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Some Policy Issues in Providing Retirement Incomes

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Abstract

The paper compares and contrasts the pay-as-you-go system of government provided age pensions funded from recurrent tax revenue with the pre-paid system based on a compulsory superannuation levy funding an actuarially fair retirement income. Under special assumptions, including constant levels of GDP, the two systems are similar. However, given specific details of the current Australian versions of these two systems, the second system is shown to result in a higher level of GDP. Some policy design issues for the superannuation scheme, including the need for compulsion and at what rate, who pays the levy and the congruence of various eligibility ages, and the effects of the 2006 budget changes on the taxation of withdrawals, are assessed.

1. Introduction

This paper evaluates options for allocating a share of the production of current goods and services to the retired sector of the population for its current consumption. In particular, the paper seeks to compare and contrast the pay-as-you-go (PAYG) system of government provided age pensions funded from recurrent tax revenue now used by the majority of retired Australians with a system based more heavily on a compulsory superannuation levy operating as an actuarially fair pre-paid retirement income funding system. The paper is concerned primarily with the intergenerational transfer of actual production, or the real side of the economy, and only incidentally with the monetary side of this intergenerational transfer. A key part of the comparative assessment is the relative implications of the two options for labour supply, saving and investment levels, and in turn on the size of GDP available to be distributed. The analytical framework is then used to comment on some of the policy options affecting the provision of retirement incomes in Australia, including the incentive and equity effects of the changes in the taxation treatment of superannuation announced in the Australian budget of May 2006.

Projections by the Treasury (2002) and the Productivity Commission (2004) highlight the growing importance of the provision of retirement incomes from now to 2045. The share of the population aged over 65 is expected to double from 13 per cent to 26 percent; and with a much smaller off-setting fall in the share of dependent children. The ratio of those of workforce age to the aged is projected to more than halve from 5.3 to 2.3. These demographic changes are driven by a combination of longer life expectancy and a fall in fertility rates. Immigration is expected to have only small effects. But, not all is gloom as real GDP is projected to grow by an average of 1.25 per cent per annum as a result of further capital deepening and multi-factor productivity growth. Then, in the coming decades aggregate GDP will be much larger, but also a larger share of that GDP will be redistributed to the retired.

The paper is structured as follows. Section 2 describes the current funding arrangements for the provision of retirement incomes in Australia, and it highlights the different properties and incentives of the PAYG system with the compulsory superannuation levy

system. Economic effects of the two system options are compared in Sections 3 and 4. Initially in Section 3 as a benchmark, a long run no different effects outcome is noted. Section 4 then compares the system options in terms of the direction of effects, and likely magnitude of effects, on labour supply, saving, investment and GDP. Some of the broader policy design issues with the present compulsory superannuation levy system as a way of funding retirement incomes are discussed in Section 5, and Section 6 assesses the equity and incentive effects of the superannuation tax changes to take effect from July 2007 announced in the May 2006 Australian budget. A final section provides conclusions.

2. Funding for the Aged

There are three main sources of funds available to those of retirement age from which to purchase their general consumption needs. For a manageable task we focus on general income, and largely ignore the funding and access to health and aged care services which are subject to additional special government funding policies. These three main general retirement income sources are: the age pension funded by governments from general tax revenue; the mandated compulsory superannuation levy paid by employers into private employee funds; and, other private savings, including owner occupied homes, voluntary superannuation, other real estate, shares and financial deposits.

The government age pension is the most important source of general income for most Australians of retired age. It is a means tested social security payment funded from general government revenue. The age pension is a defined benefit set at 25 per cent of average weekly earnings, with six-monthly indexation. Subject to an income or an assets test, whichever is binding, all males over age 65 and females over 63 (with a schedule of increases to 65 by 2014) are eligible. For 2005, it was estimated that over 50 per cent received a full pension, and another 30 per cent a partial pension, with an annual budgetary cost of $17 billion or 3 per cent of GDP (Productivity Commission, 2005). Clearly the current government support system serves far more than a minimum safety net role, and this will continue to be the case for some years into the future.

Several properties of the system of age pensions are important to understanding its economic incentives and effects. The system is a PAYG system in which today's taxpayers fund via general taxation today's retirees. It is a defined benefit system with no relationship to income earned or tax paid while employed. In fact, once saved income carried into retirement ages passes a minimum threshold, and until it exceeds a maximum income or asset threshold, withdrawal of the means tested age pension adds to the effective marginal tax rate (EMTR) on employment and saving and this acts as a disincentive to private saving for one's retirement income.

