, modifies this formula so that it might create a rationale for favouring long-term financial saving – provided that could be guaranteed to produce a commensurate reduction in pension expenditure. Whether this creates a case for preserving the current significant differences in the treatment of saving inside and outside of superannuation is, however, quite questionable. Further, the pension means test is not a given but rather a policy variable which needs to be jointly optimised with the superannuation tax regime.

Thus in a world characterised by second-best issues and partial use of the CIT in taxing capital income, the ET does not provide a useful or appropriate benchmark for a neutral

superannuation tax system, and estimates of cost based on the ET benchmark are inherently defective.

By the same token the CIT does not necessarily provide a theoretically defensible benchmark either: *unless* the government has taken the approach that the correct balance between the two tax bases is implicit in the weights between income and consumption taxes in the total tax take. This is now a theoretical possibility, following the introduction of a GST, but may not be a practical one given the political limits to the base and weight of the GST.

I do not suggest that the current mix of GST and income tax rates reflects any deliberate optimising of the system. But it is true that the government is now – at least in principle - able to change the mix between income and consumption taxation by changing the GST rate[132], and the further instrument of concessional taxation of superannuation could, over time, become redundant. This is one reason for paying little heed to the protests of the superannuation industry that the Government's tax package has lessened the relative advantages of saving through superannuation (ASFA 1998). Since it has achieved this by increasing the relative advantages of saving generally, the answer to that is, "good".

If one takes the view that the government is now able to optimally balance expenditure tax and income tax approaches within the macro-structure of the tax system, it might be that the Treasury methodology for estimating the costs of the superannuation "tax expenditure" becomes increasingly justifiable, particularly if it were further modified to reflect accrual accounting concepts and offsets to pension expenditures. I conclude that there is no general argument from economic theory, nor from the findings of empirical economics, supporting the ET over the CIT in the matter of taxing superannuation.

### 8.6.5 Cost/benefit analysis of superannuation tax concessions

The most thorough examination of the value (as opposed to the cost) of superannuation tax concessions is in Brown (1993a), although he leans a bit on Knox (1991). Brown's work provides a useful conceptual approach to the whole issue. He suggests that we need to apply cost-benefit techniques to the super tax concessions in order to determine their worth. "Knox (1991) outlines an alternative discounted cash-flow methodology ...by calculating the annual tax expenditures for an individual and offsetting the discounted

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[132] With the payroll tax being an auxiliary instrument.

value of these expenditures against the discounted value of the tax on the retirement benefit" (Brown 1993 p7). Knox found that superannuation tax expenditure on this methodology was around two-thirds that calculated in the TES. Brown's approach extends this, in particular to take account of the impact of superannuation savings on age pension outlays.

In the discounted present value methodology, the government's discount rate enters as a crucial parameter in the calculations. If "the Government's discount rate is higher than the fund's earning rate, the tax concessions become a relatively expensive way of increasing a person's retirement income, while if the Government discount rate is lower, the concessions become relatively more cost effective" (Brown 1993 p12). Brown's paper generally uses the 10 year bond rate (cost of funds) as the discount rate, but an alternative methodology is to use the Dept of Finance benchmark discount rate which is based on an opportunity cost concept, and is 8% real.

Another important parameter is the benchmark income tax rate. It is unrealistic to expect that ordinary savings be taxed at full marginal rates; Knox suggests that an average of 25% might be a reasonable compromise.[133]

The SG introduces another complication. Its presence implies that some superannuation savings would be consumed otherwise; a typical assumption is that half of SG savings are new, and half a displacement of savings that would otherwise have occurred in any case. The larger the offset factor assumed, the more likely is it that (concessional) superannuation savings merely replace other forms of saving, so that the net gain from the concessions is lessened. If we assume a 100% offset, "net policy gain" is almost zero (Brown 1993 p19).

Brown calculates that, with a government discount rate of 2% (and a fund earning-rate of 4%), superannuation tax concessions generate a net policy gain. The "superannuation tax concessions provide the individual with additional benefits equivalent to 23.7% of the person's pre-retirement disposable income for a gain to government of 9.7%, implying a net policy gain of 33.4% of the value of the persons' pre-retirement disposable income"

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[133] This may be too high; if we regard the main alternative long-term savings vehicle to be owner-occupied housing, the effective tax rate on it is nil. This assumption is also affected by the NTS income tax rate changes.

(1993 p16). With higher government discount rates the gain recedes but appears nonetheless to be positive on almost all assumptions.

Brown concludes that, with the net benefit results so sensitive to a number of assumptions, we need considerable further research in order to develop reasonable assumptions concerning the values we should use. For us, however, the important point is that there is at least a theoretical possibility that superannuation tax concessions will pay, or more than pay, for themselves – even if we simply concern ourselves with net cost to Government. If we also add in net gain to fund members, the cost/benefit calculations are very likely to be positive.

This leads to the worrying possibility that the changes in 1988 which brought revenues forward by taxing contributions, and eased taxation on end-benefits, were actually counter-productive, particularly in the context of an ageing population. "The tax on contributions brings forward revenue (in terms of the government's immediate budgetary position) but is likely to reduce the value of total taxation over the longer term" (Atkinson et al 1999 p201). A number of researchers have come to the conclusion that sensible superannuation tax reform is not possible without reversing this decision and concentrating tax on end-benefits.

### 8.6.6   Conclusion: future directions for superannuation tax reform

The key issue is whether the system is broke enough to need fixing.

One view is that it isn't, and indeed that recent changes such as the superannuation surcharge have knocked a lot of the regressivity out of the system. Although the surcharge has been severely criticised by the industry for its very high administrative and compliance costs, some of these are start-up costs that will reduce in future years.

Another, and I think more valid view, is that the system still has quite serious faults. I would list these as follows:

1. its complexity

2. the discrimination between employer and employee contributions

3. the inconsistency between tax treatments at different income levels, with some low-income earners gaining little advantage from being in superannuation schemes.

Bateman and Piggott (1999) argue that many of the difficulties in superannuation taxation lie in the concept of fund, as opposed to individual, taxation. Their preferred option involves deductible contributions and benefits fully taxable to individuals, at the relevant marginal rate: in other words, a cash flow ET. This was the situation that existed in Australia prior to 1936, when the (astonishing poor) decision was made to only tax 5% of final benefits.

Also consistent with this view is Solomon's (1998) solution of a fully inclusive income tax base, plus a single rate of rebate for all employer and employee contributions. Total rebateable contributions could continue to be limited as per current age-related guidelines. A more comprehensive development of this idea is the matching contribution or tax rebate proposal of Agulnik and Le Grand (1998). This solution involves replacing tax concessions – ie tax expenditures – with direct government subsidies, with dollar limits. It does not necessarily involve net revenue gains. Rather, it redistributes some of the value of tax concessions from high to low income earners.

If a net revenue gain were sought, one solution also consistent with a redistributive objective is that of increasing the weight of the superannuation surcharge, this being the only tax element in the system which has a progressive impact. One option is to start the surcharge at a lower level in the income distribution and have a second, higher rate beyond some higher threshold. While the surcharge has had very high set-up and administrative costs in relation to revenue (Bateman and Piggott 1999), this will be less of a problem as surcharge revenues rise – as they are already forecast to do.

The taxation of superannuation reflects the general mess in which we find the taxation of capital income. This is not just an Australian problem; it is found all over the world. However the Australian problem is exacerbated by the fact that we have a supplementary tax on capital income called the aged pension means test, and this interacts in complex and sometimes perverse ways with the rest of the income tax system.

One theoretically pure approach to taxing superannuation is the cash-flow expenditure tax proposal, involving exemption of contributions and fund earnings, and full taxation of end-benefits at the marginal rate applicable to the individual. If this concept were pursued, it would probably be necessary to retain and even tighten the pension means test in order to offset the inegalitarian consequences. However the means test can only operate as an implicit tax up to a certain point; beyond this the superannuation wealthy would enjoy a

marked advantage. The means test has the additional disadvantage that it impacts alike on assets that have been taxed concessionally, and those that have not. This can contribute to marked horizontal inequities, as well as economic distortions. Finally, the means test undermines the whole conceptual basis of the ET approach and makes the exercise inherently flawed.

