

**Taxation, decumulation and annuities:**

a brief backgrounder on the tax treatment of decumulation arrangements in New Zealand

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## 1. Tax and retirement saving

New Zealand has a different way of taxing retirement savings during the accumulation period from every other developed country. Elsewhere, countries think they should and can encourage self-provision through treating retirement savings differently from the tax treatment applied to other forms of saving. KiwiSaver aside (more on that below), New Zealand applies the ‘income tax model’ to retirement saving accumulations rather than the more usual ‘expenditure tax model’ of other countries. The same applies to the decumulation phase.

A set of acronyms summarises the tax treatment of financial assets, particularly in a retirement saving context. There are three main movements of money:

- **contributions:** ‘T’ means that contributions to the scheme come from after-tax income; ‘E’ that contributions reduce *taxable* income before tax is deducted; also, in the case of occupational retirement saving schemes, that the employer’s contributions are not deemed part of the employee’s taxable pay.
- **investment income on the accumulation:** ‘T’ means that income from invested assets is taxed with the saver’s other income; ‘E’ that income from the assets accumulate tax-free.
- **benefits received:** ‘T’ means that benefits are taxed as income in the year of receipt; ‘E’ that benefits are exempt from tax in the recipient’s hands.

In each case there can also be a little ‘t’ or a little ‘e’ if the contributions, investment income and benefits are partially taxed or partially exempt.

Most countries treat retirement savings on EET principles – contributions are deductible or directly subsidised through the tax system and, for employees, not deemed to be part of pay (E); there is no tax on the saving scheme’s investment income (E) and the final benefits (usually pensions) are taxed as income (I). In contrast, New Zealand has a TTE-based regime with the exception of KiwiSaver.

In a pure *expenditure tax* environment, EET is relatively neutral over the long term (from the initial saving to the eventual death).

That’s because if the government relied entirely on expenditure taxes, taxes are collected when the savings and all other assets are spent. However, in a world where most government revenue is collected from taxes on income, EET is highly favoured, especially if it applies just to retirement saving<sup>3</sup>. Such a strategy must therefore be designed to encourage and achieve greater self-provision for retirement and, impliedly, to reduce pressure on future government-delivered age pensions.

TTE is a ‘neutral’ treatment in an *income tax* environment. A bank account is a convenient example: savings into the account come from after-tax income (I); interest earned on the account is added to the saver’s other taxable income in the year earned (I), while withdrawals from the account are exempt (E). They are not really ‘exempt’; they are withdrawals of tax-paid capital.

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<sup>3</sup> In New Zealand, about 60% of tax revenue was income tax in the 2011/12 year: see *Briefing for the Incoming Minister of Revenue – 2013*, Inland Revenue (accessible [here](#)). Only 27% was through expenditure tax.

Countries have different shades of these mixtures and usually run both together. Financial savings that are locked up for retirement may be EET while accessible bank accounts (another potential part of the retirement savings fabric) are TTE. There may also be reduced tax on 'retirement' accounts. Australia has 'ttE'<sup>4</sup> which means lower levels of tax on contributions and investment income but, overall, retirement saving schemes are greatly favoured by comparison with, say, bank accounts. On generous assumptions, Australia's ttE is broadly equivalent to the more usual EET.

Of the three money movements, the tax treatment of the investment accumulation (the middle 'T' or the middle 'E', as the case may be) is normally the most significant. This reflects the effect of compound interest over the very long periods involved in the accumulation and decumulation periods and the difference between pre- and post-tax returns. Even small differences between pre- and post-tax returns create large differences in the size of the retirement accumulations over long-term saving periods.

Because of the relatively shorter decumulation period (post-retirement), even if all the benefits under EET were taxed at the retiree's top personal tax rate, the government will never recover the value of the concessions given on contributions to the scheme and investment income earned on the accumulating savings<sup>5</sup>. That makes tax incentives for retirement saving very expensive, especially over the long run<sup>6</sup>. Although this paper does not need to argue the case for tax neutrality, it's as well to remember why New Zealand made the change 24 years ago. The reasons are summarised in Appendix A.

