

# Financing Australia's Growth



SUBMISSION TO THE FINANCIAL SYSTEM INQUIRY

31 March 2014

Industry  
Super  
Australia



Embargoed and Confidential until  
1 am Friday April 4

## About Industry Super Australia

Industry Super Australia (ISA) is an umbrella organisation for the industry super movement. ISA manages collective projects on behalf of a number of industry super funds with the objective of maximising the retirement savings of five million industry super members. Please direct questions and comments to:

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# EXECUTIVE SUMMARY

Industry super funds are stewards of the retirement savings of over five million Australians.

Industry super funds are major stakeholders in Australia's financial markets as providers of patient capital to business entities and infrastructure projects, as well as the banking system. Industry super funds are long-term investors focused on deploying funding that supports sustainable economic growth and that generates superior returns for beneficiaries. Industry super fund investments support productivity growth and employment in Australia, which in turn can support the high and stable levels of retirement savings necessary to support members' dignity in retirement.

Although industry super funds avoided the products and practices implicated in the global financial crisis, funds, members, and the broader public were harmed.

Industry Super Australia has a significant interest in the efficiency and effectiveness of Australia's financial system, and a fact-base from which to express an informed perspective.

## **Superannuation**

Superannuation is primarily a fixture of Australian social policy, specifically to support the wellbeing of the aged. This policy is delivered through a combination of three pillars (The means-tested Age Pension, the superannuation system, and private savings), and is widely regarded as one of the better systems in the world. In the 1980s, Australia had the highest rate of elderly poverty in the OECD. With the introduction of the Superannuation Guarantee and improvements to the Age Pension, Australia has improved considerably.

Today, superannuation is growing, and is expected to achieve over \$6 trillion in assets by 2030. Moreover, although the superannuation system is still decades from maturity, it is providing retirement benefits that already are more than double the benefit payments by the Age Pension. Benefit payments will increase substantially as workers who have been covered by the Superannuation Guarantee for longer approach retirement, and as the Superannuation Guarantee reaches 12 per cent.

Superannuation also interacts with the financial system, primarily as a source of savings for investment. The superannuation system has boosted financial stability: it acted as a macroeconomic stabiliser and deleveraged companies in the GFC. And the superannuation system is investing in the real economy, with significant investment in infrastructure, real property, and private equity. But the superannuation system is defined by its social policy objective: when mature, it must improve the wellbeing of older Australians.

## **The role of finance**

The financial system has a vital role to play in support of Australia's economic activity. The financial system performs critical economic functions. It provides mechanisms and networks of payments, facilitating convenient and efficient exchange. It also has a fundamental role mobilising savings for investment in capital, and allocating capital to uses that are productive and promote sustainable growth, good jobs, and shared prosperity.

## **Performance of the financial system**

A successful financial system is measured by asking "is it doing its job well" and "how much does it cost to do the job" (in terms of consumer prices and in terms of economic resources consumed).

Overall, Australia's financial system is performing well.

There are two principal areas where FSI attention may be needed: (1) *Long-term capital formation*, and (2) *Consumer prices*. These issues are discussed in turn below.

### *Long-term capital formation*

The economic resources consumed by the financial system in connection with long-term capital formation have increased over time. During the 1980s and 1990s, the Australian financial system consumed about \$360 of labour and capital, on average, for every \$1,000 of capital formation. In 2013, for the same \$1,000 of capital formation, the system consumed over \$500 of labour and capital.

The primary drivers of what appears to be declining capital formation efficiency include:

- (1) **Banking regulation:** Banks are currently the centre of gravity of Australia's financial system, with more than double the assets of the superannuation system. However, global and local regulation has encouraged banks to loan money against existing housing stock. Regulatory capital requirements for mortgages make the asset class relatively attractive. Variable rate loans are relatively common in Australia, reducing bank interest rate risk exposure.
- (2) **Short-termism:** Short-termism is the excessive focus on short-term results that undermines long-term outcomes. It is driven by incentives, cognitive biases, and public policy. Short-termism can impair investment in capital and R&D by operating companies, which undermines long-term value creation. Short-termism is a well-recognised problem in the UK, the US, and may be on the rise in Australia. Holding periods for listed equities has declined from over six years in 1986 to less than one in 2011. The volatility of the Australian stock market has more than doubled from seven per cent in 2003 to 15-17 per cent by the end of 2012. After removing the effect of the mining investment boom, Australia's investment to GDP ratio has declined by about 18 per cent since 1980s highs.
- (3) **Retailisation in superannuation.** The ability of the superannuation system to invest to a greater degree in long term capital is constrained by retailisation, portability, and investment option switching. These contribute to an environment that encourages member action based on sentiment. Increased risk of member action based on sentiment means (i) trustees may need to cater to shorter term pressures to mitigate that risk, and (ii) liquidity levels must be maintained to accommodate that risk. In addition, liquidity in superannuation is regulated on an institution-by-institution basis, notwithstanding that preservation requirements limit outflows from the system even in a systemic event. Retailisation, liquidity, portability and investment option switching interact with the other factors that encourage short-termism in a feedback loop that will weigh against long-term investment in capital on an ongoing basis. Aside from this, a large percentage of superannuation savings is being placed in the self-managed super fund sector. Regardless of the quality of the trustee(s) of an SMSF, the structure appears to be less suitable for long-term investment in capital. The amount of capital formation per dollar of assets by APRA-regulated superannuation funds appears to be significantly higher than SMSFs, by about one-third. The SMSF sector is highly fragmented, and the superior outcomes for APRA-regulated funds may be due to greater scale and collective action capabilities, among other reasons.

The apparent decline in capital formation efficiency seems consistent with cross-country analysis suggesting that financial services has changed a great deal since the 1960s-1980s, and the very large modern financial sectors appear to be a drag on growth.

### *Consumer prices*

The consumer prices for financial services in general are high by international standards. Although costs per dollar of footings have declined by over six per cent per year since the 1980s, not all of these cost savings have been passed on to consumers. The spreads between costs and revenues of the major banks is higher than comparable countries. The spread between (a) overall system revenue per dollar of footings and (b) overall system costs per dollar of footings is more than double that of the United States and the United Kingdom.

The primary driver of what appears to be excessively high margins is likely to be a high level of concentration in the banking system. The four largest Australian banks have a greater percentage of banking system assets than do banks in comparable countries. This may contribute to above average consumer prices for financial services, including by limiting competition and creating high barriers to entry. Competition in banking is discouraged in Australia because the major banks enjoy an implicit Government credit guarantee, with an estimated benefit to these banks of over one billion dollars per year.

### **Responses: Promoting long-term capital formation**

Sustaining GDP growth will require increasing levels of capital formation. Capital formation is tightly connected to productivity growth. Moreover, aging will require the country to sustainably produce more with relatively less labour. This can only come from new capital formation and capital intensity. The tapering of mining investment, reduced appetite for Government investment, and high levels of private debt point toward a *balanced investment led growth model*.

Banks and superannuation funds both need to evolve to achieve this model.

Banks will continue to play a major role in providing loans to households, consumer credit, and facilitating payments. Banks currently enjoy a comparative advantage in analysing individual and SME credit risk. The provision of finance that is influenced by this could be expanded if sources of funding beyond the relevant bank's balance sheet were available. Banks originating into a more robust securitisation framework would seem reasonably possible.