In consequence I do not favour that approach to reform. Rather, I would prefer to see the means test weakened, and I suggest that this could be partly financed by the re-introduction of a merged means test. Another source of finance is to further tighten the tax regime applying to superannuation.

The big problem here is that this cannot be easily done without potentially disadvantaging some lower income earners who already receive a fairly marginal benefit from investing in superannuation. The fact that some of their involvement is involuntary does not excuse this. And yet it is hard to design any tax increases that do not have adverse impact on some people's incentives to save through superannuation. The current system is based on a balance of offsetting distortions, which is not easily pushed or pulled at any one point. One option noted above is to extend the superannuation surcharge.

Another set of options is the fuller taxation of end benefits proposed in various forms by Knox (1990, 1991), the Institute of Actuaries (1994, 1998), and Atkinson, Creedy and Knox (1997, 1999) combined with reduction or abolition of the annuity rebate. This would be combined with a more generous scheme of rebates for employee contributions, as also envisioned in these proposals. Ideally we would end up not discriminating in any way between employee and employer contributions, and the concept of undeducted contributions would disappear. The remaining 'concession' for annuities would simply be the purchase price deduction. However all these proposals encounter various technical and transitional problems.

## 8.7    Appendix 3: superannuation lump sums vs annuities

### 8.7.1  Use and incidence of lump sums

Some 80% of retirement benefits are taken in the form of lump sums – or 90%, excluding public servants. It is difficult to state this figure exactly, since it includes some pre-retirement benefits which are "rolled over" into other schemes, and also some benefits which are taken as lump sums but then used to purchase an "income stream" product which is treated in the same way as a life annuity by the social security and tax systems.

Some superannuation monies become available on changing jobs, prior to retirement. The scope for this to happen is being gradually reduced by compulsory preservation rules. RIMU calculated that in 1995 about 65% of account balances were not preserved, but the July 1999 tightening of preservation rules, and the phasing in of age 60 preservation, will see this gradually change over time.

It has long been recognised that access to lump sums provides a potential means of benefiting from both tax concessions and the age pension – so-called "double dipping". However this problem may be more apparent than real: surveys indicate that most lumps sums are used for productive investment purposes, although some of those investments are in forms – like paying out the remainder of a mortgage – which do not reduce pension payable. In any case the size of the pension free areas means that, for a couple, financial assets would need to exceed  $100,000 (at the current deeming rate of 5%) before their pension starts to taper.

In the year to September 1998 some $4.5 billion out of $5.6 billion in superannuation benefits (excluding transfers) was paid in lump sums. However analysis by RIMU (1995) indicated that among people with lump sums large enough to affect pension there were few "double dippers". About half of lump sums are rolled over and used to purchase income stream products. The lump sums used in this manner are the larger ones. Other than this, lump sums are generally used to purchase or improve the individual's home, purchase a car or clear outstanding debt. Only 3% is spent on holidays (Barnes 1999, p233, FaCS 1999 p43).

This information may or may not be reassuring. It does mean that most lump sums do improve people's ability to sustain a standard of living over a long term. On the other hand

it suggests that a substantial part of final benefits do not act to reduce pension expenditures.

It is also recognised that running down lump sums (or allocated annuities) provides an imperfect response to longevity risk. Individuals are rarely able to predict the time of their death, with the associated risk that they will consume their assets at either too slow or too fast a rate. This is also a risk for the surviving spouse, a risk that can be catered for – at some cost - by including a reversionary benefit in an annuity.

Overseas pension schemes have generally imposed requirements that final benefits be taken in the form of life annuities. However countries differ greatly in the specific provisions applying. In the UK, for example, 25% of final benefit may be taken as a lump sum. In the US, 401(k) plans – essentially DC pension accumulations – benefits may be taken as lump sums or phased withdrawals. Only a tiny fraction of retirees convert 401(k) accumulations to annuities (Mitchell 1999 p20). It appears to be a common phenomenon that where lump sum options are available, retirees will avail themselves of them.

### 8.7.2 Tax and social security treatment of annuities

In Australia, preferential tax and social security treatment is afforded *immediate annuities* (eg those purchased from a DC accumulation), *superannuation pensions* (from DB schemes) and phased withdrawals, called *allocated pensions and annuities*. Asset test rules have encouraged lifetime income streams and *life expectancy* products[134]. These must guarantee an escalated or CPI-indexed income stream for the life expectancy of the retiree at the time of purchase. There can be no commutation or residual capital value.

The tax system allows for both an exemption of the element of the annuity representing the return of undeducted capital (usually the employee contributions, but also including lump sums which have been taken out as tax paid[135]), and also allows a 15% tax rebate on the *whole* of the annuity income. This means that, for a couple, an annuity income up to or even over $45,000 pa can be tax-free. This has become an important selling point in advertising such products. A further tax benefit is that the income earned on underlying annuity assets is, in the hands of life companies, substantially tax-free.

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[127] This terminology is from Doyle and Piggott, 1999 p5.
[128] It can pay to do this, rather than roll over a lump sum, if lump sum tax is light: either because there is a large pre-1983 element, or if the lump sum is small.

Life annuities as conventionally understood (single premium, payment at a fixed or indexed rate for the life of the annuitant, no residual value) are extremely unpopular in Australia. Much more popular are allocated annuities, whereby the investor selects a particular investment strategy and the value of the investment moves in line with the underlying value of the investment. Income payments must be made to the investor at least once a year; maximum and minimum payments are set such that the fund does not run out prior to age 80. It should be recognised that these are an investment product and *offer no real protection against longevity risk.* However they offer retirees considerable flexibility in managing their incomes, and in recent times have also offered good rates of return depending on the asset mix chosen (ie, subject to investment risk).

Social security rules recognise three categories of income stream product. "Short term" (fixed term of five years or less) products are subject to deeming, based on the assets value, and are also asset tested. "Long term asset tested" products – mainly allocated pensions – are ones where the income stream is assessed, but is reduced by the amount of 'exempt income', which is the purchase price divided by the 'relevant number' – that being either the life of a fixed term product, or the life expectancy of the purchaser. Such products are included in the asset test. "Long term asset test exempt" products, mainly life annuities, have the same income definition but are asset test exempt (FaCS 1999).

### 8.7.3 Proposals to limit lump sums

There are constant proposals in Australia to limit the availability of lump sums. There are several broad approaches possible:

1.  increase the tax and means test concessions available for annuities;

2.  increase the tax on lump sums, to make them less attractive ;

3.  make annuities compulsory, with lump sums limited to a certain amount or proportion of the whole; or

4.  change the *reasonable benefit limits* (RBLs) for lump sums, in essence combining (1) and (3).

### 8.7.3.1    Increase concessions

Up to now, approach 1 has been favoured. There are however serious problems with this approach, notably that it is relatively costly, and has no potential to resolve the "double dipping" issue. Rather it extends the possibilities for double dipping more widely.

### 8.7.3.2    Increase lump sum tax

Approach 2 (increase the tax on lump sums) was tried in the early 1980s, but moved away from – initially, when the then Government watered down proposed lump sum tax rates in order to make the change politically acceptable, and later, when it was decided to move revenue collection forward by taxing contributions. When contributions became taxable at 15%, the lump sum tax was reduced by the same amount in order to avoid creating a disincentive to superannuation savings, especially those made later in life.

At the same time the lump sum tax was reduced, a 15% tax rebate was introduced for annuities (including some income streams). The intent was to preserve the relative incentive to take up annuities, and also to recognise the "pre-payment" of tax that had occurred within the fund.

Raising the lump sum tax would introduce problems of equity for low wage earners who currently receive little net tax advantage from investing in superannuation, as described in Appendix 2.

### 8.7.3.3    Compel annuity purchase

Compelling annuity purchase may not be a good option. There are several reasons for this. The most obvious one is political - it would be widely resented. There is also some evidence that annuities are relatively expensive, with load factors on actuarially fair quotes of between 15 and 20%[136] - although this is subject to some debate - see below. Another problem is investment risk. If one is required to purchase an annuity at a particular point in time, such as at retirement, it may not be a particularly suitable one if the retiree's superannuation investment is going through a down period. Further, the returns from the annuity depend on interest rates, which may also not favour purchase at a point in time.

