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## Glossary

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<th>Description</th>
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<tbody>
<tr>
<td>ABS</td>
<td>Australian Bureau of Statistics</td>
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<tr>
<td>ACG</td>
<td>The Allan Consulting Group</td>
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<td>ASFA</td>
<td>Association of Superannuation Funds of Australia</td>
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<td>ASIC</td>
<td>Australian Securities and Investments Commission</td>
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<td>ASX</td>
<td>Australian Securities Exchange</td>
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<td>ATO</td>
<td>Australian Taxation Office</td>
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<td>BIS</td>
<td>Bank for International Settlements</td>
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<td>CIS</td>
<td>Centre for Independent Studies</td>
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<tr>
<td>CLF</td>
<td>Committed Liquidity Facility</td>
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<tr>
<td>CPI</td>
<td>Consumer Price Index</td>
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<td>DAE</td>
<td>Deloitte Access Economics</td>
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<td>DB</td>
<td>Defined benefit</td>
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<td>DC</td>
<td>Defined contribution</td>
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<td>DIY</td>
<td>Do-it-yourself</td>
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<td>FSB</td>
<td>Financial Stability Board</td>
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<td>FYE</td>
<td>Financial year ended</td>
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<tr>
<td>GDP</td>
<td>Gross domestic product</td>
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<td>GFC</td>
<td>Global Financial Crisis</td>
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<tr>
<td>HILDA</td>
<td>Household, Income and Labour Dynamics in Australia Survey</td>
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<tr>
<td>LT</td>
<td>Long-term</td>
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<tr>
<td>MTAWE</td>
<td>Male total average weekly earnings</td>
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<td>OECD</td>
<td>Organisation for Economic Co-operation and Development</td>
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<td>PDS</td>
<td>Product disclosure statement</td>
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<td>PE</td>
<td>Private equity</td>
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<tr>
<td>RBA</td>
<td>Reserve Bank of Australia</td>
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<td>SIS</td>
<td>Superannuation Industry Supervision</td>
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<td>SME</td>
<td>Small and medium-size enterprise</td>
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<td>SMSF</td>
<td>Self-managed superannuation fund</td>
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<tr>
<td>UK</td>
<td>United Kingdom</td>
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<td>USA</td>
<td>United States of America</td>
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Executive Summary

Funds under management in Australia’s superannuation system have grown rapidly since its inception in the mid-1980s. Australia now boasts the fourth largest pool of superannuation savings anywhere in the world. The size and growth of Australia’s superannuation savings have led some to query whether the growth of the Australian economy and stability of the Australian financial system might potentially be adversely affected.

The Association of Superannuation Funds of Australia (ASFA) has commissioned this report to explore the basis, if any, for these concerns and to determine whether Australia’s superannuation system is meeting its primary objective of helping individuals to fund their retirement.

This report explores the impact of the growth of superannuation in the context of:
1. providing retirement benefits (income and capital) for people in retirement; and
2. linking savers and investors within the wider financial system, and supporting financial stability in the Australian economy.

There have from time to time been suggestions that superannuation funds’ investment positions should be more closely supervised or even mandated by a public agency. If the superannuation system is helping to improve retirement incomes and is not harming economic growth and stability, there is no reason to mandate how superannuation funds invest their assets since this merely invites poor performance and lower returns for no offsetting benefit.

Risk shifting

The burden of risk in providing retirement income has been progressively shifting from government to individuals. The primary objective of Australia’s superannuation system, outlined in legislation, is to provide income during retirement.

The performance of the system can therefore be judged against the following criteria:
- replacement rates of income during retirement (accumulation);
- managing financial and longevity risk in retirement (asset choice); and
- guarding against fraud (governance).

People benefit from the tax-favoured status of saving through superannuation, especially those on higher incomes, while the age pension provides a safety net for those unable to build a ‘nest egg’ during their working lives.

Based on comparisons to best practice around the world, the Australian system is well rated for the accumulation phase.
- Generally, Australia’s retirement incomes system compares favourably with other countries. In October 2012, the Mercer Global Pension Index ranked the Australian system third out of eighteen countries assessed, noting that it has a “sound structure, with many good features” (Mercer, 2012, pp. 6).
Currently, the gross replacement rate for median income earners in Australia is approximately 50% (OECD, 2011). However, this is expected to rise as the superannuation system matures and retirees have a longer history of contributions. Treasury projections suggest that a thirty-year-old entering the workforce now would attain a replacement rate of approximately 90% in retirement (Parkinson, 2012). This would meet both Mercer (70%-100%) and OECD (70%) replacement benchmarks.

Australia’s current superannuation system provides a lump sum at retirement, and is less focused on managing risk during retirement. To date, the focus has been on accumulation, raising questions about the preparedness of the superannuation industry for the de-accumulation or draw-down phase, in particular, as it relates to longevity risk and the need to fund aged care.

- Government provides the safety net in retirement. Top-up support is effectively funded from individuals’ savings and hence superannuation savings and how they may be accessed become relevant. Individuals’ choices are influenced by policy and regulatory settings.
- The nature and spread of risks associated with aged care would seem to lend themselves to an insurance product.
- Currently, there is low demand for the available products designed to manage longevity risk.

Superannuation is criticised for being too complex, contributing to reduced confidence in the system. Part of the problem is that superannuation is inextricably entwined with fiscal policy, resulting in frequent tinkering with tax rates, concession caps and the like. This is not likely to abate so long as superannuation is taxed at concessional rates.

The popularity of SMSFs among predominantly older, wealthier people appears to reflect a lack of confidence in institutional fund managers, a DIY culture within this age group, as well as the lack of preferred retirement products offered by superannuation funds.

There are also some regulatory settings that appear to favour SMSFs over larger funds. While some people may be highly financially literate, questions arise over the decision-making capability of others and the appropriateness of their asset allocations, including assets held outside of superannuation—indeed, evidence suggests individuals focus on returns and may not give adequate consideration to risk.

### Potential solutions

Inevitably, as more of their members move into retirement, superannuation funds will adapt their business models and products to the retirement phase—e.g. by building and deepening their professional skill-base and streamlining their services from accumulation through old age.

Other options to address shortcomings in individuals’ ability to manage retirement income risks include:

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1 Calculations were for a thirty year old earning median wages with a thirty seven year working life.
• continuing to improve financial literacy, including publicising official mortality tables to highlight longevity risk;
• offering incentives for the take-up of products well suited to managing retirement risk, including encouraging
  • products that provide an income stream in retirement;
  • products specifically designed to manage longevity risk, such as deferred annuities;
  • other products that yield a reliable income stream, such as Australian Pensioner Bonds, as recommended by the Productivity Commission; and
  • aged care insurance, possibly allowing it to be funded out of superannuation contributions (e.g. similar to life insurance).
• reducing the complexity of the current system, and increasing transparency and competition between superannuation managers—
  • reforms to improve the efficiency and transparency of the system are underway, e.g. My Super; and
• introducing measures to strengthen SMSFs, including
  • failsafe mechanisms to guard against unscrupulous financial advisers or poor asset allocation decisions by individuals, such as
    • mandating that a portion of retirement lump sums be taken as an income stream;
    • providing more oversight in very old age, similar to more frequent driving tests for elderly drivers; and
    • protecting non-decision making partners in a couple.

Equity considerations could be addressed through the income tax system, although this is not without complications.

Financial stability

The superannuation system now has $1.5 trillion in funds-under-management (FUM), represents a significant portion of financial system assets, and is expected to double in size over the next decade. A portion of these assets are invested offshore and this too will grow.

Since the Global Financial Crisis (GFC), regulators have become concerned about financial system stability, notably systemically-important financial institutions (SIFIs) and disruptions to global capital flows. The sheer size of Australia’s superannuation system is *prima facie* a reason for examining its impact on systemic stability.

Superannuation and banking operate different but complementary business models, with different risks to manage. For its part, the Financial Stability Board (FSB) seems not to be especially concerned about the impact of defined contribution (DC) pension funds on systemic stability. Indeed, during the GFC superannuation funds repatriated FUM which helped augment the supply of capital for domestic banks and large corporates.

Yet DC funds are affected by policy initiatives aimed at other parts of the financial system, e.g. new Basel III capital requirements for banks. Moreover, the Australian Prudential
Regulation Authority (APRA) wants superannuation funds to hold more reserves to cover risks associated with hedging their exposures—i.e. when market volatility forces funds to cover adverse movements in their hedge books, will they have enough liquid assets to cover these losses without moving their asset allocations outside the ranges signed off by boards of trustees?

- This is a different liquidity risk to that faced by banks and would not be expected to affect financial system stability because funds remain in the system, and liabilities and assets move in line with market prices.
- Funds may be able to freeze withdrawals for a period, although this is not good for confidence.
- Moreover, there is evidence that funds investing in illiquid assets are able to capture an illiquidity premium.

Given that DC superannuation funds are managed on a ‘best endeavours’ basis, it is not clear why such temporary departures from benchmarks cannot be tolerated as long as they are explained in the product disclosure statement (PDS). On the other hand, if superannuation funds increase their foreign currency assets to service their Australian dollar liabilities—as seems likely (see below) —then the ‘liquidity’ risks that concern APRA are unlikely to diminish.

Superannuation has helped to increase Australia’s level of national saving, and will continue to do so as contributions rise towards 12% of wage income. Other forms of saving had been falling but the GFC has caused a turnaround. Into the bargain, there has been a commensurate rise in national investment, leaving the current account deficit—funded by global capital flows—broadly unchanged.

The increase in superannuation assets has occurred at a time when authorised deposit-taking institutions’ (ADIs) share of system assets has also been rising. Consequently, superannuation does not appear to be attracting funds away from banks, to the detriment of traditional borrowers from banks, but from life offices and managed funds. This may change in the future.

In the pre-GFC world, there was competition from capital markets that led to disintermediation, higher gearing by banks and poorly-aligned incentives. Post the GFC, higher capital requirements will tend to re-ignite disintermediation but this time it will be accompanied by close scrutiny of bank leverage and more “skin in the game” required of securitisers. Against this backdrop, it is hard to see how the growth of superannuation should compromise systemic stability.

**Potential solutions**

APRA’s requirements for high levels of liquid assets in reserve are a disincentive for superannuation funds to invest in long-term and illiquid assets. It is not clear how strong this disincentive is but changes to regulation are intended to change behaviour.

Setting up a liquidity backstop for superannuation funds, with appropriate ‘haircuts’ to guard against moral hazard, may provide a solution that would satisfy APRA and leave superannuation funds free to make investment decisions that best meet their members’ needs.
The Committed Liquidity Facility (CLF) the Reserve Bank of Australia (RBA) manages for ADIs could be considered but the net benefit of such a facility for superannuation funds must first be established.

**Gaps in the financial system**

Australia’s future prosperity relies on the so-called 3Ps (growth in workforce participation, population and productivity). The first two Ps will contribute less in the future, leaving prosperity increasingly dependent on productivity growth.

Some domestic borrowers face limited access to capital for potentially worthwhile investments, notably, new businesses that provide the innovation and competition needed to spur productivity growth, and supporting infrastructure.

This is illustrated by the relatively small domestic markets for corporate bonds and securitisation; the outstanding backlog of infrastructure projects; calls from various quarters for more lending for private equity and venture capital; growth of ASX small caps; and access to capital for SMEs. Funding more of these investments will help to raise the Australian economy’s long-term growth rate.

Superannuation funds have a large pool of funds at their disposal, have long-term liabilities that would appear to be well matched by long-term investments, and can expect net inflows of investible funds for a few more decades. Superannuation funds already help to finance Australia’s long-term growth, but gaps in financial markets and funds’ large (and growing) investments offshore leave them open to criticism that they should invest more domestically.

In fact, superannuation is a big investor in some of these asset classes—and displays a strong ‘home bias’ (Table iChart i)—but must look first to its members’ interests. The superannuation industry represents approximately 30% of system assets and hold a similar share of Australian equity.

Superannuation has shown a willingness to invest in new products, e.g. securitised assets, but this requires skills and expertise to manage the products. Indeed, superannuation funds are investing in their capacity to manage these asset classes ‘in-house’.
There may be obstacles to increasing investment by superannuation funds, including:

- market factors—domestic markets may be too small or too concentrated for Australian superannuation funds to execute; and
- regulatory factors—SMSFs are treated as retail investors for liquidity purposes while APRA-regulated funds are treated as financial institutions—as a result, banks face higher liquidity requirements for deposits sourced from APRA-regulated funds. APRA regulations may also push superannuation funds towards investing in short-term liquid investments.

**Potential solutions**

It is not obvious that superannuation funds can plug gaps in financial markets. If capital flows to where it is most highly valued, this may explain why some sectors miss out.

If capital will find its way to profitable investment, then all worthwhile opportunities will be pursued. The challenge is to find a way to prioritise these opportunities so the most worthwhile ones get funded first. If superannuation funds are asked to help meet economic objectives, it should not be in a manner detrimental to returns on fund members’ retirement savings.

For superannuation funds to increase their investments in small and medium-size businesses, they would need more credit skills and access to more research on small companies. There are signs that some funds are building in-house capability in this area, in part to save money; others may follow.

However, absent scale economies, there is little incentive to undertake research on smaller stocks. The ASX has recently begun funding broker research into smaller companies but this remains an area for further research.
Another part of the solution is to develop instruments better suited to superannuation funds (capabilities) and their members (risk preferences). For example, corporate bond issuers complain of too little demand from superannuation funds while for their part the funds claim they would buy more bonds if suitable debt instruments were available.

In the background, demographic forces may also help direct funds towards gaps; while it is not clear that an ageing population, with more people moving into retirement, will automatically result in a shift away from equities and towards fixed income, it is unlikely that an ageing population will have an increasing appetite for risk.

If the cost of leaving gaps unfilled is deemed significant and higher levels of investment by superannuation funds is regarded as essential, a more activist approach will be required, including

- addressing the differential treatment of retail (SMSFs) and wholesale (large funds) deposits with banks and otherwise levelling the playing field for retail and wholesale funds; and
- additional measures to encourage the development of specific instruments, e.g.
  - reconsidering the tax and regulatory treatment of annuities; and
  - securitisation of SME loans.

Looking ahead

The superannuation industry business model will evolve in response to current issues, and demographic and de-accumulation pressures in coming decades. But superannuation cannot provide all the answers to managing retirement income risk—it is co-mingled with other sources of income and capital such as the age pension, houses and other assets—and other things must be done to complement superannuation.

