Reforming Australia’s Superannuation Tax System and the Age Pension to Improve Work and Savings Incentives

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Abstract

Australia’s retirement income system combines private and public provision for old age. Retirees rely on private (but highly regulated) superannuation saving that attracts large tax concessions; a public, means-tested age pension; home ownership; and other private savings. Despite recent changes intended to make the system fairer and more fiscally sustainable, Australia’s retirement income system still lacks coherence, produces inequitable outcomes and creates high effective tax rates on work and saving. This article proposes a more coherent approach to address fairness, reduce the effective tax rates on work and saving and provide adequate earnings replacement rates with greater fiscal sustainability than is delivered in the recent reforms.

Key words: age pension, income tax, retirement saving, superannuation, work incentives

1. Introduction

Australia’s unique retirement income system, which combines private and public provision for income in old age, has been a focus of numerous policy reviews in the last few years (for example, Henry et al. 2009a; Harmer 2009; Murray 2014; Senate Economics References Committee 2016; Productivity Commission 2017). It is sometimes described as a ‘three-pillar’ system, combining

- the means-tested and publicly funded age pension;
- compulsory private savings of employees, through the Superannuation Guarantee and supported by tax concessions; and
- voluntary private superannuation savings supported by tax concessions.

The Superannuation Guarantee was 9.5 per cent of most wages (paid by employers) effective 1 July 2014.1 Under the current law, it remains frozen at this rate for 6 years and then increases to 10 per cent from 1 July 2021 and in steps to 12 per cent from 1 July 2025. Private superannuation savings are in industry and retail funds and in an increasing number of self-managed superannuation funds. Home ownership is a (perhaps crumbling) fourth pillar of the retirement system (for example, Yates & Bradbury 2010).

The government has enacted recent reforms to both private and public aspects of the retirement system. These include tightening the tax concessions for superannuation saving and the means test for the age pension. The government has also enacted a legislative objective for the superannuation system, being to ‘provide income in retirement to substitute or supplement the Age Pension’, as recommended by the Financial System Inquiry (Murray 2014). Further reforms to prudential regulation of private superannuation

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1. See ATO https://www.ato.gov.au/Calculators-and-tools/Super-guarantee-contributions/ viewed 25 April 2017.

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saving are under consideration or have been proposed. These changes are intended to make the retirement system fairer and more fiscally sustainable. The reforms achieve some of these goals in a marginal way. However, they are at best patches to an unsatisfactory system. Overall, Australia's tax and transfer settings for the retirement income system, which we call the 'retirement tax-transfer system', still lack coherence; produce inequitable outcomes based on various indicators including income, wealth and gender; and create high effective tax rates on work and saving for many Australians over the life cycle. Indeed, these defects have been increased in some respects by the recent reforms.

This article discusses the principles and policy for Australia's retirement tax-transfer system with particular attention to work and saving incentives, distributional effects and fiscal cost. We argue that the retirement tax-transfer system must be designed holistically so as to operate coherently across both the tax and age pension systems, over the life course of individuals, if an efficient and fair outcome is to be achieved. At the moment, the tax and transfer rules for retirement income contradict each other. In particular, the tax system encourages savings, while the public pension system does the opposite. The age pension system also provides significant disincentives for retirees to work.

The contradictions in the current system create pressure for policy-makers to make further changes to the system. We see this in the proposal in the 2017–18 budget to provide a carve-out from the recently tightened superannuation savings cap for high income people selling the family home (Treasury 2017b). This also shows that policy-makers have not yet come to grips with the growing issue of treatment of the family home in relation to both private superannuation and public pension.

This article proposes a more coherent approach to address fairness and reduce excessive concessions for those with high incomes, reduce the effective tax rates on work and saving over the life course, ensure fiscal sustainability and provide adequate earnings replacement rates in retirement. We present some simple modelling of our preferred options that show how alternatives to the current system can be less distortionary while still producing adequacy of incomes in retirement.

2. Structure and Cost of the Retirement Tax-Transfer System

2.1. Superannuation Tax and Conceptual Approaches

We first outline the basic structure of the tax system for superannuation and explain how the current system fits with benchmark systems for taxing housing (we do not need to deal with the many complexities of the system for purposes of our discussion here). In brief, the Australian system provides an income tax deduction for contributions into regulated superannuation funds for the contributing employer, employee or self-employed individual. The contributions are taxed at 15 per cent in the fund (30 per cent if the contributor's income is over $250,000), and fund earnings are taxed at 15 per cent. An earnings exemption applies for superannuation balances up to $1.6 million if the account is in pension phase (paying out a pension), and a lower tax rate applies to capital gains in the fund. In addition, the fund can utilise franking credits on dividend income. Lump sum or pension payouts from the fund are exempt if received from age 60 years or earlier in some cases. In some circumstances, payouts to non-dependents may not be fully exempt on death. Savings are also held in a variety of other assets, not just superannuation savings.

There is a spectrum of conceptual approaches to taxing retirement savings, which all operate on the assumption that the savings are accrued over the life course to produce payouts for consumption in retirement. The current Australian superannuation savings system, with low tax on contributions, low tax on earnings and exemption for payouts, is a hybrid of income and expenditure taxes on this spectrum.

At one end of the spectrum is the comprehensive income tax approach. In the comprehensive income tax approach, contributions are taxed to...
the contributor at their individual tax rate; earnings would also be taxed at that individual tax rate; and payouts on retirement would be exempt (TTE). This is described as producing ‘double taxation’ of savings, through the taxation of both contributions and earnings.

At the other end of the spectrum is the cash flow expenditure tax, which fully exempts the return to savings over the life course. There is an exemption for contributions to the fund, no tax on earnings in the fund and taxation to the retired individual when paid out (EET). This is sometimes called the post-paid expenditure tax. An alternative model is the pre-paid expenditure tax (tax contributions, exempt earnings and exempt payouts (TEE)). The pre-paid expenditure tax is essentially the same as an income tax that exempts capital income and gains but denies a deduction for contributions. If a uniform income tax rate is assumed, then EET and TEE approaches are equivalent over an individual’s life course because the present value of tax on drawdowns is the same as the tax that would otherwise be paid on earnings. This is not intuitively obvious, as taxation in an EET system applies to the full benefits when received, but the deferral of tax means that the present value of tax on payouts is not different to that in a TEE system.

