

# **Comparative performance of retirement income systems in the Anglosphere: an update\***

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April 2005

Updated July 2006

This paper compares and contrasts policies towards retirement incomes in Australia, Canada, New Zealand, the United Kingdom and the United States. Australia leads the Anglosphere in compulsory but privately managed personal accounts, a measure that promotes the broad coverage of pre-funded superannuation. Canada has grasped the nettle of indexing safety-net retirement benefits to the CPI rather than to average weekly earnings. The UK has pioneered incentives to opt out of pay-as-you-go occupational superannuation, along with sensible regulatory compromises between compelling participation in the market for longevity insurance and allowing some lump-sum retirement benefits. The US leads in the provision of option-like features in the taxation of personal retirement accounts in order to encourage voluntary saving for retirement.

\* The first version of this paper was prepared for a symposium “Australia’s Superannuation System - Accounting, Accountability and Performance”, April 22 2005, at the Queensland University of Technology on the occasion of the retirement of Dr Jon Stanford from the University of Queensland. The proceedings are forthcoming in a special issue of the *Journal of Accounting, Accountability and Performance*. This updated version was prepared for a seminar at the Reserve Bank of Australia scheduled for June 26 2006. Both versions build on work carried out in collaboration with Garry Barrett on behalf of CPA Australia. We would like to thank Garry Barrett and Michael Drew for helpful discussions and comments. Carol White provided valuable editorial assistance. The Australian Research Council supported this research.

## 1. Introduction

There are no prizes for originality so far as policy is concerned. If some other country has come up with a measure that has proved to be successful, then by all means copy it, if at all possible. Recent examples of broadly successful policy innovations that have been widely emulated include the value added tax, inflation targeting by the central bank, reduced protection of domestic industry from import competition, active labour market policies towards the unemployed, deregulated bond markets and, more controversially, privatisations.<sup>1</sup>

Copycat policy has better prospects for success when the imitator has similar institutions to the originator. This commonality is true of the Anglosphere - itself an example of the international transmission of successful institutions - which shares a common language and legal framework, and similar accounting standards. The aim of this paper is to compare and contrast retirement incomes systems in the Anglosphere, with an emphasis on distinctive national policies that merit consideration elsewhere. The Anglosphere is defined here as the following group of countries: Australia, Canada, New Zealand, the United Kingdom, and the United States.<sup>2</sup>

The Anglosphere does not have a monopoly on innovative or successful retirement incomes policies. Notably, during the 1980s, Chile and Switzerland were the first countries to introduce compulsory but privately managed personal retirement accounts for the bulk of the labour force. This approach is widely regarded as a promising way to help counter two pre-existing problems: moral hazard arising from social safety nets, and insulation of retirement savings from revenue-hungry governments.<sup>3</sup> Many countries are currently in the process of implementing it.<sup>4</sup> At the level of detail, however, there are a number of impediments to transporting Chilean and Swiss policies directly to the

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<sup>1</sup> An international study that finds privatisations to have been successful on the whole is Randenborgh et al. (1994).

<sup>2</sup> We do not propose this list as a definitive one. One candidate for inclusion is Ireland, which has a system of public retirement benefits that is surprisingly similar to Australia's. Notably, the centrepiece of both systems is a flat-rate (and indexed) life annuity. Another similarity is generous personal tax breaks for the elderly.

<sup>3</sup> For a different view, see e.g. Drew and Stanford (2003).

<sup>4</sup> The World Bank has been a leading advocate of this approach.

Anglosphere. Both Chile and Switzerland operate under civil law rather than the common law. Neither has an exact equivalent of trust law, and neither has what has been described as an “equity culture” whereby ordinary households actively manage portfolios either inside or outside their retirement accounts. Chile was not a democracy when it introduced individual accounts. Partly as a consequence of perceived political instability, real returns to index bonds have been extraordinarily high, and this facilitated the transition to individual accounts.<sup>5</sup> Switzerland has a “universal” banking system, and a strongly paternalistic culture towards employees, one consequence being that interest-bearing securities are the main asset in the retirement accounts of Swiss workers.

Now is a good time for comparisons like the ones attempted here. In Australia the budget of 2006 entrenched and simplified our “front end” taxation of super, a policy that was introduced by New Zealand in 1987 and copied by us in 1988. This measure has been controversial. It took most superannuation commentators by surprise, partly because most had long advocated a move towards “back-end” taxation of super, and partly because few (if any) guessed that the authorities would be willing to embrace radical simplification. Following Australia’s extension of household choice of super fund we have taken a renewed interest in the UK’s pensions “mis-selling” affair. Canadians have become interested in the Roth Individual Retirement Accounts introduced by the United States in 1998. In 2005 New Zealand introduced KiwiSaver, a scaled-down and “soft” version of compulsory but privately managed personal accounts. In 2006 the United Kingdom announced a plan for personal accounts with an opt-out feature similar to KiwiSaver’s. In the United States there has been an intense debate on the merits of partially replacing Social Security with personal accounts.

As well, at a time when governments are increasingly concerned about the impact of ageing populations on future growth prospects, the countries of the Anglosphere are ageing at similar rates, as shown in Table 1.

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<sup>5</sup> Even as it created problems for the national budget.

**Table 1: Old Age Dependency Compared <sup>a</sup>**

	<b>2000 %</b>	<b>2050 %</b>	<b>Increase</b>
<b>Australia</b>	20.4	47.0	26.6
<b>Canada</b>	20.4	45.9	25.5
<b>New Zealand</b>	20.4	48.3	27.9
<b>United Kingdom</b>	26.6	45.3	18.7
<b>United States</b>	21.7	37.9	16.2

Notes: a. The old age dependency ratio is equal to (persons aged 65+)/ (persons aged 20-64).  
Source: OECD (2003)

This paper proposes the following criteria for evaluating the performance of a nation's retirement income system: <sup>6</sup>

- *Coverage.* Can the bulk of the population look forward to a decent retirement income, whether from the government or personal accounts?
- *Adequacy.* Is the typical household's prospective retirement income sufficient compared to its consumption standard during working years?
- *Security.* Do retirement income streams enjoy reasonable protection in the face of capital-market contingencies such as market risk, style risk, inflation risk and manager risk? Is there sufficient diversification across the alternative vehicles for retirement income provision including public and private management, political and market determination of benefits, mandatory and voluntary arrangements, defined benefits (DB) and defined contributions (DC)?

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<sup>6</sup> The pioneering compilation of desiderata for retirement income systems was Bodie (1990) whose initial list emphasised replacement rate risk, longevity risk, social security risk, investment risk and inflation risk.

- *Intergenerational equity and efficiency.* In view of rising age-dependency ratios, is the retirement income system moving to counter its historical legacy of cross-subsidisation of retirees by worker-taxpayers? In other words, is it moving towards pre-funding? Does it facilitate risk sharing across generations?<sup>7</sup>
- *Labour market efficiency.* Does the retirement income system help counter the tendency of the overall tax-benefit system to discourage labour market participation and encourage premature retirement, especially on the part of elderly men?
- *Capital market efficiency.* Does the retirement income system help counter the tendency of the overall tax-benefit system to discourage saving and investment? Similarly, does it help counter the concentration of household portfolios in leveraged housing assets?<sup>8</sup>
- *Flexibility.* Does the social-security payroll tax or the mandated contribution rate for personal accounts encompass a range of financial plans that far-sighted and non-free-riding households would choose for themselves? Is the same true of retirement income streams? For example, do compulsory contributions ensure adequate retirement incomes while leaving room for educational and housing needs earlier in the life cycle? In short, is there sufficient flexibility to accommodate the distinctive life cycles of particular groups within the community?<sup>9</sup>

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<sup>7</sup> Critics of President George W. Bush's proposal partially to replace Social Security by compulsory but privately managed individual accounts have highlighted this latter criterion when defending Social Security. See e.g. Shiller (2005).