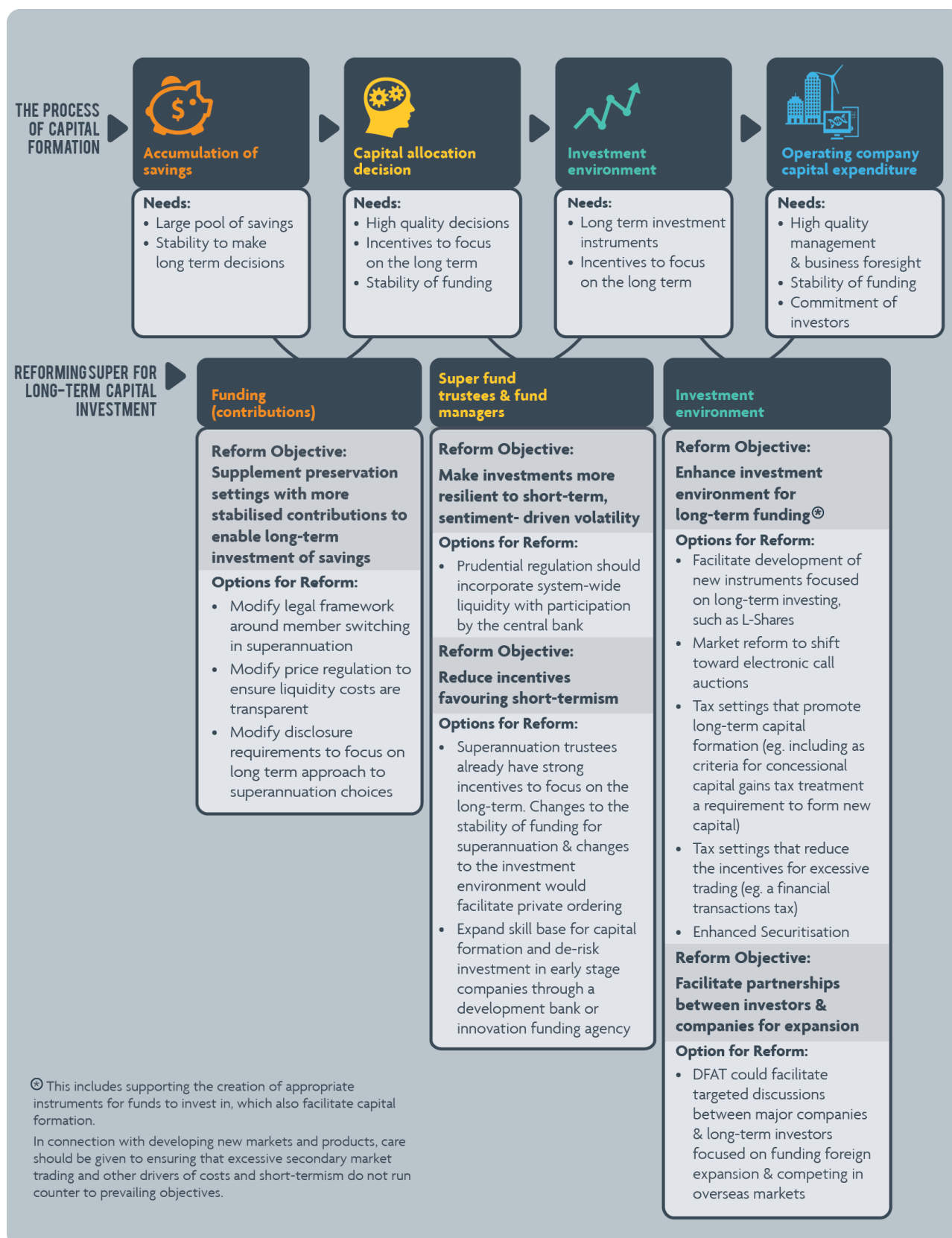
Superannuation is a strong foundation from which to build a long-term funding channel. The pool of savings available for investment is large and growing, with compulsory super as the cornerstone. Savings are preserved for decades, and are invested by trustees who owe a fiduciary duty to beneficiaries consistent with that long-term horizon. Long-term liabilities can be better matched with long-term investments. Superannuation can compete with banks in primary asset creation markets, as well as invest in long-term (securitised) assets based on new capital stock, promote recycling of Government funds by purchasing mature infrastructure assets, and be direct investors in partnership with major Australian companies for domestic and international expansion.

Public policy can help deliver these outcomes. The conceptual objectives for reform, together with some provisional options or policy levers for achieving them, are illustrated below in Figure 1. There are options at each major stage of the process by which savings is transformed into investment in capital, designed to reduce short-termism and promote greater long-term capital formation. The options are those which would rationally be considered, and ISA has identified them to promote discussion. As the inquiry progresses, we will present more formal recommendations.

### **Responses: Improving consumer prices of financial services**

It is reasonable to expect that consumer prices would improve if Australia's banking system became more competitive. Options for reform in banking that the panel may wish to consider include: (i) eliminating the competitive distortions arising from the Government implicit guarantee, such as by establishing an annual recovery payment to Government by each major bank; (ii) encouraging banking account portability, (iii) addressing competitive distortions arising from regulatory capital, and (iv) ensuring that market power in banking cannot translate into market power in other areas of financial services (particularly wealth and superannuation which may compete with banks in the funding market).

Figure 1 – Optimising the superannuation system to facilitate capital formation





# KEY FINDINGS

## Overview

- The finance industry is the largest industry in Australia. It has experienced the second fastest growth rates over the past 30 years. Two drivers of growth include the expansion in financial advice, wealth management and securities trading and the profit growth of the banking sector.
- In terms of assets, liabilities, investment and employment, banking is the “centre of gravity” in the financial system, more than double the size of superannuation and wealth combined. In terms of profitability by industry segment, once again banking is pre-eminent with about \$36 billion in net profit before taxes in 2013.
- Over time, growth in the value added by the financial sector has leaned towards profit growth. Over the period 1990 to 2013, profits have grown 9.5 per cent a year compared to 6.3 per cent for wages and salaries. In contrast, FTE employment in the financial services sector grew at a slow rate of 0.5 per cent a year.

## Efficiency

- There are signs that the financial system has become less efficient: over the 1980s and 90s, for every \$1,000 of capital formation, Australia paid the financial sector on average \$360. In 2013, for the same \$1000 of capital formation we paid the financial system over \$500. Capital formation includes tangible fixed capital like manufacturing plants, as well as intangible capital like R&D programs.
- Alternative measures of efficiency such as the generation of financial assets and liabilities, especially via new loans, is arguably a measure of productivity in generating financial assets not the productivity of the financial sector’s economic functions such as mobilising savings into new real capital investment.
- Nonetheless, by these measures there are signs that the efficiency of Australia’s financial system needs improvement. Compared to other major economies, the spread between revenue margins and cost margins for the Australian financial system is the highest. This suggests cost savings in Australia do not fully flow to consumers.
- Australia’s financial system consumes more labour and capital per dollar of combined financial assets, investments, and liabilities than comparable jurisdictions.
- The superannuation system is more efficient than the banking system in the creation of new capital: we estimate that currently, based on a 3 year averages, for every dollar lent by the banks, about 18 cents of new capital was formed. The corresponding ratio for APRA-regulated superannuation funds is about 25 cents.
- Researchers at leading institutions such as the IMF, World Bank and the Bank of International Settlements are exploring the efficiency of finance and revisiting earlier research that found a strong positive relationship between financial development and growth.
- New research findings indicate a negative relationship between financial sector growth and productivity growth and evidence that banking and capital markets size has a non-linear relationship with growth that turns negative after a certain point.
- The United States and United Kingdom have both experienced declines in their investment to GDP ratio of about 25 per cent since the 1980s, during the time they became global financial centres.
- Bank residential loans have morphed into the largest class of assets and loans have shifted from financing the creation of new housing stock – new capital – to financing the resale of existing stock. Between 1992 and 2012, residential lending increased from 15 to 37 per cent and lending for new dwellings fell from 22 to 12.5 per cent.

- It is unlikely that regulatory capital requirements have been solely responsible for the shift in bank business activity: other jurisdictions that are subject to risk-weighted regulatory capital requirements have not shown the same degree of focus on residential lending for existing housing stock.
- Capital markets also appear to be contributing to the decline in efficiency of the financial sector: In the late 1990s the ratio of primary capital raised to the turnover of secondary equity markets was, on average, about 1:10 (i.e., for every \$1 of public capital raising there was about \$10 of trading activity). In 2012, the ratio was 1:28.
- In addition, trading in derivatives since the mid-2000s has dwarfed equity trading in secondary markets. In 2012, total equity market turnover was about \$1.2 trillion. Total turnover of derivatives was about \$70 trillion (\$43 trillion on-exchange and \$27 trillion over-the-counter) – none of this activity directly contributes to real capital formation.

### **Short-termism**

- The tendency to short-termism seems a likely culprit for under-investment in fixed capital in favour of trading, creating new financial products on old fixed capital, as well as restructuring, re-engineering and mergers and acquisitions. Empirical evidence suggests that cash-flows are discounted heavily and short term earnings are favoured over long-term investment projects.
- The average holding period of listed equity in Australia has dropped from about six years in the 1980s to less than one year.
- Short-termism is interacting with hyperactive retailisation in a feedback loop. The cost can be estimated by comparing the operating costs of public offer super funds against super funds not open to the public: fees for public offer funds have been 50% higher than those for non-public offer funds between 2008 and 2013 (\$761 compared to \$507 a year).
- Companies with long term investors perform better. For example, companies with long term investors perform more R&D.

