# ARC Centre of Excellence in Population Ageing Research

# Working Paper 2011/9

## Civil Services and Military Retirement Income Provision in Australia

Hazel Bateman and John Piggott*

* Bateman is Associate Professor of Actuarial Studies, Director of the Centre for Pensions and Superannuation at the University of New South Wales and a CEPAR Associate Investigator. Piggott is Scientia Professor of Economics and Australian Professorial Fellow at the University of New South Wales, and Director of the ARC Centre of Excellence in Population Ageing Research.

This paper can be downloaded without charge from the ARC Centre of Excellence in Population Ageing Research Working Paper Series available at www.cepar.edu.au.

# Civil Services and Military Retirement Income Provision in Australia

Hazel Bateman and John Piggott*

*Version of July 24 2011*

Abstract

This paper documents developments in public sector pensions in Australia, and reports estimated unfunded liabilities associated with benefits promised to public sector employees. Australia's experience with public sector pensions is unusual – currently, the defence forces and the judiciary apart, all new entrants to public sector schemes confront defined contribution (DC) plans. The transition from defined benefit (DB) to DC has taken place over the last 20 years. We argue that an important driver for this relatively rapid transition of public sector pensions is the broader retirement policy framework in Australia, in which the only nationally mandated earnings related retirement financing is based upon a compulsory DC contributory plan. While legacy costs from the now-closed public sector plans are significant at 15% of GDP, it is projected that this will fall to zero over the next 30 years, both through natural attrition and a series of initiatives designed to pay off the pension debt.

*Journal of Economic Literature* Classification Numbers: D91; G23; H55; H72

*Keywords:* Civil service pension; Legacy cost; Superannuation

* Bateman is Associate Professor of Actuarial Studies and Director of the Centre for Pensions and Superannuation at the University of New South Wales. Piggott is Scientia Professor of Economics and Australian Professorial Fellow at the University of New South Wales, and Director of the ARC Centre of Excellence in Population Ageing Research (CEPAR). This paper was prepared for the Workshop on Civil Services and Military Pension Arrangements in Selected Countries in the Asia-Pacific, Tokyo, January 2011. We acknowledge financial support from the Australian Research Council and the JAPAN?? Renuka Sane provided valuable research support. Opinions expressed herein are those of the authors alone, and not of any institution with which the authors are affiliated. 

## 1. Introduction

This paper documents developments in public sector pensions in Australia, and reports estimated unfunded liabilities associated with benefits promised to public sector employees. Australia's experience with public sector pensions is unusual – currently, the defence forces and the judiciary apart, all new entrants to public sector schemes confront defined contribution (DC) plans. The transition from defined benefit (DB) to DC has taken place over the last 20 years. While legacy costs are considerable, still amounting to some 15% of GDP, they are projected to shrink through time.

We argue that one driver of this progressive public sector pension reform has been the introduction of the Superannuation Guarantee[1], a mandatory funded DC pension plan initially introduced in the late 80s. Along with an enduring national concern for public sector prudence (Australia has the lowest national debt in the developed world; it was zero at the onset of the global financial crisis) this radical private sector policy reform led to public sector alignment. Until around 20 years ago, most public sector superannuation schemes were unfunded or partially funded DB schemes with benefits financed on a pay-as-you-go (PAYG) basis. But public and private sector workers have almost always been subject to the same policies; as the Superannuation Guarantee policy framework developed, its requirements were brought to bear on public sector authorities, and these led to public sector pension reform.

To fully appreciate the force of private pension reform on public sector pension provision, it is necessary to understand the essential features of Australia's retirement policy. Following a brief overview of the fiscal system in Australia, its employment, and the current nature of its pension programs, we proceed by sketching out these retirement income arrangements. Section 4 describes the specific superannuation

[1] "Superannuation" is the Australian term for occupational or personal pensions. The Superannuation Guarantee was so named because it aimed to guarantee that employers would contribute a minimum fraction (currently 9%) of wages into a fund for the employee's retirement.

(retirement savings) schemes for public sector workers in the Commonwealth government, the State and Territory governments and for defence personnel, and places these in historical context. We highlight the transformation over the past two decades from largely pay-as-you-go DB plans to fully funded accumulation schemes. In Section 5 we turn to public sector superannuation funds in aggregate and report broad characteristics and performance metrics. We also discuss current strategies to address unfunded superannuation liabilities, including the establishment of Australia's Future Fund, a sovereign wealth fund with the brief to finance the 'unfunded liabilities of Commonwealth government employees' superannuation. Section 6 concludes.

## 2. Public Sector Overview

The public sector in Australia comprises three levels of government - the Commonwealth (national) government, eight State and Territory governments and local government. In aggregate it accounts for around one quarter of GDP and employs around 17% of the workforce (ABS 2008, 2009). In what follows, we focus only on the States (and Territories) and the Commonwealth government. Since the State governments are the largest employers of both education and health workers, this captures most government employment in the country.

The most pressing issue currently facing Australia's public sector superannuation schemes is that of the unfunded liabilities associated with the now closed DB schemes, which currently amount to $A205.4 billion (about 15% of GDP).[2] Liabilities are transparently calculated and are included in all State, Territory and Commonwealth government budget documents. As well all State and Territory governments and the Commonwealth government have introduced strategies to eliminate these liabilities. Legislation has been enacted requiring various public authorities to reduce liabilities through regular payments from public sector budgets[3], and using the proceeds of asset

[2] All dollar amounts are in Australian dollars (AUD). Currently, an Australian dollar buys about US$1.05.

[3] For example, the Fiscal Responsibility Act 2005 in New South Wales

sales[4], as well as the establishment of investment funds with the specific function to finance unfunded superannuation liabilities. Projections suggest that the unfunded liabilities associated with the closed public sector superannuation schemes will be eliminated in the next 30 years. The superannuation schemes for defence personnel and the judiciary remain the only public sector schemes relying to any significant extent on PAYG financing from consolidated revenue, for new entrants.

## 3. Overview of Retirement Income Provision in Australia

### Structure of retirement incomes

Retirement income provision in Australia consists of three components – a PAYG flat rate public Age Pension, provided to all who satisfy age and residency criteria, subject to a resources test; a mandatory employer-paid contribution of 9% of wages, to a fund usually administered in the private sector; and tax preferred voluntary private saving, up to certain contribution limits.

***The Age Pension.*** Historically, this has been the mainstay of Australian retirement income policy. First introduced more than a century ago, payments are currently made to 75% of those who have reached access age, with some 60% receiving the full pension entitlement. The full pension is currently (mid 2011) about $A18,960 a year for a single person, and at $A28,585 for a couple[5]. The single rate is more than 27% of average full time male earnings; the rate for couples is more than 40%. These payments are income tax-exempt. Access age is 65 for males and 64 for females, and will increase to 67 for both males and females over the period 2017-23. The Age Pension is means tested on both income and assets. Payments are indexed to the greater of the growth of wages and prices, which ensures that the benefit retains its relativity to general living

[4] For example, part of the proceeds of the sale of Lotto in New South Wales

[5] All dollar amounts are in Australian dollars (AUD). Currently, an Australian dollar buys about US$1.05.

standards. In 2010 there were 2,158,300 Age pensioners and 170,000 Service pensioners [6] (FaHCSIA 2010, DVA 2011).

