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About Industry Super Australia

Industry Super Australia (ISA) is a research and advocacy body for Industry Super Funds. ISA manages collective projects on behalf of a number of industry super funds with the objective of maximising the retirement savings of over five million industry super members.

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</tbody>
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Executive summary

The role of industry super funds in the national economy has grown and evolved over 30 years, underpinned by the same clear member-benefit ethos, distinguished by how they invest and the transformative impact it has on Australians’ standard of living as they retire.

The approach industry super funds take continues to serve more than five million members well, resulting in superior investment performance for the sole benefit of their retirement savings, not shareholders.

And by extension, all Australians benefit. Industry super funds’ investment approach delivers well-managed portfolios that strengthen the national economy by creating jobs, deepening and diversifying the national pool of savings, deploying productive capital and building nationally significant infrastructure.

Indeed, over the next three years industry super funds will invest a forecast $19.5 billion in projects that will create over 200,000 jobs. A recent public awareness campaign underpinned by these findings is showing members how their retirement savings are being invested to help stimulate the economy and create jobs, while delivering good returns to grow their retirement balance.

The economic benefits go beyond job creation and save the Federal budget almost $3 billion a year in higher tax receipts and lower interest repayments alone.

The present study is an extension on Industry Super Australia’s paper published in 2016 - *Industry Super and the Australian Economy*.

This updated paper provides a strengthened case for stable policy settings to stimulate investment that generates good returns for members while creating jobs in a more productive economy. Even more important in the challenging world we face because of the COVID-19 pandemic.

The paper also restates how rethinking the process for delivering major public projects would save tax-payers money and get projects going quicker.

There is an acknowledgement that the years ahead will look different to those just passed, and so there is a new examination of emerging investment opportunities in agriculture, affordable housing, business lending, private equity (including venture capital) and retirement living.

In a relatively short period, the retirement savings of Australians, and especially those in industry funds have become critical components of the national economy that can either be harnessed or ignored.

This paper will help guide policy discussion and decision making by examining new ways to drive economic expansion so funds can continue to generate the benefits of scale to members.
through higher returns and lower fees, while never losing sight of the purpose of super, which is to delivering working Australians a better standard of living in their retirement.

**Summary of Key Findings**

The following are the main messages of Super in the Economy 2020.

**Outperformance**

- Industry super funds’ outperformance has added an estimated $151 billion in total to national superannuation savings over the 23 years.
- A member is estimated to be $30,250 better off on average with an industry super fund account.
- Industry funds have outperformed retail funds by 1.8 per cent on average over the last 23 years (to June 2019) and outperformed self-managed super funds (SMSFs) by 1.0 per cent on average over 10 years (to June 2018).
- A more diversified asset allocation has protected members’ savings during downturns and helped recover their balances in the emerging upturn.

**Economic and fiscal benefits**

- Industry super funds’ investments have directly contributed to economic growth, supporting higher productivity and delivering benefits to all Australians.
- Industry super fund investment saves the Federal budget $2.7 billion through higher tax receipts, lower pension payments and lower interest costs.
- Higher capital expenditure delivers positive productivity outcomes over the long-term, lifting living standards and real income.
- Higher wages lead to higher superannuation savings, resulting in greater national savings, which funds further investments and reduces our reliance on foreign debt.
- A long-term investment horizon (with counter-cyclical strategy) acts as an automatic stabiliser during periods of financial market volatility.
- The larger pool of funds under management enables investments across the Australian economy, particularly in niche areas like technology, skills and start-ups.

**Output and job gains**

- A survey of nine industry funds suggests forward CAPEX spending totaling $33 billion.
- $19.5 billion of this will create over 200,000 jobs between 2020 and 2023.
- Investment pipeline will provide a baseline of around 110,000 FTE jobs potentially rising to 176,000 FTE jobs per year in the next five years.¹
- This spending has already generated at least 111,257 jobs in the last financial year for which we have data (2018-19).

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¹ CAPEX spending attributed to funds’ share of assets (including assets held via pooled funds such as IFM Investors and ISPT) and expenditures estimates are largely for existing assets.
Diversification opportunities
- Agriculture.
- Affordable housing.
- Business lending.
- Private equity and venture capital.
- Retirement living and aged care.

Policy suggestions
1. Improve the default safety net by establishing effective consumer protections and stable policy settings.
2. Enshrine super’s singular retirement objective into law.
3. Stimulate infrastructure investment by providing clear priorities, progressing more projects to be ‘shovel-ready’ and improve the procurement processes (via the Building Australia Model).
4. Target stimulus measures at construction projects with the biggest impact multipliers in terms of jobs and output (especially in the COVID-19 context).
5. Improve strategic policy engagement between layers of governments and long-term investors.
Important notes

Conservative approach

Our baseline analysis tabulates on the direct impacts and upstream indirect benefits from capital expenditure by funds on their pipeline of projects. As such our economic impact estimates constitute a lower-bound estimate. Downstream benefits flowing from household consumption which stems from wages are separately estimated and are indicative of an upper bound.

We are applying the same cautious approach we adopted back in our 2016 report. However, we recognise that higher impact multipliers are possible, even probable in certain circumstances, when labour markets are characterised by more slackness. This is certainly true of most regional labour markets in Australia in 2020.

In recognition of alternative and less conservative approaches, we have provided additional analysis on these scenarios in the attachment found at the back of this report.

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2 The baseline estimates use ‘simple multipliers’ capturing the upstream benefits from project CAPEX, whilst excluding downstream effects related to household consumption-induced effects via wage payments. This approach is supported by the Productivity Commission and other leading economic agencies around Australian governments as explained below.
COVID-19

In 2020, the COVID-19 pandemic has represented for Australia the most significant health and economic challenge in a long time.

This paper recognises the emerging economic context, and challenges faced by governments at all levels, chief among them the uncertainty that exists in the global health and economic outlooks.

The resulting near-term economic challenges are not the primary focus of this paper however (which adopts a longer-term objective), but it does draw on the lessons and observations from market downturns such as this and the GFC.

Among those lessons the paper shows the central role that funds play as economic shock absorbers to recapitalise markets and soften the downturn. This highlights the importance of a strong super system built on core principles of compulsion, universality and preservation.

Here it is also worth recognising the non-financial contribution funds make during a downturn as they work hard to support their members seeking help and assistance during trying times.

APRA Data

The paper draws in part on APRA data to June 2019 because this is the last available and creates a neat four-year period since the last report.

The objective is to provide a long-term view, which is enabled this data range which does not include the 2020 market downturn caused by the COVID-19 pandemic.
1. Introduction

In this section, we examine the current structure of the entire superannuation sector. This includes assets under management and the holdings of unlisted assets as of June 2019. The analysis includes APRA regulated sectors – industry, retail, corporate and public, ATO regulated SMSFs and the Future Fund. We finish with an outline of the rest of the paper.

1.1 Assets under management

The total of superannuation assets in Australia as of June 2019 is just over $2.86 trillion. When the Future Fund is included, it is $3.02 trillion. This represents an increase of $842 billion (42 per cent) and $887 billion (41 per cent) respectively since June 2015 as presented in the last Super in the Economy report in 2016.

- Not-for-profit funds consist of around 45 per cent of total superannuation assets, where industry super funds represent around $719 billion (25 per cent), public sector funds represent around $520 billion (18 per cent) and corporate sector funds account for 2 per cent of the total.
- For-profit retail funds represent $626 billion (22 per cent) of the total assets.

Table 1 – Superannuation assets excluding and including Future Fund, June 2019

<table>
<thead>
<tr>
<th>Superannuation</th>
<th>$bn</th>
<th>Share %</th>
<th>Sector</th>
<th>$bn</th>
<th>Share %</th>
</tr>
</thead>
<tbody>
<tr>
<td>SMSFs</td>
<td>730.6</td>
<td>25.5%</td>
<td>SMSFs</td>
<td>730.6</td>
<td>24.2%</td>
</tr>
<tr>
<td>Industry</td>
<td>718.7</td>
<td>25.1%</td>
<td>Industry</td>
<td>718.7</td>
<td>23.8%</td>
</tr>
<tr>
<td>Retail</td>
<td>625.9</td>
<td>21.9%</td>
<td>Retail</td>
<td>625.9</td>
<td>20.7%</td>
</tr>
<tr>
<td>Public Sector</td>
<td>520.1</td>
<td>18.2%</td>
<td>Public Sector</td>
<td>520.1</td>
<td>17.2%</td>
</tr>
<tr>
<td>Corporate</td>
<td>58.7</td>
<td>2.1%</td>
<td>Future Fund</td>
<td>162.2</td>
<td>5.4%</td>
</tr>
<tr>
<td>Other</td>
<td>208.3</td>
<td>7.3%</td>
<td>Other</td>
<td>208.3</td>
<td>6.9%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>2,862.2</strong></td>
<td><strong>100%</strong></td>
<td><strong>Total</strong></td>
<td><strong>3,024.8</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>


Note: Other includes single-member ADFs, small APRA funds, exempt schemes and balance of life office statutory funds.

Unlisted assets include private equity (shares), corporate debt, property and infrastructure. These assets are not listed on an exchange such as the Australian Securities Exchange. Although these assets are categorised as unlisted, they vary significantly in terms of the asset type, and risk and return characteristics.
Estimates produced by Rice Warner showed total superannuation funds under management projected for 2034 are expected to grow to around $7 trillion (nominal). The analysis also forecasted the continued growth of the superannuation sector to exceed the size of the banking sector. Rice Warner expects in five years’ time, there will be at least nine funds with more than $100 billion in funds under management (FUM).4

Table 2 – Projected superannuation assets, excluding and including Future Fund, 2034

<table>
<thead>
<tr>
<th>Superannuation</th>
<th>Superannuation $bn (Nominal)</th>
<th>Share %</th>
<th>Superannuation and Future Fund $bn (Nominal)</th>
<th>Share %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not-for-Profit</td>
<td>3,467.8</td>
<td>49.5%</td>
<td>Not-for-Profit</td>
<td>3,467.8</td>
</tr>
<tr>
<td>Corporate</td>
<td>70.1</td>
<td>1.0%</td>
<td>Corporate</td>
<td>70.1</td>
</tr>
<tr>
<td>Retail</td>
<td>1,765.4</td>
<td>25.2%</td>
<td>Retail</td>
<td>1,765.4</td>
</tr>
<tr>
<td>SMSFs</td>
<td>1,702.4</td>
<td>24.3%</td>
<td>SMSFs</td>
<td>1,702.4</td>
</tr>
<tr>
<td>Total</td>
<td>7,005.7</td>
<td>100%</td>
<td>Total</td>
<td>7,344.8</td>
</tr>
</tbody>
</table>


Note: The Future Fund asset projection was based on investment return assumption of 6 per cent per annum by Mercer (Future Fund Target Asset Level Declaration). This annual growth rate is lower than the 7 per cent per annum used by Rice Warner in its Superannuation Market Projection Report 2019. From 1 July 2026, we assume that the government will start drawing down on Future Fund assets by an initial amount of $4 billion per annum, growing at 1.5 per cent faster than the annual asset growth rate.

1.2 Portfolio allocations

As at June 2019, the portfolio holdings of industry super funds included the following allocations:

- 47 per cent to listed equity (consisting of 26 per cent for international equity and 21 per cent for Australian equity);
- 19 per cent to fixed income assets;
- 16 per cent to infrastructure and private equity and others;
- 10 per cent to property (consisting of 8 per cent for unlisted and 2 per cent for listed); and
- 8 per cent to cash.

Figure 2 – Industry fund asset allocation, as at June 2019

The typical industry super fund allocation towards unlisted infrastructure would place them amongst the highest in the world. According to the latest OECD survey of global pension funds, AustralianSuper, Hostplus and Cbus in 2017, have allocated more than 8 per cent of their total assets towards unlisted infrastructure as shown in Figure 3, placing them near the top of the list along with large pension funds from countries such as the United Kingdom, Canada and Denmark. The average level of allocation towards unlisted infrastructure amongst surveyed funds was 4.3 per cent.⁵

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⁵ The average allocation was calculated using asset weighted average of the 49 global pension funds found in Table 13 of the OECD survey publication. Asset values are denominated in US dollars in 2017. OECD 2019, ‘Annual Survey of Large Pension Funds and Public Pension Reserve Funds’, OECD. Website accessed on 26 May 2020, URL: https://www.oecd.org/finance/survey-large-pension-funds.htm
1.3 Property and infrastructure fund holdings

The compulsory superannuation savings pool has supported strategic investments in real assets such as infrastructure, property, IT, renewables and other important domestic industries as shown in Figure 4 below. The superannuation sector’s ownership of real ‘unlisted’ assets has steadily risen (with a notable slowdown during the China Boom) compared to other domestic sources of funds since the introduction of compulsory superannuation in 1992.
The total stock of unlisted physical assets (property and infrastructure) held by super funds in Australia was around $275.2 billion, of which we estimate that around $225.9 billion were located domestically, as at 30 June 2019, based on APRA and ATO statistics (see Table 3).

Of the unlisted property assets totalling $198.9 billion, nearly $178.6 billion was held in domestic property. SMSFs accounted for the largest ownership share of unlisted property at 50.2 per cent, worth $99.7 billion. Almost all of SMSFs’ investments in unlisted property were held domestically. Interestingly, SMSF property tends to be smaller scale investment in existing housing rather than large new housing stock. Industry super funds hold around $55.1 billion in physical property (28 per cent of total), of which an estimated $44.1 billion is in domestic property. The public sector’s unlisted property investments were estimated at $31 billion or 16 per cent of total unlisted property investments. The corporate and retail sector’s investments in unlisted property were limited compared to the rest of the sector, sitting at $4.2 billion and $8.9 billion, respectively.

In terms of unlisted infrastructure investment, industry super funds were by far the largest player in this asset class. Industry super funds have invested nearly $49.6 billion in unlisted infrastructure (65 per cent of total superannuation investments in this asset class), of which $32.2 billion was in domestic projects. Public sector funds invested $21.7 billion in unlisted infrastructure (28 per cent of total superannuation investments in this asset class), with around $12.1 billion domestic holdings. Corporate and retail sector’s unlisted infrastructure investments were a lot more limited at $1.9 billion and $3.1 billion, respectively. SMSFs did not participate in this investment activity, perhaps due to expertise, investment beliefs, advisor competence and or inefficiency of the SMSF structure (i.e. scale or collective action problems).
Table 3 – Allocations to unlisted property and infrastructure by sector, June 2019

<table>
<thead>
<tr>
<th></th>
<th>Unlisted property</th>
<th>Unlisted infrastructure</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Domestic</td>
<td>Overseas</td>
</tr>
<tr>
<td>Retail</td>
<td>7.1</td>
<td>1.8</td>
</tr>
<tr>
<td>SMSFs</td>
<td>99.3</td>
<td>0.5</td>
</tr>
<tr>
<td>Industry</td>
<td>44.1</td>
<td>11.0</td>
</tr>
<tr>
<td>Public sector</td>
<td>24.8</td>
<td>6.2</td>
</tr>
<tr>
<td>Corporate</td>
<td>3.3</td>
<td>0.8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>178.6</strong></td>
<td><strong>20.3</strong></td>
</tr>
</tbody>
</table>


Note: SMSFs data is at 30 June 2019. Domestic unlisted property is assumed to account for 80 per cent of total unlisted property investments in APRA-regulated funds. This is probably a significant over statement based on preliminary data reviewed as part of this study.

The total stock of unlisted property and infrastructure assets held by the Future Fund is shown below. As of June 2019, the Fund held $10.9 billion in property assets, of which 72 per cent are unlisted. The Fund also had $12.2 billion worth of capital invested in Infrastructure (and Timberland), comprising 76.9 per cent in unlisted assets and 23.1 per cent in listed assets.

Table 4 - Future Fund allocations to unlisted property and infrastructure, June 2019

<table>
<thead>
<tr>
<th></th>
<th>Unlisted property</th>
<th>Unlisted infrastructure</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Domestic</td>
<td>Overseas</td>
</tr>
<tr>
<td>Future Fund</td>
<td>0.61</td>
<td>7.24</td>
</tr>
</tbody>
</table>


Note: The proportion of domestic vs. overseas unlisted property was based on unlisted property assets in domestic vs. foreign currencies shown under Collective Investment Vehicles (directly and indirectly held) in Note 7 – Investments of the 2018-19 Annual Report.