A middle option on this spectrum exempts part of the return to saving. Examples include the rate of return allowance (RRA) system proposed by the Mirrlees Committee in the United Kingdom (Mirrlees et al. 2011) and a cash flow variant of this, the ‘Z-tax’ suggested in Ingles (2015b). The RRA exempts the ‘risk-free return’, which is normally around half the total return to savings and hence is a deduction from assessable annual investment earnings. The risk-free return is usually proxied by the government bond rate. If the savings return does not exceed the risk-free rate, no tax applies. The Z-tax is the same, but the tax on the return to savings only applies when the benefit is finally paid out; this tax deferral makes it more generous than does the RRA given a common rate of uplift. Its form is tax contributions, exempt earnings and low tax on payout. These different approaches are set out in Table 1.

The expenditure taxes (EET and TEE) achieve full inter-temporal neutrality between saving and consumption. The post-paid expenditure tax is preferred by the Committee for Sustainable Retirement Incomes (CSRI 2016a). The RRA and Z-tax each overcome, in part, the ‘double taxation’ of savings and could be used as the general method of taxing all savings. However, the conceptual purity of all these systems only holds if there is no means test on payments of retirement income. If there is a means test, as exists in our age pension system, this neutrality is vitiated. We discuss the RRA and Z-tax options here and present the modelling result for these options later, to demonstrate that there are options for the taxation of savings that are midway between the extremes of a comprehensive income tax (TTE) or a full post-paid expenditure tax (EET).

We prefer a compromise based on a pre-paid expenditure tax (TEE), combined with some means testing of pensions, so that the net tax rate on savings is positive but only moderately so. In the United Kingdom, there are serious proposals for moving to a TEE system (Emmerson & Johnson 2016, p. 16); these authors conclude that ‘the choice between the current imperfect [EET] system and a new,

| Contributions | Earnings | Payouts |
|---------------|----------|---------|
| Comprehensive income tax | Tax | Tax | Exempt |
| Current tax system | Low tax | Low tax | Exempt |
| Post-paid expenditure tax | Exempt | Exempt | Tax |
| Pre-paid expenditure tax | Tax | Exempt | Exempt |
| RRA | Tax | Low tax | Exempt |
| Z-tax | Tax | Exempt | Low tax |

Italics indicate current system compared to other benchmark systems.

Source: Authors.
simple and “purer” TEE system may be finely balanced. In the United States, the so-called Roth IRAs (individual retirement accounts) are taxed on a TEE basis, although EET is used to tax 401k plans and other private pensions. Savers are advised to maximise their 401k plan before shifting on to the Roth IRA, reflecting the assumption that the EET is more concessional.

The Australian superannuation tax system, with low tax on contributions, low tax on earnings and exemption for payouts, is a hybrid of income and expenditure taxes as indicated in Table 1. More generally, observed by the Henry Review (Henry et al. 2009b, Final Report, Part I, Section 4.2), Australia’s personal income tax is a somewhat incoherent hybrid income–consumption tax system that taxes different forms of saving quite differently. In particular, owner-occupied housing is accorded full pre-paid expenditure tax treatment, TEE, whereas most savings outside super are taxed as TTE. This incoherent taxation of savings matters because voluntary savings both inside and outside the superannuation system are substantial (Daley et al. 2016a).

2.2. Fiscal Cost of Superannuation Tax Concessions

In the most recent Tax Expenditure Statement, the Treasury estimates revenue foregone from superannuation tax concessions as $35 billion (Treasury 2017a). The Treasury uses an approximation to comprehensive income (TTE) as the benchmark in estimating the revenue foregone, which mostly relates to concessional taxation of superannuation fund earnings ($17 billion foregone) and concessional taxation of employer contributions ($16 billion foregone).

The expenditure tax benchmark is not normally adopted by the Treasury; however, in its 2014 Tax Expenditures Statement, the Treasury did an experimental estimate applying a pre-paid (TEE) benchmark. This produced estimated revenue foregone of $12 billion per annum in 2013–14 (Treasury 2014). This suggests that the Australian system (as at that date) was concessional even relative to an expenditure tax benchmark. This Treasury estimate has not been repeated.

By contrast, the CSRI (2016b) compare forecast retirement incomes under the current tax system with EET and calculate that the post-2016 superannuation tax system is quite close in outcomes to a post-paid expenditure tax or EET system. They suggest that the system therefore should not be regarded as concessional on the whole. However, we observe that timing and revenue differences would be quite significant between the pre-paid (TEE) and post-paid (EET) forms of the expenditure tax in Australia’s progressive income tax system. The EET (post-paid expenditure tax) is much more generous than is TEE because tax rates in the retirement phase are usually much lower than those at working age are, so it provides an effective subsidy for capital incomes. More generally, we are not convinced that a post-paid expenditure tax is the right benchmark, as we suggest that capital (savings) should be subject to some level of taxation, even in relation to retirement savings.

A common criticism made of the Treasury tax expenditure estimates is that the revenue raised from closing down the tax concession would not be as great as estimated because of behavioural changes. To address this criticism, the Treasury has provided estimates of revenue gain from repeal of the tax expenditures. In aggregate, the revenue gain estimates are around 10 per cent lower than are the basic tax expenditure estimates; however, they are still large, and both are estimated to grow strongly even after the recent tax changes.

2.3. Inequality in Superannuation Taxation

The current superannuation system including the Superannuation Guarantee has been in place since the early 1990s, with various changes including the full exemption of payouts effective 2007. It has generated substantial

2. It is possible to replicate the TEE estimates on an annual basis by taking the TES cost of the contribution deduction and subtracting tax revenue from fund earnings as well as any tax on payouts.
increases in private retirement saving for many Australians, and the system has not yet reached maturity (ASFA 2016). In spite of this, it is widely recognised that superannuation tax concessions are highly regressive. This is illustrated in Figure 1 (from Murray 2014). The distribution of concessions shown predates the 2016 reforms, which are intended to make the system fairer. However, these reforms will have a limited impact except at the top end.

The regressivity of superannuation tax concessions derives from the flat rate of 15 per cent, replacing the progressive income tax scale on most contributions and on investment income, with the latter being largely tax free in the drawdown phase. High income earners who would otherwise pay up to 47 per cent on their income benefit most, even with the higher 30 per cent contribution rate for those earning over $300,000. The greatest benefits flow if there are also voluntary contributions.