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[136] Mitchell et al (1997) cited in Doyle and Piggott 1999.

This is a current issue in the UK, where purchase prices have been rising as interest rates fall.

Annuity investment tends to be based on underlying investment portfolio that is very conservative – typically bonds. An allocated pension (income stream) by contrast may be more risky but, because of the equity premium[137], can hope for a net return over the whole period significantly greater on average than that permitted by the annuity. And while there is scope for annuity providers to invest in more risky and higher yielding assets, this has the potential to create losses for the institution if the market moves against them over some period.

Some academics have inferred from this and other problems with annuities – such as selection bias – that "a strong case can be made for state action on annuities, including, perhaps, provision either of the annuity itself, or an 'annuity gilts' constructed to average across interest rate fluctuations" (Barr 1999 p410).

Compulsion would eliminate some but by no means all of the problems referred to above. For example the load factors cited suggest that adverse selection is pervasive in private annuity markets, and this factor would be eliminated by compulsion.

Mandatory annuities immediately raise the question of what features such instruments should have. Decisions would need to be made on issues such as

- the required degree of indexation (and who would pay for it),

- would reversion to a surviving spouse be required?

- would rates be gender-neutral? (unregulated annuities are more expensive for women than for men, reflecting their greater life expectancy)

- what time period would be allowed after receiving a lump sum? (a longer period may reduce interest rate risk)

- what proportion of the retirement benefit would be subject to compulsory annuitisation?

- would there be a government guarantee of fund solvency?

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[137] The long run yield on equities is, on average, some 4-5 percentage points higher than that on bonds. There is some speculation that the equity premium may be reducing.

Doyle and Piggott (1999) have argued the case for allowing some flexibility in any mandatory annuity scheme. They note the case for insurance against retirement risks (replacement rate, longevity, investment, inflation risk and so on), but also note that such insurance is expensive, with quotes on indexed life annuities indicating an underlying real interest rate of less than 1%. D&P suggest that "…regulations stipulating partial insurance may lead to social outcomes that are superior to those generated by a rigid full insurance regime" (p2).

For example, returns on annuity investments could be improved by *variable* or *with-profits* annuities, which adjust income to the yields on the underlying investment portfolio (which might include equities - D&P 1999 p10). Similarly *term certain* annuities offer descendants some protection against the risk of the annuitant's early death. *Escalated* annuities partially address inflation risk.

D&P calculate the outcomes, in terms of expected utility, from a range of different annuity products in conjunction with the age pension safety net. "The first important message …is that a standard life annuity scores well across a range of risk aversion parameters… for those who are very risk averse, this is the preferred product. The variable annuity, however, delivers these same features, with a significantly higher rate of return. For those who are less risk averse, this is a preferred product. Further, expected public pension payouts are very low.." (p20). The authors conclude that "while a "standard'…life annuity scores well from both social and individual perspectives, products which offer only partial insurance against the major retirement risks – longevity risk, investment risk, and inflation risk – may dominate. There are therefore likely to be advantages in allowing some flexibility in mandatory annuity design" (p22).

Poterba and Warshawsky in their US study (1999) note that conventional life annuities can be quite attractive to individuals, even if – as is likely - the *expected present discount value* (EPDV) is less than the purchase price. "Results on the utility gains associated with annuitisation for representative individuals, with plausible risk tolerance …suggest that the gains from avoiding uncertainty about length of life are sufficient to warrant purchasing an annuity, even if the EPDV is substantially below the premium amount" (p10).

The paradox here is that consumers who have a choice about it generally avoid purchasing life annuities. One reason put forward for this is myopia: the suggestion that individuals heavily (and even irrationally) discount the future in their decision making. Another

reason is lack of consumer understanding. Yet another is that tax/transfer systems may encourage individuals to favour immediate consumption. Mandating annuities is one means of overcoming these problems.

Diamond (1999) notes that mandatory annuitisation of individual retirement accounts might be accomplished in three different ways. First, the government could decide what benefits to pay for given accumulations, and bear the risk inherent in projecting mortality and selecting a portfolio.

Second, the government could contract with private providers to receive amounts from the government in return for paying the annuities. These annuities could be priced on a group basis, which reduces costs and avoids problems of adverse selection. The private providers could bear the mortality and return risks, although there would be a residual risk that a private company could not meet its obligations. The government would probably need to absorb that residual risk, possibly by way of commercial re-insurance.

Third, individuals could be left free to contract with insurance companies on their own. Costs with this approach are likely to be considerably higher than under the first two (Diamond 1999 p13).

### 8.7.3.4 Change lump sum RBLs

RBLs have favoured pensions over lump sums for some time. However, this approach has been fairly ineffective because RBLs, even for lump sums, are high relative to the benefits most people could expect to receive. Currently a flat RBL of almost $1m applies for pensions, and half this for lump sums. Relatively few wage earners could expect to exceed the lump sum RBL on retirement.

If the changes were substantial the option looks very similar to the compulsion option, and has the same sorts of problems.

### 8.7.4 Annuity issues

One reason for annuities being costly in the private market is that people who buy annuities tend to have above-average longevity (World Bank 1994 p329), implying that the price will be unfair to those who expect to die sooner than average – notably the poor. Governments can address this problem by making purchase compulsory, so that good and

bad risks average out. However such a system continues to discriminate against those with poor life expectancies.

The World Bank proposes that this effect might be neutralised by offering a variety of contracts; people who have poor expectations of longevity would self-select contracts which provide a death benefit for survivors or that have a guaranteed payout period for retirees and their beneficiaries (1994 p329). Legislation may also be necessary to prevent companies from "creaming" good risks – eg, by requiring that companies cannot exclude any class of consumer.

A mandatory scheme with a deadline – such as date of retirement – creates an investment risk, since the annuity price will depend on interest rates at that date. A possible solution is to encourage variable or participating annuities with returns related to the performance of an underlying asset portfolio. This has the disadvantage, however, of the annuitants sharing in the losses as well as the gains.

Governments may wish to prevent certain personal features from being entered into annuity contracts. In the US, for example, race and gender are not permissible categories for employment-related pensions or life insurance. The UK Government (1999) Green Paper proposes that men and women be able to purchase annuities at a gender-neutral price.

The World Bank concludes that "Clearly, private annuities markets must be heavily regulated, particularly if annuities become mandatory. At the very least, permissible risk categories must be defined, pools for bad risks created, survivor's benefits required, standard contract forms used, consumer information provided by some impartial organisation, variable annuities offered, and a reserve fund created or reinsurance purchased by insurance companies to ensure that they will be able to meet their obligations.... The complexity of these problems probably limits the degree to which annuities should be made mandatory" (1994 p331).

### 8.7.5  Are annuity purchase costs reasonable?

This issue has been examined by Poterba and Warshawsky (1999) in the US. They find that the present discounted value of a policy in 1998 was around 85% of the purchase price, but the expected value of the payout rises if we use annuitant rather than population life tables, and falls if we assume a higher, riskier discount rate. This calculation assumed

that the individual was subject to average population mortality, and that the risk free interest rate was appropriate. Both of these assumptions can be questioned.

Knox (1999), in an Australian study, notes that annuity issuers in Australia use mortality tables reflecting the longevity of voluntary annuity purchasers in pricing annuities, not general mortality tables. The lack of a developed annuity market means that no annuitant mortality table has been developed for Australia. Companies rely on tables developed from the UK.

There are ten life offices that provide regular quotations, including the largest six life companies. (p6) Knox finds that, for an investment of $100,000, the average income from a CPI-indexed annuity for a male age 65 is $6750, and for a female $5811. It is immediately apparent that these rates appear unattractive in comparison to, say, a property trust paying similar yields (5.8 to 6.8%) but where the value of the parent capital will be available to be passed on to heirs. A problem for life annuity providers is that they are in effect forced to invest relatively conservatively, in government bonds and the like, in order to be able to guarantee that funds will be available for payment as required.

Knox's conclusion is that Australian prices are fair, with the majority of the *Money Worth Ratios* (MWRs) for level annuities in the range of 85-95%. The central estimate of 87.5%, based on population mortality and the term structure of government interest rates, is consistent with international figures for the US (85%) and the UK (86.1). "This suggests that the Australian market, although underdeveloped, is consistent with major international markets" (Knox 1999 p16). Using possibly more accurate mortality assumptions – with rising life expectancies - the MWR for Australia climbs to 95%.