***The Superannuation Guarantee.*** The second component is the Superannuation Guarantee, which mandates a 9% employer contribution (increasing to 12% over the next decade) into a superannuation (pension) fund nominated by the employee. The Superannuation Guarantee commenced in 1992, replacing a 3% employer contribution known as productivity award superannuation (PAS) which had been negotiated through centralised bargaining arrangements in the mid 1980s. It applies to all employees (across both public and private sectors) aged 18-70 who earn more than 8% of the average male wage. Superannuation coverage of employees in the private sector increased from about 30% in the mid-80s to nearly 90% quite rapidly, following the introduction of this policy. The Superannuation Guarantee was phased in, with the 9% currently legislated becoming effective in 2002.

***Voluntary Saving.*** The third component is voluntary saving, which we define here as covering contributions to superannuation plans above 9%. Many people have more than the mandatory 9% earnings contributed to their superannuation accounts, either because employers choose to make more than the minimum contribution, or because employees supplement the 9% with contributions of their own. Voluntary contributions increase the average contribution rate to 12.8% of earnings (ABS 2008). These are subject to a contribution limit, currently set at $A25,000 a year, with a $A50,000 a year limit for older workers.

Retirement benefits from both mandatory and voluntary superannuation can be taken as a lump sum and/or a phased withdrawal (called an account-based pension in Australia) and/or a term or life annuity. Currently around 50% of retirement benefits are

[6] A specific type of public pension, known as the Service Pension is paid to retired defence personnel who have 'served in operations against the enemy while in danger from hostile forces of the enemy'. The Service Pension is paid at exactly the same rate and is subject to the same means tests and other conditions as the Age Pension, except that eligibility is 5 years earlier.

taken as lump sums and about 50% as phased withdrawal products. The take-up of life annuities is negligible. Overall coverage of superannuation now stands at around 90% of the total workforce (including 96% of the full time workers, 80% of part time workers and 73% of casuals and self employed) (Bateman and Piggott 2011).

***Application to the Public Sector.*** From a legal point of view, public sector employees and defence personnel are subject to the same superannuation arrangements as all other employees. However, differences in benefit size and coverage do exist, mainly due to broader coverage and higher benefits in the pre mandatory era. Currently, average contribution rates for public sector workers are higher at 14.5% of earnings, compared with 12.2% for private sector workers. It is therefore not surprising that average superannuation balances are currently around 55% higher in the public sector ($A97,067 compared with $A62,456). The median superannuation account balance is more than twice as large ($A46,171 compared with $A21,825) (ABS 2008). However, these differences will narrow over time as more private sector workers retire with longer periods of superannuation coverage and the reduced generosity of public sector schemes (as discussed below) is reflected in retirement accumulations.

Next we turn to the specific superannuation (retirement saving) schemes for public sector workers and defence personnel. A key feature is that prior to the introduction of the mandatory Superannuation Guarantee in Australia in 1992, most public sector schemes were DB plans. While almost all of these have closed to new members and have been replaced by accumulation schemes, the associated unfunded liabilities continue to feature on public sector balance sheets.

**4. Superannuation Schemes for Public Sector Workers and Defence Personnel**

Public sector workers and defence force personnel comprise around a quarter of a million Commonwealth government employees, 1.3 million State and Territory government employees and 178,000 local government employees. Historically, separate superannuation schemes operated for each level of government, the various government enterprises (such as the energy industry), statutory bodies (such as the Police and Emergency Services) and the defence forces. Until about 20 years ago, these were mainly DB schemes fully or partly financed on a PAYG basis. Many provided at least the option of a CPI indexed pension at retirement. A typical plan would include a defined benefits component paid by the government, contributed on a PAYG basis, with the option of a small accumulation component funded from member contributions.

However, two to three decades of national reform of retirement income policies (Bateman and Piggott 2003) which emphasised a DC approach to retirement saving, combined with ongoing concerns about public sector indebtedness, has resulted in a comprehensive reform of public sector superannuation schemes. Almost all DB schemes have closed to new members and with the exception of schemes for defence personnel and judges, all current schemes at all levels of government operate on an accumulation (defined contributions) basis. Even the previously very generous plans enjoyed by elected members of Parliament have been closed.

***Schemes for Commonwealth government employees and defence personnel***

The first superannuation scheme for Commonwealth government employees was established in 1922 and for defence personnel in 1948. Current Commonwealth government employees belong to one of three superannuation schemes, the Commonwealth Superannuation Scheme (CSS), the Public Sector Superannuation Scheme (PSS) or the Public Sector Superannuation accumulation plan (PSSap). The first two of these – the CSS and the PSS – closed to new members in 1990 and 2005 respectively, but they continue to hold accounts for current and past employees and pensioners. Since 2005, new Commonwealth government employees have joined the PSSap. Current defence personnel belong to either the Defence Force Retirement and Death Benefits Scheme (DFRDB) or the Military Superannuation and Benefits Scheme (Military Super). The DFRDB closed to new members in 1991, with defence personnel hired since that time joining Military Super. Since July 2011 all five schemes have been managed by the Australian Reward Investment Alliance (ARIA).

Table 1 summarises the key features of the current superannuation schemes for Commonwealth government employees and defence personnel. Characteristics of those schemes now closed to new members are reported in Table 2.

<insert Table 1 here>

<insert Table 2 here>

Since 2005, all new Commonwealth government employees have joined the **Public Sector Superannuation accumulation plan (PSSap)**. The employer (the Commonwealth government) makes a minimum contribution of 15.4% of an employees' salary into an individual account. This is 6.4 percentage points above the mandatory rate and compares with an average employer contribution across all sectors of 12.8%. Employees can also elect to make voluntary contributions. Investment choice is available from a menu of four diversified funds (trustee choice, conservative, balanced and aggressive) and seven individual asset class options, with the 'balanced' fund as the default option. In 2010 PSSap had just under 100,000 members, comprising current employees and past employees who elected to keep their account in the fund. There are no pensioners as the PSSap pays only lump sum benefits at retirement. The current scheme for Commonwealth (national) government employees is a fully funded accumulation scheme, with contributions a little higher than the national average, but with no long term liabilities associated with the payment of lifetime pensions.

Prior to 2005, Commonwealth public sector workers were enrolled in one of two partially unfunded DB schemes, both of which provided at least the option of a CPI indexed pension at retirement. Employees who joined the Commonwealth government between 1990 and 2005 (and did not elect to transfer to PSSap) belong to the **Public Sector Superannuation Scheme (PSS)**. PSS is a partly funded DB scheme, with the funded components comprising employee contributions (of 0% to 10% of earnings) and a 3% employer productivity contribution. The balance of the employer (Commonwealth government) contributions is made on a PAYG basis from consolidated revenue at the time of benefit payment. Retirement benefits are calculated using a formula based on a derivation of final average salary, total contributions and length of membership and are paid as a lump sum and/or an indexed lifetime pension. Despite closing in 2005, the PSS still manages around a quarter of a million accounts of current and past employees and pensioners and continues to accrue unfunded liabilities.

