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The Impact and Opportunity of Superannuation on Australia's Productivity

Research note

July 2025

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> *“Productivity is not everything, but in the long run, it’s almost everything”*[1]
>
> ~ Nobel laureate ~
>
> **Paul Krugman**

Executive Summary

This paper explores the role Australia's superannuation system has played in building Australia's productivity and raising living standards, future opportunities for harnessing it further, and recommendations to achieve this.

Australia's productivity trajectory greatly depends on the ongoing availability of institutional capital for investments in real (new) fixed capital throughout the economy.

Australia's superannuation system has been, and will continue to be, a core source of financial capital for the Australian economy.

The superannuation system has supported higher levels of new fixed capital investment in Australia than otherwise would be the case – reflected in a higher level of productivity and higher average living standards.

ASFA estimates that for a worker on average full-time wages today, the boost to productivity is equivalent to around $2,500 per year.

Looking ahead, superannuation assets are expected to continue growing for decades to come. Presently, just for institutional superannuation, new financial capital in the order of $40 billion needs to be deployed to new investments each quarter, on average.

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Modern productivity

Sustained improvement in Australia's productivity underpins long-term gains in living standards.

From a modern perspective, measured productivity gains* reflect society's capacity to build, innovate, and deliver better outcomes across the economy. Productivity improvements are driven by the systems that enable economic transformation, and specifically relate to investment in new fixed capital, deployment of new technology, and coordination of institutions.

A modern understanding of productivity recognises that long-term gains stem from three interrelated, economy-wide processes:

1. Broad-based deployment and diffusion of new technologies: As new fixed capital replaces or augments existing assets, new technologies spread across the economy – improving efficiency, but also creating new and better-quality goods and services.
2. Alignment of workforce capabilities with evolving technologies: The mix of skills across the economy must evolve to match the changing demands of a technologically-advanced capital stock.
3. Inter- and intra-institutional coordination of innovation and investment: Businesses, investors and government play different, critical roles – ultimately to generate high, sustainable economic returns. Accommodative government policy settings relate to (among many) infrastructure and education investments, competition policy, and innovation support.

In this context, Australia's superannuation system is a strategic enabler of modern productivity. By providing long-term capital for infrastructure, technology, and enterprise, it supports the broader renewal of our productive economy.

* Note: Measured labour productivity (hereon, productivity) is the amount of economic output generated per worker within a given time period, where economic output includes both the production of goods and the provision of services

2

Superannuation investments are claims on Australia's capital stock

For institutional superannuation, current holdings of Australian-domiciled investments equate to around a 14% claim on Australia's capital stock. If the Australian-domiciled investments of SMSFs are included, the claim on capital stock is around 25%.

For the APRA-regulated (or institutional) superannuation sector, holdings of Australian-domiciled investments are estimated at around $1.4 trillion (end of March 2025)[2]. Table 1 shows that with respect to the main asset classes, the largest proportions are for listed equities (47%), bonds and other fixed income securities (26%), and unlisted infrastructure assets (7%)[3].

Adding the Australian-domiciled investments of self-managed superannuation funds (SMSFs) raises total superannuation holdings (of Australian-domiciled investments) to $2.3 trillion[4].

In terms of the real economy, funds' holdings of Australian-domiciled investments represent claims on Australia's capital stock – from which domestic economic activity is generated.

Table 1: Superannuation holdings of Australian-domiciled investments, APRA-regulated funds (end of December 2024)

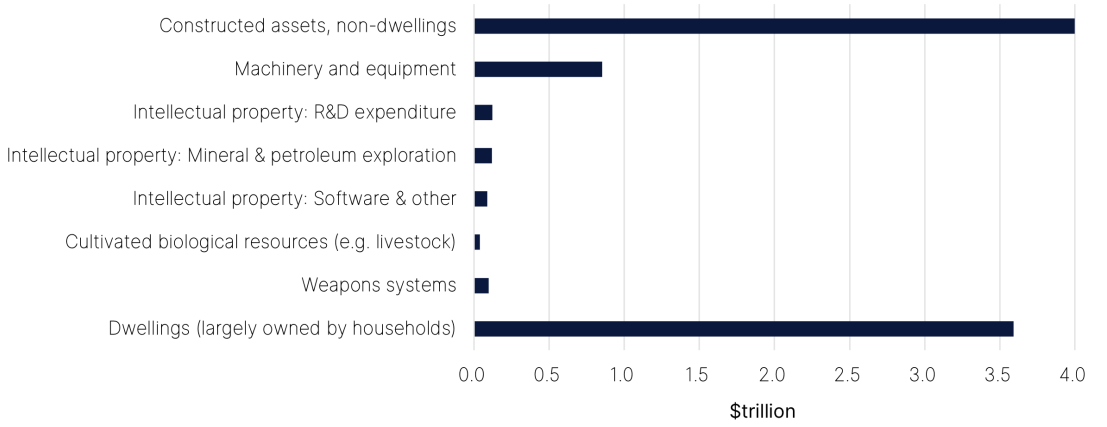
	$ billion	% of total
Cash	60	4
Fixed income	352	26
Private Debt	14	1
Listed equity	639	47
Unisted equity	38	3
Listed property	47	3
Unlisted property	84	6
Listed infrastructure	18	1
Unlisted infrastructure	100	7
Alternatives	14	1
Commodities	2	<1
Total	**1368**	