### **Competition**

- Our banking sector is recognised as the most concentrated of developed economies with the major banks holding almost 80 per cent of total assets, 85 per cent of home loans and 75 per cent of deposits. This corresponds with high levels of pre-tax profits and net interest margins that may have contributed to the decline in efficiency.
- Evidence of oligopolistic competition in the financial sector, particularly banking includes the high level of profits as a share of GDP, and double digit ROE in the face of global regulation and declining leverage ratios.
- The level of concentration in Australia's banking system is linked to correspondingly high levels of pre-tax profits and net interest margins. Australia's major banks have higher pre-tax profit as a percentage of assets than banks in other jurisdictions.
- Over the long term, the cost margin of banks has declined by 5 per cent per year since 1990, but revenue margins have declined only 4 per cent, with the difference not being passed on to businesses and households. Since the GFC, the major banks may have a greater capacity to not pass on cost savings to consumers, perhaps due to reduced competition. Since 2007, the cost margin of banks has declined by 4 per cent per year, but revenue has declined by just 2 per cent per year. As a result, the spread between costs and revenue since the GFC is larger than the long term average, and has not been passed on to consumers.

- In terms of retail banking, Australia's big four banks have higher profit per customer than the top banks in comparable countries. The revenue per customer is nearly double that in the US and UK; the profit per customer is nearly quadruple US and UK rates.
- A key driver of big bank profitability is their lower cost of funding relative to their competitors due to their perceived status of "too big to fail". The average estimate of the value of the implicit subsidy to the major banks was \$2.1 billion over the period 2007 and 2012 or about 4.8 per cent of their annual net interest income.
- This cost advantage was exacerbated by government guaranteed debt issued during the GFC. The major banks were able to purchase the guarantee at 30 bps less than other banks, reducing funding costs between 2009 and 2011 by about \$1.3 billion.

#### **Dividends of improved efficiency**

- If the financial system regains the level of efficiency of capital formation it had in the 1980s and 1990s, productivity is projected to increase by 3.9 per cent from current three-year average levels of about \$74.60 to about \$77.50 of real GDP per hour worked.
- With these productivity impacts, current levels of GDP could be achieved with fewer hours of work. Expressed in this way, the savings in hours worked is about 8.5 days per year for an average full-time employee.
- We would also see a boost to labour productivity growth of about 0.3 per cent per year which would fill a large part of the gap between current productivity growth and the growth per year sought by Treasury in the 2010 Intergenerational Report to address the aging population.

#### **Superannuation**

- Since the inception of the superannuation guarantee (SG), the superannuation sector has gone from strength to strength: assets are growing strongly and are expected to increase from \$1.7 trillion as at September 2013 to over \$6 trillion by 2030, at which time they are likely to exceed the assets of the banking system.
- The emergence of superannuation has led to a significant decrease in financial system leverage in particular reduced risk concentration in financial sector exposure to Australian housing than would otherwise be the case and a greater diversity of financial institutions.
- APRA-regulated superannuation funds also perform a macroeconomic stabilising role. During the GFC, superannuation funds invested strategically as asset prices fell, supporting the liquidity and stability of markets. As a result of this, ASX companies have re-equified, with market capitalisation levels reaching pre-GFC highs, realised because new injections have offset decreases in price-to-book multiples.
- The superannuation system is also a significant contributor to innovation and capital deepening in the Australian economy as member contributions are received and invested back into the economy in a multitude of ways, expanding the productive base of the economy and supporting growth and jobs.
- The superannuation system is already an important source of retirement benefits for Australians. Benefits paid in financial year 2012/13 were approximately \$72 billion – consisting in equal measure of lump sums and income stream payments. This is around double the \$36 billion in expenditure for the age pension in the same year.
- Individual retirement savings in Australia is supported through public policy, including tax concessions and mandates. The preferred treatment of retirement savings compared to other savings is justified because of the mandatory nature of the Superannuation Guarantee (SG) and because of preservation requirements.

- Superannuation funds offset the increasing concentration of assets in the banking system. Since 1990, superannuation is the only sector of the financial system to have grown other than banking (which has been driven by growth of the big four banks); super has increased from 11 per cent of total assets to 23 per cent of total assets.
- The number of superannuation funds has reduced significantly during this period but still exhibits much lower levels of concentration than other financial system sectors.
- Compulsory superannuation savings are largely additional savings that would not have been accrued in the absence of the superannuation guarantee. We estimate that between \$800 billion and \$1 trillion in superannuation savings (47 to 58 per cent of system assets) have been accumulated that would not otherwise be available.
- As a result of net new savings arising from compulsory super, we estimate that APRA regulated superannuation funds contributed an estimated total of \$201 billion to Australia's net additional capital stock over the period 2003 to 2014.
- In 2005, members aged 60 years and over accounted for approximately 23 per cent of total vested benefits; only 8 years later, this is up to almost 34 per cent. Members 50 and over accounted for almost two-thirds of assets which will feed into a higher proportion of members 60 years and over as time moves on.
- There is a negative correlation between age and risk appetite in terms of investment preferences. As members age they are more likely to adopt a conservative asset allocation and favour cash and they are more likely to switch in response to market downturns. This has growing implications for fund liquidity and exposure to illiquid assets.
- Switching is generally detrimental to investment performance: members who switched investments during the GFC performed less well on average; because older members tend to be more active, in the wake of the global financial crisis many of those close to retirement suffered dire impacts. Evidence suggests that an inefficient asset allocation could result in a one-fifth reduction in member's wealth.
- If the superannuation system's portability, investment option switching, liquidity regulation, and retailisation characteristics continue, trustees will have an increasingly difficult challenge in structuring investments and making long term investments as the superannuation system matures.
- As exposure to liquid assets increases, the scope for investment in illiquid assets like infrastructure will be reduced despite their superior risk adjusted returns; more broadly the capacity to commit to long term investments would reasonably be expected to decline.

### **Self-managed super funds**

- Self-managed super funds (SMSFs) are a large and rapidly growing part of the superannuation system. At September 2013 they were estimated to hold assets of \$530 billion, having grown at 10% per year since 2007, compared to 5.4% per year for APRA-regulated funds during the same period.
- SMSFs are generally expensive and poorly diversified. SMSFs also have implications for systemic risk, investing procyclically and taking on greater leverage.
- SMSFs represent fragmented savings, and appear to be inefficient mechanisms for aggregating and deploying savings for long-term capital projects. Their appetite for dividends also potentially reduces operating company capital expenditure.
- SMSFs are also comparatively less efficient in capital formation. It is estimated that in 2012, for every dollar invested by a SMSF, around 16 cents resulted in the creation of new real capital. This compares to APRA regulated funds, where each dollar invested creates around 25 cents of real capital.

- The most recent data show that 30% of SMSFs have less than \$100,000 in funds under management and have costs of between 3% and 7% p.a. These expense levels represent a very significant leakage from the superannuation system, resulting in lower retirement accumulations for those with SMSFs who are least able to afford it.
- SMSFs pay an effective tax rate of around 6.3 per cent, much lower than even the concessional treatment afforded to APRA-regulation superannuation savings of 15 per cent. This difference relative to APRA-regulated funds arises from a number of taxation inconsistencies. SMSFs can be used to shelter business assets and personal assets from tax.