<sup>8</sup> The Anglosphere's preoccupation with housing assets might be viewed as a cultural legacy from the UK—"an Englishman's home is his castle".

<sup>9</sup> Familiar criticisms of Social Security in the United States, for example, are that all retirees are entitled to a life annuity based on their best 35 years of earnings in the US labour force, but this benefit formula discriminates against people who spend more than 35 years in the labour force, and also against black males, who have relatively short life expectancies and therefore tend not to get value for money from the life annuity. A familiar criticism of past vintages of the UK's contributory national pension scheme is that British retirees who contributed to it and subsequently became residents of the United States do enjoy indexed pensions, whereas those who became residents of Australia, Canada or New Zealand do not.

- *Longevity insurance markets.* Does the retirement income system regulate and tax the retirement market and industry, and structure public debt,<sup>10</sup> in ways that support the market for longevity insurance in the face of adverse selection and increasing longevity?

## 2. Australia

### *Retirement income system*

Current retirement income provision in Australia consists of three components (or pillars). The first pillar is a universal (but targeted) Age Pension financed from general revenues; the second pillar is the slowly maturing mandatory private retirement saving under the Superannuation Guarantee; and the third pillar is voluntary saving, including tax-preferred occupational and personal superannuation and home ownership. The Age Pension provided under the first pillar is withdrawn as retirement income and assets provided under the other pillars exceed statutory thresholds.

In 1909 the Age Pension was introduced as a flat-rate non-contributory public pension subject to income and assets means tests, and remains so. In the case of singles it is currently set at 26% of male total earnings.<sup>11</sup> By the beginning of the 21<sup>st</sup> century, a full or part Age Pension was received by 1.9 million Australians, or four fifths of the population of qualifying age, namely, 65 for men and 60 plus for women<sup>12</sup>.

Two thirds of seniors receive the maximum amount. The remaining one third on part pensions is denied a full pension mainly by virtue of the income test; the assets test does not bind as tightly<sup>13</sup>. Population ageing has raised concerns about the prospect of a

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<sup>10</sup> So-called survivor bonds pay their holders in proportion to the survivorship rates of specified age cohorts, thereby enabling life annuity providers to hedge against increasing longevity.

<sup>11</sup> In more detail, the Age Pension is increased twice each year by the maximum of the intervening rise in male total earnings and the intervening rise in the CPI. Such option-like features are generally not available to those paying taxes on retirement savings. In the US the situation is different, as will be discussed later in this paper.

<sup>12</sup> The qualifying age for women is gradually being escalated to 65 by 2014. It currently stands at 62.5 yrs.

<sup>13</sup> One proposal is to cap the value of the primary residence that receives a full exemption from the assets test. See e.g. Kelly and Harding, (2004).

gradual but inexorable trend towards burdensome taxes on generations following the baby boomers, as emphasised recently by the Productivity Commission (2005). In 2004 the Age Pension was the principal source of income for 70% of aged households in receipt of a full or part Age Pension (Family and Community Services 2004).

1992 saw a preliminary response to the reliance on public pensions in the form of our compulsory superannuation arrangement known as the superannuation guarantee (SG). Tax policy drives compliance: employers who are found to have failed to contribute at least 9% of the wages of each employee to a superannuation fund are liable for the arrears, but cannot claim them as a deduction against company tax. In this way, there is a strong tax incentive for employers to comply.

Voluntary retirement saving includes voluntary occupational superannuation, personal superannuation and other forms of long term saving through property, shares, managed investments and home-ownership. Voluntary occupational superannuation is long standing and has traditionally been available to public sector workers and middle to high-income workers in the private sector. In the past benefits were based on defined benefits, but these are increasingly replaced by defined contribution schemes. At the beginning of the 21<sup>st</sup> century around 36% of employees made voluntary contributions to superannuation (ABS 2000a) and around 27% of employees received employer contributions greater than the Superannuation Guarantee level (Bingham 2003). Home ownership is probably the most important non-superannuation asset for most Australians. In 2003, for example, around 85% of retirees owned their own homes.

Workers who reach the qualifying age for an Age Pension and promptly notify Centrelink that they intend to delay retirement become eligible for the Pension Bonus Scheme. In 2004, for example, a worker who retired at 70 and was not rendered ineligible by the means tests could claim a lump-sum bonus of \$28,363. With an average male age at retirement of 58, few seniors take advantage of this scheme.

Superannuation accumulations may be taken as a lump sum or an income stream once age 55 (the preservation age) is reached.<sup>14</sup> As noted earlier, the Age Pension is withdrawn where private income and assets exceed statutory thresholds. The Age Pension means tests do not distinguish between mandatory and voluntary retirement saving. Where a lump sum is taken and used to purchase financial assets, the capital value is assessed under the assets test, and “deemed” income is subject to the income test.<sup>15</sup>

The Australian superannuation industry is characterised by its diversity. In July 2004 there were 292,238 superannuation funds comprising 290,400 small and 1,798 standard funds. These latter funds are of varying sizes (from 5 to over a million members) spread across single employer (corporate) funds, multi employer funds (industry funds), public sector funds and retail funds. These superannuation funds may be open to the general public (public offer funds) or closed to all except members of a firm or industry (closed funds), can operate on a “for profit” or “not for profit” basis and may be managed by a corporate trustee or a trustee board comprising equal membership of employee and employer representatives. Benefits are provided on a defined benefits basis, a defined contributions basis or even a combination of the two. Finally, there are differences in the amount of self and external investment management and the extent to which members can choose investment strategy, asset class, or even individual investment manager. In recent years the regulations surrounding superannuation have been significantly tightened to support these complex arrangements.

#### *Performance up to the 2006 budget*

By 2005 nearly 90% of the labour force belonged to a superannuation scheme. By December of that year, super assets stood at \$844,600 billion, or \$79,924 per member of the labour force.

At the beginning of the 21<sup>st</sup> century the average pecuniary income of Australia’s retirees was roughly 50% higher than the basic pension rate, primarily as a consequence of savings held outside of the superannuation system. Moreover, non-cash benefits added an

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<sup>14</sup> The preservation age is being gradually increased to age 60 by 2025.