"Initially, this suggests that the existing pricing structure is very fair and reasonable for the purchasers.." (ibid p17). On the other hand the providers may be able to earn in excess of the bond rate which depresses the MWRs… "it is reasonable to assume that an annuity fund should earn at least 1% per annum higher than the long term bond rate…This would mean that the effective ratio for most purchasers of level annuities would be in the vicinity of 90% of the purchase price" (p18).

An interesting finding in both the US and Australia is the diversity of returns between providers, with highest and lowest returns varying by as much as 10%. This implies that

information in annuity markets is not fully efficient – which might be another reason for public intervention.

One way to improve annuity returns is through collective organisation of them. Poterba and Warshawsky consider annuity policies available to participants in the US Government's thrift savings Plan. The annuity provider is selected through a competitive bidding process, which takes account of technical quality (eg credit rating) as well as cost factors. Because these policies are purchased through a large group retirement savings program, overhead (selling and administration) costs are lower and present values accordingly higher than in the individual annuity market. Payouts are about 5% higher than available in the private annuity market. "This may reflect cost reductions associated with selling a large volume of annuities of a specified type, or a weakened competitive position of the annuity provider when negotiating with the federal government" (P&W 1999 p18).

Further , P&W describe the annuity products offered by TIAA-CREF, the retirement system for college and university employees. TIAA offers annuities with non-guaranteed elements, which have among the highest payouts in the individual annuities market, mainly due to superior investment returns and low expenses. CREF annuities offer valuable payouts that reflect, on an annual basis, the investment performance of various underlying equity, fixed income and real estate investment portfolios (P&W 1999 p3).

### 8.7.6  Conclusion: lump sums vs mandatory annuities

I conclude that while mandating annuity purchase needs to be given serious consideration in this country, there will be considerable obstacles to implementing such a policy.

A big part of the problem, with the wisdom of hindsight, was the 1988 decision to move superannuation tax revenues forward by imposing the 15% contribution tax and reducing the final benefits tax by a similar amount. A lump sum tax rate of 30% had the potential to move many retirees in the direction of taking up annuities; a rate of 15% probably does not. This decision cannot be undone without shifting revenues far into the future.

Current tax policy appears to encourage use of annuity "look-alikes" which, unfortunately, do not offer the full longevity insurance that would be expected from a classic life annuity. However these products do have other advantages, such as the potential for high returns, which are not inconsiderable.

The other major problem with current policy is the use of carrots to induce take-up of income streams, as opposed to sticks. The exemption of annuities from the asset test is an example. The inevitable consequence is that the whole system becomes relatively generous and hence expensive to the revenue. It also becomes more inequitable in the sense that the greatest gainers are those who have the greatest retirement benefits.

There are attractions in the "minimum necessary annuity" approach: that is, requiring retirees to "purchase" their age pension, but not more than this. This at least ensures a minimum income for all retirees and no additional government costs, irrespective of the use to which the remainder of the lump sum is put. This is in effect the preferred option discussed in my GMP paper (Ingles 2000c): in other words an increase in end-benefits tax used to finance either a universal pension, or a substantial reduction in the means test taper.

Annuities can be made more attractive by facilitating collective provision at discounted rates, and by providing for investment options with greater risks and greater returns. One option would be for the Government to itself stand in the market as a provider.

# 9 CHAPTER 9: CONCLUSION

## 9.1 Is there a general problem that work does not pay in the Australian welfare system?

The short answer is no. Work does pay in most situations. However there are areas where it doesn't, and some where it pays very little. The question then is whether these problems are sufficiently serious to require redress, and if so, if they are best addressed by focussing on system "hotspots", or whether general systemic reform is needed.

Evidence on whether work pays is gained from 3 main sources

1. EMTR analysis using a hypothetical model

2. Evidence on the incidence of high EMTRs as gained from microsimulation

3. Calculations of earnings replacement rates

I briefly recapitulate each of these areas of evidence in turn.

### 9.1.1 EMTR analysis using a hypothetical model

This is the source of most of our information. Several 'hotspots' where EMTRs exceed 90% are readily identifiable. These are

- On the runout of the allowance taper, where EMTRs at or over 90% can extend over significant ranges of income. This problem is most acute for couples. If there are dependent children, there can also be a "sudden death" loss of entitlement to the full rate of FTB(A). Such sudden death losses also affect pensioners, although few have dependent children. The disabled would be the main group affected.

- In the interaction of Youth allowance and Family Tax Benefit, where EMTRs can exceed 100% over some income intervals.

- In the interaction of means tested State housing rental rebates, Child Support and HECS with other social security means tests.

- Incentives for a second income earner are blunted not only by the allowance taper but also by the interaction between FTB(A) and (B).

### 9.1.2 Evidence on the incidence of high EMTRs as gained from microsimulation

Work on the distribution of EMTRs by income class (eg Harding and Polette 1995, Beer 1998) suggests that "only 6 per cent of the population, just over half a million people, face EMTRs in excess of 60%" (Beer 1998 p266). Beer and Harding (1999) put this figure at 7%. On these figures, EMTRs may not be a burning issue.

However, Beer also notes that the figures are likely to be underestimates due to certain exclusions. These include childcare, HECS, and state housing rental rebates. Beer notes a high proportion of individuals with children in the high EMTR ranges.

A particular problem in interpreting work on the distribution of EMTRs is that we really do not know the extent to which the existing income distribution is already influenced by the EMTR schedule. Another problem is that such studies don't pick up the effect of losing various allowance and concessions if income exceeds relevant thresholds. The loss of the Health Care Card, Rent Assistance and State Government concessions on energy, water, sewage, municipal rates and transport may be more significant in the decision-making process than any consideration of payment thresholds and taper rates.

### 9.1.3 Calculations of earnings replacement rates

The net replacement rate (NRR) is the ratio of disposable income on benefit to disposable income while receiving that wage. The group with the highest NRRs (low-wage families with children) have NRRs in the high 70s and low 80% range. They therefore are the group most likely to have an incentive problem, despite having been given more generous in-work benefits over the 80s and 90s. NRRs for low-wage couples without children are around the 75% mark, and those for single people stand at 50-63%.

These NRRs may appear high. However it can be shown that, if benefits are withdrawn at a moderate rate, a low income earner will always be better of by working than on benefit, provided he can combine work and benefit income.

### 9.2 Policy Options

On one view there is no pressing problem requiring intervention. In general a person facing an offer of full-time work will be better off by accepting that offer, and a Newstart allowee would gain from undertaking a few hours of work, especially since the recently announced Working Credit.

However moving from a few hours part-time work to a substantial part-time workload (eg 20 hours) may not be very remunerative for the allowee. They really only get ahead when they 'jump right out' of the allowance system. To the extent that part-time and casual work is becoming more the norm, a system based on the full time work principle may prove increasingly unsustainable in the years ahead.

There are two main classes of policy option if it were felt that action was needed to address work incentive issues. The first can be loosely classed as 'piecemeal intervention', the second as major systemic change.

### 9.2.1 Piecemeal intervention

Sudden death loss of FTB(A) can be addressed for allowee couples by further raising the income threshold to (approx) $29,000 pa. It is not feasible to address the problem for pensioners, since the blowout in the threshold required is very high. The long-term solution here might be the common workforce age payment, so that working age pensioners were pulled back to allowance conditions.

Interactions between YA and FTB(B) can be addressed by providing sufficient disregards in the YA system that all FTB(A) is tapered before the YA taper commences. It would also be necessary to re-introduce split tapers in the YA system so that YA for each sibling tapers sequentially rather than concurrently. A package of such measures has been costed at around $250m. The Keating-Lambert package (see Appendix 1) is another route to the same outcome.

Interactions of social security means tests with child support, HECS, and Housing rental rebates are a fairly intractable problem. About the best we can do is to ensure that EMTRs in our system remain sufficiently modest that interactions can occur without taking EMTRs over 100%. In the rent assistance area, a long-term solution would need to involve integration of state and federal rental assistance schemes, a move that would necessarily involve some substantial losers in the state schemes.