The superannuation tax regime disadvantages low income earners who would normally pay no income tax up to the threshold of $18,200 (increased by the low income tax offset, or LITO, where applicable). This is indicated by the negative outcome for those in the bottom decile in Figure 1. The Low Income Superannuation Tax Offset (LISTO, formerly the LISC) refunds the 15 per cent contributions tax for earners up to $37,000.

As already noted, the CSRI (2016b) suggests that there is no regressivity in superannuation tax concessions under their preferred EET benchmark. We have addressed this argument earlier. However, it does remind us that interpreting tax benefit incidence is not a straightforward matter.

The gender inequality in the superannuation tax system, and the significant reliance on the age pension by women, is another well-documented result of current settings (for example, Clare 2015; Austen et al. 2015; Kelly et al. 2002). It is a result of the link between the Superannuation Guarantee and paid work, the gender wage gap, over-representation of women in the bottom deciles of the income distribution, interrupted and part-time work by women, and female longevity. It is sometimes argued that the gender inequality of the superannuation system is overstated, as it is driven not so much by the super settings as by the inequality of wages and work. However, the system does exacerbate those inequalities.

3. From 1 July 2012, a 30 per cent contributions tax applies for individuals whose income is $300,000 or more (including before-tax superannuation contributions), now $250,000.

4. This is set out in Division 293 of the Income Tax Assessment Act 1997.

5. See ATO, https://www.ato.gov.au/Individuals/Super/In-detail/Growing/Low-income-super-contribution/.
While many women will benefit from their husband’s entitlements (even on separation or divorce), most women would not see this as adequate or appropriate recompense. As the superannuation system reaches maturity and we observe some generational change in work patterns for women, female superannuation balances and shares are increasing. Nonetheless, in 2011–12, women held only 36 per cent of balances of superannuation funds, while men held around 64 per cent (Clare 2015). It has been estimated that average female superannuation assets will still be only 70 per cent of average male assets by 2030; however, women will represent two-thirds of the population in the over 85 years age group, a group where superannuation assets are likely to be quite diminished (Kelly et al. 2002, pp. 231–3). Clare (2015, p. 7) using ABS data shows that median superannuation balances for women aged 20–9 years are three-quarters of those of men at the same age; women of prime working age 35–9 years have median balances half that of men; and women aged 60–64 years have balances of only one-quarter of men at that age. It is clear that women are financially disadvantaged, have less access to superannuation and will rely more heavily on the age pension in retirement.

2.4. The Mean-Tested Age Pension

The age pension is a targeted income support payment for people who meet age and residency requirements. Pension rates are indexed to average wages. In 2013–14, about 70 per cent of people aged 65 years or over were receiving either a full or part age pension. The proportion receiving a full-rate pension is about 60 per cent of that group, or about 42 per cent of the total number of eligible people. There are about 1.4 million full-rate pensioners and 1 million part pensioners. Age pensioners (whether full or part pensioners) are also eligible for a range of valuable concessions including health care card and transport concessions.

The growth of superannuation savings has seen these proportions fall considerably from the late 1990s (when about 53 per cent of people received the full age pension and 80 per cent were eligible for a part pension); nonetheless, on current estimates, the majority of Australians will still access a full or part age pension in the longer term.

Government spending on the age pension is estimated at $42 billion in 2016–17 (Treasury 2016a). The Intergenerational Report (Treasury 2015, p. 69) estimates that under policy applicable at the start of 2015, expenditure on age-related pensions would rise from 2.9 per cent of gross domestic product (GDP) in 2014–15 to 3.6 per cent of GDP in 2054–55 as a result of population ageing. The age dependency ratio is currently 20 per cent; it is projected to rise to 36 per cent by 2050. The pension eligibility age is 65 years and is scheduled to increase to 67 effective 2023. The 2014–15 budget proposed that the eligibility age would be increased to reach 70 by 1 July 2035 (Treasury 2015), but this has not been legislated.

The pension alone provides a ‘modest’ lifestyle for most pensioners, because the large bulk of this group are homeowners. Renters in the private market do not do as well. These living standards are shown in Table 2. In comparison with other Organisation for Economic Co-operation and Development (OECD) countries, individual and couple pensioners on a full pension, in particular without their own home, live in relative poverty (Hemmings & Tuske 2015).

The age pension is subject to an income test and an asset test. Whichever test gives the lower rate is applied. The combined means test

Table 2 Pension and Income Levels

| Dec. qtr. 2016 | Single | Couple combined |
|---------------|--------|-----------------|
| Age pension (annual) | $22,805 | $34,382 |
| ASFA modest lifestyle | $24,108 | $34,687 |
| ASFA comfortable lifestyle | $43,538 | $59,805 |
| Capital needed for ‘comfort’ if no pension | $725,633 | $996,750 |

*Note: Assumes home ownership, basic health and 6 per cent rate of return on savings. The ‘modest’ rates are a bit over the age pension. The capital for ‘comfort’ is broadly equivalent to the pension asset test cut-outs. However, taking account of the pension reduces the required capital to $545,000 (single) and $640,000 (couple) on ASFA’s calculations.*

*Source: ASFA (2016).*

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levies a high tax on income or assets of pensioners or part pensioners above a base threshold, potentially discouraging work while in receipt of the pension as well as (earlier) lifetime saving.

To calculate the pension, fortnightly income from wages and deemed income from financial assets are combined. Once over the threshold, the amount of pension is reduced by 50 cents for every dollar. Income from the full range of financial assets is deemed at a rate of 1.75 per cent up to designated thresholds and then at a rate of 3.25 per cent for investments above these thresholds. The deeming rate is adjusted on a regular basis, as deeming rates are meant to reflect interest rates available in financial institutions. However, it is difficult to obtain a return equal to the deeming rate under current conditions.

The pension is taxable under progressive income tax rates, reduced by the Seniors and Pensioners Tax Offset (SAPTO), which raises the personal income tax threshold from $18,200 to over $32,000 per year for singles and $58,000 per year for couples. The tax-free areas for singles are thus some $10,000 higher and for couples $15,000 higher than those of the full age pension. The SAPTO ensures that full-rate pensioners do not pay income tax on their pension; it is estimated to cost $720 million in 2015–16 (Daley et al. 2016b). The SAPTO phases out with a taper rate of 12.5 cents in the dollar. This interacts with the normal income tax scale and the means test to produce high effective marginal tax rates (EMTRs) for pensioners as discussed later.