Commonwealth government employees who commenced prior to 1990 (and did not elect to transfer to PSS or PSSap), belong to the **Commonwealth Superannuation Scheme (CSS).** Members of the initial 1922 scheme were also transferred to the CSS at its commencement in 1976. CSS is hybrid superannuation fund with a DB component and an accumulation component. The DB component is funded by the employer (the Commonwealth government) on a PAYG basis from consolidated revenue at the time of benefit payment. The accumulation component is funded from member contributions (of 0% or 5%) and a 3% employer productivity contribution, supplemented by voluntary employee contributions. Contributions in the accumulation component can be invested in either a balanced fund (the default) or a 100% cash option. In 2011 the balanced fund comprised around 57% Australian and international equities. Over the 10 years to June 2010 the average annual rate of return of the balanced (default) fund was 4.3%, which is a full percentage point higher than the industry average. Retirement benefits are paid as a CPI indexed lifetime pension from the DB component and retirees can choose from a non-indexed lifetime pension and/or a lump sum from the accumulation component. Despite closing to new members in 1990, the CSS still manages 145,000 accounts of current and past employees and pensioners, and like the PSS continues to accrue unfunded liabilities.

At June 2010 the three Commonwealth government schemes had 487,549 members, comprising 203,103 current employees, 148,104 past employees and 136,342 pensioners. Unfunded benefit payments associated with the two closed schemes – CSS and PSS – are expected to increase over the next decade and then to gradually fall to zero by the middle of the century.

Defence personnel who have joined the military since 1992 belong to **Military Super**, a hybrid scheme, with a partially funded DB component and an accumulation component. The accumulation component is funded by member contributions of between 5% and 10% of earnings, which can be invested in one or a combination of the five investment options (cash, conservative, balanced, growth and high growth), with growth as the default option.

The defined benefits component consists of two parts: a funded component in the form of a 3% employer productivity contribution (paid by the Department of Defence) and an unfunded component, paid by the Commonwealth government on a PAYG basis from consolidated revenue. The Australian Government Actuary estimates that the total defined benefit is equivalent to a total employer contribution of 27% of earnings (Australian Government Actuary 2009). At retirement the accumulation component must be taken as a lump sum, but the employer benefit may be taken as a CPI indexed pension and/or as a lump sum.

A review of Military Super conducted in 2007 recommended that the scheme be closed and replaced with an accumulation plan (Australian Government 2007). This recommendation was rejected by the government, with the result that Military Super (along with a much smaller scheme for Judges) remains the only pay-as-you-go defined benefit schemes open to new members in the Commonwealth sector. At June 2010, Military Super had 138,639 members comprising 54,525 current employees, 76,430 retired defence personnel, and 7,684 pensioners.

Defence personnel who commenced before 1991 (and did not elect to transfer to Military Super) belong to the **Defence Force Retirement and Death Benefits Scheme (DFRDB).** Members of the 1948 scheme were automatically transferred in. The DFRDB is a defined benefit scheme completely funded on a PAYG basis. The 5.5% contribution made by defence personnel and the 3% productivity contribution made by the Department of Defence are paid into consolidated revenue and do not earn interest. The balance of the employer (Commonwealth government) contribution is made on a pay-as-you-go basis at the time of benefit payment. Benefits are paid as a CPI indexed pension and/or as a lump sum, and DFRDB members can make additional voluntary contributions to the accumulation component of Military Super (discussed above). Although the DFRDB closed to new members in 1992, at June 2010 there were still 4,246 contributors and 56,981 pensioners.

Both Military Super and the DFRDB schemes continue to accrue unfunded superannuation liabilities.

***Superannuation schemes for State and Territory government employees***

The evolution of superannuation schemes for State and Territory government employees has followed a very similar path. The first superannuation scheme for State government employees commenced in South Australia in 1854 and coverage became widespread in the second half of the 20$^{th}$ century. However, over the past 25 years (reflecting reforms in national superannuation policies and concerns about levels of State government debt) there has been a shift away from PAYG DB schemes, first to partially funded hybrid schemes, and then to fully funded accumulation schemes. Open and closed schemes for current public sector employees of the six States (New South Wales, Victoria, Queensland, Western Australia, South Australia and Tasmania) and two Territories (Northern Territory and Australian Capital Territory) are discussed below and summarised in Table 1 (current schemes) and Table 2 (closed schemes).

In **New South Wales**, Australia's largest state, around 80% of State public sector employees belong to First State Super (FSS), an accumulation based superannuation scheme with a mandatory employer contribution of 9%, supplemented by voluntary employee contributions. The rest of the state public sector workforce (with the exception of Judges) belongs to a number of closed partially funded DB schemes. As with the Commonwealth government, the Judges Pension Scheme remains the only PAYG DB scheme still open to new members.

The First State Super scheme commenced in 1992 and replaced a number of now closed DB schemes. It represented not only a shift to a fully funded accumulation plan from a PAYG DB plan, but also a consolidation of a multitude of different schemes for different State sectors and authorities (Police, energy industry workers etc), to a single scheme. Benefits from First State Super can be paid as a lump sum or as an account-based pension (a form of phased withdrawal).

First State Super currently has 530,000 members, including both current and previous employees. However, there are also nearly 200,000 members of the closed partially funded DB schemes, comprising current and past employees and pensioners, whose superannuation benefits will be partly funded as they arise by the State Government. In 2010 the unfunded superannuation liabilities associated with these closed schemes were estimated at around $A27.5 billion (see Table 3).

<insert Table 3 about here>

Public sector superannuation in the state of **Victoria** has a similar history. Since 1994 new State government employees have joined VicSuper, an accumulation scheme with a 9% employer contribution and voluntary member contributions. VicSuper also replaced a number of industry specific State schemes (now closed to new members), which are partially funded on a PAYG basis from State government finances. Benefits from these schemes are generally paid as lump sums and/or account-based pensions. There are currently around 255,000 members of the fully funded VicSuper, but nearly 150,000 members of the closed partially funded hybrid DB schemes, whose benefits will need to be funded as they arise by the Victorian government. At June 2011, the unfunded superannuation liabilities associated the now closed schemes in Victoria were estimated at $A22.2 billion.

**Queensland** followed a similar path with the evolution from partially funded DB schemes to a single accumulation scheme, but with a key difference. The schemes for employees in the Queensland public sector have been fully funded for some time and are not accumulating unfunded liabilities. The current scheme, the QSuper accumulation account, has just under 600,000 members and around 123,000 current and past employees remained in the fully funded QSuper defined benefit scheme when it closed to new members in 2008. Minimum employer contributions are higher than for the New South Wales or Victorian schemes at 9.25% (when accompanied by an employee contribution of 2%), increasing to 12.25% when matched by employee contributions of up to 5%. Benefits are paid as a lump sum or as an account-based pension.