The mandated employer paid compulsory superannuation levy scheme commonly is a defined contribution scheme, with defined benefit schemes becoming the exception. From 2002 the levy rate has been 9 per cent of gross wages and salary income. The scheme has wide coverage with the only exemptions being employees under age 18, and those earning less than $450 a month. The superannuation contributions are preserved to age 55, with this preservation age being steadily increased to age 60 by 2015, with tax benefits available after the preservation age. From July 2007, a further set of tax benefits become available for those withdrawing their superannuation funds after age 60. Superannuation is a tax preferred form of savings against the yardstick of savings given an income tax treatment, such as financial deposits, but in general it is taxed more heavily than savings placed in owner occupied homes which are subject to a consumption base tax treatment. Independent contractors and the self employed have access to similar tax preferred arrangements for superannuation as employees, but without compulsion.

The compulsory superannuation levy system of funding retirement incomes has very different economic properties to the government age pension system. It is a pre-paid system in which each generation saves income over their working life to fund their own retirement in the later stages of the life cycle. This contrasts with the PAYG characteristic of the age pension. For the common case of defined contribution schemes, the compulsory superannuation system is actuarially fair, with the employee directly rewarded for extra earned income that is allocated to superannuation. This characteristic

contrasts with the means tested and defined benefit characteristics of the Australian age pension system.

Third, many Australians rely on voluntary personal savings for a part of their retirement incomes, and in the case of the top 20 per cent for most of their retirement income. Savings invested in owner occupied homes is the most important form of private retirement saving by Australians. About 70 per cent of age pension recipients are estimated to own their own home. Other forms of personal saving for funding consumption in retirement years include voluntary superannuation, real estate, shares, and financial deposits. Other than the voluntary versus compulsory contrast, and some important differences in tax treatment, the compulsory superannuation levy and voluntary saving options for providing retirement incomes have similar economic characteristics. In particular, both are accumulation schemes for spreading income over the life cycle, and both schemes are close to being actuarially fair before taxation and means testing of access to the age pension.

3. Similarity of the Schemes

As an interesting benchmark which focuses on the real effects of a government funded PAYG age pension system versus a pre-paid compulsory superannuation levy system as different ways of distributing real GDP to retirees, this section considers the special case assumptions which provide for system equivalence. These assumptions are for a long run steady state equilibrium over many generations, and one in which the two options are assumed to have the same behavioual effects on labour supply, saving, investment and GDP. Using an overlapping generations model, Connolly and Munro (1999) and Lindbeck and Persson (2003) provide the details of the scheme similarities.

The essence of the equivalence result is as follows. Under the PAYG scheme, taxes on the current working age cohort are used to redistribute current GDP produced by the current period working cohort to the current retiree cohort for their consumption. Under the superannuation scheme, current period retirees use their savings acquired during their previous period working phase to purchase this period's GDP for current consumption,

and the current working generation release a portion of this period's GDP as saving for their future period retirement consumption. Assuming GDP is the same across the two system options, and simplifying with constant and proportional tax and compulsory levy rates, the tax rate will equal the saving rate (1 + the rate of return on saving), then retirees of each cohort will receive the same share of GDP, and have the same levels of retiree consumption under both systems.

Where real earnings increase over time with population growth and technological change, the PAYG system can provide a higher income for retirees than a pre-paid savings scheme. Specifically, assuming exogenous growth rates of population and technological change, and a fixed labour supply, the Samuelson rule (Samuelson, 1958, and Creedy and van de Ven, 2000) shows that the PAYG system provides a higher retirement income if the sum of the population and technology growth rates exceed the real interest rate. Creedy and van de Ven (2000) generalize the Samuelson rule to the extent that the fixed labour supply assumption is relaxed to allow the labour tax to fund the PAYG pension to distort labour versus leisure decisions, but they assume an exogenous wage that grows at the technology growth rate.

When moving from a predominantly government funded PAYG age pension system to a prepaid compulsory superannuation levy system for funding retirement incomes, as is the case for contemporary Australia, there can be large intergenerational redistribution effects which are ignored in the above long run many generations model results. In particular, in the transition phase, the current retired cohort gains at the expense of the current working age cohort. The first working age cohort is involved in paying for the consumption needs of the present retired cohort, by paying higher taxes to fund the age pension, and second it has to reduce consumption by putting away saving through the compulsory superannuation levy for their own future retirement life cycle stage. One option is to spread the cost of funding the current retiree cohort over several future generations, rather than just the current working cohort, by using borrowed funds to pay for the current period age pensions, with repayment spread over several generations.

