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## Financial structure and policy of Australia's retirement system

### Abstract

Increasing life expectancies for both males and females in the Asia-Pacific region have resulted in an ageing population. Given an ageing population, adequate income is of increasing importance to people who will experience longer periods in retirement. This paper provides an overview of the structure of the Australian retirement system which includes a means-tested government provided age pension, retirement savings and voluntary savings. Despite policy initiatives to boost retirement savings and income, it is concluded that due to the relative immaturity of this system it will fail to provide many community groups (baby-boomers, females, low income earners, long-term unemployed, part-time workers) with an adequate retirement income.

**Keywords:** ageing population, financial systems, Australian retirement policy.

**JEL Classification:** G23.

### Introduction

As a result of declining mortality and fertility rates in many countries in the Asia-Pacific region the population is ageing. In Australia, it is projected that life expectancy will increase to 86 years for men and 90 years for women by the year 2047 (The Treasury, 2007). The implications are that there will be a decrease in the ratio between working age Australians and retirees. This is expected to lead to higher government spending and a reduction in gross domestic product (GDP) (The Treasury, 2010) and to compromise living standards. Given an ageing population, adequate retirement funding is of increasing importance to individuals who will experience longer periods in retirement. At present, a means-tested government provided age pension, retirement savings and voluntary savings underpin Australia's retirement system.

In 1992 the Australian government introduced a compulsory employer retirement savings ("Superannuation") system, where employers are required to contribute to their employees' superannuation fund. Superannuation represents a form of saving, where money is set aside by the worker and/or the employer and invested for each employee's retirement benefit. The Treasury (2002) in the first Intergenerational Report identified superannuation as one structure that can counter the impact of an ageing population. When first introduced, the Australian superannuation guarantee system required minimum employer annual contributions of 3% which was progressively increased to its current level of 9%. As a part of the government's 2010 budget measures the required superannuation contribution is set to gradually rise from 9% to 12% from year 2013-2014 through to 2019-2020.

In 2010 superannuation assets in Australia were reported to be in excess of A\$1 trillion (APRA, 2011a). A report from the Australian bureau of sta-

tistics (ABS) (2008) indicates that 91% of employed people have superannuation coverage. However, there is still considerable doubt about whether Australians will have sufficient balances in their superannuation accounts to support them adequately in retirement (Clare, 2008a).

### 1. An overview of the Australian superannuation framework

The provision of retirement income has become a challenge for governments. The population is ageing as a result of lower mortality and fertility rates which places financial stress on government budgets, as spending on welfare increases, which will be further compounded by a proportional reduction in working age taxpayers. In 1992 the Australian government introduced a compulsory charge on employers to assist employees to save for their retirement. Even though savings in superannuation have increased significantly over the years, a number of Australians still have insufficient savings to fund fully their retirement. Harding (2005, pp. 2-3) suggests that "In essence, the poorest one-half of 50 to 64 years old have almost no wealth to help sustain them through the decades of retirement that lie ahead of them".

More recent changes by the government to the superannuation framework such as a simplification of the superannuation system, government co-contribution, tax incentives and the proposed increase in the superannuation guarantee rate, have emphasised the importance the government places on superannuation as a mechanism supporting future generations of Australians in retirement. The discussion that follows provides a review of the structure and policy of Australia's retirement income system.

**1.1. Australia's retirement income system.** Australia has a three-pillar approach to providing retirement income. The three pillars are: (1) a means-tested government provided age pension; (2) a system of compulsory superannuation for employees provided by the employer at a minimum prescribed

level; and (3) voluntary savings, including both superannuation and non-superannuation savings. The World Bank has broadly endorsed Australia's three-pillar approach to providing retirement incomes (The Treasury, 2004). A World Bank Report (World Bank, 1994) advocated a three-pillar system comprising a publicly tax-funded pension, a compulsory privately managed and funded retirement benefit scheme, and a voluntary savings component as the third pillar. It has been stated that even though the Australian retirement income system may possess some defects, it has become something of a role model for developing countries (Clare, 2008b). A recent government commissioned report (Harmer Report, 2009) on Australia's retirement system has recommended that the existing three-pillar system should be retained.

**1.2. The Australian aged pension.** The first pillar of the retirement income system in Australia, the aged pension, provides a guaranteed means-tested income. A World Bank Report prepared by Holzmann and Hinz (2005, p. 6) recommends that 'the primary goals of a pension system should be to provide adequate, affordable, sustainable, and robust retirement income, while seeking to implement welfare-improving schemes in a manner appropriate to the individual country'.