Spouse incentives can be improved by reducing the allowance taper (but see below) and by combining FTB(A) and (B).

In the allowance area, one option is to further reduce the 70% taper to say 50%. Keating and Lambert advocate such a reform. This blows out the allowance cutouts such that FTB(A) thresholds would need to rise to over $33,000 pa. While this involves extra costs, the total costs of the easier taper and the threshold rise are still well below the costs of, say,

a tax credit having the same effect. The tax credit extends to all those in and outside the welfare system, whereas these measures confine extra assistance to this group.

But that is also a weakness of the proposal to reduce allowance tapers. It exacerbates existing horizontal inequities between low income earners in the social security system and those outside of it. One measure of this is the $3 billion pa cost of extending allowances to those low income earners now excluded by virtue of self employment and the like. A further problem is that it would tend to create a whole class of part-rate beneficiaries whose real problem is low or intermittent income rather than unemployment as traditionally understood and catered for in the Newstart system.

## 9.2.2  Major Systemic reform

A low income tax credit is one example of this approach. So too is the negative income tax advocated by Dawkins and his collaborators, and the "full separation system" advocated in Ingles (2000) (which is really a feasible approach to implementing a categorical negative income tax).

### 9.2.2.1    Low income tax credit

High EMTRs applying on the allowance runout can be reduced if less income tax is payable. If income tax liability were entirely removed then the result - an EMTR of exactly 70% - might well be regarded as a reasonable outcome. To achieve this requires that the effective tax threshold become $29,000 pa for a couple. For a single person, the threshold required is around $15,000 pa.

Such swingeing increases in the tax threshold are not affordable unless they are reclaimed promptly once incomes exceed the threshold. Keating and Lambert propose a clawback rate of 30%, and this seems sensible. Combined with the standard tax rate of 30% it results in an EMTR of 60%. However the cost of such high thresholds might also necessitate a rise in the standard rate of tax.

The threshold increase could be confined to those actually in receipt of an allowance. This cuts the cost considerably, but at the cost of exacerbating the horizontal inequities described in the section above. A further issue is that there is a sudden death loss of the rebate on coming off the allowance; this can be avoided only by creating a 'grey' class of those who would be eligible for allowance but for their income, and would need to be so certified by Centrelink in order for them to gain access to a partial tax credit.

I conclude that any tax credit used to address EMTR problems in the allowance system would best be designed as a general measure of assistance to low income earners both in and outside the allowance system. This means that the cost is necessarily in the order of $4 billion-plus.

The tax credit approach has the potential to do some good, but at the cost of increased complexity in an already complex tax-transfer system, and more potential for confusion. The next two options avoid this.

### 9.2.2.2 Negative income tax

The negative income tax proposal of Dawkins and his collaborators is probably not a feasible option. In its 'pure' (linear tax rate, non-categorical) form it envisages a general tax rate of 57%. Even in its modified form which envisages a higher initial tax rate (60%), a lower general tax rate of 45%, and the continuation of some degree of categorisation, it is not feasible because it places too much weight on the tax concept of income. The use of a pure income test in the social security system in the late 1970s and early 1980s was a complete disaster.

### 9.2.2.3 Full separation proposal

Ingles (2000e) floats a proposal which addresses the major objections to Dawkins et al. Basically, it involves separating social security means tests from the tax system so that the tests cease to operate at the time taxation cuts in. This entirely abolishes 'churning': those who receive benefits do not pay any tax, and those who pay tax do not receive any benefits.

In its purest form this requires that tax thresholds be set at social security cutout points. The FTB(A) taper would be grossed up to 60%; correspondingly higher thresholds would apply for families with dependent children. Revenue neutrality then requires that the initial marginal rate be quite high – in the order of 40-45%. There would need to be a family basis of assessment at the lower end, so as to dovetail the tax threshold for a family with the allowance cutout. At higher income levels taxpayers would have the option of reverting to a single income unit.

A number of sub-options within the separation proposal are detailed below.

## 9.3 Full separation as a feasible version of the NIT

Although this thesis has discussed a number of piecemeal modifications to the current system, an underlying theme is that the route of piecemeal change has probably reached its use-by date and it is time for reform efforts to become more systematic. For this to happen, we need a vision of what a good system might be.

Academic reformers of Australian social security have had a tendency to come up with theoretically interesting but somewhat impractical reform agendas. The Negative Income Tax ideas of Dawkins et al are the latest example of this phenomenon. Such reform schemes are not always based on a thorough understanding of the existing tax-transfer system.

This is unfortunate, because the effect of Dawkins et al, like that of the Henderson Poverty Inquiry 25 years before, has probably been to convince most casual observers that the NIT idea is a complete non-starter. Who would happily contemplate a 57% tax rate right through the income distribution? Even Henderson's 50% flat tax was completely unacceptable to the Government of the day.

Yet, reform of our present rather messy system is needed. In chapter 3, I argued that financial incentives are important and do matter. That is not to say that they should be the be-all and end-all of any 'welfare to work' strategy. Rather, it is to suggest that we need to get the basic architecture of the system right. In this way, we can be sure that financial incentives in the system are at least helpful to, or at worst not destructive of, any other 'incentivizing' strategies that we may be pursuing.

What I have proposed in this thesis are a number of modifications to the basic NIT idea, which provide a realistic means towards its implementation. These proposals are based on the understanding that the current system has already moved a substantial way down this path, if we would but recognise that. It follows that the further changes required are in the main relatively modest – relative, that is, in the great sweep of these things. They may not appear modest to the politicians who would have to wear the flack of implementing them.

The 'full separation' scheme which I prefer recognises that several departures from purity are unavoidable, and these departures in turn have their own consequences that impact on design issues throughout.

In particular, I have argued that we need to persist with:

6. Categorisation – albeit with three, not 22, categories. These three are the aged (65 and over); the workforce aged who meet 'mutual obligation' requirements, and those who do not. The last group gets no income support from government, but in my proposals benefit from significant income tax cuts if their income is low.

7. Higher effective *tax rates* for beneficiaries than for those whose incomes exceed the benefit cutouts – albeit that a linear tax schedule is proposed for the aged.

8. Different and more comprehensive *income definitions* for beneficiaries compared to taxpayers.

9. Different income *periods* for beneficiaries and taxpayers.

The consequence of the last three is that there must also be

10. Different *income units* for beneficiaries and taxpayers, albeit that the family unit preferred in the welfare system must be extended some way into the positive tax system in order to create a smooth transition.

The reasons for 1 – 5 are as follows.

(1) **Categorisation** is retained for the reasons adduced in Chapter 5:

    a. we wish to be able to exert administrative discretions in order to exert pressure on the 'workshy', or to encourage some people to seek and participate in training; and

    b. low income alone is not sufficient basis for providing income support, especially given the difficulties in measuring the real incomes of the self-employed.

(2) **Higher taxes on beneficiaries** are retained because – as Chapter 4 notes -

    a. 'optimal tax' theory suggests that this might be sensible

    b. while this is an empirical conclusion, and may ultimately prove to be wrong, the evidence is not yet to hand to justify moving to a fully linear system

c. this judgement is modified in the case of the aged; for them, I suggest in Chapter 8 that linearity is probably sensible. (This nonetheless leaves the aged with EMTRs close to 50%).

(3) **Different income definitions** are maintained for beneficiaries (compared to taxpayers) because

a. the income taxes' base definitions are so problematic – compared to the comprehensive income (Haig-Simons) ideal – that the assessment of 'need' cannot sensibly be built on them;

b. there is no immediate likelihood that this can be changed in a sufficiently comprehensive manner;

c. in particular the tax system is highly unlikely to include a material or sensible assets component such as the imputed asset income now included in (deemed) social security income;

d. in any case, the tax and welfare systems have different time horizons. Whereas the tax system is able to adopt an annual or even a lifetime perspective, (the latter being consistent with, for example, an expenditure tax[138]), the welfare system is inherently constrained to take a shorter-term view.