<sup>15</sup> A lump sum that is taken and dissipated is not counted under the means tests.

average of 46% to the disposable incomes of aged households<sup>16</sup>; there are a number of sought-after fringe benefits including the Commonwealth Seniors Health Card and the Pensioner Concession Card. Most seniors succeed in accessing these carded benefits. On one estimate, post-tax income for Australian retirees has been around 67.6% to 70% of the equivalent income of the non-retired population.<sup>17</sup> This is significantly lower than in the other countries of the Anglosphere.<sup>18</sup>

With almost all employees now covered by the SG, many workers with additional occupational or personal superannuation coverage and improvements in vesting, portability and preservation, the composition of retirement income, will change in future years. The Treasury's Retirement Income Modelling Group (RIM) estimated before the 2006 budget that a single male on median earnings with 30 years of SG contributions could expect to retire with a total (Age Pension plus superannuation) replacement rate of 76%. This would have increased to 85% had contributions been made for 40 years. In both cases the total retirement income would have comprised a part Age Pension and an income stream purchased from superannuation accumulations.

Effective contribution rates under the SG have tended to be surprisingly low. Estimates for the case of a single male on AWE and contributing for 40 years find that the mandatory contribution rate drops from a headline 9% of wages to an effective 5.1%, and assuming that administrative charges are a modest 1% of assets per year.<sup>19</sup>

The Australian system of governing and regulating superannuation has had three main phases. The first was heavy reliance on employers as agents for managing the retirement benefits of their employees, especially in trustee roles. Outside the public sector, corporate funds were dominant. Next, in the second half of the 1980s, unions became involved in superannuation, in setting up industry funds and supplying up to half of the trustees of industry funds boards. Industry funds helped to broaden the coverage of

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<sup>16</sup> See King et al. (2001). Alternative estimates of Australia's replacement rate are reported later.

<sup>17</sup> Cf. International Monetary Fund (2004a), and Yoo and Serres (2004).

<sup>18</sup> Although no equivalent estimate is available for New Zealand.

<sup>19</sup> See Bateman (2002).

superannuation. The final phase began in July 2005 and will enable about half the labour force to send all contributions made on its behalf to funds nominated by the individuals concerned. Whether the resultant competition will lead to lower costs and higher net returns or just a proliferation of “add-ons” remains to be seen.

*After the 2006 budget*

The 2006 budget proposed a tax regime for super whereby:

- Employer contributions are taxed concessionally at 15%, and will be capped at \$50,000 pa by 2012-13.
- Employee contributions are not taxed concessionally, and will be capped at \$150,000 pa by 2009-10. Households may be eligible for government co-contributions, and special tax concessions apply to spouse contributions, children’s contributions and contributions by the self-employed;
- Fund earnings are taxed at 15 % in the case of dividends, interest and rents, and 10 % in the case of capital gains on assets held for at least 12 months. Imputation credits from franked dividends serve to reduce the effective tax rate on earnings.
- Retirement benefits received by retirees over 60 will be tax free in nearly all cases by July 1 2007.

The *coverage* of private super should not be significantly affected by the 2006 budget proposals.

On the other hand, the *adequacy* of retirement benefits should improve, for four reasons. First, before the 2006 budget the Age Pension reduced at \$3 per fortnight, or \$78 pa, for every \$1,000 of financial assets above the free area, unless financial assets were invested in the life-expectancy products known as Term Allocated Pensions. After September 20 2007 the taper rate will be \$39 pa. A homeowner couple will then get positive amounts of

Age Pension until financial assets hit about \$783,500. In other words, the Age Pension has moved closer to being a universal benefit rather than a targeted one.

The second reason to expect improved adequacy is that before the budget a retiree with super in excess of the so-called Reasonable Benefit Limit (about \$1.3 million) faced a marginal tax rate of 38 % on so-called “excess benefits”. After July 1 2007 the super benefits of nearly all retirees aged over 60 will be tax free.<sup>20</sup> By the same token, the vast majority of retirees not only benefited from the Senior Australians Tax Offset and a 15 % tax rebate arising from the 1987 “bring forward” of super taxes, but have never come close to having an RBL problem. As a consequence, the estimated short-term cost of the budget proposals, namely \$6.4 billion over the next 4 years, is moderate.

Third, before the budget our taxes on retirement benefits, though seldom onerous, were typically complicated. Eligible Termination Payments (largely super benefits) had to be apportioned seven ways so as to determine their liability for various taxes on different components of ETPs. After July 1 2007 there will be less need for expert financial planning advice on taxes and pensions in retirement. This simplification should enable cost savings, improving adequacy for most superannuants, especially well-off ones.

Finally, there are now more incentives on the whole for voluntary contributions to super, notwithstanding the reduction in maximum employer contributions to a flat \$50,000 pa, and employee ones to \$150,000 pa, following a transition period for the over 50s of up to six years. This too should improve adequacy.

The budget changes affect adversely the *security* of retirement savings. There are two reasons. First, the changes are likely to stop in its tracks our gradual shift away from a “lump sum mentality” and towards private pensions. There would appear to be no future for TAPs. Nor will there be the maximum annual rates of drawdown that were imposed in the old system on super invested in standard Allocated Pensions. Indeed, there are to be as-yet-undetermined minimum annual rates of drawdown of retirement benefits,

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<sup>20</sup> The exceptions are some benefits from untaxed schemes operated by the public sector.

unaccompanied by any maximum. Reason number two is that the old system involved a modicum of progressivity in its taxes on super benefits. Progressive taxes facilitate risk sharing: if you have the bad luck to end up in an underperforming fund you at least have the consolation of dropping into a lower tax bracket. Our super system is predominantly one of DC schemes, entailing pervasive investment risk for households. Yet progressivity in our super system will now come entirely through its contribution limits. There is some loss of security on this account.

The budget's super proposals deepen longstanding concerns about *intergenerational equity and efficiency* in a number of ways. Our large fiscal gap will probably be closed in part by raising taxes on the generations following the baby boomers. This may well be unfair. It is also inefficient because marginal tax rates should be at least ex ante constant through time – labour supply distortions increase with the square of the marginal rate of tax on labour income. Indeed, there is a strong case that tax rates should be sufficiently high today that they are actually expected to decline in the future. In more detail, uncertainty about shocks to the tax base and to government spending implies that it is better to err on the side of high taxes today rather than low ones, paralleling the familiar phenomenon of precautionary saving, and as has been implicitly recognised by the 2006 budget in the form of its explicit strategy of deliberately pessimistic forecasts of commodity prices for the remainder of this decade. Aiming merely to close the fiscal gap falls short of efficient budgeting in an uncertain environment.

Access Economics has reportedly costed the budget's super proposals as standing at 1.5 % of gross domestic product by 2040. Accordingly, the Productivity Commission's estimate of our fiscal gap by 2045 should presumably be raised to an amount close to  $6.4 + 1.5 = 7.9$  % of GDP. In a similar vein, Chris Evans of ATAX, UNSW, has reportedly estimated that our over 60s contribute at least 10 % of personal taxes. He points out that the budget proposals will put an end to this share going up in line with the rising proportion of the over 60s in the population.

Mentioned earlier was the substantial relaxation of the assets test on the Age Pension, which is already our most expensive welfare program. Moreover, the over 60s still in the labour force will be able to draw down their superannuation accounts while directing up to \$50,000 pa of pre-tax pay into super, mostly via salary sacrifice, and probably more than \$50,000 during the transition period. In this way, the over 60s still in the labour force will typically face a marginal tax rate not greater than the tax on employer contributions, namely 15 %.