The superannuation schemes for public sector employees in **South Australia** (the Southern State Superannuation Scheme), **Western Australia** (GESB Super) and **Tasmania** (the Tasmanian accumulation scheme) are all fully funded accumulation schemes and all replaced hybrid DB schemes. In all of these states, the hybrid schemes had comprised two components: an accumulation component funded from members contributions and a DB component financed at the time of benefit payment from state revenue. In 2011, the unfunded superannuation liabilities associated with members remaining in the now closed hybrid defined benefit schemes were estimated at $A8.7 billion, $A7.4 billion and $A4.4 billion for South Australia, Western Australia and Tasmania respectively.

Finally, the schemes for the **Northern Territory** and the **Australian Capital Territory** (ACT) have a slightly different history. Prior to 1988 (in the Northern Territory) and 2006 (ACT), public sector employees were enrolled in the schemes for Commonwealth government employees. A partly funded hybrid DB scheme operated for Northern Territory public sector employees between 1988 and 1999, but no specific scheme was established for ACT government employees. Instead, permanent employees joined one of the Commonwealth government schemes and casual employees joined AGEST (Australian Government Employees Superannuation Trust), an Australia-wide industry fund for public sector workers. Since 1999 in the Northern Territory and 2006 in the ACT, new public sector employees have been able to choose their superannuation fund. The default fund in the Northern Territory is AGEST. In the ACT the default fund is First State Super, the fund initially set up for New South Wales government employees, but now established as a 'public offer' fund which allows it to accept members from the general public. Northern Territory employees receive the minimum employer contribution rate of 9%, which can be supplemented by voluntary contributions. In the ACT, the government makes the mandatory 9% contributions, plus an additional 1% for employees who make a voluntary contribution of 3% or more.

However, in common with five of the six state governments, the Northern Territory and ACT have an ongoing funding responsibility for the superannuation benefits of current and past employees who belong to now closed fully or partially unfunded defined benefit schemes. Current estimates indicate unfunded superannuation liabilities of $A3.7 billion for the Northern Territory and $A2.0 billion for the ACT.

In the next section we turn to the characteristics and relative performance of the funded segment of the public sector superannuation schemes.

## 5. Public Sector Superannuation Funds in the Superannuation Industry

Australia's superannuation industry comprises not-for-profit superannuation funds, for-profit funds (known as retail funds) and self managed superannuation funds. The not-for-profit sector includes corporate superannuation funds, industry superannuation funds and public sector superannuation funds. Industry funds cover workers across a number of related firms and industries and were introduced in conjunction with the increasing coverage of superannuation in the 1980s under productivity superannuation and from 1992 under the Superannuation Guarantee. Retail funds operate on a for-profit basis and originated as superannuation funds for personal (rather than occupational) contributions, while self managed superannuation funds are for those who wish to take full control of their retirement saving.

There has been considerable change in the industry over the past few decades, including fund consolidation with a large reduction in the number of not-for profit funds, a move from funds based on defined benefits to accumulation funds, the introduction of member choice of fund from 2005 for the mandatory superannuation contributions, and an increasing trend for funds to become so-called ‘public offer funds’ which allows them to accept contributions from general public, rather than only from members of particular firms of industries. As well, a recent review of the superannuation industry (Super System Review 2010) has made recommendations with the aim of increasing efficiency, improving competition and reducing costs (Commonwealth of Australia 2010).

These changes have not escaped the public sector funds, with fund consolidation resulting in a reduction in the number of public sector funds from 93 in 1996 to 39 in 2010. As well, a small number of public sector funds have now adopted ‘public offer status’ (including First State Super and VicSuper, originally established for public sector employees in New South Wales and Victoria respectively), which allows them to accept contributions from both public and private sector employees. Over time these trends will lead to a more homogeneous superannuation industry and a reduction in the number of superannuation funds specifically for public sector workers.

At March 2011, total superannuation assets were $A1.36 trillion, or around 100% of GDP, to which 39 public sector superannuation funds contributed assets of $A191.9 billion. Excluding self managed funds, public sector funds account for 10% of superannuation funds, 22% of total superannuation assets and 10% of total superannuation accounts (APRA 2011a, 2011b). However, as noted above, unfunded legacy costs currently total $A205.4 billion.

***Regulation and taxation of public sector superannuation funds***

With some minor exceptions due to constitutional barriers, the public sector superannuation funds are regulated and taxed in exactly the same manner as all other superannuation funds. With the exclusion of self managed funds, all superannuation are regulated under the framework as set out in the Superannuation Industry (Supervision) (SIS) Act 1993. A slight difference is that 20 of the 39 public sector funds, known as ‘exempt public sector superannuation’ schemes, are precluded from these arrangement by constitutional barriers and instead are supervised by their respective governments in accordance with the principles of the SIS Act, rather than by the industry regulator - the Australian Prudential Regulatory Authority (APRA). These arrangements are enforced by a Heads of Government agreement (signed between the Commonwealth, State and Territory governments.[7]

The typical tax treatment of superannuation in Australia is one where contributions are taxed (T), fund earnings are taxed (T) and benefits are exempt (E). The SIS Legislation treats the 'exempt public sector superannuation funds' described above, in exactly the same manner as other superannuation funds for concessional taxation and Superannuation Guarantee purposes. However, there is a further category of public sector fund called a 'constitutionally protected' (or 'untaxed' superannuation fund), which again, due to constitutional barriers are exempt from the standard superannuation tax regime. For these funds, contributions and fund earnings are untaxed (E), with tax levied when the benefit is paid (T). Of all the 'constitutionally protected' superannuation funds, only those for defence personnel and the judiciary remain open to new members.[8]

***Aggregate performance of public sector superannuation funds***

Over the past 20 years or so, the performance of public sector superannuation funds (as measured using the metrics of return on assets, expense ratios and governance indicators) has been similar if not marginally better than that of the superannuation industry as a whole. Historical rates of return over the period 2001-2010 are reported in Figure 1. Over this period the average nominal annual rate of return on assets for public sector superannuation funds was 4.2%, compared with 3.9% for both industry funds and corporate funds, 2.5% for retail funds, and 3.3% for the superannuation industry in aggregate. The superior performance of public sector funds is confirmed in more

[7] A complete list of 'exempt' public sector superannuation funds can be found on the APRA website at: http://www.apra.gov.au/Superannuation/upload/EPSSS-list.pdf.
[8] A complete list of 'constitutionally protected' superannuation funds can be found on the ATO website at: http://www.ato.gov.au/individuals/content.aspx?doc=/content/00119853.htm

thorough analysis which controls on differences in fund characteristics, such as asset allocation, manager skill and the demographic profile of fund membership (Ellis, Tobin and Tracey 2008).

<insert Figure 1 here>

Similarly, public sector funds also show better performance under the expense ratio metric, as reported in Figure 2, and under key governance indicators (as explained in Sy, Inman, Esho and Sane, 2008).