Source: APRA and ASFA calculations.

For the Australian economy as whole, Chart 1 shows the components of capital stock as of June 2024[5]. Australia's total capital stock comprises the capital stock of businesses, governments and households. Of most relevance to the claims of superannuation funds is capital stock of the business sector (and to a lesser degree the government sector), where the most pertinent components are:

- constructed non-dwelling assets, which comprises all non-dwelling buildings and all structures – including; mines, roads, railways, ports, stadiums, and ICT and energy infrastructure
- machinery and equipment
- capitalised expenditure on research and development, and mineral and petroleum exploration
- computer software

Chart 1: Australia's total capital stock, all components (end of June 2024)



Source: ABS

A key distinction between different types of superannuation fund holdings is the financial instrument and/or structure by which claims are intermediated – and in particular, the location of holdings on the spectrum of indirect to direct claims on real assets.

Much of the funding from institutional superannuation for, and claims on, Australia's capital stock is indirect in nature. Key groups of recipients of funding from institutional superannuation for new fixed capital investment include:

- Listed non-financial corporations: largely via new equity issuance but also new corporate bond issuance
- Banks and other financial institutions: where funding for banks, largely via deposits and new issuance of listed equities and bonds, backs lending to business for new fixed capital investment
- Commonwealth and state governments: largely via issuance of new debt securities, but also proceeds from sales of physical assets (infrastructure in particular) to superannuation funds that are a source of funding for government for new projects (that is, asset recycling)

- Private developers of commercial real estate and infrastructure projects: via a variety project financing mechanisms
- Start-up entities: largely via venture capital funding mechanisms (direct or indirect)

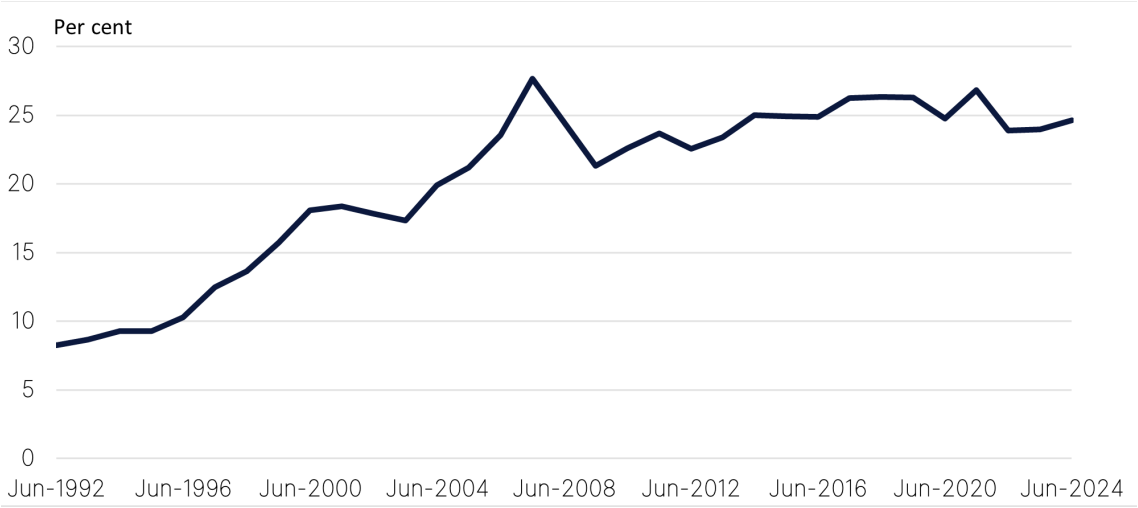
In aggregate, for institutional superannuation, current holdings of Australian-domiciled investments equate to around a 14% claim on Australia's capital stock. If the Australian-domiciled investments of SMSFs are included, the superannuation system's claim on Australia's capital stock is around 25%[6].

This outcome is the result of high, sustained levels of funding provided by the superannuation system to the Australian economy over many decades – noting that capital stock increases over a given period where new fixed capital investment exceeds depreciation of the (existing) capital stock.