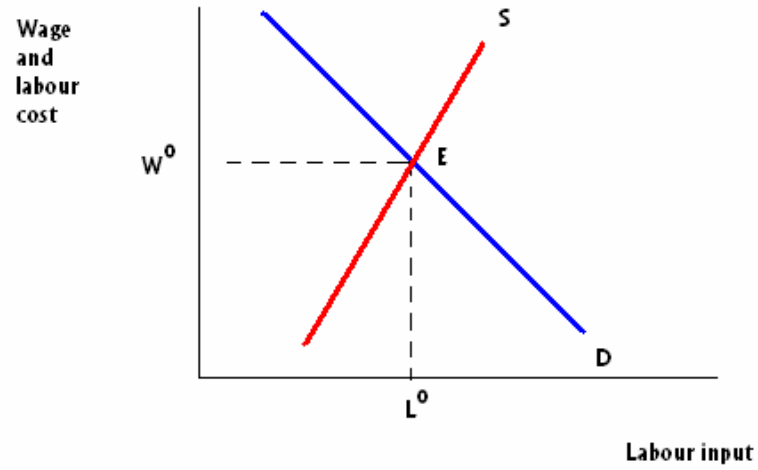
In comparing the Australian age pension and compulsory superannuation systems for funding retirement incomes and invoking the long run equivalence theorem, the key assumptions to be questioned are the absence of different behavioural responses and a constant time profile of GDP. The next section of the paper argues that the two system options as currently designed are likely to have substantially different effects on labour supply, investment and the composition of saving, and in turn GDP.

4. Comparison of Behaviour Responses to the Different Schemes

This section evaluates the effects of differences in key economic characteristics of the current Australian age pension and compulsory superannuation levy schemes for funding retirement incomes on decisions and outcomes in the labour market and employment, on saving and investment, and then onto GDP. Key system design differences are one that the age pension system is a PAYG and an actuarially unfair system, whereas the compulsory superannuation system is a prepaid and an actuarially fair system, and two that the compulsory superannuation levy system shifts the effective tax mix burden away from capital income to labour income relative to the income tax funded age pension system.

Consider first labour market effects using a simple model of the labour market (drawing on Freebairn, 1998, and Carter, 2005). The initial or base case is represented in Figure 1 as a long run equilibrium, including an allowance for a natural rate of unemployment (however defined, but assumed independent of the two retirement income funding schemes), with all government taxing, spending and regulatory programs in place, except for the age pension or compulsory superannuation levy schemes. Labour supply, S, is relatively more inelastic, with most estimates of the aggregate supply elasticity in the range 0 to 0.3, than labour demand, D, with most estimates of the aggregate demand elasticity in the range -0.4 to -1.0. The initial equilibrium is at wage and labour cost W^0 and employment L^0.

Figure 1: Simplified Labour Market Model



In Figure 2, consider the effects of adding to Figure 1 the PAYG general tax revenue funded age pension scheme for funding retirement income. The higher income tax rate to fund the pension shifts the labour supply curve up by the tax, T, to S^1. Because employees see no connection at the individual level between this tax and the retirement income they receive in the future, given the defined benefit nature of the age pension, there is no other change in Figure 2. Then, the equilibrium shifts from E to F, employment falls, and while there is a small increase in the market wage, most of the economic incidence of the higher tax falls on employees as a lower take-home wage than otherwise.

