Submission to the Henry Tax Review

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[removed for privacy reasons]

Incentives to increase employment and GDP that operate through the tax system, and scope for simplifying the revenue base and reducing its incidental burdens.

Summary

Recommendations (1a.), (1b.) and (1c.) cover a Pigovian virtual wage subsidy integrated with the tax system, to improve both employment and GDP without the problems usual with wage subsidies, Negative Income Tax, etc.

Recommendation (2.) covers reducing incidental effects of GST on investment.

Recommendation (3.) covers a lower compliance alternative GST approach, suitable for certain businesses.

Recommendation (4.) covers a lower compliance and more globally competitive alternative corporate tax approach.

Background

Even in normal economic conditions Australia, like many developed countries, has material levels of unemployment and underemployment. In poor conditions like those currently obtaining, not only do these deteriorate but also GDP suffers. Many approaches to address these issues have been suggested and/or adopted, most of which are beyond the scope of this Tax Review. However, during the past fifteen years or so, a number of workers in different countries have independently arrived at proposals which integrate older ideas of wage subsidies with the tax system. Notable among these workers are Professor Kim Swales of the University of Strathclyde and his colleagues, and Nobel winner Professor Edmund S. Phelps, McVickar Professor of Political Economy at Columbia University. I myself have done a game theoretic analysis of aspects of these proposals.

In the course of considering the Australian tax system in the light of this work, with a view to adapting it for use here, I observed a number of situations where other improvements could be made in passing. I bring these out in this submission as convenient.

Recommendations

(1a.) GST offsets should be provided, at a basis level per full time employee per annum (net after Payroll Tax etc., and pro rata for part timers, but not offsetting for overtime). The offsets should apply to all employees, new or old, employed by others or self-employed, quite without regard to whether they had been long-term unemployed, briefly unemployed or had been employed for a long time - and the offsets should apply indefinitely, with no cut-off. This basis level should be set to match typical benefit levels for the unemployed, plus their marginal costs. This is currently above $10,000 per person per annum.

(1b.) While the Tax File Number (TFN) system offers one way to implement these offsets for employees, they should instead be implemented by giving eligible people vouchers for each hour to be offset, to be passed on to employers (giving them out quarterly in advance, say). This particularly allows family members to distribute paid and unpaid work more conveniently within households.

(1c.) To maintain short term revenue neutrality and long term budget neutrality, ideally the base rate of GST should be raised to restore the shortfall, as in Professor Swales's proposal (see appendix A). However, this appears to conflict with part of the terms of reference of the Tax Review: "...the review will reflect the Government's policy not to increase the rate or broaden the base of the GST...". Therefore some combination of the following should be done:-

–Other taxes and sources of revenue may be increased to make up the difference. As the GST is remitted to the states, this may be done at state level.

–In current economic circumstances, the Government may decide that some level of deficit financing is warranted anyway. It may be convenient not to restore some or all of the shortfall, at least in the short term.

–On a broad construction of "not increasing the rate of the GST", it may only be required not to increase the GST paid, net after the offsets. On this view, the percentage rate itself may be increased as it is only an intermediate figure for purposes of calculation. The rate could be increased to a certain point if all payers were to avoid higher payments, or to levels sufficient to restore the shortfall completely if aggregate payments were not to increase. Note that Professor Phelps's variant of the proposal has tax offsets that are more specifically targeted to the lower paid, so reducing the shortfall to be made up (see appendix B). As against that, it requires more policing.

Analysis

Consider how unemployment benefits are funded at present. In the short term, when a firm makes a single hire or fire decision, it faces the costs and benefits to itself of that one employee more or fewer. However, it does not face the corresponding reductions or gains in the direct costs and on costs of that employee's unemployment benefits since those are passed to the broader tax base (countries without this sort of support for the unemployed face Vagrancy Costs instead). This creates an externality favouring lower employment levels. This incentive applies to each actual or potential employee at each instant, so it continues to pressure employers regardless of whether employees go from one employer to another - the usual case in normal economic circumstances beyond the short term. That is, this effect relates to the immediate impact and not the ultimate incidence of the costs and benefits as would normally be the case.