New Zealand adopted the tax neutral approach to retirement saving over the 1987-1990 period. No other country has followed suit.

## 2. Proxy tax rates

In collective investment vehicles, such as superannuation schemes, the appropriate tax rates to apply under both the EET and TTE regimes should be the rates that apply to the individual taxpayers. With a pure EET regime, that is relatively easy. During the accumulation period, there is no tax to worry about and when the benefit becomes payable (lump sum or annuity), tax is relatively easy to calculate at an individual level.

Because of the way that New Zealand has implemented tax neutrality for superannuation schemes, TTE requires some compromises for the middle 'T'. Initially, the tax regime treated the scheme's trustees as the ultimate owners of the assets and taxed all income at the top marginal personal tax rate of 33% (the same rate as applied to trusts and companies). The 33% was the proxy tax paid by the scheme for its members in place of the more natural personal tax rate that applies, for example, to bank accounts. However,

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<sup>4</sup> Ross Guest in *Comparison of the New Zealand and Australian Retirement Income Systems* (2013) accessible [here](#) summarises the tax treatment: in Australia, contributions are taxed at a flat rate of 15% to an annual cap of \$A25,000. Investment income is taxed at a rate that probably averages 8% and benefits are tax-free if withdrawn after age 60. The lowest individual marginal rate of income tax is 19% after a tax-free band of \$A18,200.

<sup>5</sup> In *How to create a competitive market in pensions: the international lessons* (1998), Institute of Economic Affairs, London, Michael Littlewood explains the mathematics behind this suggestion.

<sup>6</sup> Not many countries count the cost of tax incentives for retirement saving. In 2009, Australia spent almost as much on tax incentives (\$A24.6 bn) as it spent on the entire Tier 1 'Age Pension' (\$A26.7 bn) – see *The great superannuation tax concession rort* (2009) by David Ingles, The Australia Institute (accessible [here](#)).

for many members, this was more tax than they would have paid had they invested their savings directly<sup>7</sup>.

In 2007, a new possibility was added to the tax regime that attempted to align income tax on collective investment vehicles with the rates that would have applied to the savers directly: the 'Portfolio Investment Entity (PIE) regime started on 1 October 2007 and each investment vehicle (e.g. superannuation schemes, unit trusts etc) could choose to become a PIE. Every member of a PIE has a 'prescribed investor rate' (PIR) that is applied to the member's share of the overall scheme's taxable income. It is a complex system that depends on each member's personal taxable incomes, including PIE income, over the two preceding tax years<sup>8</sup>. The PIRs are aligned to the personal tax rates but currently have a maximum of 28%, five percentage points lower than the top personal rate of 33% (that applies to incomes above \$70,000)<sup>9</sup>.

Tax is deducted at source by the PIE scheme's manager and, as long as the PIR has been correctly declared, that is a final tax as far as the member is concerned<sup>10</sup>. Aside from the compromises and approximations that such an indirect calculation process necessitates, the PIE regime mimics the member's marginal personal tax rate and is more closely aligned to a full TTE regime than the old 33% flat rate of tax. There are however a number of issues that arise. For example when members move from working to retirement, it takes a full tax year before they have their investment earnings taxed at the marginal rate appropriate for their retirement position.

### 3. KiwiSaver's influence

As originally proposed, KiwiSaver was to offer only very modest taxpayer-funded incentives – an initial 'kick-start' of \$1,000 and an annual \$40 to help pay for fees. That changed dramatically on the eve of KiwiSaver's starting date on 1 July 2007.

The May 2007 Budget introduced:

- compulsory employee contributions, increasing from 1% of pay from 1 April 2008 to 4% from 1 April 2011 with
- matching tax-free employer contributions to 4% of pay that would be phased in between 2007 and 2011 with the member's contributions;
- a 'Member Tax Credit' that matched personal contributions to \$1,042 a year and
- an 'Employer Tax Credit' that subsidised the now-compulsory employer contributions.