It is very difficult to pin down the actual stock of physical assets held separately by the public and private sector within Australia as no authoritative official estimates of the total stock exists. ISA has attempted to infer lower boundaries for the national stock of public

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6 The Productivity Commission (2014) has estimated the stock of public infrastructure and buildings using data from the ABS publication Government Finance Statistics 5512.0. and National Accounts S204.0. They found that for 2011-12, Australian governments owned ‘infrastructure and other construction’ assets valued at $614 billion. This mainly comprised economic infrastructure, such as road, rail, energy and water assets. Governments owned a further $263 billion worth of buildings, much of which is social infrastructure, including schools and hospitals. These data exclude public infrastructure that is owned or leased long-term by the private sector (including electricity and telecommunications assets, airports, ports, toll roads, schools and hospitals), which they valued at around $260
infrastructure and property (publicly and privately held) by studying sectoral capital stock data published by the Australia Bureau of Statistics (ABS).\(^7\)

- Economic infrastructure (the physical structures from which goods and associated services are derived by individuals, households and industries, including rail, roads and public transport, water and energy networks, ports and airports) were valued at around $872 billion by 30 June 2019 of which most was owned by the public sector (around 70 per cent) split roughly in equal shares between the general government and public non-financial corporations.\(^8\)

- Social infrastructure (the facilities and equipment used to satisfy education, health and community service needs, such as hospitals and schools) were valued at around $418 billion by 30 June 2019 of which again the vast majority (we assume in excess of 85 per cent) are still owned by the public sector.

- Commercial and residential buildings were valued at $1.6 trillion and $2.2 trillion respectively (this includes around $100 billion in publicly owned assets) by 30 June 2019 and a further $202 billion in public assets were devoted directly to the ‘administration and safety’ sector.

Based on the measure presented above, it seems that superannuation funds hold up to 12 per cent (approximately) of the equity shares in the stock of public infrastructure and commercial property held in private hands, with the bulk of this held by industry super funds.\(^9\) This is up from 10 per cent reported in 2016.

### 1.4 What follows below

In section 2, structural differences between industry segments are examined to identify the key drivers of higher returns earned by industry super funds, with unlisted asset investment emerging as a decisive factor. This is followed by an analysis on the economic uplift of higher returns for super fund members.

In section 3, we examine the broader economic impacts of portfolio allocation towards real assets, focusing higher capital expenditure, improved productivity, lower reliance on foreign debt and super’s stabilising role during periods of market volatility. This will be followed by an outline of benefits to the Federal budget from industry super funds’ investment activities. The benefits come in the form of higher tax receipts and lower cost of debt.

In section 4, we consider investment opportunities in alternative asset classes with the potential for both strengthening economic resilience and delivering stable, long-term returns to members.

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\(^9\) Total superannuation sector holdings of public infrastructure ($47.3 billion / $261.5 billion) and commercial property ($178.6 billion / $1.6 trillion) held in private hands.
The study concludes by considering policy suggestions: supporting the need for the preservation and stability of policy settings for the default system; enshrining super’s singular retirement objective into law; increasing the outlays on public infrastructure by more effective prioritisation of projects; targeting economic stimulus measures (both during and after the Covid-19 pandemic) at construction projects most likely to maximise jobs and growth in the economy; and, encouraging greater policy engagement by industry super funds to maximise member benefits and economic well-being. These ideas are intended to provide practical public policy direction for Australia’s maturing superannuation system in both the broad and direct interests of industry super fund members.
2. Member impacts

In this section, we examine the key attributes behind industry super funds’ long-term outperformance. Factors such as asset allocation, the use of collective vehicles to extract a management premium and maximising benefits of scale contribute to above average returns. These efficiency gains flow directly into members’ retirement nest eggs instead of intermediaries or shareholders.

2.1 Outperformance

We begin our analysis with an overview of historical performance and differences in asset allocations by industry, retail and SMSFs. This will be accompanied by an in-depth look into drivers of industry funds’ superior returns. These reflect their unique business model and investment philosophy.

2.1.1 Returns and portfolio composition

Typically, industry super funds have historically outperformed for-profit super funds. Examining the historical performance of different super fund types suggests that, over time periods from July 1996, on average, industry funds consistently outperform retail funds over any time period that is considered (Figure 5). In the 23 years to June 2019, industry super funds outperformed retail funds by 1.8 per cent on average.

Analysis shows that on average industry super funds have also outperformed the SMSF sector. In the 10 years to June 2018, industry super funds outperformed SMSFs by 1.0 per cent (see Figure 6).

Figure 5 – Average annualised returns of industry and retail funds to June 2019

Source: APRA Annual Superannuation Bulletin June 2008 & June 2019
Figure 6 – Annualised returns of SMSFs, industry and retail funds to June 2018

Note: Returns for >$1M and <$1M SMSFs are asset weighted returns across the performance of respective fund sizes.

However, SMSF results tend to be skewed in favour of a small number of large funds, while smaller scale funds performed more poorly than even retail funds. This is due to several reasons, including lack of diversification and higher fee structures (see
Table 5).  
- Subscale SMSFs (those with less than $200K assets) experienced, on average, negative annualised returns over the 10 years to June 2018.
- More than 83 per cent of SMSFs (i.e. those with assets of less than $2 million) underperformed industry super funds over the same period.
- More than 63 per cent of SMSFs (i.e. those with assets of less than $1 million) underperformed retail funds over the same period.

Approximately 72,013 SMSF members (representing around 17 per cent of all SMSFs) earn returns greater than industry funds. These SMSFs are often unconventional investment vehicles (many utilising leverage) used by the very wealthy for, among other things, tax minimisation and estate planning.
Do-it-yourself funds allocate heavily to property relative to institutional superannuation funds. This is a typical strategy amongst very wealthy individuals for the purpose of tax minimisation and estate planning. SMSFs provide a backdoor to employ leverage within a superannuation context which would otherwise be prohibited. Such a scheme is called a limited recourse borrowing arrangement (LRBA).

A small number of very wealthy individuals (captured in the >$2 million category of Table 5) are using do-it-yourself funds to borrow for property and other investments to supercharge their fund’s returns. For example, the largest 100 self-managed super funds had borrowings

A limited recourse borrowing arrangement (LRBA) involves an SMSF trustee taking out a loan from a third-party lender. The trustee then uses those funds to purchase a single asset (or collection of identical assets that have the same market value) to be held in a separate trust. Any investment returns earned from the asset go to the SMSF trustee. If the loan defaults, the lender’s rights are limited to the asset held in the separate trust. This means there is no recourse to the other assets held in the SMSF.

In fact, borrowing under LRBA has increased significantly in the five-years to June 2019, from $21.4 billion June 2015 to $42.9 billion in June 2019 – up more than 100 per cent. The head of the Financial Systems Inquiry David Murray told the Australian Financial Review that “the reason that we recommended against borrowing by superannuation funds – by they SMSFs or other funds – is that borrowing magnifies risks and returns. We did not want to have financial instability in superannuation funds threatening economic stability, particularly at times when the banking system itself could be exposed to exogenous risks”.


---

<table>
<thead>
<tr>
<th>Fund Sector</th>
<th>3 year</th>
<th>5 year</th>
<th>10 year</th>
<th>% of SMSFs by asset range</th>
<th>Members</th>
</tr>
</thead>
<tbody>
<tr>
<td>SMSFs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$1 - $50k</td>
<td>-15.9%</td>
<td>-15.5%</td>
<td>-15.2%</td>
<td>5.6%</td>
<td>178,907</td>
</tr>
<tr>
<td>&gt;$50k - $100k</td>
<td>-5.9%</td>
<td>-5.5%</td>
<td>-6.1%</td>
<td>2.9%</td>
<td>101,268</td>
</tr>
<tr>
<td>&gt;$100k - $200k</td>
<td>-1.7%</td>
<td>-1.0%</td>
<td>-1.8%</td>
<td>7.1%</td>
<td>165,405</td>
</tr>
<tr>
<td>&gt;$200k - $500k</td>
<td>2.7%</td>
<td>3.3%</td>
<td>2.0%</td>
<td>22.4%</td>
<td>271,173</td>
</tr>
<tr>
<td>&gt;$500k - $1m</td>
<td>4.8%</td>
<td>5.4%</td>
<td>4.1%</td>
<td>25.0%</td>
<td>201,411</td>
</tr>
<tr>
<td>&gt;$1m - $2m</td>
<td>6.4%</td>
<td>6.9%</td>
<td>5.3%</td>
<td>20.4%</td>
<td>136,149</td>
</tr>
<tr>
<td>&gt;$2m</td>
<td>8.6%</td>
<td>8.9%</td>
<td>7.0%</td>
<td>16.6%</td>
<td>72,013</td>
</tr>
<tr>
<td>APRA-funds</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Industry funds</td>
<td>8.1%</td>
<td>9.3%</td>
<td>6.5%</td>
<td>N/A</td>
<td>-</td>
</tr>
<tr>
<td>Retail funds</td>
<td>5.6%</td>
<td>7.0%</td>
<td>4.9%</td>
<td>N/A</td>
<td>-</td>
</tr>
</tbody>
</table>

averaging around $10 million each in 2017-18. This is above-and-beyond usual tax benefits granted to ordinary superannuation fund members. The problem here is that the subsidy is inequitable, and the borrowing is focused towards one sector of the economy and magnifies risk.

1. Leverage can lead to funds taking excessive risk, and it also enables some to ‘farm’ the system by getting more assets into the tax-preferred status of super at the expense of the taxpayer.
2. Leveraged (indebted) financial institutions can be at risk of insolvency and exposed to runs by creditors. A highly levered financial system with lots of interconnectedness can face problems of fragility. Keeping superannuation ‘un-levered’, as is generally the case for institutional superannuation funds, is best practice in terms of financial system stability.

Differences in asset allocations

The approaches to asset allocation are markedly different between the sectors, reflecting trustee investment philosophy and expertise, fund scale, business model and fund structure. The different performance outcomes of the sectors are in part driven by the long-term strategic investment approaches, particularly the significantly greater weighting to unlisted assets and diversification. Unlisted assets are less liquid, and this is a compatible match for industry funds’ longer-term investment horizons (based on members stable contribution patterns), and materially bolsters portfolio performance over the long-term through exposure to a broader universe of assets and negative correlation with other asset classes.

A key point of difference between industry funds, retail funds and SMSF funds are the total portfolio holdings of unlisted infrastructure assets and unlisted property.

Retail

Directly comparing investment portfolio allocations between industry and retail funds as shown in Figure 7 suggests that the key difference between the two are the following:

- Industry super funds hold significantly more unlisted infrastructure (7 ppts), unlisted property (7 ppts).
- Retail funds hold significantly more Australian listed equity (6 ppts), Australian fixed income (3 ppts) and listed property (3 ppts).

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12 There is a significant difference in unlisted equity holdings too (which includes private equity and venture capital). While it is out of the scope of this paper to estimate these economic impacts, where these allocations exist in the primary market, they have many parallels to physical infrastructure and so are far more likely than not to involve the creation of new capital.
Figure 7 – Industry v retail differences in major asset allocation, as at June 2019

Source: APRA Quarterly Statistics December 2019

Note: Blue columns indicate greater percentage allocations towards asset classes by industry funds compared to retail funds. Yellow columns indicate the vice-versa.

SMSFs

Directly comparing investment portfolio allocations between industry and SMSFs is perhaps even more revealing, as Figure 8 suggests more marked key differences due to diversification.

- Industry super funds hold significantly more international listed equity (25 ppts), fixed income (17 ppts) and unlisted infrastructure (7 ppts).
- SMSFs hold significantly more cash (13 ppts), listed Australian equity (10 ppts) and unlisted property (5 ppts).

A question for SMSF holdings of unlisted property is whether these are truly ‘arm’s length’ investments, or assets associated with the current or former business activities of fund members located in the fund for purposes of tax minimisation and/or estate planning. This denies members the ability to achieve diversification in income streams.
The asset allocations of each fund type are summarised in Figure 9 below. Broadly speaking, professionally managed funds have very similar asset allocations (industry and retail), albeit industry funds allocate more heavily to unlisted assets for reasons we discuss below.

Alternatively, do-it-yourself funds, have very different allocations. The ATO questioned more than 18,000 SMSF trustees in 2019 about the diversification of their portfolios. The letter was sent to those trustees that had more than 90 per cent of their SMSF assets in a single asset class – typically property. The ATO was attempting to warn trustees to be sure they understood the risks associated with this investment strategy – particularly if limited recourse borrowing was involved. At the time, there was discussion whether it was a proper role for the ATO to ask such a question. However, for trustees that heeded the warning about the risk of lack of diversification and potential liquidity risk, it was prescient.
2.1.2 Outperformance drivers

A previous analysis undertaken by Boston Consulting Group for ISA suggests that the key driver of industry funds’ historical outperformance is their higher allocation to unlisted physical assets, coupled with their not-for-profit status. The analysis attributed 63 per cent of the

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13 A proportion of these ‘other’ investments can carry a level of unobserved gearing. For example, SMSFs can invest in geared unit trust (Enticott, 2016). This might present a significant risk, and it would require the ATO to collect additional data to provide insights.
It is certainly true that not-for-profit super funds have an undeniable competitive advantage over for-profit funds. There are a range of business practices which contribute to the margin factor - including scale, the structure of products and charges and the nature of related party transactions – which significantly lower reliance on related parties and arm’s length commercial terms.

It also seems that APRA-regulated, not-for-profit super funds are capturing the advantages of diversification stemming from investment in unlisted infrastructure and property. These asset classes help to bring stability to asset portfolios, by providing:

- **stable and predictable cash flows** by virtue of their strong predictable revenues and inelastic demand curves;
- greater focus from management and capability to fully develop underlying assets to drive economic value; and
- reductions in expenses achieved by minimising the role of financial intermediaries that would otherwise be integral to assets being offered through listed financial instruments.

In addition, portfolio asset allocation theory suggests that unlisted investments in infrastructure and property help to reduce overall portfolio volatility. The argument is that earnings on these assets are generally stable, or less correlated to traditional listed opportunity set, a factor reflected in their asset prices.

The willingness of industry super funds (on behalf of their members) to act through the lens of the long-term investor has not just delivered superior risk adjusted returns but also resulted in their capture of a unique and lucrative value stream represented by:

- the use of scale and associated benefits to reduce intermediation;
- locking in the economic gains captured from holding interconnected portfolio assets within the same region; and
- the capacity to buy assets when everyone else is selling to create significant additional value. This has been a hallmark of top-performing funds since the advent of the compulsory superannuation system introduced in 1992.

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14 The Boston Consulting Group and ISA analysis using a 40-year working life cameo projection model drawing on recent differences in fees and 3yr differences in rates of return as measured by APRA in Superannuation Fund-level Profiles and Financial Performance 2013.

More recently Wilson Sy (2018) has made a different but compatible finding that the around two-thirds of industry super fund outperformance comes from the business model and one-third comes from asset allocation.

The Productivity Commission (2018) as part of the review into the efficiency of the superannuation system also estimated the outperformance of the not-for-profit superannuation sector. They mainly due the outperformance to business model. They point to higher indirect investment costs of retail funds as the critical factor (explained by an investment approach which eschews wholesale investment for the highly financially intermediated retail model). They also found that outperformance was due to asset selection (30 basis points) with another smaller share due to asset allocation (10 basis points). Of course, the Productivity Commission did not directly assess the factors driving the outperformance of industry super funds and so its approach is imprecise in that sense. See pp.130-133.

15 The flip side of this argument is that the more 'homogenous' any given asset is (either infrastructure or especially property), the less likely it is to generate diversification benefits. Although it is possible to bundle together ownership of a group of homogenous assets and achieve locational or other network benefit as explained in more detail below.
Comparing the volatility of different classes of assets through time suggests unlisted assets have significantly lower volatility than, for example, listed equities and listed property. The historical rolling five-year standard deviations of major asset classes is shown in Figure 10. Unlisted infrastructure has remained much less volatile over the time period for which we have data, even during and after the Global Financial Crisis (GFC).

Figure 10 – Rolling 5-year annualised standard deviations, June 1991- June 2019

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.9%</td>
<td>16.1%</td>
<td>16.3%</td>
<td>3.7%</td>
<td>15.4%</td>
<td>4.5%</td>
<td>4.0%</td>
<td>14.3%</td>
<td>7.5%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Listed infrastructure from Dec 2013. Unlisted infrastructure from Sep 1995

Source: ISA Analysis, IFM Investors, ISPT, Refinitiv, Bloomberg

Note: The following indices are used: S&P/ASX 300 Index, MSCI World ex Australia Total Return Index (hedged in AUD), The Property Council of Australia/MSCI Australia All Property Total Return Index, Bloomberg AusBond Composite 0+ Yr Index, Bloomberg Barclays Global-Aggregate Total Return Index (hedged in AUD), Bloomberg Bank Bill Index, S&P/ASX 300 Property Total Return Index, S&P/ASX Infrastructure Accumulation Index, IFM Australian Infrastructure Fund.