As the population ages and more people move into retirement, managing longevity risk and paying for aged care will become more important.

Demographic trends will increase the share of superannuation assets in the de-accumulation phase, forcing the superannuation industry to adjust its product offerings. Development of the post-retirement market encourages products that provide retirement income streams, underpinned by the types of longer-term assets that superannuation funds want to acquire.

- The future will bring to prominence governance issues and asset allocation for more vulnerable retirees.

Net inflows into the system will plateau, but probably not until after 2060 on current estimates; by then

- superannuation will occupy a larger share of the financial system
  - but the growth of superannuation, prudently overseen, should not compromise financial system stability
- a significant proportion of superannuation assets will be offshore
  - providing a higher risk-adjusted return to superannuation fund members
  - overcoming some of the limitations inherent in a relatively small and undiversified domestic market
• and providing a hedge on overseas investment in Australia
• retirement savings are likely to retain a significant ‘home bias’.

Superannuation is systemically significant and will have an increasing impact on the economy. The growth of superannuation should not compromise financial stability, although it does mean that superannuation potentially can do more to support the drivers of long-term economic growth in Australia.

Superannuation funds claim there are constraints on where they can prudently invest, due to market factors and regulatory tensions. While incentives may help to maximise the economic impact of superannuation capital, mandated allocation will lead superannuation away from its primary purpose of providing retirement benefits for people in retirement.

Deloitte Access Economics
1 Introduction

As the pool of superannuation funds under management (FUM) has grown, so too have expectations for helping individuals to manage financial risk and for contributing to long-term growth of the Australian economy—notably providing stability and funds to the financial system. Where tensions arise between these roles, there is a risk that superannuation does neither well.

1.1 Aims of this report

The Association of Superannuation Funds of Australia (ASFA) is concerned that some of the perceptions about the Australian superannuation industry may be based on erroneous assumptions about how it works in practice. Consequently, ASFA commissioned this report to:

- demonstrate the importance of the roles that superannuation funds play in providing retirement incomes in Australia and allocating capital, to achieve social and economic objectives; and
- identify impediments to superannuation funds performing their role effectively and indicate where policy or regulatory reforms might provide cost-effective solutions.

1.2 Methodological approach

The analytical framework employed in the report is constructed around the roles of superannuation:

- primarily, providing retirement benefits (income and capital) for people in retirement; and
- as part of the wider financial system, linking savers and investors and supporting financial stability in the Australian economy.

Superannuation provides retirement income streams for individuals. This allows them to exercise more control over, and take responsibility for, their retirement outlays. Managing the risks involved in saving/investing for retirement is a challenging task. A superannuation system that helps manage these risks is a worthy policy objective: it should be comprehensive, simple and transparent, and instil confidence in people that their retirement income will be secure.

The role of superannuation in the financial system was recognised by the Wallis Committee in the mid-1990s. The essence of a financial system, comprising banks and capital markets, has not changed since then. However, superannuation has grown to rival the banking sector as a source of capital, and the Global Financial Crisis (GFC) raised questions about the liquidity and stability of financial institutions. Even if the role of superannuation has not changed, superannuation funds are nowadays subject to greater scrutiny and demands, in accordance with their greater prominence in the financial sector.

Within the framework, the report explores a number of themes, including:
• **how superannuation funds and SMSFs invest** in aggregate terms and by major asset classes, domestically and internationally;

• how superannuation funds have diversified their investments to meet the needs of their members, **providing retirement income and capital**, and how demographic trends over the next 20 years are likely to influence portfolio construction;

• **the implications of the regulatory environment** for superannuation, focussing on restrictions and incentives that may influence funds’ asset allocation decisions, distinguishing between market factors and policy settings;

• the role of superannuation in **aiding competition between capital markets and banking**—as a source of funds to banks (or as an alternative?), including in funding national infrastructure requirements and international capital flows; and

• the **evolution of the financial system and regulation**, focussing on the growth of superannuation and consequences for regulation and financial stability.

This exploration of superannuation in Australia draws on evidence obtained from a review of the relevant literature, including official publications, such as the Cooper Report and the recent Productivity Commission inquiry into default superannuation, in-house research and reports by ASFA, and information from its members and other industry practitioners. This report does not attempt to replicate the earlier work, but rather uses it as a starting point.

The evidence base has been supplemented with ASFA’s expertise in the subject matter, as well as insights drawn from a workshop and consultations with superannuation industry experts.

### 1.3 Report structure

The next chapter provides the historical context for the issues the industry faces today. The evolution of superannuation policy and financial regulation and the dislocation caused by the GFC have influenced the way the public and the authorities perceive the industry.

In Chapter 3, the effectiveness of the Australian superannuation system in helping individuals manage risk in retirement is examined. The impacts of the structure of the industry and investment strategies employed by the funds—institutional and self-managed—on retirement incomes are reviewed. Consideration is also given to the issues of complexity and confidence in the system.

The focus switches from individual saving to national saving and the financial system in Chapter 4. The regulators’ quest for financial system stability in the wake of the GFC, notably in banking and capital markets, has flow-on consequences for the superannuation industry.

The effect of superannuation’s large and growing pool of FUM on traditional lenders and their customers is explored in Chapter 5. The superannuation industry has accumulated a large pool of funds at a time when parts of the economy have restricted access to capital. The interaction of regulation and superannuation affects some investment decisions. Concerns that some regulations may adversely affect the ability of superannuation to provide funds to sectors of the economy are addressed.
The report distils a selection of issues that appear to hinder the effectiveness of the superannuation system in Australia. Looking ahead, the system may evolve in such a way that perceived problems solve themselves. But, in other instances, a push from policy makers may be required. The paper concludes with a list of policy initiatives with the potential to enhance the ability of the system to deliver the social and economic outcomes expected of it.
2 Superannuation in Australia

The purpose of Australia’s superannuation system and the original motivations for setting it up are important considerations in framing an analysis of superannuation today. Superannuation is defined by its assets and how they are allocated; the coverage of employees; and the types of funds and benefits paid. The evolution of these elements has produced the system we see today, warts and all, and will continue to shape the impact of superannuation on individuals and the economy in the decades ahead.

2.1 The evolution of retirement incomes policy

Saving for retirement consists of three distinct phases:

1. accumulation of assets during the working years;
2. consolidation of assets from various sources at retirement; and
3. retirement itself, where accumulated capital is drawn down as a lump sum or a retirement income stream, or both.

Retirement incomes in Australia are funded from two primary sources:

1. the age pension, introduced in 1908 and, while undergoing changes, has retained its fundamental role of providing for those most in need; and
2. superannuation, which commenced as part of industrial relations policy but now comes under the umbrella of social welfare policy, although increasingly it is privately funded.

While superannuation has been available to a small group of people since the 19th century, a national system did not become available until the 1970s. Coverage was extended under the Prices and Incomes Accord before becoming compulsory under the Superannuation Guarantee Charge. Superannuation supplements incomes in retirement for most Australian employees, while the age pension remains as a safety net.

2.1.1 Pre mid-1980s

In December 1972, the Government proclaimed that the age pension would be targeted at 25% of the male total average weekly earnings (MTAWE). While it took 25 years, until 1997, for this rate to be enshrined in law, the benchmark was achieved almost immediately and has been maintained since then (Chart 2.1).
From the 1970s until the introduction of award superannuation in 1986, superannuation was an employment fringe benefit which, although more generally available, was still concentrated among professionals, managers and administrators, public sector employees and employees of large corporations. There were large gaps in coverage.

Schemes were largely ‘defined benefit’, with the funding risks lying with the scheme sponsor. Among other things, this meant that longevity risk—the risk of outliving one’s retirement savings—was not the issue it is today.

Superannuation received very attractive tax treatment. Tax concessions had existed for superannuation since 1914 and, until the 1980s, interest and capital gains on superannuation were not taxed.

### 2.1.2 Mid-1980s to the present

Superannuation coverage was extended in 1986 to workers under awards as part of the Prices and Incomes Accord. Award-based superannuation was a contribution-based scheme aimed at getting contributions to 3% of wage income early on. This sat alongside other superannuation so that 3% was a floor for many. It originally applied only to employees on federal awards, but was subsequently extended.

There was a move to universal superannuation coverage in the early 1990s. Superannuation was extended to most employees in 1992 under the Superannuation Guarantee Charge.

There was recognition that a 3% contribution rate was not high enough to allow most workers to self-fund their retirement; accordingly contributions were raised to 9%, with the option to go to 12%.

Superannuation is more attractive at higher income levels because of favourable tax treatment and the interaction with pensions that creates high effective marginal tax rates for low income earners.
The features of the current retirement incomes system are summarised in Appendix A, Table A.1.

2.2 Structure of the superannuation industry

The superannuation industry comprises different types of funds, with different models of asset allocation and benefit payments that have evolved alongside retirement incomes policy.

2.2.1 Type of funds

Two key features of the Australian superannuation landscape have been the emergence of industry funds and the proliferation of smaller self-managed superannuation funds (SMSFs).

Superannuation was award-based initially; there was little choice for the average worker. Competition and choice now play a larger role and industry superannuation funds have evolved accordingly.

SMSFs have benefited from relaxation of legislation around saving for retirement and more people moving into retirement age.

The structure of Australian superannuation has shifted over the past five years. The share of assets held in SMSFs increased by 10 percentage points between 2006 and 2011. In December 2012 assets held in SMSFs accounted for 31.2% of total assets. At the same time the share of assets held in industry superannuation funds has also risen, to 19.5% by December 2012 (Chart 2.2).

![Chart 2.2: Structure of superannuation industry over time](image)

The relative importance of public sector funds, corporate funds and life insurers has been declining since 1997. Meanwhile, the retail industry captured an increasing share of funds over the first part of the 2000s, but this has been declining since around 2003.
SMSFs became the largest part of the superannuation industry by asset size in 2010; and have doubled in number to over 478,000 over the decade. In contrast, other types of superannuation funds declined in number due to mergers and closures of defined benefit schemes. Corporate funds declined from over 3,000 to under 122, while industry, retail and public sector funds all roughly halved in number.

### 2.2.2 From defined benefit to defined contribution

One of the key changes in the superannuation landscape has been the shift from defined benefit (DB) schemes to defined contribution (DC) schemes. This has been aided by superannuation coverage spreading out from corporate and public sector schemes, at a time when the corporate sector and government were de-risking their balance sheets and workforce mobility was increasing.

A majority, almost 90%, of Australia's superannuation FUM are invested in defined contribution schemes (Chart 2.3). This is relatively high compared to many advanced countries, including New Zealand, Canada and the United States. The share of superannuation funds that are defined benefit has remained around 10% since 2005, after declining over the previous decade (RBA, 2011).

![Chart 2.3: Asset shares of different pension fund types (%)](chart.png)

**Source:** OECD Pension Markets in Focus, 2012

The key differences between DB and DC schemes revolve around who bears risk, as summarised in Table 2.1.
### Table 2.1: Risk distribution by superannuation fund type

<table>
<thead>
<tr>
<th>Type of risk</th>
<th>Defined benefit</th>
<th>Defined contribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Investment</td>
<td>Employer</td>
<td>Employee</td>
</tr>
<tr>
<td>Inflation</td>
<td>Employer/employee</td>
<td>Employee</td>
</tr>
<tr>
<td>Longevity</td>
<td>Employer</td>
<td>Employee</td>
</tr>
<tr>
<td>Market timing (temporal)</td>
<td>Employer</td>
<td>Employee</td>
</tr>
<tr>
<td>Accrual (portability)</td>
<td>Employee</td>
<td>DC plans are portable</td>
</tr>
<tr>
<td>Vesting</td>
<td>Employee</td>
<td>Employee</td>
</tr>
<tr>
<td>Employer insolvency</td>
<td>Employer/employee</td>
<td>DC plans always fully funded</td>
</tr>
<tr>
<td>Salary replacement risk</td>
<td>Employer</td>
<td>Employee</td>
</tr>
<tr>
<td>Fiduciary/legal risk</td>
<td>NA</td>
<td>Employee</td>
</tr>
</tbody>
</table>


In aggregate, the burden of risk shifted to the individual, with the result that:

- inertia, myopia in investment decisions, behavioural biases and financial literacy can have an important bearing on individuals’ retirement incomes;
- longevity risk matters—availability of suitable retirement income products affects income flows and capital preservation; and
- individuals have might be expected to become more risk-averse in their asset selection (Yet, interestingly, there does not appear to be much difference between asset allocation in DB and DC schemes (Broadbent & Palumbo, 2006)).

#### 2.2.3 Asset allocation

In 2011, 49.7% of Australian superannuation funds’ total assets were allocated to shares, well above the average for the 29 OECD countries of 19.1% (Chart 2.4). Moreover, the proportion allocated to bonds, including to corporate bonds, was low.
The higher allocation to equities is the cause of some controversy in the industry. There is a view this may simply reflect the stage of development of the superannuation industry: as more retirees approach retirement, this view predicts that the asset allocation will become more conservative since the appetite for risk is unlikely to increase. There is an alternative view that longevity risk requires continuing higher allocation to equities well into the retirement phase.

The changes in retirement incomes policy and the structure of the industry have important implications for risk management for the individual as well as the economy.

### 2.3 Risk management in retirement

Originally, superannuation was ALL about retirement incomes. Competition and choice were limited. The system was built on defined benefits, but has gradually moved to be heavily tilted towards defined contributions. The tax/pension interface was questioned due to the implicit generosity to higher income workers. This has caused tension about who bears the risk and how outcomes reflect individual circumstances.

*The system is geared towards providing a lump sum to individuals at retirement. It is not well equipped to deliver retirement incomes to an increasingly long-lived population (Superannuation System Review, 2010)*.