The incoming National government reduced these significantly in the 2009 and 2011 Budgets so that, from 1 April 2012, the following applies<sup>11</sup>:

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<sup>7</sup> However, when the last government increased the top personal marginal rate to 39% (in 2000), the rate paid by superannuation schemes remained at 33%. That difference was eventually eliminated by the present government from 1 October 2010.

<sup>8</sup> 'Taxable incomes' do not include annuities that, under the TTE regime are not taxable in the annuitant's hands.

<sup>9</sup> The 28% PIR is therefore concessionary for those with taxable incomes between \$48,001 and \$70,000 (tax rate is 30% of that income) and above \$70,000 when the tax rate is 33%. For taxable incomes below \$48,000, the PIRs of 10.5% and 17.5% are aligned to the personal marginal rates.

<sup>10</sup> There are some additional complexities in this regime where members are eligible for income-tested benefits under the welfare system, such as 'Working for Families'.

<sup>11</sup> There are also modest subsidies to help first-home buyers and that also allow the withdrawal of savings to help with the deposit on that first purchase.

- If employees contribute, now, 3% of pay from after-tax pay, the employer must match that with a gross 3% that is subject to 'Employer Superannuation Contribution Tax' (ESCT)<sup>12</sup>. Only the net amount of the employer's contribution is paid to the scheme itself. There is no specific tax concession associated with either payment.
- All personal contributions by anyone (who is 18 or older and under their KiwiSaver retirement age), including employees, are subsidised by taxpayers at 50 cents for each dollar to a maximum tax-free subsidy of \$521.43 if the personal contributions exceed \$1,042.86 in a tax year.
- As before, a tax-free \$1,000 kick-start is paid to the scheme for new members.

Taxpayers have made a substantial 'investment' in KiwiSaver balances (\$5.3 billion at 30 June 2013) and continue an annual subsidy of (2013) \$677 million<sup>13</sup>. This direct contribution from taxpayers could have justified some modest controls over the way in which benefits are payable, but there are none. The retirement benefit (payable from age 65) is a tax-free lump sum. It is up to the member to decide what to do with that money.

#### 4. What is an annuity?

An annuity is an amount that is paid on a regular basis:

- A '*life* annuity' is payable until the annuitant dies.
- A '*fixed term* annuity' is payable until an agreed date and then stops.
- A '*deferred* annuity' starts after an agreed period and then could be payable for either a fixed period or until death.

New Zealand Superannuation is a life annuity – once it starts, it continues until the superannuitant dies<sup>14</sup>. The pension payable from the now-unusual 'defined benefit' occupational scheme is also usually a life annuity and may carry with it a '*contingent* annuity' that continues on to a surviving dependant.

In many overseas EET jurisdictions, retirement benefits must be used to buy a taxable annuity. That is the final 'leg' of the valuable tax favours conferred in the EET environment.

It used to be possible to buy an annuity in New Zealand and a number of life insurance companies offered them as an investment option for individuals. In fact, before 1987, many superannuation schemes were required to pay benefits as pensions and buying an annuity was a convenient way to achieve this. After the change to TTE in 1990, annuities became tax-free<sup>15</sup> and the requirement to pay benefits as pensions stopped. As a result, each of the life insurance companies that previously sold annuities have stopped writing annuity contracts with the last being Fidelity Life in 2013.

#### 5. Decumulation in a TTE environment

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<sup>12</sup> ESCT is another proxy tax that mimics the tax the employee would have paid had the contributions been added to the employee's pay.

<sup>13</sup> Source: *KiwiSaver Annual Report 6*, Inland Revenue (2013) accessible [here](#).

<sup>14</sup> Special conditions apply if the superannuitant emigrates after NZS starts.