The Australian aged pension is funded directly from government revenue and is payable to eligible recipients. Around 75% of Australians, who have reached the eligible pension age, receive a government pension (Department of Families, Housing, Community Services and Indigenous Affairs (FaHCSIA, 2008a). Currently, Australian resident males are eligible to receive the aged pension if their income and assets are below a certain amount and they are aged 65 or over. Resident females are subject to the same income and assets tests; qualifying age varies between 63 and 65 years based on the year of birth. As a part of its 2009-2010 budget measures the Australian government is progressively increasing the eligible pension age to 67 by the year 2023. In 1997 the government legislated to ensure that the maximum single rate of pension is at least 25% of "Male total average weekly earnings" (MTAWE) (FaHCSIA, 2008a). As a part of its 2009-2010 budget measures and in line with the Harmer Report (2009) recommendations, the Australian government has announced an increase in the single aged pension of up to \$32.49 a week and \$10.14 extra a week for couples. The current annual aged pension is \$17,118.40 plus a supplement of \$57.70 per fortnight for a single person and a combined \$25,807.60 plus a supplement of \$87.00 per fortnight for a couple.

**1.3. Poverty measures and the aged pension.** The Melbourne Institute of Applied Economic and Social Research (2011) poverty line measures for the September quarter 2010 is \$491.52 per week (\$25,559 annually) for pension couples and \$347 per week (\$18,044 annually) for a single aged pensioner. A comparison with the pension payment figures above suggest that aged pensions are not far from the poverty line. Another comparison of the aged pension with a traditional poverty benchmark of 50% of median income presents a similar picture (Clare, 2008b). However, it is important to note that these poverty measures represent an Australian, not an international standard. In a recent annual survey conducted by McNair Ingenuity Research (2008) respondents indicated that on average an amount of \$49,118 per annum in retirement income for couples was required in order to maintain an adequate lifestyle. Based on these comparisons the McNair survey group would not be able to maintain an adequate lifestyle on the aged pension. FaHCSIA (2008a) reports that many pensioners rely on income support for long periods and that most pensioners have low incomes. Therefore, to generate the retirement income required to support an adequate lifestyle, wealth will need to be created with either superannuation and/or voluntary savings.

In May 2008 the Minister for FaHCSIA commissioned an investigation into measures to strengthen the financial security of seniors, carers, and people with a disability, including a review of the aged pension. The Harmer Pension Review is a part of the government's wider enquiry into Australia's future tax system and has three key terms of reference (FaHCSIA, 2008b):

- ◆ the appropriate levels of income support and allowances;
- ◆ the frequency of payments; and
- ◆ the structure and payment of concessions or other entitlements.

The Harmer Pension Review report made recommendations such as increasing the pension rate, increasing the pension qualifying age, better indexation arrangements for pensions and less complexity and better support for those over the pension age seeking to participate in the workforce (Harmer, 2009). The increase to the age pension announced in the 2009-2010 federal budget was a part of the Australian Government's response to the Harmer Pension Review.

## 2. Implications of Australia's ageing population

The second Intergenerational Report (The Treasury, 2007) explains that Australia is experiencing an ageing of its population driven by decline of mortal-

ity rates. The Intergenerational Report projects future mortality rates to fall by 2047, with life expectancy to increase to 86 years for men and 90 years for women: about 25% of the population is projected to be aged 65 and over, almost doubling the current proportion. The number of people aged 55 to 64 is projected to increase by nearly 50% over the next 40 years. The Report acknowledges the recent increase in the fertility rate, but suggests that it is still significantly below the replacement rate. The most commonly used indicators of population ageing are the proportion of the population aged 65 and over (FaHCSIA, 2004). Another common measure of population ageing is the dependency ratio which is used to measure the people aged 65 and over compared to the population of working age (15-64) (FaHCSIA, 2004). Harding (2005, p. 1) explains that “in 1960 there were about 7.3 working age Australians to help support each retiree aged 65 years and over. By 2040 there are forecast to be only 2.4 working age Australians for each retiree aged 65 and over”.