It is also useful to look at the relative risk-adjusted performance of different asset classes over time as shown in Figure 11. Over the past 15 years, together with international fixed income, unlisted infrastructure has been a consistent performer, achieving on average, higher risk-adjusted returns compared to its listed counterpart.
Figure 11 – Rolling 5-year annualised Sharpe Ratio, March 2000- June 2019

<table>
<thead>
<tr>
<th>Sharpe Ratio (June 1986-June 2019)</th>
<th>Australian Equities</th>
<th>Int Equities</th>
<th>Unlisted Property</th>
<th>Listed Property</th>
<th>Australian Fixed Interest</th>
<th>Int. Fixed Interest</th>
<th>Listed Infrastructure</th>
<th>Unlisted Infrastructure</th>
<th>Unlisted Property (RHS)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.21</td>
<td>0.18</td>
<td>0.92</td>
<td>0.15</td>
<td>0.46</td>
<td>0.66</td>
<td>0.44</td>
<td>1.05</td>
<td></td>
</tr>
</tbody>
</table>

*Listed infrastructure from Dec 2013. Unlisted infrastructure from Sep 1995

Source: ISA Analysis, IFM Investors, ISPT, Refinitiv, Bloomberg

Note: See Figure 9 note. The Sharpe Ratio is a measure for calculating risk-adjusted returns. It takes the average return earned in excess of the risk-free rate per unit of volatility or total risk. Volatility alone is not a comprehensive measure of risk.

To examine the relationship between historical return and volatility, Figure 12 (left hand side) presents the risk and return profiles of the different super industry segments for the period from June 1998 to June 2019. It shows that retail funds over the full 21-year period experienced slightly lower volatility compared to other APRA regulated funds, but with substantially lower returns compared to industry and public sector funds.

When we include SMSFs in the analysis, Figure 12 (right hand side) presents the risk and return profiles of the different super industry segments for the period from June 2007 to June 2018. It shows that retail funds had similar level of volatility but with lower returns than industry super funds and SMSFs overall.
Unlisted assets, in particular infrastructure, have delivered superior returns to members over the medium and longer term relative to other assets, see Figure 13.

As well as delivering strong average returns, unlisted infrastructure and property have both exhibited lower volatility than other asset classes, except for cash and fixed interest.
Over the past 15 years, the volatility of unlisted infrastructure (measured by the standard deviation of annual returns) was 7.3 per cent – less than half the volatility exhibited by domestic and international equities, see Figure 14 below.

**Figure 14 – Volatility of asset classes (10 and 15-years) to June 2019**

Determining the impact of different asset allocation over time can be assessed by constructing different asset portfolios and then utilising time series benchmark returns to determine the annual weighted returns for each portfolio. For this analysis, Table 6 shows four different asset portfolios: average industry fund, average retail fund, typical SMSF portfolio and infrastructure oriented portfolio.

**Table 6 – Simulated portfolio returns and volatility 2004 – 2019**

<table>
<thead>
<tr>
<th>Percentage allocations</th>
<th>ISF benchmark</th>
<th>Retail fund benchmark</th>
<th>SMSF benchmark</th>
<th>Infrastructure benchmark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash</td>
<td>7.3%</td>
<td>14.5%</td>
<td>26.4%</td>
<td>5%</td>
</tr>
<tr>
<td>Australian equities</td>
<td>27.7%</td>
<td>26.3%</td>
<td>29.9%</td>
<td>25%</td>
</tr>
<tr>
<td>International equities</td>
<td>23.8%</td>
<td>20.1%</td>
<td>0.6%</td>
<td>20%</td>
</tr>
<tr>
<td>Infrastructure &amp; private equities</td>
<td>16.1%</td>
<td>9.7%</td>
<td>1.2%</td>
<td>25%</td>
</tr>
<tr>
<td>Listed property</td>
<td>2.1%</td>
<td>4.3%</td>
<td>4.6%</td>
<td>0%</td>
</tr>
<tr>
<td>Unlisted property</td>
<td>8.7%</td>
<td>2.0%</td>
<td>17.0%</td>
<td>20%</td>
</tr>
</tbody>
</table>
### Performance

<table>
<thead>
<tr>
<th></th>
<th>ISF benchmark</th>
<th>Retail fund benchmark</th>
<th>SMSF benchmark</th>
<th>Infrastructure benchmark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australian fixed interest</td>
<td>8.1%</td>
<td>16.5%</td>
<td>1.1%</td>
<td>5%</td>
</tr>
<tr>
<td>International fixed interest</td>
<td>6.3%</td>
<td>6.1%</td>
<td>0.0%</td>
<td>0%</td>
</tr>
<tr>
<td>Other*</td>
<td>-</td>
<td>-</td>
<td>18.9%</td>
<td>-</td>
</tr>
</tbody>
</table>

**Source:** ISA Analysis, APRA Annual Bulletin 2008 & 2019, ATO SMSF – A Statistical Overview 2016-17

**Note:** The average annual return and volatility for the four representative funds have been calculated assuming constant asset allocation throughout the 15-year period of analysis. See Figure 10 note for a list of representative indices for the asset classes. *Other assets include unlisted trusts, insurance policy, other managed investments, loans, collectables and personal use assets, overseas managed investments and other overseas assets. These categories are only applicable to SMSFs.

### Findings from simulated investment outperformance

The results in Table 6 show the asset allocation of industry super funds have underpinned higher investment returns over much of the last 15 years and has allowed members to better ride out recent market turmoil arising from the GFC.

**Key outcomes:**

- Industry super fund asset portfolio achieved average after tax investment returns around 93 basis points per annum higher than a typical retail listed portfolio.
- These returns have led to a cumulative after-tax investment outperformance of 12 per cent relative to a typical listed retail portfolio.
- Industry super fund asset portfolios achieved substantially higher returns but with a higher volatility of 69 basis points compared to a typical listed retail portfolio.
- Increasing industry super fund unlisted infrastructure and PE allocations to 25 per cent, and unlisted property to 20 per cent would have:
  - Increased annual returns by a further 79 basis points per annum;
  - Increased cumulative after-tax returns to 22 per cent above the level achieved by a typical listed retail portfolio; and
  - Maintained volatility at the same level as a typical listed retail portfolio.

### 2.2 Long-term approach

Certainly, the key role of investment funds in the market economy is to allocate funds to businesses which are likely to produce the highest returns for an acceptable level of risk. A key driver of outperformance by industry super funds is due to asset allocation, especially their use of collective vehicles and specialist managers which manage the selection of unlisted infrastructure and property assets along with private equity investments. This could be characterised as a scale benefit - where the funds have used innovative ways to obtain and
deliver scale benefits to members (using strategic advisers and managers). This is consistent with a wholesale investment model where efficiency gains are captured by members, not intermediaries or shareholders.

Some market participants observe that industry super funds’ outperformance is a by-product of their somewhat younger membership and larger share of default funding flows, on average, compared to for-profit funds. They say that at the margin you would expect industry super funds to allocate a greater proportion of their portfolios to unlisted assets. They say that maintaining a more aggressive, longer term investment strategy would be expected to generate higher returns. Certainly, industry super funds do construct optimised portfolios based on their liquidity requirements and risk/return objectives. However, APRA has consistently found that the retail funds’ lack of exposure to illiquid assets cannot be explained by fund demographics or cash flows, discounting the usual explanations provided for lower retail performance.16

It is also probable that superannuation funds, in general, have not exhausted the potential of the unlisted asset classes in terms of boosting diversification and performance. Internal analysis of a leading industry super fund suggests that it should hold more rather than fewer unlisted assets than it currently does to boost risk adjusted returns. The analysis revealed that holding more unlisted assets would raise long-term performance by about three basis points for every percentage point increase in the illiquid allocation. This is true even in the face of liquidity stress testing, which indicated that the fund in question could manage redemption risks even in the face of a GFC-style or COVID-19 style event.

Commentators often claim that industry super funds’ outperformance is just an “illiquidity premium” or compensation for holding assets which cannot be readily converted into cash. The excess returns that are earned are due to asset allocation and so are effectively ‘burned’ away by funds taking on additional risks. According to this view, there is no real net economic benefit from making these portfolio allocations. However, such criticism is certainly not demonstrated in the market literature for investors with long-term horizons. Why would long-term investors purchase assets at prices inflated to compensate them for the inability to achieve a quick sale? On this score, it is instructive that professional valuers from major accounting firms do not factor in these types of margins to their pricing models. It is more likely that the observed premia represent a combination of factors owing to the willingness of funds to see through the lens of a long-term investor:

- Creating additional value by investing in growth assets with stable and resilient revenue streams;
- Using scale benefits to reduce intermediation;
- Locking in the economic gains captured from holding interconnected portfolio assets within the same region; and
- Actively improving the asset through participation in its governance.

Historically, no single for-profit managed fund in Australia had the capacity, size or experience to absorb the financing challenge of big unlisted physical assets onto their balance sheets and still maintain an appropriate level of diversification. To do so they had to form consortia with like-minded funds.

For retail super funds, this meant partnering with competitor businesses trying to expand market share and profit margin. Their for-profit status usually meant they had no incentive to

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16 APRA, 2011; Cummings and Ellis, 2015; Cummings, 2016.
cooperate to achieve an effective network of funds. Now that certain larger retail funds have the critical mass to invest in infrastructure, most still have not done so because their business model is premised on the more lucrative active listed forms of fund management. Funds whose business model is about promoting member choice (via financial adviser intermediation) necessarily have a very short-term horizon and so eschew investment in unlisted assets. For these reasons, very few retail funds hold significant unlisted property assets and it is even rarer for them to hold unlisted infrastructure assets. Perhaps the exception is AMP (previously a mutual).

For industry super funds, however, they were already bound within a collective network. They were anchored in public policy, and their not-for-profit orientation made possible a greater degree of cooperation through joint ventures and collective investment vehicles to achieve required scale. A clear example of this approach saw the establishment of the two jointly owned collective asset management vehicles around twenty years ago, namely:

- IFM Investors; and
- Industry Superannuation Property Trust (ISPT).

The cooperation of industry super funds has allowed IFM Investors and ISPT to achieve the necessary scale to internalise network externalities. They also have the capability to operate as wholesale investors, remove costly financial intermediation and ensure the profitability of underlying assets is captured by members.

Larger individual industry funds have also now obtained enough scale whereby they are employing internal investment teams and are investigating alternate investments. For example, AustralianSuper and Cbus have brought management of certain assets in-house.

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17 AMP was originally in Development Australia Fund (the precursor of IFM Investors). They were subsequently bought out. Brown and Davis (2009), p.12.

18 A network effect (also called network externality or demand-side economies of scale) directly increases usage that leads to increases in value of the underlying assets or spawns the production of increasingly valuable complementary goods, and this results in an increase in the value of the original product.
Figure 15 – Major domestic unlisted infrastructure investments

1. NSW Ports
   Sydney Desalination Plant
2. Ausgrid
   Eastern Distributor (M1)
   Interlink Roads (M5)
   Wyuna Water
   Axiom Education
3. Defence HQ
4. Port of Brisbane
   Brisbane Airport
5. Melbourne & Launceston Airports
6. Southern Cross Station
   Port of Melbourne
7. Darwin & Alice Springs Airports
8. Adelaide Airport
9. Perth Airport
   Perth CBD Courts

Source: ISA Survey of major industry funds and IFM investors
Note: Assets and headquarters located in or near major metropolitan areas.
2.3 Benefits

This section examines the implications of industry super funds’ superior asset returns for private wealth creation and attempts to measure how much better off the average industry super fund member will be over time as a result.

Industry super funds invest differently to other sectors by maintaining higher asset allocations to unlisted assets, particularly infrastructure. On average, these higher allocations have historically resulted in less exposure to equities and fixed interest.

2.3.1 Outperformance impacts on member balances

Over the period from July 1996 to June 2019, industry super funds have outperformed their retail counterparts by 1.8 per cent on average per annum. This translates to a significant private wealth benefit to members. Figure 17 illustrates the impacts of industry super funds’ outperformance for a typical industry fund member.\(^{19}\)

Assuming the member’s starting balance is zero in 1996 and they earned average wages throughout the period, by June 2019 they would have an estimated superannuation account

---

\(^{19}\) ISA estimates that more than 73 per cent of employees earn less than AWOTE on average. From the ATO 2 per cent sample file for 2017-18, we identified a sample of potential industry fund members based on a number of characteristics such as superannuation contributions and balances. We calculated that the average wage of these potential members was around 80.9 per cent of AWOTE.
balance of $171,781 with an industry super fund, or $141,531 with a retail fund. The member would be estimated to be $30,250 better off on average with an industry super fund account.

**Figure 17 – The impact of outperformance on member account balances, industry super vs. retail funds, 1996-2019**

Source: ISA Analysis, ABS 6302.0 - Average Weekly Earnings, APRA Annual Superannuation Bulletin June 2019

Note: The model assumes a starting balance of zero and the average of industry super fund members’ wages throughout the period.\(^{20}\)

Similarly, we have modelled the impacts of the difference in returns between industry super funds and SMSFs for the seven years to 2018 (Figure 18). The results show that an industry super fund member was $6,773 better off than SMSF members on average, while SMSF members with less than $1 million in assets were $16,688 worse off than industry super fund members on average.

\(^{20}\) ISA estimates that more than 73 per cent of employees earn less than AWOTE on average. From the ATO 2 per cent sample file for 2017-18, we identified a sample of potential industry fund members based on a number of characteristics such as superannuation contributions and balances. We calculated that the average wage of these potential members was around 80.9 per cent of AWOTE.
2.3.2 Aggregate impacts of outperformance

Given that industry super funds generate superior rates of return through time, controlling for other factors, this inevitably leads to higher average member balances compared to a situation where all funds were invested by the retail sector.

Based on our modelling that an average member would be $30,250 better off by being invested in an industry super fund as opposed to a retail fund (Figure 17), we estimate that industry super funds’ outperformance has translated to an additional $151 billion in wealth for their members on aggregate (Figure 19).
Figure 19 – The aggregate impact of outperformance, industry super funds vs retail and SMSFs, 1996-2019

Source: ISA Analysis

Note: *It is estimated that there are more than five-million industry super fund members. We’ve maintained a conservative approach to this estimate, which was based on the 2016 version of the Industry Super and the Economy report. The ATO has released data on the percentage of individuals with one, two and more accounts. Applying such a distribution to industry fund member accounts would yield a theoretical estimate of 3.9 million members. This seems to the authors to be far too low given that we know many industry funds have dedicated significant resources in removing multiple accounts along with the ATO.

The superior returns enjoyed by industry super fund members can also be examined by looking at the growth of capital invested for 15-years in the asset classes shown in Table 7. The table shows how much a $100 investment 15-years ago is now worth given the returns we’ve measured for the representative indices. Unsurprisingly, unlisted infrastructure topped the list, experiencing a five-fold increase in the initial amount invested.
Table 7 – Cumulative 15-year investment returns to June 2019 by asset class expressed in current dollars

<table>
<thead>
<tr>
<th>Asset class</th>
<th>$100 invested 15 years ago is now worth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unlisted infrastructure</td>
<td>$510</td>
</tr>
<tr>
<td>Unlisted Property</td>
<td>$439</td>
</tr>
<tr>
<td>Listed infrastructure</td>
<td>$431</td>
</tr>
<tr>
<td>Australian Equities</td>
<td>$357</td>
</tr>
<tr>
<td>International Equities</td>
<td>$351</td>
</tr>
<tr>
<td>International Fixed Interest</td>
<td>$269</td>
</tr>
<tr>
<td>Australian Fixed Interest</td>
<td>$240</td>
</tr>
<tr>
<td>Listed Property</td>
<td>$202</td>
</tr>
<tr>
<td>Cash</td>
<td>$181</td>
</tr>
</tbody>
</table>

Source: ISA Analysis, IFM Investors, ISPT, Bloomberg
3. Economic impacts

We have established that industry super funds have generated superior returns and accumulated savings relative to the counterfactual where all relevant amounts are invested by retail or SMSF funds. We have seen the additional returns generated by industry super funds accumulated due to benefits with the business model employed by funds.

In this section we demonstrate how the unique investment approach taken by industry super fund trustees has affected macroeconomic aggregates and the Federal budget. The superior performance by industry super funds implies an upward spiral of economic expansion achieved mainly via greater capital formation:

1. Outperformance by industry super funds (driven by business model and asset allocation) produces a larger pool of funds invested in unlisted assets, raising the capital outlays by funds;
2. Higher capital expenditure has several impacts. It supports the level of output and employment and raises long-term productivity outcomes, which lifts living standards by generating higher real incomes for workers and more broadly;
3. Higher wage compensation for workers results in greater superannuation saving by members which raises national savings to fund greater capital investment;
4. A bigger pool of national savings equals lower foreign indebtedness, which reduces reliance on external credit markets and potentially lowers the risk premia on foreign borrowing;
5. A long-term investment horizon and ‘buy and hold’ mentality acts as an automatic stabiliser for financial markets underwriting asset cycles and buffering against extraordinary events like COVID-19;
   - During periods of financial crisis, purchasing assets when others are selling (counter-cyclical investment), helps to capitalise operating firms and the banking system to head off the worst aspects of turbulence; and
6. A larger pool of funds under management raises the quantum of managed funds to invest across the Australian economy, especially in niche areas such as technology, skills and start-ups.