The suggested lack of progressivity and high fiscal cost of superannuation tax expenditures are disputed by Mercer (2012) and other commentators, who argue that the tax expenditures measure does not take account of the redistributive effect of the age pension and savings expected in the pension system over the longer term. For example, Knox (2010, pp. 302–11) argues that the superannuation concessions are offset by withdrawal of age pension under the means test.

Estimates of overall progressivity suggest that government assistance (combining superannuation and the age pension) is relatively flat across most of the income distribution (Rothman 2009; Treasury 2012). However, analysis by the Treasury (2016b) accompanying the recent superannuation tax changes and relying on a comprehensive income (TTE) benchmark indicates that the top 10 per cent of the income distribution benefit markedly from the overall system, even after these changes are enacted. While total average assistance for all other income groups is around $300,000, at the 90th percentile of earners, it is $600,000 (also Daley et al. 2016a).

It is clear, in our view, that tax concessions cannot pay for themselves in pension savings, as abolition of the means test would only cost around $15–20 billion in comparison with the estimated $35 billion cost of the superannuation tax concessions.

2.5. Recent System Changes

The Government has recently enacted changes to the superannuation and age pension systems. These are complex, but in brief summary, they include the following6:

- $1.6 million cap on the total amount of superannuation that can be transferred into the tax-free retirement phase (sums above this cap to be taxed at 15 per cent);
- 30 per cent tax on concessional contributions for those earning over $250,000 (including concessional contributions);
- reduced annual cap on concessional (deductible) contributions of $25,000;
- cap of $100,000 per annum on non-concessional contributions (so long as total balance does not exceed $1.6 million); and
- LISTO to replace the Low Income Superannuation Contribution when it expires on 30 June 2017.

The net saving from the superannuation reform package is estimated at $2 billion per annum, relatively small in relation to the total tax expenditure (against a comprehensive

6. For more details, see Australian Treasury, http://www.treasury.gov.au/Policy-Topics/SuperannuationAndRetirement/Superannuation-Reforms.
income tax benchmark) shown in Table 3. In spite of attention being paid to gender inequality, the introduction of the LISTO is the only measure in this reform package that will benefit (or protect) a majority of women. Proposals to levy superannuation on paid parental leave or provide additional financial support for women’s superannuation saving have not proceeded.

The Government previously enacted a tighter age pension asset test, which took effect from 1 January 2017. It is estimated that this tighter asset test will generate total savings of $2.4 billion spread over 3 years.

3. Work Disincentives

A major concern of tax-transfer system design is the effect of tax rates or income tests on labour supply, or the incentive to work in the (paid) formal economy. In an era when the size of the working age population is declining relative to the total population, there is increasing attention being paid to workforce participation by mature-age workers including those at or above pension age (currently 65 years).

For those in the third of the income distribution who are not eligible for the age pension, but benefit from superannuation payouts, there are few disincentives to work as this cohort pay relatively little (likely too little) income tax or other taxes (Daley et al. 2016b). The remaining 70 per cent of retiring Australians are affected by the pension means test; even if they only receive a small proportion of the age pension, their incentive to work or save will be affected. The pension income test generates high and variable EMTRs for single pensioners and pensioner couples, when combined with the tax system. The EMTR is the amount lost in pension and paid in tax for each additional dollar of income.

This is illustrated in Figure 2 (for a single age pensioner) and Figure 3 (for a couple). The EMTR varies by couple status and according to whether income is earned from work or is from investments, as the former attracts the work bonus of $250 per fortnight. The figures show the EMTR for work income. For investment income, the effective EMTR threshold is lower as is the pension cut-out point so that the ‘hump’ in the graph shifts to the left.

Figures 2 and 3 show that for either a single or couple pensioner (when one person in the couple goes to work), the first $10,000 is effectively tax free, but tax rates then increase dramatically and apply over a wide range of income. The highest EMTRs, ranging from about 70 per cent up to 90 per cent, occur over the income range from $12,000 per year to $80,000 per year. Those earning in this range take home less than $30 for every $100 earned net of taxes and transfers. For a second earner in an age pension couple, the EMTR would be ‘on top’ of the first earner, and so the tax-free area (apart from the Work Bonus) would not apply. This could also apply even for a working age spouse of a pensioner, as the pension is tested on joint income.

There is debate about whether these high EMTRs on earned income actually have the effect of deterring workforce participation of mature-age workers or retirees, or of encouraging other behaviour, such as working for undeclared (cash in hand) income. There is no reason to assume that age pensioners would be less rational in their work decisions (if they have some capacity to work) than those under

| Year   | Tax expenditure (a) (revenue forgone) relative to TTE benchmark $billion | Tax expenditure (revenue gain) relative to TTE benchmark $billion | Per cent annual increase per cent (b) |
|--------|---------------------------------------------------------------------------|-----------------------------------------------------------------|--------------------------------------|
| 2016–17| 33.1                                                                      | 31.35                                                           | Na                                   |
| 2017–18| 33.9                                                                      | 31.3                                                            | 2.4                                  |
| 2018–19| 38.45                                                                     | 35.25                                                           | 11.3                                 |
| 2019–20| 42.85                                                                     | 39.15                                                           | 11.1                                 |

Note: (a) The two items included are concessional taxation of employer superannuation contributions, and concessional taxation of superannuation entity earnings. These comprise around 95 per cent of the total tax expenditures. Per cent increase (b) is based on the tax expenditure estimates.

Source: Treasury (2017a).
Figure 2  Effective Marginal Tax Rate and Participation Tax Rate, Wage Income of Single Age Pensioner

Source: D Plunkett model, income is earned; April 2017.

Figure 3  Effective Marginal Tax Rate and Participation Tax Rate, Wage Income of Couple Age Pensioner, 100:0 Earnings

Source: D Plunkett model, income is earned; April 2017.
The age of 65 years, although older people may have fewer options in the labour market. The evidence in the literature is suggestive. Kudrna and Woodland (2008) find that means-test removal would increase labour force participation. Creedy and Disney (1990) find evidence of ‘bunching’ of pensioner income below means-test thresholds.