<sup>15</sup> At the change-over, annuity providers (including the trustees of occupational schemes) could reduce the annual amounts payable to reflect the tax that had become payable on the investment income of the schemes.

Tax still has a part to play in the decumulation period. TTE describes the treatment during the *accumulation* period. In a now-typical, defined contribution retirement saving scheme such as KiwiSaver, the retirement benefit is typically a lump sum though whether it is paid as an income or a lump sum, it is not subject to tax in the retiree's hands on withdrawal.

**5.1 'Managed incomes':** The retiree could invest the retirement benefit directly in which case the investment income earned would be added to the retiree's other income and taxed accordingly. The net amount (and the capital sum) could then be used to support the retiree's spending needs.

Alternatively, the retiree could set up a 'mock annuity' or 'managed income' that allows a regular draw-down of an amount that the retiree chooses. If the chosen draw-down is less than the net investment income earned on the capital sum, the excess will be added to that; if the chosen draw-down is greater, part of the capital will be used to build the payment up to the chosen amount.

Again, this arrangement could be a direct investment, managed by the retiree directly (such as a bank account or directly held investments), with tax payable on the investment income. The amount actually received by the retiree under the managed income is not taxable directly. In any event, the capital component that forms part of the regular amount is not 'income'.

The retiree can arrange a managed income with an investment manager's collective investment vehicle in which case the tax liability will be depend on the nature of the vehicle: if it is a PIE, the rules explained in paragraph 2 above will apply during the decumulation period. Tax is calculated and paid by the PIE with no further liability for the retiree.

The vehicle could be a unit trust that is not a PIE in which case income is taxed in the trust as though it were a company with the distributions to unit holders being treated as dividends. The unit trust pays tax but that is only on account of the ultimate liability of the retiree under the dividend imputation rules.

In all of these cases, the retiree bears both the investment and the mortality risks:

- **Investment risk:** The investment risk is that if the investment income is less than expected, the retiree must either reduce spending or eat further into the accumulated capital to maintain living standards and thereby reduce future investment earnings.
- **Mortality (or longevity) risk:** One side of the mortality risk is that the retiree may run out of money before death; the other side is that the retiree may not spend 'enough' during the decumulation period and so may die leaving an unintended bequest. If the retiree intended to spend the financial savings, an unintended bequest would be a sub-optimal outcome (lower living standards than were necessary).

**5.2 Tax treatment of annuities:** The only way for a retiree to avoid both the investment and mortality risks during the decumulation period is through an annuity.

For private commercial annuities, the insurer invests the initial purchase price to support the annuity's regular payment. It pools those investments with those attributable to other annuitants and, in doing so, it assumes both the investment and the mortality risks. The annuitant is effectively guaranteed the investment return assumed by the insurer and also

is guaranteed that the annuity will be paid until the end of the agreed period, usually until death. The life insurer takes on those risks to make a profit<sup>16</sup>.

The annuity itself is tax-free in the annuitant's hands under New Zealand's TTE environment<sup>17</sup>. The insurer pays income tax on the income attributable to the assets that support all the annuities covered in the insurer's portfolio. Calculating that tax is complex and the Appendix summarises the applicable provisions of the Income Tax Act 2007 for annuities that existed in 2010 (that's nearly all annuities).

In summary, the insurer pays tax of 28% but this time, the tax does not apply to the investment income alone. The insurer does an actuarial valuation of all annuities at the beginning and the end of each income year. The difference between the 'reserve amounts' held for all the annuities and the results of the actuarial calculations is either a profit or a loss. 'Gains' could arise from more annuitants dying than expected; more investment income than expected or lower expenses than were expected at the beginning of the year.

'Losses' would be the reverse of those components: fewer annuitants dying, lower investment returns or higher expenses.

The insurer pays income tax equal to 28% of the net gains during that year. That rate is the normal company tax rate and is unaffected by the annuitants' marginal tax rates. In effect, the insurer pays tax at 28% on the total of the investment income and the profits it makes from writing the contract (because the experience was more favourable, to the insurer, than the insurer assumed or because of the margins built in to the contract).

