How Australia Saves 2019

A report on superannuation data

Contents

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It is my great pleasure to introduce this second edition of Vanguard's *How Australia Saves*.

This report is the product of a unique collaboration between Vanguard and three of Australia's leading profit-for-member superannuation funds – First State Super, Sunsuper and VicSuper.

In combination these three funds administer over 2.3 million member accounts, service over 200,000 employers, and managed $167 billion in assets at 30 June 2018. This represents over 8 per cent of Australia's total superannuation accounts, and close to 10 per cent of all of APRA-regulated fund assets.

The breadth and depth of this report is we believe unprecedented in the Australian superannuation industry for a research project of this kind, focusing as it does on member-level experiences and outcomes across a diverse demographic and geographic membership base.

This year's report comes at a critical juncture in the evolution of Australia's superannuation system. On the one hand, there is clear – and well-deserved – recognition of the Australian system as world-class, and indeed an exemplar for how policymakers and investment institutions in other markets might approach the challenges of an ageing population and profoundly changing labour market through comprehensive coverage and healthy compulsory savings rates.

Yet on the other, there are high profile inquiries now calling for fundamental reforms, urging greater transparency, more accountability, and better substantiation of how the superannuation system delivers on its intended purpose of enhancing the retirement security of current and future generations of Australians.

As we publish this second edition, it is impossible to predict exactly how much the key policy settings for the system will change in response to signature reviews such as those conducted the Financial Services Royal Commission, the Productivity Commission and key regulatory agencies. But there can be no doubt that the case for a strong evidence-base to support any changes has never been stronger. In particular, never before has there been such a demand for objective, high-quality data on the actual experience of the intended beneficiaries of the system, the members.

In this regard, I commend *How Australia Saves* 2019 as an especially timely contribution to the industry debate.

I can attest from my own experience that the flagship *How America Saves* research series has been a great catalyst for product innovations, policy changes and service improvements to beneficiaries of defined contribution pension plans in the US market.

The detailed analytics in *How Australia Saves* are undertaken by the same team that has been producing the US report for the past 18 years, working closely with our Australian team, and of course with the tireless efforts of representatives from each of the three participating funds.

I would especially like to thank and congratulate the three funds for their participation in this ambitious project. Their willingness to commit their time, resources and expertise over the past two years stands as testimony to the power of collaboration between like-minded industry participants with a common core purpose of improving member outcomes.

This report, *How Australia Saves*, provides an excellent overview of the experiences and behavioural factors affecting the retirement savings of some 2.3 million superannuation members. The findings of this comprehensive and detailed research offer important insight, understanding and guidance for the superannuation industry and policy makers alike.

First State Super is pleased to have collaborated in this research by sharing insights and data from our membership. As a profit-for-member fund, run solely for the benefit of our 760,000 members, our purpose is to provide our members with a better financial future through safe and secure superannuation, quality financial advice and sustainable long-term investment returns. This report will be a key contributor to the design of future products and services for our members.

My congratulations to Vanguard on delivering this benchmark report for the benefit of the Australian superannuation sector.

Deanne Stewart
CEO First State Super

Sunsuper is excited to be a part of the second edition of *How Australia Saves*. As the founding partner for the report in Australia in 2017, we're delighted that First State Super and VicSuper have also joined us this year to help provide a deeper insight into the attitudes and behaviours of Australians in relation to their superannuation.

As a profit-for-members super fund whose members sit at the heart of everything we do, we believe the insight and analysis *How Australia Saves* provides us will help generate better engagement with our members.

I would like to thank everyone involved for all their hard work in pulling this report together. A research project of this magnitude is no small feat, but I truly believe that the work we're doing through *How Australia Saves* is invaluable for us as an industry in terms of delivering better outcomes for and engagement with our members.

Scott Hartley
CEO Sunsuper

We're really pleased to be participating in the latest edition of *How Australia Saves*.

Australia has one of the best pension systems in the world – something we should be proud of. Given our rapidly ageing population, having a sustainable income in retirement has never been more important.

Our members are at the centre of everything we do, and as one of Australia's leading profit to member super funds it's critical that we understand and adapt to our members' needs. *How Australia Saves* provides an important platform for us to obtain great insights to help us evolve our product design and engage with our members to generate even better outcomes.

It's great to see such continual innovation in our industry benefiting employees and retirees around Australia. We have no doubt that *How Australia Saves* will be increasingly influential in identifying opportunities for participating super funds to take the lead and raise the bar into the future.

Michael Dundon
CEO VicSuper

Executive summary

The Australian superannuation system is a vital component of the nation's retirement income policy framework.

Having grown from modest beginnings to near-universal coverage of the working population and over $2.7 trillion in assets over the past 30 years, the system is on its way to reaching maturity as a vehicle for all facets of accumulation, management and drawdown of retirement assets.

This report focuses on the 3-year period to 30 June 2018, and on deep analysis of transaction-level data from three large multi-industry superannuation funds; First State Super, Sunsuper, and VicSuper. These three funds have a combined membership of over two million, over 200,000 registered employers and total assets under management of $167.8 billion at 30 June 2018.

Combined these fund held around 6% of total Australian superannuation system assets, or just under 10% of assets managed by profit-for-members superannuation funds at 30 June 2018.

Mandatory foundations

The Australian superannuation system is underpinned by mandatory employer contributions for all employees earning $450 or more per month. The superannuation guarantee (SG) policy was introduced in July 1992 and has increased in increments since then.

Over the 3-year period covered by this report, mandatory employer SG contributions were 9.5%.

High-level savings metrics

Within the benchmark population analysed in this report, high-level metrics of member savings behaviour were stable to modestly improved over the 3-year period covered. Only 12% of working members made salary sacrifice or non-concessional contributions or both, and the level of these voluntary contributions was stable during the 3-year period.

In the fiscal year ended June 2018, approximately 1 in 5 working members received a government contribution. Most commonly this was a low-income tax offset contribution intended to increase fairness of taxation of contributions to the system. The average government contribution received was 1.9% – resulting in an aggregate retirement savings rate for these lower income members of 11.4%.

Account balances

In 2018, the average member account balance was $62,047; the median balance was $19,101. During the 2016–2018 period, average balances rose by 18% and median balances were flat.

Investments

The percentage of fund assets invested in growth investments stood at 69% in 2018. Over the past three years the allocation to growth investments remained stable. Few members hold extreme allocations. The fraction of members with no allocation to growth options was only 1%. At the other extreme, the fraction of members investing exclusively in growth options was also only 1%. One of the benefits of lifecycle and target risk options is that they eliminate extreme allocations. A total of 14% of self-directed investors hold extreme portfolios (10% with no growth options, 4% with only growth options).

Investment returns

Median estimated total returns for fund members were 10.2% for the 1-year period ended 30 June 2018. Three-year median estimated member total returns were 8.0% per year. There was wide variation in returns among members. Members holding the lifecycle and target risk options had very little dispersion in estimated returns. Self-directed members had the most dispersion in estimated total returns.

Member switching muted

In the fiscal year ended June 2018 only 3% of total members made one or more portfolio switches or trades. This low level of switching was constant throughout the 3-year period. Both target risk and self-directed members switch at higher rates. Four percent of target risk investors and 16% of self-directed investors switched in 2018.

Fund rollouts and withdrawals

Only 4% of members had a full rollout to another super fund and 1% had a partial rollout. Less than 0.5% of members had rollouts to a self-managed super fund. Pensioner members comprised only 2% of members. Pensioner members withdrew only 10% of total pensioner account balances. Another 1% of members appeared to be retirement eligible. Retirement eligible members withdrew or rolled out 8% of total retirement eligible account balances. Finally, 1% of members had reached their preservation age and 13% of transition to retirement eligible members had an account withdrawal or rollout.

Key superannuation milestones

Years: 86 | 87 | 88 | 89 | 90 | 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 00 | 01 | 02 | 03 | 04

Australian PMs
- Hawke (86–91)
- Keating (91–96)
- Howard (96–04)

Treasurers
- Keating
- Kerin
- Willis
- Dawkins
- Willis
- Costello

Major events
- Stock market crash; ~30% fall in share prices
- Australian Recession
- GST introduced

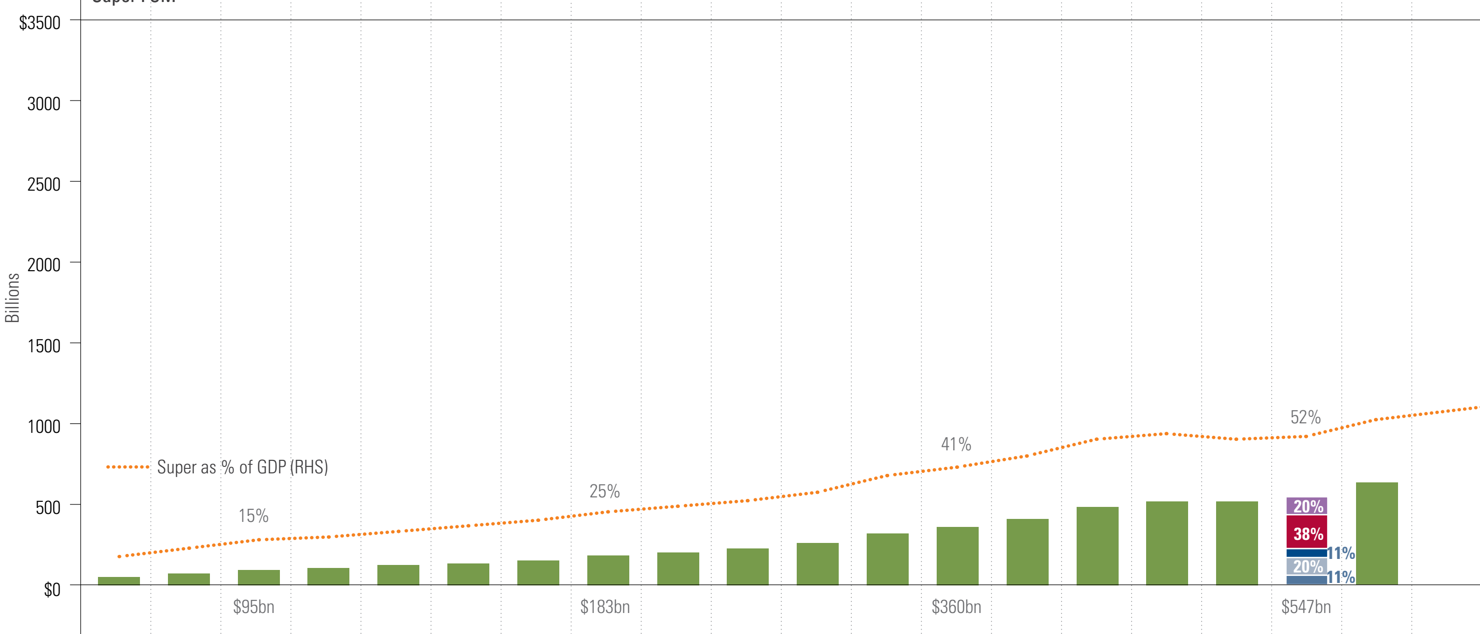
Super industry milestones
- 3% award super contributions introduced in some industries as an industrial arbitration measure
- Insurance & Superannuation Commission (ISC) established as industry regulator
- Superannuation Guarantee policy announced in federal budget by Treasurer John Kerin
- Superannuation Guarantee (SG) commences
- SIS Act commences, replacing former Occupational Superannuation Standards Act
- World Bank endorses Australia's 3 pillars policy as world's best practice
- Superannuation Surcharge for high income earners introduced
- Financial System (Wallis) Inquiry recommends prudential supervision of super and enhanced disclosure provisions
- APRA established; assumes prudential oversight of super
- ASIC assumes responsibility for super disclosure regulation
- SIS Act amended to facilitate SMSFs, to be regulated by ATO
- Preservation rules changed such that all future super contributions and earnings are preserved benefits
- SG rises to 9% and extends to age 75
- Government co-contribution scheme introduced
- Super assets able to be divided in a divorce settlement
- Portability of money between super funds introduced

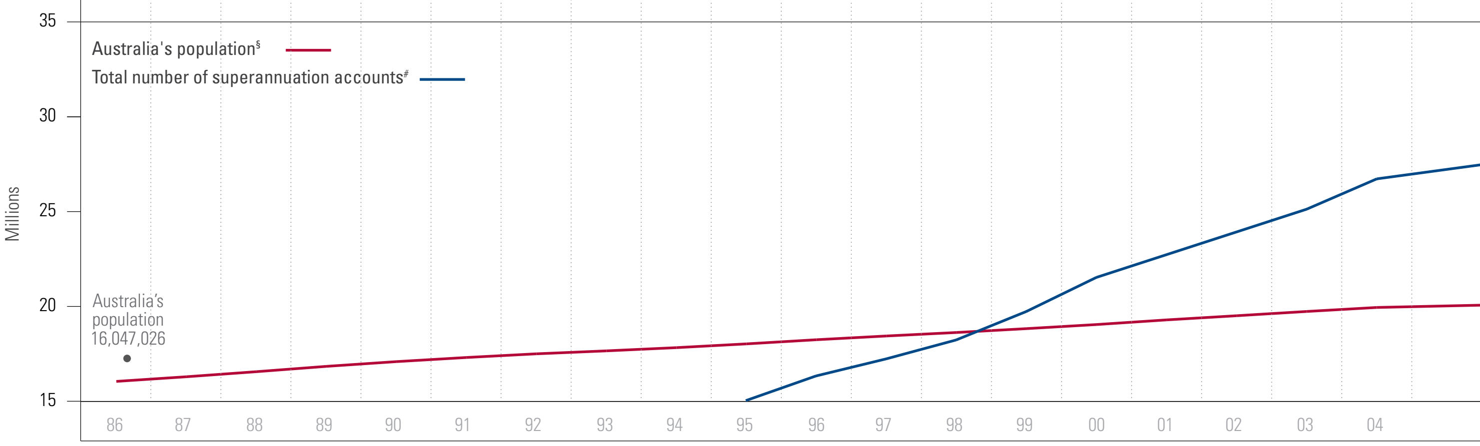
SG contribution rate

3/4%¶ | 3/5% | 4/5% | 5/6% | 6% | 7% | 8%

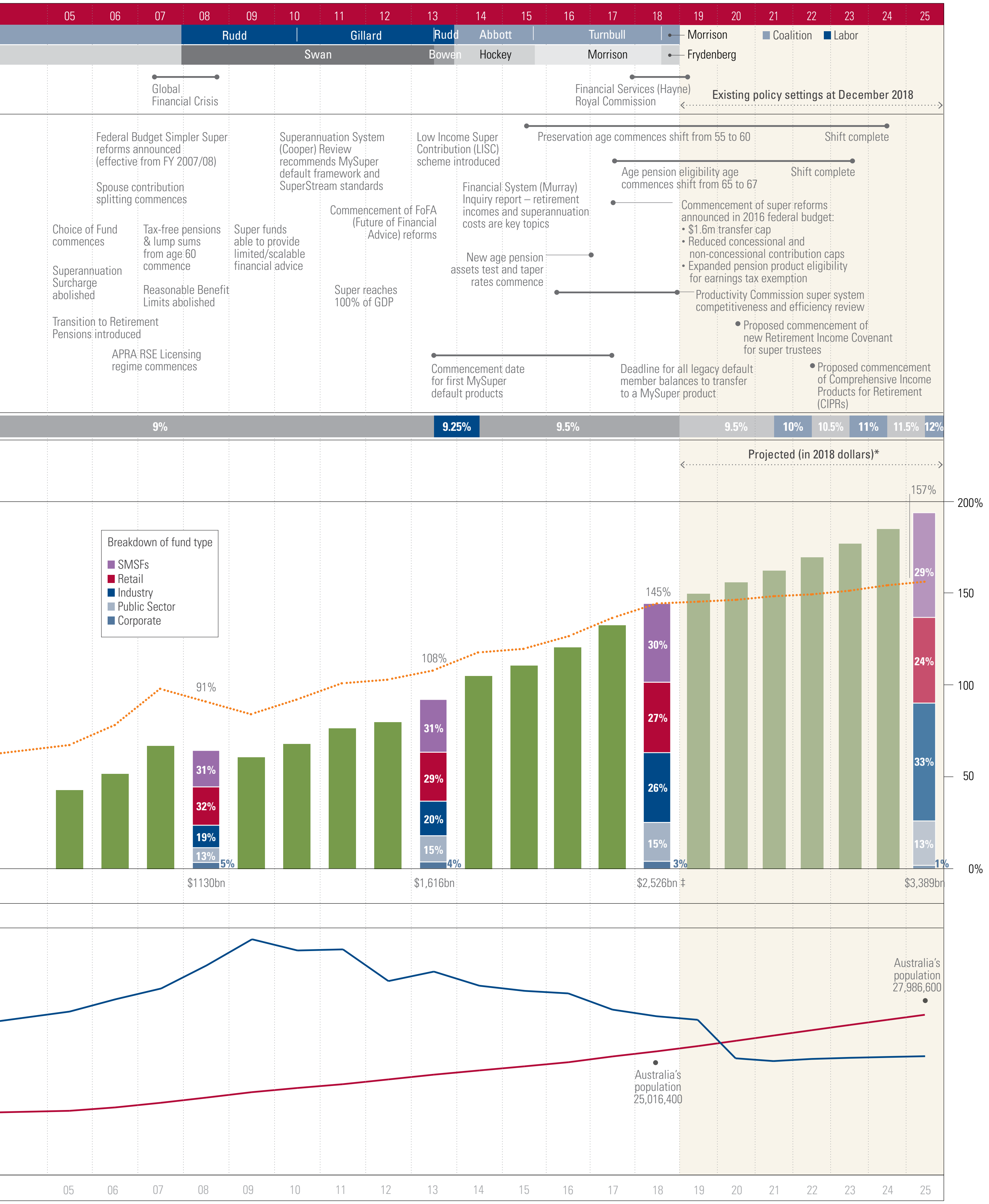
Industry growth

Super FUM





* Rice Warner Superannuation Market Projections Report 2016 ¶ In the first 3 years of the SG, a higher contribution rate applied to employers with payrolls above $1 million per annum.
§ Source: Australian Bureau of Statistics, *Australian Demographic Statistics Sep 2016* (ABS catalogue 3101.0) for 1986-2016 data; *Population Projections 2012 (base) to 2101* (Medium series), ABS catalogue 3222.0 for 2017-2025 projections # Source: Rice Warner



‡ This industry FUM total is lower than that reported by APRA ($2,709 billion at 30 June 2018) because, due to recent changes to accounting standards, APRA statistics now include unfunded liabilities of certain public sector funds. These assets are not managed by the funds and have been excluded for the purposes of this timeline and projections.

