From

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to

Mike Callaghan

Dear Sir.

You are the chair of a review, among other things, into the ability of the Super system to reduce the cost, to taxpayers, of the government Age Pension.

This review is overdue. With $ three trillion in super funds producing a ten billion, at best, reduction in the cost of the Age Pension, some accounting seems necessary.In this submission I will propose a mechanism to explain why the Super System has not reduced Age Pension expenditures much at all. We need to know this before we frame a repair.

I will then argue that considerations of microeconomic reform should be reintegrated into Super policy

Phase dynamic model of retirement benefit systems

Governments pay subsidies, S, for retirement benefit purposes. These subsidies are an explicit or implicit function of citizens wealth, S(W). We have,

$$S = S(W). \tag{1}$$

However, every citizens wealth is a function of time. Then,

$$S = S(W(t)). \tag{2}$$

We can introduce the concept of a citizen's welfare career as the changes in this subsidy over the citizen's life, dS/dt. It follows that,

$$dS/dt = (dS/dW)(dW/dt). \tag{3}$$

Now, (3) is intended to partially describe a probabilistic relationship for the individual. For example, when wealth is low it is more probable that a person will be on a Centrelink benefit. To obtain a macroeconomic relationship that explains the mass result of all citizens acting in relationship to the welfare system in question, we take the expectation over all citizens in an age group.

Tides in the Centrelink benefits

Aggregate Centrelink income transfers (excluding child allowances but including Single Parent Payment) allows us to test the explanatory power of (3).

The expression, (dS/dW) is the means testing regime enshrined in legislation. It is a negative number often equal to -.5. A citizen loses 50 cents out of every dollar of private income. The expression, (dW/dt) is the change of the citizen's wealth over time. By the Human Capital theory this is a positive number for the younger citizen but a negative number after 42.5 years of age. Thus, at first, people tend to move out of the Centrelink system, dS/dt is negative. After middle age citizens are progressively swept back in when dS/dt turns positive.

The data necessary to verify this are available from the Centrelink computers and the Australian Bureau of Statistics. It is a trivial exercise, for well-connected officers such as yourself, Mike, to derive a full count probability of a citizen's receipt of Centrelink benefits by age.

I have sketched the result of this exercise, conducted by myself in the late 1980s and included it as an appendix.

Governments make every effort to drive people off the Centrelink benefits. This is completely, magnificently and overwhelmingly successful for citizens up to age 42.5 and a blistering, maddening and frustrating failure for older age groups. The relationship (3) tells us why. For younger people, policy is pushing on an open door. It cuts with the grain of the system. We are sailing down river with the tide on the ebb.

Older citizens all suffer an inevitable and progressive biological breakdown that we call ageing. This fall in human capital and its attendant fall in real resources, such as wages, is measured quite correctly by the means testing rules enshrined in welfare legislation. Citizens are increasingly allocated a Centrelink income subsidy. The tide has turned. Nothing can change this brutal determinism.

Applying our theory

The relationship (3) gives us information on the movement of a citizen and all citizens towards or away from the continued receipt of a retirement benefit subsidy. As an economist and when I first saw the data presented in the appendix, I was struck by how much of choice theory was swept away here - but so be it.

Clearly, for a well-formed retirement benefit system we would ultimately want S to be equal to zero for both society and the individual. Note well, this means that the Age Pension and the subsidy to Super should both tend to zero over time. We want people to support themselves via a private association with the natural economy. To get there, we MUST have the condition,

$$dS/dt < 0. \qquad (4)$$

The condition (4) should be, I believe, the central design criterion for any retirement benefit system.

Why Super hardly reduces the Age Pension at all

So, my answer to the question of why we have any Age Pension left at all is that $dS/dt < 0$ does not hold for the combination of the Centrelink and Super system as an aggregated whole!