**5.3 Annuity rates – sensitivity to assumed after-tax returns:** Table 1 illustrates the impact of tax on the underlying investment income that supports the annual amount of an annuity that an initial purchase price of \$100,000 might provide. It shows a sample of annuity rates on a simplified basis by ignoring the possibility of mortality 'profits' and 'losses'. It assumes that tax is payable on just the investment income of a gross 5% p.a. (ignoring expenses and profits).

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<sup>16</sup> The other side of that arrangement is that the retiree exchanges the investment and mortality risks for the 'institutional risk': that the annuity provider will continue to exist until the retiree dies. These days, that is not a trivial consideration.

<sup>17</sup> However, if a retiree is entitled to an income-tested benefit such as the accommodation supplement or a young spouse's New Zealand Superannuation, an annuity counts as income. Even though part of the annuity is effectively a return of capital, Section 3 of the Social Security Act counts the full annuity as "income" where the amounts received are for an "income-related purpose".

**Table 1: Tax implications for annuity providers - \$100,000 purchase price at age 65**

	5% p.a. gross return and tax at:				
	0%	10.5%	17.5%	28%	33%
<b>Net return</b>	<b>5.000%</b>	<b>4.475%</b>	<b>4.125%</b>	<b>3.600%</b>	<b>3.350%</b>
<b>Male</b>					
CF (Note 1)	11.61	12.13	12.50	13.10	13.40
Annuity (p.a.)	\$8,616	\$8,243	\$7,998	\$7,634	\$7,462
Annual concession (Note 2)	\$1,154	\$781	\$536	\$172	nil
Present value (Note 3)	\$15,464	\$10,465	\$7,182	\$2,305	nil
<b>Female</b>					
CF (Note 1)	12.56	13.17	13.61	14.31	14.66
Annuity (p.a.)	\$7,964	\$7,594	\$7,350	\$6,989	\$6,819
Annual concession (Note 2)	\$1,145	\$775	\$531	\$170	nil
Present value (Note 3)	\$16,786	\$11,361	\$7,784	\$2,492	nil

Notes:

1. 'CF' is the commutation factor that converts an annuity to its equivalent capital value on the assumptions noted (gross return, tax, expected mortality). Mortality is assumed using the latest NZLT 2010-2012 tables but with no allowance for mortality improvement and no expenses or profit to the annuity provider.
2. The "annual concession" is the annual difference from the annuity and the annuity calculated using the top individual personal tax rate of 33%, on the assumption that the annuity provider was also taxed at 33%.
3. The "present value" is the present value of the "annual concession" at age 65 for that tax rate compared with value at the top personal tax rate of 33%.

Table 1 is designed to show the impact of tax at different rates on the annuity outcomes. Two examples illustrate its messages:

- **Comparison with annuity provider's tax:** If the government decided that the investment income of assets that support annuities should be tax-exempt then the extra annual annuity from age 65 would be:
  - o Annuity at 0% (\$8,616 for a male) less annuity at 28% (\$7,634) or an additional \$982 a year. For females the extra annuity would be \$975 a year.
  - o The loss to the tax system would be the present value of \$15,464 (at 0% tax) less \$2,305 (at 28%) or \$13,159 for each \$100,000 of purchase price. For a female, that loss would be \$14,294.
- **Example at 33%:** The tax for annuity providers is the corporate rate of 28% so annuities would not use 33% if they were presently available. The 33% column is included to illustrate the value of the present tax regime to a top-rate taxpayer. This is the difference between the numbers in the 33% column and those in the 28% column and noted as 'annual concession' (\$172 for males; \$170 for females) and 'present value' (\$2,305 for males; \$2,492 for females).

Table 1 raises a number of discussion points:

- (a) **Gross return:** The assumed 5% p.a. before-tax return implies a bond portfolio which is probably what an annuity provider would use to support an annuity pool. An annuity provider would tend to use government bonds though 5% p.a. would require some level of corporate bonds.