Essentials of Australia's superannuation system

Since the commencement of mandatory contributions for most workers in the early 1990s, Australia's superannuation system has evolved into one of the worlds' largest and most dynamic pension systems.

Yet the system is continually evolving, and remains a work in progress

In this chapter, we outline the essential policy settings of the overall Australian retirement income system within which the superannuation system operates. It is hoped that this will assist readers who may be unfamiliar with the product categories, regulatory definitions and transaction types that are exemplified in the main body of the report.

Our discussion is framed around the three high-level "pillars" of the Australian retirement system, as commonly referred to in comparisons of global retirement funding systems by bodies such as the Organisation for Economic Co-operation and Development (OECD) and the World Bank.[1]

In broad terms, the three pillars are:

Pillar 1: A universal, taxpayer-funded component aimed at poverty-alleviation (at minimum) and equitable re-distribution, e.g. through means-testing or paying proportionately higher benefits to lower wage earners.

Pillar 2: A pre-funded private savings component, usually employment-based.

Pillar 3: Tax-incentivised voluntary savings for retirement, within the pension system, outside it, or a combination

Policy settings

First pillar

A taxpayer-funded age pension

- Universally available, subject to means testing and certain residency requirements.

- Accessible from age 65.5, increasing in phases to age 67 by the year 2023.

Australia's taxpayer-funded age pension has existed since the very early years of the nation's Federation, commencing in July 1909.[2]

The government age pension is today a critical part of the nation's social welfare infrastructure, with a maximum rate set according to an indexation formula that equates to approximately 28% of male average full-time earnings, adjusted twice-yearly.

Up to 30 June 2017, the minimum access age was 65 but in common with many other countries this is now being increased in increments to age 67 between 2017 and 2023.[3]

At September 2018 the full age pension payment rate for a single pensioner (including supplements) was $916.30 per fortnight, or $690.70 per fortnight for each member of a couple.[4]

Pension eligibility is subject to means tests on both income and assets. While most superannuation balances are included, the family home is excluded from the assets test. Allowances are made for non-homeowners, couples with only one partner eligible, and couples separated by illness.

1 World Bank, *Averting the Old Age Crisis* (Oxford University Press, 1994). The World Bank has more recently evolved this model into a more extensive "Five Pillar" framework incorporating additional inputs such as social insurance schemes and non-financial aspects of retirement provision (such as family support) – see The World Bank Pension Reform Primer – Conceptual Framework (2007). However, the earlier 3 pillar framework is cited here as it remains the most commonly recognised framework in most industry discussions.

2 *Major superannuation and retirement income changes in Australia: a chronology* (Parliamentary Library of Australia, March 2014). Prior to the 1908 Commonwealth legislation, predecessor taxpayer-funded pension schemes had been established in the colonies of New South Wales and Victoria in 1900, and in the State of Queensland in 1908.

3 Further stepped increases to age 70 after 2023 were foreshadowed by the Australian Government in the 2014 Budget, but this policy intent was reversed by the Federal Government in September 2018.

4 Commonwealth of Australia, Department of Human Services, at https://www.humanservices.gov.au/customer/services/centrelink/age-pension.

The means tests are structured such that age pension eligibility gradually tapers down to zero once certain income or asset thresholds are exceeded.

To illustrate their effect, in the case of a single pensioner who owned their own home, the maximum assets that could be held or fortnightly income received while retaining eligibility for the full age pension were $258,500 and $172 per fortnight respectively at September 2018. After that, pension eligibility tapered down at the rate of $3.00 per $1,000 of assets and $0.50 per dollar of income, until reaching an upper threshold of either $564,000 in assets, or $2,004.60 of income per fortnight, beyond which the individual was no longer eligible for a pension payment. Higher dollar thresholds apply for retiree couples, non-homeowner singles and couples, and couples separated by illness.[5]

Across the system, the effect of these dual means tests is that around the top one-quarter of the retiree wealth distribution receives no age pension entitlement unless they deplete their private savings below the relevant thresholds later in life.

The proportion of Australian retirees depending on the age pension for all or part of their retirement income is expected to decline as the superannuation system matures over coming decades, notwithstanding an ongoing population growth and life expectancy improvements.[6] Strategies to maximise eligibility for the age pension and ancillary public benefits, such as healthcare and transport concessions, are also key elements of superannuation member decision-making and financial advice strategies.

Consequently, Australia's public age pension system will remain an integral part of the country's retirement income system. The age pension provides an annuity-like safety net underpinning the long-term savings of most Australian retirees.

Second pillar

A universal occupational defined contribution superannuation system

- Funded by mandatory contributions by employers (currently at 9.5% of salaries).
- Accessible from age 60 (or earlier for those born before 1 July 1964).

The cornerstone of Australia's private retirement income system is its mandatory employer-funded defined contribution system, known as the superannuation guarantee (SG).

A precursor to the SG was the introduction of industry-wide employer superannuation contributions in some sectors in the late 1980s, as an industrial award entitlement in lieu of salary increases. This was expanded to a universal entitlement in 1992 for employees earning at least $450 per month, with an initial contribution rate of 3% of salaries, or 4% for employers with payrolls over $1 million.

The minimum SG contribution rate has been increased in numerous increments over the past 20 years to its current level of 9.5% of salaries for all eligible employees, and under policy settings in place as at the date of publication, is scheduled to increase to 12% in 0.5% annual increments between 2021 and 2025.

Mandatory Superannuation Guarantee contributions are required for all employees aged 18 and over, and earning at least $450 per month. Self-employed individuals, who comprise approximately 10% of the working population (but expected to expand with the emerging 'gig economy'), are not covered by the mandatory system but can access broadly equivalent tax concessions by making tax-deductible voluntary contributions.[7]

Default settings and member inertia are important elements of the Australian system, especially during the early accumulation phase. However, Australian superannuation fund members have a wide range of self-selection pathways available to them during their working lives and through retirement.

These pathways, and their influence on members' transaction behaviour and on competitive dynamics in the superannuation industry, are a key focus of the analysis in this report.

5 Ibid. Maximum age pension rates cited were set in September 2018 and apply until 19 March 2019. They include the maximum Pension Supplement and Energy Supplement.

6 A recent projection by Rice Warner estimated that age pension expenditure would decline from around 2.7% of GDP in 2017 to around 2.5% in 2038 – see *The Age Pension in the 21st Century* (May 2018) p. 30.

7 ASFA, *Superannuation balances of the self-employed*, March 2018.

Third pillar

- Tax incentives for additional voluntary contributions, over and above the mandated employer contributions.

On top of the mandatory SG system, various incentives are provided for additional voluntary contributions by individuals to their superannuation accounts.

These measures include:

- For salary-earners, the opportunity to make additional pre-tax contributions in lieu of take-home pay. These are generally described as concessional or salary sacrifice contributions. Since 1 July 2017, the concessional contributions category also includes personal tax-deductible contributions (mostly used by those whose employers do not offer salary sacrifice facilities through their payroll). Since 1 July 2017, the maximum concessional contribution has been $25,000 per annum for all individuals irrespective of age.[8]

- For self-employed individuals and small business owners, the ability to make tax-deductible contributions and in some cases transfer the proceeds from the sale of a business into a superannuation fund.

- For all members, the ability to contribute from after-tax earnings, or from sales/transfers of other investments such as shares or property. These are called non-concessional or after-tax contributions. Since 1 July 2017 the maximum non-concessional contribution cap has been $100,000 per annum, with those under the age of 65 being able to use "bring forward" provisions to contribute up to $300,000 in a single year provided their total superannuation balance is below $1.4 million.[9]

There is also a range of policy measures aimed at increasing the superannuation balances of specific targeted groups, including:

- A government co-contribution scheme where those on lower incomes are eligible for a matching contribution of up to $500 per year for non-concessional contributions. The eligible income range to gain access to this facility is between $37,697 and $52,697 for the 2018/19 fiscal year.

- Low Income Superannuation Tax Offset (LISTO), designed to compensate employees on low incomes (up to $37,000 p.a.) for tax paid on their mandatory employer superannuation contributions, which might otherwise exceed the rate paid on take-home pay.

- Facilities for individuals to split their prior year's employer contributions with their spouse and make after-tax spouse contributions, to optimise savings at an overall household level.

Tax settings

The discretionary contribution options described above are largely driven by the taxation structure of the Australian superannuation system, under which:

- SG and salary sacrifice contributions and all fund earnings are taxed at a concessional rate of 15% during the accumulation phase, for members earning income of up to $250,000 per annum.[10] This compares to a top marginal income rate of 47% including the 2% Medicare levy.

- Investment earnings in the retirement phase after age 60 are tax-free provided that the member's total balance is below the transfer balance cap of $1.6 million[11], they have satisfied a "condition of release"(generally retirement), and their drawdowns are taken as lump sums or from eligible retirement income stream products.

In the taxonomy sometimes used to compare the taxation structures of retirement savings systems around the world, these features make Australia's system predominantly a "ttE" system. This taxonomy refers to the taxation status of the three main phases of the retirement account – contributions, investment earnings, and benefit payments – with the lower case characters signifying when the taxation rate is levied at a concessional rate compared to other taxable inputs such as income and capital gains.

So, Australia's "ttE" system means that tax is levied at concessional rates on both the contribution and earning phases leading up to retirement. Drawdowns in the retirement phase (up to the $1.6 million cap) are generally exempt from tax, provided that there are held in eligible retirement income stream products.

8 In prior financial years, higher concessional contribution caps applied, with members aged 50 or more having higher annual caps than younger members.

9 Australian Taxation Office, Key Superannuation Rates and Thresholds https://www.ato.gov.au/individuals/super/in-detail/growing-your-super/super-contributions---too-much-can-mean-extra-tax/?anchor=Nonconcessionalcontributions#Nonconcessionalcontributions

10 Since 2012-13, an additional 15% tax under Division 293 of the Income Tax Assessment Act has applied to reduce the degree of tax-concessions enjoyed by high income earners with respect to their concessional contributions. In the fiscal year ended 30 June 2016 the threshold for Division 293 tax was income greater than $300,000 per year. This threshold was reduced to $250,000 from 1 July 2017.

11 Since 1 July 2017, members with very high account balances have been subject to a 'transfer balance cap' on the amount of superannuation that can be transferred into the retirement phase. This cap (to be indexed over time) was set at $1.6 million, with balances that exceed that figure being required to be retained in the accumulation phase where they remain subject to the 15% earnings tax.

The approach stands in significant contrast to the "EET" approach that applies in many other developed market pension systems including the US[12], UK, the Netherlands and Canada.[13] In these systems during the contribution and earning phases no taxes are levied, while drawdowns in the retirement phase are taxed.

Superannuation in 2018

As a result of its long-established second and third tier policy framework, Australia today has one of the world's fastest growing private pension (superannuation) systems, with over $2.7 trillion in total assets at 30 June 2018, and close-to universal coverage of the full time adult working population.[14]

This makes the Australian superannuation system the world's fourth-largest private pension savings pool in terms of total assets, and amongst the largest in terms of size relative to the domestic economy, at approximately 145% of GDP.

The Australian system has also been growing at among the fastest rates of any developed economy pension system, with a compound annual growth rate of 5.9% per annum (in local currency terms) for the 10 years ended December 2017.[15]

The superannuation asset base is projected to increase further over coming decades, notwithstanding increasing levels of drawdown by members who are now in or approaching retirement.

Estimates of future industry growth vary widely depending on the investment return, regulatory and behavioural assumptions used. A recent projection suggests that the total industry will reach $4.8 trillion, equating to approximately 180% of projected GDP, by the year 2033.[16]

Still a maturing system

Despite its size and rapid growth rate, the Australian system is yet to reach full maturity. Older segments of the workforce (generally those reaching retirement today) have only had the benefit of mandated employer contributions since the early 1990s, and it took more than 20 years for the rate of those contributions to reach their current level of 9.5% of salaries.

The system will not reach maturity until at least the mid-2030s, when those approaching retirement will have spent their entire working lives accumulating compulsory superannuation savings – and another 25 years after that for all of those contributions to have been at the maximum proposed level of 12%, assuming continuity of current policy settings.

Reflecting these trends, the transition of the superannuation system into a broader lifetime pension system has begun in earnest in recent years, with the movement into retirement of the initial cohort of the baby boomer generation.

The rate of transfer of these retirees and their accumulated assets into the post-retirement phase is set to accelerate in coming years, with post-retirement assets projected to increase from approximately $826 billion in 2018 to $1.4 trillion in 2033.[17]

Unique structural characteristics

Australia's superannuation system has evolved to having several structural characteristics that distinguish it from other major world pension markets.

Dominant defined contribution orientation

Defined contribution (DC) funds dominate the Australian system, accounting for approximately 87% of total assets. Just 13% of total system assets are in defined benefit (DB) schemes, with the majority of these now being closed to new members.

Multiple dimensions of member choice

A related development has been that the Australian superannuation system has evolved further down the path of individual consumer-level choice than other comparable defined contribution systems globally. However, participation in the system itself is mandatory; there is no choice to opt out of it altogether.

The choices available to members include not just a variety of investment options within whichever fund they originally join – a common feature of DC plans everywhere – but also the option to split their superannuation between different funds, and even the ability to establish a self-managed superannuation fund (SMSF).

12 One exception to this general observation is the Roth IRA and Roth 401(k) in the US, which have a "TEE" taxation structure.

13 Some modelling of the effect of different tax configurations on the advantages of saving through pensions relative to other savings vehicles was undertaken by the OECD in Chapter 2 of its 2016 *World Pensions Outlook* Report.

14 Source: Australian Prudential Regulatory Authority (APRA) Quarterly Superannuation Performance (September 2018). Note that the total industry assets reported by APRA include some unfunded liabilities of public sector funds, estimated at around $180 billion at 30 June 2018. These are excluded from the industry growth timeline and projections infographic on pp. 6-7.

15 Willis Towers Watson *Global Pension Assets Study 2018*. The other countries in the comparison group were the US, UK, Japan, Canada, the Netherlands and Switzerland. These countries, together with Australia, accounted for 91% of total assets across 22 major pension markets included in this study.

16 Rice Warner *Superannuation Market Projections* 2018. Year 2033 projections are in 2018 dollars.

17 Ibid.

Choice architecture

MySuper default

Since 2013, all Australian Prudential Regulation Authority (APRA) regulated funds seeking to be nominated as default providers have been required to offer a MySuper product as the default for members who do not make an active investment selection.

The MySuper designation applies to simple, relatively low-cost investment products that can be easily compared across different providers, based on standardised public disclosures on metrics such as fees and charges, investment objectives, risks and performance relative to relevant industry benchmarks over uniform timeframes.

Further requirements include that the MySuper product:

- Has a diversified portfolio that the Trustee decides is suitable in the absence of a direct investment choice by the member.
- Offers a standard level of life and total and permanent disability (TPD) insurance coverage, with members being able to opt out or apply to purchase additional insurance cover.

At 30 June 2018, there were 105 MySuper products registered across the Australian superannuation system, provided by 90 distinct superannuation entities. Total assets of all MySuper products were $675.6 billion, or approximately 38% of the total APRA-regulated market.[18]

The majority of MySuper products have a single diversified portfolio covering all members, with strategic allocations to growth assets such as shares and property generally in the vicinity of 60-75%, and higher in some cases.

A smaller proportion (around one-third) of all MySuper options are offered on some form of "lifecycle" basis, with higher exposures to growth assets reducing as members move between age segments over time. Many of these lifecycle options have only two or three phases of in-built asset allocation changes; more tailored target retirement date or "glide path" designs remain relatively uncommon in Australia at this stage.

Despite its comparatively choice oriented design, most participants in Australia's superannuation system do not actively choose a provider, especially upon their commencement of employment. Default providers are nominated for employees by industry agreements, industrial rules, or by employers.

Choice products

In addition to their MySuper offering, most funds offer a wide range of Choice product options for members who wish to make their own investment selections. Choice products typically include a range of diversified portfolio options, usually labelled for target risk characteristics, such as growth, balanced, or conservative. Discrete options in major asset classes are also offered, such as Australian and international equities, fixed interest, cash, and listed property. Some funds' investment options also extend to selection of underlying investments, e.g. listed shares, term deposits.

Depending on the fund's rules and procedures, members can generally allocate their portfolios across multiple choice options, switch between them at any time, and provide different selections for future contributions than those applying to existing balances. Members can also elect to retain accounts in multiple funds.