Wage subsidies and similar methods offer a Pigovian approach to redressing this externality. In general, such systems face problems in a number of areas. For instance, the "Five Economists' Plan" for a Negative Income Tax provides a subsidy with a point of impact on employees. This leads to problems from high effective marginal rates of (personal) tax, problems of wage stickiness delaying declines in real wages sufficient to price more people into work, political problems from those declines, and funding problems during the delay. Paying wage subsidies directly to employers has huge and continuing funding problems if done broadly enough to be effective, and may face delays by encouraging higher real wages.

All of these problems are engineered out by providing the subsidies as offsets to a broad based carrying tax with its point of impact on employers (in this case GST, but Payroll Tax would also serve). The essential feature is that, in a precise technical sense, these offsets are not an actual subsidy but a virtual subsidy. That is, while they provide the same incentives as an actual subsidy, there is no cash flow or funds flow from the government to employers. Instead the offsets are calculated and applied at an intermediate stage and there is still a net cash flow to the government with no churning. This has the following implications:-

- As the point of impact is on employers, there are no issues arising from effective marginal rates of tax.

- As other parts of the tax system can be adjusted when this is brought in, e.g. by raising the calculation GST rate gross before the offsets, the tax system can be kept revenue neutral in the short term while keeping much the same incidence.

- As employee wages are not affected, there are no delays from waiting until wage rates adjust.

- As the offsets are matched to the direct costs and on costs of unemployment benefits, the system is budget neutral in both the short and long term; any improvements in employment that reduce tax revenues automatically reduce the burden of funding unemployment benefits, and contrariwise any increase in unemployment automatically increases the revenue base to compensate. This means that the system can be maintained indefinitely even if other factors slow employment gains.

The externality is driven by game theoretic effects at the point of impact, much like the "Tragedy of the Commons", so it is not picked up by analysis of incidence. On the other hand, it neither discredits nor challenges analyses of, say, Payroll Tax that show that its incidence does not harm employment. In fact, these offsets could be applied to Payroll Tax itself rather than to GST, creating a Negative Payroll Tax analogous to Negative Income Tax. What matters for this effect is the detailed structure at the point of impact, and as currently structured Payroll Taxes do no harm. The two areas are distinct, and there is no inconsistency between them (unless, of course, states counterproductively chose to restructure their Payroll Taxes to claw back the offsets).

It is worth noting that this system of tax offsets would also offer an automatic stabiliser effect for the economy, by acting equivalently to Pigou's Real Balance Effect. If implemented through anonymous transferrable vouchers, over time those vouchers would in effect become money providing an income stream equivalent to one from corresponding personal investments. Indeed, if the role of supplying the vouchers were eventually transferred to a suitable Sovereign Wealth Fund, e.g. the Future Fund or the fund proposed at option (3b.) of my submission on the Retirement Income System (see appendix C), the Pigovian subsidy would be transformed into a much more self managing Coasian solution to the unemployment benefit funding externality.

The reasoning above derives from game theoretic analysis, qualitative apart from making tax offset levels match unemployment benefit outgoings. Professor Swales analysed the situation quantitatively with economic modelling (see appendix A). His work indicates that, in the UK situation under a wide range of parameters, not only employment but also GDP would improve, as one would expect from reducing or eliminating an externality: "The proportionate expansion in total output lies within the range 0.8% and 2.8% and the increase in employment in the range 1.45% to 4.0%" (see "The Employment Effect of Subsidies", Report to the Directorate General Employment, Industrial Relations and Social Affairs, Commission of the European Communities, SOC 94 100018 05A01, available at http://www.faxfn.org/feedback/03_jobs/swales/ch1_2.htm and following). Even if there were no market imperfection, Professor Phelps believes that wage subsidies of this sort would be justifiable on equity grounds: "There are cases... where it would be wise to deviate from the free market, and low-wage employment subsidies is one of those cases" (see his interview with Challenge of July-August 1997 at http://www.challengemagazine.com/Challenge%20interview%20pdfs/phelps.pdf, on his related book "Rewarding Work: How to Restore Participation and Self-Support to Free Enterprise" (Cambridge: Harvard University Press, 1997)). This may justify setting the offsets as high as desired minimum wage levels, which would both remove the need to enforce those and eliminate any additional disincentive to employment minimum wage levels may present from effectively acting as a tax on employment.