Chart 2 shows the superannuation system's claim on Australia's capital stock since the commencement of compulsory superannuation in mid-1992[7]. Note, the sharp rise and subsequent fall over 2007 and 2008 largely reflects movements in equity markets (reflected in the value of superannuation fund investments).

With respect to the most recent observations, the data implies that the current total capital stock upon which the superannuation system has a claim, accounts for around one-quarter of Australia's aggregate level of productivity.

Chart 2: Superannuation system's claim on Australia's capital stock



Source: ABS, APRA and ASFA calculations.

3

New superannuation investments provide funding for future productivity gains

Funding from the superannuation sector facilitates broad-based diffusion of new technologies, but also supports innovation of future technologies.

A key question is what is the ultimate nature of the productivity gains brought about by funding from the superannuation system?

As outlined above, the key channel by which the superannuation system contributes to Australia's productivity gains is via (largely indirect) funding for new fixed capital investment that replaces or augments the existing capital stock – such that new technologies diffuse throughout the economy's capital stock.

New fixed capital investment is ultimately productivity-improving where changes to the capital stock lead to:

- more efficient production/provision of goods and services
- new or better-quality goods and services
- more efficient movement of goods, services and people (e.g. improved infrastructure - including; toll-roads, airports, seaports, renewable energy generation facilities)
- more efficient facilitation of economic activity (e.g. improved commercial buildings - including; office blocks, retail centres, industrial estates, logistical hubs)

Given that much of the funding from superannuation for new fixed capital investment in the Australian economy is indirect, associated productivity gains largely are a consequence of decisions of entities that are recipients of that funding.

The superannuation system also directs funding specifically to innovation activity – that may lead to the development and commercialisation of new technologies in the future.

In particular, venture capital funding from institutional superannuation is generally directed to early-stage investments in firms that are developing new technologies, products or services. Indeed, in aggregate terms, superannuation funds historically have comprised the largest group of investors in venture capital in Australia[8].

4

Quantifying superannuation's impact on Australia's productivity

Over a prolonged period, the superannuation system has facilitated higher levels of national saving and investment than otherwise, and higher levels of GDP and productivity.

For households, superannuation is only one of a range of saving options. In the absence of superannuation, the household sector would save more via alternative means. However, the net impact would be lower levels of (aggregate) household saving and lower levels of associated funding for the Australian economy.

- Saving is a flow concept: the difference between income and consumption within a given time period
- Savings is a stock concept: the accumulation of period-by-period savings over time

In this section, estimates are provided for the historical impact of the superannuation system on Australia's level of national saving, new fixed capital investment and aggregate productivity.

In essence, the superannuation system has supported higher levels of new fixed capital investment in Australia than otherwise would be the case. This has led to a higher level of productivity and higher average living standards than otherwise.