In 2003-03 60 owners of rental property incurred tax losses totalling \$4.6 billion. By January 2006 investment housing loans stood at \$181.6 billion. Between July 1 2006 and July 1 2009 you can make undeducted contributions to super totalling \$450,000. So there should be a big switch by elderly worker-investors from negatively geared investments in dwellings to undeducted contributions to super. This switch will generate tax revenues from realised capital gains<sup>21</sup> in the short term but will add to the revenue costs of the budget proposals in the long term. Additional pressure on long term revenues can be expected from the likelihood that young worker-investors will continue to favour negative gearing over voluntary super contributions, partly because the earnings tax on super bites harder over long horizons, and partly because the superior flexibility of negative gearing is particularly valuable to the young.

The budget proposals do not represent unrelieved gloom for intergenerational equity. In particular, Noel Davis of the NSW Bar observes that the budget proposals place taxes on retirement benefits on an equal footing with taxes on death benefits and deceased estates. In this way, they promote fairness between dynasties.

*Labour market efficiency* should be improved by the budget proposals. The participation rate of Australian male workers aged between 55 and 64 is 60 %, which is the lowest rate in the Anglosphere. Similarly, the average age at retirement from full-time work for Australian males is 58, which is below the OECD average even though our life expectancy is the highest in the Anglosphere and around the third highest in the world.

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<sup>21</sup> Taxed at a maximum rate of 22.75 % from July 1 2006.

Mentioned earlier was that from July 1 2007 there will be stronger incentives to keep working past age 60.

In June 2005 dwelling assets accounted for 58 % of Aust. private wealth. The budget proposals may result in less over-investment in dwellings during the accumulation phase of the life cycle, a factor making for *capital market efficiency*. Moreover, the budget proposes lighter taxes on super, in accordance with the finding of Judd (2001) and others that asset incomes tend to be over-taxed in modern economies. On the other hand there may be more over-investment in dwellings during the decumulation phase of super. In particular, reduced incentives for income streams may interact with relaxation of the assets test on the Age Pension to divert retirement benefits away from self provision and towards upgrades of the family home. In this way and others, households can easily thwart the budget's objective of discouraging super from being used to fund large bequests.

*Flexibility* during the accumulation phase of super is not well served by the budget proposals. In particular, contribution limits will be level over time, whereas contribution limits that rise with age (the pre-existing arrangements) mesh better with the life-cycle needs of most households. The natural sequencing of household investments starts with education expenses, followed by saving towards a deposit on an owner-occupied home. Building up super assets comes last. Will young high flyers draw heavily on their home equity in order to participate in salary sacrifice, thereby avoiding wastage of the unnaturally generous contribution limits available to young worker-investors? In common with our pre-existing system, the budget proposals for super taxes lack the appealing options feature of the system for taxing pensions that has evolved and won general acceptance in the United States.<sup>22</sup>

*Longevity insurance markets* are already very thin in Australia. The budget changes are likely to exacerbate the pre-existing problem of double dipping late in life. This too is a

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<sup>22</sup> More on this feature later.

reason for concern about the effects of the budget changes on the budget balance two or three decades down the track.

### **3. Canada**

#### *Retirement income system*

Canada's retirement income system has three pillars.<sup>23</sup> The first pillar is a non-contributory age pension scheme that is universal and flat rate but subject to steeply tapered income tests. The three main programs in this pillar are Old-Age Security (OAS), the Guaranteed Income supplement (GIS), and the Spouse's Allowance (SPA). In 2004 the maximum benefit was about C\$12,000 per person, indexed to the CPI. The average basic pension benefit was about 20% of average incomes. Every dollar of non-pension income saw GIS and SPA benefits reduced by between 50 and 75 cents.

The second pillar is the Canada Pension Plan (CPP), which in 2004 required contributions of 4.95% by employers and employees alike, entailing a total contribution rate of 9.9%. Retirement benefits are defined by reference to career-average earnings and consist primarily of a life income stream that is indexed to the CPI. Unlike Old-Age Security in the US, however, the CCP is partly pre-funded by investments in private securities, and is considered to be in actuarial balance. Projections indicate an ongoing build up of surpluses, despite an ageing population. The pension age is 65, but subject to an actuarial reduction, benefits may be taken from age 60.

The third pillar consists of the private pension system. Corporate pension plans are called Registered Pension Plans (RPPs), while individual retirement accounts are called Registered Retirement Savings Plans (RRSPs). Contributions to RPPs and RRSPs attract income tax deductions. In 1999 71% of households had assets in either RPPs or RRSPs, and private pension assets stood at about  $50+34 = 84\%$  of GDP, compared to about 63.8% in the case of Australia at that date (which has increased to 77.8% by 2004).

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<sup>23</sup> See International Monetary Fund (2004a).

Coverage of RPPs (or corporate private pensions) peaked at around 45% of workers in 1991, but has since fallen to around 40%. A large proportion of public sector workers participate, but coverage in the private sector is around 30%. Over this time there has also been a trend away from DB to DC plans, although DB still dominate, accounting for around 84% of plan membership. The contribution rate for RPPs is at least 5% of earnings for more than 72% of workers in such plans (Pozzebon 2004). Benefits are paid as pensions, but only around 1/3 of members has full indexation of pension benefits.

RRSPs were introduced in 1957 to provide a tax preferred vehicle for retirement saving that was not tied to employment status. Based on defined contributions, they may be organised by employers for their employees on a group basis or as individual plan. Contributions are deductible from taxable income, and income generated by RRSPs is tax exempt. By 2006 the annual cap on contributions is scheduled to be C\$18,000, indexed annually in line with average wage growth. RRSPs are utilized most heavily by high-income groups, partly because of the high effective tax rates on contributions from low-income groups that are entailed by the steep tapers on first-pillar retirement benefits. RRSP savings can be withdrawn at any time, but unless they are used to buy a home or finance full time education, are treated as ordinary income and taxed in the year of withdrawal.

Recently there has been a debate about the possibility of introducing tax-prepaid savings plans (TPSPs) to supplement the existing RRSPs (see Kesselman and Poschmann 2001). These would be Canadian analogues of the “Roth IRAs” discussed later. TPSPs would not provide an immediate deduction from income tax, but would allow tax-exempt investment earnings and retirement benefits. Canadians workers would therefore be given the option of participating in retirement savings plans with “front-end” taxation or “back-end” taxation, or both. Given that the individual income tax in Canada is progressive, low-income households would benefit most from such vehicles. TPSPs would also be attractive as an additional savings vehicle to high-income earners currently constrained by the contribution limits for RRSPs.

### *Performance*

Canada's retirement income system is impressive. Compared to Australia, for example, in 2003 the disposable income of the elderly stood at 97.4% of the average of all adults (67.6% to 70% in the case of Australia), the participation rate of males aged 55 to 64 was 61.3% (60.0%), and the participation rate of females aged 55 to 64 was 41.7% (36.9%). The OECD (2005) finds that Canada has the highest average replacement rate in the Anglosphere.<sup>24</sup> As in the case of the US, a weakness compared to the Australian system is the limited coverage of private superannuation: around 1/3 of families have no private retirement savings at all and private pension payments account for less than 1/3 of the incomes of elderly Canadians (Pozzebbon 2004). On the other hand around 50% of households contribute to RRSPs (individual retirement accounts).

The ageing population will see public pension expenditures as a proportion of GDP increase considerably from 5% currently to a projected 10.9% by 2050. However, most of this expenditure relates to the CPP and will have been pre-funded.