Accessing superannuation benefits

Preservation age

Since 1999, all superannuation contributions have been required to be retained in the superannuation system until the member reaches his or her preservation age, subject only to some very limited exceptions for situations of extreme financial hardship, permanent incapacity or terminal illness.[19]

Preservation age has historically been age 55 for all Australians born prior to 1 January 1960. Preservation age is now in the process of being increased in gradual increments between 2015 and 2024, such that the standard preservation age will be 60 years of age for Australians born on or after 1 July 1964.

There is no general ability for members to withdraw money from their superannuation savings prior to preservation age to meet other lifestyle or spending needs. However, a limited exception to this general rule introduced from 1 July 2017 is a First Home Owner Super Savings Scheme, which allows for a one-off release of voluntary contributions (both concessional and non-concessional) of up to $30,000 for the sole purpose of purchasing a first home.

18 APRA *Quarterly Superannuation Performance Statistics* June 2018

19 Note also that certain superannuation benefits that relate to contributions made prior to 1999 ("restricted non-preserved" contributions) can be accessed on a change of employment; while other legacy components ("unrestricted non-preserved" contributions) can be withdrawn at any time. However generally these types of withdrawals are discouraged by tax rules if accessed prior to preservation age, and both of them have been effectively "frozen" in dollar terms at their 1999 levels so they will eventually wash out of the system.

Transition to retirement

Superannuation fund members can partially access superannuation benefits without needing to actually retire, by way of a Transition to Retirement (TTR) facility. This facility allows a member to draw down on their superannuation savings while still in the workforce after reaching preservation age, at the same time they are still receiving employer SG contributions.

Standard retirement and age thresholds

Apart from the TTR facility, the general threshold for being able to access superannuation benefits is to have reached preservation age and retired. This is known as the retirement condition of release. Another access threshold is to to have ceased an employment arrangement after age 60, without having retired. The next major threshold date is age 65, when superannuation benefits can be fully accessed without needing to change jobs or formally retire from the workforce.

As noted earlier, 65 is also the age at which eligible Australians have historically been able to access the age pension. This eligibility age rose from 65 to 65.5 years from 1 July 2017, and will rise in further increments to 67 years by 2023.

Australians who will be eligible for a full or part age pension who wish to retire earlier will generally need to self-finance some initial years of their retirement from their own superannuation savings, unless they are prepared to remain in the workforce until their mid-60s or beyond.

Countervailing this, with changing labour market dynamics and improved health of older workers, especially in white collar and service industries, the Australian system also gives fund members some incentives to remain in the workforce beyond their preservation or age pension eligibility age. Since 2013, mandated employer SG contributions have had no upper age limit for anyone remaining in "gainful employment", and members are able to continue to make voluntary additional contributions until they reach 75 years of age provided they satisfy a relatively modest "work test".[20]

Account-based pensions

The dominant form of retirement income stream product in Australia is known as an account-based pension (ABP). ABPs are highly flexible vehicles allowing retirees a similarly broad range of investment strategies as available during the accumulation phase, while generally retaining full access to their capital and highly concessional taxation treatment, including tax exemption both on income drawn from the ABP and on investment returns after age 60. The main condition for access to this generous taxation incentive is that ABP account-holders are required to make annual withdrawals of at least the prescribed age-based minimums (Figure 1).

Figure 1. Account-Based Pension Minimum Annual Drawdowns

Age	<65	65–74	75–79	80–84	85–89	90–94	95+
Minimum drawdown	4%	5%	6%	7%	9%	11%	14%

20 The work test requires members aged between 65 and 74 years old to establish that they have been engaged in gainful employment for at least 40 hours in any 30 day (or less) period during a financial year in which they wish to make a contribution (either concessional or non-concessional).

On the flipside, ABPs have no maximum annual drawdown limit, meaning that holders of ABPs can choose to withdraw higher proportions of their savings to finance higher spending in retirement or meet unanticipated expenses.[21] Retirees using this feature are at risk of exhausting their capital sooner and thereby increasing their reliance on the public age pension.

Other retirement income stream products

Apart from ABPs, and with some limited exceptions, the only other type of retirement income stream product that qualified for earnings tax exemption prior to July 2017 was a traditional lifetime annuity that was indexed to a standardised measure such as wages or inflation growth.[22]

While products of this type have experienced some renewed interest in volatile market conditions over recent years, they still represent a small proportion of the total market. As in other pension markets these products remain relatively unpopular as they require investors to forego access to their capital in return for the guaranteed income stream.

However, there has recently been a significant review of the post-retirement product landscape in Australia, focusing on the absence of products that offer protection against longevity risk, apart from the relatively inflexible option of lifetime annuities. As a result of this review, the rules around eligibility for concessional taxation treatment in the post-retirement phase have been expanded to accommodate a much broader array of approaches to consuming lump sum benefits over the course of retirement, effective from 1 July 2017.[23]

It is also proposed that superannuation funds trustees will be required to adhere to a new Retirement Income Covenant, and in the case of APRA-regulated funds, to develop mass-customised Comprehensive Income Products for Retirement (CIPRs) that blend characteristics of both account-based and deferred income stream products. The commencement date for these new products has however been deferred from the original proposed date of July 2019 to 1 July 2022.[24]

As a result, over coming years the Australian superannuation system is expected see the development of a range of new retirement income stream products such as deferred annuities, variable annuities, collective defined contribution schemes and group self-annuitisation products.

Retirement product development is expected to be a fertile ground for innovation in the superannuation industry as more and more Australians move into the retirement phase with increasing account balances. This process will continue to drive the competitive dynamics of the industry, as the commercial viability of industry participants will increasingly be shaped by their success in retaining and transitioning members' assets from the accumulation to pension phase.

Looking ahead

Over coming years, the Australian superannuation industry is poised to experience further significant reforms stemming from two very comprehensive public inquiries – the Financial Services Royal Commission which published its final report in February 2019, and the Productivity Commission's review into the efficiency and competitiveness of the superannuation system, which delivered its final report to Government in December 2018.

At the date of publication of this report, the exact nature and timing of these changes was not known. However in broad terms they are expected to focus on a strengthening of the fiduciary framework that applies to oversight of funds, greater substantiation of the impacts of fees and costs, and greater accountability on trustees for delivery of sound member outcomes.

Vanguard sees the data in this report as a major contribution to how these indicators of the industry's success in delivery of member outcomes might best be identified, measured and understood. We look forward to continuing to build upon these insights in partnership with our clients in this and future editions of How Australia Saves.

21 The exception to this is for transition to retirement pensions (i.e. those commenced between preservation age and age 65, without the individual actually retiring), where there is a maximum annual drawdown of 10% of capital permitted.

22 The exceptions include certain legacy defined benefit pensions paid by some public sector and corporate funds.

23 Australian Treasury, Retirement Income Streams Review Final Report (May 2016)

24 Australian Treasury, Development of the Framework for Comprehensive Income Products for Retirement (December 2016). Media Release, Assistant Treasurer the Hon Stuart Robert MP 31 October 2018 (http://srr.ministers.treasury.gov.au/media-release/030-2018/)

Introduction

This report is based on an in-depth analysis of member-level experiences and behaviours in the Australian superannuation system over the three years to 30 June 2018. This analysis is undertaken in three key aspects:

- **Accumulating fund assets**. The level of contributions is fundamental to retirement savings adequacy. Fund contributions are affected by the level of mandated employer SG contributions, member salary sacrifice, personal deductible and non-concessional contribution rates, and the value of government contributions.

- **Managing member accounts**. After deciding whether or not to make additional contributions to a fund, members' most important decision is how to allocate their holdings among the major asset classes. The vast majority of members do not make an active investment selection and accept the asset allocation of the default investment option. This option is a diversified portfolio determined by the trustee as suitable for members who do not make an active investment choice when joining the fund. These investment decisions – including the types of investment options offered by the fund, the choices employers make from among super funds, and any choices members may make – have a direct impact on account performance over time. Thus, investment choices, in conjunction with the level of fund contributions, ultimately influence members' level of retirement readiness.

- **Accessing plan assets**. Members can rollout their savings to another super fund at any time. Members having met their preservation age may be able to start an income stream or take a withdrawal.

Our analysis shows that most members have seen their retirement savings grow over 1- and 3-year periods. Meanwhile, more members would benefit from making additional voluntary (concessional and non-concessional) contributions.

The benchmark population

The benchmark population includes 2.3 million fund members as of 30 June 2018 (Figure 2). A subset of these members, about 1.4 million, received SG contributions in 2018.

Throughout this report we examine member behaviour through an investor type lens. The three investor types are:

- **Lifecycle**. Lifecycle members were invested in a diversified investment strategy which has in-built incremental changes to a more conservative asset allocation each year after members reach age 55. There were 51% of members in this category at June 2018.

- **Target risk**. Target risk members invested in a single diversified option other than the lifecycle option. The target risk options have a growth allocation ranging from 25.4% growth to 100% growth. Forty-two percent of members were in this category at June 2018.

- **Self-directed**. Self-directed members constructed their own portfolios using the available fund investment options. Seven percent of members were in this category at June 2018.

Figure 2. Population, 2018

	All members	Members with SG contributions
Number of members	2.3 million	1.4 million
Investor style		
Lifecycle	51%	44%
Target risk	42	49
Self-directed	7	7

Source: Vanguard using First State Super, Sunsuper, and VicSuper data, 2019.

We examine member behaviour for all members, and where applicable, for members receiving SG contributions. Members receiving SG contributions are similar in age and fund tenure as compared with the all-member cohort (**Figure 3**). However, members receiving SG contributions tend to have larger account balances.

Geographical Distribution

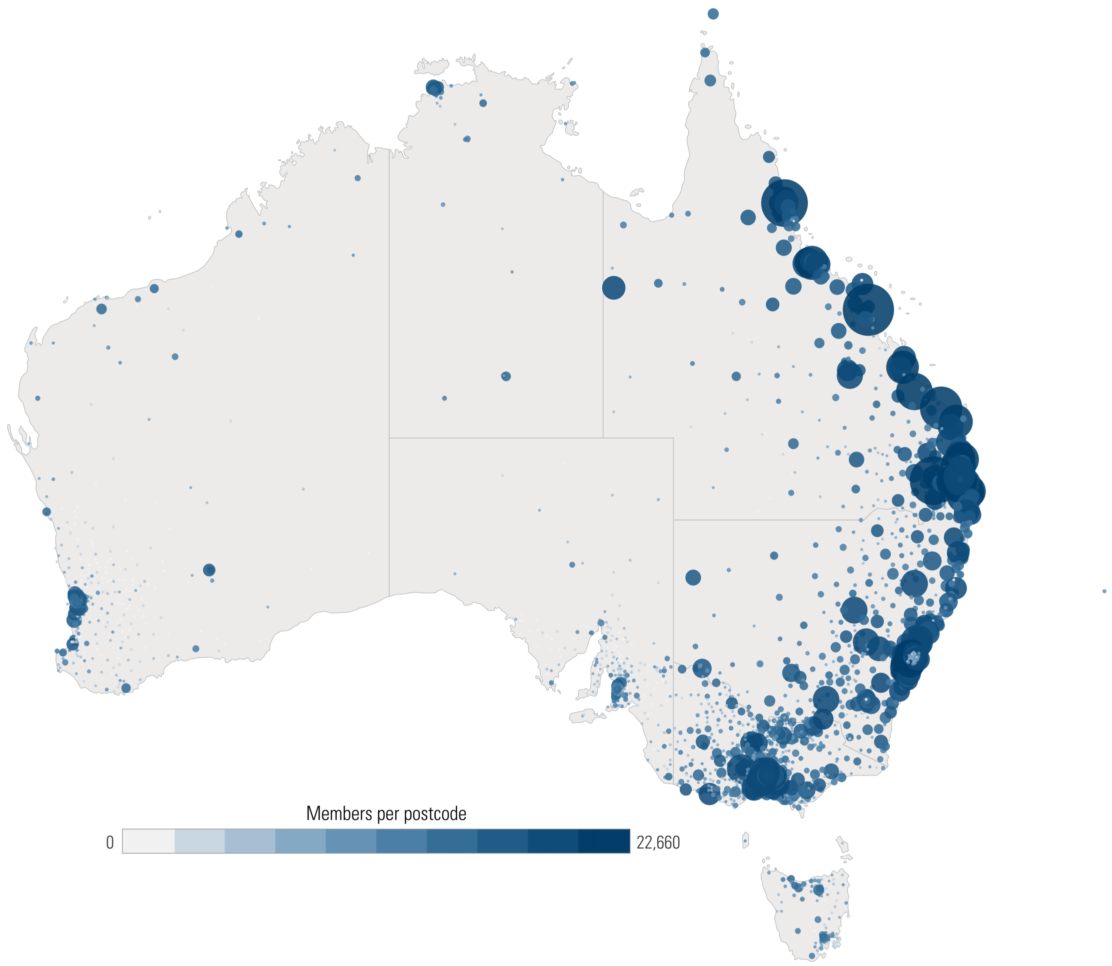
Figure 4 depicts the geographical distribution of the benchmark population by postcode area. The heaviest concentrations of members are in major urban centres along Australia's eastern seaboard. This reflects the primary locations of membership of the participating funds and of Australia's population generally. However, coverage of members located in regional and remote communities is also significant.

Figure 3. Population demographics, 2018

	All members	Members with SG contributions
Percentage female	53%	56%
Percentage male	47	44
Average age	41	41
Median age	40	39
Average fund tenure	9	9
Median fund tenure	7	7
Average salary		$61,739
Median salary		$53,265
Average account balance	$62,047	$74,676
Median account balance	$19,101	$35,733

Source: Vanguard using First State Super, Sunsuper, and VicSuper data, 2019.

Figure 4. Count of members by post code



1 Accumulating superannuation assets

Member accounts are underpinned by mandatory employer SG contributions, now at the level of 9.5% of salary per annum. Members can make additional contributions within regulated limits, and additional contributions are paid by the Government in some cases.

Contribution rates

Mandated SG contributions paid by employers are the main source of funding for eligible employees. Discretionary member contributions generally play a secondary role particularly at younger ages. The level of aggregate contributions is a critical determinant of whether the member will achieve an adequate level of savings for retirement.

On top of SG contributions from their employers, members have the option of making concessional contributions (comprising salary sacrifice and, since July 2017, personal deductible contributions), or non-concessional contributions, or both.[25]

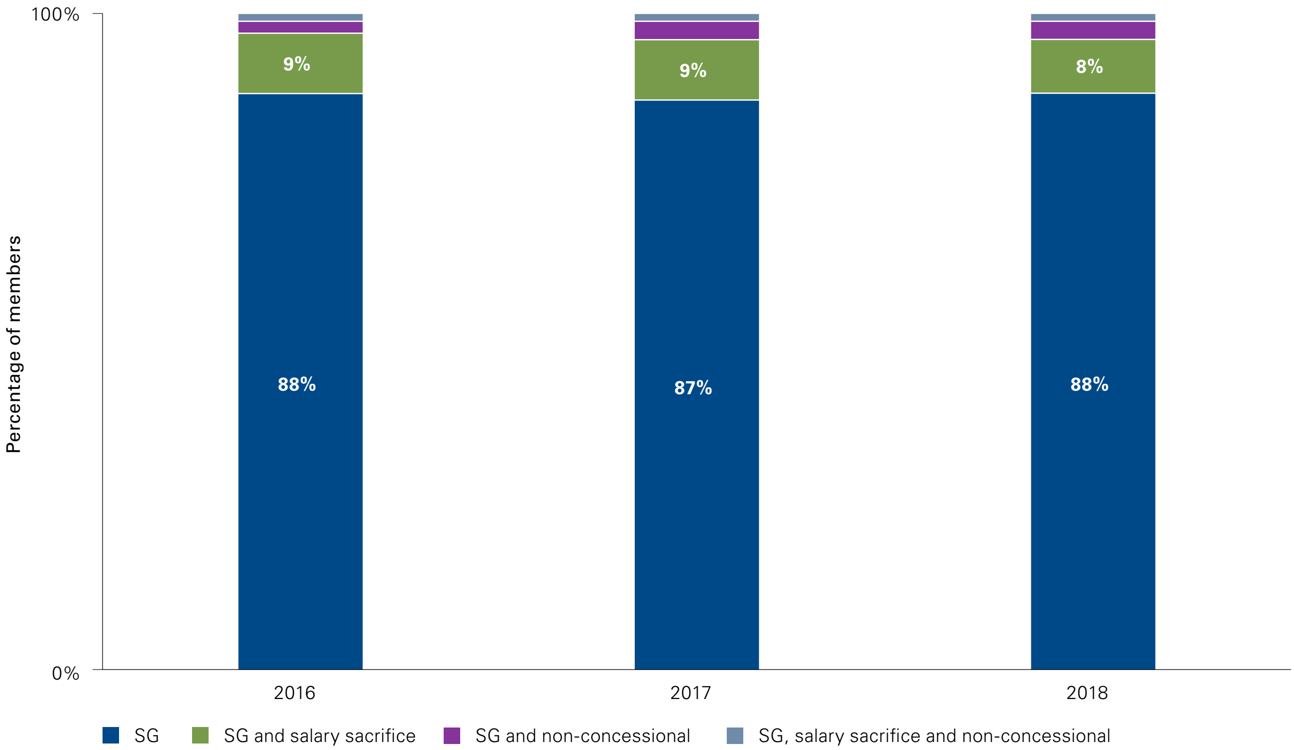
Salary sacrifice contributions are withheld from the members' pay and remitted to the fund along with the mandatory SG contributions. A 15% tax is withheld prior to depositing the contributions to the fund, but this is usually lower than the marginal income tax rate that would have applied had the money been taken as salary.

Non-concessional contributions are periodic contributions a member deposits to the fund from after-tax monies.