Each of these economic outcomes flow from aspects of industry super funds’ outperformance as represented in Figure 20 below.

More broadly the investment philosophy of industry super funds is to allow working people to pool capital so they can invest like a Warren Buffet via a fully diversified, scale fund which can also access unlisted investment opportunities and maximise the magic of compound interest. This type of risk-return trade-off was not previously available to mum and dad investors and certainly denied to most do-it-yourself super funds.

The approach has been tremendously successful in affording working people (albeit limited to those) with stable work patterns the prospect of generating an adequate retirement income otherwise unavailable to them.

The default superannuation system has demonstrably helped to shore up foundations of the Australian economy by:

- Deepening the pool of saving, helping to lower the cost of borrowing for business and households.
- Deepening the stock of productive capital.
Stimulating economic activity by supporting stronger CAPEX levels and supporting productivity gains.

Supporting significant and rising employment.

Investing in technology, skills and start-ups.

Providing a liquidity buffer to financial markets and the broader economy through counter cyclical investment.

Improving Federal budget outcomes via higher tax receipts and lower cost of debt.

We will support these arguments throughout the rest of this Section and beyond.

**Figure 20 – The upward spiral of economic expansion from long-term investing**

Source: ISA
3.1 Building real assets

Default super options efficiently convert inflows from workplace defaults into strong risk adjusted net returns over time, achieved via effective long-term portfolio diversification.\(^2\) This includes allocations to the full suite of unlisted investments in domestic and global investments, unlisted assets including property, infrastructure, debt, private equity, agriculture, renewables, etc.

As we saw in Section 2 the willingness of funds to see through the lens of the long-term investor has not just delivered superior risk adjusted returns but also resulted in the capture of a unique and lucrative value stream represented by:

- The use of scale and associated benefits to reduce intermediation.
- Diversification across both underlying assets and geography.
- Locking in the economic gains captured from holding interconnected portfolio assets in the value chain.

To really assess the contribution of industry super funds in driving economic activity in Australia, we must understand how savings placed in superannuation are invested.

At a system level, superannuation uses cash or forgone consumption received over time (primarily from contributions and from investment returns) for further investment. This investment falls into two general categories:

1. Purchasing existing financial assets in secondary market transactions, such as acquiring listed equity previously issued by an operating company; and
2. Purchasing new financial assets reflecting an interest in new capital, such as newly issued listed equity, the proceeds of which are received by the issuer and used for capital expenditure by the issuer.

Secondary market transactions themselves have little direct impact in terms of initiating new economic activity as they represent a transfer of existing financial assets.\(^2\)

Extracting premia

Primary market transactions, however, involve the issuance of new interests in businesses (debt or equity, listed or unlisted) especially transactions involving the purchase of new unlisted infrastructure or property assets.\(^3\) These transactions have a direct positive economic impact where a financially sustainable asset is acquired or created. The underlying physical asset(s) must be maintained or developed via capital expenditure funded either from retained earnings (generated from those underlying business assets) or by the company raising the necessary

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\(^2\) Higher effective national savings refers to the fact that under the Superannuation Guarantee system – savings are being allocated by high performing funds to their highest paying use in risk adjusted terms.

\(^3\) Secondary sales do support efficient market pricing directly and productivity indirectly over the longer term. For example, governments or public sector entities can sell an existing asset to a private sector investor and recycle the proceeds into new greenfield infrastructure and property assets. This has freed up funding for the public sector which allows them to undertake new developments (e.g. NBN and the second Sydney Airport). Arguably, the new private sector owner is better placed to manage and invest further into the asset for its next phase of life.

\(^3\) In addition, in some circumstances a superannuation fund, as an investor, might through its ownership rights have influence over the capital expenditure decisions of an operating company. For example, the investor might determine to direct net income of such a company into further capital investment by that company, as opposed to seeking to distribute net income to investors as a dividend.
equity or debt from financial markets (including super funds). The ‘capital’ injections to modernise, develop or make more environmentally sustainable existing assets, all represent a net addition to the economy.

Because industry super funds actively choose to play a significant role in primary markets in Australia, the activity associated with these transactions represents a net addition to the domestic economy in output and income terms. As industry super funds outperform through time, these benefits are ‘locked away’ in members’ accounts representing or demonstrating the ingenuity industry super fund business model. From the perspective of the national economy, they represent net returns or ‘profits’, in other words income streams flowing to Australians and supporting domestic output and jobs, not a leakage of dividends paid to foreign owners.  

Each of the economic benefits referred to above relate to the drivers of outperformance of industry super funds which, in tandem with the compulsory superannuation system and the normal bias towards home country investment, lead to a welfare-enhancing net increase in the national capital stock through time. Absent of these factors, Australians would undoubtedly save less for their retirement and our small, open economy would have to rely more on foreign investment and be more exposed to external shocks. National income would be reduced as Australia’s productive capital stock would be smaller.

The longer-term investment horizon of industry super funds encourages the development of underlying assets rather than short term purchase and resale. While there are certainly alternative domestic owners for infrastructure or property assets, most of them lack the incentives or capacity to develop assets to the same extent as not-for-profit super funds (including industry super funds).

A lower reliance on foreign savings due to fund outperformance delivers, in aggregate, a deeper stock of capital and technology owned by Australians. In June 2019, industry super funds held:

- Around $32 billion in Australian unlisted infrastructure (around 68 per cent of total super holdings).
- Around $44 billion in Australian unlisted property (around 25 per cent of total super holdings).

For the purposes of the economic impact analysis presented below, we surveyed major industry super funds and asset managers regarding their unlisted investments on an asset by asset basis.

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24 Whether these investments would occur in the absence of industry super funds is an interesting question. Certainly, some entity outside the superannuation sector would hold most of the unlisted infrastructure and larger commercial property assets, and this would not be retail funds and SMSFs. In most cases assets would be purchased by a foreign managed fund (sovereign wealth fund, life insurance company or investment fund). If excess returns were generated by these assets, they would not be captured within the super sector for the benefit of working Australians but would mainly pass to their foreign owners.

25 History suggests that industry super funds have the requisite knowledge and skills to steward the existing capital assets they purchase and greenfield assets they produce. This drives fund returns and means there is no shortage of domestic and foreign entities who want to partner with them on new offerings. Indeed, many of the infrastructure projects undertaken outside the industry super funds’ network (typically managed by IFM Investors) by managers such as Hastings or QIC are undertaken on behalf of industry super funds or because industry super funds hold a significant equity stake (10 to 30 per cent) alongside foreign investors. Foreign investors are often only interested in projects if they can partner with a significant domestic player, and the most significant of all is IFM investors and the larger industry super funds. Often multiple foreign bidders form consortia with different industry super funds and they bid up the price of assets in the process. In the case of public asset sales this introduces true competition in the bidding process which benefits the public balance sheet in terms of sales receipts.
removing double counting relating to interlocking ownership shares. These agencies held in June 2019:

- Around $28 billion in Australian unlisted infrastructure (around 88 per cent of industry super holdings of total Australian infrastructure holdings).
- Around $42 billion in Australian unlisted property (around 96 per cent of industry super holdings of total Australian property holdings).

<table>
<thead>
<tr>
<th>Sector</th>
<th>Asset Value ($m)</th>
<th>Share (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infrastructure</td>
<td>$28,377</td>
<td>40.2%</td>
</tr>
<tr>
<td>Railways</td>
<td>$434</td>
<td>0.6%</td>
</tr>
<tr>
<td>Airports</td>
<td>$9,585</td>
<td>13.6%</td>
</tr>
<tr>
<td>Seaports</td>
<td>$5,187</td>
<td>7.3%</td>
</tr>
<tr>
<td>Toll roads</td>
<td>$4,347</td>
<td>6.2%</td>
</tr>
<tr>
<td>Water</td>
<td>$1,063</td>
<td>1.5%</td>
</tr>
<tr>
<td>Electricity generation</td>
<td>$5,905</td>
<td>8.4%</td>
</tr>
<tr>
<td>Pipelines</td>
<td>$55</td>
<td>0.1%</td>
</tr>
<tr>
<td>Recreation</td>
<td>$175</td>
<td>0.2%</td>
</tr>
<tr>
<td>Other Public</td>
<td>$1,505</td>
<td>2.1%</td>
</tr>
<tr>
<td>Property</td>
<td>$42,299</td>
<td>59.8%</td>
</tr>
<tr>
<td>Residential</td>
<td>$1,540</td>
<td>2.2%</td>
</tr>
<tr>
<td>Retail</td>
<td>$13,649</td>
<td>19.3%</td>
</tr>
<tr>
<td>Mixed</td>
<td>$58</td>
<td>0.1%</td>
</tr>
<tr>
<td>Industrial</td>
<td>$2,819</td>
<td>4.0%</td>
</tr>
<tr>
<td>Commercial</td>
<td>$22,599</td>
<td>32.0%</td>
</tr>
<tr>
<td>Other</td>
<td>$1,634</td>
<td>2.3%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$70,676</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Source: ISA Analysis

### 3.2 Project pipeline benefits

The net addition to economic activity or value added by industry super funds due to asset allocation as at 30 June 2019 was estimated as follows.

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26 Survey respondents included nine major industry super funds (Australian Super, CareSuper, Cbus, HESTA, Hostplus, MTAA Super, REST, Sunsuper and UniSuper) and the network asset managers IFM Investors and ISPT.
Our survey of major funds provided data on unlisted asset holdings and the dollar value of capital expenditure spending (Table 8) based on the 2018-19 financial year. To the capital expenditure data, we then applied standard short run input-output ‘multiplier’ analysis based on inputs extracted from the regional economic database supporting the long-term economic forecasting model developed by the Productivity Commission. Our estimates are based on an approach which is conservative in terms of claiming benefits created for the industry super sector. This is reflected in several ways in our methodology:

1. The authors did not count every dollar of spending in our study associated with the direct management of these assets, nor claim employment related to the businesses operating on or around these sites. We only counted CAPEX.

2. The authors only counted benefits from funds in our survey which accounts for around 80 per cent of total asset holdings.

3. The authors applied only ‘simple multipliers’ in the baseline analysis undertaken to capture the first round and industrial support effects, from capital expenditure spending (upstream benefits). Downstream effects related to household consumption-induced effects that can arise via wage payments and are separately estimated. A typical multiplier in our baseline analysis is around 2.4. Even the Commonwealth Treasury assumes a multiplier of around 4.

   - In wake of the COVID-19 pandemic, employment multipliers will certainly be larger than we have allowed for (in excess of 4 or 5) due to spare capacity in the economy.

4. The authors estimate that the superannuation sector, in total, contributed (directly or indirectly) around $20.1 billion to net CAPEX spending in Australia in 2018-19. Based on our survey results we claim only $6.6 billion of this CAPEX for industry funds.

   - Based on superannuation fund asset holdings this figure is likely to be at least $7.1 billion.

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27 The authors chose the 2018-19 year for the base period of our survey as it commenced in April 2020. We needed a completed financial year to reconcile with published superannuation and economic series. We also wanted our study to be based on a regular period and not one where valuations fluid as 2019-20 proved to be.

28 Using ‘simple multipliers’ is consistent with the conservative practice adopted by official agencies that use or advise on the use of I-O multipliers. For example, the NSW Treasury suggests that “as consumption induced effects are tentative and unobservable it is good practice to exclude them from I-O impact analysis and use the simple multiplier”. The use of simple multipliers while not capturing the full downstream consumption effects, will still capture the more direct impacts in local regions, electorates and local government areas, which are the primary focus of ISA analysis. They do not, however, include those project impacts which may be crowded out by factor price changes at the state or national level.

29 Upstream benefits refer to the payments made for good and services to ‘supply’ the project. For example, to construct a building think tools, steel, glass, architectural advice, etc. Downstream benefits refer to the incomes generated on a project (wages, profits and taxes) and how they flow through the economy to generate more spending.

30 See Attachment p79


32 This figure was based on the net transaction of non-financial assets derived from ABS5232 – Finance and Wealth Account (pension funds). In theory, the ‘Change in/Net financial position’ is equivalent to the negative of ‘Net transactions: Non-financial assets’. That is, the net transaction of financial assets and liabilities equates to the net transaction of non-financial assets (akin to net-lending).
Box 1: Estimating the productivity gains from public investment in Australia

The impact of public investment in infrastructure on an economy’s private output is estimated by a public investment multiplier. In numerous studies, estimates of the multiplier vary widely, in part reflecting measurement issues. Due to data constraints, few studies have limited their scope to infrastructure. Most studies use a broad definition of public capital that includes not only infrastructure, but investment such as defence and intellectual property. Multiplier estimates also differ from the estimates that cost–benefit analysis would generate for individual projects.

In the economic literature, estimates of the multiplier vary from around 1.5 to about 4. The lower estimates are typically generated in studies that use public investment data and focus on short- to medium-run effects. The higher estimates are generated in studies that use data on the level of public sector capital to estimate the long-run elasticity of private output to public capital. For example, Bom and Ligthart reviewed this academic literature to find an average cross-country elasticity of 0.12 per cent. Two studies which have used Australian data have reached consistent findings. Using data on government capital stocks from 1960 to 2001, the IMF estimated an elasticity of 0.12 per cent. A Treasury update of a previous study by Otto and Voss estimated an elasticity of 0.14 per cent.

These elasticity estimates suggest an average multiplier of about 4 — meaning a $1 investment generates GDP increases that, over the 25-year life of the asset, add up to $4. These are economy-wide results that include historical averages of depreciation, the cost of financing and the role of government provision. Of course, in addition, public capital provides benefits beyond what is captured in GDP. Examples include courthouses and jails, which support the rule of law, or parks and social infrastructure, which improve community welfare and social cohesion.

Source: Commonwealth of Australia, Budget 2018-19, Budget Strategy and Outlook Budget Paper No.1 p. 4-8.

33 In Australian studies, the public sector is limited to general government, meaning it does not include public trading enterprises.
34 Private output is measured as the private component of gross domestic product (GDP). This is calculated by subtracting the public components (public compensation of employees and public gross operating surplus) from total GDP.
39 Treasury’s elasticity estimate, which uses data from 1959 to 2017, is smaller than Otto and Voss’s estimate of 0.17.
40 To convert an elasticity measure into a multiplier measure, the elasticity of private output to public capital is divided by the ratio of public investment to private output (3 per cent).
5. Based on practical experience, given that only not-for-profit superannuation funds play a role in unlisted asset investing and capital formation the ‘true’ share of CAPEX is probably closer to $10 billion.