#### **4. New Zealand**

##### *Retirement income system*<sup>25</sup>

The New Zealand retirement income system is the simplest in the Anglosphere, comprising a universal state pension called New Zealand Superannuation, voluntary private saving, and a new second-cum-third pillar measure called KiwiSaver. New Zealand Superannuation is available to all citizens or permanent residents over the age of 65, subject to a mild length-of-residence test and is legislated to be within the band of 65% and 72.5% of net average earnings per retiree couple (St John 2005). Population ageing between 2000 and 2050 is estimated to increase the cost of New Zealand Superannuation from 3.6% to nearly 8% of GDP (New Zealand Treasury 2004).

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<sup>24</sup> See e.g. Figure 4.2 of the OECD report. Interestingly, of the 30 countries studied by the OECD, five of the bottom nine replacement rates are for the Anglosphere countries. Moreover, the bottom position was taken up by Ireland, a quasi-Anglosphere country. We suspect that this has something to do with the relatively high rate of home ownership in the Anglosphere—ideally, calculations of replacement rates would factor in the extent of home ownership at retirement.

<sup>25</sup> See International Monetary Fund (2004b).

The state pension is supplemented by voluntary private retirement saving. Until the late 1980s pension's schemes had received preferential tax treatment. However, in 1987 New Zealand abolished all tax concessions for private pension contributions and fund earnings and replaced the previous EET regime for the taxation of retirement savings with a non-concessionary TTE regime.<sup>26</sup> By the beginning of the 21<sup>st</sup> century, active membership of private and government employer pension schemes had fallen to around 14% (from 23% a decade earlier) and less than 15% of individuals over age 65 received income from an occupational pension scheme. At the same time there has been a significant increase in the value of housing assets as a proportion of total net wealth of households.

In 2003, partly in response to concerns about the projected rise in the cost of New Zealand Superannuation, the New Zealand Superannuation Fund (NZSF) was established. Rather than earmarked taxes, the contributions to the fund are made out of government's fiscal surpluses: the planned average government contribution is around 1.2% of GDP per year. It is anticipated that assets will build up for the next 25 years and then will be run down from that. It is anticipated that this will fund about 14% of the cost of New Zealand Superannuation.<sup>27</sup> This government-managed public pension fund is comparable to ones set up recently in Canada, Ireland, Norway and Sweden. By 2035 the fund is projected to reach its peak size of about 40% of GDP - a proportion that is modest relative to pre-funding in the rest of the Anglosphere even by present-day standards.

Governance of NZSF is entrusted to a Board of Guardians, which is charged with administering NZSF in a prudent and commercial manner. A specific goal of the Board is to achieve a rate of return that is at least 2½% above the return to short-term government bonds, over rolling 20-year periods. It is anticipated that only 22% of NZSF's portfolio will be allocated to NZ assets and the rest overseas, including 60% in international equities.<sup>28</sup>

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<sup>26</sup> Fund earnings are taxed at the corporate rate of 33%.

<sup>27</sup> Or 25% if the additional tax revenue from the earnings of the fund is included.

<sup>28</sup> At end February 2004 the asset allocation included: 41% international equities, 9.75% international fixed income, 8.25% NZ private fixed income, 6.75% NZ equities, 34% domestic Treasury bills and cash. (IMF 2004b).

2004 saw the introduction of the State Sector Retirement Savings Scheme for public sector employees. This is a portable DC scheme in which the government, as employer, matches employee contributions (of up to 1.5% each in the first year, increasing to a proposed annual target of 6% each for employees and public sector employers). The government is promoting this as a role model for private sector employees.

Throughout the Anglosphere there is interest in using default mechanisms in order to promote more private-sector saving for retirement. In 2005 this line of thinking became NZ policy in the form of the KiwiSaver scheme. When NZ workers start a new job they are automatically enrolled in KiwiSaver. They have six weeks to opt out. Existing employees can join anytime. Members can choose their own fund, or be assigned to a default fund. They can accept the default rate of four percent of gross salary, or opt for an eight percent rate. The government co-contributes \$NZ1000 upon joining. Accounts are preserved until age 65, except in cases of financial hardship, permanent emigration, or a one-time withdrawal towards purchase of a first home following three years of membership. Members availing themselves of the home purchase option can't normally access the government co-contribution, but could be eligible for other subsidies up to \$NZ5000. Contributions can be stopped for up to five years.

### *Performance*

Retirement incomes in New Zealand are the least diversified of any in the Anglosphere due to the reliance on the publicly funded New Zealand Superannuation. Private pension coverage has been falling with the focus of recent policy initiatives on strategies to increase private saving for retirement. As well, the New Zealand Superannuation Fund (NZSF), established in 2003 to address the projected increase in public pension expenditures (from 3.6% currently to a projected 8% mid century), falls considerably short of full funding.

Two features of New Zealand's retirement income system parallel Australia's system: reliance on "front-end" taxation, and the use of dwellings as a tax-preferred savings vehicle.

Concerning the use of dwellings as a tax shelter, at the beginning of the 21<sup>st</sup> century about the same proportion of private wealth was accounted for by dwellings in Australia and New Zealand (65-70%), but this had been preceded by much greater new investment in dwellings by New Zealanders. That the share of dwellings was about three fifths in both cases was explained by the fact that house prices rose much more slowly in New Zealand than in Australia.

Despite falling short in its contribution to pension funding, the NZSF does have some positive design attributes. A striking feature of the NZSF is its high level of international diversification. In Australia's privatised system, by contrast, only 17% of superannuation assets are invested offshore.<sup>29</sup> That proportion is sometimes considered to be too low, even though it is high by international standards. Yet New Zealand may be heading towards the opposite extreme. Specifically, international investment by the private sector has often been characterised as displaying home bias, in other words, reluctance to invest internationally. The natural explanation is that investors are better placed to monitor and manage local assets than offshore ones. The design of the NZSF recognised the need to avoid an intrusive or overbearing presence in NZ capital markets, so the NZSF has had little choice but to concentrate on offshore investments. Yet a major benefit of pre-funding superannuation is to promote local business investment, in order to achieve the capital deepening that can support productivity growth when the population is ageing.

An impressive feature of retirement income policy in New Zealand is the relatively high participation rate of the elderly in that country. Specifically, in 2005 70.4% of the population aged between 55 and 65 was in the labour force. The explanation appears to be a relative absence of pathways to early retirement in New Zealand. With heavy

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<sup>29</sup> As of June 2004. See [www.apra.gov.au/Statistics](http://www.apra.gov.au/Statistics).

reliance on a public age pension that is unavailable until age 65, and a lack of private assets apart from the family home, New Zealand workers retire exceptionally late.