In the fiscal year ended June 2018, 88% of members receiving SG contributions had only SG contributions paid into their accounts (**Figure 5**). Another 8% of members made salary sacrifice contributions, 3% made non-concessional contributions, and 1% made both salary sacrifice and non-concessional contributions (in each case in addition to receiving the 9.5% employer SG contribution).

Figure 5. Contribution types

Members with SG contributions during the fiscal year ended 30 June



Source: Vanguard using First State Super, Sunsuper, and VicSuper data, 2019.

25 Effective 1July 2017 members have been able to make personal deductible contributions within the limits of their concessional contribution cap. This facility was designed primarily for individuals whose employers do not offer salary sacrifice through their payroll. Personal deductible contributions are made from the member's after-tax pay, but are deductible against the member's income tax to the 15% contributions tax rate, giving them effectively equivalent concessional tax treatment as salary sacrifice contributions.

We infer members' salary by using the level of the mandatory SG contributions adjusted for the 15% tax. This enables us to calculate the percentage of salary contributed to the fund.

Overall, most members had contribution rates less than 10% per annum throughout the full three years of this analysis (**Figure 6**). Six percent of members had contribution rates between 10% and 15%, and 5% of members had contribution rates that were 15% or higher in the year ended June 2018.

Lifecycle and target risk members were most likely to have contribution rates lower than 10% (**Figure 7**). Members with contribution rates between 10% and 15% were 12 years older than those with contributions below 10% with a median age of 49, and those with contribution rates above 15% were 22 years older with a median age of 59. Members with contribution rates greater than 10% had more than double the fund tenure of members with contribution rates less than 10%. Finally, members with contribution rates greater than 10% had wages that were about two-thirds higher than those members with contribution rates less than 10%.

Figure 6. Distribution of contribution rates

Members with SG contributions during the fiscal year ended 30 June

	2016	2017	2018
Percentage of members			
<10%	89%	89%	89%
10%- 15%	6	6	6
>15%	5	5	5

Source: Vanguard using First State Super, Sunsuper, and VicSuper data, 2019.

Figure 7. Demographic characteristics by contribution rate, 2018

Members with SG contributions during the fiscal year ended 30 June

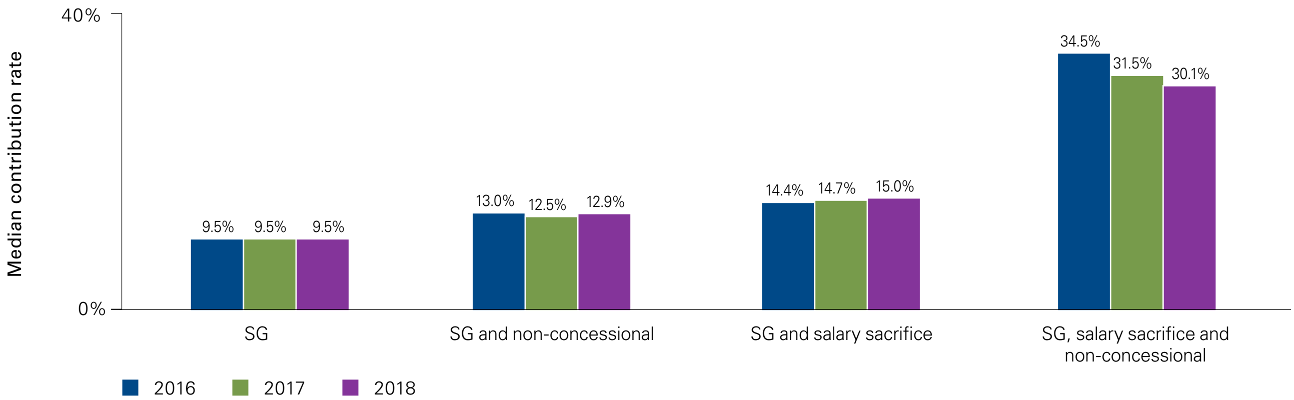
	<10%	10%- 15%	>15%
Percentage of members with SG contributions	*89%*	*6%*	*5%*
Lifecycle	*47%*	*24%*	*14%*
Target risk	*47*	*63*	*68*
Self-directed	*6*	*13*	*18*
Gender			
Female	55%	60%	63%
Male	45	40	37
Age			
<25	16%	3%	1%
25-34	28	14	4
35-44	23	22	9
45-54	19	31	20
55-64	11	26	50
65-69	2	3	13
70+	1	1	3
Median age	37	49	59
Fund tenure			
0-1	27%	9%	10%
2-3	12	6	6
4-6	14	10	7
7-9	11	11	8
10-13	14	19	14
14-19	13	22	22
20+	9	23	33
Median fund tenure	6	13	15
Salary			
<$10,000	17%	2%	7%
$10,000-$29,999	18	7	10
$30,000-$49,999	15	12	10
$50,000-$74,999	19	21	19
$75,000-$99,999	13	17	18
$100,000-199,999	16	35	35
200,000+	2	6	1
Median salary	$49,494	$86,260	$80,018

Source: Vanguard using First State Super, Sunsuper, and VicSuper data, 2019.

Members making both salary sacrifice and non-concessional contributions had the highest median contribution rates at 30.1% for the fiscal year ended 30 June 2018 (**Figure 8**). Members with salary sacrifice and SG had median contribution rates of 15.0% and members with non-concessional and SG contributions had median contribution rates of 12.9%. Aggregate contribution rates have generally risen modestly over the 3-year period.

Figure 8. Contribution rates

Members with SG contributions during the fiscal year ended 30 June



Source: Vanguard using First State Super, Sunsuper, and VicSuper data, 2019.

Contribution rates by investor type

Broken down by three investor types described in the introduction page, 15% of target risk investors made salary sacrifice or non-concessional contributions or both during the fiscal year ended June 2018 (**Figure 9**). In the same year, 25% of self-directed investors also made additional contributions but only 5% of lifecycle investors did so. Self-directed investors also had the highest overall contribution rates in 2018 (**Figure 10**).

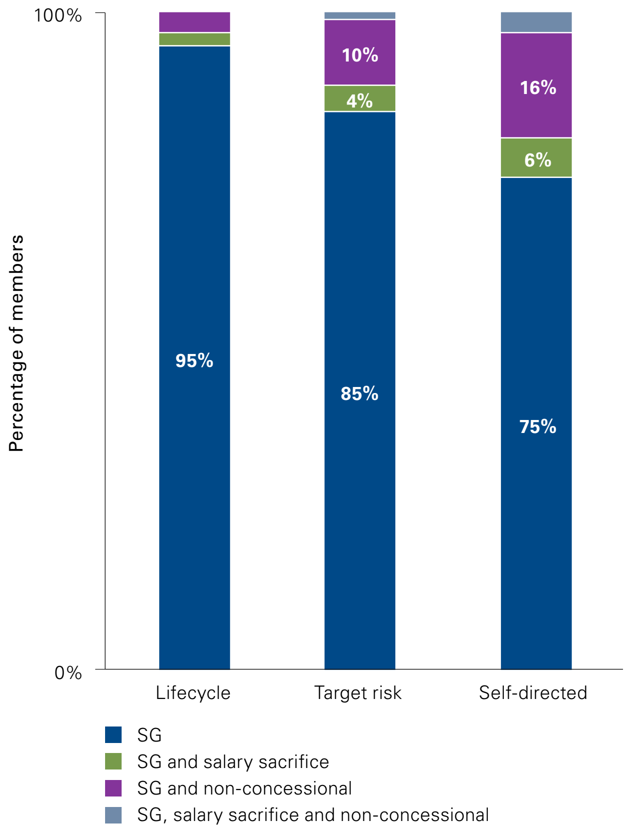
Employee demographics have a strong influence on contribution types (**Figure 11**). Members with salary sacrifice contributions have higher salaries. Members with salary sacrifice or non-concessional contributions or both are older, while members with SG contributions only are younger, have shorter fund tenure, and lower salaries.

Contribution rates also are correlated with account balances. Members with SG contributions alone have lower account balances while members with both salary sacrifice and non-concessional contributions have higher account balances.

These results reflect the incentives inherent in Australia's superannuation rules, which provide comparatively greater tax concessions for contributions by higher salary-earners, and (until 30 June 2016) higher concessional contribution caps to older members. The greater capacity of older and higher-paid workers to make discretionary contributions after meeting their other financial commitments is also evident. Fewer than 0.5% of members made salary sacrifice or non-concessional contributions at the maximum regulated limits in 2018.

Figure 9. Contributions by investor type, 2018

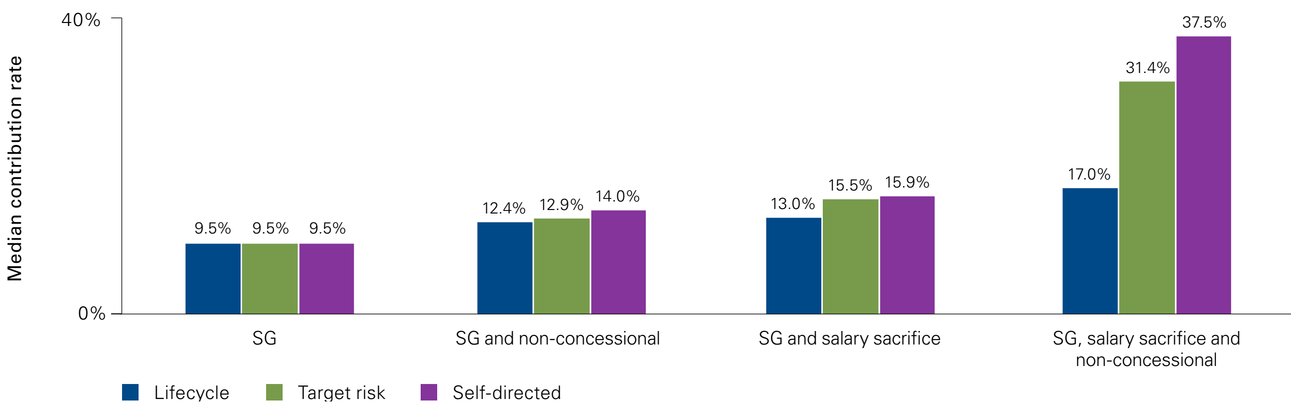
Members with SG contributions during the fiscal year ended 30 June



Source: Vanguard using First State Super, Sunsuper, and VicSuper data, 2019.

Figure 10. Contribution rates by investor style, 2018

Members with SG contributions during the fiscal year ended 30 June



Source: Vanguard using First State Super, Sunsuper, and VicSuper data, 2019.

Figure 11. **Member demographics by contribution and investor type, 2018**

Members with SG contributions during the fiscal year ended 30 June

	Lifecycle	Target risk	Self-directed
Percentage of members	44%	49%	7%
SG			
Percentage of members	41%	41%	6%
Percentage female	45%	67%	42%
Percentage male	55	33	58
Median age	33	42	42
Median fund tenure	4	9	12
Median salary	$30,786	$68,479	$63,048
Median account balance	$11,744	$48,714	$67,800
Median savings rate	9.5%	9.5%	9.5%
SG and non-concessional			
Percentage of members	1%	2%	<0.5%
Percentage female	59%	73%	59%
Percentage male	41	27	41
Median age	48	52	53
Median fund tenure	11	14	13
Median salary	$46,069	$57,728	$46,898
Median account balance	$69,407	$112,940	$109,656
Median savings rate	12.4%	12.9%	14.0%
SG and salary sacrifice			
Percentage of members	2%	5%	1%
Percentage female	46%	64%	47%
Percentage male	54	36	53
Median age	47	54	54
Median fund tenure	10	15	13
Median salary	$75,042	$102,318	$102,593
Median account balance	$95,590	$177,787	$182,498
Median savings rate	13.0%	15.5%	15.9%
SG, salary sacrifice and non-concessional			
Percentage of members	<0.5%	1%	<0.5%
Percentage female	58%	71%	59%
Percentage male	42	29	41
Median age	54	59	61
Median fund tenure	12	17	14
Median salary	$61,893	$81,504	$77,961
Median account balance	$121,989	$234,560	$274,727
Median savings rate	17.0%	31.4%	37.5%

Source: Vanguard using First State Super, Sunsuper, and VicSuper data, 2019.

Member demographics vary by investor type. Self-directed investors are more likely to be male, have longer fund tenure, and higher salaries (**Figure 12**). Lifecycle investors are more likely to be younger, have shorter fund tenure, and lower salaries. Target risk investors have higher salaries than other members.

Government contributions

The Australian government makes two types of payments targeting lower-income workers:

- Low-income super contributions. LISC contributions are designed to compensate members on low or zero marginal income tax rates for tax paid on their mandated SG contributions.

- Government co-contribution. Government co-contributions are designed as an incentive for low-to-middle income earners to make non-concessional contributions on top of the SG contributions paid by their employer. They provide a matching contribution of up to $500 per year for members whose annual income falls within the eligible income range. The eligible income range was between $38,813 and $51,813 in fiscal year ended June 2018.

In 2018 nearly 1 in 5 members received either or both of these types of government contributions (**Figure 13**). On average, these members received 1.9% in additional contributions, bringing their total contribution rate to 11.4%. In 2018, members receiving these contributions were more likely to be female, had lower salaries, and had smaller account balances (**Figure 14**).

Spouse contributions

Contributions can be made on behalf of spouses in Australia's superannuation system, with a tax offset being available to the spouse making the contribution. Less than 0.5% of members received spouse contributions in 2018. Of these, 84% were female, and the median contribution was $3,000.

Figure 12. Member demographics by investor type, 2018

Members with SG contributions during the fiscal year ended 30 June

	Lifecycle	Target risk	Self-directed
Percentage of members	44%	49%	7%
Female	45%	67%	44%
Male	55	33	56
Age			
<25	24%	6%	3%
25-34	30	23	22
35-44	20	24	26
45-54	15	24	22
55-64	9	18	20
65-69	1	3	5
70+	1	2	2
Median age	33	44	44
Fund tenure			
0-1	37%	17%	8%
2-3	13	10	6
4-6	15	13	9
7-9	9	12	14
10-13	11	15	27
14-19	9	17	23
20+	6	16	13
Median fund tenure	4	10	12
Salary			
<$10,000	25%	9%	8%
$10,000-$29,999	23	12	13
$30,000-$49,999	17	13	14
$50,000-$74,999	19	19	21
$75,000-$99,999	8	18	15
$100,000-199,999	7	27	24
$200,000+	1	2	5
Median salary	$32,626	$71,750	$68,084

Source: Vanguard using First State Super, Sunsuper, and VicSuper data, 2019.

Figure 13. Government contributions

Members with government contributions during the fiscal year ended 30 June

	2016	2017	2018
Low-income super			
Percentage of members	18%	16%	16%
Average as a percentage of prior year wages	2.0	1.7	1.8
Median as a percentage of prior year wages	1.4	1.4	1.4
Co-contribution			
Percentage of members	1%	1%	1%
Average as a percentage of prior year wages	1.1	1.2	1.0
Median as a percentage of prior year wages	0.4	0.5	0.5
Low-income super and co-contribution			
Percentage of members	1%	1%	1%
Average as a percentage of prior year wages	6.7	5.4	5.6
Median as a percentage of prior year wages	3.1	3.3	3.4
All members with government contributions			
Percentage of members	20%	18%	17%
Average as a percentage of prior year wages	2.3	1.9	1.9
Median as a percentage of prior year wages	1.4	1.4	1.4

Source: Vanguard using First State Super, Sunsuper, and VicSuper data, 2019.

Figure 14. Government contributions, 2018

Members with government contributions during the fiscal year ended 30 June

	Lifecycle	Target risk	Self-directed
All members with government contributions			
Percentage of members	9%	7%	1%
Percentage female	58%	78%	61%
Percentage male	42	22	39
Median age	29	44	45
Median fund tenure	5	8	12
Median prior year salary	$22,181	$29,449	$26,048
Median account balance	$9,588	$25,593	$42,523
Median government contribution rate	1.4%	1.4%	1.4%

Source: Vanguard using First State Super, Sunsuper, and VicSuper data, 2019.

Account balances

Account balances are a widely cited measure of the overall effectiveness of superannuation funds and are determined by contribution levels and investment performance over time, less fees. These fees include both administration and investment fee components, as well insurance premiums where applicable.

Average versus median balances

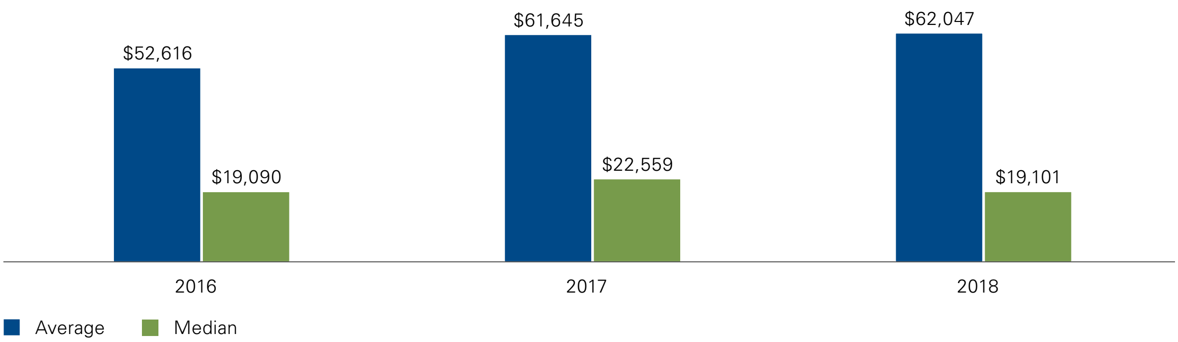
In June 2018, the average account balance for members was $62,047; the median balance was $19,101 (**Figure 15**). In 2018, members' average account balance rose modestly and median account balances declined.[26] The median 1-year member total return was 10.2% in 2018 (see page 40). During the 2016–2018 period, median balances were flat and average balances rose by about 20%.