More recently the third Intergenerational Report (The Treasury, 2010) indicates that there are currently 5 people of working age to support every person aged 65 or over, and this is expected to fall to 2.7 by 2050. Many of the concerns surrounding the issue of an ageing population are of an economic nature (Drabsch 2004). As a result of an ageing population the third Intergenerational Report (The Treasury 2010) estimates that by 2049-2050, the gap between spending and revenue will grow to 2.75% of GDP. It is also reported that over the next 40 years, the ageing of the population is projected to slow economic growth. The impact of higher government spending and slowing GDP is predicted to send the Federal Government budget into deficit and higher taxes may have to be imposed on future generations of taxpayers. CEDA (2004, p. 1) suggests that ‘The ageing of Australia’s demographics has taken on greater public policy significance, as it presents major challenges about how Australia should address the economic, fiscal and social impacts, including the impact on the future growth in living standards of Australians’.

Earlier, the first Intergenerational Report (The Treasury 2002) identified the superannuation system as one of the structures that can counter the impact of an ageing population. The Australian government has sought to reduce future economic pressure resulting from an ageing population by encouraging the Australian public to save for retirement through mechanisms such as compulsory employer superannuation contributions, taxation incentives and superannuation co-contributions. Alliance Strategic Research (2008) suggested that because of the economic importance of superannuation savings there is

considerable input into policy decisions from the finance and economic sectors and that the superannuation portfolio should be placed in Treasury, rather than in the FaHCSIA, which has the responsibility for pensions. Therefore, the second and third pillars of Australia’s retirement income system (superannuation, voluntary savings), will play a vital role in future in providing retirement income for a substantial proportion of the population and it will also provide a counter-balance against future government expenditure.

### 3. Brief history of superannuation in Australia

Superannuation as a form of savings has existed for more than a century in Australia and for the majority of this time was only applied to a small segment of the working population such as white collar workers, public servants, members of the defence force, and employees in the finance sector. The introduction of a formalized employee superannuation scheme occurred in 1986 when industrial agreements were reached to provide for 3% employee contribution paid into an industry fund. As a consequence, superannuation coverage increased from 40% of employees to 79% in the following 4-year period (APRA, 2007). However, coverage was limited only to those covered by an industrial award.

The second pillar of Australia’s retirement system, compulsory superannuation, was not adopted until July 1, 1992. The new system was known as the Superannuation Guarantee (SG). The SG was enforceable through the commonwealth’s taxation powers and commenced with employer contributions set at 3% of earnings. The employer contribution rate was increased over a 10-year phase to a maximum rate in 2002 of 9%. As previously mentioned, the proposed SG rate will gradually increase to a rate of 12% by 2019-2020. The SG has to be paid if an employee earns \$450 (pre-tax) or more per month and is aged between 18 and 69 and works full-time, part-time or on a casual basis.

### 4. Composition and size of Australia’s superannuation industry

The Australian Prudential Regulation Authority (APRA) recognizes five superannuation fund types. These include corporate funds, industry funds, public sector funds, retail funds, and small funds. The APRA (2011a, pp. 46-49) definitions are summarized in Table 1.

The current structure of the Australian superannuation industry is summarized in Table 2. Total superannuation assets are reported to be in excess of \$1 trillion, representing more than 100% of GDP. The highest level of assets is concentrated in self-managed superannuation funds (\$408.1 billion),

followed by retail funds with \$352.9 billion in assets. Even though the corporate sector has the highest number of funds (162) it has relatively fewer assets (\$58 billion) when compared to other major fund types. There is a proliferation of small superannuation funds: there are 434,239 self-managed funds and another 3,853 small APRA regulated funds. Table 2 also identifies 65 industry funds and 39 public sector funds. Both the industry funds and retail funds have significant levels of assets (\$237.8 and \$181.9 billion, respectively).

Table 1. Definitions of superannuation fund types

Type of fund	Definition of superannuation fund types
Corporate	Corporate funds are established for the benefit of a particular entity or a group of related entities, with joint member and employer control
Industry	Provide for employees working in the same industry
Public sector	Provide benefits for government employees or are schemes established by a commonwealth, state or territory law
Retail	Offer superannuation products to the public on a commercial basis
Small	These funds have less than five members and are either regulated by APRA or the ATO

Table 2. The Australian superannuation industry in September 2010

Type of fund	Assets (\$ billion)	Number of funds
Corporate	58	162
Industry	237.8	65
Public sector	181.9	39
Retail	352.9	156
Sub-total	830.6	422
Small APRA funds	1.5	3,853
Single-member ADFs	0.0	102
Self-managed super funds	408.1	434,239
Balance of life office statutory funds	40.0	-
Total	1,280.2	438,694

Source: APRA (2011a, p. 7) Quarterly Superannuation Statistics, September 2010.