For the Superannuation system dS/dW is positive as an unintended consequence of delivering the subsidy as a tax break. The more wealth a citizen has the greater is her subsidy. Super funds grow in general, $dW/dt>$zero. In a similar fashion to the case of the Centrelink benefits we can discern the" grain", the tide, or the built-in tendencies effecting the flow of Super tax expenditures, the Super subsidy; and by implication, the flow of ***induced dead weight losses*** to the economy.

For the wealthier citizens, for citizens who work a standard career, from say 25 to 65, the super system provides an ever-increasing torrent of subsidies; dS/dt is positive. The transition to retirement is a discontinuity, a sudden break, which leaves the citizen subject to the Centrelink rules where the tendency is for wealth to be dissipated and again dS/dt is positive. There is no motion away from government largess.

For the case of a citizen who is particularly wealthy, who in the normal course of things would never darken Centrelink's doors, the subsidy is as massive as it is unnecessary; it is pure dead weight losses.

For the case of poorer citizens $dS/dt <0$ for their Centrelink component in their younger years. This is the only well-formed part of the whole Super / Centrelink edifice. However, as they work more and for better wages, up to middle age, the Super subsidy swells, $dS/dt >0$ for the Super subsidy. In aggregate there is confusion and no clear tendency to move away from government largess.

After middle age and as the poorer citizenry receives less earned income the subsidy under Centrelink increases and the Subsidy for super decreases.

Again, we see confusion and no dominant trend away from the receipt of Government benefits of some kind.

For the poorer citizen and on balance, we do not observe any strong tide away from receipt of tax expenditures or tax transfers. In fact, we see a confusion, I believe ***actually maximising dead weight losses***.

Consider citizens from either wealth class who experiences a break in their career, say a young mother. The super subsidy is cut as it is a function of paid work, of paid taxes. Then dS/dt is set to zero just when one may argue that assistance should in fact be increased to keep her on a path towards financial independency in retirement.

Brutal truths

I fail to see any tendency for most citizens to move away from an ever-expanding flow of retirement income benefits of one sort or another, benefits ***with their attendant dead weight losses***. I see no tendency for both the Age Pension and the Super subsidy to fade away historically. It is brutal truth number one, that this fading away over time, of at least Centrelink subsidies, is the necessary condition for Super to have been a successful reform.

Brutal truth number two is that these malign tendencies in the flow of Super subsidies, excessive when they are unnecessary and absent when they are needed, flow from dS/dW being positive for the Super subsidy. The sign is wrong, increasing the size of the subsidy, by increasing the super guarantee to 12%, for example, is not a reform, it is a voodoo economics incantation and will do nothing good. It will simply rev up the malign structure we have uncovered.

If all this is true and I want to see the maths if one demurs, we have uncovered a very big political problem. Take a tax break away from most of our citizens Labor and Liberal voters alike. Then give it to the idle benefit seeking welfare class – I do not like our chances here.

A hint at a solution, Super reform as an arbitrage

There is another connection between the sign of the first derivative of both the Super and Age pension subsidy with respect to wealth and the subject of your review, the ability of the Super system to reduce the cost, to taxpayers of the Age Pension. To motivate this let me introduce the concept of an arbitrage between investment and Age Pension payments.

We owe our Super system to proposals made in the Cato Institute, a Washington Libertarian think tank, for reforming the American Social

Security system. The reform proposed was to allow participants in the American Social Security system to save their contributions as equities and not as government bonds. This is a pure arbitrage. Simultaneously and at no cost, bonds are liquidated, and equities are purchased.

Perform this simple thought experiment.

