

Interaction of the Age Pension Means Test and the Taxation of Superannuation

David Ingles

Discussion Paper No.84

July 2001

ISBN 0 7315 3427 1

ISSN 10302190

Abstract

The Australian social security system is probably the closest in the world to a negative income tax (NIT) or guaranteed minimum income (GMI). However, 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. The economic cost of means testing can be reduced by making the means test more gradual. 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. 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

INTERACTION OF THE AGE PENSION MEANS TEST AND THE TAXATION OF SUPERANNUATION.....

<i>1.1 INTRODUCTION</i>	<i>4</i>
1.1.1 The means test.....	5
1.1.2 Inconsistency between means testing and tax concessions.....	6
<i>1.2 OPTIONS FOR MODIFYING THE AGE PENSION MEANS TEST.....</i>	<i>6</i>
1.2.1 Cost of means test abolition.....	7
1.2.2 Issues in means testing.....	8
1.2.3 Alternative means for implementing a 50% effective tax/taper rate	9
1.2.4 Treatment of assets	12
1.2.5 Guaranteed minimum pension (GMP) scheme.....	13
<i>1.3 CONCLUSION.....</i>	<i>14</i>
<i>1.4 FIGURES.....</i>	<i>15</i>
<i>1.5 APPENDIX 1: TAXATION TREATMENT OF SUPERANNUATION</i>	<i>18</i>
<i>1.6 APPENDIX 2: TAXATION ISSUES IN SUPERANNUATION</i>	<i>21</i>
1.6.1 Introduction.....	21
1.6.2 Ideal tax benchmarks	22
1.6.3 Cost of tax concessions.....	24
1.6.4 Inappropriateness of the ET as a benchmark for costing superannuation tax concessions	25
1.6.5 Cost/benefit analysis of superannuation tax concessions	27
1.6.6 Conclusion: future directions for superannuation tax reform.....	28
<i>1.7 Appendix 3: SUPERANNUATION LUMP SUMS VS ANNUITIES.....</i>	<i>31</i>
1.7.1 Use and incidence of lump sums	31
1.7.2 Tax and social security treatment of annuities.....	31
1.7.3 Proposals to limit lump sums.....	32
1.7.4 Annuity issues.....	35
1.7.5 Are annuity purchase costs reasonable?	36
1.7.6 Conclusion: lump sums vs mandatory annuities.....	37

1.1 INTRODUCTION

The Australian social security system is probably the closest in the world to a negative income tax (NIT) or guaranteed minimum income (GMI). The main difference is that eligibility is restricted to certain categories of people, such as the aged or the unemployed. 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 effective tax rates (ETRs) in place after the implementation of the New Tax System’s (NTS) 40% taper and the 2001 budget changes to income tax¹ now average around 50-55% (figures 1 and 2). Is a further reduction in taper (from 40 to say 25%) justified? It would create an ETR of around 50% for the aged (figures 3 and 4). Different income splits within couples affect the ETRs but not dramatically (figure 5).

I argue in this Paper 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. 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 ETR on pensioners at around the 50% level.

A 50% effective average 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

¹ This raised tax thresholds for the aged to \$20,000 pa (singles) and \$32,612 (couples), using special rebates which phase out once income exceeds these levels.

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.

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.

1.1.1 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 (1997) 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.

1.1.2 Inconsistency between means testing and tax concessions

Ross concludes that "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 have 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).

1.2 OPTIONS FOR MODIFYING THE AGE PENSION MEANS TEST

Creedy and Dawkins² have pointed to possible benefits from abolishing the means test, and suggested 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

² In an article in the Australian Financial Review of 15.9.99.

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).

1.2.1 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%³, this translates to some \$2.8b net⁴. 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. The treasury's Retirement Income Modelling Unit, RIMU, have projected that a universal pension would cost an additional 2% of GDP by 2050⁵. 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 2.

Table 2: illustrative cost of 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. If asset test liberalisations are not included, the cost of taper reductions is less but, as described later, the asset test then becomes quite harsh in its application.)

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

³ Many of those who would benefit from abolition would be on higher marginal tax rates.

⁴ The cost of various State government concessions might also need to be included.

⁵ 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.

this has turned out to be less than 20,000 – of whom 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 that the means test has a good deal of influence on the ways in which pensioners organise their affairs.

1.2.2 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 income taxation.

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.⁶

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.

Leaving aside this possibility, and assuming that we are seeking to equalise marginal rates, does not necessarily mean means test abolition. Dawkins and his associates (1998) 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 3 and 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

⁶ 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.

Figure 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 thresholds⁷ is still at or around 40%, reflective of the income tax clawed back. This is illustrated in Figure 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.

I have 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.

1.2.3 Alternative means for implementing a 50% effective tax/taper rate

In Ingles 2000c 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 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.