<insert Figure 2 here>

***Challenges for Civil Service and Military Superannuation Schemes***

The main challenge for Australian public sector superannuation funds is the legacy cost of previously offered unfunded DB plans.[9] Taking all jurisdictions together, unfunded superannuation liabilities associated with now closed unfunded or partially funded defined benefit schemes total $205.4 billion. Estimates of the unfunded superannuation liabilities by level of public sector are set out in Table 3, with Figure 3 summarising historical trends.

As illustrated in Figure 3, these unfunded liabilities have been growing over the past decade, due to the continued work force participation of many employees who remain in these schemes. Actuarial estimates across each of the constituent State, Territory and Commonwealth government entities project an increase in liabilities over the next decade or so, followed by a gradual reduction in liabilities in the decades thereafter as fund members retire and subsequently reach the end of their lives.

These estimates of unfunded liabilities themselves should be treated with caution, since they are very sensitive to the discount rate used. The current international accounting standard, AASB 119, sets the discount rate at the long term government bond rate at 30

[9] As noted earlier, Military Superannuation and the various state and Commonwealth schemes for the judiciary remain the only open schemes funded on a PAYG basis.

June each year. However, not all Australian public sector entities have used this discount rate in their latest estimates, and prior to the adoption of AASB 119, there was even greater variation in discount rates used at a point in time. This brings into question the comparability of unfunded superannuation liabilities estimates both at a point in time and over time across different jurisdictions. Even if all jurisdictions were using the same discount rate, we would observe large fluctuations in unfunded liabilities from year to year, with movements in the government bond rate.

However, the unfunded superannuation liabilities of Australian public sector and defence personnel are transparent and are explicitly reported annually in Commonwealth, State and Territory government financial reports and budget papers.

A number of strategies have been used at all levels of government to address and ultimately eliminate unfunded superannuation liabilities from public sector balance sheets. The starting point was the gradual move from unfunded or partially funded DB schemes to fully funded accumulation schemes, encouraged by a national policy emphasis on accumulation plans (under the Superannuation Guarantee) and concerns about levels of public sector indebtedness in the 1980s. However, this strategy merely maintains the status quo – and does not directly address pre-existing liabilities from the now closed schemes which pay at least some proportion of benefits on a PAYG basis. Queensland is the only state which has managed to completely eliminate its unfunded superannuation liabilities.

These accruing benefit promises from the now closed schemes across the State, Territory and Commonwealth sector (as well as the open Military Super scheme) are being addressed in a number of ways, including, through legislation requiring regular contributions to target a gradual fall in the unfunded liabilities, as well as the establishment of specific funds to finance future liabilities.

An example of the former has been initiated by the New South Wales government through the 'Fiscal Responsibility Act 2005' which requires that the PAYG DB schemes operating in New South Wales be fully funded by 2030. The funding plan includes regular employer (ie, State government) contributions to be made over time to meet this target - for example, $A1.14 billion in the 2009-2010 state budget and $A1.33 billion in 2010-11 – as well as irregular contributions where finances permit. In 2009-10, $A510 million was contributed to State Super (the fund responsible for the payment of the benefits) from the sale of New South Wales Lotteries Corporation (New South Wales Government 2010).

This pattern is echoed in other states. These include initiatives to eliminate the unfunded superannuation liabilities associated with the now closed PAYG schemes in Western Australia by 2031 and in Victoria and South Australia by 2035 (South Australian Government 2011, Western Australian Government 2010). And, in Queensland, the *Financial Accountability Act 2009* includes a *Charter of Fiscal Responsibility* which will ensure full funding of any future superannuation liabilities.

An alternative approach of specific pre funding is being undertaken by the public sector entities with the smallest (non zero) and largest unfunded liabilities. The Superannuation Provision Account (SPA) was established in 2000 in the ACT and the Future Fund by the Commonwealth government in 2006, to finance the unfunded superannuation liabilities currently estimated at $A2.0 billion and $A129.5 billion respectively.

***The Future Fund***

The Future Fund was established in early 2006, to make provision for the unfunded superannuation liabilities of employees of the Commonwealth government (including defence personnel) that will become payable during a period when an ageing population is likely to place significant pressure on the Commonwealth's finances.

The initial contributions were made from budget surpluses, and the sale of Commonwealth government assets (specifically from the sale of Telstra, previously a public sector telecommunications company). Assets cannot be withdrawn from the fund until at least 2020 except to pay for operating costs of the fund, unless the fund assets fully offset the unfunded liability.

The Future Fund is managed by a Board of Guardians, which is independently responsible for the investment decisions of the Fund. As well, in undertaking its investment activities, the Board is required to act in a way that minimises the potential impact of the activities of the Fund on Australian financial markets (Future Fund Board of Guardians 2010).

As of March 2011, Fund assets stood at $A74.6 billion (compared with the current estimate of unfunded superannuation liabilities in the Commonwealth sector of $A129.5 billion), and comprised 11.3% Australian equities, 26.7% international equities, 3.3% private equity, 6% property, 4.7% infrastructure, 19.1% debt Securities, 15.9% alternate assets, 10.8% cash and 2.2% in Telstra (Future Fund 2011).

**6. Concluding comments**

This paper has described the evolution of Australia’s public sector and Defence pension funds, with an emphasis on developments in the last 20 years. Historically, Australia’s public sector employees enjoyed pension, or superannuation, to use the Australian term, coverage, under unfunded or partially funded DB plans, while the private sector relied on a flat rate Age Pension, with less than one third of the private employees enjoying occupational superannuation.

Critical to the reform of public sector retirement income provision has been the development of mandatory, DC coverage for all workers. Because the legislation governing this reform was quite general, public sector employers and employees were subject to its requirements. This facilitated reform and now almost all new entrants to public sector employment are offered a DC plan only.

The superannuation funds dealing primarily with public sector employees have marginally outperformed their private sector counterparts since their transformation into DC entities. Governance metrics are also higher. An ongoing development has been the conversion of some of these funds to what are termed public offer funds, which are able to offer superannuation to all comers. Over time, the distinction between public and private funds will probably become increasingly blurred.

Legacy costs from membership in the (now closed) DB public sector funds to both employees and retirees, is considerable, currently sitting at about 15% of GDP. But a sustained effort is being made to reduce this liability, through a series of initiatives ranging from the establishment in 2006 of a national Future Fund aimed at eliminating the Commonwealth government's superannuation liabilities, to asset sales and legislation with liability reduction targets at the State level. It is anticipated that over the next 30 years, the legacy costs will be eliminated. Only Defence forces and the judiciary continue to enjoy unfunded DB superannuation.

## References

ACT Government (2011), ACT Government Budget 2011-12, Budget Paper No.3 Budget Overview.

Australian Bureau of Statistics (ABS) (2008), Employment Arrangements, Retirement and Superannuation, Australia, 6361.0, April-July 2007 (Reissue), Australian Bureau of Statistics

Australian Government (2007), Report of the Review into Military Superannuation.

Australian Government (2011), 2011-12 Budget, Budget Paper No.1 Budget Strategy and Outlook.