#### 2.3.1 Today’s outstanding issues

For superannuation for the individual, much of the current debate revolves around:

- managing risk
  - The shift from defined benefit to defined contribution has shifted the burden of risk—the individual must now shoulder more risk. Yet, most members seem to be disengaged, accepting the default fund options until they have a large balance, at which point choice—and matching allocation to the individual’s needs—becomes more important. It seems that many individuals prefer to leave complex portfolio management decisions to professionals during the accumulation stage but not thereafter.
  - Tax and equity issues remain; the system still favours higher income earners.
  - Education and good advice have become much more important.
Maximising superannuation capital

- complexity and confidence
  - The system has become more complex. Choice has expanded. Superannuation appears to be inextricably entwined with fiscal policy, with changes announced at every budget or more frequently.
- SMSFs
  - SMSFs as a group are increasingly important. This raises crucial governance issues, to ensure that SMSFs do not lose out due to poor advice or unscrupulous planners. At the same time, SMSFs may benefit from non-neutrality in the regulatory settings of banks—in particular, the treatment for liquidity purposes of deposits with banks has created an arbitrage opportunity for investors.2

Given the above, the paramount issue is providing certainty and confidence to superannuation contributors.

The Superannuation System Review, which focussed upon governance, efficiency, structure and operations of the sector, and the review of Default Superannuation Funds in Modern Awards, helped to elevate these issues in the public debate (see Appendix A).

The other outstanding issue—one that has not been the focus of a government review to date—is the growth of superannuation and its impact on the financial system.

2.4 Superannuation in the financial system

Superannuation performs the important role of matching savings and investment flows and accommodating different risk preferences among savers and investors. In the financial system, the focus has been on banks and capital markets, but now superannuation has grown to be part of this mix.

At the same time, the flow of funds to superannuation has affected the volume of funds flowing directly to other parts of the financial system (e.g. insurance). Traditionally, superannuation and banking performed separate roles; however, competition for funds between banking and superannuation may have affected banks’ capacity to do what they do best. In turn, the superannuation industry often feels pressed to step into the breach.

2.4.1 The growth of superannuation funds under management

The size of Australia’s superannuation industry relative to GDP has grown by 18 percentage points over the past 10 years. In June 2011, total assets held in superannuation funds were equivalent to 92.8% of Australia’s GDP (Chart 2.6).

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2 Australian Prudential Regulation Authority Prudential Standards on Bank Liquidity (APS210). The difference arises from the classification of deposits: SMSFs are classified as retail depositors, while APRA-regulated funds are classified as a financial institutions.
Interestingly, while assets of superannuation funds have grown, assets of authorised deposit-taking institutions (ADIs) have grown faster (Between 1999 and 2011, superannuation assets grew from 16% to 22% of system assets, while ADIs increased their share from 46% to 60%). Adding assets held by SMSFs would increase the value of superannuation’s pool of assets to the equivalent of around 30% of system assets.

**Prima facie,** this suggests that superannuation is not attracting (net) funds from ADIs; rather superannuation and ADIs have succeeded in attracting funds from other parts of the financial system. (Both types of institutions benefit from favourable treatment—government guarantees for ADIs and reduced tax for superannuation.) However, superannuation is projected to grow at a pace that will see its share increase and thus could conceivably take share from ADIs in the future.
Given the size of superannuation, today’s financial system issues centre on:

- stability; and
- gaps in the financial system.

### 2.4.2 System stability

Coming out of the GFC, concerns about financial system stability are at the forefront of regulators’ minds. A series of new prudential regulations aimed at making the financial system better able to withstand the next crisis are being introduced into the Australian financial system.

At face value, the growth of superannuation looks good for system stability:

- if there are governance issues, superannuation funds are well placed—i.e. they have no debt, and, for the defined contribution schemes that constitute the majority of the Australian industry, the value of their liabilities fluctuates at market prices;
- in contrast to banks that are leveraged and have fixed obligations that do not lose value when asset prices fall.

Accordingly, (defined contribution) superannuation funds are not targeted by the Basel III prudential regulations aimed at shoring up system stability. However, they may be affected indirectly through changes that bear upon the banking system, counterparties and the markets superannuation funds invest in. Nevertheless, superannuation funds have come within the ambit of APRA’s prudential reforms.

#### 2.4.2.1 Superannuation and national savings

Historically, Australia has not generated enough domestic savings to fund domestic investment needs, relying on offshore lenders to make up the difference.
The impact of a growing pool of superannuation on the level of national savings should be positive, if it draws out additional saving that would not otherwise have taken place. But it is unclear:

- what the impact on the external balance has been; and.
- what the broader impacts of displacing other forms of saving have been.

Banks have traditionally played the role of intermediary between savers and borrowers. Banks tend to:

- borrow short-term, with around 16% of funding from short-term debt and around 55% funding from domestic deposits;
- borrow a lot offshore; around 20% of bank funding is from short and long-term debt borrowings offshore; and
- have little of their debt held by superannuation funds—superannuation funds hold around 13% of total bank liabilities (IMF, 2012).

Hence, there may be gaps opening in the system if superannuation is capturing funds that would otherwise have flowed to banks and that do not migrate back to banks via superannuation fund balance sheets.

### 2.4.3 Perceived gaps in the system

Australia’s long-term growth prospects hinge on productivity performance. The key drivers of productivity growth are innovation and competition. Hence, it is important that new businesses have access to capital for worthwhile ventures, to support the drivers of productivity.

There are a number of perceived gaps in the financial system, where potential borrowers may not be able to source funds, including:

- lack of support for corporate debt products and securitisation;
- smaller listed companies, venture capital and private equity;
- infrastructure funding, especially where constraints on public funding are biting; and
- (unlisted) SMEs.

Superannuation invests a good deal in local equity and debt markets, and exhibits a strong home bias compared to an allocation based on the size of domestic equity and fixed income markets (as shown in Chart 2.7). However, superannuation funds also invest significant amounts offshore.
If superannuation funds capture a greater share of the stock of savings, and continue to invest funds offshore, what does this mean for gaps in domestic markets?

Assuming that capital flows to where it can best be used, will:

- these gaps persist, because they are non-economic in origin;
- the gaps close naturally as the system evolves, without intervention; or
- regulatory impediments need to be addressed?

Of course, despite its size, superannuation may still be peripheral to the issues of concern in the financial system. If so, the focus should be on strengthening the instruments that can help address gaps.

### 2.5 Looking ahead

The size of the superannuation pool will continue to grow. It will become increasingly important for ensuring that Australians have adequate incomes in retirement, and the impact of superannuation on the economy will increase. The pool of funds is expected to quadruple within 25 years.

*Superannuation in Australia today is worth around $1.5 trillion – equivalent to our national GDP – and this is expected to rise to around $6 trillion by 2037.*

Australia’s superannuation landscape could look very different in 20 years’ time, being reshaped by demography and de-accumulation. However, superannuation is all about successfully managing risk related to the provision of retirement incomes, and this will not change over time.

---

3 Risk management

For a retirement incomes system to be effective, and remain effective when the individual’s risk management task is changing, requires a complementary response from the superannuation industry. This response may involve, for example: offering new products or diversifying investments to meet the needs of fund members; providing retirement income and capital in differing proportions; and preparing for demographic trends over the coming years and decades that are likely to influence portfolio construction.

At its heart, superannuation is about achieving better retirement outcomes, and therefore improving future wellbeing, for Australians (Henry, 2012)

3.1 Individuals’ ability to manage risk

Overall, Australia’s superannuation system stands comparison with ‘best practice’ systems around the world. However, superannuation tends to focus on delivering a lump sum; the individual then needs to turn this into a retirement income stream. In turn, the individual’s ability to manage risk will hinge on the availability of suitable advice and instruments to manage this risk.

3.1.1 How does Australia’s superannuation system rate?

Retirement incomes systems globally can be difficult to compare. They have different structures, histories and aims, often varying dramatically from country to country. Holzmann and Hinz (2005) suggest that retirement incomes systems can be deconstructed into five different components or ‘pillars’. These are detailed in Figure 3.1.

![Figure 3.1: Retirement incomes systems](image)

Different retirement incomes systems may have different configurations, placing varying weights on each pillar. However, Holzmann and Hinz (2005) maintain that the characteristics of a good system are universal, namely:
• **adequacy** – providing sufficient benefits to prevent old-age poverty and to represent a reliable method of lifetime consumption smoothing;
• **affordability** – the system can be financed by individuals and government without causing undue strain;
• **sustainability** – financially sound and sustainable; and
• **robustness** – ability to withstand economic, political and demographic changes.

Generally, Australia’s retirement incomes system compares favourably to other countries. In October 2012, the Mercer Global Pension Index ranked the Australian system third out of the eighteen countries assessed, noting that it has a “sound structure, with many good features” (Mercer, 2012, pp. 6).

However, this report focuses specifically on the performance of Australia’s superannuation system as a key part of the broader retirement incomes system.

### 3.1.1.1 Australia’s superannuation system as retirement income insurance

Australia’s superannuation system is defined by three central characteristics, namely:

- **mandatory** – under the superannuation guarantee, employer contributions are legally required;
- **defined contribution** – vast majority of Australian superannuation funds are defined contribution—while the contributions are guaranteed, the benefits provided at retirement are not; and
- **fully funded** – contributions are made by the private, not public, sector.

Bodie (1990) argues that private pension systems are primarily a means of insuring retirement income. Bodie suggests that, ideally, the system should insure against the following risks:

- **replacement rate inadequacy** – the risk that income in retirement is insufficient to maintain the same standard of living;
- **political** – the risk of policy changes causing decreases in retirement income;
- **longevity** – the risk of outliving retirement savings;
- **investment** – the risk that the invested retirement savings perform poorly, leading to decreased retirement income; and
- **inflation** – the risk that the purchasing power of retirement savings is eroded by inflation.
The Australian superannuation system performs well against most of these metrics (see Table 3.1).

### Table 3.1: Design performance of Australia’s superannuation system

<table>
<thead>
<tr>
<th>Risk</th>
<th>Performance</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Replacement</td>
<td>✓</td>
<td>While no specific replacement rate is guaranteed, continuous contributions throughout working life lead to substantial savings</td>
</tr>
<tr>
<td>Political</td>
<td>✓</td>
<td>Accumulated savings individually managed, so insulated from political risks</td>
</tr>
<tr>
<td>Longevity</td>
<td>✗</td>
<td>Incentive to preserve capital, e.g. via account-based pensions; however, this is not mandatory. Lacking instruments to manage longevity risk, e.g. lifetime and deferred annuities, aged care insurance</td>
</tr>
<tr>
<td>Investment</td>
<td>✓</td>
<td>Retirees bear risk—however, can be addressed through diversification</td>
</tr>
<tr>
<td>Inflation</td>
<td>✓</td>
<td>Largely addressed through asset investment—however, no requirement to purchase indexed annuities</td>
</tr>
</tbody>
</table>

Source: DAE, 2013

#### 3.1.1.2 Adequacy

The financial performance of a private pension system is vital to its adequacy. Stronger returns lead to higher accumulations at retirement for the same contribution. Australian superannuation funds have delivered some of the highest returns in the OECD, as shown in Chart 3.1, and this has occurred over the long term, not only on a year-to-year basis.

**Chart 3.1: Rate of return for pension funds in selected OECD countries, 2002-11**

Source: OECD Global Pension Statistics, 2012. Note: only selected countries shown; OECD average does not correspond to average of countries shown.
These returns are reflected in retirement incomes. Mercer (2012) suggests that replacement rates for median income earners are a key determinant of the overall performance of a retirement incomes system. The OECD recommends a target replacement rate of 70% of final earnings (OECD, 2009). Similarly, Mercer (2012) grants maximum scores on this indicator to countries with replacement rates between 70% and 100%.

Currently, the gross replacement rate for median income earners in Australia is approximately 50% (OECD, 2011). However, this is expected to rise as the superannuation system matures and retirees have a longer history of contributions. Treasury projections suggest that a thirty-year-old entering the workforce now would attain a replacement rate of approximately 90% (Parkinson, 2012). This would satisfy both Mercer and OECD targets.

The current “three pillar” retirement income arrangements have led to higher retirement incomes than under previous systems. In particular, the superannuation system, and the superannuation guarantee is providing a significant boost to retirement incomes and will help maintain retirement incomes at a level that would otherwise not occur (Source: Treasury 2009).

3.1.1.3 Sustainability, affordability and robustness

The design of the Australian superannuation system—defined contribution, mandatory and fully funded—makes it inherently sustainable.

By being primarily defined contribution, the system ensures that poor investment performance does not lead to cost blowouts. Mandatory contributions for a majority of the workforce guarantees participation. Private funding means that the system will operate irrespective of government finances.

The private funding entrenched in the second pillar means that affordability for the public sector is not a determining factor. The superannuation guarantee may threaten affordability for those on low incomes. The automatic deduction of superannuation from wages may strain individual and family budgets in the short term, even though longer term benefits flow in retirement.

Australia’s changing demographic structure may adversely affect the sustainability of certain aspects of the superannuation system. In particular, tax concessions currently in place around superannuation may be unsustainable over the long term (Parkinson, 2012). However, given the existence of the superannuation guarantee, this would only affect voluntary contributions.

3.1.2 Superannuation in a portfolio

The relative importance of superannuation as an investment vehicle for Australian households and the key considerations for retirees at the various stages of retirement provision—accumulation, conversion and de-accumulation—mean that the system overall rates well internationally. Nonetheless, outcomes for individuals and particular cohorts,

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4 Calculations were for a thirty-year-old earning median wages with a thirty-seven year working life.
e.g. women who leave the workforce to raise a family and then return, still have room for improvement.

Superannuation is not (yet) the largest item on the household balance sheet; that honour belongs to housing (Table 3.2). And for many Australians with relatively small superannuation balances, it would be understandable if decisions about superannuation were of lesser importance.

A question that arises is whether total holdings are appropriately diversified. Individuals may have an appropriately diversified superannuation portfolio, but their holdings of other assets may be intensely concentrated in, say, housing. In these circumstances, asset allocation in superannuation may have little bearing on retirement income.