⁷ The pension is taxable income. This means that the *private income* tax thresholds are less than \$20,000/32,612 pa since at these income levels a substantial part-pension is also payable.

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 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 20% 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 pensioner tax scales*. 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.

1.2.3.1 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 savings 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 appear favourable to a tax/means test trade-off. The cost of tax concessions for occupational superannuation was estimated at \$9.4 billion in 1998-99⁸, 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 Paper effectively exempts capital income

⁸ 1999-2000 Budget Paper No 1 “Budget strategy and outlook 1999-2000”, Appendix B pp6-20.

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 is 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.

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 problem 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.

1.2.4 Treatment of assets

The NTS reduction in the pension taper has increased the tension between the pensions 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%⁹. This could be applied to all assessable¹⁰ (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.

1.2.5 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 2000b).

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 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 2000b, 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 is 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 EET¹¹ tax regime. If this were not thought appropriate – and see the problems discussed in Appendix 2 – 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.

⁹ 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.

¹⁰ 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).

¹¹ Exempt contributions, exempt earnings, and tax benefits at full marginal rates.

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 $1/40^{\text{th}}$ of the age pension would be paid free of means test. In this manner the means-tested component would eventually reduce to zero.

1.3 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 was sorted out 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.

1.4 FIGURES

Figure 1: Single Age Pensioner - Rates at March 20, 2001
 40% taper, No children,
 Paying private rent of \$0 pw.

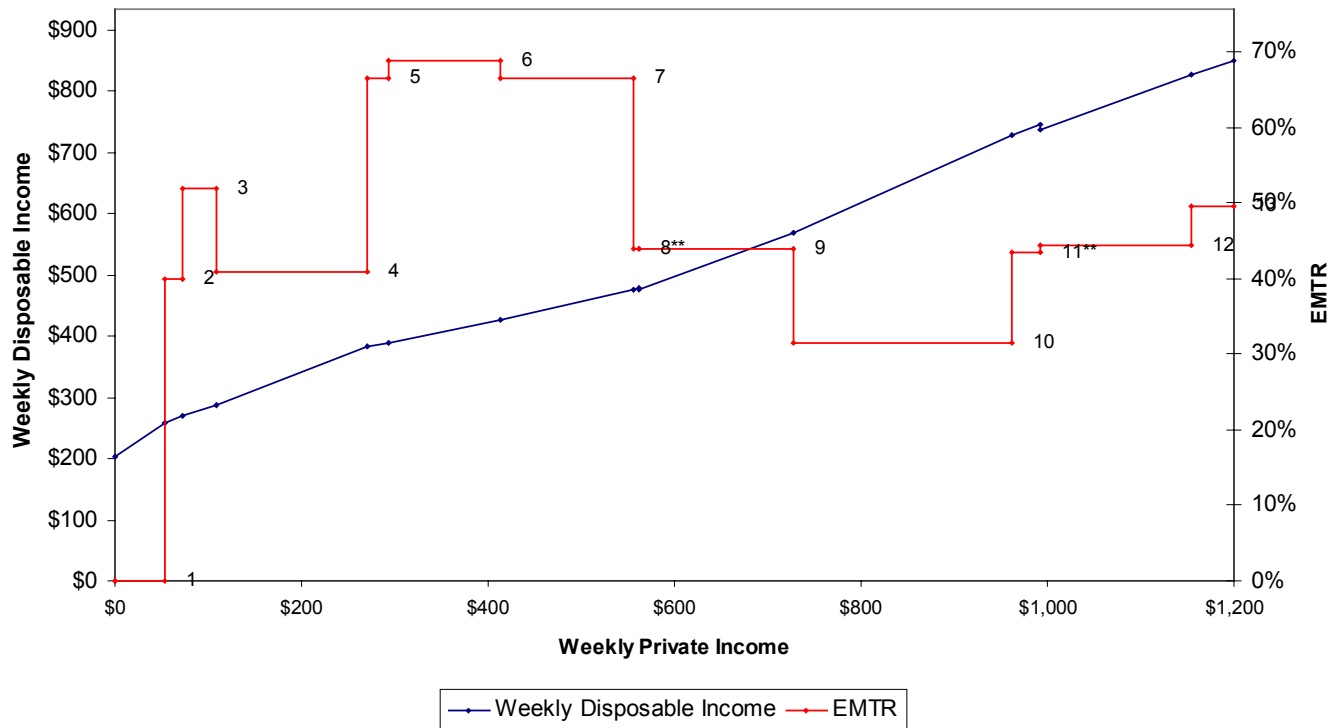


Figure 2: Age Pension couple
 40% taper, No children, paying no rent,
 50% of private income to head, Rates at March 20, 2001