(2.) GST is often described as a consumption tax, from its economic incidence on the final consumer as opposed to its impact or legal incidence on various intermediate stage producers. However, as many intermediate GST payments have to be made before final sale, either directly to the ATO or embedded indirectly in payments to suppliers, a simplistic GST has incidence on working capital and on goods and services that enter into capital goods as well. In many countries, adjustments are made to reduce or eliminate this. Australia uses a "provisional tax" approach for many taxes, to obtain payments as soon as possible, which reinforces this incidence on investment in the case of GST (although some adjustments are made). To reduce or eliminate this, provisional payment of GST should be dropped wherever it occurs, payment in arrears should be permitted where practical, and interest should be paid on any GST prepayments that still occur. For goods and services forming fixed capital, this interest may be folded into depreciation allowances.

(3.) Firms operating in a single whole or main business area should be offered the option of calculating their GST obligations based on a deemed proportion of their turnover and giving their customers GST credits based on a deemed proportion of their prices, with those proportions determined by their areas of business.

Analysis

The burden of GST compliance (e.g. providing BAS information) is uneven between different sorts of business. For some, business requirements need that level of management accounting anyway and there is no great additional burden, but for others that level of detail is unnecessary or not cost effective and the business has to implement further systems and carry the excess of their costs over their benefits. Where a business operates in a single whole or main area, its GST obligations and credits correlate highly with its turnover multiplied by a factor that depends on its particular area of activity. This is a consequence of the Du Pont measure of Return On Investment (ROI) that separates functional components of ROI by breaking it down as (returns/sales) multiplied by (sales/investment). Subject to only comparatively few firms being involved so that Goodhart's Law does not distort it, ABS statistics provide enough information to determine the turnover and price proportions for particular business areas. However, as many businesses have already incurred the costs of GST compliance systems, this should only be an option rather than a required further change.

(4.) A class of company should be set up with exemption from corporate taxation but making equivalent issues of shares to the government instead. These shares should be held at arm's length from consolidated revenue and direct governmental control by selling them to one or another Sovereign Wealth Fund, e.g. the Future Fund or the fund proposed at option (3b.) of my submission on the Retirement Income System, which would specifically apply its revenue to consolidated revenue in lieu of separate taxes and charges (see appendix C). Dividend franking should be continued on the basis of this share revenue, or not, according to other policies about franking. Existing companies should be offered the option to reorganise in this form.

Analysis

Corporate taxation represents an area of competition between national economies within the wider global economy. To an individual firm, there are issues of locating operations in different jurisdictions because the taxes themselves vary and because compliance costs vary. When a firm relocates outside Australia, the effect on taxes here is much greater than the benefits to the firm itself as the firm only gains from the differences in its burdens.

In earlier times a different approach from corporate taxation was sometimes used: rather than levying taxes as such, countries required corporations to provide them with a corresponding issue of shares (often preference shares), which became part of a revenue yielding portfolio or “domain”. Corporations gained from a reduced compliance burden, as it was no longer necessary to calculate tax obligations separately from and in addition to calculating obligations to shareholders. In current circumstances of globalisation, there would be additional advantages to Australia: corporations would no longer have tax incentives to relocate elsewhere, as their obligations would follow them; and, where operational reasons led to a move, the revenue would still return to Australia as invisible earnings.

Unfortunately, abuses and fiscal irresponsibility led this method to fall into disrepute. Some governments did not maintain their portfolios properly, making poor investments of their own (as the Khedive of Egypt did, realising his shares of the Suez Canal Company and applying the proceeds to developing the Egyptian cotton industry) or even worse treating them as income, realising them and spending the proceeds. Later governments then often ignored their predecessors' share acquisitions, particularly if they had been dissipated misguidedly or even stolen by earlier kleptocrats, and simply observed a situation where corporations were not being taxed or otherwise providing revenue streams. This led to them instituting taxes or even nationalising corporations (as in the case of the Suez Canal Company).

The current situation is that both governments and corporations prefer a system of corporate taxation, the former because they have greater certainty and control over revenue and the latter because they are aware of the political risk (sovereign risk) of issuing shares and later facing taxes anyway. However, the advent and reasons for sovereign wealth funds offer this approach new scope. Since other policy objectives require these funds anyway, shares can be placed with them instead of funding them from other resources. They provide an arm's length place for shares, reducing or eliminating political risk. And their revenue can be returned to consolidated revenue and/or can reduce the demands on consolidated revenue.