A comparison with New Zealand (NZ) provides a natural experiment by which we can judge the impact of the pension means test.7 Despite a relatively high non-means-tested basic age pension, NZ has significantly higher workforce participation rates among mature-age workers than does Australia. The NZ age pension is taxable from the first dollar, like most NZ cash benefits, so it is subject to the same marginal income tax rate as regular labour income. Labour force participation among men aged 65–9 years is 33 per cent in Australia but is 15 percentage points higher in NZ, at 47 per cent. Among women, the corresponding figures are 20 per cent in Australia and 34 per cent in NZ, a difference of 14 percentage points. The Australian figures are very close to the OECD averages, but the NZ figures show there is considerable room for increase.

We cannot be sure that these differences are due to the universal pension system in New Zealand. Many New Zealanders do not have substantial private savings (outside the home), and so adequacy and concern for the future may be a factor. Nonetheless, the difference is striking, and it seems likely that the universal nature of the pension is a major cause.

In contrast, the CSRI (2016b) suggests it has modelling evidence that the pension means test is not having much impact on workforce participation: ‘modelling evidence indicates very low elasticities in the labour supply response to lower taxation by mature aged workers’ (p. 9). The CSRI (2016b) observes that 70 per cent of retirements occur before the age of 65 years and suggest that ‘other factors than EMTRs explain most or all the difference with New Zealand’ (p. 9). The CSRI (2016b, p. 10) also note that 55 per cent of those who go onto the age pension are transferring from another government income support payment. However, in this situation, the age pension means test simply continues the existing significant work disincentives as a result of the structure of means testing for other benefits such as unemployment or disability (Ingles & Plunkett 2016). We note that the gradual removal of entitlements to various benefits for women below the age of 65 years (such as the sole parent benefit) appears to have had a significant effect on women’s workforce participation.

The responsiveness of retirees to EMTRs may depend on whether we are considering labour supply elasticity at the intensive (hours) margin or the extensive (participation) margin. There is persuasive evidence that the extensive margin is more important in this context. In Figures 2 and 3, the blue line superimposed on each chart is the participation tax rate, being the average tax paid over the income range. High EMTRs may have the effect that individuals choose whether or not to retire early (for example, some public sector employees choose to retire early so as to maximise defined benefit payouts through retirement), or to depart an existing full-time job entirely rather than continue part-time. It is likely that the structural incentives in the pension means test to withdraw from the workforce in Australia impact the mindset of would-be retirees; for example, men are at least twice as likely to retire at age pension age as any other age (Daley et al. 2016b). Once retired, these EMTRs are highly likely to be a disincentive for many pensioners to take up part-time or full-time work (the extensive margin). Keane and Rogerson (2015, p. 89) have pointed to issues with low intensive elasticities estimated from micro data. They observe that ‘structural estimation of models that feature choice along the extensive margin [i.e. to participate or not] using micro data typically find large responses’.

Positive labour force participation effects have the potential to lower materially the net
cost of means-test reform. Chomik and Piggott (2012a, 2012b) find that if Australia had the same mature-age participation as NZ, GDP in 2012 would have been 4 per cent higher. If the effect of a policy change were that large, it would fully cover the cost of means-test liberalisation. Hernæs et al. (2015) study a policy experiment, which included halving the implicit tax rate on earnings in Norwegian pension reform. It was found to lead to a 30 per cent rise in labour supply at age 63 years and a 46 per cent increase at 64 years. The responses mainly took the form of people remaining at work. The extra income tax collected was sufficient to fully offset the costs of the reform. Alpert and Powell (2015, pp. 5–6) using US data find ‘statistically significant and large labour force participation elasticities for this [older] population … our estimates imply significant scope for increasing labour force participation rates of older individuals through the tax code’. As in the Hernæs study, the bulk of these effects were at the extensive margin, with little evidence that work effort for those already in work responded to the marginal tax rate (Hernæs et al. 2015, p. 7). Kudrna (2015), while finding that tight means testing was efficient, also found that ‘labour earnings exemptions have largely positive effects on average labour supply at older ages’.

Overall, we suggest that there is sufficient evidence of responsiveness of pensioner labour supply to EMTRs on earnings that it would be wrong for policy-makers to dismiss the likely disincentive effect of the high EMTRs in our pension system. This is particularly the case, as governments are trying to raise mature-age participation with a range of other specific but fairly marginal policies that appear to have had little success to date. Policies have included reduced income tax for those 65 years and over (notably by the SAPTO), a pension bonus for those continuing to work, eased means-test treatment of earnings in the Work Bonus8 and the ability to combine work and superannuation drawdown through ‘transition to retirement’ pensions (a tax loophole, which the government has, at least in part, addressed). As shown by Figures 2 and 3, none of these measures addresses the heart of the problem.

4. Saving Disincentives

4.1. Do Superannuation Tax Concessions Encourage Saving?

The stated reason for Australia’s superannuation tax and regulatory settings is to increase net saving available for retirement. For tax incentives to result in increased net savings, there must be a rise in voluntary private savings greater than the cost to public savings inherent in the tax breaks. There is little evidence that the substantial tax concessions for superannuation (or retirement saving in general) have increased overall net saving, in Australia or overseas. Marriot (2010, p. 203) summarised the literature:

[M]ost studies conclude that tax incentives affect the allocation of household portfolios, but the effect on the amount saved is less clear …. Typically research finds that only a small amount of retirement savings are ‘new’ savings and the policies are an expensive form of encouraging saving … tax incentives are successful in increasing levels of savings through the tax-preferred vehicle, but this does not necessarily result in increased levels in overall savings.

Some have suggested that in a compulsory savings system (such as the Superannuation Guarantee), concessional taxation to encourage retirement savings is not warranted (Andersen 2016, p. 4). However, the analysis is complicated by the fact that saving is not taxed consistently in the Australian system in general, as discussed previously.

Even the mandatory effect of the Superannuation Guarantee can be avoided by compensating private behaviours prior to retirement. People may, for example, take out loans or use up superannuation savings and then become eligible to receive the age pension. While in retirement, they may invest

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8. Under the Work Bonus, only half of the first $500 of employment income each fortnight counts towards the Age Pension income test for those over the pension age. Disregarding half the first $500 per fortnight employment income is in addition to the normal allowable income threshold.
savings into exempt assets such as owner-occupied housing or pay off debt. Such potential ‘double dipping’ is facilitated by the fact that the preservation age (the age at which superannuation can be accessed), at 55 rising to 60 years, is considerably lower than the pension age is, which will rise in stages from 65 to 67 years.