## 5. United Kingdom

### *Retirement income system*<sup>30</sup>

The UK has long been an innovator of retirement incomes policies. During the 11<sup>th</sup> and 13<sup>th</sup> centuries the Crusades saw the creation of trust law, which has become the legal underpinning of superannuation schemes throughout the Anglosphere. In the 1670s the UK pioneered formal superannuation in the form of pensions for officers retiring from the Royal Navy. During the 18<sup>th</sup> century the UK originated formal pension arrangements for private sector employees. In 1907 the UK introduced public age pensions to the Anglosphere. Thanks to this tradition of prompt engagement with emerging pension issues, the UK will not experience an upsurge in public pension costs as its population ages, in contrast to most of the European Union, the United States and Japan. According to the IMF, annual pension costs are expected to fluctuate between 4.9% and 5.4% of GDP.<sup>31</sup>

The first pillar of retirement income provision in the UK consists of the Pension Credit (PC) along with the Basic State Pension (BSP). The PC is funded from consolidated revenue. In 2004 it guaranteed a minimum income of £102.1 pw. The PC is a non-contributory benefit and is indexed to the general level of prices. The BSP, by contrast, is contributory, and the benefit depends on the years of contributions. The age of eligibility for the BSP is 65 for men and 60 for women.<sup>32</sup> BSP benefits currently rise by the maximum of the annual rise in the general level of prices and 2.5%.

The second pillar consists of public and private components, and participation in one or the other is mandatory. The public components are the Second State Pension (S2P) and the State Earnings Related Pensions Scheme (SERPS). Since 2002, S2P has been gradually supplanting SERPS. One can “contract out” from S2P or SERPS into private components of the second pillar. For high and middle-income earners the main incentive to contract out is that S2P from April 2007 will become a flat-rate benefit, even though

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<sup>30</sup> See International Monetary Fund (2004c) and Blake (2003.)

<sup>31</sup> By contrast, the corresponding OECD estimates are 4.3% and 3.6%.

<sup>32</sup>Over the period 2010 to 2020 the age of eligibility for women is to be progressively raised to 65.

contributions to it are earnings related. In the absence of any contracting out, the compulsory contribution (or “national insurance contribution”) is typically 10% of wage earnings<sup>33</sup>. Full contracting out enables a worker to cut back her compulsory contribution rate to 4.6% of earnings, and this has raised questions about the overall adequacy of UK contribution rates.

The private components of the second pillar include traditional occupational pensions. The UK has seen less of a switch out of DB plans in the private sector than has most of the Anglosphere. By the same token, there is growing reliance on non-corporate DC plans called “personal pensions”.

How should society meet the need for a “plain-vanilla” or “no-frills” pension product for workers without the time or inclination to choose among “57 varieties”? “Stakeholder Pensions” (SPs) represent the British second pillar response to this perennial design issue in mass superannuation. SPs can be used to contract out from S2P. These accumulation-style plans can be provided directly from a financial services company, an affinity organisation, or by an employer. Management fees are capped at one percent of the balance. This cap is intended to force economies of scale on SP providers, and also to discourage unrealistic promises of out-performance resulting from strategic or tactical asset allocation.<sup>34</sup> The minimum contribution rate is ordinarily £20 pw. There is full portability between jobs.

The third pillar in the UK includes additional voluntary contributions (AVCs), and also Individual Savings Accounts (ISAs), which are similar to the tax-privileged savings vehicles previously known as TESSAs. Introduced in 1999, ISAs allow annual contributions of up to £5,000 and investment returns are free from income and capital gains tax. The UK has the deepest market for inflation indexed securities in the

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<sup>33</sup> There is a further 10% national insurance contribution from which one cannot contract out. It is nominally linked to first-pillar entitlements, without being formally hypothecated for that purpose.

<sup>34</sup> Active portfolio management is largely a zero-sum game.

developed world.<sup>35</sup> These are purchased primarily to back inflation protected retirement income streams.

The UK exempts pension contributions and earnings from taxation, with the qualification that since 1997 pension funds have been unable to utilise their dividend imputation credits. A retiree can take up to 25% of her balance as a tax-free lump sum, and then place the remainder in a phased withdrawal product analogous to Australia's market-linked income stream, until age 75, at which point the balance must be converted into a life income stream (see below.) Retirement income streams are subject to the regular personal income tax scale.

In 2006 the Pensions Commission released a White Paper on pension reform. One recommendation was that the BSP be relinked to earnings by 2010. Another recommendation was that a National Pensions Savings Scheme be set up by 2012. Workers who are not contributing to an adequate company plan would be automatically enrolled in the NPSS. The contribution rate would be 4% of gross wages, with a right to opt out.

### *Performance*

There are several indications of superior performance on the part of UK's retirement income system<sup>36</sup>. Retirees enjoy respectable replacement rates: at the beginning of the 21st century the disposable income of the elderly was 77.8% of the disposable income of all individuals, compared to 67.6% to 70% in the case of Australia. Private pension funds held assets amounting to 84.1% of GDP (compared with 63.8% in the case of Australia at the same time - 1999).<sup>37</sup> In 2001 the participation rate of males aged 55 to 64 was 64.4% (60.0% in the case of Australia.).

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<sup>35</sup> For more details see eg Brown and Shaefer (1996).

<sup>36</sup> See International Monetary Fund (2004a).

<sup>37</sup> Australia's pension assets as a percent of GDP currently stands at 77.8% (2004). Note that Connolly and Kohler (2004) find that in 2002 the UK led the Anglosphere in superannuation assets relative to GDP. Specifically, their Figure 1 shows this ratio to be about 125%, compared to about 85 % in the US and about 70% in Australia. However, life insurance assets are treated as part of a country's superannuation assets, notwithstanding the major labour income insurance function of life insurance. We conclude that, as in the

A major difference between the UK and Australian systems is that the British have not adopted compulsory second pillar participation in pre-funded and privately managed superannuation, although a little over half of UK employees do contribute to a private second-pillar pension. There are marginally greater concerns in the UK than Australia about the adequacy and coverage of second pillar contributions, especially to pre-funded schemes.

Where the British have embraced compulsion is in the area of annuitisation. Retirees over 75 years of age have been required to tie up their remaining second pillar benefits in life income streams.<sup>38</sup> This policy has proved unpopular with elderly retirees seeking to fund bequests, but does serve the purpose of mitigating end-of-life “double dipping”. It can be viewed as a compromise between society’s interest in ensuring that retirement savings are used primarily for retirement incomes and the natural aversion of retirees to the possibility of investing large amounts in a life income stream and then passing away shortly thereafter, thereby denying one’s children an inheritance.

## **6. United States**

### *Retirement income system*

Retirement incomes in the United States comprise a number of components: public pensions, known as Social Security – which for the very poor may be topped up by social assistance benefits; occupational pensions (covering around 45 % of workers); and tax favoured individual retirement saving.

In 1935 the United States adopted Social Security, a variant of the public defined benefits model originated by Germany in 1889. At the beginning of the 21<sup>st</sup> century, most

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case of participation rates, comparison of superannuation assets to GDP across different countries is not an exact science.

<sup>38</sup> This was introduced in 1995 and replaced the previous requirement that an annuity be purchased at retirement. A policy scheduled for 2006 onwards is to allow superannuants over 75 to take their retirement income stream in the form of an ‘Alternatively Secured Pension’ (ASP), a phased withdrawal alternative to life annuities. First-year income from this new instrument cannot exceed 70% of what a life annuity would have paid. The balance of an ASP can be included as part of the estate of superannuants.

employers and employees each contributed 6.2 % of employee earnings<sup>39</sup>, so that the total compulsory contribution rate is ordinarily 12.4 %. Social Security has no investments in private securities.