Appendix A, from http://www.faxfn.org/03_jobs.htm, in particular http://www.faxfn.org/feedback/03_jobs/jobs_tax.htm#23feb98a (summary of "The Employment Effect of Subsidies", Report to the Directorate General Employment, Industrial Relations and Social Affairs, Commission of the European Communities, SOC 94 100018 05A01).

Taxation and Jobs
23feb98: Professor Kim Swales1: Employment friendly VAT.

(Click here [http://www.faxfn.org/feedback/03_jobs/swales/ch1_2.htm#Top] for full version)

Governments can influence employment levels with an appropriate tax and subsidy system.

The policy we have considered involves a fixed labour subsidy per worker, equal to 5% of the average wage, financed by an increase in VAT. This tax/subsidy scheme works by pricing workers into jobs and increasing the incentive to work. The scheme stimualtes the low paid the most so the policy has favourable distribution effect. Savings on unemployment benefits reinforce the policy.

Governments are concerned about the overall level of taxation and question the desirability of automatic subsidies. However, the type of subsidy and tax plan outlined could be operated as an integrated tax scheme in which the change in the firm's tax is calculated as the difference between the additional VAT and the per capita subsidy. As the scheme increases employment, and so reduces the cost of unemployment benefit, there is a reduction in overall tax. So the introduction of this scheme would simultaneously increase employment and reduce taxation.

There is an increased faith in "market forces" and a desire to reduce subsidies that artificially maintain inefficient or inappropriate industries. However, where there are high levels of structural unemployment amongst primarily low skilled workers, long-term labour subsidies should be considered. Such subsidies improve productive efficiency by offsetting market failures in other parts of the economy. They restore, rather than distort, appropriate price signals. They do not rob the private sector of resources but reallocate resources within that sector. Such subsidies generate an expansion, not contraction, of private sector economic activity.

If such subsidies can be packaged as tax rebates there we have a simultaneous fall in taxation and increase in employment.

(Precis of the summary of a report to DG5)

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Appendix B, from http://www.columbia.edu/~esp2/taxcomm.pdf

STATEMENT Of Edmund S. Pehlps
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On Payroll Taxes and Wage Subsidies Before the National Commission on Economic Growth and Tax Reform September 29, 1995

Testimony of Edmund S. Phelps for the National Commission on Economic Growth and Tax Reform September 20, 1995

Mr. Chairman and members of the Commission, I am pleased to have this opportunity to appear before you to discuss an aspect of taxation on which I have thought long and hard.

My theme is the beneficial effects that would accrue from introducing a system of subsidies (in the form of tax credits) to firms in the private sector for their utilization of low-wage employees - a device usually termed "wage subsidies" - and, as a corollary, the destructive effects of existing payroll taxes.

I well understand that the Commission is charged with recommending how best to reduce the myriad preferences, disincentives and complexities in the present tax code, and how best to design the tax-rate reductions that would then become feasible.

I want you to know, therefore, that I have long championed market capitalism - private ownership and free enterprise. So I am entirely sympathetic with the desire to set tax rates so as to preserve incentives for private saving and investment to the greatest extent possible, thus to achieve the maximum possible economic growth. Of course, such a formulation of the "optimal tax" problem takes as given some specified government budget (and the planned budgetary deficit) with its various planned subsidies, expenditures and transfers.

In practice, though, the separation between subsidies and taxes is often breached. It is sometimes more convenient or prudent for the government to subsidize certain private activities implicitly through *tax credits* or through *reduced tax rates* or both. So while it might seem that my argument for wage subsidies paid to private firms for their employ of low-wage workers should not be brought before the Tax Reform Commission (it should await some future Commission on Subsidies and Expenditures), the intense discussion of radical tax reform now going on is an opportune occasion for me to make the case for low-wage subsidies/tax credits.

The Number One social problem in the country is the conditions among the disadvantaged part of the labor force - not just the poverty and the high unemployment (which magnifies the poverty) but also their outlook on life: the feeling of exclusion that the deprivation and idleness tend to create, especially among the young, and the feeling of powerlessness that results from dependency on family, charity and the welfare system. This dispiriting culture of poverty is apt to lead in turn to poor employee morale - low job attachment and problematic job performance, to drug abuse, to drug trade, and to a criminal element, all of which make the underlying conditions still worse. This is a problem for the rest of society as well as for the disadvantaged themselves.