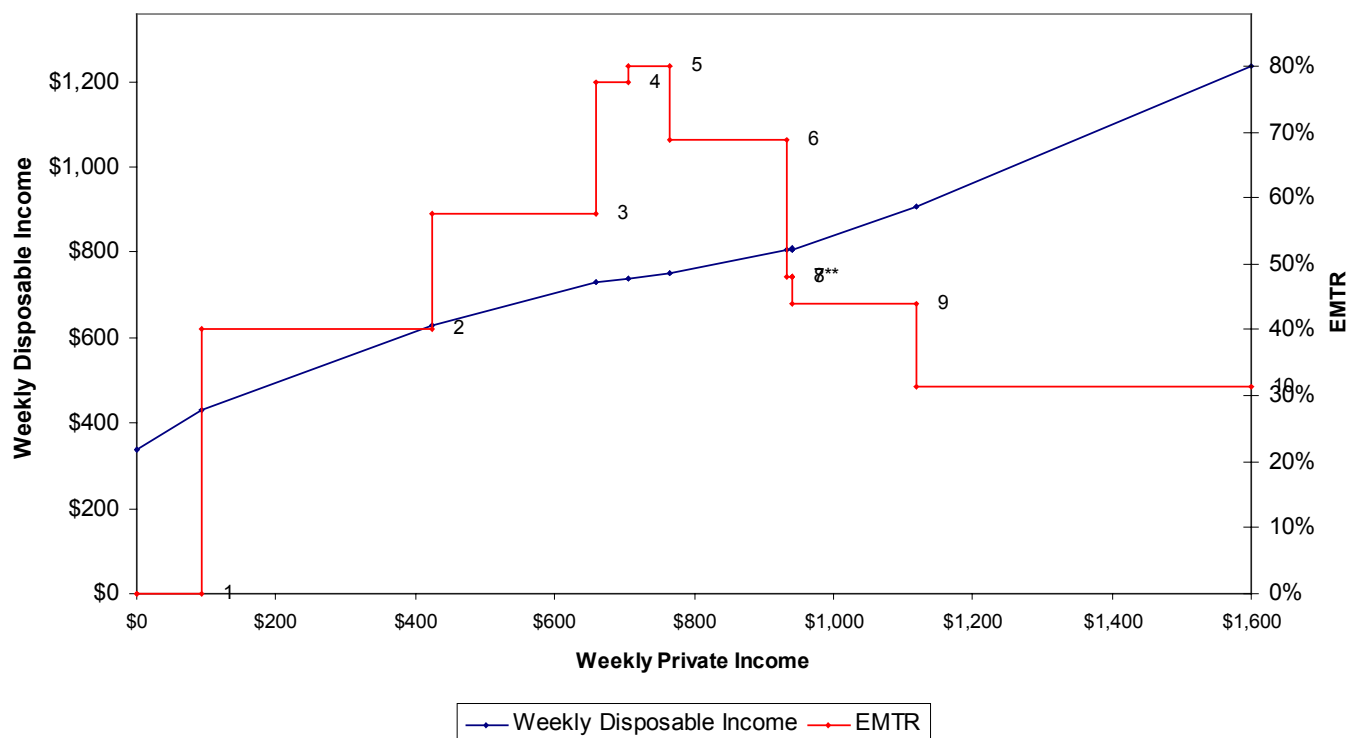


Figure 3: Single Age Pensioner - Rates at March 20, 2001
25% taper, No children,
Paying private rent of \$0 pw.