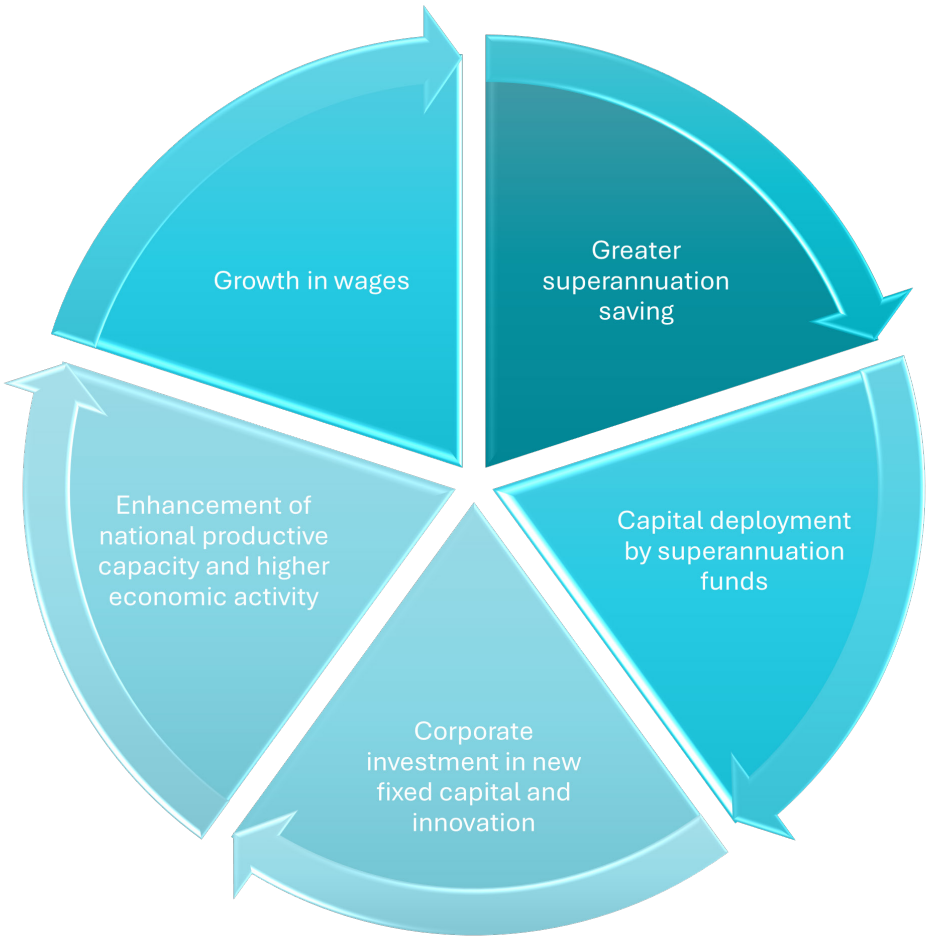
Higher national saving

The key mechanism by which superannuation has supported higher new fixed capital investment is via higher national saving.

The superannuation system – and in particular, the compulsory component of the system – has meant that households have saved a larger proportion of their income than otherwise would have been the case. Higher saving via superannuation does result in lower saving via other means – however, the net impact on household saving is positive. Broadly speaking, studies find that for each dollar of saving via compulsory superannuation, net saving by the household sector is around 60 cents[9]. As would be expected, net saving in respect of voluntary superannuation is lower, but still positive due to the impact of tax concessions on saving behaviour.

Using data for compulsory super contributions, and assumed parameters for the net saving effect, ASFA estimates that Australian households have around $1 trillion in additional savings that they otherwise would not have saved (via superannuation or otherwise)[10]. This estimate includes savings via SMSFs, and the accumulating impact of investment income.

Figure 1 - The cyclical impact of higher superannuation saving.



A higher level of household saving results in a higher level of national saving, which is the combined saving of Australia's household, corporate and government sectors. Since the introduction of compulsory superannuation, national saving has averaged around 22% of GDP[11].

With respect to the impact of compulsory superannuation on national saving, widely cited work undertaken by the Australian Treasury estimates that the ultimate impact of the increase in the Super Guarantee (from 2 to 12%) on national saving to be around 3% of GDP[12]. Since the introduction compulsory super, ASFA estimates that the boost to national saving has averaged around 2% of GDP[13].

Higher fixed capital investment and larger capital stock

Higher national saving, via superannuation, accommodates a combination of higher (domestic) new fixed capital investment and a narrower current account deficit than otherwise would be the case.

Historically, Australia generally has had more abundant domestic investment opportunities than could be funded from (historic) levels of national saving. As such, Australia has typically been reliant on foreign sources of saving to fund the shortfall. This is reflected in Australia's tendency to run current account deficits rather than current account surpluses – where the current account balance during any period is equivalent to national saving less domestic investment.

Under standard 'text-book' assumptions that apply to a small, open economy (such as Australia), an increase in the level of national saving would lead to a narrower current deficit than otherwise would be the case, rather than higher investment. For instance, if it is assumed that the country is a pure price-taker in international capital markets, then the quantity of domestic investment would depend on the internationally-determined price of capital, not the level of national saving.

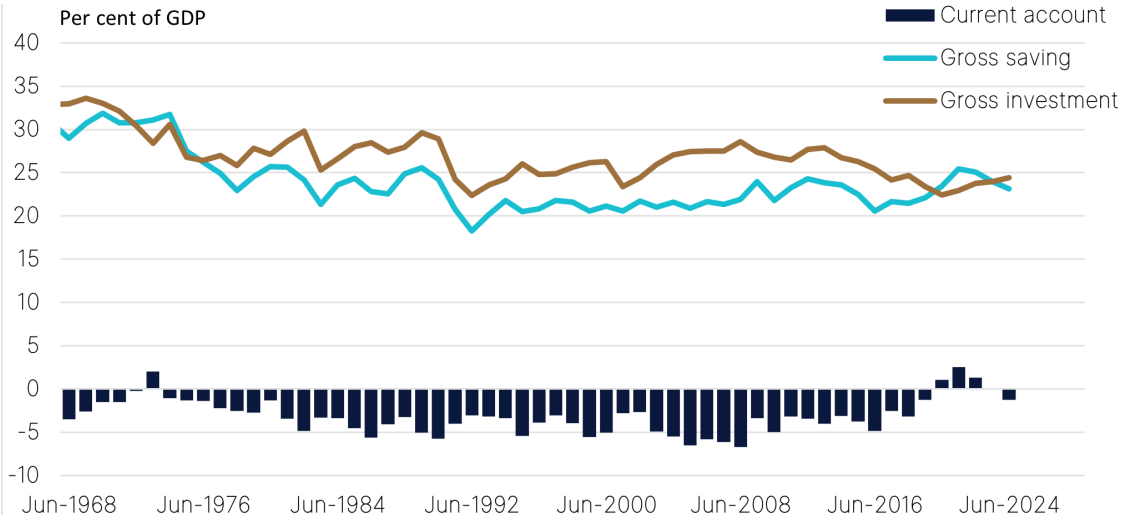
However, the more realistic case is where Australia is not a pure price taker. A higher level of national saving (as a share of GDP) would be expected to lead to increased domestic demand for a range of domestically-issued financial instruments. This would allow capital-raising entities (e.g. businesses) to raise a given level of capital for a lower cost – which would reduce the required rate of return on investment projects. Over the medium term, a lower required rate of return would be expected to lead to higher fixed capital investment by capital-raising entities.