(4) This leads to point four, about **timing**. Even the annual basis of the income tax can be too long a period to base assessments when needs are immediate – in which case the most relevant period is a week, a fortnight, or a month.

a. To some extent, the differences can be reconciled by devices like averaging (as applied to capital incomes) and income/transition banks (where unused free areas are accumulated over some period).

b. Nonetheless, the welfare system is unavoidably kinder to irregular, part-year earnings than to regular part-time earnings[139]. The challenge is to mitigate this effect as much as possible consistent with the requirement that immediate needs be met as, and at the time, they arise.

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[138] See Kay and King 1984

[139] I have not sought, in the text, to document this. However, it is simple to do, the output being in the form of a graph which shows various combinations of part-year and part-time earnings which result in the same total income over the course of the year.

- The part-year tax system proposed under the preferred 'full separation' proposal in Chapter 6 is one means of addressing this dilemma.

- The more linear the effective tax rates applied, the less the end-year reconciliation required.

(5) retaining the **family (couple) income unit** in the welfare system, and *extending it some way into the positive tax system*, is probably one of the most contentious parts of the full separation solution suggested. However:

a. such a unit is inevitable so long as we retain a lower basic benefit for each of a couple than for singles, and so long as we wish to have a higher effective tax rate on beneficiaries;

b. while the family unit is used in the social security system – which we do for reasons of cost and horizontal equity – than some recognition of family responsibilities is desirable in the tax system in order to create a smooth interface between the one system and the other; and

c. the extent to which I propose a family based tax system is minimised by allowing people to drop back into the normal individual system as soon as it is to their advantage.

(6) The other main contentious issue in my preferred versions of the full separation solution (Options A and B below) is that of the **very large increases in tax thresholds** proposed for all low income earners, a proposal which has most effect on couples and families with children. This proposal is accompanied by large rises in the standard marginal tax rate (currently 30%) necessary to preserve revenue neutrality.

a. My analysis shows that this is the only comprehensive means possible of dovetailing the tax and welfare systems. Anything less results in on-going compromise. Thus, while full separation can be made to work with existing tax thresholds, Chapter 6 shows that it requires the creation of a special category of people who, while not eligible for a basic payment, are eligible for some reduced rate of income tax as a result of their belonging to the relevant categorical group.

b. If EMTRs are to be lowered on some groups, notably welfare recipients, they must be raised on others. The main groups where low EMTRs now apply, and

where there is therefore scope for rises, are low and middle-income earners without children on incomes beyond the benefit cutouts.

c. There is an issue as to whether there should be some on-going low tax rate inside the new thresholds. This would be necessary if it were desired to avoid raising the initial marginal income tax rate to something like 40-45%. One option is to abolish existing tax thresholds and apply an initial tax rate of, say, 10%. The 30% rate would not then cut in until income reached levels equivalent to the allowance cutouts.

d. Alternatively, the same revenue provided by the initial 10% income tax could be implemented by GST base broadening and/or rate increases.

e. increases in the standard tax rate threshold combined with the opportunity to take up part-rate social security benefits are also the preferred all-round approach to further assisting low wage earners (Chapter 8).

## 9.4    Description of preferred system

I will first describe the full-fledged 'ideal' model as I conceive it. I will then describe a modified version, which might be more immediately achievable. In all cases I will assume that the decision is taken to divide the benefit system into age pensions and a single workforce age payment; this appears to me to be a desirable move irrespective of any other decisions on rationalising ETRs.

I also assume that FTB(A) and (B) are combined in a single higher rate of FTB(A) which (as described in Chapter 5), could logically become a constant amount independent of age of child, and that the new system would include a single continuous taper rather than the two-part taper now applying. I further assume that Youth Allowance for children aged 17-20 would be included in this new family payment system in order to rationalise rates and means test interactions (Chapter 5).

### 9.4.1  Option A (idealised model)

In general this system allows for reductions in ETRs across all social security clients, and comes close to a linear tax rate on all positive taxpayers. I assume in all cases that the top marginal income tax rate will stay at 47%, or 49.5% inclusive of 1.5% Medicare levy and 1% levy surcharge.

The taper rates described are in some cases higher than existing tapers but ETRs are lower, reflective of the fact that under full separation no-one receiving a benefit will be liable to any income tax. For example the proposed age pensions taper of 50% is higher than the current 40% taper rate but lower than the (approximately) 60% EMTR now applying.

Option A utilises the existing allowance tapers of 50 and 70% and sets tax thresholds at the maximum allowance cutouts of $15,000 pa, single and $29,000 pa, couple . These means that the income tax scales are based on the family unit. The initial marginal income tax rate is set at 38.5%, or 40% inclusive of Medicare levy. (This rate is meant to make the scheme self-financing and might need to be varied slightly in practice.)

For families with children, the taper on child assistance is raised from 30 to 60%. Additional tax rebates apply for dependent children, raising family tax thresholds to the new cutouts. These tax rebates are reduced at a 20% rate beyond the benefit cutouts. This means that some family assistance extends into wide middle income ranges. The effect is that most working families, once off any unemployment or parenting payment, initially face a tax rate fairly close to 60% (except that Childcare Assistance tapers of 10% (one child) and 15% (2 or more children) are allowed to 'stack'). This then drops back to the relevant income tax rate once the rebates are fully exhausted.

Rent assistance, whether for pensioners, allowees or families, is also tapered at 60%. New tax rebates are provided to renters, which move their effective tax thresholds out to their benefit cutouts, inclusive of rent assistance. These rebates are also reduced at a 20% rate but only after and child-related rebates are fully exhausted.

For age pensioners, the tax thresholds proposed for the working aged are not sufficient to prevent some overlap with the pension taper. Hence, special tax scales are proposed for all those aged 65 and over. These have thresholds equal to the pension cutouts of $ 27,870 pa, single, and $46,852 pa for couples, and a single linear rate of 47% (plus 1.5 or 2.5% Medicare levy).

An alternative to using special tax rebates is to utilise special tax scales, and this might have administrative advantages. These scales would have thresholds equal to the benefit cutouts applicable to the particular family type, and a standard tax rate of 60%. Whichever of the special rate scale or the ordinary tax scale produced the lower tax payable would apply.

This is the most radical of the separation options, produces the 'cleanest' structure of ETRs (albeit falling short of full linearity), and is the most redistributive. A corollary is that it is also the most difficult to implement. It might be regarded as a medium-term goal.

### 9.4.2 Option B: full separation with minimal change in income tax rates

This is the least 'clean' of the options, and fails to achieve horizontal equity between the tax burdens of those in and those outside of the categorical system. It would nonetheless be a substantial improvement on the current system[140]. Age pension and allowance tapers would be grossed up as described in Option A. As with that option, special tax scales would apply to people aged 65 and over, with thresholds set at the pension cutouts and a tax rate of 47%.

For those in receipt of workforce age payments, special tax scales would apply from the allowance cutouts, with additions to the thresholds where there were dependent children and where the family was eligible for rent assistance. That is, no one in receipt of any of these benefits would pay income tax. A special income tax rate of 60% applies beyond the thresholds; families revert to the normal income tax scale where that is to their advantage.

This proposal, in contrast to the preferred option above, creates a 'grey area' of people who are not eligible for any payment but would benefit from the special tax scales if they were categorically eligible. As described in Chapter 6, they could apply for a Centrelink certificate of eligibility under some workforce age category, and supply this to the Tax Office to prove their eligibility for the special rate scale.

Because the special tax scales do not apply to low income earners outside the categorical system this option is much cheaper than option A. It follows that the required increase in the standard tax rate is much less.

### 9.5 Impact of the options

The analysis is figures 9.1 – 9.4 is meant to be indicative rather than a full modelling exercise. These figures compare the current system with that proposed, both in terms of EMTRs and disposable incomes. Figure 9.1 shows the impact on age pension couples of the linear tax regime and grossed up pension taper. Pensioners on private income of $500 - $1200 pw are modest net gainers, and EMTRs fall over the pension taper range.

For single allowees (Figure 9.2), Option A improves net incomes in the range $100 - $600 pw, but beyond this single taxpayers are modest net losers. This is also true for dual earner couples who are essentially in the same boat as two single individuals at middle to higher income levels. Thus, these groups support the net gains described for all other income units.

For allowee couples who cannot split their incomes (Figure 9.3), Option A provides for net gains at private incomes between $100 and $1,000 pw, maximised at the allowance cutout around $550 pw.