Figure 2 : Age Pension Funded from General Taxes

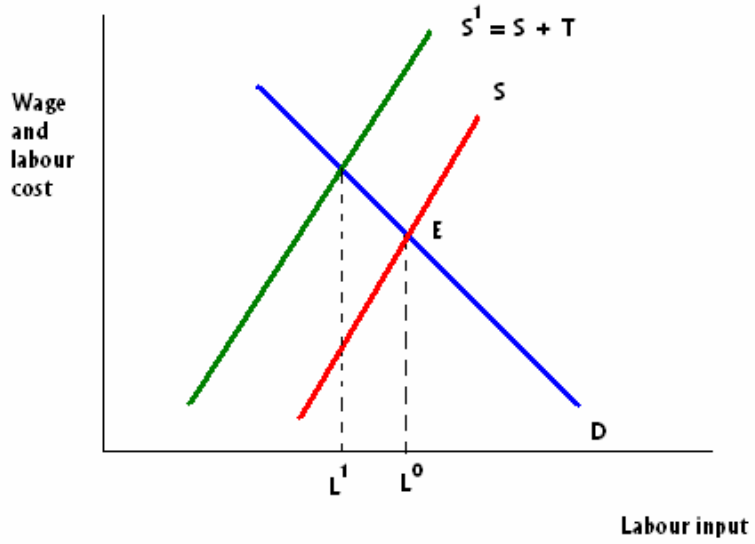
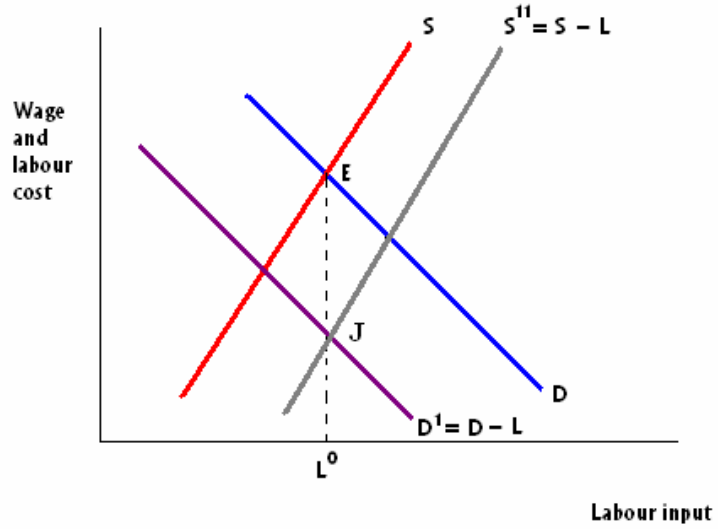


Figure 3 considers the effects of the compulsory superannuation levy system imposed on Figure 1. The levy as a cost to employers, with a dollar of wages being a similar contribution to labour costs as a dollar of the levy, shifts the labour demand curve down by the levy L to D^1. If this was the end of the story, and the levy L in Figure 3 equaled the tax T of Figure 2, in both cases employment falls, total labour costs rise, but most of the levy is passed back to employees as a lower take home (and a lower market) wage. This would be the end of the story only if employees placed zero value on the increase in retirement income provided by the actuarially fair superannuation, for example under extreme liquidity constraints or very high discount rates.

At the other extreme, if employees were indifferent between wages now and actuarially fair future retirement income, or if they could substitute on a dollar for dollar basis current private saving (including in voluntary superannuation) for the compulsory superannuation, then they would shift down their labour supply curve by the levy, L, to S^{11}. Under this scenario, as shown in Figure 3, the labour market equilibrium shifts from E to J. The result is no changes in employment, employer labour costs or in total labour remuneration, but with a change in its composition (less wages for current consumption

and more future retirement income and consumption). The aggregate labour market outcome almost certainly lies between the two extremes. Guest and McDonald (2002) suggest a figure about half way, that is the present value of the super relative to a wage dollar of around 0.5. Importantly, so long as the increase in future retirement income funded by the compulsory levy funded superannuation is given a non-zero value, employment will not fall as much as under the taxation funded age pension system.

Figure 3: Employer Funded Superannuation



Carter (2005) adds a further tax twist to the story. To the extent that superannuation is given special taxation concessions she argues that other taxes, including on labour, would need to rise with increased weight on compulsory superannuation to fund retirement incomes. This point raises two sets of questions and further qualifications. First, to the extent that compulsory superannuation is taxed less than wages, or less than other forms of voluntary saving for which it is a partial substitute, the direction of argument is correct. This would have the effect of a second round downward shift in the labour supply curve, much as shown in Figure 2. Second, but at the same time, if there is a preferential tax break for superannuation, this tax break also must increase the present value of the extra retirement income it funds in the eyes of the employee, thus causing a second round upward shift of the labour supply curve in Figure 3. The net effect of these two opposing shifts of the labour supply curve, and then on employment, becomes an empirical issue, but it is likely to be small in comparison with the changes shown in Figure 3.