**4.1. Financial performance of the superannuation industry.** APRA (2011b) recently released superannuation data which show that superannuation assets have grown from \$546.7 billion in 2004 to \$1,225.4 billion in 2010 representing an average annual increase of 14.4%. There was a significant increase in assets held in all fund sectors (industry, public sector, retail, small funds) except for the corporate sector. The APRA report also reported investment performance for the period of 2001-2010 for the various sector funds with over four members. The arithmetic mean rate of return (ROR) for all funds during this period was 3.3%. However, there was significant variation in returns over this period with the highest annual return of 14.5% for the year ended June 30, 2007, and the lowest – a negative 11.5% in the year ended June 30, 2009. The lowest

performing sector was retail with an average 10-year ROR of 2.5% and the best performing was the public sector with an average 10-year ROR of 4.2%, followed by the corporate sector (3.9%) and the industry sector (3.9%). Statistics released by APRA (2011b) for the year ended June 30, 2010 show that the ROR for all superannuation funds with more than four members was 8.9%. Public sector funds had the highest overall ROR with 9.8%, followed by corporate funds with 8.9%, retail funds with 8.7% and industry funds with 8.5%.

## 5. Impact of the global financial crisis

The impact of the global financial crisis on investment markets and on the recent performance of superannuation funds has been severe. Super ratings (2009) data indicate that the latest benchmark annualized returns to January 31, 2009 for the Australian shares index is negative 26.65% and for the high growth index it is negative 22.56%. Super rating's data also indicate negative returns for the property index (-25.2) and the balanced index (-15.1). The OECD (2008) reports that pension funds in the OECD had declined by about U.S. \$3.3 trillion from December 2007 to October 2008, representing nearly a 20% decrease over that period. This indicates that poor investment performance of superannuation funds is widespread, impacting investment values around the world. AIST (2008, p. 6) reported that "superannuation funds face an increasing probability of another negative year for investment options with higher exposure to growth assets." APRA (2011b) statistics show that the ROR for all superannuation funds was negative 11.5% from June 2008 to June 2009. In February 2009, representatives of the Superannuation Stakeholder Group in Australia acknowledged the severe impact of the crisis on the Australian share market and remarked that this was not the first time the market had experienced a significant downturn. The Superannuation Stakeholder Group (2009, p. 4) emphasise that "even though many superannuation funds have experienced poor returns over the last 12 months, over the last 5 years superannuation funds have delivered strong results. Superannuation continues to be a worthwhile investment over the long term".

The immediate impact is on those who are retired and living off their investment income and those older workers (baby-boomers) on the verge of retirement. Many retired persons have witnessed a dramatic fall in their income and investments. This has recently placed more demand on the aged pension as more retirees become eligible for payments as a result of either falling asset values or lower income (or both). Others looking to retire in the near future are contemplating delaying their retirement and continuing to work because of the losses they

have recently incurred in their superannuation accounts. ABC News (2009) reports that research firm TNS has found that in Australia 44% of baby boomers are postponing their retirement because of the global financial crisis.

## 6. Recent policy initiatives

In May 2008, the Australian government announced the Review of Australia's Future Tax System (Henry Review) and in August 2008, the Treasury (2008b) released a discussion paper entitled "Architecture of Australia's Tax and Transfer System", which was followed by a call for public submissions. As a part of its terms of reference the review panel has been asked to consider enhancing the taxation of savings, assets and investments. ASFA's (2009) submission to the Henry Review (responding in regards to superannuation taxation) recommends maintaining investment returns in retirement tax-free, and that the age at which superannuation becomes tax-free be gradually raised to 65. ASFA also made recommendations for improving equity of superannuation tax for low and middle-income earners, and suggested simplifying capital gains tax rules on the sale of business to encourage the transfer of lump sums to superannuation. Concurrent with the 2009-2010 federal budget, the government launched a report on the retirement system prepared as a part of the Review of Australia's future tax system. The main recommendation of the report was the retention of the current system. The panel also found that the current superannuation guarantee contribution rate is adequate and recommended that it will be maintained at its current level of 9%. However, the rate of 9% is now set to change to 12% by the year 2020. It further recommended that the age, at which Australians can access their superannuation (the preservation age), should be gradually increased to 67 years.