One policy response is to raise the age at which people can access their superannuation. However, many older people have legitimate reasons for retiring in advance of the pension age (for example, Productivity Commission 2015). Kelly (2012, p. 2) provides evidence of rising rates of debt among older people. Other studies also find that there is a substantial offset between household savings and debt, although some find that the extent to which compulsory superannuation is offset is much less than 100 per cent; in one study, the offset is 30 per cent (cited in Kelly 2013, p. 20). An alternative response would be to require compulsory income streams in retirement (Kelly 2012, 2013). Compulsory annuitisation raises difficult questions of equity between the long-lived (who are, generally, the well-off) and those with shorter life expectancies. The age pension means test also makes annuities unattractive. A potentially good option is the proposal in Murray (2014) that a superannuation pension be the default option for those at the point of retirement. The CSRI (2016a, 2016b) argues for a similar reform.

4.2. The Pension Asset Test Discourages Saving

As explained earlier, the pension means test comprises an income test (including deeming for financial assets) and an alternative asset test. Whichever test gives the lower rate of pension is applied. Both tests exempt owner-occupied housing. Those with substantial assets are more likely to be assessed under the asset test than under the income test. This has the effect of an annual wealth tax for pensioners, which is then offset against the pension paid.

Under the current asset test, single and combined couple pension rates are reduced by $3 per fortnight ($78 a year) for every $1,000 of additional assets above the allowable assets threshold. As shown in Table 4, the asset test applies over a threshold of $250,000 for single home owners and $375,000 for couple home owners.

Reforms effective 1 January 2017 doubled asset test taper rates and raised the allowable asset cut-out thresholds. This delivers benefits at the low end but results in high effective tax rates for those with more savings (Stewart & Ingles 2015). Pensioners who do not own their own home benefited from an increase in their threshold to a level of $450,000, which is $200,000 more than the $250,000 threshold for homeowner pensioners. The change, overall, reduced the asset cut-out threshold at which the pension ceases. For example, a homeowner couple will now see their pension cease at assets of $823,000 compared with over $1.15 million previously.

There has been widespread support for the tightening of the age pension asset test, either on grounds of fairness or fiscal sustainability. A pension cut-out at assets of $823,000 under the new asset test for a couple (outside the home) superficially appears more than generous. However, we argue that it is important to recognise the hybrid nature of our retirement tax-transfer system, which aims specifically to encourage the broad middle class to save for retirement, yet will still leave many at income levels low enough to warrant a part pension and thereby face high effective taxes on these savings.

Under the prior asset test rules, the wealth tax rate on assets computes to be 3.9 per cent above the assets threshold. When this asset test is combined with the 50 per cent pension.
income test taper, this is equivalent to a deemed rate of return of 7.8 per cent. The new asset test taper that commenced on 1 January 2017 doubles the rate of the wealth tax on pensioners, while simultaneously narrowing the tax base because it increases the tax-free asset ceiling. When the new asset test is combined with the 50 per cent pension taper, this is equivalent to a deemed rate of return of 15.6 per cent. Alternatively, the asset test can be viewed as a wealth tax of 7.8 per cent. Real returns of less than this will lead to people on higher wealth having lower net incomes than those with lesser assets. Given the base pension payment, a cut-out at $823,000 for a couple mathematically produces these effective tax rates.

These implicit high rates of return in the means test are not realistic. It is plausible to assume a real return to savings of at the most 6 per cent in the current environment, given historical returns from growth assets, while real returns of considerably less than 6 per cent and closer to 3 or 4 per cent are expected on many investments including superannuation.\(^{11}\) In Ingles and Stewart (2015), we calculated the after-tax return and EMTR on pensioners’ savings, based on two alternative assumptions – that savings can earn either 3 or 6 per cent in real terms. Above the asset thresholds, the marginal tax rate on asset income is 130 per cent on a 6 per cent rate of return. On a 3 per cent real return assumption, it is 260 per cent. However, average effective tax rates are less owing to the large thresholds.

Some argue that the high effective tax rate in the tightened means test is precisely the point of the reform: It is intended that the asset test will lead to retirees running down their assets. CSRI (2016b, p. 12) suggest that the rundown of superannuation assets should be about 9 per cent per annum, which implies diminishing real income over time.\(^{12}\) By contrast, it has been calculated that the optimal drawdown rate under the new asset test will be 15 per cent a year. In this scenario, retirees will need to rely more heavily on the age pension in their later years (Podger 2016, p. 3). A broader fiscal consequence of this is that hoped-for savings in the fiscal cost of pensions in future may not materialise.

The policy of high effective tax rates on wealth at retirement for those with incomes that make them eligible for an age or part age pension operates in direct contradiction to the generous tax concessions provided for saving during the life course. It is also regressive in the context of our overall low taxation of wealth in Australia. Since the early 1980s, Australia has levied no wealth tax at all (apart from land tax by state governments) on those in the top 20 to 30 per cent of the income distribution who are not eligible for a part age pension. It seems perverse to design a system that levies high wealth taxes on savings at the middle but not at the top. If the benchmark was a universal pension – such as a basic income – the top 30 per cent could be considered to face a lump sum wealth tax equal to the amount of the pension. One sensible response to this incoherence is to levy a wealth tax on the entire population.

Table 4  Assets Test Thresholds and Cut-out for Full and Part Pensions

|                      | Homeowners full pension assets must be less than | Non-homeowners full pension assets must be less than | Homeowners part pension assets must be less than | Non-homeowners part pension assets must be less than |
|----------------------|-------------------------------------------------|--------------------------------------------------|-----------------------------------------------|--------------------------------------------------|
|                      | Old 2017                                 | Old 2017                                       | Old 2017                                      | Old 2017                                       |
| Single               | $205,500                                | $250,000                                      | $354,500                                     | $450,000                                      |
| Couple               | $291,500                                | $375,000                                      | $440,500                                     | $575,000                                      |
|                      | $779,000                                | $547,000                                      | $1,156,000                                   | $823,000                                      |
|                      | $928,000                                | $1,156,000                                    | $1,305,500                                   | $1,000,000                                    |

Source: DHS, http://www.humanservices.gov.au/customer/enablers/assets/.