In my opinion, this problem is a direct outgrowth of the meager wage rates available to disadvantaged workers. (The decline of values, such as self-reliance and respectability are a result, not a cause.) Low wages do not in themselves generate social pathologies, it is true. But damage results when the wages of disadvantaged workers are very low *relative* to their *nonwage* resources - their *private wealth* (to the extent they own assets) and, very important, their *social wealth* in the form of benefits under the welfare system (under this or that circumstance). Such relatively low wages undermine the worker's incentive to get a job or stay in the job or get a better one. What the person can do to improve his or her situation, short of Herculean efforts and a lot of luck, will make only a small difference (though some will do those things anyway, of course).

If, therefore, we are to establish economic self-support and integration of disadvantaged workers, and thus restore a culture of self-reliance and achievement, we will need a radical improvement in the rewards to their employment.

The nation's tax laws, unfortunately, have reduced further the wage to the working poor in choosing to finance a broad range of entitlement programs through payroll taxes that are structured to hit low-wage workers very hard. Repeatedly the economics profession has found evidence that the so-called incidence of such taxes fall preponderantly - indeed, virtually entirely - on the wage net of tax received by the employee. My own recent work, reported in my 1994 monograph *Structural Slumps* (Harvard University Press), finds also a negative effect on employment - in particular, an increased unemployment rate.

Recognition in the 1980s of the burdensomeness of payroll taxes on low-wage workers led to the enactment of the Earned Income Tax Credit, though originally it was seen as justified only if the earner was a parent with one or more dependent children. The scheme has at least three defects: (1) Insofar as people eligible for EITC supply more labor to earn a larger tax credit, they drive down the market wage (the wage on their paycheck), which is costly to workers earning that wage who are not covered by the program and of symbolic importance even to those covered by the problem, who want to feel their work is worth something; so the net stimulus to total employment may be small. (2) The decision of two eligible persons, both with low hourly wage rates, to work three months or work an extra three months would bring in a smaller tax credit to the person whose weekly wage is the lower of the two; so over the range of very low wage rates, the EITC tends to help least those whose wage is lowest. (3) To limit the cost, the size of the tax credit is designed to taper off with increased annual earnings beyond some threshold; so in that higher-wage range, a decision to work more would reduce the tax credit received - an implicit tax rate on top of the existing payroll tax rates.

The other fiscal approach to the problem of disadvantaged workers, which must go back as far as the income tax itself, is the exemption of all personal income below some threshold level. (Advocates of the flat tax propose a major hike of this cut-off to ensure that middle-income people are not net losers from the elimination or capping of many deductions.) The defects of this exemption as a solution to the problem are obvious: (2) In exempting the $5 an hour worker from the flat tax rate - say, 15 % to take a convenient figure - it rescues him from a cut of his wage after income tax to $4.25 (currently the statutory minimum wage) but does nothing to pull up wage rates (after tax); so it does not do what needs to be done - to raise wage rates of low-wage workers in order to make it possible for them to end their poverty by working in the market economy and thus contributing to society. (2) It awards the same tax relief to a median wage earner - a $10 an hour worker - who decides to work half the year on average as it awards to a $5 an hour worker willing to work in a full-time job the year around - and, for that matter, as it awards to a hippie choosing to live on interest, gifts, charity and welfare amounting to the same income per year; so, viewed as a means to preserve incentives to work among low-wage workers, it is far from cost-effective: for every dollar it awards disadvantaged workers it spreads many more dollars among median-wage, highwage, and non-wage persons.

Thus the two existing approaches, the EITC and the exemption, are ill-suited to the crucial task of engineering a radical improvement in the rewards from work available to low-wage workers.