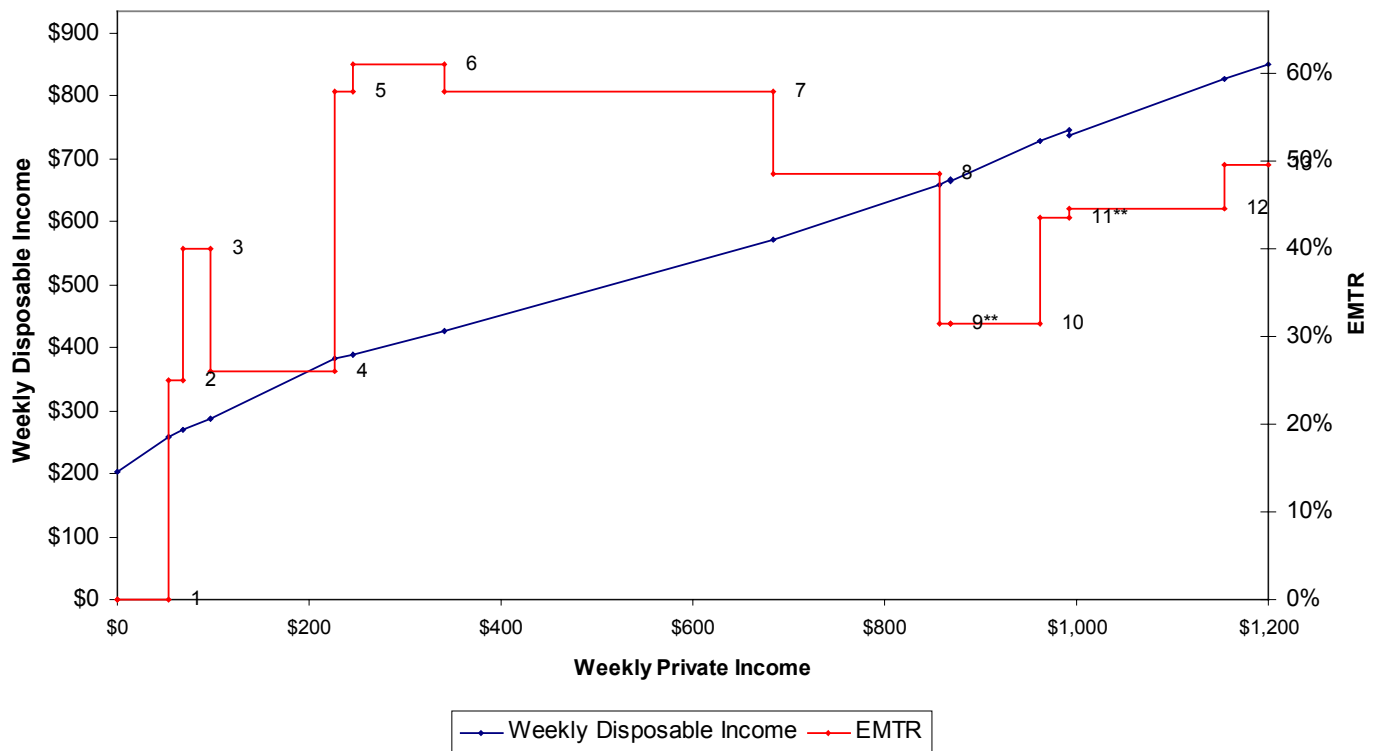


Figure 4: Age Pension couple, 25% taper
No children, paying no rent,
50% of private income to head, Rates at March 20, 2001

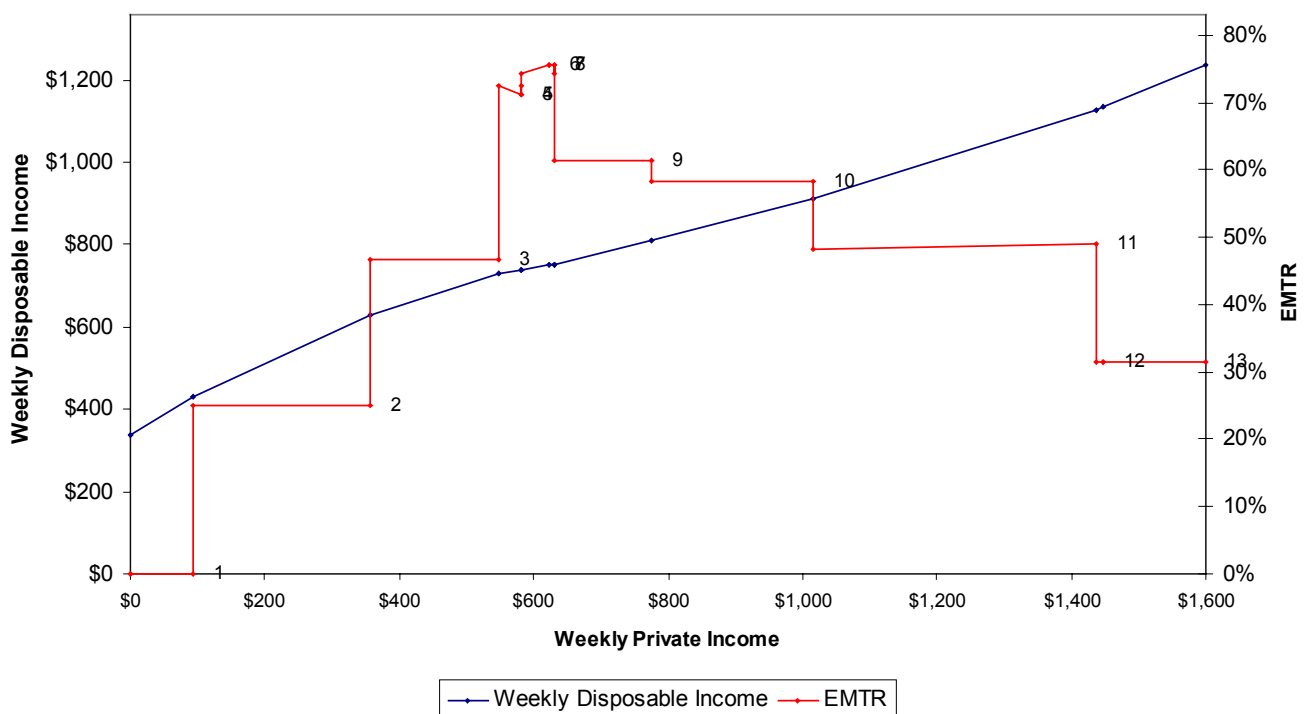


Figure 5: Age Pension couple
25% taper, No children, paying no rent,
100% of private income to head, Rates at March 20, 2001