Conceive of the most brutal, excessive, unthinkably large super subsidy possible that is targeted as a direct payment to the super fund of most poverty-stricken wretch in our society; the precise opposite of the current situation. A 42-year-old Disability Support pensioner with an unmarried unschooled daughter who is also on Parenting Payment is offered a deal. He pays a dollar and the state, the tax payers writ large, then put $800K in his super fund. This $800k is the Centrelink asset test cut off point. The bargain is simply, he lives on the dividends,32 K a year, and passes the capital on to his daughter. In order to inherit it the daughter must agree to pass it on to her child in turn. The state of course receives the present value of the forgone Centrelink payments, in compensation; a virtually infinite stream worth approximately $20 K divided by the bond rate .01, or about $2 million. The state makes a profit of a million! ***Perhaps this is not so unthinkable.***

This comical little three-person corn economy like thing tells us much. To get the profit, for the reform to work, for arbitrage to occur, the subsidy for super and the subsidy under Centrelink must involve the same population. The fact that the signs of dS/dW are opposite in each system ensure that this arbitrage cannot occur. The super subsidy is shunted off to the rich and the Centrelink subsidy is allocated to the poor, and never the twain shall meet.

But where does the money come from

But above all we can clearly see that true Super reform should be **costless**. The subsidy is not the be all and end all, of the reform, it should be a lever to initiate an arbitrage between the Age Pension and personal savings. The Age Pension should be progressively saved as a real investment and not spent as a consumption flow. The complete shunting of the Age Pension into investment should be the aim. In addition, it should be clear that there is plenty of money flowing in the existing Age Pension budget to do this. Consider, 20 K a year per person for infinity is plenty to pay for a personal, if somewhat preserved, tranche of wealth enough to cover an enhanced retirement.

Preliminary conclusions

Titanic constraints have been laid over Australia's share market by entangling much of it in Superannuation rules. These constraints must involve dead weight losses to the economy. Let us assume these dead weight losses are proportional to the dividend flow from the $ 3 trillion in super. Then $120 billion is a lower bound estimate of effective dividend flow. To this we must add the $30 billion of tax expenditures. This vast resource flow reduces the Age Pension by about $10 billion - as a conservative upper bound. Assume the dead weight losses averted are proportional to this $10 billion. Efficiency seem to be about 10/170 or 6%. This seems to be a bad bargain, particularly when it seems that it is possible to achieve efficiencies of ***over*** 100%.

There are very worrying signs that Super is crippling the Australian Economy. The share market is noticeably lack lustre. Marginal tax rates are high (45% + compared to New Zealand's 33%), an obvious result of granting tax breaks in one area of the economy and refusing to legislate other perhaps indirect tax increases to pay for them. Both Centrelink and Super systems are both ongoing, Super is failing to edge out traditional transfer payments.

A glimmer of hope

There are three things that bring dealing with our **Brutal Truths** into the realm of the politically possible.

The first is that true Super Reform, the Abolition of the Age Pension, should be an arbitrage and thereby **cost free**.

The second comes from asking the question – if super is costing us, who suffers the brunt of these economic ills. It is not the very poor, the welfare class; their situation is unchanged. It is in fact the business class who suffer. Every pay day businessmen sit down and draw checks to the ATO for their workers from one of their own bank accounts. These cheques must cover our workers expanded marginal tax rates and any expanded Super contributions. For all that economists speculate that these payments come from some theoretical wage fund, at the end of the day business pays all taxes. On top of this, it is the business class's economy that is faltering. They own it, its theirs. They seem to have made a poor bargain. In return for personal tax breaks, they are forced to pay expanded taxes for their workers. This has left the total tax rate unchanged at 25% of GDP but maximised an efficiency draining churn within this total take which reduces their business's growth.

Taken together point one and two imply that it is not necessary to address the tax breaks that have become the be all and end all of Superannuation policy. ***They are largely irrelevant and perhaps, mentally, we can push them over into the tax reform basket***.

Okay that's fixed the biggest problem with Super policy. If business and their political leaders want to wreak themselves, Australia's recent political history seems to show we can do little about it. We will have to wait for a change of heart.

Damming up the stream of money going into the Age Pension and redirecting it to true investment is the real Holy Grail of policy.

Point three is that there is gathering evidence of just how powerful a reform the true abolition of welfare can be. Current super rules seem to have increased the number of people who can be described as self-funded retirees. There has also been a steep rise in the propensity of the over 60's to stay in the labour force. This is what one would expect from a cohort who have escaped the high effective marginal tax rates that are caused by welfare means testing rules. Many have seen their marginal tax fall from about 80% to 30%. Of course, there has been a supply response.