The best solution that I see is the introduction of wage subsidies that would induce employers to raise the employment and ultimately the wage rates of low-wage workers. The illustrative scheme I have analyzed at some length would raise to $7 an hour the wage in jobs, or tasks, now paying $4 an hour (because the productivity of those activities is $4 an hour); it would raise to $7.50 an hour the wage in jobs previously paying $5 an hour; jobs paying $6 would go to $8, and so forth. This is engineered through a declining schedule of matching grant to the employer (in the form of a tax credit): for every employee the firm pays $7 an hour the government would grant the firm $3 an hour, reducing the firm's cost to $4 an hour; for employees paid $8 an hour the firm would be granted only $2 an hour, reducing the firm's cost to $6 an hour, and so forth. In effect the government is adding (on a sliding scale) a bonus to the firm on top of the productivity these workers have for the firm. As a practical matter, the scheme might best be restricted to full-time jobs in the private sector, and its administration integrated with the collection of payroll taxes (if they are left in place).

The usual apprehension about this approach is that it would give disadvantaged workers an unfair advantage over the less disadvantaged. Why employ two productive workers when it becomes cheaper to use five unproductive workers to eke out the same output? But this way of thinking appears to be based on thinking in terms of a single firm for which the tax credits are uniquely available. In the economy as a whole, the wages of the less disadvantaged will sink only if their physical productivity sinks as a result of the influx of the more disadvantaged. And the entire workforce of disadvantaged workers is too puny in productive power to be able to depress perceptibly the productivity of the less disadvantaged.

Of course, under this scheme firms would be motivated to represent as many of their employees as bottom-wage workers as is credible (to maximize the total tax credit) - just as firms paying payroll taxes would like to represent their wage bill as a payment to a few very high-wage employees (to minimize payment of the payroll tax). As with tax collection in general, an enforcement mechanism is necessary to guard against fraud.

The all-government budgetary cost of this tax credit system would be on the order of $100 billion per year *minus* the social-welfare and law-enforcement expenditures made unnecessary by the major increase in earnings among low-wage workers and *minus* the tax revenues generated by the extra output produced by the increase of employment that is generated.

I hope the Commission will consider seriously the arguments I have tried to make here.

Appendix C - body of prior submission, relating to the Retirement Income System

A phased approach to increasing age pension adequacy and improving personal saving for retirement

Background

In Australia as in many developed countries, demographic changes indicate the possibility of stress on pure age pension systems in future. This would arise from the combination of a higher ratio of retired to working age people, and/or an insufficient increase in productivity and production to make up the shortfall. Heading this off would involve more investment to increase productivity and production, and/or changes to migration and family policies to address the demographics directly (but these would also involve more investment for the needs of those demographic cohorts). These issues apply whether the needs of the retired are met through the age pension system or through superannuation, private savings and investments, or in any other way.

From the narrow perspective of age pensions alone, there is an obvious remedy: simply raise the age pension entitlement age, so that recipients form a smaller group and workers a larger one, so restoring a ratio that provides adequacy. However, this moves many problems to other policy areas and to the other pillars of the system. In particular, it does not address the investment issue or the need to maintain employment levels, both for the older workers and for the wider population. At the individual level, people coming up to retirement would face a major hurdle in planning and providing for retirement and/or continuing to work if they faced a large or abrupt increase in the entitlement age.

In the following material I outline recommendations to address these other problems, apart from employment levels, which I shall cover in another submission to the main part of the tax review.

Recommendations

For present purposes, I am assuming that there will be an increase in the entitlement age for age pensions. This is no great assumption, as it covers a wide range of possible increases and phasing in, including making no change. Exploring this range permitted comparison with present arrangements and led me to definite recommendations:-

(1.) Commencing as soon as practical, phase in an increase of the entitlement age, by 1 year for every 2 (say) calendar years that pass until the entitlement age reaches 70 (say). The precise numbers may vary, and the upper age need not be determined straight away. Age pensions for this smaller group should be increased to maintain adequacy for them as needed, based on CPI rather than wage levels but not means tested so as not to create adverse incentives for the other pillars. This strengthens the adequacy of the age pension pillar fast enough to head off problems in that pillar while providing time for the other recommendations to strengthen the other pillars, flowing through further saving in those to investment. This measure targets the age pension pillar.

(2.) Cut personal income tax in step with reductions in outgoings on the age pension system to allow individuals to save more through the other pillars, superannuation and voluntary saving. To encourage this, and to target the savings so that they flow through to investment of the sort that will support the lifestyles of people becoming more dependent on these pillars, implement much of these cuts by increasing superannuation income tax concessions, indexed to a proportion of the average wage. Ideally this could be as high as (say) 16% or approximately one sixth, but this is likely to be too high to be realistic in the near future because of the need for the tax base to fund other policy objectives outside the retirement area and because funding needs for age pensions will only fall gradually. Therefore this proportion should be increased from time to time as circumstances warrant, rather than determined and set up from the beginning of these reforms. This measure targets the superannuation pillar.