Social Security benefits are subject to the regular income tax scale, like nearly all retirement income streams in the US.<sup>40</sup> The modal net replacement rate provided by Social Security is 36 %; the corresponding average is 44 %. Benefits are vested in the sense that the so-called “normal” retirement age of 65 to 67 (depending on your year of birth) must be attained in order to receive full benefits. You can draw benefits from age 62, at the cost of a 25 percent cut relative to the benefits that you would have received at your normal retirement age. Notwithstanding this penalty, 62 is the modal age of retirement in the US. Benefits are defined by reference to career-average earnings and consist primarily of a life income stream that is indexed to average earnings.

The United States, along with the United Kingdom, acknowledged earlier than most countries the unsustainability of their PAYG public pensions. Reforms introduced in the 1980s included increased pre-funding through the Social Security trust fund, and parametric changes to increase coverage, increase the pension age and reduce benefits for early retirees. However, they did not extend to price, rather than wage, indexation of benefits. Since the early 1990s there has been ongoing pressure for the privatisation of at least part of Social Security (Feldstein 2005). While several presidential commissions have recommended this move, these have not yet been translated into policy (see, for example, Commission to Strengthen Social Security 2001).

Occupational pensions in the United States date back to the American War of Independence, when disabled soldiers were provided with half pay for life. Private pensions grew rapidly in the years following the Second World War, with coverage more than doubling from 19% to 41% between 1945 and 1960. However, growth has stabilised and coverage remains at around 45% at the beginning of the 21<sup>st</sup> century. While these

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<sup>39</sup> In 2005, salary in excess of \$US90,000 is exempted from these compulsory contributions.

<sup>40</sup> The leading exception is the Roth IRA. It is discussed elsewhere in this paper.

were initially mostly DB plans, there has been a significant move towards DC plans. This trend has accelerated over the past two decades following the introduction of 401(k) plans in 1981. Today more than 50% of occupational pension participants belong to DC plans.

1981 saw the introduction of 401(k) plans to the United States. These are tax deferred vehicles for retirement saving by employees. The plans require employer sponsorship; employers can contribute up to half the rate of employees. The plans are of the defined contributions variety and often include considerable investment choice. In 2006 the limit on employee contributions was \$US15,000 pa, or \$US20,000 pa if you are over 50.

In addition to coming out of pre-tax income, contributions to 401(k)s accumulate without any tax on investment income. Distributions received after age 59½ are generally taxed at the investor's marginal rate, and are essentially in the form of periodic equal-size drawdowns apportioned in line with average life expectancy, analogous to drawdowns in Australia from the superannuation income streams known as Term Allocated Pensions. Distributions after age 59½ are taxed at the retiree's marginal rate, in contrast to the light taxation of TAPs. Distributions received before age 59½ are typically subject to a 10% penalty (in addition to regular income tax.) The self employed can take advantage of so-called Keogh plans, which are similar to 401(k)s.

Tax deferred individual retirement saving takes place through IRAs, which do not require employer sponsorship and are generally used as supplements to 401(k)s. In 2006 the annual cap on contributions to IRAs was \$US4,000 pa, or \$US4,500 pa in the case of people over 50. Contributions to traditional IRAs are made out of after-tax income, but are generally deductible from federal income tax. Hence the tax efficiency of IRAs is the same as that of 401(k)s, unless your tax bracket in retirement is different to your tax bracket during your working years.

401(k)s and IRAs quickly became a staple source of tax deductions for wage-earners in the upper half of the income distribution, rather as negative gearing has become common

for Australian wage-earners in the top two personal tax brackets. Poterba *et al.* (1995) found that most contributions to 401Ks and IRAs have represented new saving that would not otherwise have occurred. By the 21<sup>st</sup> century US private-sector voluntary contributions to super amounted to eight percent of US wage earnings — more than the after-tax contribution rate compelled by our superannuation guarantee, namely 7.65 %.<sup>41</sup> Since only 45 Percent of US workers are covered by private superannuation, this high contribution rate is remarkable.

In 1998 the US introduced the Roth IRA alongside the standard IRA. Contributions come out of your after-tax income but are tax free thereafter. So if your marginal tax rate in retirement is the same as your rate at the time you contribute, the tax efficiency of the two kinds of IRA is the same. There are two main reasons why life-cycle savers do not rely exclusively on standard IRAs. First, a significant minority of contributors anticipate that their marginal tax rate in retirement is at risk of exceeding their rate at the time they contribute. Second, there are annual limits on what can be contributed to tax-favoured savings plans. In 2006, for example, the global limit on contributions was \$US 44,000. Because contributions to Roth plans are taxed before they are counted towards the global limit, Roth plans give high-income earners an opportunity to squeeze more into tax-favoured savings plans. 2006 saw the introduction of Roth 401(k)s. Like standard IRAs they are employment related. Like Roth IRAs, tax is paid at the point of contribution rather than in retirement.

### *Performance*

US retirement strategies involving 401(k)s can be contrasted with the Australian strategy of salary sacrifice, which is available to Australian employees seeking to improve the tax efficiency of their retirement saving plan. Employer contributions to superannuation are subject neither to fringe benefits tax nor individual income tax. With employer consent, an employee can arrange for redirection of some pre-tax salary to a complying

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<sup>41</sup> On the other hand, only 45 % of US workers were covered by private occupational super. The overall message, then, is that about half the US workforce responds strongly to tax incentives to contribute, whereas the other half is entirely unmoved. Perhaps the closest parallel in Australia is participation in savings plans based on negative gearing — a popular investment strategy for wage-earners in our top two tax brackets, but prohibited in the US.

superannuation fund in order to lift after-tax remuneration at no cost to the employer, subject to age-dependent limits on contributions and to the tax on employer contributions to superannuation<sup>42</sup>.

Mentioned earlier was that Australian employer contributions are taxed at 15% , and that fund earnings are taxed at a headline rate of 15%. Evidently 401(k)s are a much more concessionary vehicle during the accumulation phase. After retirement, however, superannuation money in Australia has tended to be very tax-benefit efficient even before the 2006 budget changes, although few US retirees need face a marginal tax rate much greater than 30%.<sup>43</sup> Over the life cycle, then, 401(k)s appear to offer more generous tax concessions than salary sacrifice plans.

As a strategy involving after-tax contributions, IRAs can be compared with the Australian scheme of government co-contributions. In 2004 Australians deriving at least 10% of their pre-retirement income from an employer and with an income of less than \$58,000 pa could direct a contribution from the government to an accumulation fund of their choice. In more detail, if the employee-cum-contributor's income was less than \$28,000 then he or she could obtain a government contribution of \$1.50 for every personal contribution of \$1, up to a ceiling of \$1,000. Once the employee's income exceeded \$28,000, the maximum co-contribution phased out at a rate of 5c per \$1 of extra income. In this way, the co-contribution ceased altogether once employee income hit \$58,000.

From a tax-benefit standpoint the co-contribution scheme is substantially more advantageous than an IRA, in view of its generous subsidy component. For the same reason the justification of the co-contribution scheme from an equity standpoint is open to question in the case of dual income households where one person is on a high salary.

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<sup>42</sup> The fact of 401(k)s and IRAs gives rise to major difficulties when comparing total private superannuation balances in the US with those in countries such as Australia. Notably, 401(k)s and IRAs are economically similar to Australia's self-managed superannuation funds, yet are often excluded from comparative statistics of private superannuation savings.