The wide divergence between the median and the average balance is due to a small number of very large accounts that significantly raises the average above the median (**Figure 16**). Four in 10 members had a 2018 account balance of less than $10,000, while 1 in 10 had balances in excess of $150,000.

Because of the skewed distribution of assets, average balances are indicative of members at about the 75th percentile (i.e., about 75% of all members have balances below, and 25% have balances above the average). Average balances are more indicative of the results experienced by longer-tenured, more affluent, or older members. The median balance represents the typical member: half of all members have balances above the median, half have balances below.

Figure 15. Account balances

All members fiscal year ended 30 June



Source: Vanguard using First State Super, Sunsuper, and VicSuper data, 2019.

Figure 16. Distribution of account balances

All members fiscal year ended 30 June

	2016	2017	2018
Percentage of accounts			
<$1,000	14%	14%	16%
$1,000-$4,999	16	14	16
$5,000-$9,999	10	9	9
$10,000-$24,999	16	15	14
$25,000-$49,999	14	14	12
$50,000-$74,999	9	9	8
$75,000-$99,999	6	6	6
$100,000-$149,999	7	8	8
$150,000+	8	11	11

Source: Vanguard using First State Super, Sunsuper, and VicSuper data, 2019.

26 This decline was largely due to the merger of one of the participating funds with another fund that had a large number of low balance members during fiscal year 2018; i.e. it was not a function of investment market declines or member withdrawals contributions.

Change in account balances

The change in average and median account balances in 2018 results from a combination of evolution in the member base and market performance.

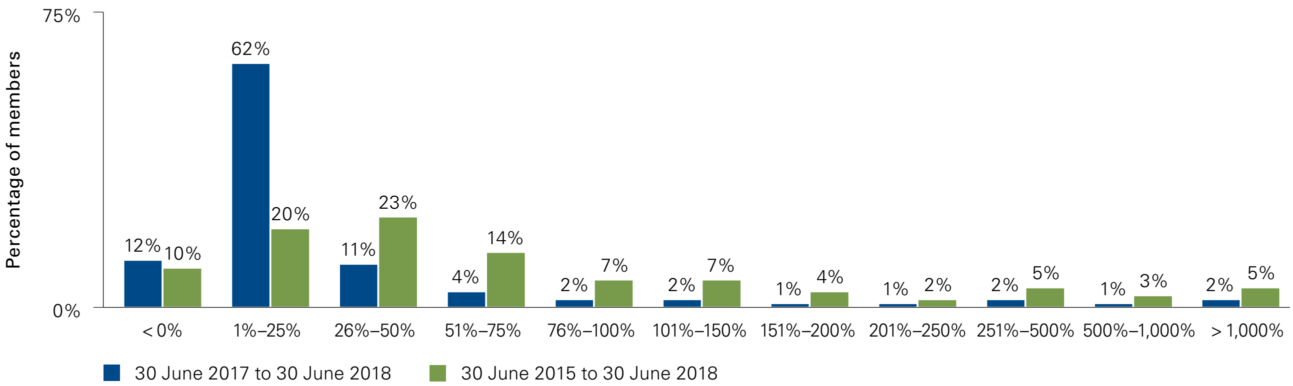
When we examine continuous members – those with an account balance in both June 2017 and June 2018 – the median account balance rose by 15% (**Figure 17**). Nine in 10 of these continuous members saw their balances rise because of investment returns or ongoing contributions or both.

Stretching this analysis over a longer period to cover continuous members with a balance in both June 2015 and June 2018, the median account balance over these three years rose 47%, and 90% of continuous members had a higher account balance in 2018 than in 2015.

Account balances are widely available on statements and websites, and are often cited as members' principal tool for monitoring investment results. Because of ongoing contributions, account balances will appear to be less negatively impacted during falling markets. This "contribution effect" may mask the psychological impact of falling asset prices on members.

Figure 17. Change in account balances, continuous members

Members with a balance at both the beginning and end of the period



	30 June 2017 – 30 June 2018	30 June 2015 – 30 June 2018
Median change	15%	47%
Percentage of members with positive changes	88%	90%

Source: Vanguard using First State Super, Sunsuper, and VicSuper data, 2019.

Account balances by member demographics

Median and average account balances vary considerably by member demographics (**Figure 18**). Among the factors influencing account balances are salary, age, and fund tenure. These three factors are intertwined. Not only do salaries, on average, tend to rise somewhat with age, making saving more affordable, but older members generally save at higher rates (**Figure 19**). Also, the longer an employee's tenure, the more likely the employee is to earn a higher salary and contribute at higher levels. Longer-tenured members also have higher balances because they have been contributing to their fund for a longer period.

Employer industry sector and full or part-time status also influence account balance. Employer industry sector and full or part-time status are not variables available to us to explore in this analysis.

Figure 18. Account balances by member demographics, 2018

All members fiscal year ended 30 June

	Average	Median
All	**$62,047**	**$19,101**
Investor type		
Lifecycle	$27,811	$6,331
Target risk	$90,458	$45,987
Self-directed	$136,376	$68,343
Gender		
Female	$61,226	$22,673
Male	$63,071	$15,153
Age		
<25	$4,377	$1,564
25-34	$22,902	$11,190
35-44	$56,428	$32,604
45-54	$85,205	$45,510
55-64	$124,988	$61,327
65-69	$157,439	$56,658
70+	$156,420	$51,829
Fund tenure		
0-1	$23,058	$1,742
2-3	$32,755	$5,877
4-6	$41,773	$16,433
7-9	$60,995	$35,427
10-13	$80,710	$53,086
14-19	$95,775	$68,088
20+	$135,097	$96,977

Source: Vanguard using First State Super, Sunsuper, and VicSuper data, 2019.

Figure 19. Account balances by member salary, 2018

Members with SG contributions during the fiscal year ended 30 June

	Average	Median
Salary		
<$10,000	$17,659	$582
$10,000-$29,999	$32,163	$6,948
$30,000-$49,999	$47,907	$22,147
$50,000-$74,999	$70,530	$47,441
$75,000-$99,999	$90,606	$62,748
$100,000-199,999	$153,798	$123,648
$200,000+	$303,881	$229,956

Source: Vanguard using First State Super, Sunsuper, and VicSuper data, 2019.

2 Managing member accounts

Member investment decisions are a critical determinant of long-term retirement savings growth.

Default investment option

In a defined contribution system like Australia's, asset allocation is a critical determinant of the long-term performance and risk profile of an individual member's portfolio. A sufficient allocation to growth assets such as shares, to a level consistent with the member's retirement time horizon, is a key component of ensuring that superannuation savings grow in real terms during the contribution phase and beyond. Accordingly, the default investment option is a critical determinant of the long-term performance and risk profile of an individual member's portfolio as many members will remain in the default. We begin this chapter with an analysis of the default investment option utilisation.

At 30 June 2018, 87% of members were solely invested in the default investment option (**Figure 20**). Another 6% had selected another target risk option. Finally 7% of members were self-directed using the default plus other options, or only other options. Over time more members have chosen options beyond the default (**Figure 21**). However, the vast majority of members – more than 80% -- remain invested solely in the default investment option of the fund.

Figure 20. Default investment option utilisation trend

All members fiscal year ended 30 June

	2016	2017	2018
100% default investment option	86%	86%	87%
100% target risk option	6	6	6
Default plus other options	7	7	6
Using other options	1	1	1

Source: Vanguard using First State Super, Sunsuper, and VicSuper data, 2019.

Figure 21. Default investment option persistence, 2018

All members as of 30 June 2018

	Fund entry fiscal year 2018	Fund entry fiscal year 2017	Fund entry fiscal year 2016	Fund entry fiscal year 2015 or prior
100% default investment option	95%	92%	93%	83%
100% target risk option	2	5	3	7
Default plus other options	2	2	3	8
Using other options	1	1	1	2

Source: Vanguard using First State Super, Sunsuper, and VicSuper data, 2019.

Asset and contribution allocations

Next we analyse the distribution of member accounts across six categories, including both discrete asset class options (fixed interest and cash, property, and shares) and multi-asset class options (target risk, lifecycle and pension). For each period we then report an aggregate growth asset exposure at the total fund level, for both end-of-year balances and annual contributions. In the case of the multi-asset class options, the definition of which assets count as growth assets for this purpose is as per the funds' investment policies.

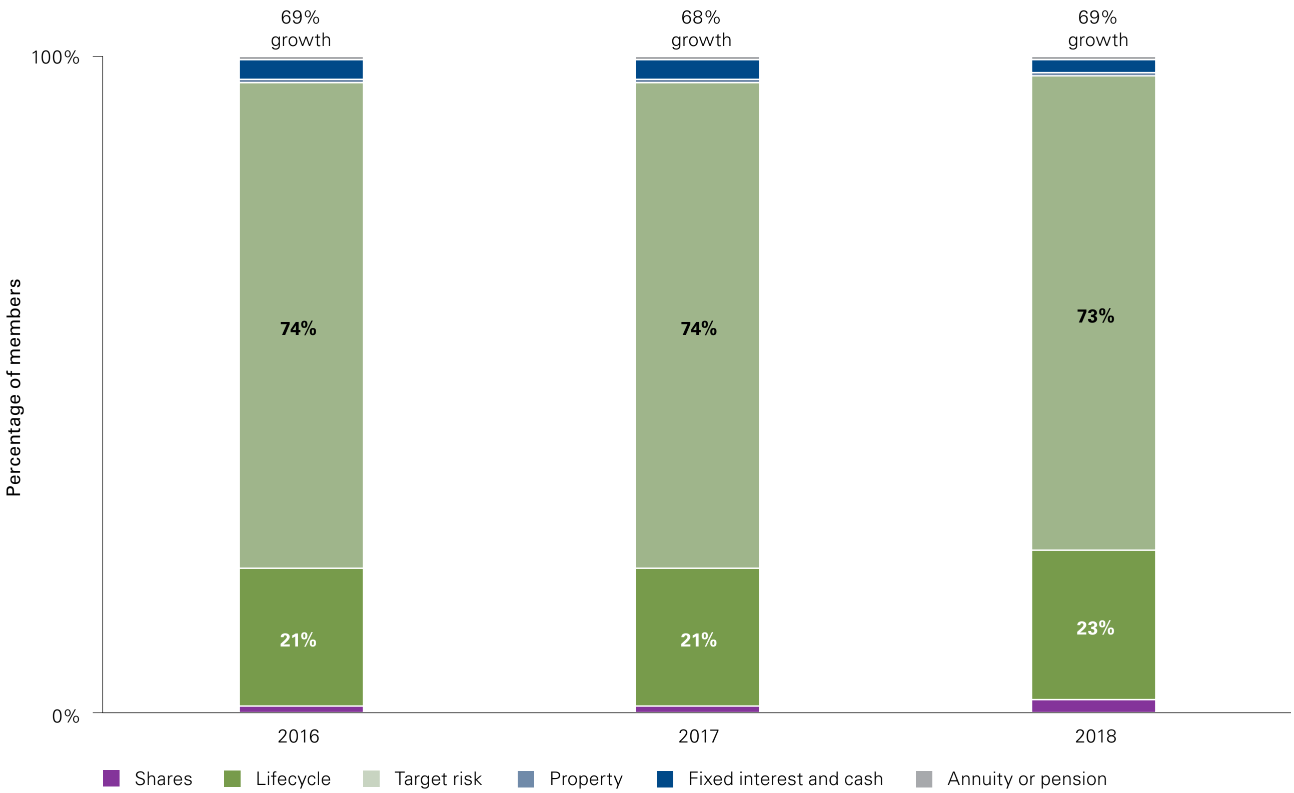
At 30 June 2018, 69% of fund assets were invested in growth assets [**Figure 22**]. The majority of these growth asset holdings were via the underlying asset class allocations of balanced funds, including the lifecycle and target risk funds. Only around 2% of the total growth asset exposure was through dedicated share investment options. The percentage of total fund assets invested in growth assets has been consistent for the full 3-year period.

This overall average growth allocation suggests that members are taking a substantial, but still reasonable, level of growth asset risk in their superannuation portfolios, while remaining widely diversified.

Seven in 10 fund contribution dollars were invested in growth investments during 2018, with more than 95% of contributions being invested in the lifecycle and target risk options (**Figure 23**). Member contribution allocations to growth investments have also remained steady at about 70% for the full 3-year period.

Figure 22. Fund asset allocation summary

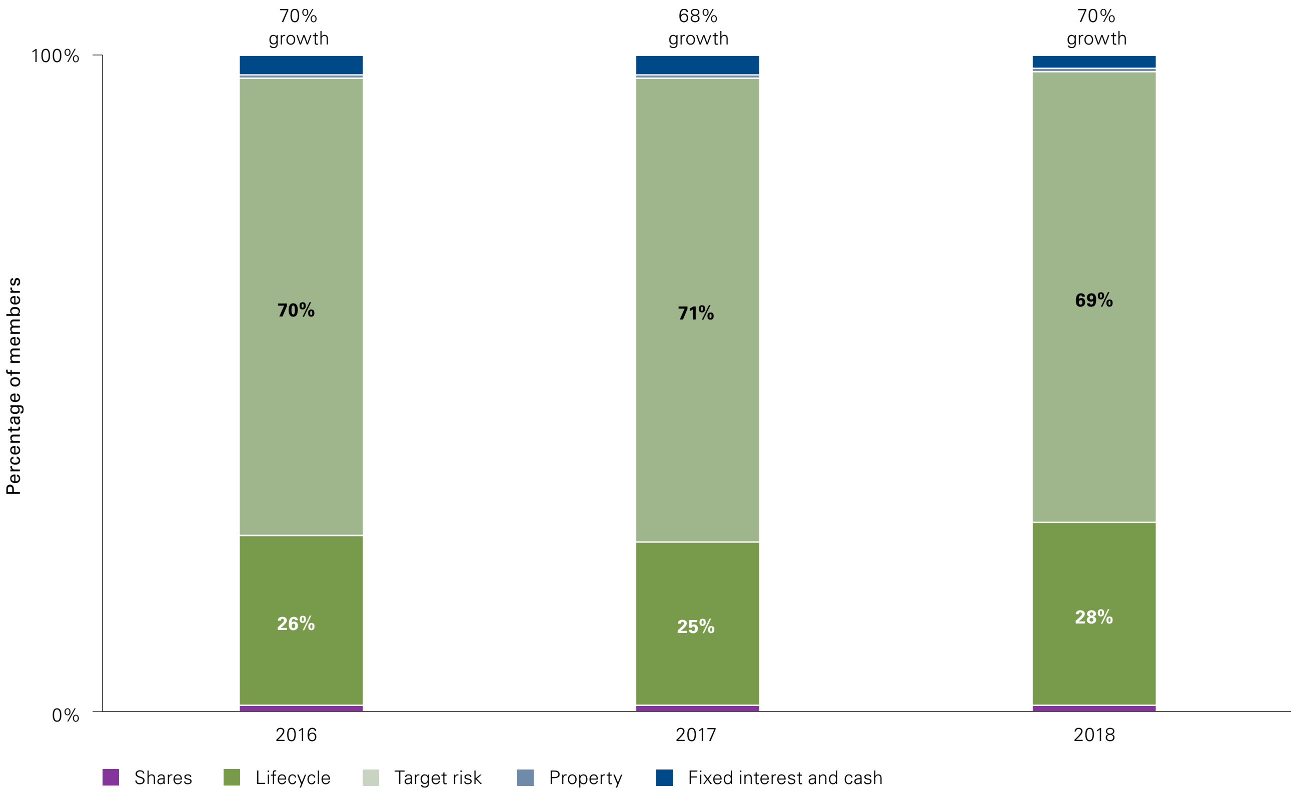
All members fiscal year ended 30 June



Source: Vanguard using First State Super, Sunsuper, and VicSuper data, 2019.

Figure 23. Fund contribution allocation summary

All members fiscal year ended 30 June



Source: Vanguard using First State Super, Sunsuper, and VicSuper data, 2019.

Figure 24. Asset allocation by member demographics, 2018

Members with balances as of 30 June

	Fixed interest and cash	Property	Target risk	Lifecycle	Shares	Annuity or pension	Percentage growth
Investor type							
Lifecycle				100%		<0.5%	69%
Target risk			99%			1	71
Self-directed	15%	2%	72	2	9%	<0.5	59
Gender							
Female	2%	<0.5%	79%	18%	1%	<0.5%	69%
Male	3	<0.5	66	29	2	<0.5	69
Age							
<25	<0.5%	<0.5%	24%	75%	<0.5%	<0.5%	73%
25-34	1	<0.5	56	42	1	<0.5	74
35-44	1	<0.5	66	31	2	<0.5	75
45-54	2	<0.5	71	25	2	<0.5	74
55-64	3	<0.5	79	16	1	<0.5	65
65-69	5	<0.5	86	7	2	<0.5	53
70+	8	<0.5	86	4	2	<0.5	50
Fund tenure							
0-1	3%	<0.5%	61%	34%	2%	<0.5%	64%
2-3	2	<0.5	71	24	1	1	63
4-6	3	<0.5	63	31	2	<0.5	66
7-9	3	<0.5	69	27	2	<0.5	69
10-13	2	<0.5	69	26	2	<0.5	70
14-19	2	<0.5	77	20	1	<0.5	70
20+	2	<0.5	81	16	1	<0.5	69
Account balance							
<$10,000	1%	<0.5%	35%	64%	<0.5%	<0.5%	71%
$10,000-$24,999	1	<0.5	45	54	<0.5	<0.5	71
$25,000-$49,999	1	<0.5	53	45	1	<0.5	71
$50,000-$74,999	1	<0.5	60	37	1	<0.5	71
$75,000-$99,999	2	<0.5	65	32	1	<0.5	71
$100,000+	3	<0.5	79	16	2	<0.5	67

Source: Vanguard using First State Super, Sunsuper, and VicSuper data, 2019.