### Table 3.2: Household balance sheet characteristics

<table>
<thead>
<tr>
<th></th>
<th>June 2000</th>
<th>June 2007</th>
<th>June 2010</th>
<th>June 2012</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ratio to financial assets</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deposits</td>
<td>0.18</td>
<td>0.17</td>
<td>0.25</td>
<td>0.23</td>
</tr>
<tr>
<td>Superannuation</td>
<td>0.53</td>
<td>0.57</td>
<td>0.57</td>
<td>0.45</td>
</tr>
<tr>
<td>Shares</td>
<td>0.20</td>
<td>0.18</td>
<td>0.11</td>
<td>0.09</td>
</tr>
<tr>
<td>Liabilities</td>
<td>0.42</td>
<td>0.51</td>
<td>0.61</td>
<td>0.54</td>
</tr>
<tr>
<td><strong>Ratio to total assets</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dwellings</td>
<td>0.53</td>
<td>0.56</td>
<td>0.60</td>
<td>0.54</td>
</tr>
<tr>
<td>Liabilities</td>
<td>0.17</td>
<td>0.20</td>
<td>0.22</td>
<td>0.21</td>
</tr>
<tr>
<td>Financial assets</td>
<td>0.40</td>
<td>0.39</td>
<td>0.36</td>
<td>0.39</td>
</tr>
<tr>
<td><strong>Total assets $B</strong></td>
<td>2,820</td>
<td>5,882</td>
<td>6,671</td>
<td>8,037</td>
</tr>
</tbody>
</table>


### 3.1.3 Default products

Of the vast range of products offered by funds, perhaps the default option is the most important since often it is the most popular option. The mix of growth and conservative assets in the average default option has changed over time; the shift towards growth assets seeming appropriate in the context of a shift to defined contribution plans.

### Table 3.3: Asset allocation - default strategy

<table>
<thead>
<tr>
<th></th>
<th>Deposits</th>
<th>Short-term</th>
<th>Bonds</th>
<th>Equities</th>
<th>Life office reserves</th>
<th>Property</th>
<th>Other Australia</th>
<th>Overseas</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dec-1992</td>
<td>9.3</td>
<td>7.4</td>
<td>19.3</td>
<td>33.3</td>
<td>39.2</td>
<td>10.1</td>
<td>11.1</td>
<td>12.4</td>
</tr>
<tr>
<td>Dec-1997</td>
<td>16.2</td>
<td>12.0</td>
<td>25.3</td>
<td>98.0</td>
<td>64.1</td>
<td>13.6</td>
<td>17.9</td>
<td>36.9</td>
</tr>
<tr>
<td>Dec-2002</td>
<td>33.8</td>
<td>21.3</td>
<td>29.3</td>
<td>168.5</td>
<td>110.9</td>
<td>24.4</td>
<td>12.0</td>
<td>79.4</td>
</tr>
<tr>
<td>Dec-2007</td>
<td>107.6</td>
<td>38.7</td>
<td>56.2</td>
<td>511.4</td>
<td>182.2</td>
<td>52.2</td>
<td>28.3</td>
<td>195.6</td>
</tr>
<tr>
<td>Dec-2012</td>
<td>207.5</td>
<td>68.3</td>
<td>54.4</td>
<td>591.8</td>
<td>171.1</td>
<td>87.5</td>
<td>48.4</td>
<td>228.1</td>
</tr>
</tbody>
</table>

Dec-1992 7% 5% 14% 23% 28% 7% 8% 9%
Dec-1997 6% 4% 9% 35% 23% 5% 6% 13%
Dec-2002 7% 4% 6% 35% 23% 5% 3% 17%
Dec-2007 9% 3% 5% 44% 16% 4% 2% 17%
Dec-2012 14% 5% 4% 41% 12% 6% 3% 16%

Source: ABS, Cat no 5655.0, 2012.
That said, the typical default asset allocation may be less appropriate for some age cohorts. For example, Ken Henry’s comments about sequencing risk highlight the risk of a sharp reversal in (growth) asset prices immediately before retirement adversely affecting retirement income.

*Even over periods as long as 20 years, it has not always been the case that equities outperform fixed interest, though it has generally been the case. The more important point, though, is that timing – specifically, the sequencing of variable returns – is everything (Henry, 2012).*

Superannuation funds can provide default options with decreasing risk exposure for members approaching retirement. It is not clear how widely this option is offered, how well-publicised it is or if it is demanded by fund members.

### 3.1.4 Into the future: performance in the de-accumulation phase

At present, the majority of Australia’s superannuation assets are in the accumulation phase. However, as the “Baby Boomer” generation retires, an increasing proportion of assets will move to the draw-down, post-retirement or ‘de-accumulation’ phase. ASIC (2012) cites figures from Rice Warner (2011) estimating that the proportion of superannuation assets owned by retirees will rise from 30.3% in 2011 to 42.1% by 30 June 2026.

The current system delivers a lump sum; the individual then needs to turn this into a retirement income stream. The individual’s ability to manage risk (e.g. longevity risk) will hinge on the availability of suitable instruments to manage this risk.

The shift in phases will be associated with several changes. Those in the de-accumulation phase face different risks, and have different priorities. Managing these effectively will be vital to the performance of the superannuation system in the future.

*The current retirement incomes system does not provide the products that would allow a person to manage longevity risk. This is a structural weakness. The government should support the development of these products and better facilitate their provision by the private sector. This could be achieved through issuing long-dated bonds and removing rules that restrict the development of income stream products. The Review Panel is not convinced, however, that the purchase of such products should be made compulsory (Australia’s future tax system, 2009).*

### 3.1.4.1 Risks and expenditure patterns in retirement

Of the risks described in Section 3.1.1.1, longevity risk is the most pressing concern for retirees. Uncertainty regarding an individual’s lifespan can make budgeting of retirement funds difficult. This is compounded by increasing life expectancy, as medical interventions continue to improve.

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Other key challenges faced by people in the de-accumulation phase include liquidity risk and budgeting risk:

- Liquidity risk arises because, in the draw-down phase, retirees may need to sell some of their superannuation assets in order to continue financing their retirement. However, the timing of this may be problematic; asset sales may be necessary at a time when prices are low.

- Budgeting risks result from the changing expenditure patterns of retirees as they age. The stages broadly are as follows:
  - **active (ages 60-75)** – similar to pre-retirement lifestyle; may do some part-time work. Increased expenditure and time on leisure and travel.
  - **passive (ages 75-85)** – move to less active activities and more economical lifestyle. Increased expenditure on healthcare.
  - **frail (ages 85-100)** – limited mobility. Increased dependence on health care and aged care, with increased expenditure accordingly.

Given that the precise timing and length of these stages is difficult to predict, retirees may have difficulties budgeting for them appropriately. This may lead to insufficient funds being available for the requisite level of care in the passive and frail stages.

### 3.1.4.2 Current operation of the de-accumulation phase

As at 2010, over half of post-retirement superannuation assets were managed through self-managed superannuation funds (Rice Warner, 2011). When measured by the number of accounts, however, the majority of de-accumulation phase accounts were managed by not-for-profit entities, as shown in Chart 3.2. This implies that the majority of retirees (but not the majority of post-retiree superannuation asset) rely primarily on external parties to manage their funds in retirement.

**Chart 3.2: Composition of de-accumulation phase superannuation accounts**

Common methods of drawing down retirement benefits in the de-accumulation phase vary according to account balance. However, generally, an increasing proportion of benefit payments are being taken in the form of pensions. This can be seen in Chart 3.3 below.

It may be optimal for retirees with small superannuation balances to take lump sums and pay down debt, e.g. to pay off the mortgage on their house. For retirees with larger balances, taking the bulk of savings in an income stream may make more sense.

**Chart 3.3: Retirement benefit payments by type**

![Chart showing retirement benefit payments by type](chart.png)

Source: APRA, 2013

### 3.1.4.3 Income streams

Retirement income risk can be managed by taking an income stream rather than a lump sum. Moreover, it may be desirable to make retirement income streams more attractive than lump sum payments. (However, this ignores individual circumstances, e.g. for individuals with outstanding debts or significantly reduced life expectancy).

An income stream can be achieved by holding a portfolio of suitable assets or from instruments specifically designed to perform the task, e.g. annuities.

The annuities market in Australia is thin; there are providers of annuities but the products on offer are of relatively short term and there are few buyers. There is also resistance in the community, as indicated by the low level of demand, but this may be mitigated with improved financial literacy.

In the UK, the annuities market expanded once annuities became mandatory at age 75 for investors in defined contribution plans and personal pension plans (Broadbent & Palumbo,
2006). However, mandating taking retirement income in the form of (lifetime) annuities raises equity issues; longevity and income are positively correlated, raising the prospect of low-income annuity holders subsidising high-income annuity holders (The Economist, 2012).

For these reasons, deferred annuities are appealing; products that kick-in once a certain age is reached, e.g. 85. There are parallels with the age pension as originally envisaged, commencing at 65 when life expectancy was around 55. However, the superannuation industry cites the existence of regulatory obstacles to the development of the annuities market (Figure 3.2).

**Figure 3.2: Regulatory barriers an expanded annuities market**

Superannuation Industry Supervision (SIS) regulations may impede the development of a deferred annuity or pension market. Specifically, the tax treatment of post-retirement products offered by life insurance companies is different to the tax treatment of products offered by superannuation funds.

There is an APRA prudential standard on minimum surrender values of pension and annuity products—as it is currently worded, deferred annuities do not fit into the structure of this standard.

The asset test for the age pension takes into consideration the full purchased price of a deferred annuity, despite purchasers not being able to access any capital or income until the qualifying age.

Life insurance companies, and other product providers, must deal separately with a number of agencies: ATO, APRA, ASIC and Centrelink. Each of these offices may treat the same product in an inconsistent way.

Source: ASFA

3.1.4.4 **Aged care insurance**

The Henry review found there was “considerable scope to align aged care assistance with the principles of user-directed funding to provide assistance in line with recipients’ needs”. However, any move in that direction would be hampered “by regulations that govern supply and price”. Therefore, the Productivity Commission should consider regulatory reform, the review recommends. It should also examine “the potential for insurance to play a role in helping to fund aged care as Australia’s population ages” (Productivity Commission, 2011).

“... individuals should contribute to the cost of their personal care according to their capacity to pay; but should not be exposed to catastrophic costs of care” (Productivity Commission, 2011).

This could take some form of ‘defined benefit’ insurance scheme, with contributions made alongside superannuation contributions. The Productivity Commission has suggested special bonds as another way this might work in practice:
“The Commission is proposing the establishment of an Australian Pensioners Bond for those on an aged pension who wish to deposit all or some of the proceeds of the sale of their home. ... Excluded from the age pension asset test ... The bond could be drawn down to meet aged care co-contributions, pay for accommodation or meet other living expenses.”

3.2 Complexity and confidence in the system

The frequency with which changes to the system are implemented, as well as the complex nature of these changes is undermining investor confidence in the system. So long as superannuation is taxed at concessional rates, this is likely to remain the case. Yet, it is important for the stability of the compulsory superannuation system that members retain confidence in the system.

3.2.1 Complexity

The superannuation system is large and complex and also compulsory. Often it is the complexity of managing a portfolio of assets that leads to individual disengagement with superannuation (ASFA, 2011a). As a result many superannuation accounts are placed in default funds, where disengaged individuals do not have to make active investment decisions about their compulsory savings accounts. While individuals may prefer to let professionals manage their retirement savings, given their profile and life stage, some have questioned whether the asset allocation of default funds is the most appropriate.6

Frequent changes to the rules are increasing the complexity of the system. It is difficult for individuals, who are not always financially literate, to fully understand the array of changes that are regularly made to the system. Annual changes to, e.g. concessions, contributions and caps announced in the Budget do not promote confidence in the system—especially when some of these changes to Australia’s superannuation system are seen to be raising significant amounts of revenue for the government. A list of the specific measures is outlined in Appendix C.

There is concern that the tax treatment of superannuation funds will change and this affects how people choose to engage with the system. The Australian Government recently announced changes to the tax treatment of superannuation earnings over $100,000 annually.7 These changes are likely to affect only a small number of retirees, around 0.4%

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6 Ken Henry has questioned the appropriateness of investment strategies during the accumulation stage: “It might be tempting to think that so-called ‘growth’ strategies serve the interests of fund members in the accumulation phase, with more ‘conservative’ strategies serving the interests of those who have already retired; that is, those who are in the draw-down phase. The latter is probably true. The former might also be true. Then again, it might not be” (Henry, 2012).

3.2.2 Confidence

During 2011, ASFA commissioned market research into the views of superannuation account holders. The level of satisfaction with the system was not high, with only 27% of respondents stating that they were satisfied, down from 34% in the previous year. At an individual fund level, the main reasons for dissatisfaction were the level of investment returns and the quality of service.

While at least some of this low level of satisfaction would be the result of the low and negative returns in recent years, a lack of confidence in the system is also implicit in these results.

The survey suggested that part of the lack of satisfaction with the industry was the number and frequency of changes made to the rules and regulations of the superannuation system. The dissatisfaction was evident across the spectrum of age and fund type. This suggests that greater confidence could be restored if policymakers took a longer term view of the system, that is, one that does not involve frequent changes to the rules.

The lack of confidence is also partly due to the frequency and extent of changes, past and potentially in the future, to tax treatment and accessibility of funds. The Cooper Review highlighted confidence in the system as one of the guiding principles for future policy development for the superannuation system.

The system is large and complex and increasing in importance from both a social and a macroeconomic perspective. Any regulation or rule changes, including to taxation, should be made in a way that increases member confidence. MySuper was developed with the aim of reducing the need for a deep level of understanding of the system, and to allow for easier comparison of fund performance. As reforms increase the transparency of the system, they should improve member confidence.

Australia’s superannuation system is entwined with Australia’s taxation system. This gives policymakers and politicians the incentive to make frequent changes, both large and small, but which together undermine confidence in the system. This is not likely to abate while superannuation is taxed at concessional rates. Investors need to be assured that the system will not be subject to substantial adjustment so that they can make long-term, rational decisions about their superannuation accounts.

3.2.3 Possible solution

One suggestion is to ‘re-house’ superannuation in an independent institution, beyond the easy reach of politicians, which would be responsible for the management of superannuation policy in Australia. This could be an institution similar to the Reserve Bank with statutory independence from the government of the day. Given the existing extent to which the superannuation and taxation systems are entwined, however, it would be difficult to separate the two.
3.3 Self-managed superannuation funds

While it has always been possible to establish a personal superannuation fund, it was not until 1997 that the concept of a self-managed superannuation fund (SMSF) was introduced. Since then SMSFs have increased rapidly as a share of the industry. By the end of 2012 superannuation assets held in self-managed superannuation funds was the largest share in Australia’s superannuation system. The growth of SMSFs has been among mainly older, wealthier individuals, indicating SMSF arrangements are perceived by this cohort to be more suitable.

3.3.1 Growth of self-managed superannuation

SMSFs were the fastest growing sector of the Australian superannuation industry in the five years to 30 June 2011. This was the result of both the net increase in the number of SMSFs (SMSF accounts being established less SMSF accounts being withdrawn) and the volume of rollovers and contributions made into SMSF accounts (ASFA, 2012).