The Super System Review (Cooper Review) was announced in May 2009 and was initiated with the support of the superannuation industry. The review covered the governance, efficiency, structure and operation of Australia's superannuation. As a result of the review the government has made several recommendations: (1) the introduction in July 2013 of a new simple, low cost default superannuation product called "MySuper"; (2) improving efficiency to make processing everyday transactions easier, cheaper and faster through a package of measures known as "Superstream" to be introduced by 2015; and (3) stricter regulation surrounding self-managed superannuation funds (SMSFs).

## 7. Adequacy of superannuation savings

Nielson (2006) suggests that the ability of the current retirement income system to produce an ade-

quate retirement income is in doubt. Clare (2008a, p. 4) states: "...current average balances are below those which the commonwealth treasury projected at the time compulsory superannuation was introduced. The data also indicate that there are a number of groups with relatively low levels of superannuation who need further assistance and encouragement to save if they are to achieve even a modest standard of living in retirement".

We can expect a continual growth in superannuation balances for many years as the private retirement income system matures. It is noted that the Australian compulsory superannuation system is still relatively immature and that many individuals have only had superannuation coverage since the introduction of the superannuation guarantee in 1992 (Clare, 2008a). The superannuation guarantee only reached its maximum rate of 9% in 2002 and as a result many still have modest balances in their superannuation accounts. Clare (2008a, p. 7) suggests that "with average retirement payouts in 2005-2006 of the order of \$136,000 for men and only \$63,000 for women it is clear that most retirees will need to substantially rely on the age pension in their retirement".

Nielson (2006) acknowledges that small retirement payouts from superannuation are the result of an immature superannuation system that will not reach its full potential until 2037 at best. In the year 2037 retirees will have accumulated superannuation contributions at a rate of 9% per annum for a 35-year period. The groups identified as having the greatest risk of insufficient superannuation savings for retirement are women, older baby-boomers, low income workers, the long-term unemployed, and long-term part-time workers (Nielson, 2006). Retirement saving under the compulsory superannuation system in Australia is dependent on an individual employee's years of employment and wage level. Women are generally at a disadvantage under this system, where continuous employment is often interrupted by the commitments of having a family. Olsberg (2004, p. 164) reiterates this concern and states that: "The fundamental problem is not having enough time or money in the paid workforce. Women's working patterns, their life long earnings and therefore, their capacity to accumulate sufficient retirement savings, are crucially compromised by interruptions to paid employment due to childbearing, child rearing and other family responsibilities".

Baby-boomers are usually defined as those born between 1946 and 1961 and who are now aged between 48 and 63 (Hamilton and Hamilton, 2006). The superannuation guarantee places this group in a position in which they are unable to capture the full benefit of superannuation over their working lives.

Preston and Jefferson (2002) suggest that most female baby-boomers will not be in a position to fund their own retirement and will remain highly dependent on the aged pension. Hamilton and Hamilton (2006) identified lower income baby-boomers as most at risk of having insufficient savings to fund retirement adequately. Their research suggests that many high income baby-boomers have significant wealth in superannuation and in other assets and could retire early.

Low income workers, the long-term unemployed and part-time workers are also at a disadvantage under the Australian superannuation guarantee. Low income leads to lower employee superannuation contributions. No contributions are made during periods of unemployment, and if these periods are prolonged superannuation will not sufficiently accumulate to fund retirement. Similarly, part-time workers and casual workers will derive relatively less employee superannuation contributions when compared to those employed full-time. It is stated by Nielson (2006, p. 26) that “for these groups the age pension will always be a major component of their retirement income”.

**7.1. Measuring adequacy.** In order to determine whether or not superannuation and other savings can adequately fund a person’s retirement we must first develop a measure. Nielson (2006, p. 6) provides the two following methods for defining an adequate retirement income:

- ◆ using a replacement rate, that is, the post-retirement income expressed as a percentage of an individual’s pre-retirement income; or
- ◆ using a budgetary standard, that is, measuring the adequacy of an individual’s post-retirement income against what it may cost to live in particular locations.

Rothman and Bingham (2004) describe the replacement rate as a ratio of a person’s income or spending power after retirement compared to the period just prior to retirement. This figure is usually expressed as a percentage of the retiree’s pre-retirement income (Nielson, 2006). The Senate Select Committee (2002) on superannuation noted general agreement among superannuation industry representatives that retirement income between 60% and 65% of pre-retirement gross income was adequate. Stanford (2004) suggests that a replacement rate of 65% may give retirees who own their home a higher standard of living in retirement than they experienced for the majority of their working lives. (Nielson, 2006, p. 29) suggests that: “reasons why a family may not have access to 65% of its gross salary available for consumption include mortgage repayments, costs of raising children or rental costs.