Given the conservative basis of the ISA capital expenditure modelling, our baseline results should be viewed as the lowest bound of possible impacts. We have also included estimates of downstream impacts that are more uncertain but nevertheless be indicative of an upper bound. It is hoped that over time we can refine our estimates with the support of our stakeholder funds and by using more sophisticated modelling approaches to include an exact estimate of the downstream impacts of major projects.\footnote{Through approaches such as computable general equilibrium modelling.} We also consider that for the purposes of this study a conservative basis is a good starting point to contribute to the public conversation and help guide policy decision making.
### Table 9 – GDP impacts of capital expenditure spend by asset type

<table>
<thead>
<tr>
<th>Sector</th>
<th>Capital expenditure ($m)</th>
<th>Direct ($m)</th>
<th>Indirect ($m)</th>
<th>Total ($m)</th>
<th>Multiplier (1B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infrastructure</td>
<td>$3,356</td>
<td>$1,358</td>
<td>$1,941</td>
<td>$3,299</td>
<td>2.4</td>
</tr>
<tr>
<td>Railways</td>
<td>$12</td>
<td>$5</td>
<td>$7</td>
<td>$12</td>
<td>2.5</td>
</tr>
<tr>
<td>Airport</td>
<td>$1,395</td>
<td>$523</td>
<td>$847</td>
<td>$1,370</td>
<td>2.6</td>
</tr>
<tr>
<td>Seaport</td>
<td>$712</td>
<td>$314</td>
<td>$387</td>
<td>$701</td>
<td>2.2</td>
</tr>
<tr>
<td>Toll road</td>
<td>$336</td>
<td>$149</td>
<td>$182</td>
<td>$331</td>
<td>2.2</td>
</tr>
<tr>
<td>Water</td>
<td>$17</td>
<td>$7</td>
<td>$9</td>
<td>$16</td>
<td>2.3</td>
</tr>
<tr>
<td>Electricity generation</td>
<td>$797</td>
<td>$337</td>
<td>$447</td>
<td>$784</td>
<td>2.3</td>
</tr>
<tr>
<td>Pipelines</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>2.1</td>
</tr>
<tr>
<td>Recreation</td>
<td>$5</td>
<td>$1</td>
<td>$4</td>
<td>$5</td>
<td>3.6</td>
</tr>
<tr>
<td>Other Public/Various</td>
<td>$77</td>
<td>$21</td>
<td>$55</td>
<td>$75</td>
<td>3.6</td>
</tr>
<tr>
<td>Property</td>
<td>$3,217</td>
<td>$912</td>
<td>$2,242</td>
<td>$3,154</td>
<td>3.5</td>
</tr>
<tr>
<td>Residential</td>
<td>$323</td>
<td>$72</td>
<td>$244</td>
<td>$316</td>
<td>4.4</td>
</tr>
<tr>
<td>Retail</td>
<td>$707</td>
<td>$208</td>
<td>$485</td>
<td>$692</td>
<td>3.3</td>
</tr>
<tr>
<td>Mixed</td>
<td>$1</td>
<td>$0</td>
<td>$0</td>
<td>$1</td>
<td>3.8</td>
</tr>
<tr>
<td>Industrial</td>
<td>$292</td>
<td>$84</td>
<td>$203</td>
<td>$287</td>
<td>3.4</td>
</tr>
<tr>
<td>Commercial</td>
<td>$1,623</td>
<td>$467</td>
<td>$1,125</td>
<td>$1,592</td>
<td>3.4</td>
</tr>
<tr>
<td>Other/Various</td>
<td>$271</td>
<td>$80</td>
<td>$185</td>
<td>$265</td>
<td>3.3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$6,573</strong></td>
<td><strong>$2,270</strong></td>
<td><strong>$4,183</strong></td>
<td><strong>$6,453</strong></td>
<td><strong>2.8</strong></td>
</tr>
</tbody>
</table>


Note: The analysis captures upstream benefits from capital expenditure but excludes downstream effects related to household consumption-induced effects that stem from wages. The other indirect benefits are reported in the Attachment in Table 15.

The key ‘multiplier’ results stemming from our survey of major industry super funds and asset managers are presented in the following tables.

The total output impacts associated with extending industry super funds’ infrastructure and property capital expenditure at 30 June 2019 is presented in Table 9 by asset type. The purpose of the table is to quantify the estimated impact on regional economic activity stemming from the capital expenditure associated with the asset allocation of industry super funds.

To put this in context, consider the example of airports. Industry super funds undertook around $1.4 billion in capital expenditure which directly raised gross regional output by around $523 million, with upstream or indirect value added raised by $847 million, for a total increase in value added of $1,370 million. The ratio of total value added to direct value added, which is referred to here as the value-added multiplier (1B), was 2.6.
Total estimated capital expenditure across asset classes was close to $6.6 billion. This expenditure led to higher regional output, directly contributing around $2.3 billion to gross regional product across Australia. Based on an estimate of total value added, the overall multiplier is 2.8. This represents total activity of around $6.5 billion in value added (0.34 per cent of GDP in 2018-19). This implies ‘indirect’ upstream economic impacts adding a further $4.2 billion to the first round or direct spending impact.

Table 10 - Employment impacts of capital expenditure spend by asset type, FTEs

<table>
<thead>
<tr>
<th>Sector</th>
<th>Capital expenditure ($m)</th>
<th>Direct</th>
<th>Indirect</th>
<th>Total</th>
<th>Multiplier (1B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infrastructure</td>
<td>$3,356</td>
<td>24,030</td>
<td>32,890</td>
<td>56,919</td>
<td>2.4</td>
</tr>
<tr>
<td>Railways</td>
<td>$12</td>
<td>86</td>
<td>118</td>
<td>204</td>
<td>2.4</td>
</tr>
<tr>
<td>Airport</td>
<td>$1,395</td>
<td>9,924</td>
<td>13,682</td>
<td>23,606</td>
<td>2.4</td>
</tr>
<tr>
<td>Seaport</td>
<td>$712</td>
<td>5,092</td>
<td>6,976</td>
<td>12,068</td>
<td>2.4</td>
</tr>
<tr>
<td>Toll roads</td>
<td>$336</td>
<td>2,394</td>
<td>3,289</td>
<td>5,683</td>
<td>2.4</td>
</tr>
<tr>
<td>Water</td>
<td>$17</td>
<td>120</td>
<td>163</td>
<td>283</td>
<td>2.4</td>
</tr>
<tr>
<td>Electricity generation</td>
<td>$797</td>
<td>5,783</td>
<td>7,810</td>
<td>13,592</td>
<td>2.4</td>
</tr>
<tr>
<td>Pipelines</td>
<td>$0.2</td>
<td>1</td>
<td>2</td>
<td>4</td>
<td>2.4</td>
</tr>
<tr>
<td>Recreation</td>
<td>$5</td>
<td>36</td>
<td>49</td>
<td>85</td>
<td>2.3</td>
</tr>
<tr>
<td>Other Public/Various</td>
<td>$77</td>
<td>558</td>
<td>752</td>
<td>1,309</td>
<td>2.3</td>
</tr>
<tr>
<td>Property</td>
<td>$3,217</td>
<td>22,195</td>
<td>32,143</td>
<td>54,338</td>
<td>2.4</td>
</tr>
<tr>
<td>Residential</td>
<td>$323</td>
<td>1,381</td>
<td>3,754</td>
<td>5,136</td>
<td>3.7</td>
</tr>
<tr>
<td>Retail</td>
<td>$707</td>
<td>5,082</td>
<td>6,893</td>
<td>11,975</td>
<td>2.4</td>
</tr>
<tr>
<td>Mixed</td>
<td>$1</td>
<td>4</td>
<td>7</td>
<td>11</td>
<td>3.1</td>
</tr>
<tr>
<td>Industrial</td>
<td>$292</td>
<td>2,098</td>
<td>2,877</td>
<td>4,975</td>
<td>2.4</td>
</tr>
<tr>
<td>Commercial</td>
<td>$1,623</td>
<td>11,702</td>
<td>15,955</td>
<td>27,657</td>
<td>2.4</td>
</tr>
<tr>
<td>Other</td>
<td>$271</td>
<td>1,929</td>
<td>2,656</td>
<td>4,585</td>
<td>2.4</td>
</tr>
<tr>
<td>Total</td>
<td>$6,573</td>
<td>46,225</td>
<td>65,033</td>
<td>111,257</td>
<td>2.4</td>
</tr>
</tbody>
</table>

Note: The analysis captures upstream benefits from capital expenditure but excludes downstream effects related to household consumption-induced effects that stem from wages. The other indirect benefits are reported below and in the Attachment in Table 16.

Total employment impacts associated with the asset allocation of industry super funds and their capital expenditure in 2018-19 is presented above in Table 10. It details the baseline direct, indirect, and total employment impacts of the total industry super fund capital expenditure.
spend of $6.6 billion in financial year June 2019. This spending directly employed around 46,000 Full Time Employment (FTE) persons with further indirect employment impacts adding a further 65,000 FTE persons to the workforce each year. In total, the combined direct and indirect impacts suggest the capital expenditure spend supported over 111,000 FTE jobs. These are real jobs, building technical skills and experience across a broad range of industries and occupations through regions. The ratio of total employment to direct employment, which is referred to here as the employment multiplier, was 2.4. Preliminary estimates including downstream impacts are also presented in Table 11 suggesting an upper bound of over 167,000 jobs.

In terms of total employment impacts, the greatest beneficiaries are the larger states, with New South Wales leading, followed by Victoria and Queensland (Figure 21).

**Figure 21 – Distribution of total employment impacts, FTEs**

![Pie chart showing distribution of total employment impacts by state and territory](image)

Source: ISA Super in the Economy database and VURM model database

Note: Various means that the impacts are distributed across Australia.

**Spending Multipliers**

Spending and employment multipliers associated with additions to public infrastructure and property holdings are some of the highest achievable. That is for every dollar spent directly on capital goods, significant upstream purchases of raw materials, trades and specialist services are required to produce the asset which generates significant downstream consumer purchases out of income flows from workers’ wages.

Therefore, governments turn to new construction projects as a means of stimulating economic activity at times of economic downturn based on ‘bang per buck’ criteria.42

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42 The only problems with these policies are the lags associated with rolling them out at exactly the right time in the business cycle. This is because there are lags associated with project selection, approvals, construction etc.
Above we have seen expenditure and employment impacts (ratio of total/direct) imply large multipliers. In other words, the $6.6 billion of capital expenditure spending by funds generated further upstream activity or value added worth around $6.5 billion for a total multiplier of around 2.8. This same spending generated or supported at least 111,257 jobs. These figures are summarised in Figure 22 below.

**Figure 22 – Flow of major project spending through the economy in 2018-19**

**Employment outlook**

Industry super funds and their asset managers have an investment pipeline aiming to invest up to $33 billion dollars over the next five years starting in 2019-20 in Australian public infrastructure projects. This expenditure profile throws off employment across Australia that we estimate will total around 661,586 jobs through the construction phases by the end of 2023-24.

**Table 11 – Total job creation estimates from fund survey**

<table>
<thead>
<tr>
<th>Year</th>
<th>Employment FTEs (Direct &amp; Upstream)</th>
<th>Employment FTE's (Direct, Upstream &amp; Downstream)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Actual</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2018-19</td>
<td>111,257</td>
<td>167,118</td>
</tr>
<tr>
<td>Estimates</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2019-20</td>
<td>101,773</td>
<td>152,872</td>
</tr>
<tr>
<td>2020-21</td>
<td>110,195</td>
<td>165,512</td>
</tr>
<tr>
<td>2021-22</td>
<td>108,803</td>
<td>163,422</td>
</tr>
<tr>
<td>2022-23</td>
<td>112,161</td>
<td>168,465</td>
</tr>
<tr>
<td>2023-24</td>
<td>117,396</td>
<td>176,328</td>
</tr>
</tbody>
</table>

*Source: ISA Super in the Economy database and VURM model database.*

The size of the actual employment multipliers eventuating from industry super fund’s investment pipeline are likely to vary depending on the degree of ‘slack’ (size of output gaps) in
the Australian economy when actual spending occurs (see Box 1 for an explanation of the range of impact multipliers cited in literature).

- In normal economic circumstances, such as the few years preceding the COVID-19 pandemic, Australian regional labour markets had very little slack. Therefore, it is expected that final impact multipliers from new spending would be close to the ‘lower-bound’ estimates headlined in this paper, where price changes crowd out other indirect effects. This is part of our conservative approach and the basis of the ‘lower-bound’ estimates highlighted in Tables 9 & 10 above.

- In abnormal economic times, such as a prolonged economic downturn, or perhaps even during the current COVID-19 pandemic, slack may occur in regional labour markets. Under these circumstances, it is probable that a given amount of CAPEX might ‘buy’ more job creation, because wage increases are far less likely to crowd-out employment gains in regional labour markets.

We have included an alternate set of ‘upper-bound’ value-added and employment estimates in the Attachment, which include all possible indirect effects from project spending (see Tables 15 and 16). Here the indirect impacts include not only the upstream effects, but also the downstream impacts from fund CAPEX spending. The downstream impacts capture the additional consumption spending impacts flowing from workers’ wages. These downstream impacts are not captured in our lower-bound estimates previously for methodological reasons.

### 3.3 Raising productivity

Productivity gains are the grease which lubricates our economic machine, sustaining wealth increases for households, including fuelling wage gains, and generating profits from earnings and capital gains that benefit business owners including superannuation fund members.

Labour productivity growth is the most important driver of per capita income ‘living standards’ through time. Increasing real incomes give people the capacity to buy more goods and services, save and invest, as well as more freedom to choose how to spend their time. Higher incomes also generate more tax revenue for government services and income support. Higher productivity growth also supports a more stable inflationary environment which in turn underpins business confidence and over the long run enhances the purchasing power of members’ savings.

One of the problems with the current Australian labour market is that labour productivity gains are not being fully translated into real wages (as they once were) – so what incentive is there for workers to strive for greater productivity (Figure 23). So, any focus on raising productivity must ensure that the gains are widely spread.

The Australian economy has been experiencing a period of low productivity growth for almost a decade. This is due in part to the reform fatigue of the 2000s, but also due to a global productivity slowdown which has complex drivers. The productivity slowdown itself is a longer-term problem given that the Federal Government’s intergenerational fiscal and economic strategy is predicated on productivity growth of 1.6 per cent from 2020-21. Unfortunately, the post-2012 trend is closer to 1 per cent. Even more challenging is that Australia needs to achieve this target against a global backdrop of low growth and low returns. To maintain and raise Australian living standards in the current environment demands spurring growth in labour productivity.
Productivity declines crimp decent wage increases, which is why sectoral wage gains in excess of 3 per cent are so rare these days, when a decade ago a 4 per cent annual enterprise wage increase was not unusual.

Business will not spend on CAPEX if consumers have no propensity to spend. And workers are in the end consumers, so it is a vicious downward cycle crimping aggregate demand.

Broadly speaking labour productivity growth is achieved through two means, capital deepening and multifactor productivity for a given labour force.43

**Figure 23 – Productivity, compensation and labour costs**

Investments in newly produced assets tend to contribute significantly to measured labour productivity once assets are fully operational. By definition, a larger or deeper capital stock applied to a given workforce raises measured output per unit of labour. Importantly, there is a clear empirical link between spending on public infrastructure and measures of labour productivity as estimated in the early 1990s, even if we now think the impacts are likely to be significantly smaller.44

A comparison of the growth in public investment to the growth in labour productivity across 35 OECD member countries between 1995 and 2018 suggests that raising the rate of public investment in the economy by 1 per cent would increase measured labour productivity growth by 0.03 per cent in any given year. This trend is suggested by Figure 24 below. Applying this to an estimate of the total stock of Australian public infrastructure (in public and private hands) of

---

43 The other major source of labour productivity gain is to invest in the quality of human capital through education and training.

$1.3 trillion at 30 June 2019, suggests that the stock contributes an additional $55 million to output each year.\textsuperscript{45}

**Figure 24 – Relationship between the growth in labour productivity and the growth in public investment, 1995 to 2018**

Some argue that labour productivity gains from capital deepening are more likely to be temporary or static gains for an economy. Certainly, high growth rates cannot be sustained through factor accumulation alone.\textsuperscript{46}

Others reason that labour productivity gains achieved via total factor productivity (TFP) are preferable as they argue they lead to ongoing ‘dynamic’ efficiency gains which drive up growth.

\textsuperscript{45} Industry super funds have added or are managing up to $28 billion in public infrastructure assets out of a total stock of $1,290 billion. Assuming around one half of the $168 billion in annual physical CAPEX by corporations flows to public infrastructure assets then the permanent increase in output via capital deepening is around 0.03 * $28/$1290 * $168 * 0.5 = $55 million.

\textsuperscript{46} Easterly, W and Levine, R 2001.

The benefits associated with capital deepening can be extended too far – as illustrated by the “building pyramids” example where projects are undertaken without reference to valid benefit cost benchmarks. This is offset to some degree by the fact that the set of the investment opportunities that are available in an economy are an outgrowth of the investments that have been made previously. For example, the United States would look nothing like it does today without the interstate highway system.

Alywn Young (1995) identified examples of high growth economies where the period of sustained economic growth was achieved solely through factor accumulation. For example, the Soviet Union in the 1960s, Japan in the 1970s and 1980s and the Asian Tigers (Hong Kong, Singapore, South Korea, and Taiwan) in the 1990s. For a short period, each of these nations achieved extraordinary rates of economic growth that in most cases were not sustained as most of these economies also experienced substandard total factor productivity (TFP) growth rates. It may be that future generations look back at the rapid industrialisation of China during the 1990s and 2000s and draw a similar conclusion.
rates through time. TFP, or broadly speaking, technological change generated via better industrial organisation, research and development (R&D), and deeper investment by business and government and spill overs associated with each, is usually attributed to the bulk of economic growth through time. The American economist Robert Solow was one of the first to identify the links between economic growth and technological change.

Indeed, Solow, a Nobel Laurette, attributed 80 per cent of economic growth to such change. But it should also be noted that the distinction between capital deepening and TFP is somewhat arbitrary as TFP measurement captures any technology and innovation impacts associated with new infrastructure. TFP growth rates are also impacted by levels of public infrastructure spending in economies. This is the reason why regenerating and extending a nation’s stock of public infrastructure is so important as the technology embodied in the stock allows for spill-over effects and a path of dynamic advance through economies.