### **Infrastructure**

- Sitting aside the deep pool of superannuation savings with a voracious appetite for infrastructure investment is a persistent infrastructure deficit worth over \$300 billion.
- An important reason is that major infrastructure investors don't participate in greenfield PPP projects as either a bid sponsor or primary equity investor due to very high bid costs, long procurement timeframes, the absence of a project pipeline, and the tendency for short-term participants to take their fees up front and strip long term value from the project.
- The long term investment horizon of superannuation funds and their appetite for illiquid assets make them ideal partners for such projects, however, the current process is biased towards short term financiers and contractors and reform is required to level the playing field.
- Reform of the bid process could lead to a significant increase in infrastructure investment and fill part of the void left by the fall in mining investment as well as boosting productivity and softening the impacts of an ageing population.
- An inverted bid model would drive down costs: under the model the government tenders initially for the long-term equity owner-operator followed by separate bids for construction, operation and maintenance, and debt. This is expected to potentially halve bid costs.
- This will level the playing field for genuine long-term equity investors who are seeking to make a reasonable return over the economic life of the asset and not through the initial bidding, structuring and building of the asset.
- We posit that a new bid model could bring forward infrastructure investment worth \$45 billion over the next three financial years. This would go a long way towards filling the GDP growth gap left by the tapering of mining investment.
- Industry SuperFunds have already made clear that they would make infrastructure investment of up to \$15 billion over the next five years if appropriate projects were made available. Reform of the bid process could well see them accelerate or even increase that projected level of investment.

### **Financial system public policy issues**

A range of options to support long-term investment exist, including:

- Structure consumer choice to reflect the long-term nature of superannuation, creating greater stability and increased capacity for long-term investment by superannuation.
- Reform superannuation reporting requirements to members such that information is provided to members to highlight long-term investments in capital by the fund.
- Market signals should be used to inform members of the costs of liquidity and switching by requiring associated costs to be passed on as discreet fees to customers.

- Reporting by superannuation funds should be supplemented by longer-term rolling averages: current short-term performance and risk measures can deter long term investment.
- Reforms to address liquidity barriers to long-term investment as demographic changes lead to net outflows, shrinking superannuation's capacity to invest in illiquid assets.
- Expand skill base for capital formation and de-risk investment in early stage companies through a development bank or innovation funding agency.
- Improve the quality of fair value measures since market prices frequently and substantially deviate from fundamental value.
- Facilitate development of new instruments focused on long-term investing, such as L-Shares.
- Market reform to shift toward electronic call auctions.
- Tax settings that promote long term capital formation (e.g., including as criteria for concessional capital gains tax treatment a requirement to form new capital).
- Reduce incentives for short-term speculation and excessive trading by for example imposing "position limits" for certain designated commodity derivative contracts.
- Tax settings that reduce the incentives for excessive trading (e.g., a financial transactions tax).
- Facilitate an improved securitisation market.
- The Department of Foreign Affairs and Trade could facilitate organising "steering committees" for major Australian domiciled companies, at which major long term investors and company management would have targeted discussions on investment, with a focus on foreign expansion and competition in overseas markets.
- Claw back the too-big-to-fail subsidies of the major banks, and thereby reduce some of the competitive funding advantages enjoyed by them.
- Improve bank account portability by creating transferable account numbers (akin to mobile number portability) and ensuring transaction history and settings are portable.
- Contribute to debate on "capital requirements:" one option which might be less distorting on an asset basis and easier to supervise would be a ratio of tier one tangible equity (adjusted) against tangible assets (adjusted); another option might be to facilitate the use of internal model calculations for risk-weighted regulatory capital by more Australian banks.
- Reform infrastructure bid models to reduce bid costs and project time frames and create pipeline of projects to remove the barrier to entry to long-term equity investors like superannuation funds from investing in greenfield infrastructure projects.

# PART I: FINANCING GROWTH

## 1. Introduction

The Financial System Inquiry is a timely and needed review of Australia's public policy settings in respect of the financial system. Australia's settings were significantly influenced by the final report of the Wallis Inquiry issued in 1997, which itself rested on certain expectations about the behaviour of government, financial institutions, individuals, and markets that require re-examination in light of experience (during the GFC and otherwise).

Building upon the Wallis Inquiry using the lens of history and experience is only part of what the current Financial System Inquiry should do. The current Inquiry must also look forward.

Australia has enjoyed over 20 years of uninterrupted economic growth –the fruits of significant microeconomic labour market and industrial reform progressed by governments since the 1980s. But there are significant long-term headwinds facing the country's future growth prospects, and the continuation of the improvements to living standards that Australians have enjoyed. These headwinds include the ageing of the population, the need to recalibrate the economy in the wake of the mining investment boom and an environment of subdued credit growth.

Overcoming each of these headwinds will involve achieving significant improvements to productivity growth. But further microeconomic reform to labour and product markets cannot reasonably be expected to achieve the growth rates needed given demographic trends, the maturity of public policy in these areas, and the already high levels of Australian labour productivity.

A substantial increase in productive investment in capital in areas other than the resources sector could, however, uplift productivity growth rates to near historical highs not seen since the early 1990s. Across jurisdictions and time, capital formation is tightly connected to productivity growth. This is no surprise, given the formation of new capital typically involves new technology rather than outmoded technology, and in turns spurs additional innovation.

Many of the components for a more balanced investment-led growth model for Australia are already in place. Necessary capital investments have been identified, with the \$350 billion or more infrastructure gap the most obvious. There is a large and growing pool of savings available for investment, with compulsory superannuation as the cornerstone, particularly as the Superannuation Guarantee achieves 12 per cent.

Mobilising savings for investment in capital and allocating these savings to their most economically productive uses is the core function of the financial system. Australia's financial system is large relative to our economy and sophisticated. However, like the financial systems of the United States and United Kingdom which it resembles in some respects, Australia's financial system shows worrying signs of weakness in facilitating capital formation.

The US and UK previously had world-leading infrastructure, broad strength across industrial sectors, and developed human capital. Over recent decades, however, they have grown based on debt-financed household consumption, while failing to make necessary investment in fixed capital, infrastructure, and human capital to retain competitive advantages.

Since the 1980s, investment to GDP in each of these countries has declined by about 25 per cent, at the same time that finance has grown as a share of these countries' GDP and they became global financial centres. Without the mining investment boom, Australia bears similar marks of receding capital investment. Without the mining investment boom, Australia's investment to GDP ratio has declined about 18 per cent since the highs of the 1980s.



Investment levels are down notwithstanding that in Anglophone countries, financial assets have increased, household savings for retirement has been incentivised (or mandated in the case of Australia), and the respective financial services sectors have grown substantially in size and complexity.

Analysis across countries and time periods confirms that, after a certain point, increasing finance sector size actually undermines growth. These studies are consistent with ISA's research on the efficiency of Australia's financial system, which found the economic cost of capital formation facilitated by the financial system has increased.

Mapping the path to restoring the efficiency of Australia's financial system at transforming savings into investment in productive capital is a critical task for the Financial System Inquiry. Doing so will help the country navigate the headwinds to continued economic growth.

The accumulation of savings and transformation of savings into long-term investments in fixed capital happens through processes and institutions. There are potential improvements that could be made to each stage of these processes and among the institutions. This submission identifies a range of policy options that the Inquiry may wish to consider in respect to the major stages and institutions involved.

In concept, this submission builds upon the existing superannuation system regulated by the Australian Prudential Regulation Authority (APRA) as a natural source of long-term investment, and outlines policy options to unlock this system's potential. Savings are already created through the Superannuation Guarantee, and preserved until retirement, which is a strong platform for long-term investment. Banking, with its central maturity transformation function, is structurally different and not naturally well-suited to long-term investment. The banking system performs critical functions that could be enhanced. Crucially, future financial sector policy must ensure that the concentrated banking system does not utilise market power to build greater share outside of banking, particularly in the superannuation sector, and thereby prevent superannuation from realising its potential to be a source of competition in business funding. Similarly, care must be taken to ensure that capital allocation decisions by super funds are not distorted by participation in a banking group, or Government policy, including prudential regulation.

## 2. Situation analysis

Australia's economic prosperity in the coming decades faces at least three significant structural challenges. First, the ageing of the population. Second, the GDP growth gap left by the end of the mining investment boom. Third, Australian household debt is at peak levels, and support for aggregate demand grounded in the high historical growth rates of consumer credit cannot be sustained.

In the face of these headwinds, Australia will need to shift to a more balanced investment-led growth model. Productivity growth must increase, and the only reasonable prospect of this is through significant improvements in capital formation by the financial system.



## What is capital and capital formation?

Under the neoclassical framework of economic analysis, capital and labour, together with other inputs, are combined to produce goods and services. “Capital” is that part of output that is not consumed in the current period, or exported, but instead set aside to help produce goods and services in the future.