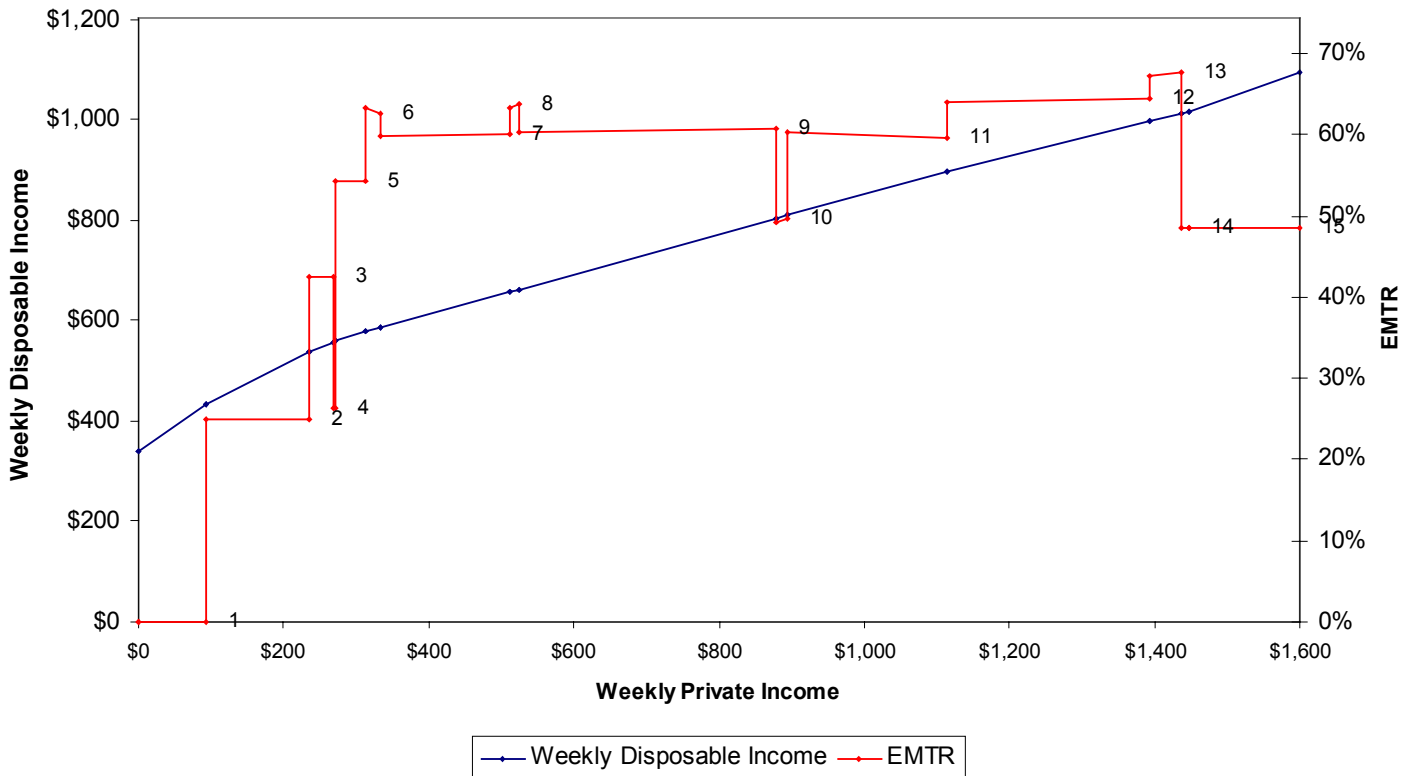
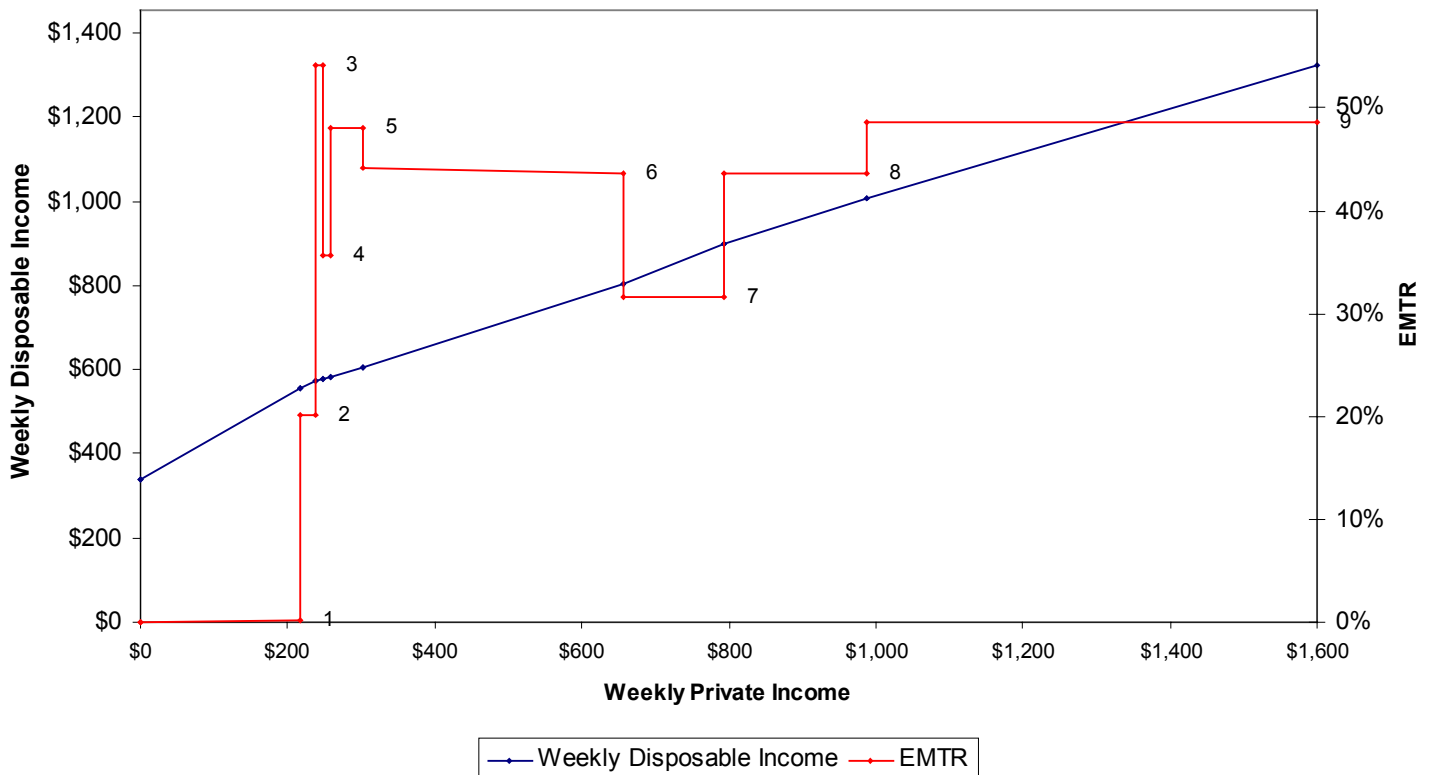