We estimate that for 23 OECD nations, raising the rate of public investment growth by 1 per cent increases measured TFP growth over time by 0.08 per cent. This trend is suggested by Figure 25 below. Applying this ratio to an estimate of the total stock of public infrastructure (in public and private hands), we calculate that the stock contributes an additional $146 million to output each year.

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48 Solow, 1957.
49 Refer to footnote 40 for basis of calculation.
3.4 Global resilience

The default super system has helped to protect Australia’s economic sovereignty while supporting jobs at home.

Australia is still heavily dependent on variable external funding sources. The nation still relies in large part on the savings of foreigners to fund our ongoing investment requirements and has relatively volatile export earnings. At the same time, the net borrowings of Australian households, corporates and governments have been rising rapidly on the back of a 25-year residential property boom and will continue to expand during and after the COVID-19 pandemic. The stock of net external borrowings sat at around $1,142 billion or 60.5 per cent of GDP at 30 June 2019. Maintaining strong credit worthiness is critically important for Australia as a small, open economy.

Importantly the superannuation sector has helped to strengthen the structure of Australia’s current account position by helping to even out the imbalance in the stock of net assets (FDI equity and portfolio equity) held by Australians and foreigners. The difference between the two has narrowed over the period since the introduction of the Superannuation Guarantee system (Figure 26).
The structural contribution industry super funds have made to strengthening Australia’s current account contrasts with what has occurred on the liabilities side of the net income deficit. This imbalance is widening, driven in large part by the borrowing of foreign owned multinational corporations (to reduce taxation) and via the intermediated credit of the Big-4 Australian banks which has fuelled the residential housing bubble in Sydney and Melbourne.

The key driver of the structural improvement in Australia’s net income deficit is due in large part to industry super funds’ individual and/or collective equity investments mainly in offshore equity markets but including infrastructure assets over the past twenty years. The foreign asset holdings of IFM Investors and industry funds at 30 June 2019 are presented in Figure 27.
Given the exposure the Australian economy has to ‘debt’ stability issues, a premium is placed on savings ‘stabilisers’ embedded in the economy, such as the compulsory superannuation system. In this sense, superannuation savings are a cornerstone of the financial system, helping to reduce borrowing costs for all by lowering the total indebtedness of Australians. It is generally accepted that compulsory superannuation leads to an increase in household saving, as credit constrained lower income earners cannot respond to compulsory saving with less discretionary saving elsewhere.\(^{50}\)

Research on whether some of the additional household savings attributable to superannuation are offset by decreases in savings elsewhere has generally found an involuntary savings offset to compulsory superannuation of greater than zero but less than one (typically the range is from 0.3 to 0.8), which would be converted to 50 per cent by econometricians who are versed in statistical shortcomings and behavioural economics.\(^{51}\) No other result could really withstand peer review.

If industry super funds have added around $151 billion to Australian superannuation savings via outperformance over the last 19 years, and each dollar in superannuation savings adds at least 50 cents to national saving, this would suggest that national saving has risen by around $76 billion due to the outperformance of industry super funds. This estimate is likely to be

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\(^{50}\) CEPAR 2020; Fitzgerald, V.W. 1993. Other savers have more discretion in their savings decision so that if you force them to save more in one way, they will save less in another.

\(^{51}\) Connolly and Kohler, 2004; Gruen and Soding, 2011; Shanker and Vidler 2014.

The flip side of Australian residents holding greater financial wealth over time is that the Australian economy has to service lower net external liabilities (net debt), which potentially allows all Australian borrowers to access global credit markets on more favourable terms. Research undertaken by the Treasury during the 2000s suggests that for each 1 per cent reduction in total net external liabilities, borrowing costs are reduced (conservatively) by at least 3 basis point (bps) but possible as much as 25 bps time by lowering the risk embedded in interest rates. Combining the additional $76 billion in additional net assets over the period with a lower risk premia on foreign debt implies a total interest saving across the national economy worth around $23 million each year (Figure 28).

Figure 28 – The benefit flowing from lower foreign indebtedness

3.5 Automatic stabilisers

The superannuation sector provides a liquidity buffer to financial markets and the broader economy through counter-cyclical investing. In times of financial turbulence, super funds with strong cash positions can help recapitalise Australian businesses (financial and non-financial companies) by decisive and speedy private placements. More broadly their long-term investment horizon both demands and rewards counter-cyclical investing.

In Australia, during and after the GFC, default superannuation provided the same institutional anchor. While households sold down their holdings of equity assets, super funds were buying. For example, between March 2008 and December 2011, net selling by households averaged 0.3 per cent of the nominal GDP (or $3.9 billion) per quarter. In contrast, the superannuation sector was a net buyer of private non-financial corporation equity over the same period,

52 It is generally accepted in the literature that compulsory superannuation leads to an increase in household saving, largely due to the credit constraints of low-income earners.

53 Raising national saving does not always directly reduce net external liabilities in an accounting sense but does always strengthen the net asset position of the nation.


55 Counter-cyclical means moving in the opposite direction to the financial or economic cycle. In market terms, buying when everyone else is selling and vice versa.
averaging 0.2 per cent of nominal GDP (or $2.3 billion) per quarter. This is a clear demonstration of the key stabilising potential of the superannuation sector during periods of high market volatility.

**Figure 29 – The stabilisation role of the super sector during the GFC**

Turning specifically now to the support offered to the Australian economy by the industry super funds during the GFC storm. Industry funds, with strong cash positions were able to recapitalise Australian banks and operating companies both during and after the GFC. For example, the major banks were significant beneficiaries, being able to recapitalise quickly through several private placements (this was replicated more recently during the COVID economic downturn with funds’ participation in capital raisings by, for example, NAB and other companies). In circumstances where maintaining liquidity was preeminent, not-for-profit institutional investors (such as industry super funds) with a wholesale business model long-term asset allocation, provided the capacity to engage in ‘off market’ private placements over short time periods. Where super funds had a more retail ‘choice’, their rapid response capacity was eliminated, which made them vulnerable too.

Thinking about the lessons here for the COVID-19 pandemic, the more super funds are forced into models of investment that involve higher turnover of assets or shorter investment horizons, the greater detriment to the economy and investment returns.

If superannuation funds are to continue to provide a counter-cyclical anchor for the Australian financial markets in a way that limits market volatility and helps the Australian economy grow, superannuation fund trustees must have confidence in stable policy settings.

It is possible to enlist the vast superannuation sector to simultaneously invest to rebuild member balances and shoehorn the economic recovery. The Federal Government could literally
hand institutional investors a shopping list of policy projects and ask who wants to be the long-term owner. This is true across energy, infrastructure and property including affordable housing, SME lending, private equity and strategic industry policy etc.

Wherever countercyclical investment is needed and cannot be funded by Government – institutional investors can and are able to fill the breach while achieving an appropriate rate of return for members.  

In the face of the COVID-19 Pandemic, the longer-term growth orientation of the default super sector can not only underpin the growth of member balances but also help support the broader economy and employment. The major limitation on default super’s participation as a strong partner in long-term investments is their trustees’ confidence in stable policy settings.

3.6   Budget impacts

We have established that industry super funds have positively impacted broader macro economy aggregates. The superior performance by industry super funds implies an upward spiral of economic expansion achieved mainly via greater capital formation.  

We now attempt to establish that the upward spiral of economic expansion extends to supporting the Federal budget via higher tax receipts, lower pension payments and lower interest costs. Each contribution to this stronger budget bottom-line is explained below in the following sub-sections.\(^{56}\)

Figure 30 – Federal Government budget benefits in short-term from industry super

\[\text{Source: ISA Analysis}\]
\[\text{Note: Estimated budget impact for the fiscal year 2018-19.}\]

3.6.1   Higher tax receipts

A stronger economy has definite budget impacts. It raises tax receipts and lowers outlays on transfer payments and interest costs. Table 12 below helps to illustrate this point.

\(^{56}\) The magnitude of these savings may be easier to picture if they are compared to the cost of building new schools and hospitals. For example, the capital cost of building a new high school can be up to $130 million. The capital cost of building a new state of the art public hospital can be as much as $3 billion.
Total capital expenditure by industry super funds surveyed as part of this study was $6.6 billion or around 0.4 per cent of national output in 2018-19. In the short run, higher capital expenditure on physical assets by industry super funds implies close to a $2.5 billion-dollar improvement in the Federal budget bottom line after two years net of GST receipts based on the sensitivity table included in Table 12.\(^7\)

It also shows that an increase in real GDP reduces the overall call on government outlays by reducing the demand on income support payments and other transfer payments due to the stronger economy, which saves around $45 million each year.

### 3.6.2 Lower interest costs

Our sensitivity table of budget impacts implies that a 1 per cent increase of GDP lowers public interest costs on public debt by around $200 million. With industry super funds’ investment at 0.4 per cent of national output, this implies a saving on public debt interest of around $106 million each year.

#### Table 12 - Sensitivity table budget around 2018-19

<table>
<thead>
<tr>
<th>Payments</th>
<th>Impact after 1 year</th>
<th>Impact after 2 year+</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$mil</td>
<td>%GDP</td>
</tr>
<tr>
<td>1. Prices</td>
<td>403</td>
<td>0</td>
</tr>
<tr>
<td>2. Wages</td>
<td>209</td>
<td>0</td>
</tr>
<tr>
<td>3. Newstart allowance</td>
<td>125</td>
<td>0</td>
</tr>
<tr>
<td>4. Public debt interest</td>
<td>251</td>
<td>0</td>
</tr>
</tbody>
</table>

#### Receipts

<table>
<thead>
<tr>
<th></th>
<th>Impact after 1 year</th>
<th>Impact after 2 year+</th>
</tr>
</thead>
<tbody>
<tr>
<td>5. Nominal GDP</td>
<td>5,973</td>
<td>0.3</td>
</tr>
<tr>
<td>6. Average earnings</td>
<td>2,927</td>
<td>0.2</td>
</tr>
<tr>
<td>7. Gross income tax withholding</td>
<td>2,150</td>
<td>0.2</td>
</tr>
<tr>
<td>8. Gross individual income tax</td>
<td>637</td>
<td>0</td>
</tr>
<tr>
<td>9. Company income tax</td>
<td>1,147</td>
<td>0.1</td>
</tr>
<tr>
<td>10. Terms of trade</td>
<td>837</td>
<td>0</td>
</tr>
<tr>
<td>11. Household consumption</td>
<td>1,032</td>
<td>0.1</td>
</tr>
<tr>
<td>12. Employment</td>
<td>966</td>
<td>0.1</td>
</tr>
</tbody>
</table>

---

\(^7\) So a 1 percentage point increase in nominal GDP (driven mainly be real factors such as employment and productivity) raises revenue receipts because of the rise in the number of wage earners and additionally from higher real wages. The stronger labour market also increases tax collections from superannuation funds because contributions (including compulsory contributions) are higher. The increase in personal incomes leads to higher consumption which results in an increase in goods and services tax (GST) receipts (with the corresponding receipts passed on in higher GST payments to the states). In addition, the stronger economy results in higher levels of corporate profitability, increasing company taxes.
### 13. Productivity

<table>
<thead>
<tr>
<th>Source: ISA Analysis</th>
</tr>
</thead>
</table>

Note: The table provides a guide to the sensitivity of forward estimates of outlays and receipts to a one percentage point increase in the underlying economic parameters or allowance in 2018-19. The sensitivity table is static, i.e. just capturing the direct effects, rather than the full dynamic effects that could be obtained by running a model. As the table is only a guide and provides a 'rule of thumb' indication on the impacts of the budget changes in prices, wages and other parameters. The direct effects summarised above are likely to be like those estimated in prior years when measured as a percentage of GDP. The exception to that is the Newstart Allowance (which depends on the base), and the terms of trade (where the impact of mining profits on the company tax and PRRT base would is likely to be higher now).
4. Emerging opportunities

This section explores a range of alternative assets held by default super options to maximise net returns over time via effective long-term portfolio diversification. This includes allocations to the full suite of unlisted investments in domestic and global investments, unlisted assets including property, infrastructure, debt, private equity, agriculture, renewables and technologies.

In the section below we will examine how funds have allocated to opportunities in agriculture, retirement living and aged care, business banking, affordable housing and private equity. These investments vary in their risk-return profile but are intended to complement industry super funds’ long-term investment horizon by offering diversification benefits and low correlation with existing assets.

4.1 Agriculture

Below we catalogue some of the not-for-profit superannuation fund asset holdings across rural and regional Australia, focussing on the investments held by industry super funds.

Existing asset holdings

While there is a consensus that Australian super funds (both for-profit and not-for-profit funds) have tended to under invest in agriculture in Australia generally, this is less true of not-for-profit super funds, which have been among the vanguard of investors in this asset class. For example:

- Cbus has an indirect minority interest in Stone Axe Pastoral. The company was formed to create a platform to consolidate a significant full blood wagyu beef herd in Australia, starting with over 900 head. The herd is now around 26,000 full blood and purebred cattle and occupies about 30,000 hectares of prime pastoral land across four states. The fund also acquired an indirect minority interest in Hive & Wellness in 2018 upon the privatisation of the ASX listed company, Capilano Honey. Honey made by Hive & Wellness is sold in Australia and internationally under several in-house brands.

- Tasplan has exposure to listed agriculture company TasFood, which has a stable of food brands such as Meander Valley Dairy, Nichols Poultry, Robur Farm Dairy and Shima Wasabi. The company’s produce is predominantly sourced from Tasmania, and it has the capacity to grow to supply domestic and export markets.

- CareSuper holds minor investments in Australian timber assets as well as multiple regional retail properties across Queensland, New South Wales and Victoria.

- Retail Employees Superannuation Trust (REST) has major investments in agriculture in partnership with Warakirri Asset Management. The portfolio investment encompasses approximately 100,000 hectares of broadacre cropping farms across ten aggregations in Victoria, southern and northern New South Wales, southern Queensland and Western Australia.

- UniSuper has investments in timber plantation assets (actively managed by internal investment team) and minor exposures to listed companies with connections to the agriculture sector.
Catholic Super\textsuperscript{58} holds a stake in the Macquarie owned Paraway Pastoral Fund estimated to be worth over $100 million (invested since October 2016).

**Investments in regional infrastructure**

Australia’s major food and agribusiness sea and land freight networks into the high growth Asian markets are presented in Figure 31. Many of the logistical pathways for supplying produce to Asian and other international markets pass through assets owned in full or in part by industry super funds.

**Figure 31 – Australia’s Food and Agribusiness Sea and Land Freight Network**

![Map of Australia's food and agribusiness sea and land freight network](image)


Industry super funds also hold major direct equity investments in infrastructure assets, comprising holdings mostly in major airports, seaports and utilities which support living standards in rural communities. These are listed below in Table 13.

\textsuperscript{58} Catholic Super and Equip Super have completed their merger in October 2019.
Table 13 – Major regional infrastructure holdings of industry super funds

<table>
<thead>
<tr>
<th>Asset Title</th>
<th>Sector</th>
<th>Manager Share*</th>
<th>Manager</th>
</tr>
</thead>
<tbody>
<tr>
<td>NSW Ports</td>
<td>Seaport</td>
<td>35%</td>
<td>IFM Investors</td>
</tr>
<tr>
<td>WestConnex</td>
<td>Toll road</td>
<td>10%</td>
<td>Direct</td>
</tr>
<tr>
<td>Queensland Motorways</td>
<td>Toll road</td>
<td>25%</td>
<td>Direct</td>
</tr>
<tr>
<td>NT Airports</td>
<td>Airport</td>
<td>75%</td>
<td>IFM Investors</td>
</tr>
<tr>
<td>Sydney Desalination Plant</td>
<td>Water</td>
<td>40%</td>
<td>Utilities Trust of Australia</td>
</tr>
<tr>
<td>Wyuna Water</td>
<td>Water</td>
<td>70%</td>
<td>IFM Investors</td>
</tr>
<tr>
<td>Flinders Port</td>
<td>Seaport</td>
<td>See note</td>
<td>Direct</td>
</tr>
</tbody>
</table>

Source: ISA Survey of major industry funds

Note: *Approximate figures rounded to multiples of 5 per cent. The stakes shown above for WestConnex and Queensland Motorways are held by AustralianSuper. Flinders Port Holdings is owned by MTAA Super, Statewide Super, Equip Super, State Super and Infrastructure Capital.

Other examples of regional infrastructure investments include:

- The Collgar Wind Farm in Merredin, Western Australia, which is wholly owned by REST. The fund was a lead participant in the development, financing and construction of the $750 million facility. Upon its completion, it was the largest single-stage wind farm in the southern hemisphere. It is also among the largest Australian renewable energy projects directly owned by an Australian super fund.59

- MTAA Super has a stake in Sustainable Energy Infrastructure - a portfolio of regional infrastructure assets acquired from AGL in 2018. The business runs a diversified portfolio of regional Australian small-scale generation and distributed energy assets which are currently owned and operated by AGL. The portfolio consists of 20 energy assets in various locations in six states across regional Australia.