The non-concessional contributions were particularly important over that period, with SMSFs receiving a significant share of up to $1 million non-concessional contributions over that time. Possible reasons for the fast growth of SMSFs relative to other fund types are outlined below.

3.3.1.1 Differences in treatment of SMSFs and large funds

SMSFs are perceived as being treated favourably compared to other institutional funds—SMSFs as a sector pay a smaller share of the overall tax paid by superannuation funds relative to the proportion of assets they represent (ASFA, 2012). There are a number of reasons for this.

- A greater proportion of SMSF assets are in the retirement phase and as such a larger proportion of investment earnings are tax-exempt.
- The structure of SMSFs makes movement of assets with unrealised capital gains from the accumulation to the retirement phase easier. Large funds do not identify assets for tax purposes in such a way that allows for the transfer of assets from the accumulation phase to the pension phase—although it is possible within the APRA-regulated environment.
- Many SMSFs hold specific assets for longer than APRA-regulated funds.
- As SMSFs invest proportionately more in Australian shares, they attract a larger volume of imputation credits.

One area where SMSFs are treated less fairly is the treatment of anti-detriment amounts related to death benefits, and following the movement of funds from the accumulation phase to the draw-down phase. Larger funds are usually in a better position to finance these payments.

Overall, however, the taxation treatment of SMSFs relative to other funds is comparable. Assets rolled over from an SMSF to an APRA-regulated fund would receive a consistent tax treatment and the same effective tax rate. Hence, while favourable taxation treatment
cannot be the reason for the growth of SMSFs, perceptions of favourable tax treatment by investors may encourage movement.

3.3.1.2 Differences in costs of SMSFs and large funds

Self-managed superannuation funds are considered to be a lower-cost alternative for investors and achieve greater returns; this may encourage investors to establish an SMSF to take advantage of these benefits. However, the average operating costs of self-managed superannuation funds varies depending on the size of the SMSF:

- In 2009-10 operating costs ranged from around 7% for a fund with less than $50,000 to only 0.25% for a fund with more than $2.5 million invested.
- For funds with less than $200,000 in assets, SMSFs are generally considered to have higher operating costs than other APRA-regulated funds.
- For funds with assets ranging between $200,000 and $500,000, the operating costs are broadly comparable.

It is only for a minority of funds with assets greater than $1 million that SMSFs do offer a lower-cost alternative.

3.3.1.3 Other differences

The Cooper Review recognised that some investors lack confidence in the governance of industry funds, possibly contributing to the growth of the SMSF sector. While the Review did not find evidence of governance failure, it did note that some governance arrangements needed to be improved. Conflicts of interest and conflicts of duty were found to be common. The lack of confidence in governance structures of funds, particularly relative to SMSFs are likely to have contributed to the strong growth of SMSFs relative to other funds.

Regulators view SMSFs as ‘retail investors’ and large funds are ‘financial institutions’; this has implications for treatment, e.g. banks need to hold higher liquidity and capital reserves for exposures to financial institutions.

The rise of SMSFs may also reflect the range of products currently available to deliver income in retirement. SMSFs appeal to an older, wealthier cohort, a group which includes recent retirees. The decision to do-it-yourself may reflect an individual’s preference for a combination of assets not available from institutional providers.

The Cooper Review noted that SMSFs were largely doing what they were supposed to and did not consider it necessary to implement significant reforms to the way that the system is being managed. This suggests that over the last few years SMSFs have been an effective alternative investment for superannuation account holders.

3.3.2 Asset allocation of SMSFs

Portfolio management decisions that influence retirement outcomes require a level of financial literacy lacking in the broader community. Asset allocation decisions of SMSFs are visible at an aggregate level, but less is known about the appropriateness of decisions at an individual level.
Surveys show that there is a general lack of understanding of the relationship between risk and return, and of diversification. For example, in *Financial Literacy: Australians managing money* (2007) the largest portion of respondents rated return as an important consideration for investment decisions, only a third considered both risk and return and just one in 20 took diversification into account.

**Chart 3.4: Considerations when making investment decisions**

<table>
<thead>
<tr>
<th>Consideration</th>
<th>% of respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Return</td>
<td>55</td>
</tr>
<tr>
<td>Risk</td>
<td>40</td>
</tr>
<tr>
<td>Risk and return</td>
<td>34</td>
</tr>
<tr>
<td>Type of investment</td>
<td>30</td>
</tr>
<tr>
<td>Term of investment</td>
<td>12</td>
</tr>
<tr>
<td>Accessibility of investment</td>
<td>8</td>
</tr>
<tr>
<td>Investment amount required</td>
<td>7</td>
</tr>
<tr>
<td>Advice/recommendation received</td>
<td>7</td>
</tr>
<tr>
<td>Background information</td>
<td>6</td>
</tr>
<tr>
<td>Personal circumstances</td>
<td>6</td>
</tr>
<tr>
<td>Diversity/spread of investments</td>
<td>5</td>
</tr>
<tr>
<td>Tax effectiveness/tax benefits</td>
<td>3</td>
</tr>
<tr>
<td>Don't know</td>
<td>4</td>
</tr>
</tbody>
</table>

Source: Australian Government 2007

The assets of SMSFs are heavily weighted towards Australian investments. Within this, there is a heavy weighting towards Australian-listed shares, which make up about 30% of the total assets under management of SMSFs. Cash and term deposits account for the largest investment—31% of assets are allocated to these assets. Real property assets, both non-residential and residential, are also heavily invested in, making up about 16% of total SMSFs funds under management.
Table 3.4: Assets of Self-Managed Superannuation Funds

<table>
<thead>
<tr>
<th></th>
<th>June 2008</th>
<th>June 2012</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Level</td>
<td>Share of Total</td>
</tr>
<tr>
<td></td>
<td>$ billion</td>
<td>%</td>
</tr>
<tr>
<td><strong>Total assets held in Australia</strong></td>
<td>318</td>
<td>99</td>
</tr>
<tr>
<td></td>
<td><strong>of which</strong></td>
<td></td>
</tr>
<tr>
<td>Listed trusts</td>
<td>24</td>
<td>7</td>
</tr>
<tr>
<td>Unlisted trusts</td>
<td>30</td>
<td>9</td>
</tr>
<tr>
<td>Insurance policy</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Other Managed Investments</td>
<td>18</td>
<td>6</td>
</tr>
<tr>
<td>Cash and term deposits</td>
<td>82</td>
<td>25</td>
</tr>
<tr>
<td>Debt securities</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Loans</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Listed Shares</td>
<td>103</td>
<td>32</td>
</tr>
<tr>
<td>Unlisted Shares</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Derivatives and instalment warrants</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Non-residential real property</td>
<td>30</td>
<td>9</td>
</tr>
<tr>
<td>Residential real property</td>
<td>11</td>
<td>3</td>
</tr>
<tr>
<td>Artwork, collectibles, metal or jewels</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Other assets</td>
<td>11</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total assets overseas</strong></td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>321</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: ATO

The asset allocation of SMSFs should be appropriate to the life cycle of the individuals with investments in the accounts. The assets of individuals about to retire should be different to those still in the accumulation phase. There appears to be limited asset diversification across self-managed superannuation funds.

### 3.3.3 Future growth of SMSFs

By the end of 2012, SMSFs accounted for about 32% of total superannuation assets under management in Australia, having grown from around 10% in 1997. Following the establishment of the Superannuation Simplification measures in 2010, SMSFs experienced their fastest rate of growth. Since then there has been a downward trend of contributions to SMSFs—overall SMSFs share of contributions to all funds fell from over 40% in 2007 to 20% in 2010. Reasons for this include the halving of caps on concessional contributions (ASFA, 2012).

The share of SMSFs relative to other fund types appears to have peaked. The size of the market appears to have stabilised, and is expected to remain at a share of around 30% over the next few years. The number of members is expected to increase from around 7% of total members with superannuation accounts to around 9% (ASFA, 2012).
Given the size of SMSFs and their importance to the superannuation industry, there are a few key questions that need to be addressed to ensure the long term stability of this part of the superannuation industry.

- A potential longer-term problem arises from policies that encourage the growth of SMSFs. While a small minority consist of four members, typically SMSFs are managed at a family level, with two members of the same household investing in the same SMSF. Generally, one person will be the primary manager of the account. If a person were to die, leave the relationship, or otherwise become unable to make investment decisions, it is unclear if the other individual would have the financial literacy to continue to manage the SMSF.

- There are also risks associated with ageing of individual trustees, and consequent ability to manage the fund (as well as the administration costs associated with small balances) in the de-accumulation (retirement) phase.

- It is also unclear whether the asset allocation of SMSFs, as they currently are, is the most appropriate asset allocation for investment as individuals move out of the accumulation phase and into the retirement phase.

SMSFs present a challenge to policymakers. While they account for the largest share of superannuation assets, SMSFs are more difficult to influence than other fund types. The regulation of SMSFs is also different: industry and retail funds are regulated by the Australian Prudential Regulatory Authority, but SMSFs are regulated by the Australian Taxation Office.
4 Financial stability

The growth of the share of financial assets under the control of superannuation funds, including offshore, potentially has implications for the stability and functioning of the financial system. Since the GFC regulators have become more concerned about financial system stability—thus the size of superannuation alone is a *prima facie* reason for examining its impact on system stability.

The focus of regulation post-GFC is on banking; but the linkages to other financial institutions including superannuation mean interactions throughout the system will be scrutinised.

4.1 The superannuation business model

There are some important differences between banking and superannuation fund business models. These differences, illustrated by the following two quotes and summarised in Table 4.1, suggest that the growth of superannuation, in isolation, should strengthen financial stability.

*Superannuation’s large pool of stable and unleveraged superannuation assets contributes to financial stability by adding depth and liquidity to financial markets; providing an alternative source of finance for other sectors; and acting as an important buffer against external shocks (Parkinson 2012).*

*The presence of market participants with different horizons and risk preferences is an important contributor to financial stability and it also helps promote efficient resource allocation by reducing overreliance on the banking sector or on foreign sources of finance for the mobilisation of savings and financial intermediation (FSB, 2013).*

Importantly, unlike banking liabilities, the majority of superannuation liabilities are fully-funded, eliminating default risk and thereby ameliorating financial instability.
Table 4.1: Differences between superannuation and banking business models

<table>
<thead>
<tr>
<th>Area</th>
<th>Superannuation</th>
<th>Banking</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Business scope</strong></td>
<td>Funds management services</td>
<td>Payment services, intermediation with maturity transformation</td>
</tr>
<tr>
<td><strong>Funding</strong></td>
<td>Liability driven</td>
<td>Liability and market funding driven</td>
</tr>
<tr>
<td></td>
<td>Short-and long-term funding</td>
<td>Mostly short-term funding</td>
</tr>
<tr>
<td></td>
<td>No inter-company borrowing/lending</td>
<td>Assets and liabilities not strictly linked</td>
</tr>
<tr>
<td><strong>Balance sheet</strong></td>
<td>Assets and liabilities influenced by financial markets</td>
<td>Assets exposed to business cycle</td>
</tr>
<tr>
<td><strong>Risks</strong></td>
<td>Interest rate risk</td>
<td>Credit and liquidity risk</td>
</tr>
<tr>
<td></td>
<td>Low liquidity risk</td>
<td>Risk due to maturity transformation and wholesale funding</td>
</tr>
<tr>
<td></td>
<td>Low interconnectedness</td>
<td>Substantial trading among banks</td>
</tr>
<tr>
<td></td>
<td>Low assumed risk</td>
<td>Low owner risk retained, especially securitisation</td>
</tr>
<tr>
<td></td>
<td>No leverage</td>
<td>Significant leverage</td>
</tr>
<tr>
<td><strong>ALM and investment</strong></td>
<td>Relatively stable funding and liability-driven investment</td>
<td>Low liquidity and asset-driven investment</td>
</tr>
</tbody>
</table>

Source: Adapted from http://www.bis.org/publ/cgfs44.pdf, DAE

By their nature, superannuation funds have a longer-term view of investment. Their key role is to seek the best risk/reward trade-off and, in doing so, they pursue an investment strategy that duration-matches their long-dated liabilities. As a result, they tend to invest in less volatile, longer-term assets and are consequently more concerned about corporate governance than other investors (ACG, 2011).

Over the last 25 years, longer-term assets such as bonds, equities and loans and placements have accounted for around 95% of Australian superannuation funds assets Chart 4.1.
Maximising superannuation capital

Chart 4.1: Australian superannuation funds’ assets

Source: ABS (2013)

‘Short term assets’ include bills, Treasury notes, CDs and commercial paper. ‘Longer-term assets’ are all other assets held in Australia.

The Financial Stability Board does not appear especially concerned about the impact of defined contribution funds on system stability. However, superannuation is exposed to banks through direct share holdings, the economic cycle, deposits at banks and banks as counterparties for hedging. A particular focus of regulators is around liquidity.

The issue of liquidity management became a central focus for APRA during the GFC. This was prompted by fears of a run on banks, which in turn prompted governments to guarantee retail savings. A similar run (to cash) on superannuation funds is not possible as funds can only be moved within the system up to retirement age. Funds are able to freeze withdrawals for a period (although this is not good for confidence). Rather, having to cover hedging losses proved challenging for funds with high exposures to unlisted infrastructure assets.

4.1.1.2 Banking-style liquidity problems

Chart 4.2 shows that inflows and outflows wax and wane. In any given year, liquid outflows may exceed contributions. Thus, for some funds, it may be necessary to draw down assets in order to satisfy timely roll-over requirements. This is challenging for funds with volatile inflows, outflows and contributions.
However, a recent research paper published in the Australian Journal of Management suggests that most members did not choose to exercise their rights to switch funds, even during the GFC. The paper, entitled ‘Retirement savings investment choices in response to the global financial crisis: Australian evidence’, found that less than 7% of fund members changed their investment in reaction to the GFC between 2006 and 2009. These findings suggest that the impact of switching on liquidity would be small.

Industry experts suggest the reason for the cash-flow problems was superannuation funds hedging their foreign currency exposures; i.e. when market volatility forces funds to cover adverse movements in their hedge books. The issue is whether they have enough liquid assets to cover these losses without moving their asset allocation outside the ranges signed off by the fund’s board of trustees.