In aggregate, it would be expected that the effect on the level of investment as a share of GDP would outweigh the effect on the current account deficit. This is supported by economic theory and also history - national saving and domestic investment have tended to move together, while the current account has remained relatively steady as a share of GDP (Chart 3)[14].

This is also consistent with international data. The stylised fact is that there is a robust cross-country correlation between current levels of saving and investment (Chart 4), notwithstanding that this ignores optimisation (by countries) of saving, investment and consumption through time[15].

Given the reasonable assumption that around half of the increase in national saving is reflected in higher domestic investment, then the boost to Australia's capital stock is likely to be in the order of $300 billion[16].

Chart 3: Australia's gross saving and investment



Source: ABS and APRA calculations.

Higher GDP and productivity

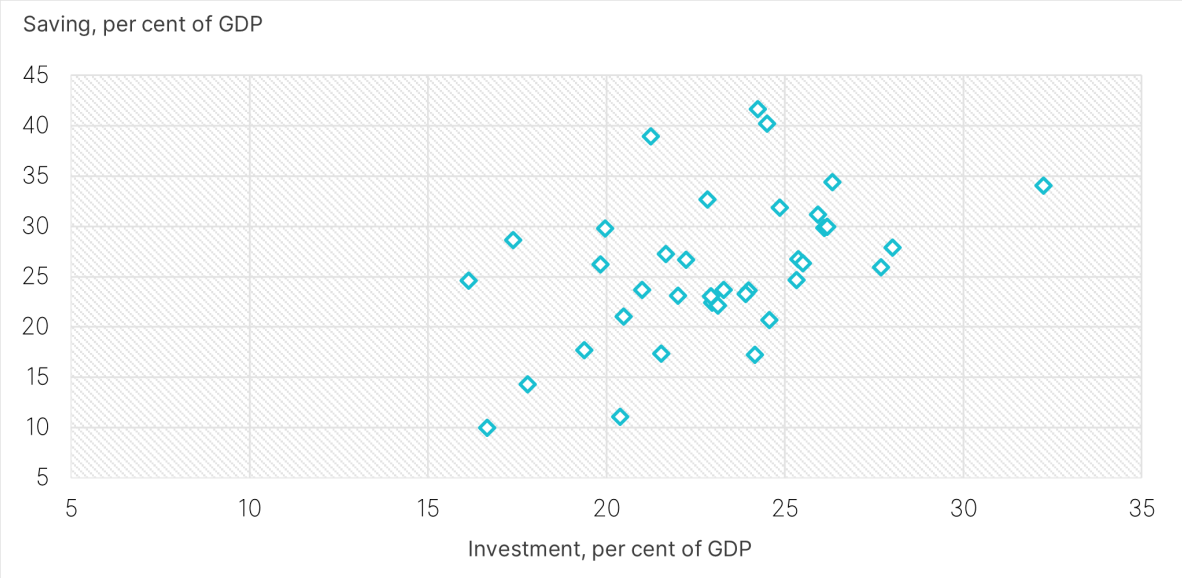
As noted in Section 1, the combination of increases in the quantity, and improvements in the quality, of capital underpin higher levels of GDP, and higher realised gains in productivity (roughly speaking, output per worker).

As a result of impact on Australia's capital stock, ASFA estimates that the level of GDP today is around 2% higher than it otherwise would have been (in the absence of the superannuation system), with a similar impact on the level of (labour) productivity[17].

Ultimately, higher measured labour productivity is reflected in higher real wages for workers, and thus higher average living standards for the Australian population. While short-term movements in real wages tend to lag productivity gains, over the long-term wages and productivity tend to move in tandem.