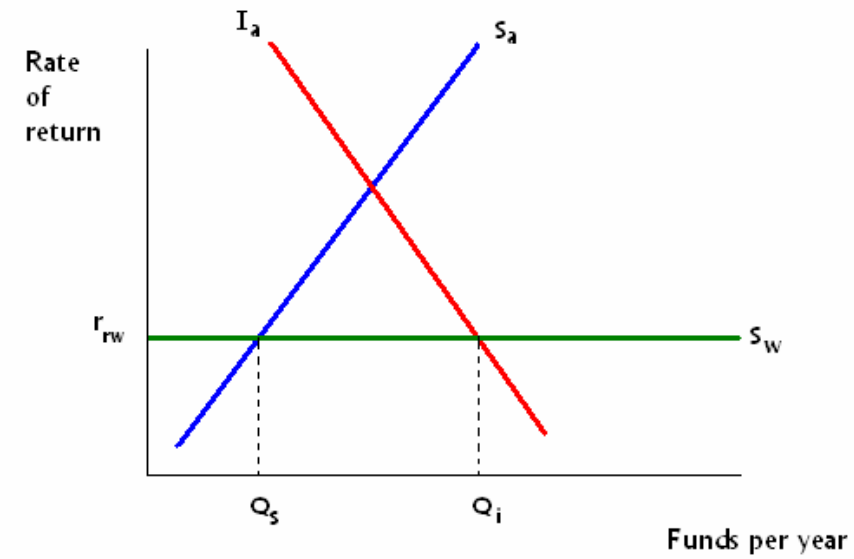
Shifting the funding of retirement incomes from a PAYG system to a compulsory superannuation levy system involves moving from a progressive tax rate system to an effective proportional tax rate system. In principle, the associated first round regressive redistributive effects could be offset by making the residual income tax rate schedule even more progressive. To the extent that on average those on lower incomes have higher elasticities of labour supply than those on higher incomes, and given that many sole parents and second income earners in couples have relatively higher supply elasticities and lower taxable incomes this seems likely, the tax mix change would work to modify the magnitude of the net labour supply increase shown in the Figure 3 analysis which refers to labour as an aggregate.

Comparative effects of the age pension and compulsory superannuation levy systems for funding retirement incomes on aggregate levels of investment and saving can be assessed with the aid of Figure 4. This describes Australia as a net capital importer and as a small trading country highly integrated into a larger global economy. Capital funded by both Australian saving or by savers in international countries is geographically mobile and seeks a location with the highest after-tax return (adjusted for risk). As a net capital importer, Australia faces a highly elastic world saving supply curve shown as S_w, at a required pre-tax rate of return of r_{rw} determined in the global capital market. This return recognizes any Australian and home country taxes, including the intricacies of international tax treaty agreements. While some have advanced arguments that the supply of foreign savings is less than perfectly elastic, with underlying causal arguments associated with peculiarities of domestic institutions, laws and regulations, a preference for portfolio bias for the home country, and greater uncertainty about exchange rates and political actions, together with empirical studies of a high correlation between saving and investment rates across countries (for example Feldstein and Horioka, 1980), studies of the supply of capital to Australia by the Industry Commission (1991) point to a highly elastic supply function. The supply of Australian saving, S_a, and Australian investment demand for funds, I_a, have the usual shapes. At the world required rate of return,

Australia is a net capital importer with aggregate investment of Q_i, aggregate saving of Q_s, and a net international capital inflow of $Q_i - Q_s$.

Consider first the effect on Figure 4 of a shift in the funding of retirement income from general tax revenue funding of age pensions to the compulsory superannuation levy funding of private retirement incomes on aggregate investment. The funding shift involves moving from a general income tax which falls on both capital income and labour income to the superannuation levy which falls on labour income only. Then, the system change would result in the long run in a fall in the Australian tax rate on capital income. Since the required after-tax return by foreign savers remains unaffected by small country Australia policy decisions, and Australian taxation on these savings fall, the required pre-tax return on Australian investment falls below r_{rw}, and the S_w curve of Figure 4 shifts down. An outcome of the shift of funding retirement incomes from general taxation revenue to a compulsory superannuation levy is to increase the aggregate level of Australian investment and in time to increase the size of its productive capital stock.