Australian Prudential Regulation Authority (APRA) (2007), Celebrating 10 Years of Superannuation Data Collection 1996-2006, APRA Insight, Issue 2, Australian Prudential Regulation Authority.

Australian Prudential Regulation Authority (APRA) (2011a), Annual Superannuation Bulletin 2010, Australian Prudential Regulation Authority (issued January 2011).

Australian Prudential Regulation Authority (APRA) (2011b), Quarterly Superannuation Bulletin, Australian Prudential Regulation Authority, March 2011 (issued June 2011).

Australian Reward Investment Alliance (ARIA) (2010), 2009-2010 ARIA Annual Report, Commonwealth of Australia.

Bateman H and J Piggott (2003), 'The Australian Approach to Retirement Income Provision', in N Takayama (ed), *Taste of Pie: Seeking for Better Pension Provisions in the Developed Countries*, Maruzen Book Co Ltd, Tokyo: 3-36.

Bateman H and J Piggott (2011), 'Too Much Risk to Insure? The Australian (non-) Market for Annuities', in O S Mitchell, J Piggott, N Takayama (eds), *Securing Lifelong Retirement Income: Global Annuity Markets and Policy*, Oxford University Press: 139-176.

Commonwealth of Australia, 2010. Stronger Super, Commonwealth of Australia, Canberra.

Department of Families, Housing, Community Services and Indigenous Affairs (FaHCSIA) (2010), FaHCSIA Facts and Figures, October 2010.

Department of Veterans Affairs (DVA) (2011), DVA Pensioner Summary, March 2011, Australian Government.

Defence Force Retirement and Death Benefits Scheme (DFRDB) (2010), The DFRDB Authority Annual Report to Parliament 2009–2010, Commonwealth of Australia.

Ellis K, A Tobin and B Tracey (2008), Investment Performance, Asset Allocation, and Expenses of Large Superannuation Funds, Working Paper, Australian Prudential Regulation Authority.

ESSSuper (2010), Emergency Services and State Super (ESSSuper) Annual Report 2010.

First State Super (2010), 2009-10 Annual Report.

Future Fund (2011), Future Fund Portfolio Update, 29 April 2011.

Future Fund Board of Guardians (2010), Future Fund Annual Report 2009-2010.

Government Employees Superannuation Board (GESB) (2010), GESB Annual Report 2009-10.

Military Superannuation Benefits Scheme (Military Super) (2010), The MSBS Board Annual Report to Parliament 2009-2010, Commonwealth of Australia.

Australian Government Actuary (2009), Military Superannuation and Benefits Scheme and Defence Force Retirement and Death Benefits Scheme, A report on long term costs prepared by the Australian Government Actuary, Commonwealth of Australia.

Northern Territory Government (2010), Northern Territory Government and Public Authorities' Superannuation Scheme, Annual Report 2009-10.

Northern Territory Government (2011), 2011-12 Budget, NT Budget Paper No. 2 Fiscal and Economic Outlook, Chapter 3: Fiscal Strategy.

New South Wales Government (2010), Budget Statement 2010-11, Budget paper No.2, Statement 7: Liability Management..

Rice Warner (2010), Superannuation Market Projections Report, 2010.

QSuper (2010), QSuper Annual Report, 2010.

Queensland Government (2010), 2010-11 Budget, Budget Paper 2 Budget Strategy and Outlook, Statement 6: Balance Sheet and Cash Flows.

Retirement Benefits Fund (RBF) (2010), RBF Annual Report 2009-10.

South Australian Government (2011), 2011-12 Budget, Budget Paper 3, Chapter 4: Managing the State's Assets and Liabilities.

Super SA Board (2010), 84$^{th}$ Annual Report 2009-10.

Super System Review (2010), Super System Review Final Report, Part 1, Overview and Recommendations, Commonwealth of Australia.

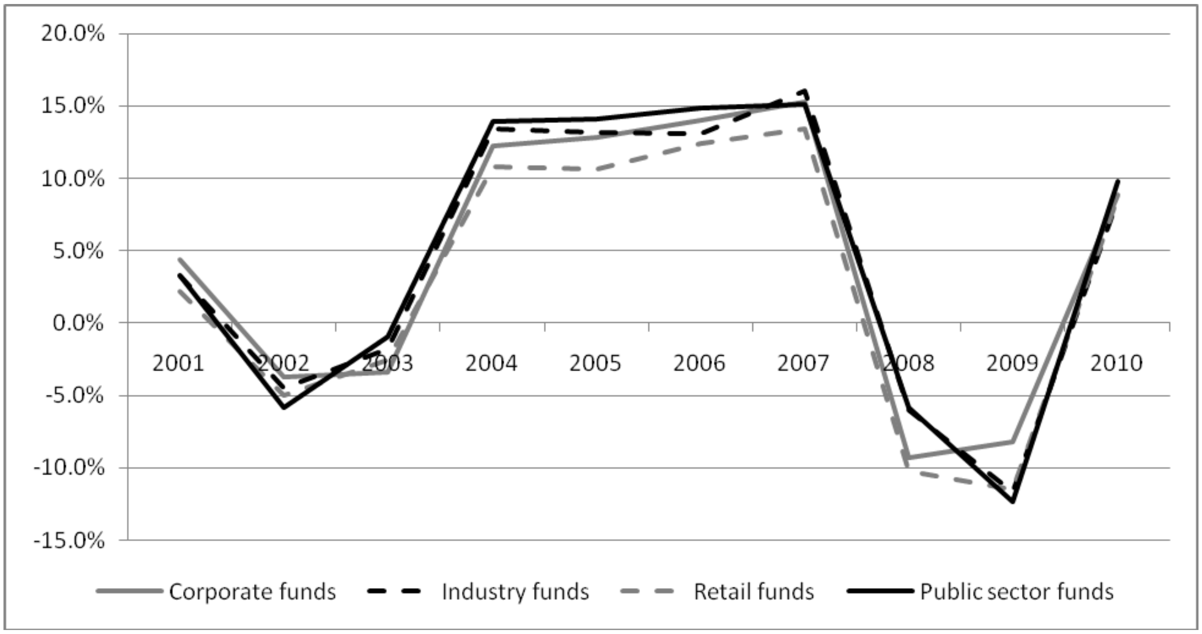
Sy W, C Inman, N Esho and R Sane (2008), Superannuation fund governance: trustee policies and practices, APRA Insight, Issue 1, Australian Prudential Regulation Authority.

Tasmanian Government (2011), 2011-12 Budget, Budget Paper No.1, Statement 6: Assets and Liabilities.

Victorian Government (2011), Victorian Budget 2011-12, Budget Paper No.2 Strategy and Outlook, Chapter 3: Budget Position and Outlook.