“Fixed Capital” is that portion of capital that is comprised of fixed assets that are used over periods of time longer than one year. It includes buildings, machinery and equipment, infrastructure, some livestock, plants and trees, and improvements and alterations that increase the production capacity of the asset (including improving land through clearing trees and draining marshes).

Importantly, Fixed Capital also includes many intangible assets. It includes intellectual property, R&D costs where the R&D is financially beneficial for the owner, computer software and databases, and mineral and petroleum exploration even if they are not successful.

The construction of dwellings is considered capital formation (because the consumption is considered to be of the shelter provided, consistent with longstanding practice in the framework of national accounting).

Equipment that is complete but not transferred to producers and R&D that is done on a non-commercial basis do not contribute to Fixed Capital. Cars, kitchen appliances, etc. purchased by households are considered final consumption and also not included.

The Australian Bureau of Statistics measures the level of “Gross Fixed Capital Formation” in the national economy.

Gross Fixed Capital Formation is gross of disposals.

See, ABS Australian System of National Accounts, 3<sup>rd</sup> ed. (2012), Chapter 10, p.246.

## 2.1 Economic outlook over the medium to long-term

Over the next 40 years, Australia will face several significant challenges to its economic prosperity. Australia is undergoing a demographic shift in which the population is ageing. The historic boom in mining investment is winding down. Environmental constraints are likely to increase. Australian economic activity, including services, is directly exposed to global competition, and our currency appears to have stabilised at a level which threatens competitiveness.

Moreover, historical factors uplifting aggregate demand cannot reasonably be expected to persist. In particular, consumer debt growth in excess of GDP growth and income growth is unlikely to continue. Household debt to income ratios are around peak sustainable levels.

Yet it is the ageing of the population, in particular, that will put significant pressure on economic growth, household incomes and government finances over the next four decades. With an increasing proportion of the population not working, those who are working will be required to produce more.

Higher economic growth is the key to addressing these challenges and in the face of declining workforce participation; higher productivity growth is the key to increasing economic growth. With population ageing expected to reduce workforce participation rates, future growth in living standards will depend on the productivity gains that can be achieved.<sup>1</sup> The key to increasing productivity growth is, in turn, greater investment in fixed capital, including infrastructure, together with human capital development.

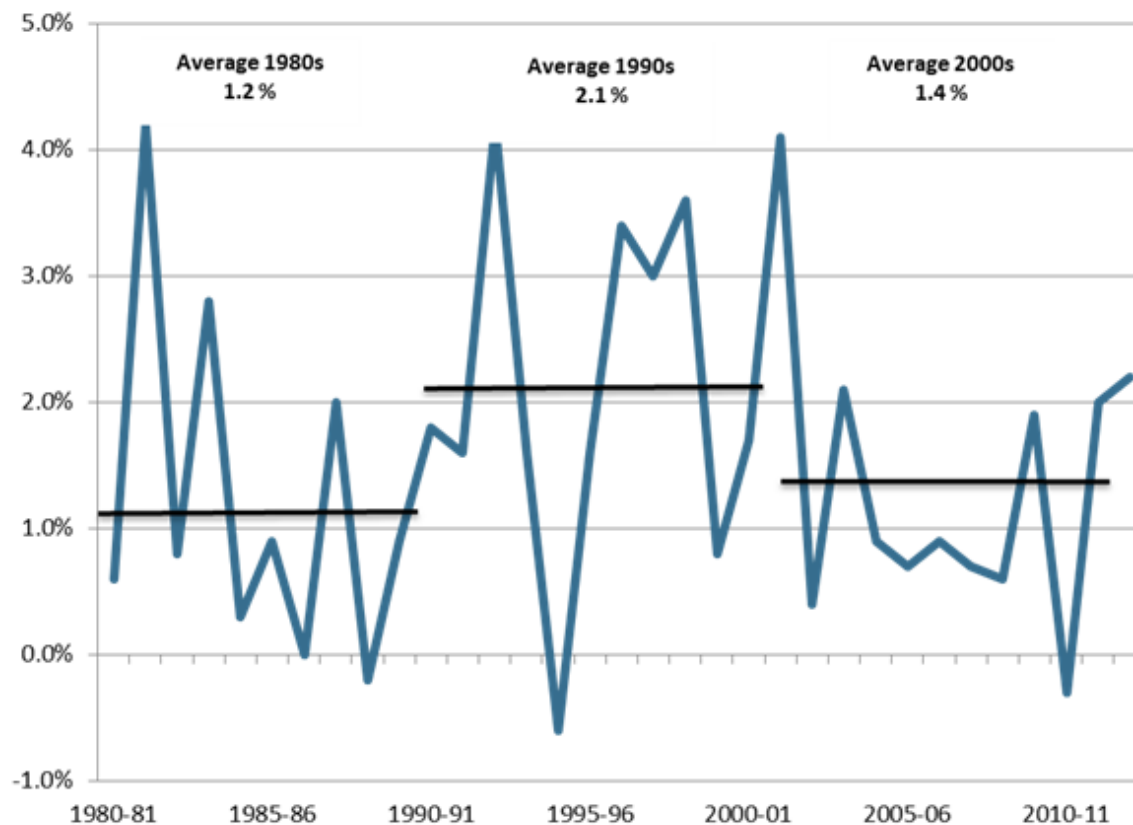
Achieving the needed productivity growth rates is a significant challenge. Australia's productivity growth has fallen to about 1.4 per cent per annum over the past decade, well below the 2.1 per cent growth rate recorded in the 1990s (Figure 2), which were an outgrowth of a profound agenda of microeconomic reforms.<sup>2</sup>

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<sup>1</sup> Treasury (2010) Australia to 2050: future challenges. The 2010 Intergenerational Report.

<sup>2</sup> Productivity Commission (1999) Microeconomic reforms and Australian productivity

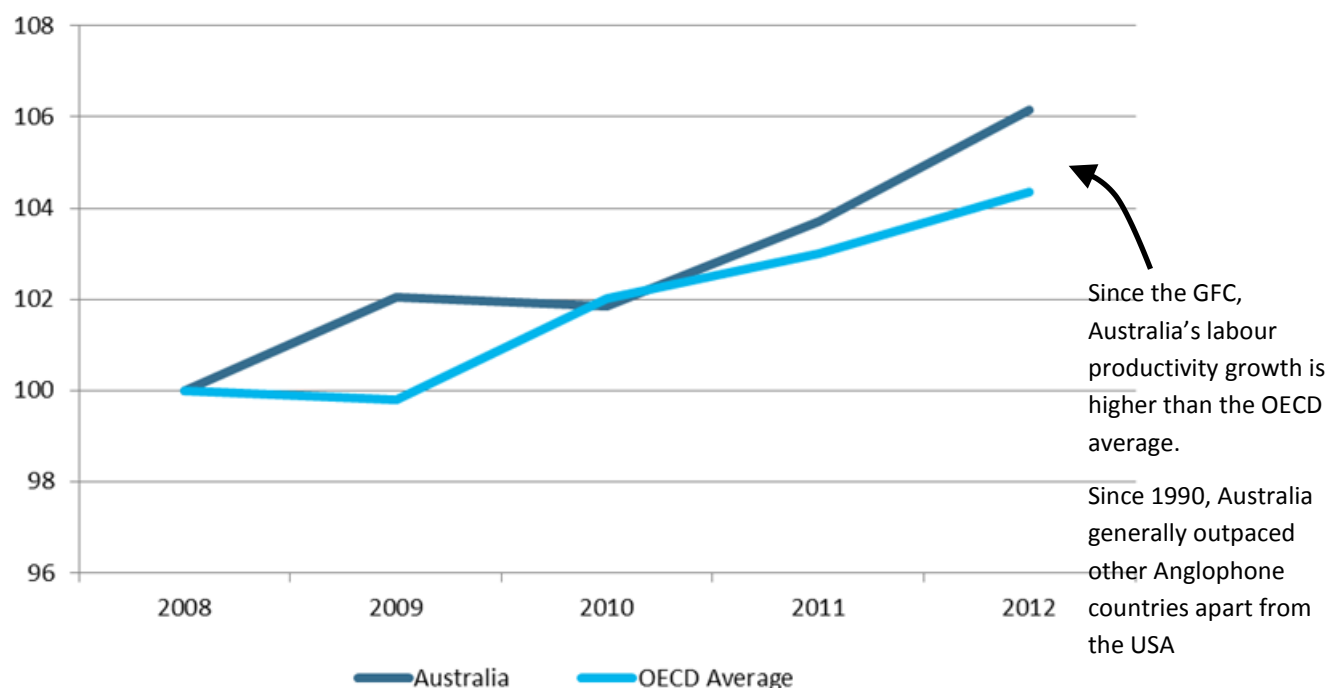
Figure 2 – Productivity growth (real GDP/hour worked)



Source: Treasury; ABS 5206.0 (data are annual averages)

A similar level of reform may be needed to secure Australia's future. However, Australian labour productivity levels are already among the highest in the world (Figure 3), and with mature and generally sound microeconomic settings, it is unlikely that further microeconomic reform in product and labour markets can result in the needed levels of productivity growth.