Figure 4: Saving and Investment Model



In the context of Figure 4, changing the system of funding retirement incomes is likely to affect the aggregate level of Australian saving in several ways, but the change in saving has no direct effect on investment, only the mix of domestic and international sources of

those funds. First, the fall in the required pre-tax interest rate described in the previous paragraph will reduce saving. However, and second, the tax burden fall on capital income also reduces the tax burden on the income earned on Australian saving, and this shifts downwards the Australian saving supply curve S_a. These two effects are likely to cancel each other. Third, for many low and middle income earners, the compulsory superannuation levy involves a higher level of saving than they desire, and hence the reason why many regard remuneration in the form of superannuation to be of lesser value than remuneration as wages. Harper and FitzGerald (1992) and Connolly and Kohler (2004) estimated that over a half of compulsory superannuation represented a net increase in aggregate saving. This would have the effect of shifting out the domestic saving supply curve S_a, and increasing the aggregate level of Australian saving.

In addition to the changes in the aggregate levels of saving and investment, potentially important also is any changes in the composition and efficiency of saving and investment that follows a shift in the mix of funding of retirement incomes from general taxation to a compulsory superannuation levy. It is well recognized that different saving and investment choice options in Australia receive very different tax treatments resulting in quite different effective tax rates which distort choices among the different options (see, for example, Pender and Ross, 1993, or FitzGerald and Harper, 2000). For example, the tax system varies from a consumption base system for owner occupied housing to a nominal income tax treatment of financial deposits and debt, with superannuation facing a mixed system. As argued by Guest (2004), a part of the response of liquidity constrained employees to the introduction of a compulsory superannuation levy has been to reduce expenditure on owner occupied housing. To the extent that superannuation funds hold a more diversified and socially productive portfolio of investment options than do households, and in particular less weight on owner occupied dwellings, and given the consensus that because of the preferential tax treatment households over-invest from a social efficiency perspective in owner occupied housing (for example, FitzGerald and Harper, 2000), such a change in the mix of saving and investment options improves national productivity.

Summarising, a shift in the funding of retirement incomes from a system of general tax revenue to fund defined benefit age pensions to a system of a compulsory levy on labour incomes to fund actuarially fair accumulation retirement incomes will lead to increases in both the labour and capital inputs, and also the quality of the capital stock. Then, GDP will be greater under the compulsory superannuation levy system.

5. Some Design Issues with the Present Superannuation Levy System

Given that individuals and households are free to voluntarily save for their retirement incomes, and in practice most do so, what are the arguments pro and con a compulsory saving levy, and if yes what is the appropriate levy rate? In principle, and if there are no market failures, individuals are best placed to make decisions on saving to smooth consumption over the life cycle, and effective compulsion on different levels and forms of saving will reduce lifetime utility in the mind of the individual.

Most arguments for compulsory saving for retirement incomes point to a combination of market failure arguments which discriminate against decisions to save and self provide for the future, including for retirement consumption. The heavy reliance of government revenue on income taxation for over a half of all revenue distorts decisions in favour of current consumption relative to saving and future consumption via the “double taxation of saving” effect. For social equity reasons, governments provide a safety net pension system for its aged citizens, but, as noted above, nearly 80 per cent of current Australian retirees access this safety net. The means tested age pension adds a further increment to the EMTR on the return from saving for retirement and acts as a disincentive for most low and middle income people to save for all of their retirement needs. Information asymmetries, perhaps aggravated by regulations, may result in the under-development of appropriate financial instruments, such as annuities, for private saving for retirement income needs. Another market failure argument is more in the way of a merit good argument whereby it is asserted that individuals are too myopic or operate on too high private discount rates relative to the society perspective. These market failure arguments, as well as equity concerns, lie behind government intervention to provide retirement

income, whether that be via the PAYG age pension system or the compulsory superannuation (or other form of compulsory saving) system.

There is considerable uncertainty and debate about the appropriate levy rate, not only in Australia, but also in other developed countries. In reality the answer depends on many variables which affect the accumulation value of superannuation funds and the amount of funds required. These variables include: the relative lengths of working life and of retirement; the importance of part time and full time work, unemployment and time out of the workforce; the net rate of return on saved funds, which in turn vary with the gross return, taxation and administration fees; and the level of income sought during retirement. By comparison with social security contribution rates in other countries of 12 per cent in the US and an average of 16 per cent across the OECD, the Australian compulsory levy rate of 9 per cent is low. Further, many OECD countries are actively debating increasing their rates.

For the most part, the debate about the appropriate compulsory superannuation levy rate in Australia focuses on the example of a full time employee working continuously. Yet, about a third of employees are part time, and many, and in particular women, take breaks from the workforce for children and other reasons. Many of these people will depend on spouses or government for much of their retirement income.