Major infrastructure assets held by industry funds outside of Australia’s big cities are represented in Figure 32 below.

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From an investment perspective it makes sense to link existing freight transport infrastructure and water supply initiatives to agricultural asset holdings. There are large economic gains to be captured from holding an interconnected portfolio of assets within the same region and between regions which share borders.

We have seen that industry super funds already have significant investment in infrastructure assets within and outside metropolitan areas. Over time these will be further expanded and could be combined with new agricultural business holdings to generate further significant network spill over benefits.

**Investments in regional property**

Industry super funds also hold major direct equity investments in property assets in regional communities, comprising mostly retail holdings. Some of these are listed below in Table 14.
Table 14 – Major regional property holdings of industry super funds

<table>
<thead>
<tr>
<th>Asset Title</th>
<th>Sector</th>
<th>Manager Share</th>
<th>Manager</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pacific Fair, Broadbeach, QLD</td>
<td>Retail</td>
<td>20%</td>
<td>AMP</td>
</tr>
<tr>
<td>Bendigo Market Place, VIC</td>
<td>Retail</td>
<td>100%</td>
<td>ISPT</td>
</tr>
<tr>
<td>Wagga Wagga Market Place, NSW</td>
<td>Retail</td>
<td>100%</td>
<td>ISPT</td>
</tr>
<tr>
<td>Mandurah Forum, WA</td>
<td>Retail</td>
<td>50%</td>
<td>ISPT</td>
</tr>
<tr>
<td>Kawana Shopping World – Sunshine Coast, QLD</td>
<td>Retail</td>
<td>50%</td>
<td>ISPT</td>
</tr>
<tr>
<td>Waurun Ponds, Geelong, VIC</td>
<td>Retail</td>
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<td>ISPT</td>
</tr>
<tr>
<td>Cairns Central, QLD</td>
<td>Retail</td>
<td>100%</td>
<td>Lendlease</td>
</tr>
<tr>
<td>Erina Fair, NSW</td>
<td>Retail</td>
<td>50%</td>
<td>Lendlease</td>
</tr>
<tr>
<td>Settlement City, NSW</td>
<td>Retail</td>
<td>100%</td>
<td>Lendlease</td>
</tr>
<tr>
<td>Robina (Gold Coast), QLD</td>
<td>Retail</td>
<td>100%</td>
<td>QIC</td>
</tr>
</tbody>
</table>

Source: ISA Survey of major industry funds

4.2 Retirement living and aged care

The retirement living and aged care sector is embracing unprecedented demand growth. With the industry going through its quality growth stage, customers can hopefully expect a more competitive and efficient provision of aged care services in the coming years. The Industry superannuation funds are already making investments in the sector and further deals are likely in coming years. Industry super funds support the continued shift towards customer-driven business models, especially in aged care, as this will attract more equity capital.

Below we catalogue some of the not-for-profit superannuation fund asset holdings in the emerging area of retirement living and aged care, focussing on the investments held by industry super funds.

Existing asset holdings

- HESTA has allocated $200 million to ISPT to establish the HESTA Healthcare Property Trust, which will invest in private hospitals, general medical and residential aged care. The fund sees growth in future demand for services and facilities as our population ages.

- HESTA has also allocated $19 million through its Social Impact Investment Trust to finance the development of Australia’s first dementia village - Korongee. Located in Glenorchy Tasmania, the village was developed through a partnership with Glenview (not-for-profit aged care provider), the Federal government and Social Ventures Australia. The first of its type in the southern hemisphere, the village will be able to accommodate 96 residents in 12 eight-bedroom homes, supported by professional care staff.

- First State Super has investments in the Oak Tree Group, which owns and operates 31 retirement villages in Queensland, New South Wales, Victoria and Tasmania.
Sunsuper has been working with M.H. Carnegie and Co. and Catalyst Health to establish a $200 million healthcare real estate investment vehicle. A pipeline of new aged care developments in Queensland and Western Australia has been funded by the initial commitment, which has recently increased to $300 million to allow further developments. Sunsuper’s healthcare real estate portfolio has three operators across six aged care assets in Australia, with a total of 785 bed as of March 2020.

IFM Investors has partnered with Mercy Health and Aged Care (MHAC) to fund a new aged-care facility in Colac. Under the deal, IFM Investors would lease the facility back to MHAC, which will be the lessee and operator of the facility with 107 beds. Two separate sale and leaseback arrangements were made in 2006 and 2008, with terms extending to 2031.

4.3 Business lending

Below we catalogue some of the not-for-profit superannuation fund asset holdings in direct business lending, focussing on the investments held by industry super funds. Direct lending is where businesses obtain funding directly from institutional investors, for example, superannuation funds (rather than from a bank). Direct lending is an alternative to traditional business banking.

Interest in facilitating Australian corporates’ access to alternative sources of debt has arisen since it is now clear that since financial deregulation in the 1980s and the adoption of the Four Pillars policy that business lending has significantly reduced as a share of all lending, especially to small and medium sized enterprises customers (Figure 33).

Figure 33– Business lending as share of total lending, July 2019

Australian superannuation funds hold, as of June 2019, approximately $6.3 billion in bonds and $6.3 billion in loans issued by domestic non-financial corporations (NFCs), which can be best described as a niche business (see Figure 34). It is a minor amount relative to the $1.3 trillion

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61 The ABS instituted changes to its data collection from financial institutions in June 2019 (the data collected by APRA and fed through to the ABS and RBA). These changes impacted the publication ABSS232.0 Finance and Wealth
in total credit liability of Australian NFCs, comprising $284 billion in bonds and $1,004 billion in long-term loans held by domestic and international institutions.

**Figure 34 – Non-financial corporation loans held by super funds**

![Graph showing domestic NFC bond and loan holdings by super funds](image-url)

*Source: ABS Cat.5232.0
Note: Pension fund holdings of loans and placements borrowed by non-financial corporations (NFCs). All NFC sub-categories have been included – private non-financial investment funds, other private non-financial corporations and public non-financial corporations.*

For Australian superannuation funds, these combined holdings translate to just under 1 per cent of total NFC credit (bonds and loans) issued each year. Below are some examples of significant debt transactions involving industry super funds:

- **Ausgrid**, owned by AustralianSuper and IFM Investors, jointly completed an AUD$1.2 billion seven-year bond issuance deal in the second half of 2017, becoming the largest local corporate bond issuance by an Australian company. This was followed by their USD$2 billion private placement deal in the United States that became a record for a non-American issuer.

- **AustralianSuper** became the sole debt funder for the development of the Midtown Centre in Brisbane CBD. The $360 million deal in mid-2019 was arranged by investment manager MaxCap with the 45,000 square metre of office space becoming the new home of Rio Tinto in Australia. The investment by AustralianSuper was possibly the largest single source of capital for such a commercial real estate development in Australian history.62

Despite the significant progress being made in ramping up direct lending by super funds, the big lenders to businesses in Australia are still banks and foreign institutions which account for approximately 59 per cent and 26 per cent of loans respectively, see Figure 35. However, since the GFC, banks have been limiting their exposure to commercial debt due to tighter regulation and more restrictive funding ratios imposed under Basel III.

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To expand business lending, super funds will need to internalise additional functions to enable both loan administration and ongoing credit monitoring. To justify this expansion, funds would have to perceive that they could make appropriate risk-adjusted returns in members' best interests. This will be tough for superannuation funds. Unlike banks, superannuation funds cannot cross subsidise against other business lines, so they have to price credit risk on a standalone basis. Therefore, superannuation funds are hamstrung by a competitive disadvantage in short term borrowing which is the bank's forte. Perhaps for tenors of longer than three to five years the superannuation funds can hold their own.

Historically, superannuation funds have had little internal experience in writing and managing loans to corporations. However, this deficiency could be overcome by recruiting investment staff with relevant experience, or by partnering with banks in the future given their well-established credit assessment capabilities. Funds might even outsource credit assessment activities to banks or non-banks. This effort and expense might be justified on the basis that it would enable funds to track SMEs with high growth which may in future be targets for private equity provision.

Funds might even consider hiring more debt specialist investment managers or invest in other specialist structures (such as RMBS or ABS securitisation) that provide more exposure to the small business sector.

4.4 Affordable housing

Below we examine the emergence of affordable housing as an asset class and how industry super funds are investing directly via equity participation or indirectly through debt and other partnerships.
Direct investments

Improving housing affordability would overwhelmingly benefit the livelihoods of superannuation fund members, especially when it comes to reducing the likelihood of ending up with a large mortgage in retirement.

In recent years, some industry super funds have started to introduce residential property assists (including new housing developments) into their property portfolios as part of a well-diversified asset allocation.

Many industry super funds are now looking for opportunities to increase their direct investment in residential property such as mixed developments which include affordable housing. For example, currently ISPT, Cbus Property, AustralianSuper and other industry super funds are investigating the feasibility of build-to-rent options. Below are some examples of industry super funds’ involvement in assisted housing:

- AustralianSuper has acquired a 25 per cent stake in affordable housing developer Assemble Communities. The developer offers homes that occupants can rent for up to five years before buying and includes provision for essential workers’ housing. This was the first investment in scalable housing platforms made by AustralianSuper, and it expects to invest more than a hundred million a year in the pipeline of homes from the developer. It’s first investment with Assemble will be a 198-unit development in Melbourne’s north-western suburb of Kensington.63

- HESTA has invested $20 million in a joint venture with community housing group Nightingale Housing and not-for-profit Social Ventures Australia to develop 185 apartments in Brunswick (inner-north Melbourne). About 20 per cent of the apartment units will be rented to key service workers such as nurses and workers in the aged care and not-for-profit sectors. Another 20 per cent of the units will be available as affordable rentals to eligible tenants. The remainder will be market sales.64

- NGS Super maintains a $500,000 exposure to social benefit bonds (the Aspire SIB) which invests in reducing homelessness in South Australia. The bond fund the Aspire Program, is delivered by the Hutt St Centre, an Adelaide based homelessness services specialist, in partnership with community housing providers including Common Ground Adelaide and Unity Housing.

NHFIC Bonds

Superannuation funds can also gain exposure to affordable housing by investing in Commonwealth guaranteed affordable housing bonds. The National Housing Finance and Investment Corporation (NHFIC) operates the Affordable Housing Bond Aggregator (AHBA), which aims to provide low-cost, long-term loans to finance community housing projects through bond issuance.

In March 2019, the NHFIC issued $315 million in social bonds with an interest rate of 48 basis points above government bond yields. These low-cost loans offer interest rate and term (tenure) advantages for Community Housing Providers (CHPs) compared with typical bank

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loans. The issuance drew both local and offshore investors and was four times oversubscribed. Major investors include Cbus, UniSuper, CareSuper (via UBS) Blackrock Investment Management, AIA, QIC and QBE Insurance. Investor take-up of the bonds was strong. Investors were receptive to the quality (government-backed AAA-rated) and anticipate the category will grow to become a significant asset class of its own.

In November 2019, there was a second issuance (also $315 million) to help finance seven CHPs building over 2000 properties across Australia. The issuance was again four times oversubscribed and enabled a low fixed rate loan of 2.07 per cent over 10.5 years. Super funds such as Cbus, UniSuper and CareSuper invested in the second issuance, with Cbus acting again as the cornerstone investor.

In August 2020, Cbus and NHFIC have partnered to offer registered CHPs low interest long-term debt funding for the Community Housing Renewal Program (CHRP) in NSW. Under this pilot program, the NSW Land and Housing Corporation (LAHC) will partner with CHPs to build social, affordable and private dwellings on LAHC-owned land under a long-term lease. It was reported that the scheme would let CHPs access the debt-funding package provided by NHFIC (75 per cent share) and Cbus (25 per cent share).

### 4.5 Private equity and venture capital

Below we examine private equity and venture capital space as an asset class and how industry super funds are investing directly and via other partnerships.

Private equity has been a major feature of the funds’ strategic asset allocation since the mid-1990s with its role in enhancing investment returns and diversification purposes. In the years since the GFC, there has been considerable interest and activity amongst institutional investors around the globe in investing in unlisted assets in order to access the attractive returns offered by such assets but also to counterbalance the higher volatility of the listed assets that generally make up their portfolios. It is anticipated that the superannuation sector overall will increase their exposure to private equity over the next few years.

The strategic asset allocation towards private equity takes into consideration a range of factors that accords with a fund’s scale, governance framework, asset management capabilities, member demographics and liquidity needs.

Industry super funds have had some great successes in investing in unlisted companies. Below are examples of industry super fund investments:

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65 NHFIC 2020, ‘New social housing to be delivered in innovative partnership’, Media Release, NHFIC, Sydney.


67 Boston Consulting Group research showed that Australia’s superannuation funds “will increase their allocation to private equity from 4.6 per cent to 7.5 per cent, which means an extra $105 billion could flow into the asset class in the next five years”. The greater allocation towards this sector comes as funds focus on reducing costs and growing more sophisticated in capital deployment.

A consortium led by AustralianSuper and private equity firm BGH Capital acquired Navitas - a private vocational and tertiary education provider with 70,000 students spread over 120 colleges and campuses.68

Hostplus has committed $225 million funding to Square Peg Capital - a VC fund that focuses on early stage funding for start-ups in Australia, Israel and Southeast Asia. This is on top of $1.7 billion committed other VC funds like AirTree Ventures, Blackbird Ventures and Carthona Capital.69 Major overseas exposure includes its $181 million seed funding to Safar Partners, a Boston based seed-to-growth stage venture capital fund that aims to back the commercialisation of nascent scientific ideas originating from institutions such as MIT, Harvard University and University of Rochester.

AustralianSuper, HESTA, Statewide Super and Hostplus have invested in a $200 million Medical Research Commercialisation Fund III (by Brandon Capital Partners). This is Australia’s biggest ever life sciences fund. The fund focuses on early stage biotechnology ventures with the potential to grow into massive global companies.

IFM Investors owns (in whole or part):

- **MPM** (My Plan Manager) is a specialised Plan Manager operating in the disability care sector. The Company administers financial claims/payments and assists with budget tracking and management on behalf of NDIS participants.

- **Genie** - software and cloud services for medical specialists in 2017. The company is the largest provider of practice and clinical software to Australian specialist medical practices and operates over 3,500 sites.70

- **Tandem** - a field service provider of solutions to telco, insurance and retail businesses which has a 3,000 strong subcontractor workforce along with 703 full time employees.

Looking forward, we would expect significantly greater equity allocations into the technology sectors by industry super funds. They are likely to embrace firms across sectors that emphasise research and development activities, but especially information and communications technology, medical devices, medical research and drug development.

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5. **Policy reforms**

Superannuation funds have the potential to invest for the long-term in productive assets that leave the economy stronger and put more money in members’ pockets. Public policy changes can help elevate this kind of investment for some funds. Retail funds could do much more of this kind of investing. It is very encouraging that the Financial Services Council is guiding the for-profit superannuation funds in this direction—a tribute to the success of the collective model—albeit it seems their preferred approach places less emphasis on the stewardship of assets.  

Looking forward, especially considering the COVID-19 hit to growth, the main policy game must surely be meaningful supply-side economic reforms to drive the economy back to a high-growth trajectory. Areas ripe for rethink and reform include infrastructure prioritisation and, superannuation (for example, addressing fund underperformance, ending the problem of multiple accounts, tackling unpaid super and ensuring high-value insurance).

More importantly, there are serious structural problems with the retirement income system in Australia. There are problems with the way the Australian taxation, transfer and retirement systems interact. The aged-pension taper rate is too high. Low-paid workers are disadvantaged here. The Federal government should look to fix these problems.

Moving forward, it is a great time to rethink policy priorities, to work together to achieve a grand coalition for productivity-engendering policy reform. In other words, let's get back to the main game, and stop focusing on second and third-order issues.

Australia can have stronger economic growth and higher investment returns, but only by paying productivity wages and to spur effective demand and motivate real business investment. Below we offer up some policy reform areas that are directly relevant to extending the super system in ways that will generate value for fund members and the Australian economy.

5.1 **Default safety net**

Industry super funds’ outperformance has been driven by the investment beliefs and values of the super fund trustees, and the ability and preparedness to capture illiquidity premia.

A default fund selection process based on merit can help to connect superannuation savers to high quality providers that will invest for the long-term. In addition, members who rely on or are guided by default settings unlock the potential for super funds to invest in more illiquid assets because the risk of rapid and unexpected withdrawals and switching activity by members is reduced.