For couples with children (income not split), Option A provides for reductions in EMTRs and modest net income gains right through the income distribution (Figure 9.4).

In all cases the EMTR graph shows up as being more uniform than that currently prevailing, and the disposable income line rises more smoothly as private income rises. However the remarkable thing is just how small in percentage terms are the income movements relative to the current system, indicating that system which looks quite radical on paper is perhaps not so, taking all the various adjustments into account. In a way, this is quite reassuring. It means that we are not taking a huge leap into the dark in considering a transformation that, nonetheless, envisages substantial reductions in marginal rates for many social security clients.

## 9.6    Conclusion on long terms directions for reform

Academic proposals for welfare reform along the lines of the NIT or GMI have met a brick wall. This thesis has shown why this is so: they fail to take account of too many important factors, and end up being unconvincing. In fact, if they convince of anything, it is of the impossibility of the idea as hitherto promulgated.

By delving into the issue in depth, I show in this thesis that it is possible to implement a NIT but the model is very different to the original simple conception. In particular it is necessary to retain:

- the opportunity of administrative pressures on clients to seek or take work (ie categorisation);

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[140] For the implicit evaluation criteria being used here, I refer the reader back to Appendix 3.9 and the discussion of optimisation of the social welfare function.

- a different and more comprehensive definition of 'means' than is apparently possibly in the income tax;

It also appears unavoidable – at least for the medium-term future – that we persist with higher tax rates on working age beneficiaries than on income tax payers. All these departures from the original NIT model force the adoption of a family rather than an individual income unit, and its extension into the lower ranges of the income tax as a means of dovetailing the two systems.

Subject to these constraints, the NIT/GMI model based on full separation is feasible, workable, and I believe very sensible. The full separation model provides for swingeing increases in income tax thresholds. One effect of this is that the system becomes more supportive of part-time, irregular or casual employment, without the necessity for new or extended in-work social security benefits. In this way the system can be made much more supportive of newly emerging work patterns and labour market trends.

Australia could have a very good tax/transfer system; we just need to make it so. Once we have stabilised the basic architecture of the system based on a designed structure of marginal rates, future changes in that structure become, on the one hand, much easier to implement and, on the other, much less likely to be necessary.

**Figure 9.1: age pension couple: 50% ETR and special tax scale vs current policy**
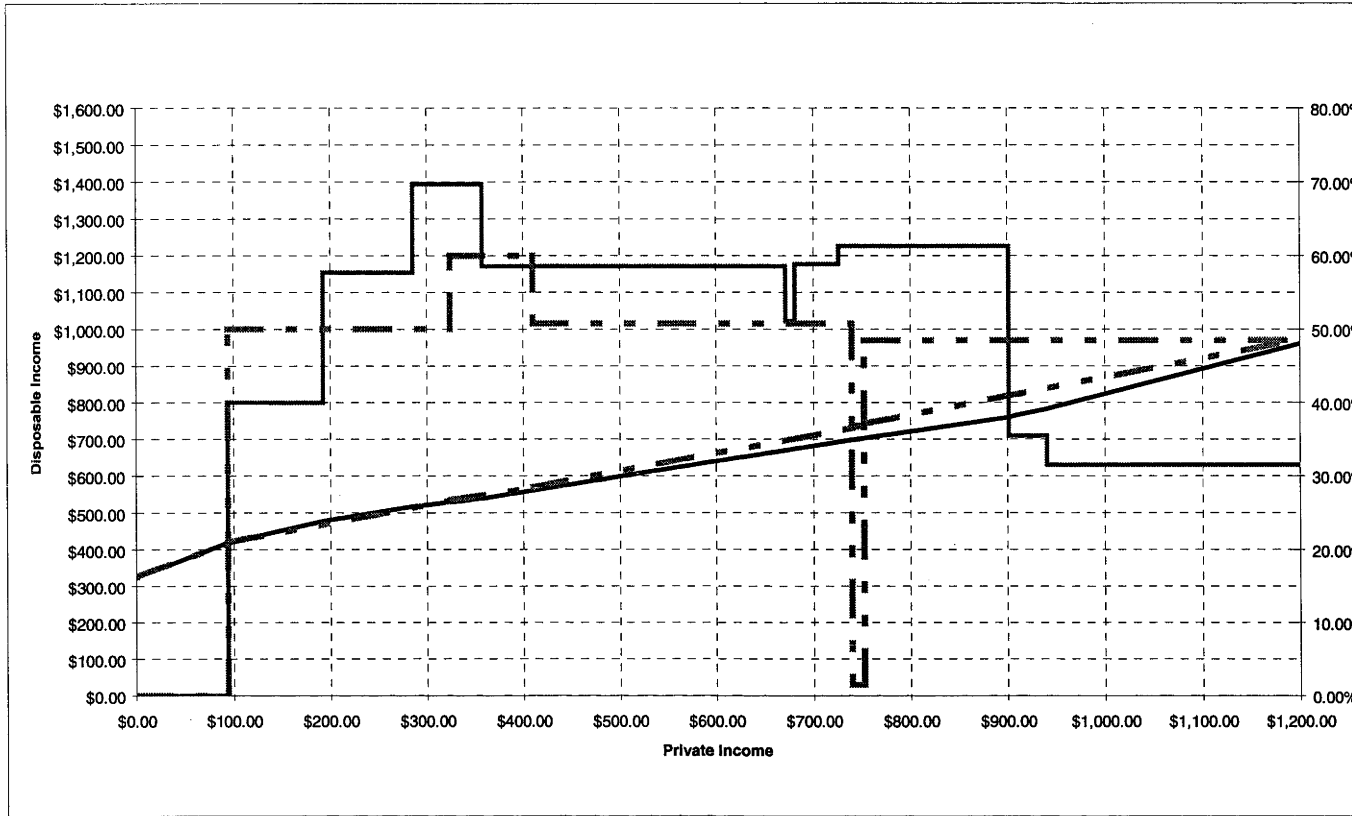


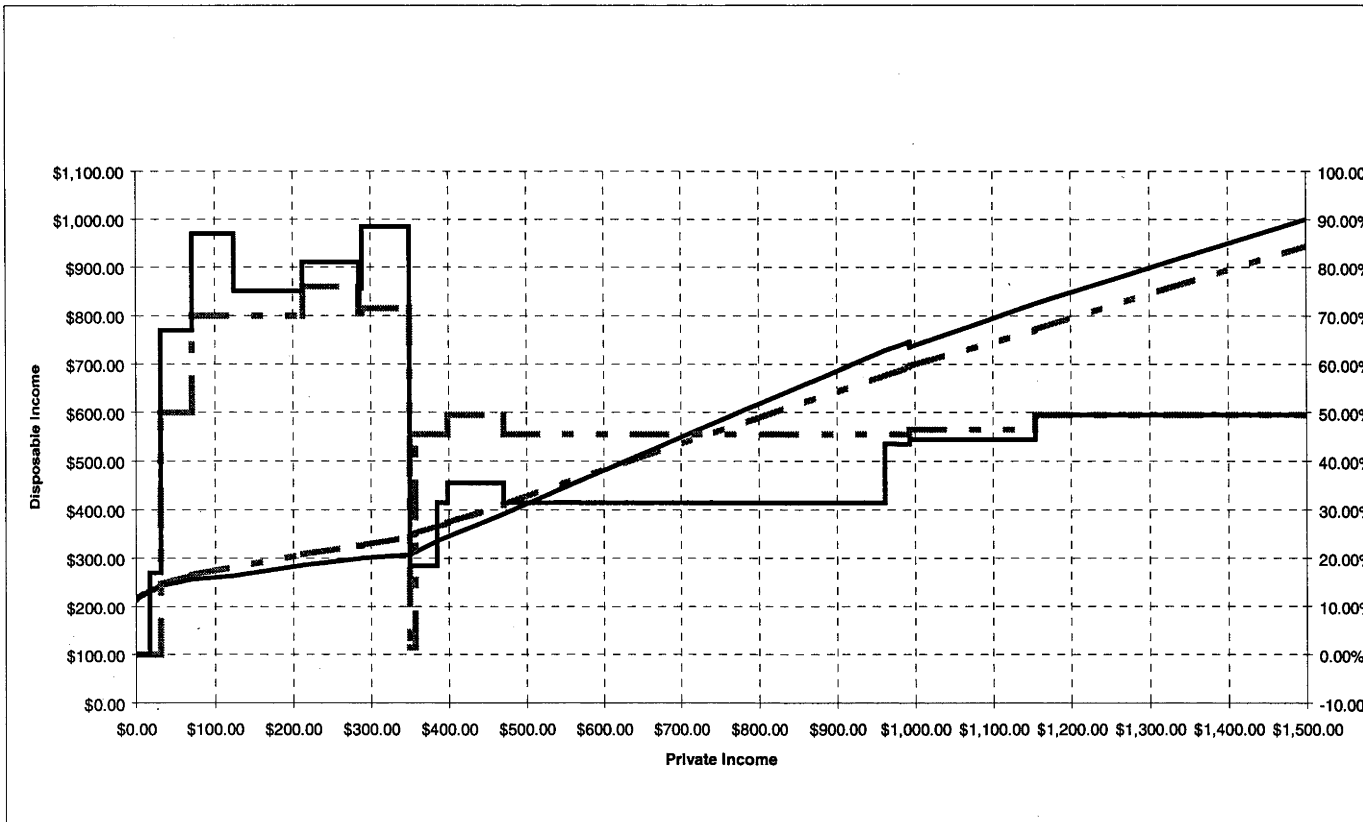**Figure 9.2: single NSA  paying rent, Option A vs current policy**