- (b) Inflation component taxed:** As with all other taxpayers, the component of the gross return that is attributable to inflation is taxed. Some suggest that is distortionary and, for annuities that can last for decades, that is particularly marked. Treating annuities differently in just this regard raises equity issues with the rest of the tax system. In any event, it could be argued that the expected nominal investment returns already take account of inflation and its tax treatment.
- (c) Not inflation-linked:** The annuities are not increased during payment and would therefore reduce in real terms over an annuitant's lifetime. On the face, that looks like a disadvantage but it probably echoes an annuitant's spending patterns that tend to reduce with increasing age. An inflation-linked annuity would mean a lower initial annual payment, but one that stayed static in real terms. An annuitant's spending needs are likely to be higher at the younger ages.
- (d) Impact of different tax rates:** The current tax rate for annuity providers (28%) already provides a small concession for annuitants at the top personal tax rate of 33%. Reducing the tax rate to 17.5% (as some suggest) would add only about \$360 a year to the annuity (about 5%). Even reducing the underlying tax rate to zero adds only about 11.5% to the opening annuity. The present value over the annuitant's lifetime of the cost of that concession to the tax system would be \$13,200 for males and \$14,300 for females, compared with the tax currently payable by annuity providers of 28%.
- (e) Male and female rates:** Because all females are expected, on average, to live for longer than all males from age 65, the annuity payable from an initial \$100,000 should be lower if the two annuities are to have the same present value at age 65<sup>18</sup>. Table 1 shows this but also shows that the differences between the two annual annuities are relatively small. At 33% tax, the male annuity in Table 1 is 9.4% higher and that difference reduces to 8.2% at 0% tax. There is a case to suggest that unisex rates might be more appropriate, especially if a concessionary regime were established for annuities. Table 2 averages the male and female rates from Table 1.

**Table 2: Tax implications for annuity providers - \$100,000 purchase price at age 65 (unisex)**

	5% p.a. gross return and tax at:				
	0%	10.5%	17.5%	28%	33%
<b>Unisex</b>					
CF	12.08	12.65	13.06	13.71	14.03
Annuity (p.a.)	\$8,275	\$7,905	\$7,657	\$7,294	\$7,128
Annual concession	\$1,147	\$777	\$529	\$166	nil
Present value	\$16,092	\$10,903	\$7,422	\$2,329	nil

In Table 2, the pensions for males at all tax rates are about 4% lower than in Table 1 while for females, the pensions are about 4% higher.

## 6. Some general observations

Tax is an important consideration for retirees but, even if the annuity markets were working in New Zealand, the tax treatment of an annuity pool's assets are unlikely to make a significant difference to a retiree's decision whether or not to buy an annuity. Most

<sup>18</sup> In the present discussion, the more appropriate mortality statistics are those relating to prospective annuity buyers. Self-selection in a voluntary environment means they are likely to be healthier than average (and have a higher marginal personal tax rate than the average 65 year old).

developed countries (in EET environments) offer significant tax breaks and yet annuity markets throughout the developed world seem to be under pressure.

Other considerations are probably more important to retirees when they make their decumulation decisions. They are more likely to be concerned with:

- (a) **institutional risk:** whether the annuity provider will be there for their remaining lifetime;
- (b) **flexibility:** the decision to buy an annuity is final and cannot be unwound if the retiree's circumstances change or if the government's rules change<sup>19</sup>;
- (c) **bequests:** some retirees feel an obligation to the next generation and an annuity, by definition, means there will be no asset left in the annuitant's estate in relation to the annuity's purchase price (initial guarantee periods aside);
- (d) **value:** the effective investment return of an annuity is often low relative to other investment options, including bank deposits, and so choosing an annuity requires the investor to place a high value on the protection gained from managing the longevity risk.