Such a safety net of strong default settings also helps consumers. Individuals bear significant risks in superannuation that research repeatedly suggests they are not well suited to manage. Delivering a maximised retirement income for life that is reasonably stable involves managing investment, sequencing, longevity and inflation risk.

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Even maximising long-term investment returns has demonstrably been difficult for individuals. The evidence points to a conundrum for policy makers and economists – the more consumers choose, the more they typically lose in retirement savings benefits, compared to the outcomes achieved by the members of (largely not-for-profit) default products, and so the greater the opportunity cost they bear in terms of lost savings/living standards. This is summarised in Figure 36.

The more fund members are channelled into a choice environment, the lower their retirement nest egg is likely to be, on average, and the more the structural underpinnings of the national economy are undermined. This is in no small part due to the willingness of many for-profit choice providers to exploit consumers. Research attributes the underperformance of retail funds to ‘agency issues’ – uncommercial payments to related parties, a failure to realise economies of scale, lower allocations to higher returning infrastructure and property assets, and retaining members in poor value legacy products. The system architecture and the lower regulatory settings that exist around the choice sector have placed considerable responsibility on individual savers to manage these conflicts of interest and other risks. The evidence would suggest that too often they are not equipped to do so.

**Figure 36 – Segment performance mapped against choice**

![Segment performance mapped against choice](source.png)

**Source:** APRA Superannuation statistics, ATO SMSF statistics.

**Note:** Small SMSFs are those with assets less than $1 million.

Improving financial literacy and engagement is important, particularly for the superannuation industry, but the lessons of behavioural economics and the evidence of outcomes of many choice members point to the fact that, like disclosure, member engagement on its own will not ensure system efficiency and competition. More effective consumer protection is needed, with strong settings that connect members to high quality providers and products, even for members who are being more engaged. Meanwhile, efforts to further enhance the outperformance of the default system, including to incorporate specific net performance measurement into the selection of default products through the Fair Work Commission, are vital but remain stalled after legal action by the bank-owned super funds.
5.2 **Enshrine super’s singular role**

The Government’s former consultation on enshrining the objective of superannuation in legislation provided an opportunity to clearly articulate the capacity of superannuation to benefit the broader economy.

A concrete objective will better enable benchmarking of whether the system is becoming more efficient over time and the extent to which all Australians are benefiting from the superannuation system.

In ISA’s argument to the Government’s consultation on setting a policy objective for the superannuation system, the proposed objective for Australia’s superannuation system is:

*To deliver financial security and dignity in retirement to all Australians by providing regular income that is, when combined with any public pension and other sources of income, sufficient to secure a comfortable standard of living by reasonable community standards.*

In addition to its primary role of providing for members’ retirement, it is proposed that there should be secondary objectives – that investment and the allocation of capital, national savings and financial stability are “highly relevant factors” which should be considered when governments are assessing changes to superannuation policy, even though they are not the primary objective of the system.

ISA’s submission recommended the development of explicit subsidiary objectives that would provide an opportunity to define how the system can work most efficiently in these areas.

These subsidiary objectives should be guided by the following considerations:

- Superannuation is a pool of national savings which can fund direct, long-term productive investment, as well as serve as a macroeconomic buffer to protect our economy from funding shortages and sentiment-driven volatility in global financial markets.

- Direct investment by super funds in infrastructure, unlisted equity and unlisted property has the capacity to directly increase member net returns and lift Australia’s productivity growth. In turn, a more productive economy benefits members and retirees by increasing employment levels and lifting living standards.

- While the efficiency of investment outcomes is captured in long-term net returns, direct investment in productive capital assets is of such importance that it warrants measurement as a discrete element of the superannuation system.

These subsidiary objectives would play an important role in bolstering the primary objective by recognising the inextricable link between retirement incomes and direct investment in the economy.

5.3 **More infrastructure spending via better prioritisation**

It is well accepted that Australia lacks an adequate stock of public infrastructure needed to provide necessary services to meet current requirements of a fast-growing population. Evidence of these shortfalls are everywhere, including, traffic congestion, outdated commuter rail networks, inadequate renewable energy generation and antiquated eastern state freight rail systems, etc.

The total future deficit for public infrastructure in Australia has been estimated at $226 billion by 2040 according to the G20, see Figure 37. A shortfall in public infrastructure is consistent
with an unmet demand for services from produced assets in Australia, which must tend to lower trend economic growth, income and living standards. Raising the stock of productive capital by lifting spending on projects with high benefit to cost ratios should certainly raise living standards for all, and there is certainly a strong appetite for mature, listed and unlisted infrastructure by the managed funds sector once the assets are constructed. The key barrier is the lack of greenfield investment by the general government sector and corporations (both public and private).

Industry super funds and their asset managers have plans to invest up to $33 billion dollars over the next five years in Australian public infrastructure projects, representing a significant contribution to eliminating the measured infrastructure shortfall. Over the next five years, the $33 billion spending pipeline in Australia is dedicated to developing existing assets and is likely to generate around 661,586 jobs through the construction phase.

**Figure 37 – The shortfall of public infrastructure in Australia**

Source: Global Infrastructure Outlook – A G20 Initiative

Note: Based on the figure of USD$158 billion provided by GIO, assuming AUDUSD exchange rate of 0.70. The objective of the GIO study was to forecast infrastructure spending via an explanatory model that captures the value of infrastructure stock per head of population in relation to GDP per capita, the sectoral structure of the economy, population density and other variables. For detailed explanation, please refer to the Technical Appendix of the Global Infrastructure Outlook Report 2017.

So what can be done to expand the stock of long-life assets that will deliver higher productivity and living standards for the nation?

We certainly need from Australian governments a pipeline of shovel ready, high-value projects with clear recommendations as to how they should be funded. This is a job for an independent agency that can analyse costs and benefits and rank infrastructure projects with measurable economic returns.

Logically, the pipeline of projects should be coordinated by an independent Federal parliamentary department, perhaps even a "parliamentary infrastructure office". The idea is to control for the inherent pork-barrelling attached to the allocation of portfolio dollars across the regions of Australia. The office could be tasked with generating an apolitical projects league table that coordinates the best ideas, similar but more independent than existing bodies such as Infrastructure Australia and its state-level replicas.
The business case for each project could be developed outside the public sector, if necessary, by private infrastructure advisers, who could build a business costing to be verified by the parliamentary office. The point of this approach is to define upfront each project’s strategic purpose and to establish how it would generate a commercial return. Existing official planning documents tend to focus instead on engineering details rather than financial and economic fundamentals.

One way debt-laden governments can spur greater spending is to create autonomous infrastructure authorities – public corporations – to make their spending priorities a reality. This avoids the need for governments to take on further debt on the general government balance sheet and so incur the wrath of credit-rating agencies. By tapping into long debt markets and private equity participants, these authorities could manage projects through the construction and early-operation phases. Where logical the projects might be kept in the public sector and perhaps later recycled to fund more greenfield investment.

5.4 COVID-19 and effective policy stimulus

The COVID-19 pandemic raises the priority for dealing with infrastructure shortages. In 2020, Australia is in-the-midst of the greatest global peacetime health and economic shock since the 1930s depression. How to address these near-term economic challenges is not the focus of this paper, but they must be considered by policy makers as part of the long-term economic recovery response. In doing so however policy makers should not do away with a focus on long-term reform in place of short-term fiscal sugar hits.

Facing the prospect of double-digit unemployment rates, the Federal government has signalled it will ramp up infrastructure spending to kick-start the post-pandemic recovery phase. This seems to be a very far-sighted, first-best, no-regrets policy response to the COVID-19 pandemic.

We have seen that across Australian governments there is significant scope to explicitly target construction projects that maximise output and employment impacts across the economy, among other important structural criteria.

What are the key criteria that should guide the choice of policy stimulus measures? According to the Australian Institute, these principles would include the following:

- **Go early**: Timeliness of the stimulus is key.
- **Go hard**: The size of the stimulus is important.
- **Go households**: Put purchasing power with households who are more likely to spend it.
- **Target domestic production**.
- **Target activities with high direct employment intensities**.
- **Target those most impacted by the crisis**.
- **Target useful projects that deliver co-benefits**.
- **Target regional disadvantage**.

Infrastructure and property construction projects certainly have big employment impacts directly (and via payments to upstream suppliers) and they also generate significant...
downstream incomes (mainly wages) which fund consumption spending by working people who typically have very high propensities to consume. The size of the likely downstream impacts associated with consumption spending are shown in Tables 15 & 16 in the Attachment.

It is worth noting that the impact multipliers associated with residential property building is much larger than those for other categories of construction (which are larger than most other forms of stimulus). Given that stimulus measures based on residential housing are more effective in generating big economic gains, it would certainly be timely to address the 30-year decline in affordable housing across Australia as part of an effective and targeted fiscal stimulus package that addresses the needs of the disadvantaged. This would also make sense for the longer term as well given the broader social benefits that affordable housing delivers through time in terms of health and wellbeing benefits, family formation, local communities and raising productivity.

5.5 **Need for better procurement models**

Australia’s pool of superannuation savings is ready to be deployed for major infrastructure projects to protect and grow the retirement savings of fund members, help create thousands of jobs and kick-start the economy following the COVID-19 pandemic.

To this end, industry super fund-owned IFM Investors has proposed a new infrastructure investment model – the Building Australia Model - to better meet the needs of governments, contractors, equity partners, and most importantly, the public.

The current procurement model for large infrastructure projects is not working as well as it could be. This is because it relies on attracting large constructors whilst limiting the role for local medium-sized constructors and long-term equity owners. When things go wrong with construction, equity providers are often passive. This effectively transfers construction and budget risk back to Australian governments and is resulting in substantial delays and cost overruns in some large projects. Furthermore, bidding consortia tend to be dominated mainly by foreign owned entities that exit and earn their profits shortly after construction is complete. They have little if any interest in the infrastructure asset’s long-term operational performance and outcomes for the public.

IFM has argued that it is not in the public interest to invest in this way. Nor is it in the interests of industry super fund members who expect fair returns on their retirement savings over the long term.

The Building Australia Model builds on the inverted bid model concept proposed by the industry super network several years ago and is similarly based on the idea of governments bringing in a well-capitalised, aligned long-term equity partner early on in a project. The equity partner – which could be IFM Investors or another private infrastructure investor – would be selected through a competitive public tender process. They would help governments deliver better value for money, as well as improved collaboration on design and engineering, better risk allocation and more transparency during the procurement and delivery process.

By working together sooner, this could lead to:

- breaking major projects up into smaller packages, enabling projects to be shovel-ready faster and allowing mid-tier contractors to compete in bidding processes, stimulating job creation and construction;
- less risk for taxpayers, with more active management of projects by the long-term equity partner, enabling issues to be identified earlier and dealt with quickly;
more transparency and greater cooperation by jointly developing project scope, delivery milestones and project costings, and

more effective risk transfer to the private sector, as equity partners have an incentive to ensure the project delivers a quality service to the community at a reasonable price over the long term.

IFM and industry super funds continue to engage with policymakers and construction industry partners on how we might work together to get greenfield infrastructure projects underway, create jobs and ensure value for money for the public.73

Figure 38 – Proposed IFM Investor Procurement Model

5.6 Better strategic policy engagement

Arguably, governments need to maximise the competitive advantage available to the Australian economy from the relatively large pool of superannuation savings with a long-term investment horizon.

The characteristics and nature of this funding are unique and there is clear evidence that well-motivated trustees are acting in ways that not only maximise member returns but also involve significant economic spin-offs. However, a significant pool of savings is captured by sectors that have a poor track record that detracts from member and economic outcomes.

73 This view has also been shared by the Australian Institute of Superannuation Trustees in their latest statement on Covid-19 recovery investment, which outlined a range of investment opportunities (including infrastructure) that would contribute to growth, jobs and productivity.

Default settings in the super system must also have an eye to facilitating efficient economic outcomes, because that is good for members and promotes the national economy and budget bottom line.

Greater engagement in formal and informal policy is the key to having the not-for-profit superannuation sector constructively participate with government. It is a reasonable proposition to suggest that more participation will lead to deeper understanding of policy drivers and better outcomes through time.
Conclusion

Industry super funds operate for the sole benefit of their members, but in doing so the national economy is a grand beneficiary.

The economic contribution stemming from industry super funds’ superior investment approach helps to create jobs, drive productivity and leads to significant Federal budget savings.

Industry funds’ capital investment in property and infrastructure is forecast to grow, with $33 billion slated for the years ahead. Under stable policy settings this conservative estimate may grow even higher.

This is estimated to create over 500,000 jobs which will be critical to Australia’s economic recovery in the context of COVID-19.

The economic downturn caused by the pandemic once again highlighted the role of superannuation funds as economic stabilisers in the face of volatile markets.

But we also need to look beyond infrastructure and explore untapped opportunities in alternative asset classes, some of which were examined by this report.

Since the last paper in 2016 industry super funds have continued to outperform other areas of the sector, and their size in the sector by funds under management has grown leading to the opportunity to generate scaled benefits for more members.

Australia’s retirement system is among the best in the world but improvements to protect consumers and improve performance are needed to create a more efficient system. This can be achieved through governments working closer with industry and investors to ensure that policy settings stimulate and support the efficient deployment of productive capital.

This will provide good returns for members’ savings so they can lead a dignified retirement with more choice and control, while serving to strengthen the national economy which delivers far reaching benefits for all Australians.
Attachment: Adding Downstream Impacts to Multipliers

The section below shows the value added and employment outcomes generated by multipliers that capture both the upstream and downstream effects of CAPEX spending. The downstream impacts include consumption spending impacts stemming from workers’ wages. The resulting estimates on output and employment are higher than those presented in Table 9 and Table 10, and differences are attributable to downstream impacts.

We first present the impact on regional output using the new multipliers. The estimated total regional output given the capital expenditure of $6.6 billion was $11.3 billion (about $4.8 billion higher than the total shown in Table 9). This consists of $2.3 billion in direct contribution to regional output and $9.1 billion in indirect economic impact. Based on an estimate of total value added, the overall multiplier (the ratio of total value added to direct value added) was 5.0.

Table 15 – GDP impacts of capital expenditure spend by asset type

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<td>$712</td>
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<td>$824</td>
<td>$1,138</td>
<td>3.6</td>
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<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>3.3</td>
</tr>
<tr>
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<td>$1</td>
<td>$8</td>
<td>$9</td>
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</tr>
<tr>
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<td>$21</td>
<td>$117</td>
<td>$138</td>
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<td>$208</td>
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<td>$1,233</td>
<td>5.9</td>
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<td>$0</td>
<td>$1</td>
<td>$1</td>
<td>7.4</td>
</tr>
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<td>$2,270</td>
<td>$9,064</td>
<td>$11,334</td>
<td>5.0</td>
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</table>

The impact on employment associated with the same capital expenditure is presented in Error! Reference source not found. below. Using the 2B multipliers, we estimated the $6.6 billion worth of capital expenditure would support around 167,000 FTE jobs in total (about 56,000 FTE higher than the total shown in Table 10). Of the total jobs created, 46,000 FTE jobs are directly created by the spending, while indirect employment impacts add a further 121,000 FTE jobs. Again, these are upper-bound estimates. The overall ratio of total employment to direct employment was 3.6.

Table 16 - Employment impacts of capital expenditure spend by asset type, FTEs

<table>
<thead>
<tr>
<th>Sector</th>
<th>Capital expenditure ($m)</th>
<th>Direct</th>
<th>Indirect</th>
<th>Total</th>
<th>Multiplier (2B)</th>
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<td>12,969</td>
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<td>Toll roads</td>
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<td>Water</td>
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<td>300</td>
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<td>4</td>
<td>6</td>
<td>3.7</td>
</tr>
<tr>
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<td>125</td>
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<tr>
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</tr>
<tr>
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<td>12,954</td>
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</tr>
<tr>
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<td>13</td>
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</tr>
<tr>
<td>Industrial</td>
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<td>2,098</td>
<td>5,289</td>
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<td>3.6</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>$6,573</strong></td>
<td><strong>46,225</strong></td>
<td><strong>120,894</strong></td>
<td><strong>167,118</strong></td>
<td><strong>3.6</strong></td>
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</tbody>
</table>

References


Bom, P & Ligthart, J 2014, ‘What have we learned from three decades of research on the productivity of public capital?’, *Journal of Economic Surveys*, vol. 28, no.45.


OECD 2019, Annual Survey of Large Pension Funds and Public Reserve Funds 2019 – Detailed infrastructure investment of selected LPFs and PPRFs, accessed on 20/05/2020, URL: http://www.oecd.org/finance/private-pensions/survey-large-pension-funds.htm


Consider a fund’s PDS and your objectives, financial situation and needs, which are not accounted for in this information before making an investment decision.