This is a different liquidity risk to what banks face—and it would not be expected to affect financial system stability because funds remain in the system and liabilities and assets both move in line with market prices.

Moreover, there is evidence to show that funds investing in illiquid assets are able to capture an illiquidity premium. A recent APRA paper entitled, ‘Risk and return of illiquid investments: A trade-off for superannuation funds offering transferable accounts’ (APRA, 2012) shows that ‘funds with moderate allocations to illiquid investments experience higher risk-adjusted returns, which suggests that they capture a risk premium for investing in these assets’. The authors found that superannuation funds with illiquid investments receive benefits from such investments.

On the other hand, if superannuation funds increase their foreign currency assets to service their Australian dollar liabilities—as seems likely (see Chapter 5) — then the ‘liquidity’ risks that APRA is concerned about are unlikely to diminish.
APRA has since introduced the Investment Governance Prudential Standard (SPS530), which will become effective on 1 July 2013, requiring superannuation funds to formulate and implement a liquidity management plan and undertake comprehensive stress testing of investment portfolios in a range of stress scenarios.

4.1.1.3 Liquidity facility for superannuation

One potential solution to alleviate the liquidity requirements for superannuation funds would be to establish a liquidity facility for superannuation funds, allowing them to invest more in illiquid assets such as infrastructure.

The facility would operate in a similar way to that provided by the RBA for banks. Currently, banks can enter into a repurchase or repo agreement with the RBA, whereby banks can sell Commonwealth bonds and eligible securities to the RBA and buy them back at a later date. The repo agreement is essentially a secured loan, with the proceeds providing short-term liquidity.

The imposition of the fee ensures that the intent of the Basel standard will be met. By charging ADIs for the liquidity insurance the central bank provides, the appropriate incentive is established for ADIs to manage their liquidity risk. At the same time, the design of the CLF will contain the impact of regulatory-induced demand for liquid assets in an environment where so few exist (Debelle, 2012).

Under the proposal, superannuation funds regulated by APRA could utilise this facility alongside banks. This arrangement would also create incentives for superannuation funds to hold more repo-eligible securities, in particular fixed income securities. The proposal for a liquidity backstop for superannuation funds has already received support from a range of industry experts, including Jeremy Cooper, Chair of the Superannuation System Review, and Steve Bracks, former Premier of Victoria and Chairman of Cbus.

Setting up a liquidity backstop for superannuation funds, with appropriate haircuts to guard against moral hazard, may provide a solution that would satisfy APRA and leave the superannuation funds free to make investment decisions that best meet their members’ needs. The CLF that the RBA manages for ADIs is a framework that could be considered. But the net benefit of such a facility for superannuation funds needs to be established first.

4.2 National saving and external balance

Traditionally, Australia has had to borrow from offshore to supplement domestic saving to fund domestic investment. Superannuation is a form of saving that competes with other forms of saving. Superannuation funds invest large amounts at home but also offshore. Consequently, the growth of superannuation has implications for national saving and the external accounts.

The question as to whether compulsory superannuation has increased the level of national saving is difficult to answer with certainty as there is no true counterfactual. Indeed, studies and attempts at answering this question necessarily make assumptions about the counterfactual, and the outcome is often quite dependent on these assumptions.
For example, modelling performed by the Retirement Income Modelling Group in the Australian Treasury showed that the Superannuation Guarantee contributed positively to national saving, but this was based on the strong assumptions that the counterfactual was one in which compulsory contributions were instead paid as wage rises, and 50 per cent of the increased take-home pay was then saved in savings accounts (Kirchner, 2012). The results do not consider the possibility that tax concessions for superannuation lead to increases in other taxes, or that the increased costs to employers reduce their capacity to invest.

Nonetheless, an assessment of the available theory and evidence suggests that compulsory superannuation raises household and, in turn, national saving (see for example, Gruen and Sodig, 2011). This theory and evidence is explored below.

4.2.1 Measuring the impact of compulsory superannuation on national saving

National saving comprises household, corporate and government saving. It is useful to consider the theoretical implications of compulsory superannuation on each of these types of savers, then to look at the available evidence.

It is generally accepted in the literature that compulsory superannuation leads to an increase in household saving, largely due to the credit constraints of low-income earners. To illustrate, consider the following three types of household savers:

- households who in the absence of compulsory superannuation would not have saved as much as compulsory superannuation forces them to
  - These households spend most of their income (generally low-income earners) and therefore have little scope to offset forced contributions by decreasing other savings or increasing liabilities.
  - **Compulsory superannuation increases the savings of these households.**
- those who would have voluntarily saved at least the amount that compulsory superannuation forces them to, but they offset all of these savings with reductions in other forms of saving and/or increasing liabilities
  - **Compulsory superannuation has no impact or decreases the savings of these households.**
  - The tax advantaged status of superannuation compared to other forms of saving may result in these households saving at a lower rate overall (compared to the counterfactual of no compulsory superannuation) because they no longer need to save as much through other vehicles to achieve their desired level of net wealth (Kirchner 2012).
- those who would have voluntarily saved at least the amount that compulsory superannuation forces them to, but they do not offset (all of) these savings with reductions in other forms of saving.
  - **Compulsory superannuation increases the savings of these households.**
  - All else equal, the presence of superannuation might increase the overall saving rate of these households because they simply don’t consider their superannuation contribution in their budget constraint; because superannuation increases their awareness of the need to save for
retirement; or because the tax advantaged status of superannuation compared to other forms of saving induces them to save more than they otherwise would (or a combination of all three).  

- Supporting the notion that superannuation results in an increased awareness of the need to save and therefore an increase in total saving, Gruen and Soding (2011) note that there is significant evidence that commitment devices and default options have a significant impact on aggregate levels of retirement saving.

As noted, it is generally accepted in the literature that the combination of these three impacts results in a voluntary savings offset to compulsory superannuation of greater than zero but less than one (Connolly and Kohler, 2004; Gruen and Soding, 2011). Empirical estimates of this offset range from 17 cents to 75 cents in the dollar and microeconomic evidence suggests that the offset is smaller for financially constrained households (Kirchner 2012).

This apparent increase in household saving only contributes to national saving if it is not offset by dissaving in other sectors. The tax-preferred status of superannuation means that the public sector forgoes tax revenue that would have been collected had compulsory superannuation contributions been paid as wages to employees (Gruen and Soding, 2011).

If this forgone tax revenue decreases government saving, then the increase in household saving brought about by an increase in superannuation contributions does not equate to an increase in national saving. However, as Gruen and Soding (2011) argue, the government’s fiscal strategy commits it to achieving budget surpluses on average over the medium term, which means that any budget shortfall arising from the tax-preferred status of compulsory superannuation must be offset elsewhere in the budget, on average over the medium term, and therefore that the boost to private saving translates (on average over time) to the same boost to national saving.

Available evidence supports the notion that compulsory superannuation has contributed to national saving. As a share of GDP, Australia’s national saving has tended to be higher than that in other advanced economies and has increased since the late 80s, whereas saving in other advanced economies has declined (Chart 4.3). This higher and increasing trend in national saving is in line with the introduction of award-based superannuation in 1985 and the compulsory superannuation guarantee system in 1992.

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8 It is noted that housing is taxed at a lower rate than superannuation (see Kirchner, 2012), but housing requires a large capital outlay and/or an ability to borrow a large amount of money, so many households who cannot finance housing might invest in superannuation rather than increasing consumption.
It is difficult to isolate the effect of compulsory superannuation from other external factors that influence saving. For example, the widening gap in saving between Australia and other advanced economies over the past five years largely reflects the effect of the economic downturn. However, the divergence was clearly present prior to the GFC, suggesting that other factors, such as Australia’s long history of prudent fiscal policy and the maturation of Australia’s compulsory superannuation system, are at play (Bishop and Cassidy, 2012).

Based on an RBA analysis of data from the Household Income and Labour Dynamics in Australia (HILDA) survey that estimated a private saving offset of 30 per cent or less (Connolly, 2007), Gruen and Soding (2011) estimate that the current boost to national saving from the compulsory superannuation contribution is 1.5 per cent of GDP (Chart 4.4.) They estimate that this contribution will rise significantly over the next decade, as the Superannuation Guarantee rises gradually from nine to 12 per cent.
4.2.2 The importance of national saving

The obvious question to follow from this analysis is why do we care? That is, if we accept that superannuation increases national saving, what are the implications of this?

There are numerous economic arguments in the literature both in support of and against the assertion that, in the absence of compulsory superannuation, Australia would not save enough. However, what is enough is subjective and largely irrelevant to this discussion. What is important is that, if we take it to be true that superannuation increases national saving, what does an increase in national saving mean for the economy?

Essentially, increased national saving through superannuation provides an avenue for financing investment in Australia and to reduce our reliance on foreign savings to finance such investments (Kirchner, 2012). Generally speaking, lower (and negative) current account balances increase a country’s risk premium, so from a risk management perspective, financing investment internally is preferred—especially given Australia’s long-standing position as a net borrower (Chart 4.5).
Some commentators argue that increased national saving in the form of superannuation does not lead to investment in infrastructure and it in fact gets sent offshore anyway as Australian superannuation funds invest relatively heavily in overseas markets. However, although superannuation funds’ share of assets invested overseas increased quite rapidly to peak at around 24% in the early 2000s, this share has since declined and currently, only around 18% of Australia’s superannuation assets are invested offshore (Chart 4.6).

Even if superannuation savings were all invested onshore, this would not necessarily reduce the current account deficit. That would depend on national investment. So what matters is the gap between national investment and national savings, not where superannuation savings are invested. In fact, investing superannuation offshore helps diversification and risk mitigation.
Moreover, while funding investment through national saving lowers the risk profile of a country and thereby contributes to financial stability, this offshore investment provides a hedge to the country’s domestic investments, also lowering risk.

Indeed, superannuation funds provided a key source of capital to Australian companies during the GFC when retail demand and global corporate bond markets dried up, enabling Australian corporates to weather the GFC better than their overseas counterparts. In terms of financial stability, this was particularly important for Australian banks.
5 Gaps in provision of finance

Sustainable economic growth is driven by productivity, participation and population—the ‘3Ps’. In the future, population growth and rising participation will contribute less to Australia’s economic growth, leaving future prosperity increasingly dependent on productivity growth.

There are two main causes of this. The demographic shift currently underway in Australia—Australia’s population is ageing—means that the working-age population as a share of Australia’s total population will begin to fall. Secondly, Australia’s population grows by around 1.7% each year. This is well above the average of most other developed countries. It is unlikely that Australia will be able to sustain this level of growth over the long term.

The catalyst for rising productivity is competition and innovation. These are characteristics often associated with new enterprises. Access to capital is an important element for these businesses to promote innovative activity and compete with existing businesses. However, for many SMEs, accessing capital is more difficult than for larger business for which provision of requisite information to lenders is often easier, and this acts as a barrier to growth. Providing additional funding here may help entrepreneurs bring new ideas to market and assist small and medium-size firms to become large.

Superannuation funds have a large pool of funds at their disposal, have long-term liabilities that would appear to be well matched by making long-term investments, and will have net inflows for at least a few more decades.

Superannuation funds are heavily invested in a range of asset classes that help to fund Australia’s long-term growth, but gaps in financial markets and funds’ investments offshore leave them vulnerable to criticism that they should invest more.

5.1 Where do superannuation funds invest?

Together, pension funds and insurance companies comprise over one-quarter of the ownership of ASX-listed companies, illustrating their key role in funding corporate investment and growth (ACG, 2011). Superannuation funds hold around 11% of Australian corporate debt (Black et al, 2012). Superannuation controls around one-third of system assets, and holds a similar portion of domestic corporate equity and debt issues.

The importance of equities in superannuation fund asset allocation has risen over the past 10 years by 8 percentage points. Over the same period allocation to bills and bonds by Australian superannuation funds fell by 3 percentage points. In a study of the world’s largest pension fund markets published by Towers Watson, Australia was the only country not to increase its holdings of bills and bonds between 2001 and 2011 (Chart 5.1).\(^9\)

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\(^9\) The Towers Watson study included seven major pension markets: Australia, Canada, Japan, Netherlands, Switzerland, the United Kingdom, and the United States.
The portion of Australian superannuation funds under management invested offshore has remained stable over the past 5 years (Table 5.1). Australian superannuation funds invest a large majority of assets within Australia, exhibiting significant home bias.
Table 5.1: Assets of superannuation funds under management

<table>
<thead>
<tr>
<th></th>
<th>Sep 2007</th>
<th></th>
<th>Sep 2012</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Level</td>
<td>Share of Total</td>
<td>Level</td>
<td>Share of Total</td>
</tr>
<tr>
<td></td>
<td>$ billion</td>
<td>%</td>
<td>$ billion</td>
<td>%</td>
</tr>
<tr>
<td>Total assets held in Australia</td>
<td>979</td>
<td>84</td>
<td>1,193</td>
<td>85</td>
</tr>
<tr>
<td>of which</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deposits</td>
<td>113</td>
<td>10</td>
<td>214</td>
<td>15</td>
</tr>
<tr>
<td>Short term</td>
<td>36</td>
<td>3</td>
<td>63</td>
<td>4</td>
</tr>
<tr>
<td>Bonds</td>
<td>58</td>
<td>5</td>
<td>52</td>
<td>4</td>
</tr>
<tr>
<td>Derivatives</td>
<td>7</td>
<td>1</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>Loans and placements</td>
<td>7</td>
<td>1</td>
<td>12</td>
<td>1</td>
</tr>
<tr>
<td>Equities</td>
<td>510</td>
<td>44</td>
<td>561</td>
<td>40</td>
</tr>
<tr>
<td>Life office reserves</td>
<td>184</td>
<td>16</td>
<td>169</td>
<td>12</td>
</tr>
<tr>
<td>Other financial assets</td>
<td>13</td>
<td>1</td>
<td>20</td>
<td>1</td>
</tr>
<tr>
<td>Land, buildings and equipment</td>
<td>50</td>
<td>4</td>
<td>86</td>
<td>6</td>
</tr>
<tr>
<td>Other non-financial assets</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Total assets overseas</td>
<td>189</td>
<td>16</td>
<td>217</td>
<td>15</td>
</tr>
<tr>
<td>Total</td>
<td>1,168</td>
<td>100</td>
<td>1,410</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: ABS Cat 5655.4

The asset allocations of large funds who report to APRA show some variation across fund type. Corporate funds are more likely to invest in Australian shares and wholesale trusts, while retail funds are more likely to invest in life office funds.