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<sup>19</sup> Such a change happened in 2010 when GST was increased from 12.5% to 15% as part of a strategy to reduce the tax incidence on incomes in favour of expenditure. Annuities, being already tax-free and usually fixed, received no benefit under that shift but the cost of living for annuitants increased because of GST.

## Appendix A

### Arguments for tax neutrality

In general, New Zealand adopted the tax neutral, TTE approach to retirement saving over the 1987-1990 period (by comparison with the more usual EET approach). No other country has followed suit. The key arguments behind the decision to adopt a tax neutral TTE regime included:

1. **Tax incentives are regressive:** The rich can afford to contribute more and so capture most of the value of the concessions<sup>20</sup>. Poorer taxpayers, who cannot afford to save, help pay for the cost of the tax concessions.
2. **Regulations are complex:** Savings that attract the concessionary treatment must be kept under EET for decades so the regulations that control the money's entry, accumulation and exit are necessarily intricate. As individuals game the system, the regulations inevitably become more complex and more expensive to administer.
3. **Distortionary:** Tax concessions 'label' a particular form of behaviour as preferable to other equivalent behaviour. EET-approved retirement saving schemes are seemingly better for savers than, say, a bank account that retains the TTE treatment. It is at best unclear why locked-up savings are better for a country than accessible equivalents<sup>21</sup>.

Tax incentives also distort 'signals'. Fund managers should aim to deliver real returns (more than inflation) to savers. That task is much easier under EET by comparison with an environment where all 'income' is taxed. Coupled with the fact that EET savings are locked-in until retirement, fund managers do not have to work as hard to achieve real returns.

Also, savers themselves do not capture the full value of EET concessions. Savers can afford to be less sensitive to the fees charged by managers of EET savings compared with their TTE equivalents. That special treatment increases the risks of capture by managers and promoters. Locking EET savings up until retirement increases those risks.

4. **Inequitable:** A policy driven by work-based income necessarily favours higher income earners. This is a separate point from the regressive nature of tax concessions (paragraph 1). Those with higher rates of pay increases and more complete working lives tend to save more when saving rates are set in relation to pay. They arrive at retirement with larger retirement accumulations both in money

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<sup>20</sup> David Ingles in *The great superannuation tax concession rort* (2009, The Australia Institute, accessible [here](#)) suggests that in Australia, "The current concessions provide almost no benefit to low-income earners." Again: "The system has become so skewed that the annual cost of providing superannuation tax concessions to high-income earners is much greater than the cost of simply paying those same individuals the age pension. Providing tax concessions for superannuation as a mechanism to help insulate the budget from the cost of providing for an ageing population is not sensible."

<sup>21</sup> Some suggest, for example, that "The concessional taxation of superannuation [retirement savings] is...intended to address the bias in the current taxation system against long-term saving." *Submission to the Financial System Inquiry*, The Department of the Treasury, Australia, 3 April 2014 at page 44 (accessible [here](#)). This presumes a public policy interest in the relative quality of long-term savings ('better') than short-term savings ('worse'). Expected after-tax returns on savings, from a timing perspective, should be for savers and investors to decide, not governments.

terms and as a proportion of pay. Tax concessions that favour occupational schemes tend to institutionalise these inequalities.

5. **Other ‘hidden’ difficulties:** There are at least two other less obvious costs. First are the ‘deadweight’ losses to the economy of collecting the extra taxes needed to finance the more fiscally expensive, ‘front-loaded’ EET environment. These costs reflect the value of the opportunities that are effectively lost when taxation diverts labour and capital from their best uses. Next, individuals face costs through a loss of flexibility. Savings might be better spent from a lifetime perspective on an earlier financial crisis (such as a health condition) or on a more productive investment, such as buying and building a business or reducing debt. Compulsory private provision at Tier 2, such as Australia’s SG arrangements, faces parallel difficulties.
6. **Do they work?** Given that all countries have tax concessions for retirement saving, we might expect studies that demonstrate the ‘value for money’ test. Do tax incentives actually increase savings? The answer is ‘possibly not’ despite very large sums that accumulate in tax-favoured schemes. It’s very difficult, perhaps impossible, to work out because we do not know what might have happened in the absence of the incentives; what economists call the ‘counter-factual’<sup>22</sup>. Some studies suggest the overall impact on the quantum of savings and national saving rates is doubtful<sup>23</sup>.