Figure 3 – Australian and OECD labour productivity, index, 2008=100



Source: OECD Stats

Australia has enjoyed uninterrupted annual economic growth for more than two decades. Inflation has been generally well contained. Unemployment and interest rates have been low by recent historical standards. However, the unemployment rate has crept over six per cent, its highest level in a decade and real wage growth has been static.<sup>3</sup> Moreover, the unemployment rate would be even higher if the participation rate – the proportion of the working-age population active in the labour market – had stayed the same. As it is, the participation rate has been declining almost entirely because of demographics, and to a small degree by other factors.

## 2.2 Where are we headed: a unique set of challenges

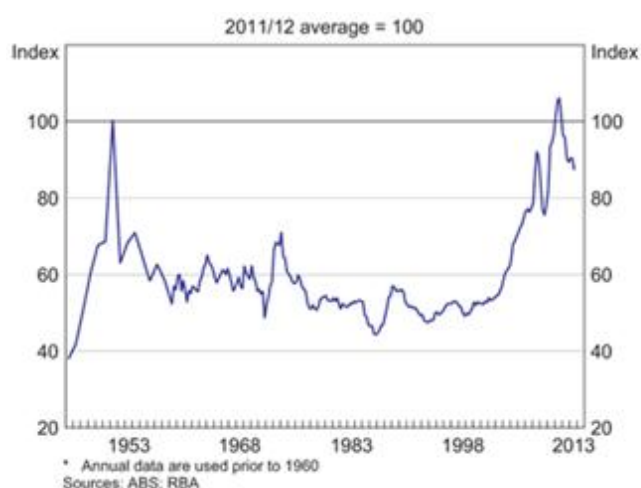
A key challenge facing the Australian economy is how to manage the rotation away from (i) resource-investment and (ii) household consumption led growth towards more broadly-based investment-led growth, in the midst of a significant demographic shift.

### 2.2.1 Terms of trade, mining investment and growth

The exogenous rise in commodity prices in the 2000s resulted in a near doubling in Australia's terms of trade (Figure 4). This culminated in a surge in investment in the mining sector while investment in other sectors languished (Figure 5).

<sup>3</sup> The RBA's preferred measure of wage growth – the wage price index – eased back to 2.6 per cent annual growth in the December quarter, just below the higher than expected annual inflation rate of 2.7%

Figure 4 – Terms of trade



Source: RBA

The historically high levels of the terms of trade driven by commodity prices should rebalance as the mining investments result in greater output. This, in turn, should have effects on the price of imports and exports, which will flow through to consumer prices and industrial competitiveness in ways that will present both headwinds and opportunities.<sup>4</sup>

Overall, the effect of the retreat of the terms of trade on overall economic growth is ambiguous. What is very clear, however, is that the mining investment boom was a rare uplift in GDP growth and replacing the contribution to growth of the mining investment boom is a clear challenge.

### 2.2.2 Rotation from mining investment to production

Part of the answer lies in the transition underway from resources investment towards resources production and exports. However, official growth forecasts<sup>5</sup> have been downgraded to reflect just how difficult this process will be. Resource investment is now expected to fall more sharply than earlier projections and while production and export of resources are expected to maintain an upward trend, GDP growth in the mining sector is expected to remain below one per cent per annum.

While the official real GDP forecast was downgraded from three to two-and-a-half ½ per cent for 2013-14, growth is still forecast to achieve 3 per cent per annum in 2015-16 and 2016-17. The extent to which this forecast will be realised turns on a significant increase in the contribution to growth from non-resource sectors from 1.6 per cent in the current financial year to 2.5 and 2.2 per cent respectively for 2015-16 and 2016-17. The critical issue is that it is not clear where this growth is going to come from in the non-resources sectors of the economy. Although Treasury forecasts are not long-term, the terms of trade and mining investment boom were major shocks that will affect the Australian economy and growth prospects for a long time.<sup>6</sup> Figure 6 sets out the near term effects.

<sup>4</sup> For example, firms that sold products and services domestically utilising imported inputs (for which there are no ready local substitutes) will face higher costs for those inputs, but may enjoy more cost competitive sales prices in domestic markets relative to imported goods and in overseas markets generally

<sup>5</sup> PEFO August 2013 and MYEFO December 201334

<sup>6</sup> See also, Atkin, T., Caputo, M., Robinson, T., & Wang, H. (2014). Macroeconomic Consequences of Terms of Trade Episodes, Past and Present. Past and Present (January 2014).

Figure 5 – Investment, mining and non-mining

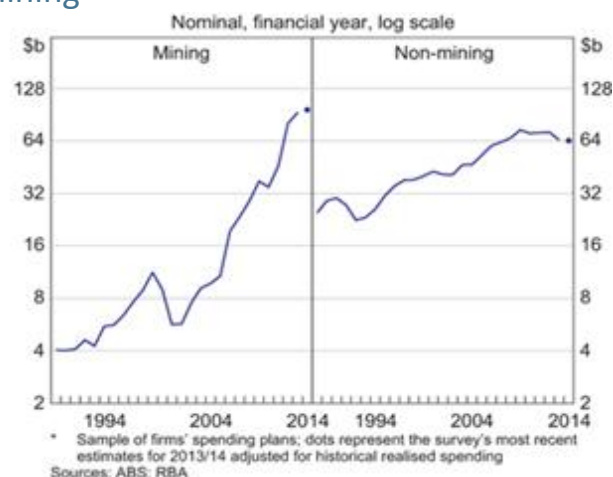
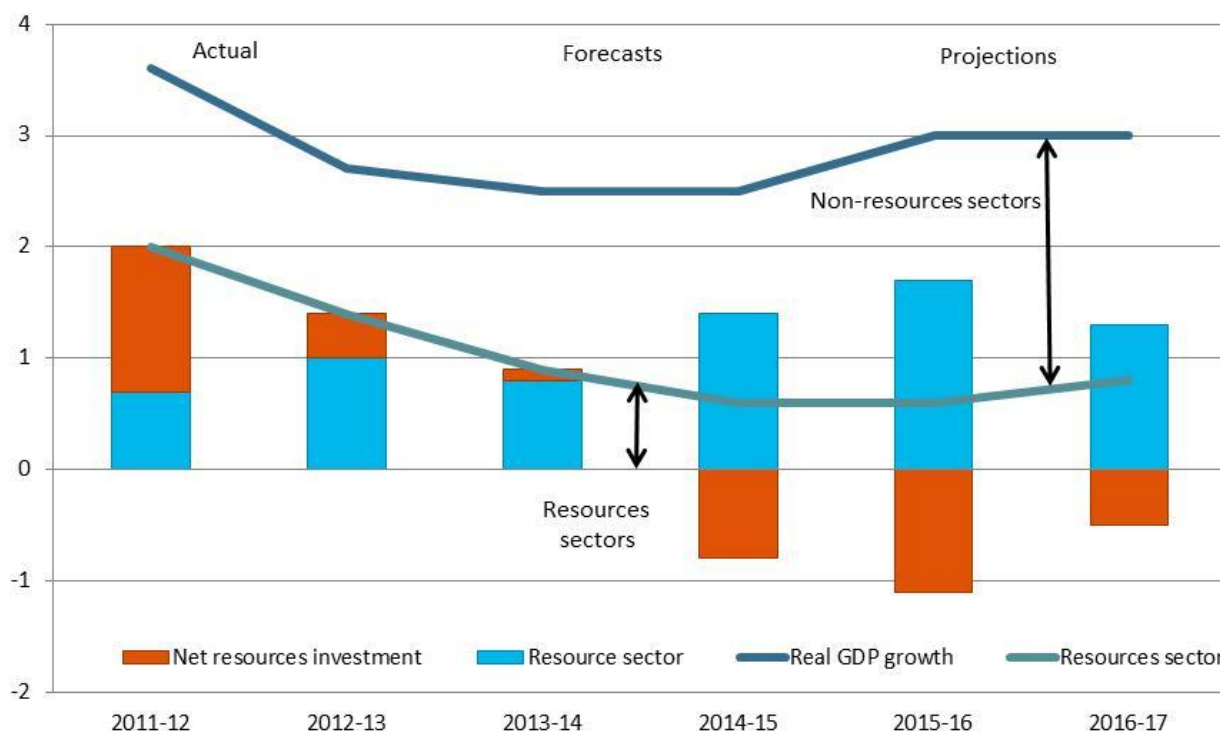