Table 5.2: Superannuation assets - large funds (%): June 2012

<table>
<thead>
<tr>
<th>Asset type</th>
<th>Corporate</th>
<th>Industry</th>
<th>Public sector</th>
<th>Retail</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash and deposits</td>
<td>6</td>
<td>9</td>
<td>3</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Placements and loans</td>
<td>12</td>
<td>10</td>
<td>15</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>Equities</td>
<td>28</td>
<td>40</td>
<td>33</td>
<td>4</td>
<td>23</td>
</tr>
<tr>
<td>Property holdings</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Pooled superannuation trusts</td>
<td>8</td>
<td>6</td>
<td>20</td>
<td>10</td>
<td>11</td>
</tr>
<tr>
<td>Wholesale trusts</td>
<td>33</td>
<td>28</td>
<td>16</td>
<td>26</td>
<td>24</td>
</tr>
<tr>
<td>Life office funds</td>
<td>10</td>
<td>1</td>
<td>0</td>
<td>40</td>
<td>17</td>
</tr>
<tr>
<td>Unlisted public offer unit trusts</td>
<td>0</td>
<td>4</td>
<td>6</td>
<td>12</td>
<td>7</td>
</tr>
<tr>
<td>Other investments</td>
<td>2</td>
<td>2</td>
<td>4</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Total assets ($b)</td>
<td>54.9</td>
<td>262.5</td>
<td>219.8</td>
<td>367.3</td>
<td>904.5</td>
</tr>
</tbody>
</table>

Source: APRA Annual Superannuation Statistics, June 2012

The investment mix by Australian self-managed superannuation funds has remained stable over the past 4 years. SMSF’s have a greater emphasis on investing within Australia; almost all SMSFs are invested in Australia.
5.2 Where are the gaps superannuation is being asked to fill?

Funding for newer, smaller corporates—both listed and unlisted—and infrastructure are the main areas where there appear to be gaps in the market. These are areas where there may be potential opportunities to increase the role for superannuation funds.

5.2.1 Superannuation and SMEs

Banks and superannuation funds have tended to play complementary roles in Australia’s financial system. Banks have generally played an important role in debt funding, while superannuation funds have tended to invest more heavily in equities.

- Currently, for a dollar invested in superannuation, 10-15 cents goes to fixed income (split between government, international and domestic corporate issuers). This compares to a dollar on deposit at a bank of which about 30 cents is loaned to business.

However, as savings continue to flow to superannuation, and banks have been pushed away from SMEs by increased capital requirements, it will become important for the economy that superannuation funds consider SMEs, where banks have traditionally been the primary source of funding due to their size and the nature of their business.

SMEs are sources of innovation and productivity growth in the economy; in an effort to mitigate systemic risk, it is necessary not to dull the innovative edge of the economy. It is increasingly likely that superannuation funds will find ways to fund SMEs given the market opportunity that exists and this shift is likely to occur as markets evolve to fill the gap left by banks.

5.2.1.1 Outside the ASX200

Australian superannuation funds play an influential role in the Australian Securities Exchange: in 2010-11 Australian superannuation investment in equities was equivalent to around 29% of the total market capitalisation of the ASX. In 2011 Australian superannuation funds had about $435 billion invested on the ASX (Rainmaker in ASFA, 2012). However, most (around 95%) of this was held in ASX 200 companies. Only 5% or around $21 billion was invested outside the ASX 200 (ASFA, 2013).

It is apparent that when smaller shareholders do invest in the ASX they are more likely to invest in the higher yielding companies in the ASX20. Small shareholders account for around 97% of shareholders in the average ASX20 firm, yet they hold only 25% of the shares outstanding. Smaller shareholders have a preference for investing in companies that pay consistent dividends—which tend to be the larger companies listed on the ASX.

Given superannuation’s significant investment in the Australian stock market, and its influential position, there is an incentive to ensure the stock market’s future growth, and as part of this encourage greater diversification of the ASX. In particular, the superannuation industry may have a role in encouraging greater investment in new company listings, including start-up companies, and in smaller companies. Fundamental to this will be
establishing reporting requirements for companies listing on the ASX that are appropriate for their size, but which also provide the type of information required by investors.

For example, the *Code of Best Practice for Reporting by Life Science Companies* was developed by the ASX and AusBiotech to encourage best practice in reporting standards for Life Science Companies. As a result US biotech companies are attracted to list on the ASX (ASFA 2013). The high standards of communication and market disclosure that the reporting standards encourage promote investor confidence, which is important for enhancing market liquidity and access to capital. Similar processes could be undertaken to encourage other small and start-up companies to list on the ASX.

### 5.2.1.2 Unlisted companies

Private equity funds have generally delivered favourable long-term returns compared with public equities markets. However it is a relatively illiquid asset class with higher management fees.

The average exposure of local superannuation funds to private equity is less than 1 per cent of funds under management. This compares to superannuation funds in the US and UK, where some funds invest as much as 50% in private equity.

### 5.2.1.3 Securitisation

Securitisation has started to recover from the GFC. Real estate and infrastructure investments were the biggest users of securitisation (and direct bank lending) and will be most affected. Mining and other non-financial sectors tend to use more internal funding, especially retained earnings, and so have been less affected.

Securitisation potentially offers an avenue for groups of SMEs to access capital markets, in turn making them more accessible to superannuation funds.

### 5.2.2 Superannuation and domestic corporate debt

Mainly reflecting the focus of Australian superannuation funds on equity investments, superannuation funds have invested a relatively low 6%–7% of their asset portfolios in domestic corporate bonds over the past decade. Indeed, the share of total assets invested in domestic corporate bonds has been declining for several decades. Managed funds—including superannuation funds, life insurance offices, public unit trusts and cash management trusts—purchased 36% of Australian corporate bonds in the 1970s, but by the 2000s, the share had fallen to just 11% (RBA, 2012).

The relatively low investment in Australian corporate bonds is likely to reflect several factors. Australia has a small corporate bond market relative to other developed economies, influenced in part by government policies that favour equity investment. In addition, the corporate bond issuance is predominantly driven by financial institutions, which account for over two-thirds of all non-government debt outstanding. Non-financial corporates account for a minority of the corporate bond market, tending instead to issue in

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overseas markets. At end-2011 almost 90% of the outstanding stock of non-financial corporate debt was issued overseas.

Thus a low level of Australian superannuation fund investment in domestic corporate bonds appears to reflect:

- concentration risk (funds have significant exposures to bank equity);
- availability (non-financial issuers issue in offshore markets); and
- foreign appetite for Australian bonds.

5.2.3 Meeting domestic infrastructure needs

Infrastructure is generally a suitable asset class for superannuation fund investment, given the longer-term nature of the investment. Despite this, there is significant demand for further infrastructure investment.

The sector has undergone rapid growth over the last decade, underpinned by Australia’s mining boom, economic stimulus spending, and projects to rebuild infrastructure following several natural disasters. Nonetheless, it is estimated by that there is currently a $700 billion shortfall in essential infrastructure in Australia (Infrastructure Partnerships Australia 2009).

Greater investment in infrastructure projects, particularly brownfield projects with predictable cashflows, will potentially assist superannuation funds to diversify and reduce risks associated with being equity-heavy or being forced into investing in offshore markets.
Historically, Australian superannuation funds have been involved in funding large-scale long-term infrastructure projects throughout their lifecycles. Examples range from greenfield assets to privatised operating assets such as airports.

Both funds and Infrastructure Australia have expressed an interest in increasing the superannuation industry’s investment in domestic infrastructure. As well as offering diversification opportunities, infrastructure and other long-term investments that offer steady income streams are well suited to the long-term nature of superannuation liabilities.

However, investment in infrastructure is a small proportion of total superannuation investment. Only one third of superannuation funds invest in infrastructure. In total, just 5% of total assets under management are invested in infrastructure (ASFA, 2011).

This can be attributed to several factors:

- **Illiquidity** – long-term investments are inherently illiquid. This may impede the ability of funds to invest in them, given legislative requirements for timely roll-overs and making funds available for draw-down.
- **Valuation issues** – for funds that have daily unit pricing, long-term investments with low (or no) short-term return or market valuation may be difficult to value on a day-to-day basis.
- **Size** – infrastructure projects, as well as many long-term investments, often require substantial initial capital. Smaller funds may be unable to invest in these projects without heavily biasing their portfolios, thus threatening their asset diversification strategies.

### 5.3 What if superannuation does nothing?

It is not obvious that superannuation directly can plug any gaps in the market. If capital flows to where it is most valued, this may be the real reason some sectors miss out. If capital will find its way to profitable investment, then all worthwhile opportunities will be pursued.

The challenge is to find a way to prioritise these opportunities so the most worthwhile ones get funded first. If superannuation funds are asked to help meet economic objectives, it should not be in a way that is detrimental to investment returns on fund members’ retirement savings.

#### 5.3.1 Demographic influences

With no changes to the current financial market system and regulatory framework, the asset allocation of superannuation funds will evolve to reflect the ageing population. While asset allocation in accumulation and in retirement may exhibit similar patterns, it is unlikely that an ageing population will have an increasing risk appetite.

As an increasing share of superannuation members approach retirement and begin to draw down on their superannuation savings, individuals are expected to switch assets towards less volatile investments with stable income streams, and the asset allocation for the industry as a whole is expected to evolve towards less risky investments with steady income streams.
This will have implications for specific asset classes as well as the financial sector more broadly. Specifically, growing demand for less risky investments that deliver long-run income streams will increase the demand for bonds relative to shares. It will also increase demand for infrastructure investments that can offer stable income streams.

More broadly, as the superannuation industry continues to expand as a share of the financial sector, a shift towards specific asset groups will have broader implications for the financial system. It may drive product innovation, as well as adjustments in relative prices and returns across asset classes.

5.3.2 Developments in fixed income markets

There are already signs of change in Australia’s debt market. The average tenor of unsecured issuance has risen to five years, compared with around four years at the beginning of the financial crisis (Debelle, 2013). Similarly, issuance in Australia’s securitisation market has recently increased, and spreads have tightened considerably. This took place, with little or no support from AOFM, and was largely the result of increasing demand by investors; capital will flow to worthwhile opportunities without intervention.

However, regulatory changes intended to change investor behaviour are expected to have an impact. Recent Australian Government changes which have lowered disclosure requirements and eased liability on directors are likely to flow through to greater investment in corporate debt, particular by SMSFs (Yeates, 2013). These changes are limited to only the biggest 200 companies. This suggests that while market forces are affecting the market, changes to regulations which reduce barriers to investing in debt are also important for market development.

However, banks are likely to continue to be the primary source of funding for small business into the future. Superannuation does not have the ‘plumbing and wiring’ to do the job of the banks (e.g. credit risk and lending).
5.4 Are there obstacles to greater superannuation investment?

Chart 2.4 demonstrates that less than 5% of Australian superannuation funds under management are invested in bonds, and this is significantly below other developed countries. Partly this is due to the relatively small pool of government bonds outstanding, but superannuation funds’ share of the pool of Australian corporate bonds also is relatively small. This begs the question, are there obstacles—market or regulatory—to increased investment in Australian fixed income by superannuation funds?

5.4.1 Market factors

Domestic markets may be too small, or too concentrated, for Australian superannuation funds to execute in.

For smaller stocks, the cost to investment banks of providing research is generally not covered by brokerage and investors do not have access to similar information as they do on large-cap businesses.

As there are relatively few large domestic corporate bond issuers, managing concentration risk is said to be a concern for superannuation funds. While there have been other reports which attempt to analyse this in greater detail11, the situation in the corporate bond market in Australia is summarised by RBA Governor Guy Debelle as follows:

The issuers say there is not enough demand for their paper. The investors say there is not enough supply. But what actually seems to be going on here is that the bid-ask is too wide. It is basically an issue of price. Ironically, those very same discussions are often chaired by investment banks, whose mandate, I would have thought, would be to intermediate between the issuers and the investors. (Debelle 2013)

Superannuation funds have invested in securitisation before domestic issuance was brought to a halt by the GFC. However, funds may need to rebuild their skills to manage securitisation, before investing more in this asset class.

Into the future there will be opportunities for superannuation funds to play a greater role in funding larger infrastructure projects. A possible reason for the lack of investment in infrastructure debt is the larger size of the transactions in Australia relative to those in Canada and the UK. Infrastructure funding in these countries tends to be characterised by smaller, more structured investment products.

More broadly, liquidity requirements are also affecting infrastructure investment. As the impact of these become better understood, and measures are introduced to ease the bias towards more liquid assets imposed by prudential reforms, there may be a natural shift towards infrastructure investment.

5.4.2 Regulatory factors

The government introduced a series of reforms in 2007 aimed at improving flexibility for members to be able to switch funds or re-weight their asset allocation within funds. While these reforms have clearly improved choice for fund members, they may also have had an impact on fund asset allocation.

Liquidity management more broadly, and the ability to meet financial obligations in a short period of time, increases the need to hold more liquid assets that can be converted quickly into cash. There are costs to members and the financial system more broadly by imposing liquidity requirements, by making it more difficult for the sector to invest in long-dated securities such as those required to fund infrastructure investment.

Basel III is pushing banks to matched funding, away from the traditional borrow short/lend long model. However, this may (re)open the market to managed funds for commercial loans, for example.

To date, liquidity requirements can be at least partly met by member contributions. However, as the population ages and a larger share of members reach de-accumulation phase, funds will be increasingly required to hold more liquid assets to meet requirements. These requirements reduce the attractiveness of illiquid assets, such as infrastructure investments, despite other attributes which make these investments attractive options for superannuation funds.

The impact of regulatory changes is also reflected in investor behaviour which has recently begun to shift towards more liquid assets.

... the demand for liquid bank debt from other financial institutions, such as insurance companies and pension funds, is increasing, in part as a result of regulatory developments in those sectors (Debelle, 2013).