Figure 6: Age Pension couple
No means test, No children, paying no rent,
100% of private income to head, Rates at March 20, 2001



1.5 APPENDIX 1: TAXATION TREATMENT OF SUPERANNUATION¹²

Contributions

Contributions to complying superannuation funds are fully tax deductible to employers up to the age based deduction limits set out below¹³:

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 to funds, and they also benefit from a 10% capital gains tax on assets held longer than 1 year. Hence, the effective rate can sometimes be much less.

Reasonable Benefit Limits

The amount of concessional 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) ¹⁴	
Lump sum RBL	\$485,692
Pension RBL	\$971,382

¹² This appendix is adapted from DFACS (1999) Appendix B. Some of the figures are indexed and would now be somewhat higher.

¹³ These amounts apply from July 1 1999 and are indexed annually.

¹⁴ 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.

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.

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. <u>Person less than age 55:</u> - 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). - 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). <u>Person 55 years or over:</u> - Taxed element: - from \$0 to \$93,731 - balance - Untaxed element: - from \$0 to \$93,731 - balance	21.5% 31.5% 0% 16.5% 16.5% 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 taxed at marginal tax rates
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 taxed at marginal tax rates
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 at 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.

1.6 APPENDIX 2: TAXATION ISSUES IN SUPERANNUATION

1.6.1 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, it 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;¹⁵
- 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 pensioners¹⁶, 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.¹⁷ 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 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 streams 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.

¹⁵ Even a flat rate benefit is progressive, measured as a proportion of incomes.

¹⁶ Note that the reduction in pension taper to 40% was a component of GST compensation for the aged.

¹⁷ 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.

1.6.2 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 paid out, as income to the individual. If benefits are paid 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 tax deferral raises the real return on saving.. One advantage of the ET is that it provides a consistent treatment across both funded and unfunded superannuation.