Figure 6 – Sectoral contributions to real GDP growth, %



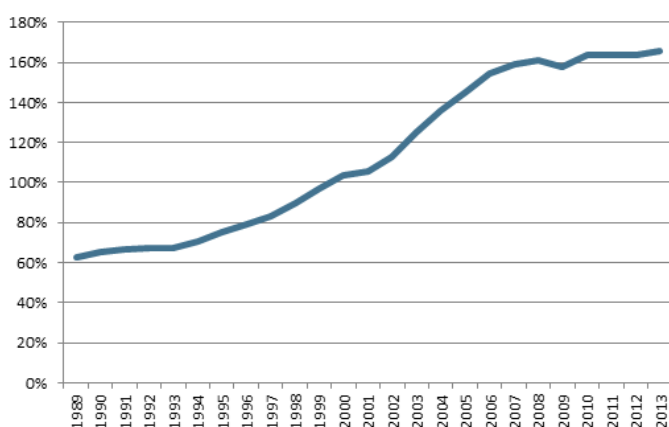
Source: Treasury

### 2.2.3 Private debt and sources of growth

With real incomes static, the only way households could lead economic growth would be if they increased borrowing and/or reduced savings rates. However, consumers are not demonstrating an appetite for new debt.

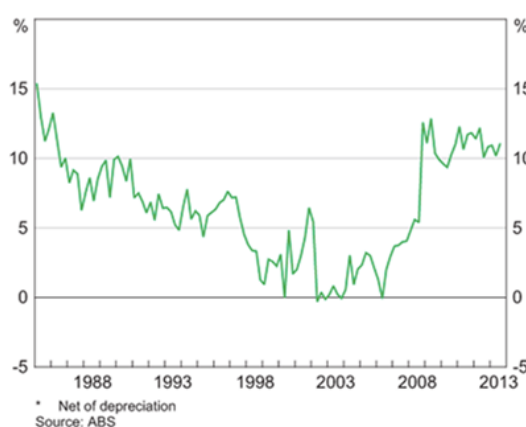
If anything, the peak in household debt (Figure 7) and the structural jump in the household savings rate (Figure 8) suggest it is more likely that consumers will hold debt-to-income levels flat.

Figure 7 – Household debt as (a % of disposable income)



Source: Figure 7 - National Accounts: Financial Accounts (ABS 5232.0), Housing Finance (ABS 5609.0), and ISA Estimates

Figure 8 – Household savings (as a % of disposable income)



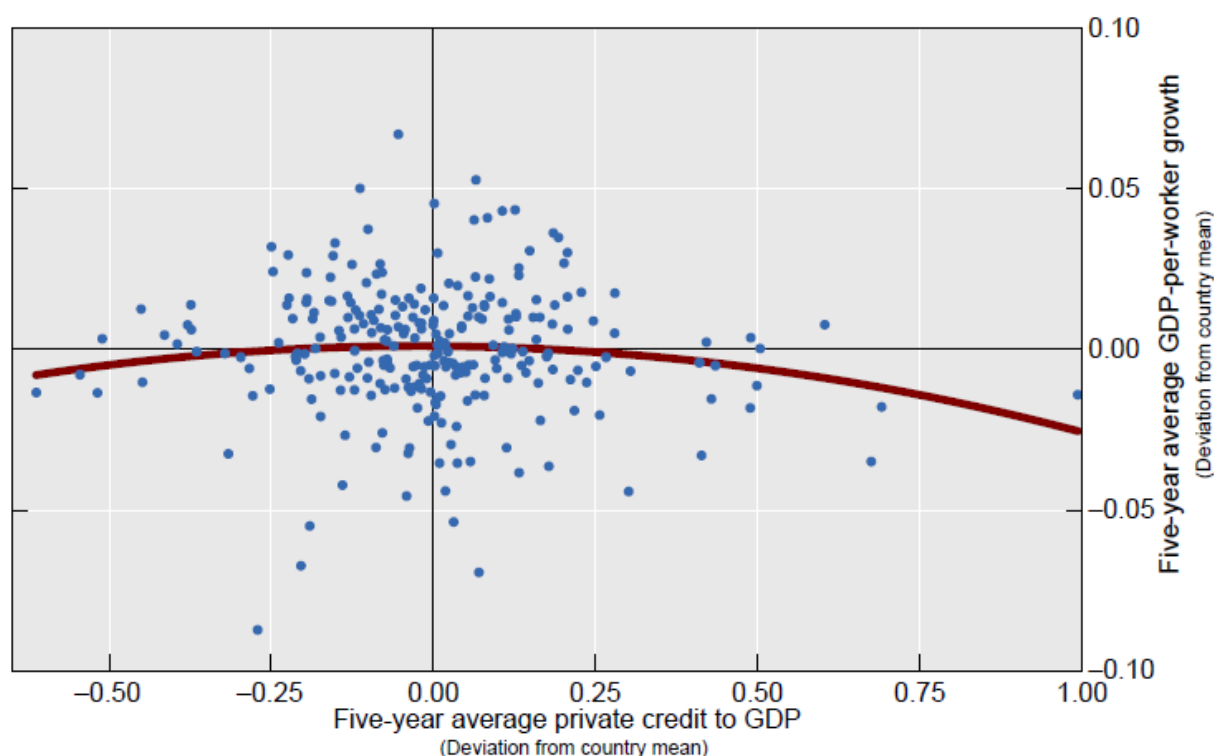
Source: Figure 8 - RBA

Even if households were in a position to re-leverage, growth through leverage presents a policy conundrum. In the decades prior to the GFC, private sector borrowing grew faster than GDP in most advanced economies.<sup>7</sup> As in Australia, leverage played a central role in delivering economic growth during this period. However, leverage was also a key contributor to the crisis and deleveraging was one of the reasons that recovery has been so slow and subdued.

Analysis of the nature of private credit and its relationship to growth has become more sophisticated. Private credit growth is coming under increasing scrutiny because it involves not just the creation of new money and purchasing power, but also the creation of ongoing debt contracts, which themselves have macroeconomic consequences.<sup>8</sup>

As shown in Figure 9, private credit growth displays a beneficial, then a negative effect on economic growth. The inflection point is about the point where private credit is 100 per cent of GDP.

**Figure 9 – Relationship between private credit/GDP and GDP/capita growth**



Source: Cecchetti and Kharroubi (2012)

Analysis of just the private credit extended by banks points to a lower inflection point. It suggests that “for private credit extended by banks, the turning point is closer to 90 per cent of GDP – somewhat lower than for total credit. Many countries are close to or beyond this level, suggesting that more credit will not translate into higher trend growth.”<sup>9</sup>

<sup>7</sup> Turner, A. (2014) Escaping the Debt Addiction: monetary and macro-prudential policy in the post crisis world, Centre for Financial Studies, Frankfurt. See also, Cecchetti, S G, Mohanty M S, and Zampolli, F (2011) The real effects of debt, Bank of International Settlements, Working Paper No. 352

<sup>8</sup> Turner, A. (2014) Escaping the Debt Addiction: monetary and macro-prudential policy in the post crisis world, Centre for Financial Studies, Frankfurt