\(^{11}\) If a balanced investment portfolio is managed. If invested in low return assets such as bonds or bank accounts, real returns may even be negative.

\(^{12}\) More recently, a 7 per cent run down rate was discussed at the CSRI leadership forum in November 2016.
5. Modelling a Coherent Retirement Tax-Transfer System

In this part, we present some basic modelling of the six options or ideal types of taxation of saving summarised in Table 1, combined with a means-tested age pension (thus examining the overall tax-transfer system for retirement).

These six options are presented:

1. Comprehensive income tax or CIT (TTE) (realised income, indexed)
2. RRA (uplift factor of 1.5 per cent being the real risk-free bond rate, which is equivalent to a nominal uplift rate of 4 per cent)
3. Pre-paid expenditure tax (TEE)
4. Current system (low tax on contributions, low tax on earnings and exemption for payouts)\(^{13}\)
5. Z-tax (cash flow tax, RRA version with deferred tax on earnings, real uplift factor of 1.5 per cent)
6. Post-paid expenditure tax (EET) (only benefits taxed).

There are a large number of simplifying assumptions in our model. We assume a single individual who earned a fraction or multiple of average wages in 2015 (Average Weekly Ordinary Time Earnings, or AWOTE).\(^{14}\) At our starting point, the average wage was $77,000, and wage inflation is assumed at 1.5 per cent (real) per year.\(^{15}\) Income is subject to a flat (linear) income tax rate of 35 per cent above a high threshold, which is set at and indexed to one-third of AWOTE, being approximately $26,000 in 2015. This is similar to the rate scale recommended by the Henry Review (Henry et al. 2009b). We also assume a flat tax on benefits using deemed income from assets, being a stylised pension means test with a single 35 per cent effective tax rate and 6 per cent deeming.

As we are interested in the tax treatment of life course saving, we model the outcomes in 40 years’ time, that is, in 2055. All variables are real; that is, final incomes in 2055 are in 2015 dollars. We also assume a 6 per cent real annuity value of savings. We emphasise that the model is illustrative only, as these assumptions are not realistic. For example, a wage earner on AWOTE is unlikely to be at this level for a full working life. The model also does not include voluntary savings.

It should be emphasised that our modelled pension means test is generous compared with the current system, especially for assets. It would result in an asset cut-out around $1.6 million for a couple and $1.08 million for a single person (but less for those with earnings); these levels are around double those now prevailing. They could only be reduced by either increasing the deeming rate above 6 percent or increasing the taper rate beyond 35 per cent. The implicit wealth tax rate is 2.1 per cent (6 × 0.35). We do not regard high asset cut-outs as an issue, as we propose to impact the wealthy in the tax system. While our wealth tax rate is only 27 per cent of that now prevailing, the new cut-out points are less than double. There are distributional impacts from having no free area in our modelled system – low income and wealth pensioners are impacted. This may require higher pensions to compensate; moreover, redistribution needs to be looked at over the life course, and in this light our proposed tax changes, are strongly egalitarian.

We illustrate the retirement income in 2055 in Figure 4, for our six options. The earnings replacement rates are shown in Figure 5. Lump sums are shown in Figure 6.

5.1. Results of the Model

All the systems modelled are redistributive even in the presence of our (relatively generous) linear means test with a modest taper. The most redistributive options are those showing the lowest benefit at high incomes.

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\(^{13}\) We assume the previous superannuation tax concessions before the recent 2016 reforms.

\(^{14}\) Results for couples can be modelled but are more difficult to interpret as the outcomes depend on whether one or both of the partners work and the income split between the partners. The assumption in the EMTR charts in Figures 2 and 3 is that only one member of the couple earns income. If partners in a couple earn equally, then the outcomes for singles in this model can be approximately doubled, with a discount for the fact that the couple rate of pension is less than the single rate.

\(^{15}\) ABS, http://www.abs.gov.au/ausstats/abs@.nsf/mf/6302.0/ (August 2015).
The modelling shows the EET system is less redistributive and more generous to savers, providing higher earnings replacement rates than does TEE, notwithstanding the theoretical equivalence of these two systems under the constant tax rate assumption used in the modelling. This is because the TEE system, combined with a pension means test, applies a linear 35 per cent taper with 6 per cent deeming.

**Note:** The line of zero redistribution would be a ray through the origin. The current system refers to the tax system.

The pension means test in each case is a linear 35 per cent taper with 6 per cent deeming.

**Source:** Authors’ own modelling.

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‘double tax’ to saving (more like the CIT TTE) as opposed to EET where tax only applies once, in retirement. We cannot ‘double tax’ under EET without applying high EMTRs, something we are trying to avoid.

This decisively shifts the balance of advantage away from EET towards the pre-paid expenditure tax, or TEE. The current superannuation tax system, combined with the age pension means test, also levies ‘double tax’ to some extent on saving, which is why the modelling shows it as being less generous than EET, although more generous than TEE. Absent means testing, the current superannuation tax system, is more generous than EET is.

Our proposed TEE system plus a moderate means test results in a positive net tax on most savings yield, which we suggest, consistent with Mirrlees et al. (2011), is appropriate. We estimate that TEE would save some $10 billion per annum. In addition, we envisage a ‘transition tax’ – segregation of prior accumulations and taxing their income at 15 per cent – bringing in an extra $8 billion. This $18 billion improvement to the budget bottom line would be partly offset by our proposed changes to the means test, which might cost around $5 to $10 billion per annum. There should also be behavioural changes, which improve the net budget impact further. The tax rate structure we propose would also significantly reduce the EMTRs on earnings from work.

The TEE system is less generous than is the current system. Nonetheless, it produces a quite defensible pattern of earnings replacement rates with rising incomes. The net replacement rates that we calculate for EET are higher than those found by the CSRI (2016a) at AWOTE and above. This is because of the more generous means test modelled.

The RRA system is only slightly more generous than is the CIT. Our proposed TEE system is more generous, but less so than the current system is. This is consistent with our costing – there is a net saving. The Z-tax and EET systems would be generous and would cost quite a bit more than the current system would. We conclude that the post-paid expenditure tax (EET) is unaffordable.