Ignoring any distributional aspects of the translation of higher productivity to higher real wages, **ASFA estimates that for a worker on average full-time wages today, the boost to productivity is equivalent to around $2,500 per year[18].**

Chart 4: Gross saving and investment for all OECD countries, 2023



Source: IMF and ASFA calculations.

5

Super-powered: funding Australia's future

Superannuation will remain a crucial source of new funding for the Australian economy, and so is integral to Australia's productivity conversation.

Currently, at the system level and including SMSFs, superannuation assets stand at $4.1 trillion – with more than half of super investments domiciled in Australia[19].

Looking ahead, superannuation assets are expected to continue growing for decades to come – although projections are subject to uncertainty. The future level of system assets will depend on a number of factors, including; growth in employment and wages, and investment returns.

For example, Deloitte projects that Australia's total superannuation assets will reach $11.2 trillion by 2043 (future dollars), or around $7 trillion in present-value terms, and equivalent to almost 200% of annual GDP (currently around 150% of GDP)[20].

Net inflows from members (contributions less payments) will diminish in absolute terms, however this will be offset by inflows from investment income on a rising asset base. Indeed, projections published in the Government's most recent Intergenerational Report imply that overall net inflows will continue to increase in real terms out to at least 2060 (Chart 5)[21].

This implies a rising flow of new financial capital from the superannuation system that will need to be allocated to new investments. Presently, just for institutional superannuation, new financial capital in the order of $40 billion needs to be deployed to new investments each quarter, on average[22].

Given the rising magnitude of future (potential) funding from the superannuation sector for the Australian economy, the manner by which this funding is allocated will be a key determinant of Australia's future productivity performance.

Allocative efficiency of superannuation funding is affected by policy and regulatory settings

Section 1 outlined key economy-wide, and inter-related processes, that determine the long-run trajectory for productivity. Of these, the most relevant for the role of superannuation is the process whereby new fixed capital investment replaces or

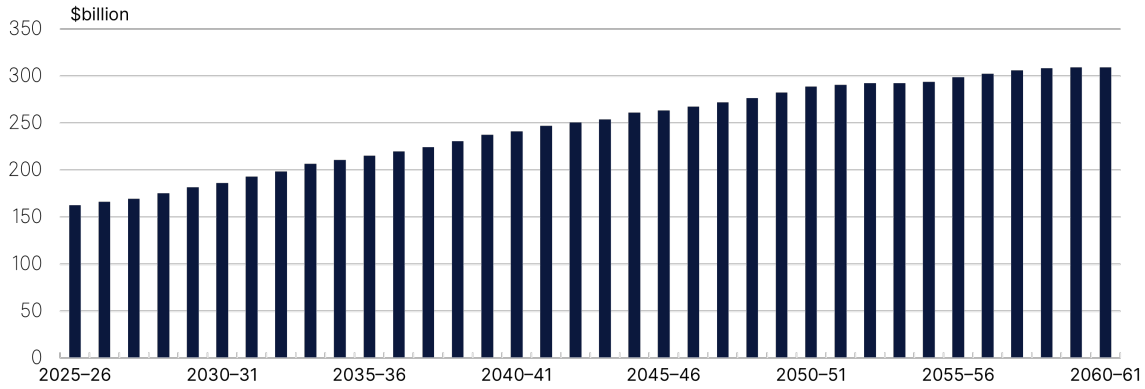
augments existing capital, and as a result, new technologies diffuse throughout the economy's capital stock.

Ultimately, this economy-wide process reflects the decisions of individual entities – businesses, governments and even households. In particular, and of crucial importance, is the capacity of entities to formulate and undertake (fixed capital) investments that have the greatest potential to generate high, sustainable economic returns.

The core, complementary role of Australia's financial system – of which the superannuation system is a major component – is to allocate funding and risk efficiently, and so facilitate the flow of funding to its (potentially) most productive ends.

For government, a key challenge will be to ensure that policy and regulatory settings facilitate, rather than hinder, this process. From the perspective of superannuation, and the financial system more broadly, this includes addressing (and avoid imposing) unnecessary impediments to the efficient allocation of funding across the economy, but also implementing policy to address consequential long-term challenges facing Australia and guide funding accordingly.

Chart 5: Net system inflows, including income from investments (real)



Source: Commonwealth of Australia and ASFA calculations.

6 Recommendations

1. **Codify policy stability for long-term investment vehicles – which will reduce regulatory volatility that can deter capital deployment**

As a general point, stable superannuation policy settings help support superannuation's role in funding the Australian economy. Policy stability provides funds with greater confidence when undertaking long-term investment decisions, and reduces the risk to investment returns from unforeseen policy change.