Asset allocation by member demographics

Asset allocation decisions vary somewhat by member demographics (**Figure 24**). However, given that 93% of members were lifecycle or target risk investors, differences are somewhat nuanced. Older members had lower growth allocations. They hold somewhat larger allocations to fixed interest and cash. Older members are also more likely to hold a target risk option and less likely to hold the lifecycle option.

Members with larger account balances also hold modestly larger allocations to fixed interest and cash, and shares. Members with larger account balances are also more likely to hold a target risk option and less likely to hold the lifecycle option.

Members with higher salaries hold only modestly larger allocations to fixed interest and cash and shares (**Figure 25**).

Figure 25. Asset allocation by member salary, 2018

Members with SG contributions in the fiscal year ended 30 June

	Fixed interest and cash	Property	Target risk	Lifecycle	Shares	Pension	Percentage growth
Salary							
<$10,000	2%	<0.5%	63%	33%	1%	<0.5%	66%
$10,000-$29,999	2	<0.5	58	38	1	<0.5	68
$30,000-$49,999	2	<0.5	62	35	1	<0.5	69
$50,000-$74,999	1	<0.5	66	32	1	<0.5	70
$75,000-$99,999	1	<0.5	75	22	1	<0.5	71
$100,000-199,999	2	<0.5	83	13	1	<0.5	73
$200,000+	2	<0.5	75	19	3	<0.5	73

Source: Vanguard using First State Super, Sunsuper, and VicSuper data, 2019.

Member demographics vary by investor type. Self-directed investors are more likely to be male and have longer fund tenure (**Figure 26**). Lifecycle investors are more likely to be younger and have shorter fund tenure. Target risk investors are more likely to be older than lifecycle investors.

Figure 26. Demographic charactersitics by investor type, 2018

Members with balances as of 30 June

	Lifecycle	Target risk	Self-directed
Percentage of members	51%	42%	7%
Asset allocation			
Fixed interest and cash			15%
Property			2
Target risk		100%	71
Lifecycle	100%		3
Shares			9
Annuity or pension		<0.5	<0.5
Percentage growth assets	69%	71%	59%
Gender			
Female	44%	66%	45%
Male	56	34	55
Age			
<25	20%	5%	2%
25-34	31	20	20
35-44	22	23	25
45-54	16	24	20
55-64	9	20	20
65-69	1	5	7
70+	1	3	6
Median age	34	46	46
Fund tenure			
0-1	38%	14%	9%
2-3	13	9	5
4-6	15	12	9
7-9	8	12	14
10-13	10	15	27
14-19	9	20	23
20+	7	18	13
Median fund tenure	4	11	14
Account balance			
<10,000	57%	25%	13%
$10,000-$24,999	15	13	12
$25,000-$49,999	11	14	16
$50,000-$74,999	6	10	12
$75,000-$99,999	4	8	9
$100,000+	7	30	38
Median account balance	$6,331	$45,987	$68,343

Source: Vanguard using First State Super, Sunsuper, and VicSuper data, 2019.

Fund investment options

Member investment decisions occur within the context of a default investment option and a menu of alternative options offered by the fund.

Options offered

All of the participating funds offer an array of investment options covering the major investment categories: cash, fixed interest, property, Australian and international shares, emerging markets shares, and socially responsible investments (**Figure 27**). The default fund in each case is a diversified investment option designed by the trustee as one appropriate for the majority of members and for members who do not make an active investment choice. The default fund is either a lifecycle or target risk investment. Members have access to a broad menu of diversified and single asset-class options outside the default, with the ability to select and switch between multiple options to construct a self-directed portfolio.

Options used

A total of 93% of members used a single option – 51% hold the lifecycle option and 42% hold a single target risk option. Self-directed investors (who comprised 7% of members overall) were most likely to hold an actively-managed target risk option in their portfolio (e.g. growth, conservative) followed by cash.

Self-directed members on average used 2.5 options in 2018 (**Figure 28**). Slightly more than one-third of these self-directed members held three or more options (**Figure 29**). Overall, 3% of all fund members held three or more options.

Figure 27. Type of investment options used, 2018

All members as of 30 June

	Lifecycle	Target risk	Self-directed
Cash			**22%**
Fixed interest			**8%**
Active			3
Index			4
Property			**7%**
Active			5
Index			3
Lifecycle	**100%**		**11%**
Target risk		**100%**	**82%**
Active		>99.5	82
Index		<0.5	1
Socially responsible		<0.5	5
Single asset class			**16%**
Shares			**16%**
Australian shares			**13%**
Active			6
Index			8
International shares			**9%**
Index hedged			7
Index unhedged			5
Emerging markets shares			**2%**

Source: Vanguard using First State Super, Sunsuper, and VicSuper data, 2019.

Figure 28. Number of investment options used, 2018

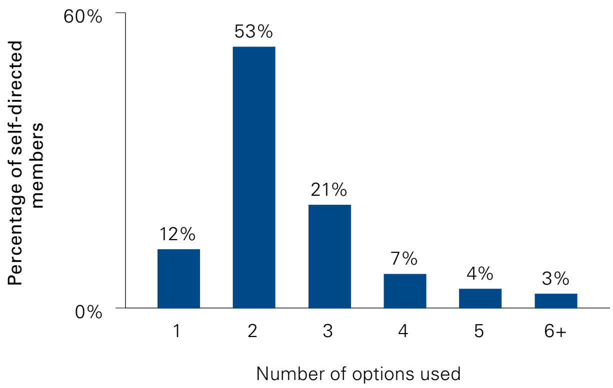
All members as of 30 June

	Lifecycle	Target risk	Self-directed
Median	1.0	1.0	2.0
Average	1.0	1.0	2.5

Source: Vanguard using First State Super, Sunsuper, and VicSuper data, 2019.

Figure 29. Distribution of investment options used, 2018

Self-directed members with balances as of 30 June



Source: Vanguard using First State Super, Sunsuper, and VicSuper data, 2019.

Member growth allocations

Growth investments comprise the dominant investment holdings of most members. The fraction of growth options held is slightly more than 70% until age 55 when it begins to decline (**Figure 30**). In 2018, the growth allocation among members older than 70 was 50%. Few fund members hold extreme allocations (**Figure 31**). The fraction of members with no allocation to growth options was only 1%. At the other extreme, the fraction of members investing exclusively in growth options was also only 1%.

Figure 30. Growth allocation by age

Members with balances as of 30 June

	2016	2017	2018
<25	73%	72%	73%
25-34	75	74	74
35-44	76	74	75
45-54	75	74	74
55-64	64	63	65
65-69	51	51	53
70+	48	49	50

Source: Vanguard using First State Super, Sunsuper, and VicSuper data, 2019.

Figure 31. Growth asset allocation trend

Members with balances as of 30 June

Percentage of account balance in growth assets	2016	2017	2018	Percentage of contributions to growth assets, 2018
0%	1%	1%	1%	1%
1%-30%	1	1	1	1
31%-40%	1	1	1	1
41%-50%	1	1	2	2
51%-60%	8	8	7	7
61%-70%	4	13	3	3
71%-80%	80	70	81	81
81%-90%	2	2	2	2
91%-99%	1	2	1	1
100%	1	1	1	1
Median growth assets member weighted	72%	71%	71%	71%
Average growth assets member weighted	72	72	72	72

Source: Vanguard using First State Super, Sunsuper, and VicSuper data, 2019.

One of the benefits of lifecycle and target risk options is that they eliminate extreme allocations. Self-directed members tend to hold greater extremes in growth exposure (**Figure 32**). A total of 14% of self-directed investors hold extreme portfolios (10% with no growth options, 4% with only growth options). Lifecycle and target risk investors generally cannot hold extreme positions because these professionally managed options include both growth and defensive investment options and periodic rebalancing. Only 1% of target risk investors were holding a diversified, professionally managed option with a 100% growth allocation.

Advice

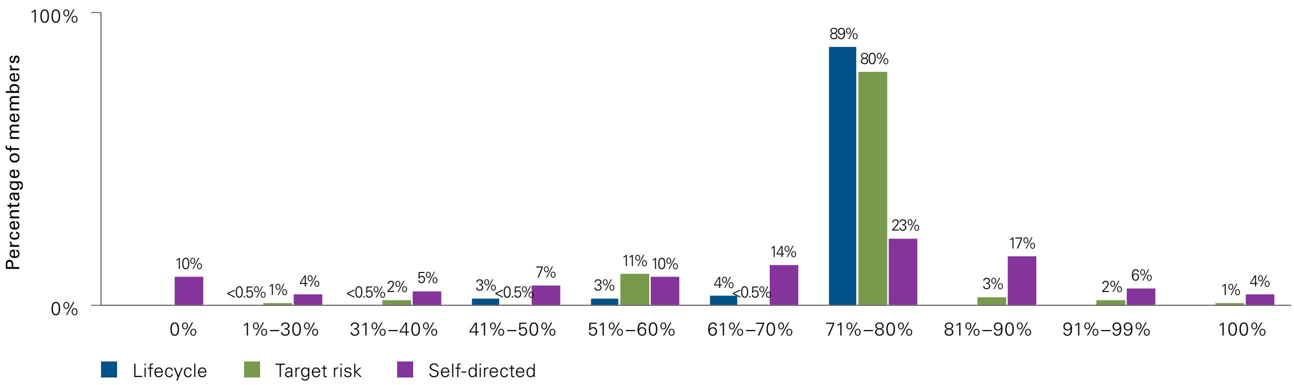
Many members may lack the financial investment skills, time, or interest to make appropriate investment decisions. To address members' need for assistance with investment decisions, all members have access to advice from the fund. The funds provide advice regarding contribution levels, investment allocation decisions, and retirement drawdown. We include advice in this section, as most commonly members' initial advice contact is regarding investment option selection.

Only a small proportion of members utilise the advice services offered, although the large percentage of members holding the lifecycle or a single target risk option are generally benefiting from the structure of these options relating to their asset allocation and portfolio rebalancing needs.

Older members and self-directed members were more likely to access advice than all other members (**Figure 33**).

Figure 32. Growth allocation by investor type, 2018

Members with balances as of 30 June



Source: Vanguard using First State Super, Sunsuper, and VicSuper data, 2019.

Figure 33. Advice by investor type, 2018

All members fiscal year ended 30 June

Percentage of members accessing advice	<55	55+	All
Lifecycle	1%	3%	2%
Target risk	1	6	2
Self-directed	4	13	7
All	1%	6%	2%

Source: Vanguard using First State Super, Sunsuper, and VicSuper data, 2019.

Investment returns

Total rates of return reflect time-weighted investment performance and allow comparison of results to benchmark indices.

Estimated total rates of return

Estimated total rates of return were calculated by using the monthly unit price return of the investment and multiplying by the weight of the investment in the member's portfolio. These returns were summed to derive the member level monthly estimated total return. The estimated monthly returns were used to calculate the geometric mean for the 1 and 3-year periods.

This estimation process assumes the investment allocation was the same for the entire month, ignoring any intra-month cash flows, but provides a close approximation of the member-level returns over time.

Median estimated total returns calculated on this basis for fund members as a whole were 10.2% for the 1-year period ended 30 June 2018 (**Figure 34**). The median estimated total returns for fund members were 8.0% for the 3-year period ended 30 June 2018.

For reference purposes these member-level returns are compared against key asset class market indices and two composite reference portfolios at 50/50 and 70/30 growth/defensive asset allocations over the same 1 and 3-year periods. It should be noted that these market index and composite portfolio returns are before tax and fees, whereas the member-level returns are after taxes and fees.

Investment market conditions

Investment returns experienced by members were of course driven by the investment market experience during the period under review, as well as by particular investor styles and product selections.

Rising uncertainties about the future direction of global growth and an escalating trade war between the US and China have contributed to an increase in market volatility. Despite this, over the three year period, returns from global equities have remained robust, and were further boosted in unhedged terms by the weakening of the Australian dollar.

The Australian equity market continued to deliver solid performance over the period, underpinned by steady improvement in the growth outlook and low official interest rates.

In fixed interest markets, global bond yields started climbing as central banks have either commenced tightening, or at least signaled a move away from the very accommodative monetary policy settings seen over the past decade. The increase in yields represents a fall in value of existing bonds which damped bond returns.

The Reserve Bank of Australia (RBA) left cash rates on hold at a record low of 1.5% throughout most of the last three years, resulting in muted returns for investors' holdings in cash.

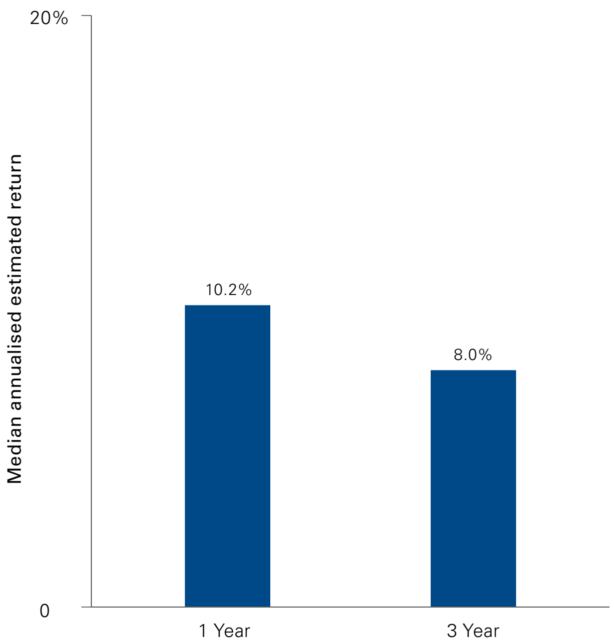
The listed property market delivered solid returns over the three years, though rising interest rates has resulted in higher volatility from the sector during the period.

Distribution of returns

As at 30 June 2018, 3-year estimated total annual returns were positive for nearly all fund members. There was significant variation in the dispersion of returns between different member types.

Members holding the lifecycle investment option had very little dispersion in estimated total returns. Total 3-year returns for lifecycle investors ranged from 7.4% per year for the 5th percentile to 8.6% for the 95th percentile, a difference of only 1.2 percentage points (**Figure 35**). For target risk investors the estimated total returns at the 5th-to-95th percentile difference was 1.8 percentage points. For self-directed investors the estimated total returns at the 5th-to-95th percentile were more widely dispersed with a difference of 7.6 percentage points.

Figure 34. Member estimated total rate of return rate, 30 June 2018



Annualised market returns as of 30 June 2018

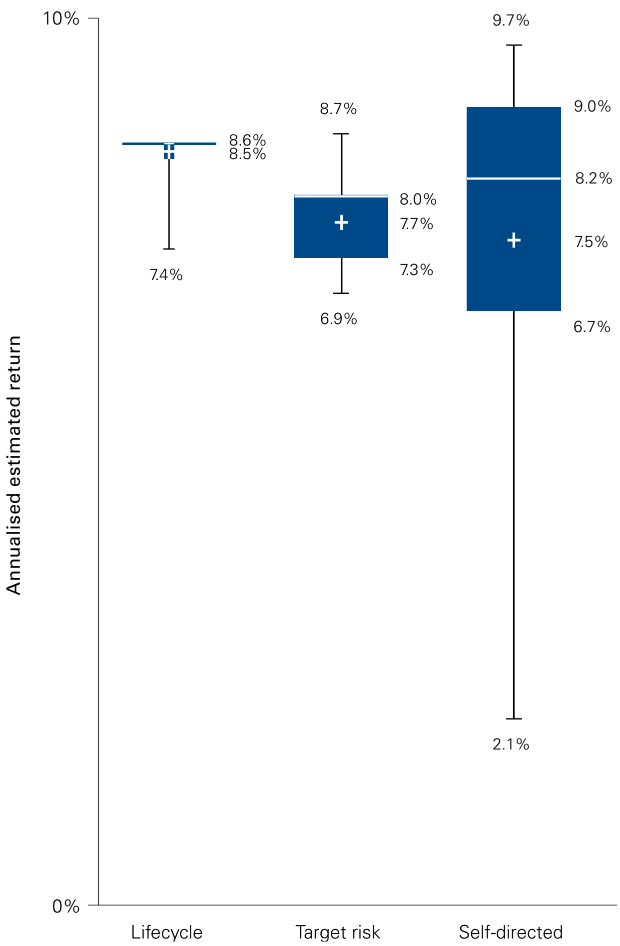
	1 year	3 years
Bloomberg AusBond Composite 0+ Yr index (Cash & Fixed interest)	3.1%	3.4%
S&P/ASX 300 Index (Australian shares)	13.2	9.1
MSCI World ex-Australia Index Net in $A (International shares)	15.0	9.7
50/50 Balanced*	7.9	6.6
70/30 Balanced*	10.2	7.7

* Balanced composites based on MSCI Australia Index (50%) and MSCI All Country World ex-Australia Index (50%) for shares; and Barclay Australian Aggregate Bond Index (40%) and Barclay Global Aggregate ex-Australian Bond Index Hedged A$ (60%) for fixed income.

Past performance is not a reliable indication of future performance.