With the exception of the last cost, these burdens are generally not part of a retiree’s expenditure in retirement”.

An example of the budgeting approach to measuring the adequacy of retirement income has been developed by Westpac Banking Corporation and the Association of Superannuation Funds of Australia (The Westpac-ASFA Retirement Standard). They outline two standards of retirement income as follows (ASFA, 2007, p. 1):

- ◆ modest lifestyle in retirement (better than aged-pension, but still only able to afford fairly basic activities); and
- ◆ a comfortable retirement lifestyle (enabling an older, healthy retiree to have a broad range of leisure activities and a good standard of living).

National figures released from ASFA (2008) for the December 2008 quarter on the Westpac-ASFA retirement standard show that a couple living comfortably in retirement needs to spend \$50,561, while those couples seeking a modest but adequate retirement need to spend \$27,454 a year. Both these standards of living assume the retirees own their home. Therefore, the aged pension would allow a retired couple a modest but adequate standard of living. Rothman and Bingham (2004) found that the current rate of SG contributions, combined with a sufficiently long period in the workforce (more than 35 years), could produce sufficient balances for those on or below “average weekly ordinary time earnings” to provide a replacement income of between 60% and 78% of average salary over the last year of employment.

**7.2. Recent data on retirement and superannuation.** The income generated from superannuation and voluntary savings will vary from person to person and will depend on savings either through a superannuation account or other non-superannuation investment assets. A recent Australian Bureau of Statistics Survey (ABS, 2008) on employment arrangements, retirement and superannuation (SEARS) indicates that 91% of employed people had superannuation coverage. The survey also found that people who have retired more recently are less likely to have government aged pensions and allowances as their main source of personal income. The survey attributes this fall in demand for the aged pension to the increase in other income sources such as superannuation, annuities or income-streams. Importantly, of all people aged 45 years and over who intend to retire from the labor force, 43% reported that their expected main source of income at retirement would be income from superannuation, an annuity, or an allocated pension. However, present figures from SEARS indicate that only 21% of

people aged 65 and over rely principally on superannuation or investment income. A comparison to the previous SEARS survey conducted in 2000 shows that people with superannuation balances over \$100,000 increased from 6% to 15%, and people with balances of less than \$10,000 decreased from 48% to 29% (ABS, 2008). It is also important to note that in 2007 the mean balance for males was \$72,200 and \$47,200 for females with accumulation accounts: for defined benefit account holders, the mean balance for males and females was \$120,700 and \$80,200, respectively. CEDA (2004) reports that many Australians will find that the level of their savings will be inadequate in retirement.

### 8. Implications of inadequate retirement savings

For financial reasons many of the baby-boomer generation believe they will have to continue to work up to and beyond the retirement age (Hamilton and Hamilton, 2006). Recent data from the SEARS survey indicate that 64% of all employed people intend to retire between the age of 60 and 69, whereas 24% intend to retire aged 70 years or over (ABS, 2008). These statistics indicate that there is still a substantial number in the population who intend to work to retirement age and beyond. Other policies that have been advocated by superannuation and industry commentators to support superannuation savings further in Australia are summarized by Nielson (2006, p. 7) as follows:

- ◆ increasing the superannuation guarantee rate from 9 to between 12 and 15% of wages;
- ◆ reducing the tax rate on superannuation fund income (currently 15% on superannuation fund tax-deductible contributions and overall fund earnings);

- ◆ requiring additional after-tax contributions to be made by employees; and
- ◆ requiring that some or all of a person's superannuation benefits be converted to a pension.

### Conclusion

Australia's three-pillar approach to retirement income has World Bank endorsement. The three-pillars are composed of an aged pension, compulsory superannuation and voluntary savings. The Australian aged pension is funded by government revenue and provided to around 75% of Australians who have satisfied eligibility criteria. The pension level is considered to be well below the amount required to achieve an adequate lifestyle, and in close proximity to the poverty line. The superannuation system has been identified by the Intergenerational Report (The Treasury, 2007) as of importance in combating the economic impact of an ageing population on government finances.

The discussion on the adequacy of superannuation savings suggested that there were several groups in the Australian community that do not have sufficient coverage in superannuation to fund their retirement adequately. These groups were identified as the low-income baby-boomers, women, and other low income earners. A review of the literature was undertaken to determine how to measure adequacy. It was found that adequacy could be measured on several levels, that is, a modest-yet-adequate standard of living in retirement, or a comfortable-affluent standard of living in retirement. Data from SEARS indicated that a great majority of Australian workers had superannuation coverage, however, many workers still have superannuation balances that will not sustain them in retirement.