That said, specific to the superannuation sector, there are a number of reform areas that would help facilitate the efficient allocation of funding.

2. **Consider how performance benchmarks in the superannuation performance test can best reflect forward-looking sectors such as clean energy, digital infrastructure, and advanced manufacturing**

Elements of the **superannuation performance test** could be adjusted to address some of the distorting impacts on investment allocation decisions.

Of particular relevance to Australia's energy transition, the current settings risk constraining allocations to real energy-transition assets. The infrastructure benchmarks reflect the mix of current assets and are thus heavily weighted to conventional energy generation (and so are 'backward-looking'). Renewable energy assets comprise a very small allocation.

For a fund, being overweight in renewable assets – which would be consistent with energy transition – is a potential source of tracking-error risk vis-à-vis the benchmarks, and an additional source of risk vis-à-vis the performance test.

More broadly, however, is the risk that for some funds, increased sensitivity to benchmarks (as it relates to investment decisions) is driving overall strategic asset allocation towards asset classes that are more readily benchmarked – listed equities for example – at the expense of other (unlisted) asset classes. This relates to infrastructure, but also private equity investments.

The Commonwealth Government is currently considering potential changes to the performance test regime.

3. **Potential reforms to the regulation of private markets should not unduly hinder participation by superannuation funds**

The (new) private assets to which superannuation fund allocate financial capital are a source of funding for the Australian business sector. For business entities, having a broad range of different potential funding mechanisms supports higher allocative efficiency.

Undue barriers, regulatory or otherwise, risks limiting and/or raising the cost of financing for business. Potential reforms should recognise the superannuation industry's robust (and improving) investment governance practices and sophisticated approach to investment decision making, including with respect to private markets.

4. **Remove stamp duty from those transaction costs that need to be disclosed under RG97**

For superannuation funds, the requirement to disclose stamp duty under **ASIC's Regulatory Guide (RG) 97** reduces the attractiveness of Australian residential property compared with international residential property, and Australian non-residential property.

RG 97 provides guidance to superannuation funds, and other relevant entities, for disclosure of investment, administration and transaction costs on a comprehensive and comparable basis.

For direct purchases of Australian property assets, RG 97 requires funds to disclose stamp duty – which can be up to 6% of purchase price. This requirement does not apply to similar purchases made in other jurisdictions.

Where a fund purchases a property asset indirectly via another entity, such as a managed investment trust (MIT), generally stamp duty is not considered a transaction cost. While non-residential property assets are typically held through MITs, residential property assets are often direct investments or held through closely-controlled trusts.

Thus, from a fund perspective, investments in Australian residential property have greater reporting requirements than international residential property, or Australian non-residential property.

5. **Governments should seek to create structured pathways for public-private investment coordination, including streamlined approvals and co-investment mechanisms for nationally significant projects, particularly for Australia's energy transition**

Australia's productive capital stock has evolved over time – reflecting, among other factors, a growing population that has shifted geographically, continual changes to the structure of Australian industry, and technological advancement. Over the next few decades, the key driver of changes to Australia's capital stock – and the required new fixed capital investment – will be our energy transition.

Australia's journey to achieving net zero emissions will require a fundamental transformation of Australia's capital stock – such that the emissions generated from the production of all goods and services in the economy (in a given period) nets to zero, and all within a timeframe of little more than a single generation.

For Australia, as is the case globally, this structural shift will require higher, sustained levels of new fixed capital investment in the real economy than otherwise would be the case. There is a significant degree of uncertainty regarding the required uplift in new fixed capital investment – for example, while investment in low-emissions real assets will need to rise markedly, much of this will supplant investment in high-emissions real assets that otherwise would occur.

A reasonable estimate is that, on average, levels of new fixed capital investment will need to be in the order of 5% higher than 'business-as-usual' over the next three decades or so (and front-loaded)[23].

For Australia, as is the case globally, future fixed capital investment will be concentrated among a set of key sectors – most notably the energy sector.

New investment for Australia's energy transition will involve scaling up low-emissions real energy assets to meet both the demands of a larger population, and to replace existing high-emissions capacity with low/zero-emissions capacity that will need to accommodate more extensive electrification across the economy.

Of course, any new potential investment opportunity must stack-up – whether this is a direct, discrete investment in an energy infrastructure asset, or an indirect stake via an unlisted investment platform (that holds direct stakes).

In this regard, accommodative policy settings will be crucial in facilitating super fund investments. Aside from relevant reforms to the superannuation performance test (above), other reforms include:

- greater role for government in coordinating public and private development and investment
- better coordination of government funding mechanisms for private sector projects
- streamline approvals processes – that can involve different levels of government – for new projects

For details, see the ASFA discussion paper: Towards an Energy Transition Accord.