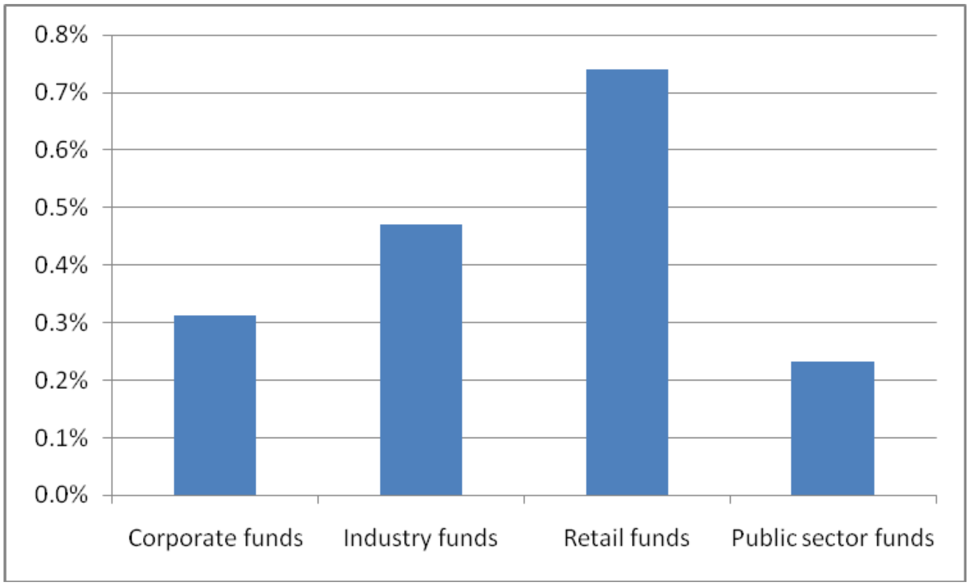
Western Australian Government (2010), 2009-10 Annual Report on State Finances, September 2010.

**Figure 1: Performance of Public Sector Superannuation Funds versus Corporate, Industry and Retail Superannuation Funds – measured by rate of return on assets (ROR)**




Source: APRA (2007, 2011a).

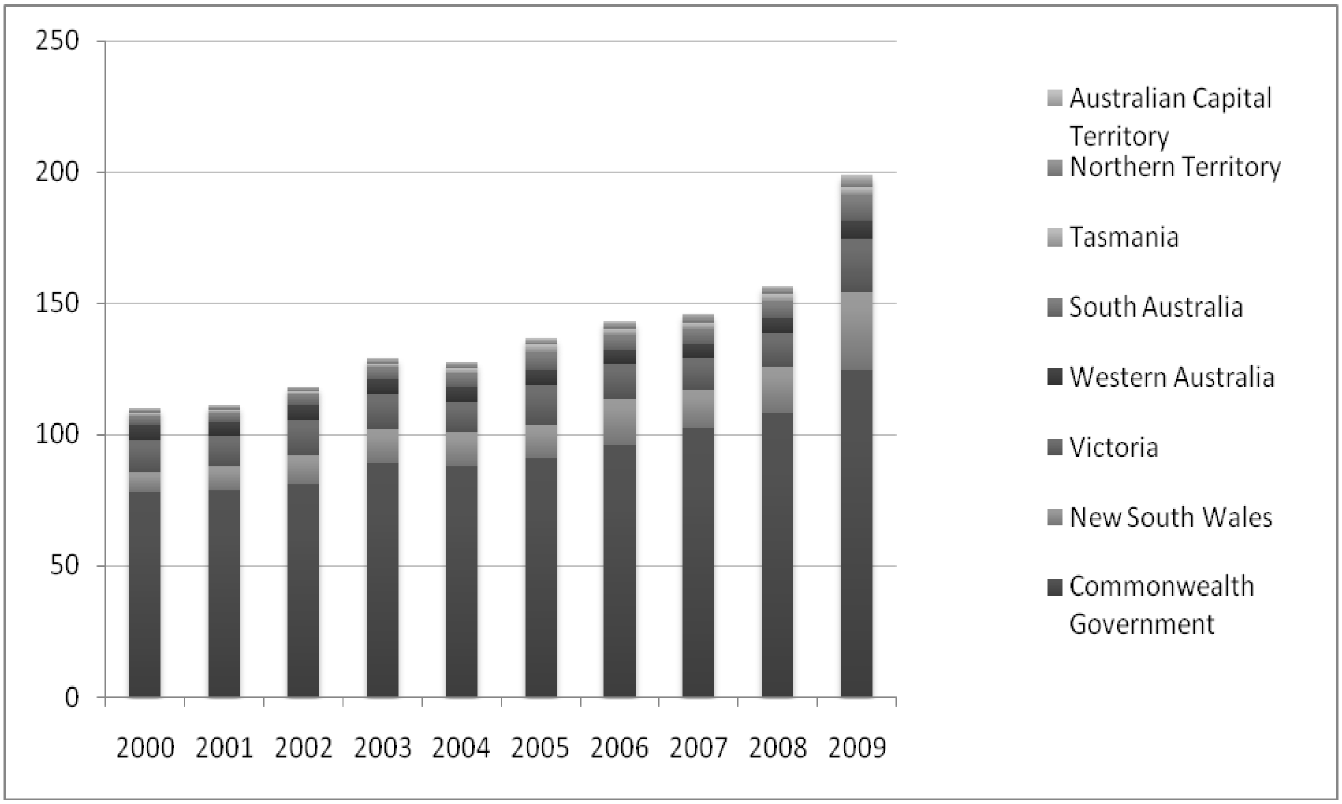
**Figure 2: Operating Expenses Ratio by Type of Superannuation Fund, June 2010**




Notes: Operating expense ratio = total operating expenses/net assets at end of financial year

Source: APRA (2011a).

**Figure 3: Unfunded superannuation liabilities, $A billion**




Source: Rice Warner (2010).

**Table 1: Current Superannuation Schemes for Public Sector Employees, 2010**

| | Scheme Type | Members | Key Features |
|---|---|---|---|
| **Commonwealth Government**<br>The Public Sector Superannuation accumulation plan (PSSap) (since 2005) | Accumulation | 97,844 | **Employer contribution:** 15.4%<br>**Employee contribution:** voluntary<br>**Benefits:** lump sum |
| **Defence Personnel**<br>Military Superannuation and Benefits Scheme (MSBS) (since 1991) | Hybrid: unfunded DB and accumulation | 138,639 | **Employer contribution:** unfunded PAYG + funded 3% employer productivity contribution (accumulation account)<br>**Employee contribution:** 5%<br>**Benefits:** CPI indexed pension and lump sum |
| **New South Wales**<br>First State Super (FSS) (Since 1992) | Accumulation | 530,000 | **Employer contribution:** 9%<br>**Employee contribution:** voluntary<br>**Benefits:** lump sum, income stream |
| **Victoria**<br>VicSuper (since 1994) | Accumulation | 255,000 | **Employer contribution:** 9%<br>**Employee contribution:** voluntary<br>**Benefits:** lump sum, income stream |
| **Queensland**<br>QSuper Accumulation Scheme (and Pension Account) (since 2008) | Accumulation | 593,567 | **Employer contribution:** 9.75%-12.75%<br>**Employee contribution:** 2-5%, 6% police<br>**Benefits:** lump sum, account based pension |
| **South Australia**<br>Southern State Superannuation (Triple S) Scheme (since 1994) | Accumulation | 172,767 | **Employer contribution:** 9% (plus 1% bonus if employee contributes more than 4.5%)<br>**Employee contribution:** voluntary<br>**Benefits:** lump sum, account based pension |
| **Tasmania**<br>Tasmanian accumulation scheme (since 1999) | Accumulation | 26,246 | **Employer contribution:** 9%<br>**Employee contribution:** voluntary<br>**Benefits:** lump sum, account based pension |
| **Western Australia**<br>GESB Super | Accumulation | 320,000 | **Employer contribution:** 9%<br>**Employee contribution:** voluntary<br>**Benefits**: lump sum |
| **Australian Capital Territory**<br>Employees offered choice of fund, default is First State Super (since 2006) | NA | NA | **Employer contribution:** 9% (plus 1% for employee contributions of more than 2%)<br>**Employee contribution:** voluntary<br>**Benefits: d**iffers by choice of fund |
| **Northern Territory**<br>Employees offered choice of fund, default is AGEST (since 1999) | NA | NA | **Employer contribution:** 9%<br>**Employee contribution:** voluntary<br>**Benefits: d**iffers by choice of fund |