A Sketch of one possible reform

The hour is late, and we may not have as much time as we did in the 70s of last century. Any new program must dig out the best deals first to build a war chest for further work. Efficiencies must be near perfect. Needs must when the devil drives.

Consider the introduction of a supplementary Superannuation Scheme, Super(B). Super(B) will be aimed squarely at leveraging the arbitrage of the stream of Age Pension payments into investment.

To get Super(B) a citizen must ***voluntarily*** relinquish all rights under the old Super(E), or existing super. The citizen relinquishes all rights to tax breaks. Everything coming out of a Super(B) fund is taxable income. In addition, the maximum size of the a Super(B) fund is reduced to the asset test cut off and indexed there. Preservation rules in Super(B) are made very onerous and involve intergenerational preservation. Finally, half of any individuals existing Super(E) fund would have to be advanced to buy into the Super(B). The other half is available to the citizen as a plain unprivileged savings account.

Clearly this would appeal the destitute most. The tax breaks under Super(E) are worthless to them as they do not work and they have no or very little super. In general, the poor would have the most valuable welfare streams and the more median class would be capable of larger contributions. Each deal would be assessed with consistent methods.

Citizens apply to get on the waiting list for Super(B). The waiting list is ranked by the price of each dollar of Age Pension payments moved into investment. The cheapest acts of arbitrage go first. On receipt of Super(B) the citizen is catapulted to the self-funded position in one perfect arbitrage. Note well, that some of the most profitable trades would be to the middle age long term New Start and Disability Support customers. These trades could be geographically targeted to produce a labour supply response where needed.

Notice that the condition $dS/dW < 0$ is there but heavily disguised.

For the economists among you Centrelink would act as a perfectly discriminating monopoly seller of Super(B) funds and monopoly purchaser (Monopsonist) of Super(E) and Age Pension rights. This is the strongest market position imaginable; profits would be assured.

The Future fund is then cut up into a hundred thousand Super(B) funds and the one hundred thousand citizens and their descendants are given the bums rush out of the welfare class and into a private association with the natural economy.

That is 10% of the job done.

In the next and all following years, $2 billion will have been recovered from the Age Pension stream. Say 80% of this is allocated to the Future Fund for more Super(B) accounts. ***The taxpayer gets a little taste of the action from day one.*** The institutional requirements of the gradual turning of Age Pension payments into investments could be established.

Super(B) should be allocated to the department with oversight of the Age Pension and all senior departmental officers should be paid bonuses, very big bonuses, on the percentage of welfare budget that is being invested not spent. This will result in zillions of savings measures being proposed, each capable of putting investment funds into the Future Fund. For example, indexing the Age Pension every 5 years not every six months should raise considerable investments for Future Fund. Political resistance to this would be mollified by the investments eventually going to the personal accounts of the needier part of society. In general, a lot of old favourite savings measures, that have been around for years, once deemed too brutal politically, could be dusted off and one pushed through each budget.

Final Comments

There is only one reform that will work, reverse the sign of dS/dW in the Super system. Then welfare will evaporate like the morning dew and taxes will fall and investment will increase.