The market failure arguments for a compulsory levy to fund retirement incomes also would require that these funds be taken as an annuity over the retirement years and not in the form of lumps.

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An important implication of the labour market model discussed in the previous section is that the employment effects and the economic incidence of a compulsory levy to fund superannuation are the same whether the levy initially is imposed on the employer or on the employee. Further, given the consensus view that labour supply is less elastic than labour demand, most of the final incidence of a levy placed on either the employer or the employee is on the employee. Then, the pursuit of simplicity and minimizing operating

costs requires that the levy be imposed on that side of the labour market which is easiest to administer. Also, it means that proposals for a system that imposes a levy on both the employer and the employee for apparent equity or fairness reasons is misplaced, and it would unnecessarily increase operating costs.

Inconsistencies in ages with the present superannuation and age pension systems result in complexity and undesirable incentives. Compared with an eligible age for the age pension of 65 for males and 63 for females (to increase to 65 by 2014), the preservation age for superannuation and the first stage of a favourable tax treatment is 55 (which is to increase to 60 by 2015), and new arrangements to come into effect after July 2007 provide for a second set of tax breaks (namely no tax on withdrawals) at age 60. Logic and simplicity would have all these ages coincide, and at the retirement age. Further, as life expectancy and general health continues to improve, arguably this retirement age also would rise, and perhaps be indexed to average life expectancy. The current disparity in ages for different entitlements provides incentives for some to retire well before the eligible age pension date, and to use the compulsory superannuation levy funded payout and private savings to fund consumption over the early years of retirement, and then move onto the general tax revenue funded age pension. Such incentives for early retirement, and which sometimes are referred to as “double dipping”, result in a smaller labour force and GDP.

6. Proposed Changes to the Taxation of Superannuation

At the 2006 budget the Australian government proposed a number of major changes to the system of superannuation to take effect from July 1, 2007. Foremost among these changes was the end to the taxation of benefits, both lump sums and annuities, taken after age 60 and the removal of reasonable benefit limits. This means that eligible superannuation faces a flat tax system of 15 per cent on entry and of 15 per cent on annual earnings while invested (with a lower 10 per cent rate on the capital gains portion of earnings). These new concessions are estimated to cost $7.2 billion over the next four years. Costs per year beyond this point are expected to increase, but estimates have not been released by government. Granting the claimed simplicity gains of these changes, the equity and efficiency effects of the changes are far reaching, and arguably the efficiency

effects are at variance with the claims of the Treasurer in his Budget speech (Costello, 2006).

In effect, the tax changes only affect those with accumulated superannuation savings which exceed $129, 000 since sums below this level (and some at higher levels with smart schemes) already are tax free. Then, for most low and middle income earners, and certainly for those for whom the compulsory levy is their only superannuation, the changes will have no effects either on incentives or on income levels because the current rules already allow these smaller sums to be tax free when withdrawn after the preservation age. Then the windfall income gained, and the changes in incentives, will be restricted to the better off, and to those who have made substantial contributions to superannuation above the compulsory levy rate.

Further, the windfall revenue gain, which matches the estimated government revenue cost, is greater the greater the sum of accumulated superannuation. The cases for redistribution to those on the highest incomes, and to those who have contributed most to superannuation, versus the rest of the population seem difficult to reconcile on the grounds of either vertical or horizontal equity.

It is doubtful that the proposed new superannuation tax concessions will have the Treasurer's claimed positive incentive effects on increased workforce participation, including later retirement. First, as already noted, the changes will affect very few low and middle income earners. Second, for the better off who will benefit, the changes have income and substitution effects with opposite effects. Given that leisure is a normal good, or the argument that many people work long enough to build-up a target retirement stock of wealth, the $7.2 billion over the next four years income windfall gain will induce many people to work less and retire earlier. With a sophisticated financial market, it seems unlikely that the higher age of 60, relative to the current lower preservation age of 55, will be a binding constraint. For an early retirement, or a shift to shorter hours, prior to age 60, increased consumption in response to the increase in life cycle or permanent income can be financed by the options to run down other private savings, or to borrow

against the enhanced future benefit, while holding the windfall superannuation income gain to age 60 to fund consumption beyond this age. Opposed to the negative income effects of the July 2007 changes to the taxation of superannuation on labour supply will be a substitution effect whereby the removal of income earned on superannuation funds reduces the effective marginal tax rate on earned income and this enhances the return from work relative to leisure.