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 subject¹⁸. 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

¹⁸ 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.

costs to revenue were such that it “should only be pursued after the government had lifted the saving performance of the public sector”.

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 gearing¹⁹); 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 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 form²⁰.

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

¹⁹ 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.

²⁰ Which is the reason superannuation features in most ‘salary sacrifice’ arrangements.

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

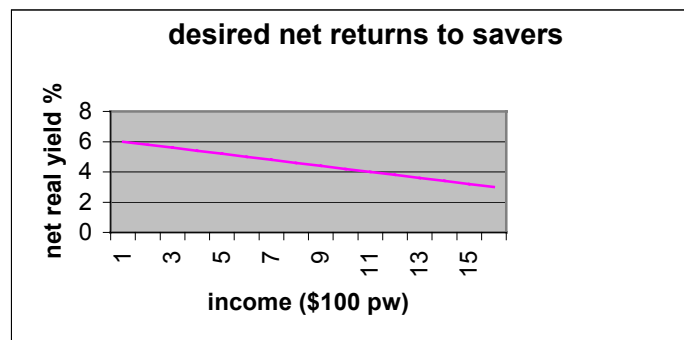


Figure 5 relates only to the *marginal* benefits from saving; whereas overall redistribution is a function of the average income received in retirement. Knox and Cornish (1999) propose that retirement benefits should be related to inputs (lifetime contributions or taxes), but that there should be progressive 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.

1.6.3 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 assert 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.

1.6.4 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.²¹ 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).

If a 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 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 (1997) 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

²¹ Brown (1993 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”.

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 rate²², 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.

1.6.5 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 (1993), 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 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.

²² With the payroll tax being an auxiliary instrument.

Another important parameter is the benchmark income tax rate . It is unrealistic to expect that ordinary savings are taxed at full marginal rates; Knox suggests that an average of 25% might be a reasonable compromise.²³

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” (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 assumption 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.

1.6.6 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 which 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

²³ 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.

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.

1.7 Appendix 3: SUPERANNUATION LUMP SUMS VS ANNUITIES

1.7.1 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 (1998) 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 (1998) 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.

1.7.2 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* products²⁴. 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 paid²⁵), 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.

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).

1.7.3 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).

²² This terminology is from Doyle and Piggott, 1999 p5.

²³ 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.

1.7.3.1 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.

1.7.3.2 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 in 1988 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.

1.7.3.3 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%²⁶ - 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. 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 which is very conservative – typically bonds. An allocated pension (income stream) by contrast may be more risky but, because of the equity premium²⁷, 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).

²⁶ Mitchell et al (1997) cited in Doyle and Piggott 1999.

²⁷ 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.

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?

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).

1.7.3.4 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.

1.7.4 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 consumers.

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).

1.7.5 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 annuitants 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).

1.7.6 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% contributions 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 2000b): 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.

2 BIBLIOGRAPHY

Access Economics (1998) "The cost of superannuation tax concessions", September, mimeo.

Agulnik, P et al (1999) "Partnership in pensions? Responses to the Pensions Green Paper" Centre for analysis of social exclusion, *CASE Paper 24*, LSE-STICERD.

Asprey (1975) "Taxation Review Committee: Full Report", Canberra, AGPS.

ASFA (Association of Superannuation funds of Australia) (1998) "Blue Skies: ASFA's blueprint for a national retirement income policy" June.

Atkinson M J Creedy and D Knox (1995) "The superannuation maze and retirement planning in Australia" *Australian Economic Review* 4/95, 15-25.

Atkinson M J Creedy and D Knox (1997) "Simplifying superannuation taxation: the implications for lifetime equity" Ch 14 (323-343) in Head and Krever, eds.

Atkinson M J Creedy and D Knox (1999) "Some implications of changing the tax basis for pension funds", *Fiscal Studies* 20 No 2, 189-203.

Barnes A (1999) "The age pension – is it really Australia's unstable pillar?" *Australian Social Policy* 1999/1, 227-240.

Barr N (1999) A Public-Private balance in pensions: getting the balance right" in Agulnik et al. (1999) "Partnership in pensions? Responses to the Pensions Green Paper" Centre for analysis of social exclusion, *CASE Paper 24*, LSE-STICERD.

Bascard G and Porter M (1986) "Taxes and incentives - the leaky bucket", Ch 18 in Head ed. 1986 "Changing the tax mix" Australian Tax Research Foundation.

Bateman H and J Piggott (1992b) "Australia's retirement income policy" *Australian tax Forum* 9:1, 1-26.

Brown C (1993) "Tax expenditures and measuring the long term costs and benefits of retirement income policy" *RIM Conference Paper 93/1*, Canberra.

Burtless G (2000) "How would financial risk affect retirement income under individual accounts" Centre for Retirement Research at Boston College, October, No 5.