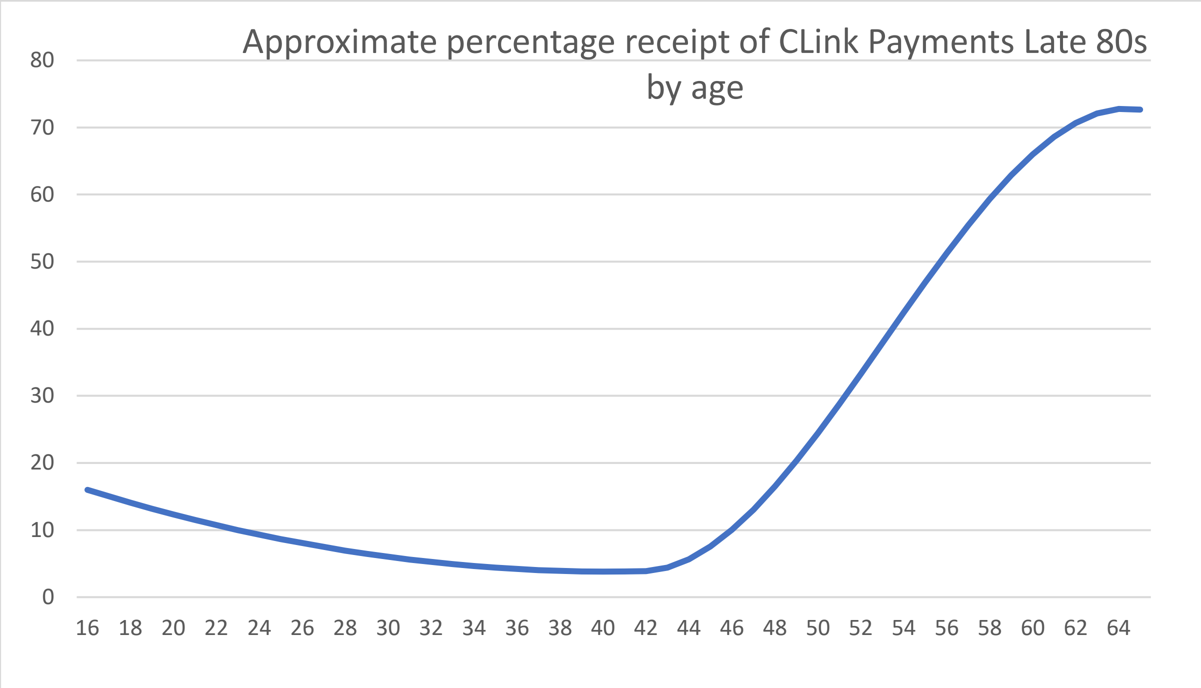
Preserve super funds intergenerationally and the inheritance of wealth whose origins are forgotten will replace welfare and both it and the super subsidy could be made to wither away. The reform would then be total.

When Super was implemented all the above was known, at least intuitively. Many supplementary savings subsidies on top of the tax breaks were mooted and implemented. These subsidies came close to satisfying the condition $dS/dW < 0$. I personally accessed one of these to start a nice little addition to my wealth - thank you very much. It is my belief that modelling in the Public Service leading up to the implementation of Super just did not work without such programs. But all these programs have been swept away and tax breaks increased – this was pure anti-reform.

For too long Super policy has been sundered from concepts of microeconomic reform. The purpose of the original Cato proposal was microeconomic reform. The purpose of World Bank recommendation for prefunded retirement benefit systems was that a nation without a retirement benefit system could escape implementing a transfers-based system and build more flexible high investment economy.

I believe two things. The first is that there is a cost-free win here that only needs our politicians to develop a little hutzpah. Secondly, we probably have no choice. There is a new branch of economics that tries to integrate thermodynamics into itself. This stuff really puts the dismal back into the dismal science. This school sees the economic cycle as irreversibly dissipating natures gifts into thin, cold, dispersed waste. The only way we can replace these dispersed natural gifts is with investment. The above proposals suggest laminating a deeply reformed labour market with increased real investment into a new more flexible economy. Do we really have a choice?

Appendix



Note

These data include all transfer payments related to basic fortnightly income. That is Youth allowances of all types, unemployment payments of all types, and Disability, Single Parent, and Age pensions. They do not include payments related to raising children.

This graph is intended to give the flavour of the flows in and out of welfare payments and not precise numbers.

The original data were remarkably smooth. A quadratic up to age 42 and then a splined cubic up to 65 would interpolate 95% + of the variation.

Overall the impression I got when first seeing these data was of a very strong determinism indeed.