**Figure 9.3: NSA couple paying rent, no children, Option A vs current policy**
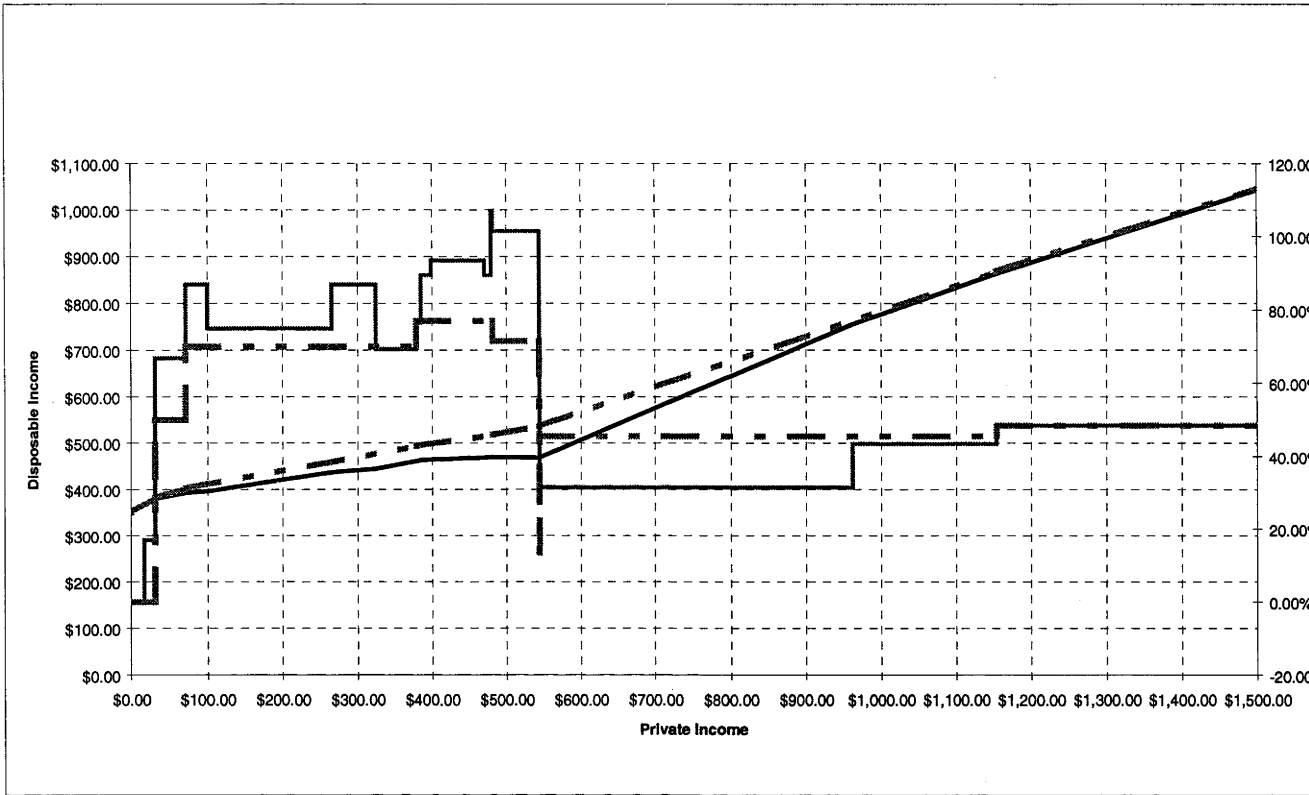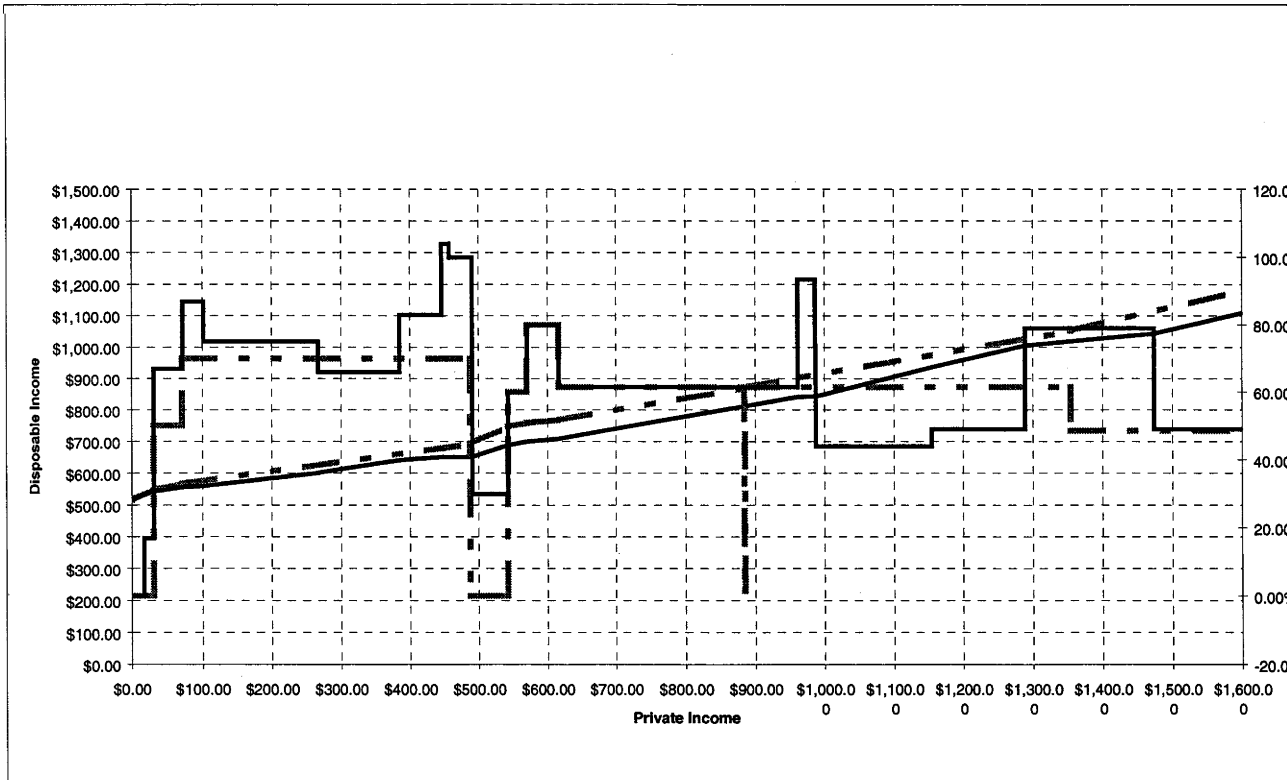


**Figure 9.4: NSA couple with 3 children, all private inc. to head, Option A vs current**

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