6. Consider modernisation of taxation arrangements for capital gains tax (CGT), which would reduce inefficiencies and facilitate the flow of financial capital.

Superannuation funds are currently unable to restructure investment holdings without triggering capital gains tax (CGT) events, even when there is no change in beneficial ownership. This restriction limits post-merger integration, prevents trustees from rationalising legacy structures (in members' best interest), and increases compliance costs – all of which are sources of inefficiency. Reform would comprise rollover relief and CGT neutrality for internal restructures and mergers where beneficial ownership remains unchanged.

7. Create a productivity-stream Working Group to the Investor Roundtable Initiative

ASFA acknowledges the importance of the Treasurer's Investor Roundtable initiative to Australia's broader productivity conversation. As such, a productivity-focused Working Group would provide valuable insights from business, institutional investors and non-government agencies.

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[1] Paul Krugman (1990), The Age of Diminished Expectations, The MIT Press.

[2] APRA, Quarterly Superannuation Performance, March 2025.

[3] APRA, Quarterly Superannuation Industry Publication, December 2024.

[4] APRA, Quarterly Superannuation Performance, March 2025.

[5] ABS, Australian System of National Accounts, 2023-24.

[6] ABS, Australian System of National Accounts, 2023-24 and ASFA calculations.

[7] ibid.

[8] ABS, Venture Capital and Later Stage Private Equity, 2018-19.

[9] For example, see Ruthbah, U. and Pham, N. (2020), Household Savings and the Superannuation Guarantee, Monash Centre for Financial Studies, prepared for the Australian Treasury: Retirement Income Review.

[10] ASFA calculations.

[11] ABS, Australian National Accounts: National Income, Expenditure and Product, March 2025.

[12] Gruen, D. and Soding, L, (2011), Compulsory Superannuation and National Saving, Australian Treasury, Economic Round-up 2011/3.

[13] ASFA calculations. An average of 1.8 per cent of GDP since mid-1992

[14] ABS, Australian National Accounts: National Income, Expenditure and Product, March 2025.

[15] IMF, World Economic Outlook Database. The cross-country correlation between saving and investment, since 1980, averages 0.53.

[16] See footnote 17

[17] An estimate of the cumulative impact since the start of compulsory superannuation in mid-1992. For compulsory contributions, it is assumed that for every dollar of compulsory contributions, household saving is 60 cents higher than otherwise (see footnote 9). While this translates into higher household saving, the effect on national saving is less than one-for-one – in particular, higher household saving leads to lower (less than proportionate) government saving that otherwise. Overall, the maximum impact on national saving is assumed to be an increase of 3 per cent of GDP (consistent with Gruen and Soding – see footnote 12). However, the estimated average impact since the start of the compulsory regime is 1.8 per cent of GDP (see footnote 13). For the translation of national saving to domestic investment, it is assumed that for every additional dollar of national saving, domestic investment is 40 cents higher (which is more conservative than implied by footnote 15). Higher domestic investment, over time, results in a higher stock. In respect of the translation to GDP, higher capital stock is reflected in the flow of capital services. Other components are assumed unchanged (for example; internal rate of return on capital services, multi-factor productivity, labour supply). The effects are confined to the market sector of the Australian economy (the non-market sector is unaffected). As of June 2024, the level of labour productivity and GDP is estimated to be 2.3 per cent higher (than in the absence of superannuation). This estimated impact does not include any 'second-round' effects – so should be interpreted as an upper bound. That said, the estimated impact also does not include the effect of institutional superannuation as an active allocator of funding and risk in the Australian economy – which facilitates the flow of funding to its (potentially) most productive ends. All else being equal, the active role of institutional superannuation, in this regard, would lead to a more optimal allocation of financial capital than otherwise, and higher aggregate labour productivity for the Australian economy.

[18] For November 2024, average full-time earnings equated to just under $107,000 per year (ABS, Average Weekly Earnings). Assuming that productivity growth is fully reflected in real wages, current annual nominal (pre-tax) earnings are almost $2,500 higher (than in the absence of superannuation).

[19] APRA, Quarterly Superannuation Performance, March 2025.

[20] Deloitte Australia (2024), Dynamics of the Australian Superannuation System: The Next 20 years to 2043 and ASFA calculations.

[21] Commonwealth of Australia (2023), Intergenerational Report 2023: Australia's future to 2063; and ASFA calculations.

[22] ASFA calculations.

[23] ASFA calculations based on projections from other sources, including: McKinsey and Company (2022), Financing the Net-zero Transition: From Planning to Practice; and Australian Industry Energy Transitions Initiative (2023), Pathways to Industrial Decarbonisation, Phase 3 Report.

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