What then can be said about the relative sizes of the opposing income and substitution effects of the superannuation tax changes on the labour supply response of middle and high income people age 50 and above? The available evidence for most high income earners is that the income and substitution effects of wage changes roughly cancel so that the Marshallian, or uncompensated, labour supply elasticity with respect to wages is close to zero. Now, the superannuation tax changes result in a large increase in the value of superannuation stocks, and this has a large income effect on increased demand for leisure and less work. By contrast, the lower tax rates which affect the substitution effects favouring less leisure and more work are in reference to a smaller flow quantum. Then, at least over the next few years, the negative income effect will dominate the positive substitution effects of the proposed lower tax burden on the withdrawal of superannuation funds from July 2007.

Many economists would argue that the preferred benchmark for taxation of superannuation is a consumption base system, and as a second choice a pre-paid consumption base system as largely now applies to owner occupied housing. With a consumption base system, there would be no tax on funds on entry to the superannuation fund, or on the earnings, but withdrawals would be taxed at the personal income tax rate for vertical progressivity objectives. Under a pre-paid consumption base system, funds on entry come from after (a progressive) tax income, and then there would be no tax on either income earned or on the funds withdrawn. An advantage of the former system relative to the pre-paid consumption system, and the proposed changes for July 2007, is that it encourages people to spread their withdrawals over their retirement years rather than to take a lump sum. From an efficiency perspective, either of the two consumption

base systems provide for neutrality of tax treatment of decisions for current consumption versus to save and future consumption, including for retirement, whereas an income tax system used in funding the PAYG age pension distorts decisions against saving. Also, the consumption base systems provide for approximate neutrality of tax treatment of superannuation and the most important Australian saving vehicle, owner occupied homes. Relative to the flat rate system of taxation of superannuation from July 2007, a progressive tax rate schedule is applied for vertical equity reasons under both the direct and pre-paid consumption base systems.

Arguably the changes announced in the 2006 budget were driven by the primacy of the desire for simplicity. Certainly the direct consumption base option with its taxation of withdrawals would have required complex grandfather arrangements for many decades to avoid double taxation on funds already invested in superannuation funds. Few complexities would be involved in moving towards a pre-paid consumption tax system by applying a progressive tax rate schedule on funds at the time of entry administered as a part of the existing PAYG labour remuneration withholding tax system; although the memory of the high administrative and compliance costs of the recently removed 15 per cent high income superannuation surcharge has to be acknowledged. Then, for the pragmatic convenience and relative ease in the transition from the existing arrangements, when compared with the additional challenges if the consumption or pre-paid consumption based systems had been adopted in full, the proposed changes from July 2007 involve significant inequities and disincentives to labour supply.

7. Summary and Conclusions

This paper has compared and contrasted the economic effects for Australia of the PAYG funded age pension system with the compulsory superannuation levy system for funding consumption of the growing number of retirees. From the perspective of employees, the means tested age pension system is actuarially unfair whereas the superannuation system is approximately actuarially fair, although for many low and middle income workers the higher retirement income is regarded as a poor substitute for current income. In effect, the compulsory superannuation levy is a tax on labour income, whereas general tax revenue

to fund the age pension falls on both capital and labour income. Given these different characteristics and their different incentives, it is shown that a shift in the emphasis of funding retirement incomes from the PAYG funded age pension to the prepaid compulsory superannuation system will increase the labour and capital inputs, and the national productivity of the capital stock, and in turn a shift in the mix of retirement funding schemes will increase the future level of GDP. Since retirement incomes represent the key method of allocating current GDP among the different generations, the system shift has important advantages.

A number of design issues with the present superannuation system were considered if the scheme is to increase in relative importance in providing retirement incomes while retaining the age pension as a safety net. Market failure arguments provide a case for a compulsory levy, but the choice of the levy rate is a complex and uncertain decision which depends on a number of economic conditions and objectives. Since in the longer run the labour market economic effects of a levy on employers are the same as a levy on employees, administrative simplicity requires just one levy. The flat rate tax system for superannuation to come into effect in July 2007 was argued to be inequitable, with all benefits going to the better off, and the changes are likely to encourage lower workforce participation and earlier retirement. Greater transparency and better incentives would be provided by lining-up the ages of preservation and for preferential tax treatment of superannuation with the eligible age for the pension.

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