Self-managed superannuation funds are classified as retail depositors, whereas APRA-regulated funds are included in the definition of a financial institution (FI). Under Basel III, retail deposits are preferred for bank funding. This difference in classification provides SMSFs with an advantage over APRA-regulated funds; the capital and liquidity requirements for banks in the Basel III reforms require higher reserves held against funding sourced from FIs. Hence, banks may offer SMSFs higher deposit rates than APRA-regulated funds.
5.5 What might be done to fill the gaps

For superannuation funds to increase their investments in small and medium-size businesses, they would need more credit skills and access to more research on small companies. There are signs that some funds are building this sort of in-house capability, in part to save money; others may follow.

Research allows investors to make informed decisions about their investments. During 2012, the ASX announced funding for a 12-month trial of the ASX Equity Research Scheme (ASX, 2012); it is anticipated that over time this will improve the ability for small to mid-cap companies to raise capital, and give investors more opportunities for investment. This is the first step but remains an area that requires further consideration.

Superannuation funds may be peripheral to the issue of gaps in the market. If this is the case, is there another way to more efficiently recycle savings from superannuation to the banks and other parts of the economy?

The solution may be to develop more instruments that are suited to superannuation funds (capabilities) and their members (risk preferences). Intermediaries will continue to play a part in facilitating superannuation funds’ involvement. For example, investment banks have traditionally brought new products to the market. Superannuation funds have taken up these new products where appropriate to the needs of their members.

In the background, demographic forces may also help direct funds to these gaps; while it is not clear that an ageing population, with more people moving into retirement, will automatically result in a shift away from equities and towards fixed income, it is unlikely that an ageing population will have an increasing appetite for risk.

If the cost of not filling these gaps is deemed significant, and increased investment from superannuation is found to be essential to reducing this cost, then a more activist approach could be warranted, including:

- Addressing the differential treatment of retail (SMSFs) and wholesale (large funds) deposits with banks and otherwise levelling the playing field for retail and wholesale funds.
- Additional measures to encourage the development of specific instruments, e.g.
  - reconsidering the tax and regulatory treatment of annuities; and
  - securitisation of SME loans.
- Consider a liquidity facility to counteract the focus on liquidity management that encourages a shift away from unlisted or private market assets.

Net inflows into the system will plateau, but probably not until after 2060 on current estimates; and a significant proportion of these assets will be offshore.

The superannuation industry business model will have to evolve in response to current issues, and demography and de-accumulation pressures in coming decades. But, superannuation cannot provide all the answers to managing retirement income risk, and there are some things that are needed to complement superannuation.
Similarly, superannuation probably can do more to help to support the drivers of long-term economic growth in Australia, including by investing in long-term, illiquid assets. However, there appear to be constraints on where superannuation funds prudently can invest, due to market factors and regulatory tensions.

While incentives may help to maximise the economic impact of superannuation capital, mandated allocation risks leading superannuation away from its primary purpose—funding income in retirement. Market forces determine that capital will flow where it is most valued. This obviates the need for any specific interventions mandating asset allocation of superannuation fund investment strategies, as this is an invitation to poor performance and lower returns.
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## Appendix A: Evolution of superannuation

### Table A.1: Retirement income provision in Australia (2009)

<table>
<thead>
<tr>
<th>Age Pension</th>
<th>Superannuation Guarantee</th>
<th>Voluntary retirement saving</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Commenced:</strong> 1909</td>
<td>1992</td>
<td>1850s</td>
</tr>
<tr>
<td><strong>Contributions:</strong> Non contributory</td>
<td>9% earnings (paid by employer)</td>
<td>average 7% earnings</td>
</tr>
<tr>
<td><strong>Potential coverage:</strong> Available to males aged 65 and over and females aged 63.5 and over (increasing to age 67 by 2023 for both males and females), subject to income and assets tests.</td>
<td>Employees aged 18-70 earning at least $A450 per month</td>
<td>Overall tax concessions (since 1915), salary sacrifice, government co-contribution for employees and the self-employed on incomes less than $A60,342.</td>
</tr>
<tr>
<td><strong>Funding:</strong> General revenue</td>
<td>Individual accounts in privately managed superannuation funds</td>
<td>Individual accounts in privately managed superannuation funds</td>
</tr>
<tr>
<td><strong>Benefits:</strong> 27.7% average male ordinary time earnings (single), 41.3% average male ordinary time earnings (couple). Indexed to greater of CPI and pensioner and beneficiary living cost index and benchmarked to average male ordinary time earnings.</td>
<td>Based on defined contributions, preserved to age 55 (increasing to age 60), no early withdrawals, choice of lump sum or income stream.</td>
<td></td>
</tr>
<tr>
<td><strong>Taxation:</strong> Taxed, but subject to tax offsets.</td>
<td>Contributions taxed (T), superannuation fund earnings taxed (T), benefits free of tax if age 60 and over (E)</td>
<td></td>
</tr>
<tr>
<td><strong>Actual coverage:</strong> Around 75% of persons of eligible age receive some Age Pension. Around 56% of age pensioners receive the full rate of Age Pension.</td>
<td>Mandatory and voluntary superannuation – 96% full time employees, 80% part time employees, 73% casual employees and the self-employed.</td>
<td></td>
</tr>
</tbody>
</table>

*Source: Bateman 2009*
Appendix B: Superannuation reviews

Superannuation System Review

Individuals’ ability to bear/manage risk

- The review highlighted a number of issues that should be immediately addressed including: member interests are not always paramount; immature system for its size; ‘efficiency’ is outside the regulatory net, too much complexity (members perceive superannuation as too complex and there is an overall lack of transparency and comparability of superannuation products); disclosure to members has failed to achieve its objectives, and ambiguity about trustee role when members make active choices.

- The Review recognised four types of members and developed recommendations around these members. Members who want others to do everything (MySuper); members who want choice over their investment strategies but don’t want to administer it themselves (Choice); members who want to be fully responsible for their investments (SMSFs) and those who have lost their superannuation account.

- The aim of the key recommendation MySuper is lowering overall costs for members while encouraging a competitive market-based system for superannuation.

- To improve confidence in the Superannuation system the Review recommended: requiring each fund to provide detailed financial and operational information about the fund and about the fund’s management; and improving the quality and availability of data and research on the superannuation industry.

- Recommendations were made to improve trustee governance. There is a need for greater clarity of what is required of superannuation fund trustees and trustee-directors duties, powers and standards and recommended changes to the structure of trustee boards, including their size and tenure of trustee directors.

- There is currently a lack of transparency, comparability and accountability in the Australian superannuation system. The Review noted that this will be improved through regulation.

- The SMSF sector is largely successful and well-functioning. While significant changes were not assessed to be required by the Review, measures relating to service providers, auditors and the regulatory framework were recommended.

- Retirement needs are not one size fits all, so trustees need to consider longevity issues more explicitly when developing investment strategies.

Financial stability

- Superannuation is a large and complex system and has social and economy wide features. Regulation and administration should be made in a way that supports member confidence.
• Given the role of superannuation in the Australian economy, externalities (including promoting sound environmental, social and governance outcomes) should be reflected in the risk and return valuation of a potential investment.

Looking ahead
• The system must have sufficient flexibility to accommodate growth. The Review noted that government and trustee decisions about superannuation should be taken with a long-term perspective and any changes that are made should be phased.
• Other issues that the Review highlighted for the future include: funds will be much larger; asset-based fees will grow; member account balances will be larger; economically significant and competing in the global market place.

Default Superannuation Funds in Modern Awards

Individuals’ ability to bear/manage risk
• Like the Cooper Review, the panel acknowledged that the governing principle of default superannuation arrangements should be the promotion of the best interest of employees.
• The Commission recommended that a new Default Superannuation Panel should be established within Fair Work Australia.
• This Panel would be responsible for the selection and listing of default products in modern awards to ensure that any unauthorised, non-existent or demonstrably unsuitable products are removed from modern awards as required.
• Funds will be assessed and regularly reviewed to ensure they are suitable to receive default contributions.
• When considering the selection and ongoing assessment of superannuation products for listing the primary factor for consideration is investment performance, followed by fees charged to members, governance ((particularly mechanisms in place to deal with conflicts of interest); and transparency, insurance, financial advice and administrative efficiency.
• The principles for designing a selection process should adhere to: best interest; contestability and competition; transparency; procedural fairness; minimum regulatory burden; market stability; consistency with other policies and regular assessment.
• The reforms will have the considerable net benefit of improving superannuation outcomes for employees who derive their default superannuation product with modern awards, for fund members more broadly and the community.

Financial stability
• A well designed system should promote stability and therefore stakeholder confidence in the superannuation market as a whole.
• Default superannuation arrangements for those employees who derive their default superannuation product in accordance with modern awards have provided market stability, and net returns of default funds have generally exceeded those of non-default funds. However, the arrangements could be improved.
**Appendix C: Recent changes to superannuation**

<table>
<thead>
<tr>
<th>Measure</th>
<th>Detail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Superannuation – reform arrangements relating to transfer of lost members accounts to the ATO</td>
<td>The account balance threshold below which inactive accounts, and accounts of uncontactable members, are required to be transferred to the ATO will be increased from $200 to $2,000. The period of inactivity before an account of an unidentified member is required to be transferred to the ATO will be reduced from five years to 12 months. These two changes will result in an additional $675 million over the forward estimates (2012-13 to 2015-16)</td>
</tr>
<tr>
<td>Superannuation – deferral of higher concessional contributions cap</td>
<td>The government will defer the start of the 2010-11 Budget measure <em>Stronger, fairer, simpler tax reform – increasing concessional contribution caps for individuals over 50 with low superannuation balances</em> by two years, from 1 July 2012 to 1 July 2014. Under the higher concessional contributions cap measure, individuals aged 50 and over with superannuation balances below $500,000 will be able to make up to $25,000 more in concessional contributions than allowed under the general concessional contributions cap. This change will result in an additional $1,430 million over the forward estimates (2012-13 to 2015-16)</td>
</tr>
<tr>
<td>Superannuation – reduction of higher tax concessions for contributions of very high-income earners</td>
<td>The Government will make the superannuation system fairer by reducing the tax concession which very high income earners receive on their concessional contributions, so it is more in-line with the concession received by average income earners. Currently, the 15 per cent flat tax on concessional contributions provides high income earners with a significantly larger tax concession than those on lower marginal tax rates. From 1 July 2012, individuals with income greater than $300,000 will have the tax concession on their contributions reduced from 30 per cent to 15 per cent (excluding the Medicare levy). This change will result in an additional $1.03 billion over the forward estimates (2012-13 to 2015-16)</td>
</tr>
<tr>
<td>Description</td>
<td>Description</td>
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<td>----------------------------------------------------------------------------</td>
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<tr>
<td><strong>Superannuation co-contribution – extending the pause of indexation of the income threshold</strong></td>
<td>The Government will continue the freeze, for an additional year to 2012-13, of the indexation applied on the income threshold above which the maximum superannuation contribution begins to phase down. This measure is expected to deliver savings of $75 million over three years from 2012-13. Under the superannuation co-contribution scheme, the Government provides a matching contribution for contributions made into superannuation out of after-tax income. The matching contribution is up to $1,000 for people with incomes of up to $31,920 in 2010-11 (with the amount available phasing down for incomes up to $61,920). This measure will continue to freeze these thresholds at $31,920 and $61,920 respectively.</td>
</tr>
<tr>
<td><strong>Superannuation – permanent reduction to the superannuation co-contribution matching rate and maximum payable</strong></td>
<td>The Government will permanently retain the matching rate for the superannuation co-contribution at 100 per cent and the maximum co-contribution that is payable on an individual’s eligible personal non-concessional superannuation contributions at $1,000. This measure is estimated to save $350 million over the forward estimates period. This follows the measure announced in the 2009-10 Budget, Superannuation – contributing to sustainable retirement income reform by temporarily reducing the Government co-contribution.</td>
</tr>
<tr>
<td><strong>Superannuation co-contribution – pause to the indexation of the income threshold for two years</strong></td>
<td>The Government will freeze for 2010-11 and 2011-12 the indexation applied on the income threshold above which the maximum superannuation co-contribution begins to phase down. This measure is expected to deliver savings of $295 million over four years.</td>
</tr>
</tbody>
</table>
## Superannuation – contributing to sustainable income reform by reducing the concessional contribution caps

The Government will improve equity in the superannuation system by reducing the concessional contributions cap to $25,000 per annum (indexed), with effect from the 2009-10 financial year. The transitional concessional contributions cap (applicable to individuals aged 50 and over for the 2009-10, 2010-11 and 2011-12 financial years) will be reduced to $50,000 per annum. This measure contributes to sustainable retirement income reform.

This measure will have an ongoing gain to revenue which is estimated to be $2.81 billion over the forward estimates period. The measure also includes an increase in resourcing for the ATO of $55.3 million over this period.

‘Grandfathering’ arrangements will apply to certain members with defined benefit interests as at 12 May 2009 whose notional taxed contributions would otherwise exceed the reduced cap. Similar arrangements were applied when the concessional contributions cap was first introduced.

The annual cap on non-concessional contributions is $150,000 per annum for the 2008-09 financial year and will remain at that level in 2009-10. In the future, the cap will be calculated as six times the level of the (indexed) concessional contributions cap.

This change will result in an additional $2.81 billion over the forward estimates (2012-13 to 2015-16)

## Superannuation – payment of small and insoluble lost accounts to unclaimed monies

The Government will improve the efficiency of the superannuation system by requiring superannuation providers to transfer lost accounts which have balances less than $200, or which have been inactive for five years and for which there are insufficient records to identify the owner of the account, to unclaimed monies. Former holders of these lost accounts will still be able to reclaim their money from the ATO at any time.

This measure will have effect from the 2010-11 income year and result in a gain to revenue which is estimated to be $238 million over the forward estimates period. The measure is also expected to increase Government expenditure by $8.4 million over this period.

This change will result in an additional $238 million over the forward estimates (2012-13 to 2015-16)

## Superannuation – contributing to sustainable retirement income reform by temporarily reducing the Government co-contribution

The Government will temporarily reduce the matching rate and maximum co-contribution that is payable on an individual’s eligible personal non-concessional superannuation contributions, with effect from 1 July 2009. This measure is estimated to save $1.395 billion over the forward estimates period. This measure contributes to sustainable retirement income reform.

The temporary reduction in the co-contribution matching rate is not expected to have a significant impact on the level of superannuation contributions because the scheme will remain very generous – the matching rate will continue to provide a return on contributions of at least 100 per cent.

This change will result in an additional $1.395 billion over the forward estimates (2012-13 to 2015-16)

Source: ASFA, 2013
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