16. The OECD average net replacement rate is 63 per cent at average earnings, 74 per cent at half average earnings and 59 per cent at 1.5 average earnings (CSRI 2016a, p. 4). Such rates are achievable in Figure 5 provided there is some private savings.
5.2. Redesigning the pension means test

As explained earlier, the current system incorporates quite low deeming rates for income from financial assets (1.75 and 3.25 per cent) in the income test with a high wealth tax (the asset test) at a rate of 7.8 per cent of assets, which is equivalent to a deeming rate of 15.6 per cent. Our proposed 6 per cent deeming rate is consistent with the returns that can be achieved by an aggressive investor, or by a conservative investor in conjunction with, say, a modest 3 per cent annual drawdown of capital.

This approach to redesigning the means test follows the Henry Review (Henry et al. 2009a), which proposed that deeming under the pension income test be extended to a fuller range of assets (specifically all assets apart from the home) and that the separate asset test be abolished. The deeming rate was not specified, but the Review concluded that deeming rates would be based on expected prudent returns. There is a similar recommendation in the Shepherd Report (Shepherd 2014a, 2014b).

An important issue remains: How should owner-occupied housing be treated? Both the Shepherd Report and the Henry Review proposed including home ownership in the pension means test. The Henry Review does not specify a threshold value; Shepherd suggests relatively low values of $500,000 single and $750,000 couple. Our preferred TEE system puts superannuation on the same tax basis as owner-occupied housing in the tax system. For their tax-transfer treatment to be fully commensurate, some or all of the wealth in owner-occupied housing would need to be included in the pension means test. However, the impact of this inclusion raises many issues including gender equity, as many older women rely on home ownership to stay out of poverty (while having little superannuation saving), so this would require significant analysis, which is not possible in this article.

Conceptually, the preferred treatment is to include the home in the deeming regime and gross up the base pension to offset the impact on those with a median level of home equity. This might need to allow for higher costs in areas such as Sydney. Ideally, such an approach could allow rent assistance to be abolished and thereby remove the case for a higher asset threshold for non-homeowners. This would be very redistributive to poorer pensioners, particularly renters. The government has ruled out inclusion of the home in the asset test.

Deeming could be at a common rate for all assets, or at different rates for different assets. Under the ‘merged means test’ applicable during the 1970s, assets (apart from housing) were deemed to yield 10 per cent per annum, and actual income from assets was disregarded. Ten per cent was the assumed yield on an annuity purchased at age 65 years. Currently, an indexed annuity at that age would yield around a third to half that in real terms. However, annuity costs are inflated by providers having to invest conservatively; if we assume a life expectancy of 25 years at age 65 years and a real return of 3 per cent in a ‘balanced’ fund, a DIY annuity might yield 7 per cent in real terms.

Instead of the 50 per cent taper rate for the pension, the simplified approach that we use in our modelling is a 35 per cent flat taper. This could be combined with a special rebate or pensioner tax scale that would prevent the application of income tax until most or all of the pension is exhausted. At that point, the tax rate could increase to, say, 50 per cent. This would replace the SAPTO; or we would also recommend that the SAPTO be adjusted downwards to increase tax clawback. This is consistent with Daley et al. (2016b) who suggest that the tax-free areas for SAPTO (and Medicare levy) be wound back to equate to the pension ‘free areas’, with savings of $700 million annually. Another approach would be to taper the SAPTO within the free areas.

Our proposed means test and tax rate structure produces lower EMTRs on work and savings income. The linear taper option plus deeming is much lighter on assets than is the current system except at the low end (below the asset thresholds) where the current system is quite generous. However, the current parameters only make sense in the context of a superannuation tax system, which discriminates against low-income earners. Our proposal for a linear withdrawal rate under the means test presupposes that the superannuation tax...
system becomes more consistent in its treatment of different income groups.

6. Towards a More Coherent Retirement Tax-Transfer System

Australia will continue in future to have a hybrid retirement savings system, and this is recognised in the new purpose statement for superannuation. The superannuation system will not displace the age pension. Even when the Superannuation Guarantee is fully mature, projections suggest that almost 40 per cent of the aged will receive a full pension and up to another 40 per cent will receive a part pension. The Henry Review estimated that on superannuation settings applicable at the time, the percentage of people who receive no pension would grow to 22 per cent, only a slight increase on 18 per cent than current (Henry et al. 2008, Chart 6.1). These projections are now rather old, and this outcome will be modified by the recent asset test changes effective from January 2017. However, we suggest that the change will not affect the majority still accessing the pension. We do not have similar long-range projections for superannuation tax expenditures. Given current growth rates, they could imply a total cost for retirement income support (tax plus pension) of almost 10 per cent of GDP by 2050 (Ingles & Denniss 2014).

Australia’s superannuation tax concessions and age pension means test produce an inherently unequal system, at a high fiscal cost. The tax concessions for superannuation are generous relative to either a comprehensive income tax (TTE) or a pre-paid expenditure tax (TEE) benchmark, and go primarily to higher income earners. The age pension has a moderately tight means test, comprising an income test (including deemed income from financial assets) and a substantial asset test, which applies mostly to middle income earners who have some assets outside the family home. The high tax-free thresholds and home ownership exemption co-exist with very high EMTRs on earned income and on savings. Targeting is exclusively on the pension side, with the tax side displaying the opposite tendency.

As a result of these conflicting policies, Australia’s tax settings for superannuation and our age pension means test are likely to substantially distort savings behaviour, while the age pension means test also distorts work behaviour. These effects are exacerbated by the recent reforms, which increase incentives to over-capitalise the family home and retain it to pass on as an inheritance to children if possible (Dixon 2015; Whittaker 2016). We see in Budget 2017–18 a proposal that will ease the recently tightened superannuation contribution cap for those who seek to ‘downsize’ by selling the family home. This will benefit those at the top of the distribution but will not reduce the high effective wealth tax on savings at the middle (Treasury 2017b).

Theorists have called for superannuation to be taxed on an expenditure tax benchmark, classically known as EET (a post-paid expenditure tax). We prefer the pre-paid expenditure tax, or TEE system, which will ensure that some tax is levied on savings. We also propose to retain, but soften, the pension means test. We show that a lower, effectively flat means test with a reasonable taper of 35 per cent would generate significantly lower EMTRs on both earned and deemed investment income and can also provide adequacy, at a lower fiscal cost. The appetite for further superannuation and pension reform is low at present, except to wind back some recently enacted measures. However, the forecast rise in tax expenditures and the total costs of the retirement system mean that we will need to revisit this in future.

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