In fact, if households as a whole were *perfectly* rational, they would allow for the value of tax concessions when setting target retirement saving levels. The annual amounts required to meet a given target are less. We should therefore expect lower annual levels of household saving in a tax-favoured EET environment than under TTE because of the large value of the concessions in a lifetime’s saving project. Given that tax breaks seem not to ‘improve’ the quantum of savings, the expensive, complex concessions in an EET environment arguably become pointless.

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<sup>22</sup> Spain introduced tax incentives for retirement saving in 1988. A report on household behaviour across their introduction conclude that “at most” only one quarter of the contributions were ‘new’ savings: see *The Effects of the Introduction of Tax Incentives on Retirement Savings* (2007), Juan Ayuso, Juan Jimeno and Ernesto Villanueva, Banco de España (accessible [here](#)). That analysis took no account of the cost to the tax system of lost revenue.

<sup>23</sup> Alicia Munnell in *Current taxation of qualified pension plans: has the time come?* (1992) Federal Reserve Bank of Boston (accessible [here](#)) suggests that the costs of deferring tax on pension accumulations aren’t justified. Instead, the “taxation of benefit accruals should be shifted to a current basis.” In *Tax Incentives to Saving and Borrowing* (2003), Tullio Jappelli and Luigi Pistaferri say “...there is considerable empirical debate as to the effectiveness of tax incentives in promoting saving: most studies conclude that tax incentives affect the allocation of household portfolios, but the effect on the amount saved is less clear-cut.” In *The Effects of 401(k) Plans on Household Wealth* (2000), Eric Engen and William Gale suggest that, without regard for the fiscal and regulatory costs, “between 0 and 30 percent of 401(k) balances represent net additions to private savings.” If the fiscal and regulatory costs were also included, those percentages might turn negative.

## Appendix B

### Summary of tax rules that govern annuities

Section EY31(2) of the Income Tax Act defines an adjustment for the income year calculated for the relevant annuities (those issued before 1 July 2010) using the formula:

“closing actuarial reserves – (0.99 x expected death strain)”.

Section EY31(3)(a) states:

“**closing actuarial reserves** is the life insurer’s closing actuarial reserves (active annuities), calculated in accordance with section EZ59(2) (Meaning of actuarial reserves).

Section EZ59(2) states:

“For the purposes of the item closing actuarial reserves in section EY 31(3) (Annuities), **closing actuarial reserves (active annuities)** means a life insurer's opening actuarial reserves under section EZ 54(6) for a life insurance policy, to the extent to which an annuity is being paid under the policy where the life insured dies in the income year for which the formula in section EY31 is applied. Where the life insured survives to the end of that income year, the **closing actuarial reserves (active annuities)** is zero.”

Section EY31(3)(b) states:

“**expected death strain** is the amount calculated under the expected death strain formula (active annuities) in accordance with sections EZ53 to EZ60 (which relate to the transitional adjustment for expected death strain) for the income year.”

Section EZ54(2) states:

“The expected death strain formula (active annuities) is –  
claim probability x opening actuarial reserves.”

Section EZ56(2) states:

“In using the expected death strain formula (life), the life insurer uses as **opening sum assured** the present value (net) of the annuity. The present value (net) is determined—

- (a) at the start of the income year; and
- (b) on the assumption that the life insured died at the start of the income year; and
- (c) using the same assumptions and bases of calculation as are used to calculate the life insurer’s actuarial reserves for the income year.’

For annuities issued after 1 July 2010, taxable income is broadly the end of year value less both the opening value and expenses during the year, all calculated on actuarial principles.