Source: Vanguard, and Vanguard using First State Super, Sunsuper and VicSuper data, 2019

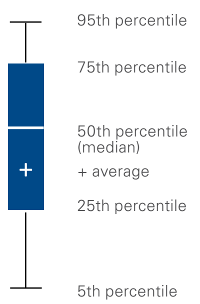
Figure 35. Distribution of 3-year estimated total returns by investor type, 30 June 2018



Note: Based on 588 thousand observations for lifecycle, 765 thousand observations for diversified, and 192 thousand observations for self-directed members.

Past performance is not a reliable indication of future performance.

Source: Vanguard using First State Super, Sunsuper, and VicSuper data, 2019.



How to read a box and whisker chart:

This box and whisker chart shows the range of outcomes. Plot values represent the 95th, 75th, 50th, 25th, and 5th percentile values. The average value is represented by a white + and the median value by a white line. An example of how to interpret the data in Figure 34 is: for the self-directed members 5% of members had estimated total return rates (ETRR) greater than 9.7%; 25% had ETRRs greater than 9.0%; half had ETRRs greater than 8.2%; 75% had ETRRs greater than 6.7%; 95% had ETRRs greater than 2.1%; and 5% had ETRRs less than 2.1%. The average ETRR was 7.5%

Dispersion of outcomes

These differences are more apparent when examining both return and risk outcomes in scatter plots.

For ease in presentation, we created a random sample of 1,000 members for each of the three investor types, reporting the dispersion of their member-level annualised returns against those of three major asset class indices, for the 3-year period ended 30 June 2018. These samples were in turn divided into members who were under age 55, and aged 55 and over.

The scatterplots each include about 1,000 observations, although in the case of lifecycle and target risk investors (**Figure 36**, panels A and B) there appear to be far fewer. The explanation is that while the numbers of observations in each sample are consistent, because the lifecycle and target risk members are invested in a homogeneous asset class mix the range of portfolio outcomes is naturally constrained. As members reach age 55, the lifecycle option begins the transitional period to a more conservative allocation.

Consequently, outcomes for lifecycle investors were tightly distributed in a small cluster between the major market indices, and slightly upward sloping reflecting a positive equity risk premium for younger members (below age 55) who share the same asset allocation. Older members (represented by green dots and in nearer-dated portfolios) are to the left and lower on the vertical scale, reflecting their incremental shift to more conservative portfolios at different ages.

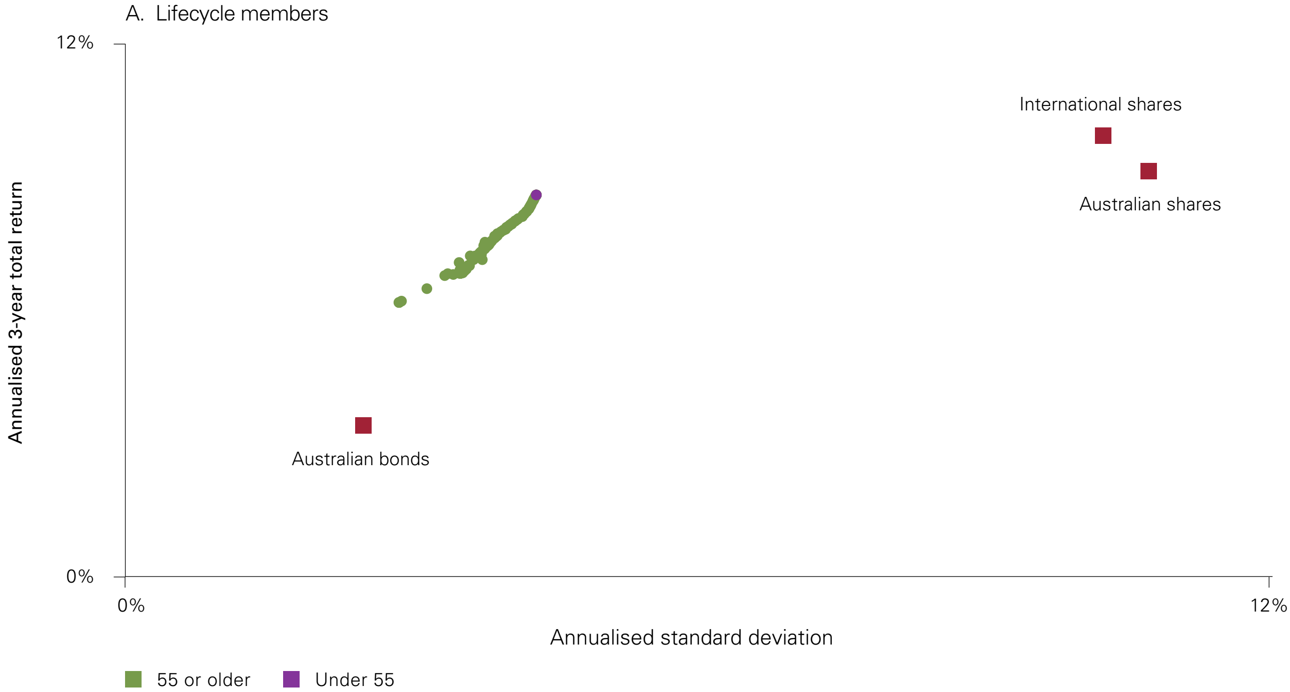
The results for target risk investors are more broadly dispersed, reflecting the fact that different diversified options have quite distinct asset allocations.

The greatest dispersion of risk return outcomes is among self-directed members making their own investment choices (**Figure 36**, panel C). In some cases these members achieved higher annualised returns and/or lower volatility than lifecycle and target risk members, but the more common result was lower annualised returns or higher volatility, and sometimes both.

Providing member investment choice is an important part of the superannuation system architecture to cater to members with specific investment needs and preferences. What the data shows is that successful long-term outcomes for the majority of members may be more likely to be driven by carefully designed default and diversified options.

Figure 36. Risk and return characteristics, 2015-2018

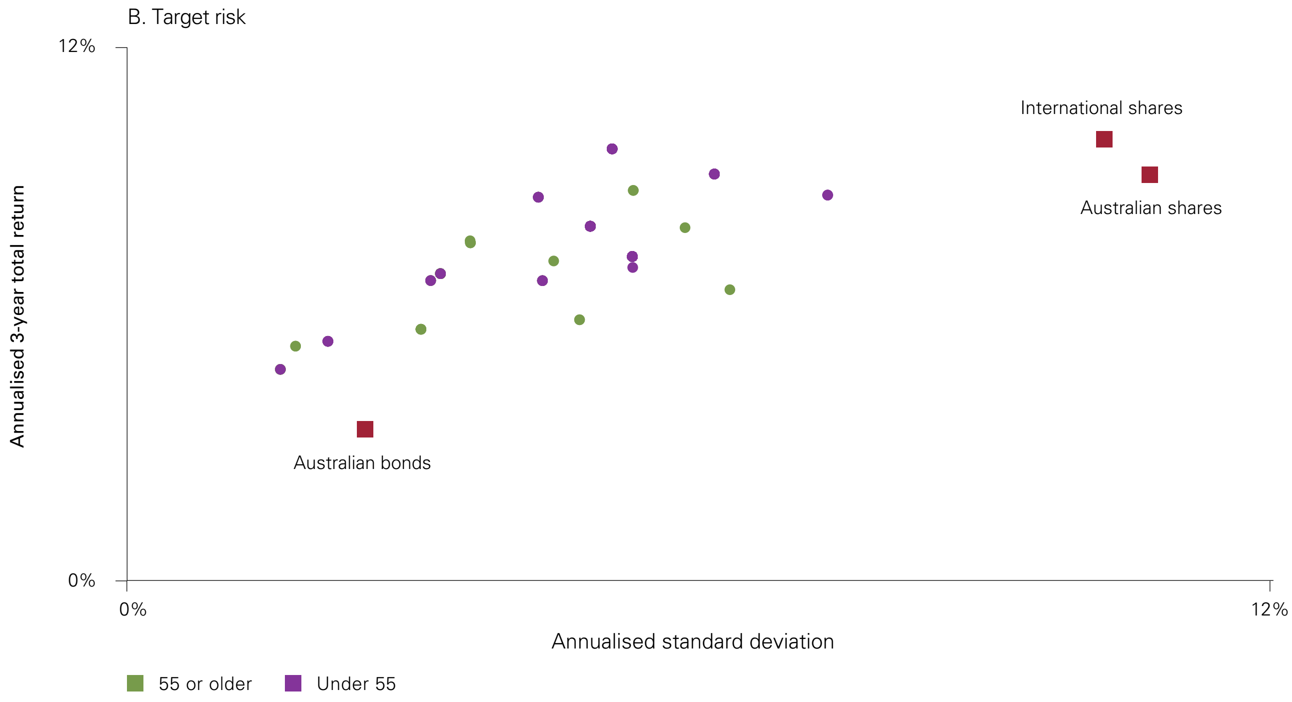
For the three-year period ended 30 June 2018

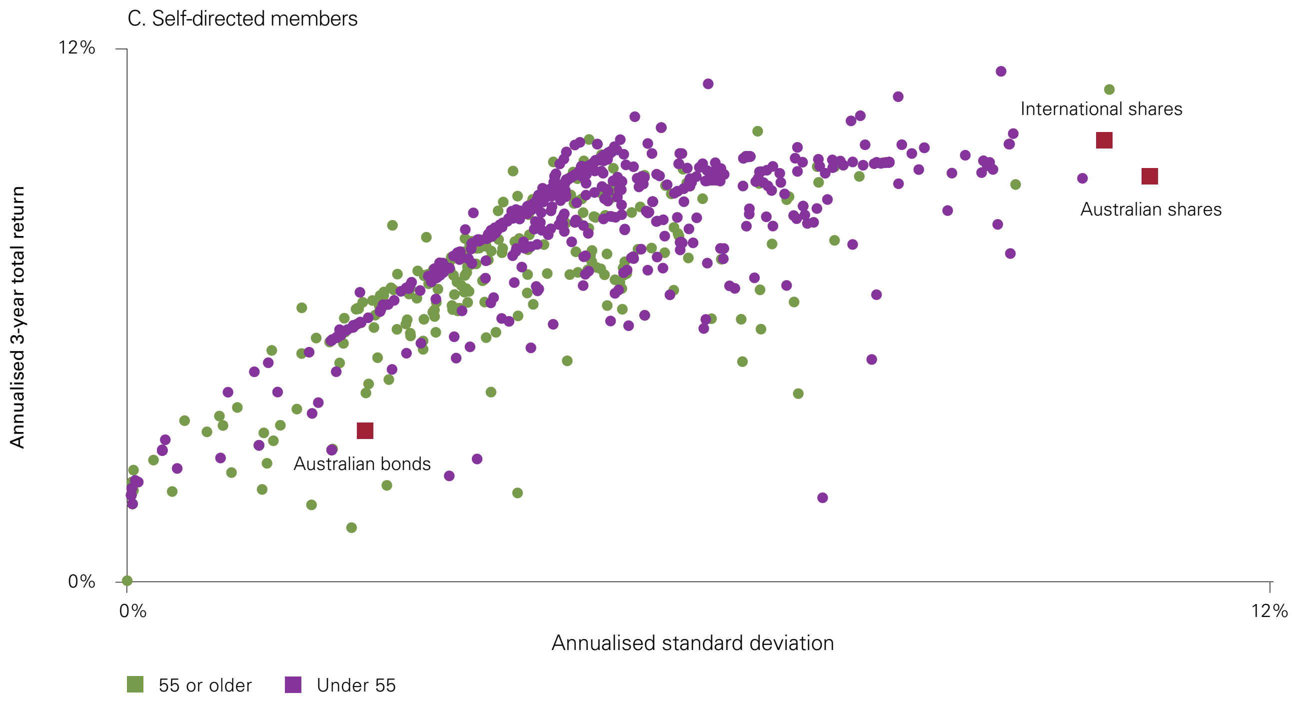


Note: Includes 1,000 random sample of member accounts drawn from respective samples.
Source: Vanguard using First State Super, Sunsuper, and VicSuper data, 2019.

Figure 36. Risk and return characteristics, 2015-2018 (continued)

For the three-year period ended 30 June 2018





Note: Includes 1,000 random sample of member accounts drawn from respective samples.
Source: Vanguard using First State Super, Sunsuper, and VicSuper data, 2019.

Switching activity

Member switching or trading activity is the movement of existing account assets from one fund investment option to another. Switching can signify a self-directed member seeking to adjust their market exposures as they grow older or when their account balance grows.

It might also be an indicator of their propensity to change their portfolio in response to short-term market volatility. Members have the ability to make switches on a daily basis.

Volume of switches

Despite the ongoing market volatility in the financial year ended June 2018, only 3% of members made one or more portfolio switches or trades during the year (**Figure 37**). As in prior years, most members did not switch.

Another measure of switching is the volume of dollars traded. We measure dollar volume movements as a fraction of total fund assets in order to scale them to growth in assets and growth in the underlying business. In effect, the fraction of assets traded is a measure of portfolio turnover.

In the fiscal year ended June 2018, switching activity represented 8.7% of average fund assets. On a net basis, 0.3% of assets were shifted from growth to defensive options in 2018, compared with a 0.1% shift from growth to defensive options in 2017.

Figure 37. Member switching

All members fiscal year ended 30 June

	2016	2017	2018
Members			
Percentage of members with a switch	2%	2%	3%
Percentage of fund assets			
Percentage switched	7.0%	6.1%	8.7%
Percentage moved to growth (out of growth)	(0.7)	(0.1)	(0.3)
Dollar flows (in millions)			
Dollars switched	$7,341	$7,511	$12,451
Dollars moved to growth (out of growth)	$(694)	$(90)	$(382)
S&P ASX 300 index volatility			
Percentage of days up or down 3% or more	1%	<0.5%	<0.5%
Percentage of days up or down 1% or more	37	13	6

Source: Vanguard, and Vanguard using First State Super, Sunsuper, and VicSuper data, 2019.

Self-directed investors had higher switching rates than lifecycle and target risk investors. Four percent of target risk investors and 16% of self-directed investors made switches in the fiscal year ended June 2018 (**Figure 38**). Less than 0.5% of lifecycle investors made switches. In some cases there is a fee charged to process switches.

Figure 38. Member switching by investor type

All members fiscal year ended 30 June

	2016	2017	2018
Lifecycle	<0.5%	<0.5%	<0.5%
Target risk	2	2	4
Self-directed	9	10	16

Source: Vanguard using First State Super, Sunsuper, and VicSuper data, 2019.

Types of switching activity

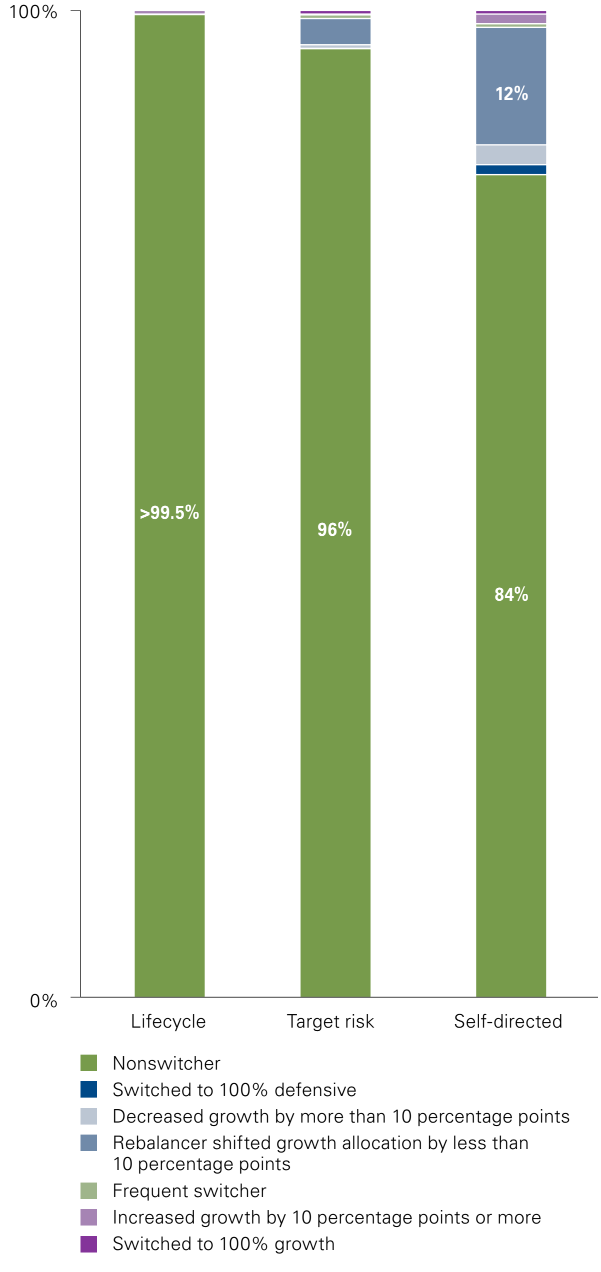
Among members who made switches in their accounts, the types of switches made by members are varied.

In the fiscal year ended June 2018, the most common switch made by target risk investors was to rebalance exposure to growth assets (**Figure 39**).

Self-directed investors may be expected to engage in higher levels of switching activity. However even among this group most members do not switch. Among the small proportion (16%) of self-directed members who did make switches, the most common reasons appear to be for portfolio rebalancing (defined a shift in growth asset allocation of less than 10 percentage points), and in some cases reducing growth assets in response to market volatility.

Figure 39. Member switching decisions by investor type, 2018

All members fiscal year ended 30 June



Source: Vanguard using First State Super, Sunsuper, and VicSuper data, 2019.

3 Accessing superannuation benefits

Members have a variety of avenues to transfer their accounts within the superannuation system during their accumulation phase, and to draw down their savings upon reaching their preservation age or entering retirement.