(3a.) **Target personal income tax cuts further, to people approaching retirement, by setting up a tax cut age matched actuarially to the entitlement age.** This age would fall in step with increases in the entitlement age, in such a way that younger people would be largely unaffected while older people would have a window allowing them to save for retirement more effectively. This is more equitable as so much of their financial planning for retirement has already taken place without being able to anticipate these reforms, yet it does not come at the expense of younger groups as these will also benefit from this window in their turn. As this window corresponds to a shorter time horizon until retirement, the older group falling within the window has a greater incentive for saving over current consumption. This measure targets the voluntary savings pillar.

(3b.) Alternatively, rather than target tax cuts by age, set up a distinct SAYE (Save As You Earn) fund somewhat like those found in Singapore and other countries and make compensating income tax cuts across the board. This reduces the complexity of the tax system itself by separating various things off – modularisation. This fund should have three main features: a progressive contribution structure (say, 10% of income above a threshold); a cap, savings above which could be drawn down (say, of the order of the $289,000 cited in note 2 of page 8 of the Retirement Incomes Consultation Paper, suitably indexed); and, a cap reset age actuarially matched to the age pension entitlement age as described above, when the cap would be reset to zero allowing people to draw down their savings (if they predeceased this age, their savings would be freed up for their estates at the date at which they would have reached that age). Additionally, it may be convenient to do any or all of the following: shift superannuation income tax concessions to this scheme, crediting these superannuation savings towards the cap, to assist the modularisation; rather than credit interest to individual accounts, waive fees and apply interest/usufruct to the age pension pillar or even to consolidated revenue generally (reducing the degree of hypothecation); and, integrate it with other funds like the Future Fund to the extent that this gives true synergies rather than a reduction in modularisation. This allows more flexibility, both in regard to existing political commitments to personal tax cuts which would not apply to the SAYE scheme, and in regard to how people could direct their income (as they would not be constrained once they reached the target set by the cap). This measure also targets the voluntary savings pillar.

Effects on the areas of equity, risk, myopia and institutional failure

Clearly recommendations (3a.) and (3b.) above address intergenerational equity that would otherwise be adversely affected by recommendation (1.), and all the recommendations address equity broadly.

The Retirement Incomes Consultation Paper describes the risks as political risk, investment risk, inflation risk and longevity risk (page 31 and elsewhere). Recommendation (3b.) addresses political risk by increasing transparency so that “raiding” would be visible, and by reducing incentives for raiding by making usufruct available to governments. Recommendation (1.) addresses investment risk at the upper end, by minimising longevity risk so that individuals do not face adverse incentives to over-invest. Recommendations (2.), (3a.) and (3b.) address the rest of investment risk, also providing suitable incentives and opportunities to avoid institutional failure. Inflation risk is addressed partly by the indexing explicitly present in the recommendations or implicit in their increases of individual discretion to allocate funds and in the shorter time horizons needing to be covered because of recommendation (1.), and partly by increasing the scope of governments to increase the adequacy of age pensions because recommendation (1.) reduces the size of the group needing them over

time.
Between them, all the recommendations address myopia. However, a rational response to investment risk may be misunderstood as myopia; the value of savings and investments depends on future revenue streams, which may be uncertain. There is a little known feature of this variation, that *it may well grow exponentially even faster than the exponential growth of the savings and investments* (I have confirmed this for simple cases, using the repeated composition of Probability Generating Functions). This means that, no matter how much an investment portfolio is diversified, eventually any investment strategy collapses. In many cases, what appears to be myopia is in fact a sound approach to exponentially increasing uncertainty over longer time horizons, particularly for superannuation with fees and charges (we may be seeing some of the consequences of this now). The combination of recommendations above mitigates this difficulty as much as is practical, by providing a mixed approach. The very longest time horizons are covered by the age pension pillar, using the greatest possible diversification through the resources of the whole politico-economic system. Medium time horizons are covered by the superannuation pillar, with some diversification, and shorter time horizons are covered by the voluntary saving pillar.