### References

1. ABC News (2009). "Credit Crunch Delays Baby Boomers' Retirement", viewed March 12, 2009, <http://www.abc.net.au/news/stories/2009/03/022505244.htm>.
2. ABS Australian Bureau of Statistics (2008). Employment Arrangements, Retirement and Superannuation, Australia, April to July 2007, Cat No. 6361.0, Australian Government, Canberra.
3. AIST Australian Institute of Superannuation Trustees (2008). Report on Financial Crisis, AIST Background paper No 4, October 15, 2008, viewed February 8, 2009, [http://www.aist.asn.au/Pages/PolResAdv/documents/AIST-Research\\_ReportonFinancialCrisis.pdf](http://www.aist.asn.au/Pages/PolResAdv/documents/AIST-Research_ReportonFinancialCrisis.pdf).
4. Alliance Strategic Research (2008). Superannuation as a Social Policy – Retirement Adequacy, viewed February 25, 2009, [http://www.allianceresearch.com.au/docs/Superannuation\\_as\\_a\\_social\\_policy\\_Retirement\\_adequacy.pdf](http://www.allianceresearch.com.au/docs/Superannuation_as_a_social_policy_Retirement_adequacy.pdf).
5. APRA, Australian Prudential Regulation Authority (2011a). Quarterly Superannuation Performance, September Quarter 2010, March, NSW, viewed February 10, 2011, <http://www.apra.gov.au/Statistics/upload/September-2010-Quarterly-Superannuation-Performance-PDF-2.pdf>.
6. APRA, Australian Prudential Regulation Authority (2011b). Statistics Annual Superannuation Bulletin Year ended June 2008, March, NSW, viewed February 10, 2011, <http://www.apra.gov.au/Statistics/upload/June-2010-Annual-Superannuation-Bulletin.pdf>.
7. APRA, Australian Prudential Regulation Authority (2007). Insight – Celebrating 10 years of superannuation data collection 1996-2006, Issue 2, Special Edition, NSW.
8. ASFA, Association of Superannuation Funds of Australia (2009). Henry Retirement Income Consultation Paper, ASFA submission, February 2009, viewed March 10, 2009, <http://www.superannuation.asn.au/submissions-/default.aspx>.