<sup>43</sup> The US analogue of Australia's dividend imputation system was introduced in 2003. It operates by exempting (from personal income tax) income in the form of dividends from US taxpaying companies to US residents.

By the same token, given the annual ceiling of  $\$1,000 + \$1,500 = \$2,500$  on total contributions induced by co-contributions, the scheme is unlikely to have other than a marginal impact on Australian retirement incomes. By contrast, the typical IRA investor will be saving via a 401(k) plan as well, on equally concessional terms.

That private occupational superannuation covers only 45% of workers is a limitation of the US system compared to its Australian counterpart. On the other hand, US private-sector contributions average about 8% of US earnings, a proportion substantially greater than the post-tax contribution rate compelled by the superannuation guarantee. These two facts together imply that US tax concessions have indeed succeeded in attracting contributions by US workers, although not in a broad-based way.

The OECD puts the US post-tax replacement rate at 64%: 44% from Social Security plus 20% from private pension plans.<sup>44</sup> This figure is a little below its Australian counterpart. By contrast, the IMF reports that disposable income of the US elderly at the beginning of the 21<sup>st</sup> century was 91.7%, compared to 67.6% in the case of Australia<sup>45</sup>. This illustrates the fact that that calculating and comparing replacement rates is far from being an exact science.

A major limitation of the Australian tax-benefit system compared to its US counterpart is that in around two decades time, as mass retirements impact on both countries, the US will be reaping the benefits of back-end super taxes. In Australia, by contrast, superannuation guarantee drawdowns will only partly offset the combined impact of increased demand for the Age Pension and negligible personal tax contributions from Australia's retirees.

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<sup>44</sup> See Yoo and Serres (2004).

<sup>45</sup> See International Monetary Fund (2004a).

## 7. Summary and conclusions

Partial indicators of the performance criteria introduced earlier are summarised in Tables 2 and 3 below.

**Table 2: Evaluation: Retirement Income Systems in the Anglosphere**

	Relative disposable income of the elderly <sup>a</sup>	Mandatory second pillar contributions		Mandatory contribution rate	Private pension coverage	Voluntary individual saving coverage	Private pension assets % GDP <sup>b</sup>
<b>Australia</b>	67.6	Yes	Private	9%	90%	na	77.8
<b>Canada</b>	97.4	Yes	Public	9.9%	40%	RRSPs 50%	84.0
<b>New Zealand</b>	tba	No	-	0%	14%	na	tba
<b>United Kingdom</b>	77.8	Yes	Public or private	Max 10%	60%	tba	84.1
<b>United States</b>	91.7	Yes	Public	12.4%	45%	IRAs < 10%	74.4%

a. From OECD (2003). Percent of the disposable income of all individuals.

b. From OECD (2003) for 1999; except Australia (for 2004 – APRA (2005)) and Canada (IMF 2004a). The Canadian data is for RPPs and RRSPs.

**Table 3: Evaluation: Retirement Income Systems in the Anglosphere (cont)**

	Public pension expenditure % GDP <sup>a</sup>		Participation rate Age 55-64 <sup>b</sup>		Tax regime retirement saving	Housing % household wealth	Mandatory second pillar income streams
	2000	2050	Males	Females			
<b>Australia</b>	2.9%	4.6%	60.0	36.9	TTT/E <sup>c</sup>	65/58	No
<b>Canada</b>	5.1%	10.9%	61.3	41.7	EET	tba	Yes
<b>New Zealand</b>	3.6%	7.3%	70.4		TTT	65-70	No
<b>United Kingdom</b>	4.3%	3.6%	64.4	44.6	EET	57	Yes
<b>United States</b>	4.4%	6.2%	68.1	53.0	EET	34	Yes

a. From OECD (2003, Table 4.1), St John (2005), Productivity Commission (2005).

b. From OECD (2003), for the year 2001, except NZ, which is from Statistics New Zealand for June 2005

c. All at concessional rates. Benefits minimally taxed.

The comparative performance of retirement income systems across the Anglosphere can be summarised as follows:

- Australia leads in ensuring broad coverage of the labour force by compulsory personal accounts that will enable at least partial pre-funding of retirement incomes.
- Short of the Australian system of compulsion, UK provisions for “opting out” have useful lessons for inducing greater coverage of personal accounts in Canada, NZ and the US.
- The UK leads the Anglosphere in structuring its public debt so as to ensure a deep market in safe index bonds with a variety of maturities.
- Within the Anglosphere, only Canada has grasped the nettle of indexing government retirement income streams to the CPI rather than to average wages. This conceptually simple yet politically difficult measure offers much towards containing public pension costs and inducing households to self-provide for retirement. Long lead times and phasing-in arrangements would minimise disruption of pre-existing financial plans for retirement.<sup>46</sup>
- Recognising that public trust funds invested wholly in government bonds do not represent genuinely pre-funded retirement income streams,<sup>47</sup> Canada and New Zealand lead the Anglosphere in attempts to supplement existing holdings of government bonds in pay-as-you go second pillar arrangements with investments in private securities. It is too early to tell how this policy will turn out.
- The US leads the Anglosphere in the provision of option-like features in the taxation of life cycle saving - by allowing a choice between traditional and Roth

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<sup>46</sup> Australia’s superannuation guarantee provides an example of successful phasing in.

<sup>47</sup> An IOU written to oneself is a less than secure claim on future resources.

IRAs, along with the option of 401(k)s. Given the progressivity of the income tax, lower-paid workers in Australia and New Zealand would benefit especially from the introduction of tax-deferred savings plans.<sup>48</sup> So would “fast trackers”, in other words, high income earners who are making a late-but-in-earnest effort to save for retirement. If earnings were untaxed as well as employer contributions, another group that would benefit is young workers, who are well placed to benefit from the power of compound interest. Such plans would help to offset the existing tax/benefit preference for dwellings, either owner-occupied or negatively geared ones. Canada is considering the introduction of Tax Prepaid Savings Plans (TPSPs). New Zealand is experimenting with KiwiSaver, a measure designed to increase individual retirement saving in the absence of tax concessions. This novel experiment with “soft” compulsion makes a 4% employee contribution the default option for employees starting a new job.

- The take-up of Stakeholder Pensions has disappointed students of the UK’s retirement income system, just as students of Australia’s system have been disappointed by the low market share of low-fee products here. Yet the market share of such products deserves to improve in both countries. Australia could learn much from the detailed regulations governing Stakeholder Pensions. Similarly, most US proponents of personal accounts for that country have made vague proposals for basing these on index funds without reference to the experience with investment choice in either Australia or the UK.
- The UK leads the Anglosphere in the design of regulations that ensure a deep market for longevity insurance while at the same time allowing some scope for lump sum benefits for lumpy purchases in retirement (including bequests) and not requiring annuitisation of pension assets before a reasonably advanced age.

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<sup>48</sup> This assumes that superannuation assets taxed under an EET regime would be channelled into lifetime or life expectancy income streams.

Our overall conclusion is that individual countries in the Anglosphere could benefit from taking a closer interest in the retirement incomes policies of countries elsewhere within it. The whole is greater than the sum of the parts.

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