Sources: ACT Government (2010), ARIA (2010), First State Super (2010), GESB (2010), Military Super (2010), Northern Territory Government (2010), QSuper (2010), Retirement Benefits Fund (2010), Super SA Board (2010), VicSuper (2010).

**Table 2: Closed Superannuation Schemes for Public Sector Employees, 2010**

| | Scheme Type | Members | Key Features |
|---|---|---|---|
| **Commonwealth Government**<br>The Public Sector Superannuation Scheme (PSS) (1990-2005) | Partly funded DB | 246,262 | **Employer contribution:** unfunded PAYG and funded 3% employer productivity contribution<br>**Employee contribution:** voluntary 0-10%<br>**Benefits:** CPI indexed pension and lump sum |
| The Commonwealth Superannuation Scheme (CSS) (1976-1990) [Replaced the 1922 scheme] | Hybrid: unfunded DB and accumulation | 143,443 | **Employer contribution:** unfunded PAYG and funded 3% employer productivity contribution (accumulation account),<br>**Employee contribution:** 0% or 5%<br>**Benefits:** CPI indexed pension and lump sum and/or non indexed pension |
| **Defence Personnel**<br>Defence Force Retirement and Death Benefits Scheme (DFRDB) (1972-1991) | DB: PAYG | 62,797 | **Employer contribution:** unfunded PAYG and 3% employer productivity contribution<br>**Employee contribution:** 5.5%<br>**Benefits:** CPI indexed pension and lump sum |
| **New South Wales**<br>State Authorities Non-contributory Superannuation Scheme (SANCS) (1988-1992); State Superannuation Scheme (SSS) (1919-1985); State Authorities Superannuation Scheme (SASS) (1988-1992); Police Superannuation Scheme (PSS) (1907-1988) | Differs by scheme: includes unfunded DB, unfunded DB and accumulation | 192,820 | Differs by scheme:<br>**Employer contribution:** unfunded PAYG<br>**Employee contribution:** voluntary<br>**Benefits:** pension, lump sum |
| **Victoria**<br>Emergency Services and State Super (ESSSuper) (closed to new employees 1994) | Hybrid: unfunded DB and accumulation | 148,239 | **Employer contribution:** unfunded PAYG<br>**Employee contribution:** up to 7% to DB scheme and voluntary to accumulation scheme<br>**Benefits:** lump sum |
| **Queensland**<br>QSuper Defined Benefit account (closed to new members 2008); State Police accounts | DB fully funded | 122,397 | **Employer contribution:** 12% (14% for Police)<br>**Employee contribution:** 2-8%<br>**Benefits:** pension, lump sum |
| **South Australia**<br>South Australian Superannuation and Police Scheme pension scheme (closed 1986), lump sum scheme (closed | Hybrid: unfunded DB and accumulation | 27,434 | **Employer contribution:** unfunded PAYG<br>**Employee contribution:** voluntary<br>**Benefits:** lump sum (except pension |

| | | | |
|---|---|---|---|
| 1994), Ambulance (closed 2008) | | | scheme) |
| **Tasmania**<br>RBF Contributory scheme (closed 1999) | Hybrid: unfunded DB and accumulation | 9,663 | **Employer contribution:** unfunded PAYG<br>**Employee contribution:** mandatory 5-15%<br>**Benefits:** lump sum and/or lifetime pension and/or account based pension |
| **Western Australia**<br>GESB Pension scheme | Hybrid: unfunded DB and accumulation | | **Employer contribution:** unfunded PAYG<br>**Employee contribution:** voluntary<br>**Benefits:** pension |
| GESB Gold State Super scheme | Hybrid: unfunded DB and accumulation | | **Employer contribution:** unfunded (equivalent to 15% in 2010 for an employee contribution of 5%).<br>**Employee contribution:** 3-7%<br>**Benefits:** lump sum |
| West State Super (closed since 2007) | Accumulation | | **Employer contribution:** 9%<br>**Employee contribution:** voluntary<br>**Benefits:** lump sum |
| **Australian Capital Territory**<br>Before October 2006 ACT government permanent employees joined one of the Commonwealth government schemes (casual employees joined AGEST) | CSS, PSS or PSSap | 38,162 | For CSS and PSS, as above. For PSSap see Table 1. |
| **Northern Territory** Northern Territory Government and Public Authorities Superannuation Scheme (NTGPASS) (1988-1999), Northern Territory Supplementary Superannuation Scheme (NTSSS) | Hybrid: unfunded DB and accumulation | 4,726 | **Employer contribution:** unfunded PAYG and funded 3% employer productivity contribution (accumulation account)<br>**Employee contribution:** 2-6%<br>**Benefits:** lump sum |

Source: ACT Government (2010), ARIA (2010), DFRDB (2010), ESSSuper (2010), GESB (2010), Northern Territory Government (2010), QSuper (2010), Retirement Benefits Fund (2010), State Super (2010), Super SA Board (2010).

**Table 3: Unfunded superannuation liabilities, 2011**

| **Public sector employees** | **Unfunded liabilities, $A bill** |
|---|---|
| Commonwealth (including defence personnel) | 129.5 |
| New South Wales | 27.5 |
| Victoria | 22.2 |
| Queensland | 0.0 |
| South Australia | 8.7 |
| Western Australia | 7.4 |
| Tasmania | 4.4 |
| Northern Territory | 3.7 |
| Australian Capital Territory | 2.0 |
| **Total unfunded superannuation liabilities** | **205.4** |

Note: The estimates for New South Wales and Western Australia are for 2010.

Source: ACT Government (2011), Australian Government (2011), New South Wales Government (2010), Northern Territory Government (2011), South Australian Government (2011), Tasmanian Government (2011), Victorian Government (2011), Western Australia Government (2010).