9. ASFA, Association of Superannuation Funds of Australia (2008). Food, Petrol and Holidays Drive Up Retirement costs, viewed February 17, 2009, <http://www.superannuation.asn.au/mr081209/default.aspx>.
10. ASFA, Association of Superannuation Funds of Australia (2007). Planning and Saving Now, viewed March 4, 2009, <http://www.superannuation.asn.au/consumers2-1/default.aspx>.
11. CEDA, Committee for Economic Development of Australia (2004). Australia's Ageing Population: Meeting the Challenge, February 2004, viewed August 18, 2007, [http://www.ceda.com.au/public/publications/policy/docs/ageing\\_policy\\_statement.pdf](http://www.ceda.com.au/public/publications/policy/docs/ageing_policy_statement.pdf).
12. Clare, R. (2008a). Retirement Savings Update, February, ASFA, Sydney, pp. 1-12.
13. Clare, R. (2008b). The Age Pension, Superannuation and Australian Retirement Incomes, ASFA, Sydney, pp.1-29.
14. Drabsch, T. (2004). Ageing in Australia, Briefing Paper No 12/04, NSW Parliamentary Library Research Service, NSW, September.
15. FaHCSIA, Department of Families, Housing, Community Services and Indigenous Affairs (2008a). Inquiry into the cost of living pressures on older Australians, Occasional Paper No. 21, Australian Government, Canberra, pp. 1-52.
16. FaHCSIA, Department of Families, Housing, Community Services and Indigenous Affairs (2008b). Pension Review Background Paper, Australian Government, viewed March 3, 2009, [http://www.facs.gov.au/seniors/pension\\_review](http://www.facs.gov.au/seniors/pension_review).
17. FaHCSIA, Department of Families, Housing, Community Services and Indigenous Affairs (2004). Policy research Paper No. 13, viewed February 20, 2009, <http://facsia.gov.au/research/prp13/sec4.htm>.
18. Hamilton, M. and Hamilton, C. (2006). "Rich Boomer, Poor Boomer: Retirement Prospects for the not-so-lucky Generation", *The Australia Institute*, August 2006, viewed February 26, 2009, <http://www.tai.org.au/file.php?file=WP88.pdf>.
19. Harding, A. (2005). "Analysing Australia's Ageing Population: A Demographic Picture", Paper presented to 'Australia's Ageing Population Summit, Financial Review Conferences, Sydney, 27 September, pp. 1-5.
20. Harmer, J. (2009). Pension Review Report, Department of Families, Housing, Community Services and Indigenous Affairs, Australian Government, Canberra, viewed on May 15, 2009, [http://www.fahcsia.gov.au/about/publications-articles/corp/Budget09\\_10/pension/Documents?Pension\\_Review\\_Report/PensionReviewReport.pdf](http://www.fahcsia.gov.au/about/publications-articles/corp/Budget09_10/pension/Documents?Pension_Review_Report/PensionReviewReport.pdf).
21. Holzman, R. and Hinz, H. (2005). *Old-Age Income Support in the 21<sup>st</sup> Century: an International Perspective on Pension Systems and Reform*, The World Bank, Washington, D.C.
22. McNair Ingenuity Research (2008). Annual Superannuation Survey Prepared for Association of Superannuation Funds Australia, viewed February 10, 2009, <http://www.superannuation.asn.au/Reports/default.aspx>.
23. Melbourne Institute of Applied Economic and Social Research (2011). Poverty Lines: Australia, September Quarter 2010, The University of Melbourne, Melbourne.
24. Nielson, L. (2006). "An Adequate Superannuation-Based Retirement Income?", Department of Parliamentary Services, Research Brief, No. 12, March 2006, Commonwealth of Australia, Canberra, pp. 1-37.
25. OECD, Organisation for Economic Co-operation and Development (2008). Pension Markets in Focus, Issue 5, December 2008, OECD Publishing, Paris.
26. Olsberg, D. (2004). "Women and Superannuation: Still Missing Out", *Journal of Political Economy*, No. 53, pp. 161-178.
27. Preston, A. and Jefferson, T. (2002). "The Economics of Labour Markets and Retirement Provision: Baby-Boomers and Gender Differences in Australia", Discussion Paper No. 25, Women's Economic Policy Analysis Unit (WEPAU), Curtin University of Technology, Western Australia, October.
28. Rothman, G. and Bingham, C. (2004). "Retirement Income Adequacy Revisited", Paper Presented to the Twelfth Colloquium of Superannuation Researchers, University of New South Wales, Sydney, July.
29. Senate Select Committee (2002). Superannuation and Standards of Living in Retirement – Report on the Adequacy of the Tax Arrangements for Superannuation and Related Policy, December 2002, Parliament of Australia, Canberra.
30. Stanford, J.D. (2004). "Long-Term Issues in Superannuation: An Overview", *Australian Economic Review*, Vol. 37, June, pp. 180-183.
31. Superannuation Stakeholder Group (2009). Superannuation in the Context of the Global Financial Crisis, Superannuation Stakeholder Joint Communiqué, February 3, 2009, pp. 1-4, viewed on February 10, 2009, <http://www.superannuation.asn.au/mr090203/default.aspx>.
32. Super Ratings (2009). Latest Returns, viewed February 25, 2009, <http://www.superratings.com.au/latestreturns>.
33. The Treasury (2010). The 2010 Intergenerational Report, Australia to 2050: Future Challenges, Australian Government, Canberra.
34. The Treasury (2008). Architecture of Australia's Tax and Transfer System, Commonwealth of Australia, viewed February 15, 2009, <http://www.taxreview.treasury.gov.au>.
35. The Treasury (2007). Intergenerational Report 2007, Assessing the Long-Run Sustainability of Government Policies, Australian Government, Canberra.
36. The Treasury (2004). A More Flexible and Adaptable Income System, viewed February 13, 2009, [http://demographics.treasury.gov.au/content/\\_download/flexible\\_retirement\\_income\\_system/HTML/retirement.asp](http://demographics.treasury.gov.au/content/_download/flexible_retirement_income_system/HTML/retirement.asp).
37. The Treasury (2002). Intergenerational Report 2002-2003, Budget Paper No. 5, Australian Government, Canberra, viewed January 15, 2009, <http://www.budget.gov.au/2002-03/bp5/html/index.html>.
38. World Bank (1994). World Development Report: Infrastructure for Development, World Bank Publications, Washington D.C.