Transfer and withdrawal channels

Under Australia's choice of fund rules, most members are able to select any public offer fund or their own self-managed superannuation fund (SMSF) as the destination for future employer SG contributions. Members also have the ability to rollout all or part of their existing balances in a given fund to another eligible fund of their choice, even if their ongoing contributions are still being paid into the original fund.

Since 1999, all superannuation contributions and earnings have been required to be retained in the superannuation system until the member reaches their "preservation age", other than in cases of death, financial hardship, permanent incapacity or terminal illness. Preservation age has historically been age 55 (for those born prior to 1 January 1960), rising in increments to age 60 for those born on or after 1 January 1964.

These rules in combination generate transfers of pre-retired members' monies between different funds, but with those members' assets still remaining within the superannuation system.

A second broad category of transactions is payments made to individuals who have reached their preservation age; i.e., members who are drawing down on their savings and entering the decumulation phase. These include both lump sum withdrawals and regular income stream and pension payments. As noted previously, these withdrawals have a number of different access rules and thresholds applying depending on the member's age.

Fund rollouts

In the financial year ended June 2018, 4% of members had a full rollout to another super fund and a further 1% had a partial rollout (**Figure 40**).

Members rolling benefits out tended to be younger and had smaller account balances. It is likely that many of the rollouts were undertaken by members who had accounts with two or more different funds, stemming from multiple employment relationships. Account consolidation in this situation is generally encouraged as a means of avoiding fragmentation of savings and payment of multiple sets of fees, and has now been streamlined across the industry with new payment standards known as SuperStream. These standards became mandatory for all employers to remit their employees' SG contributions on 1 July 2015.

Few members had rollouts to SMSFs – less than 0.5% of members. These members tended to be in their late-40s or older and they had larger account balances.

Figure 40. Incidence of rollouts, 2018

Members with a balance during fiscal year ended 30 June

	Percentage of members	Percentage of account balance as rollout	Median rollout	Median member age
Rollout type				
Partial rollout to other superfund	1%	28%	$2,385	41
Full rollout to other superfund	4	100	$6,524	36
Partial rollout to self-managed superfund	<0.5%	78%	$60,000	49
Full rollout to self-managed superfund	<0.5	100	$32,905	49

Source: Vanguard using First State Super, Sunsuper, and VicSuper data, 2019.

Withdrawals

As noted above, generally members cannot access their superannuation balances prior to reaching their preservation age.

Precise details of eligibility to make drawdowns were not available due to overlapping eligibility rules, the possibility of accounts being held in different funds, and the need for members to make positive elections to access benefits. We constructed three mutually exclusive categories of members eligible to withdraw from their accounts, as follows:

- Pensioners. Members who have reached their preservation age, formally retired, and commenced income stream payments from their account are categorised as pensioners. These members can make lump sum withdrawals in addition to receiving regular pension payments.
- Retirement eligible. Members who have reached their preservation age and are receiving no SG contributions, and those members over age 65, whether receiving SG contributions or not are categorised as retirement eligible.
- Transition to retirement (TTR) eligible. Members who have reached their preservation age, are under age 65, and are receiving SG contributions are categorised as TTR eligible. Members in this category have the option of establishing income streams to supplement their wages, with a maximum limit of 10% of the account being able to be drawn down in any year up to age 65.

Pensioner members comprised 2% of all members at 30 June 2018 (**Figure 41**). The typical pensioner was age 69. Another 1% of members appear to be retirement eligible, although some of these members may not be retirement eligible if they are under age 65 and receiving

Figure 41. Incidence of retirement account drawdowns, 2018

Members with a balance during fiscal year ended 30 June

	Percentage of all members	Percentage of eligible members using	Median percentage of member account balance withdrawn	Median withdrawal	Median member age
Drawdown type					
Pensioner	2%	99%	8%	$21,321	69
Retirement eligible	1	16	64	$12,000	68
Transition to retirement eligible	1	12	9	$12,447	62

Source: Vanguard using First State Super, Sunsuper, and VicSuper data, 2019.

SG contributions into a different fund. The typical retirement eligible member was age 68. Finally, 1% of members were TTR eligible, having reached their preservation age and being in receipt of SG contributions. The typical transition to retirement eligible member was age 62.

Pensioner members withdrew only 10% of aggregate available account balances in 2018 (**Figure 42**). In each of the last three years, more than 90% of pensioner account balances remained in the fund. The typical pensioner withdrew only 8% of their account balance

Similarly, retirement eligible members withdrew or rolled out 8% of aggregate available account balances in 2018 (**Figure 43**). The typical retirement eligible member choosing to make a withdrawal took out 64% of their account balance in this fund. In the case of members in this group below age 65 who made lump sum withdrawals, this will have required satisfaction of the condition of release that the member had permanently retired from the workforce, with the exception of some members who may have left their job and joined a new employer after age 60. After reaching age 65 there is no requirement to permanently retire from the workforce to obtain access to superannuation benefits.

Over the past three years the percentage of retirement eligible members making a withdrawal or rollout has varied between from 14% and 18%. However, the available assets retained in the fund has remained fairly stable with about 90% of member balances retained in the fund.

Figure 42. Pensioner drawdown trend

Pensioner members with a balance during fiscal year ended 30 June

	2016	2017	2018
Percentage of pensioner members			
Remain in fund with no drawdowns	1%	1%	1%
Rollover	<0.5	<0.5	<0.5
Full withdrawal	<0.5	<0.5	<0.5
Withdrawal and remain in fund	<0.5	<0.5	<0.5
Retirement income stream	99	99	99
Percentage of pensioner assets			
Rollover	<0.5%	<0.5%	<0.5%
Full withdrawal	<0.5	<0.5	<0.5
Withdrawal and remain in fund	<0.5	<0.5	<0.5
Retirement income stream	9	10	10
Total percentage withdrawn	**9%**	**10%**	**10%**
Percentage retained in fund	**91%**	**90%**	**90%**

Source: Vanguard using First State Super, Sunsuper, and VicSuper data, 2019.

Figure 43. Retirement eligible withdrawal trend

Retirement eligible members with a balance during fiscal year ended 30 June

	2016	2017	2018
Percentage of retirement eligible members			
Remain in fund with no drawdowns	82%	86%	84%
Rollout and remain in fund	1	1	1
Rollout	3	1	2
Full withdrawal	6	4	4
Withdrawal and remain in fund	8	8	9
Total percentage of members with a withdrawal or a rollout	**18%**	**14%**	**16%**
Percentage of retirement eligible assets			
Rollout and remain in fund	2%	2%	1%
Rollout	3	1	2
Full withdrawal	2	1	1
Withdrawal and remain in fund	4	4	4
Total percentage withdrawn	**11%**	**8%**	**8%**
Percentage retained in fund	**89%**	**92%**	**92%**

Source: Vanguard using First State Super, Sunsuper, and VicSuper data, 2019.

In the year ended 30 June 2018, 13% of members in the TTR eligible group availed themselves of the ability to draw down TTR payments (**Figure 44**). However, the total percentage of assets withdrawn was around 3%. The typical TTR eligible member choosing to supplement their wages took out 9% of their account balance in this fund. These withdrawals included regular drawdowns from TTR pensions, and other payments such as non-preserved benefits accrued prior to 1 July 1999.

Figure 44. Transition to retirement members with a balance during fiscal year ended 30 June

Transition to retirement members with a balance during fiscal year ended 30 June

	2016	2017	2018
Percentage of TTR eligible members			
Remain in fund with no drawdowns	88%	89%	87%
Rollout and remain in fund	2	2	2
Withdrawal and remain in fund	3	2	3
Income stream payment	7	7	8
Total percentage of members with a withdrawal or a rollout	**12%**	**11%**	**13%**
Percentage of TTR eligible assets			
Rollout and remain in fund	2%	1%	1%
Withdrawal and remain in fund	1	1	1
Income stream payment	1	1	1
Total percentage withdrawn	**4%**	**3%**	**3%**
Percentage retained in fund	**96%**	**97%**	**97%**

Source: Vanguard using First State Super, Sunsuper, and VicSuper data, 2019.

Access methods and the internet

Within superannuation funds, a variety of channels have evolved to foster member knowledge of and engagement with retirement savings and to facilitate savings, investment, and withdrawal decisions – including telephone, email, mail and internet access. Member access to superannuation accounts is quite varied, ranging from those who do not contact their provider at all in a given year to those who do so multiple times a month.

Frequency of account access

In the fiscal year ended June 2018, 68% of members made no contact with their fund regarding their superannuation account (**Figure 45**).

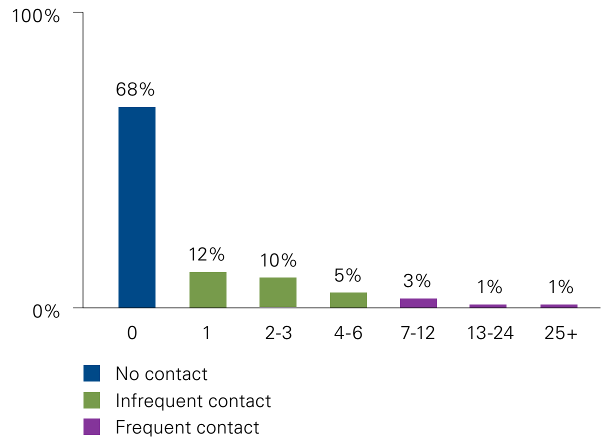
The remaining 32% did contact the fund via one or more channels in the year ended June 2018. About one-quarter of total members contacted the fund intermittently, with between one and six interactions over the course of the year through telephone, email, mail, or the internet.

A total of 5% of members contacted the fund frequently. This group, using all channels, contacted the fund at least monthly, if not two or three times a month or more. This level of contact may seem high. However, a brief logon to examine account balances constitutes a unique contact event for those using the internet. On average those members contacting the fund had six contacts in 2018 (**Figure 46**).

Broken down by investor type, lifecycle members were least likely to contact the fund (**Figure 47**). Nearly two-thirds of all target risk members did contact the fund in 2018 as did 4 in 10 self-directed members.

Figure 45. Member contact frequency, 2018

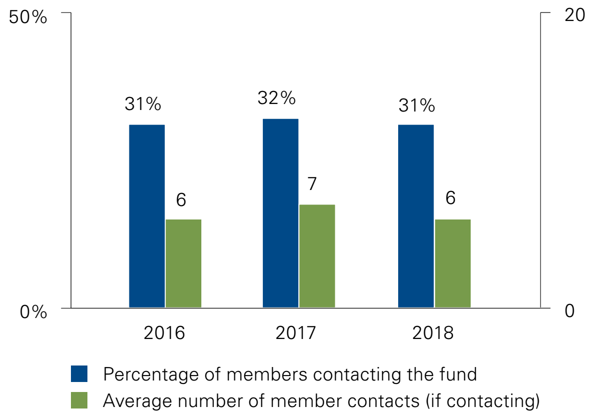
All members fiscal year ended 30 June



Source: Vanguard using First State Super, Sunsuper, and VicSuper data, 2019.

Figure 46. Member contact trend

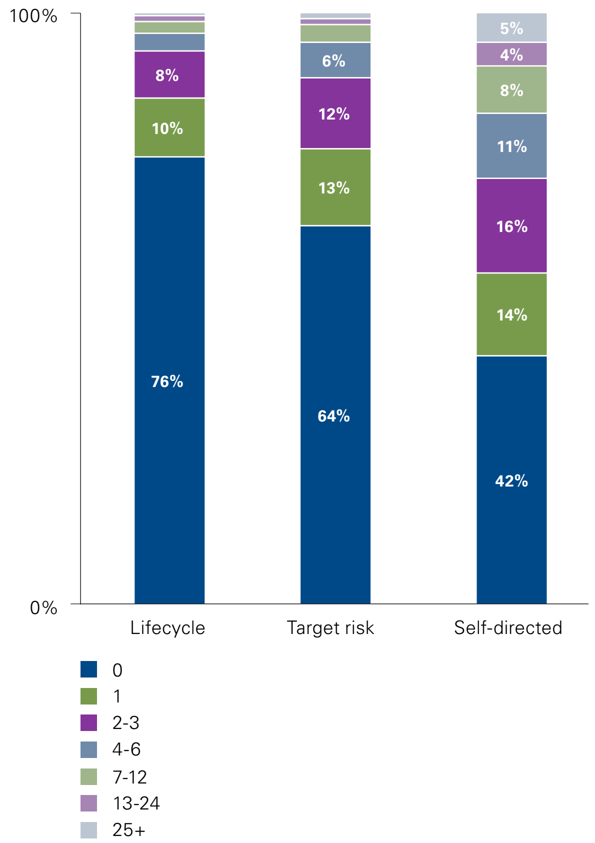
All members fiscal year ended 30 June



Source: Vanguard using First State Super, Sunsuper, and VicSuper data, 2019.

Figure 47. Member contact by investor type, 2018

All members fiscal year ended 30 June



Source: Vanguard using First State Super, Sunsuper, and VicSuper data, 2019.

Types of account access

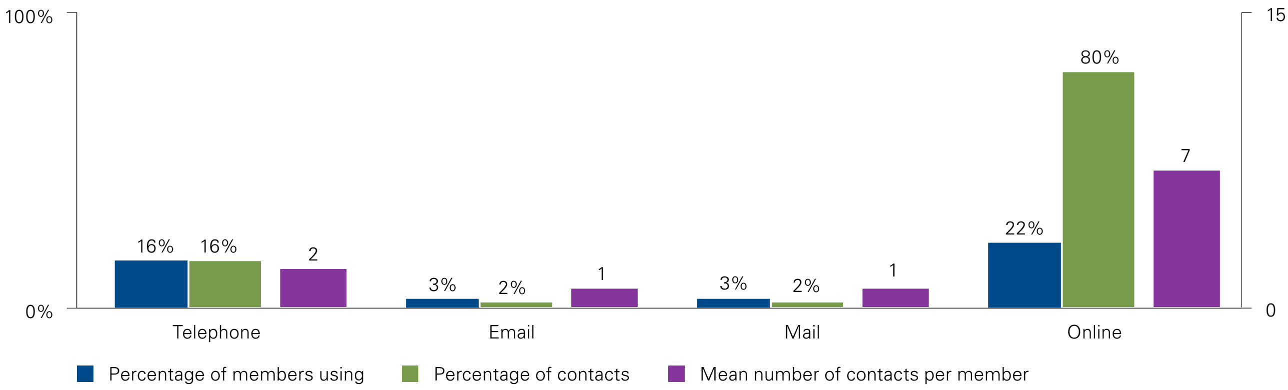
Members have four access channels at their disposal: toll-free phone calls, email, mail, and the internet. When measured in terms of total member use, the internet and telephone calls were the most widely used channels in 2018 – with 22% of members using the internet and 16% a telephone call (**Figure 48**).

In terms of total contacts, the internet clearly dominates. Web interactions accounted for 80% of all member contacts in 2018. Members using this contact method averaged seven web interactions per year.

Contact frequency also varies by member demographics (**Figure 49**). Women, younger members and members with shorter fund tenure were most likely to have no contact in 2018; while men, older members and members with longer fund tenure were more likely to contact the fund frequently. Members with higher salaries and account balances also contacted the fund more frequently.

Figure 48. Account contact methods, 2018

All members fiscal year ended 30 June



Source: Vanguard using First State Super, Sunsuper, and VicSuper data, 2019.

Figure 49. Member demographics by contact frequency, 2018

All members fiscal year ended 30 June

	No contact	Infrequent contact	Frequent contact
Percentage of members	68%	27%	5%
Percentage female	53%	57%	47%
Percentage male	47	43	53
Median age	38	44	57
Median fund tenure	6	10	11
Median salary, members with SG contributions	$9,992	$49,780	$120,379
Median account balance	$41,768	$57,919	$65,693

Source: Vanguard using First State Super, Sunsuper, and VicSuper data, 2019.

Methodology

The anonymised member data used in this report was provided by First State Super, Sunsuper, and VicSuper. These three funds are all public offer superannuation funds with office headquarters in Sydney, Brisbane and Melbourne respectively. Currency references are in Australian dollars unless otherwise indicated.

Fund members

This universe consists of about 2.3 million members as of 30 June 2018. A subset of these members, about 1.4 million, received SG contributions in 2018.

Member salary

We derive salary by using the level of the mandatory SG contributions adjusted for the 15% tax.

Estimated total rates of return

Estimated total rates of return were calculated at the member level by using the monthly return of the investment and multiplying by the weight of the investment in the member's portfolio. These returns were summed to derive the member level monthly estimated total return. The estimated monthly returns were used to calculate the geometric mean for the 1 and 3-year periods. This estimation process assumes the investment allocation was the same for the entire month, and ignores any monthly cash flows.

Withdrawal eligible members

We constructed three categories of members eligible for withdrawals: pensioners, retirement eligible, and, transition to retirement eligible. Pensioners are those members who have completed the attestations to declare themselves retired and have initiated income streams from their fund account. Members who have reached their preservation age with no SG contributions, and those members over age 65 with or without SG contributions, are categorised as retirement eligible. Finally, members with SG contributions who have reached their preservation age are categorised as transition to retirement eligible.

How America Saves

Initially published in 2000, How America Saves is Vanguard's annual defined contribution (DC) benchmarking publication in the US. As the leading provider of DC investments for plan participants in the US, Vanguard has long recognised the value of such a publication for employer plan sponsors, consultants and policy makers. How Australia Saves is the first sister publication to be produced by Vanguard. This publication builds upon other Vanguard defined contribution research produced by the Vanguard Centre for Investor Research.

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