Campbell H and Bond K (1997) "Effective marginal tax rates in Australia", *Economic Analysis and Policy*, 27:2, Sept., 151-158.

Clare R (1998) "The costs of running Australia's retirement income system" ASFA Research Centre, October

Dawkins P, G Beer, A Harding, D Johnson and R Scutella (1998) "Towards a negative income tax system for Australia" *Australian Economic Review* 31:3, 237-257.

DFaCS (Dept. of Family and Community Services) (with ARISA) (1999) "Understanding retirement income streams", Commonwealth of Australia, October.

Diamond P (1999) "Administrative costs and equilibrium charges with individual accounts", *Working Paper 7050, NBER Conference on Administrative costs of individual accounts*, December 4 1998.

Doyle S and J Piggott (1999) "Mandatory annuity design: a preliminary study" *Paper For Seventh Annual Colloquium Of Superannuation Researchers*, University of Melbourne (July).

M Edey and L Gower (2000) "National saving: trends and policy", Paper for Conference on "The Australian Economy in the 1990s", Reserve bank of Australia, July.

Fitzgerald, V (1996) "National saving: a report to the Treasurer" AGPS Canberra.

Harberger (1969) "Efficiency effects of taxes on income from capital", in M Krzyzaniak Ed. *Effects of corporate income tax*, Wayne State University press, Detroit, 107-117.

Ingles, D., Jackson, W., Podger, A., and Raymond, J. (1982) "Taxation Expenditures", *Research Paper No.17*, Development Division, Department of Social Security, March

Ingles D (1998a) "Overcoming anomalies in the interaction of tax and social security", *Australian Economic Review* 31:3, 271-80

Ingles D (1998b) "Universal and selective benefits revisited – reflections on optimal rates of tax and tapers", *Social Security Journal* 1998/2, pp95-116.

Ingles D (2000a) "Structural ageing, labour market adjustment and the tax/transfer system" Dept. of Family and Community Services, Canberra, *Policy Research Paper No. 5*.

Ingles D (2000b) "A guaranteed minimum pension as an alternative to the pension means test" ANU Public Policy program Discussion Paper No 78,
http://www.anu.edu.au/pubpol/ht_docs/discussp.html

Ingles D (2000c) "Rationalising the interaction of tax and social security: Part II: fundamental reform options" ANU Centre for Economic Policy Research *Discussion Paper* No 424, November.

Institute of Actuaries (1994) "Submission to the Senate Select Committee on Superannuation", mimeo, March

Institute of Actuaries (1998) "A better retirement income strategy for Australia", mimeo.

Knox D (1990) "A review of the options for taxing superannuation" Australian Tax Research Foundation *Information series no 2*.

Knox D (1991) "Tax, super and the age pension: the issues of cost, equity and incentives" *Research study No 14*, Australian Tax Research Foundation, Sydney.

Knox D (1999) "The Australian life annuity market: is there value for the purchaser", *Paper For Seventh Annual Colloquium Of Superannuation Researchers*, University of Melbourne, July.

Knox D and R Cornish (1999) "The development of some characteristics for equitable national retirement income systems" *International Social Security Review* Vol 52, 4/99.

Knox D, M Atkinson and S Donath (1997) "Superannuation and equity: a brief update after some budget changes", *Paper For Fifth Annual Colloquium Of Superannuation Researchers*, University of Melbourne.

Mitchell O (1999) "Managing pensions in the 21st Century: design innovations, market impact and regulatory issues for Japan" *PRC WP 99-20*, Pension Research Council, University of Pennsylvania, Philadelphia PA.

Poterba J and M Warshawsky (1999) "The costs of annuitizing retirement payouts from individual accounts" *NBER Working paper 6918*, January.

RIMU (Retirement income modelling unit, Dept of the Treasury) (1998) Presentation to DSS seminar on long-terms cost of pensions, (unpublished).

Ross J (1997) "The gap between objectives and policy outcomes in Australian retirement incomes", *Paper For Fifth Annual Colloquium Of Superannuation Researchers*, University of Melbourne.

Ross I (1999) "How should super fit in with the age pension?" *Super Review*, March, p10.

Rothman G (2000) "Assessing the tax advantages of investment in superannuation", *Paper For Eighth Annual Colloquium Of Superannuation Researchers*, University of New South Wales

Senate Standing Committee on Community Affairs (1988) "Income support for the retired and aged – an agenda for reform" August AGPS Canberra.

Solomon D (1998) *Address to ASFA Conference 1998*.

United Kingdom Government (1999) "A new contract for welfare: partnership in pensions" <http://www.dss.gov.uk/hq/pubs/pengp/index.htm>

World Bank (1994) "Averting the old age crisis", Policy Research Report, Oxford Uni Press.