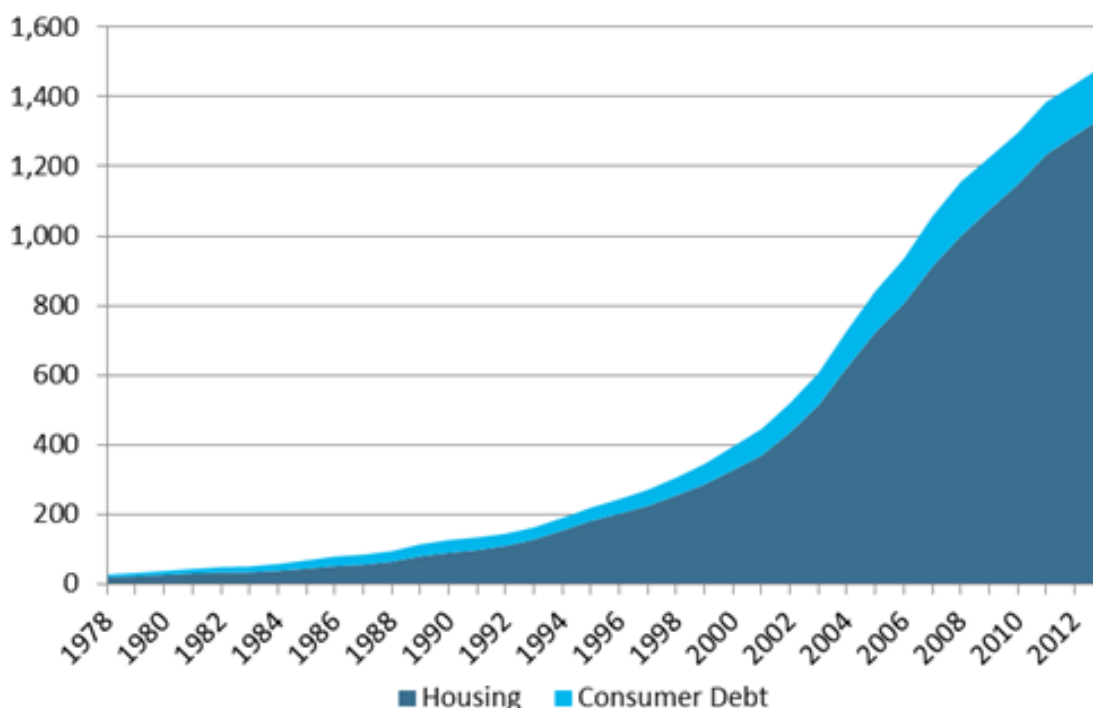
<sup>9</sup> Cecchetti, S. G., & Kharroubi, E. (2012). Reassessing the impact of finance on growth (No. 381). Bank for International Settlements

The effect of private sector debt on growth rates, and risks to economic stability, is also well-established. “The long-run historical record underscores the central role played by private-sector borrowing behaviour for the build-up of financial instability.”<sup>10</sup>

Moreover, a substantial amount of the credit that was extended in advanced economies has been used to fund private consumption or to purchase existing capital stock from others, and so did not add significantly to the productive capacity of the economy.<sup>11</sup>

Household debt-to-income levels for Australia are over 150%, as shown in Figure 7, above. Household debt has grown stratospherically (Figure 10).

**Figure 10 – Growth in Australian household debt, \$ billions**



Source: National Accounts, ABS 5204.0; and RBA, Table B21

Importantly, private credit to GDP in Australia is over 150 per cent and bank credit to GDP is over 110 per cent.

Australia may already be in dangerous territory.

One thing is certain: policy makers should not look to household borrowing or credit growth more generally, to drive long-term economic growth.

## 2.2.4 Changing demography – Ageing and labour force participation

Australia’s population is ageing, in common with most of the world. Longer life expectancies, lower mortality rates, and smaller corresponding movement in retirement ages mean that people will spend longer periods in retirement than ever before. This will have impacts at the macroeconomic level in terms of labour force participation, economic output and budgetary pressures.

<sup>10</sup> Jordà, Ò., Schularick, M. H., & Taylor, A. M. (2013). Sovereigns versus banks: credit, crises, and consequences (No. w19506). National Bureau of Economic Research

<sup>11</sup> Turner (2014) and citations therein

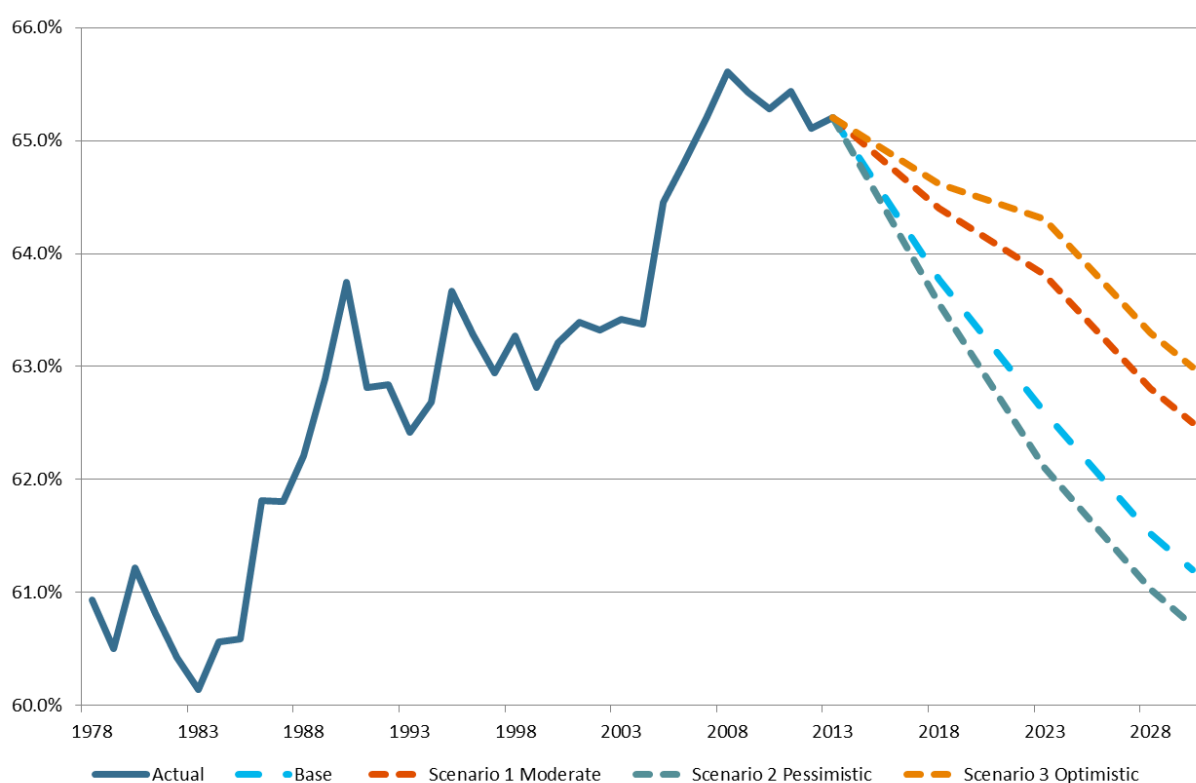


#### 2.2.4.1 Macroeconomic impact of demographic change

The aged-dependency ratio (the proportion of people aged 65 years and older relative to the working age population) has increased significantly over the past 30 years: in 1978, there were 6.9 people of working age for every person aged 65 years and over; in June 2013, this was down to 4.6. ISA expects this trend to continue: by 2030, we estimate an aged dependency rate of approximately 3.2.<sup>12</sup>

ISA has modelled future labour force participation using ABS demographic projections and recent age-specific labour force participation levels (Figure 11). Our analysis shows that even under the most optimistic scenarios, the ageing effect will reduce labour force participation, effectively reversing decades of increases driven by more women joining the paid labour force. Productivity Commission projections indicate that by 2060 overall labour supply will contract by five per cent per capita, and participation will decline to around 60 per cent (from 65 per cent in 2012).<sup>13</sup>

Figure 11 – Labour Force Participation, historical and projected, %



Source: ABS (2013) Labour Force, Australia, Category no. 6291.0.55.001, ABS (2008) Population Projections, Australia, 2006 to 2011, Cat no. 3222.0, and ISA modelling (2013)

The impacts for the government budget associated with an ageing population include a lower base for income tax revenue, higher fiscal outlays in terms of health and pension costs, and a higher demand for aged-care and related infrastructure. Individuals with significant holdings of superannuation assets will shift these to income streams which pay no tax on investment earnings (under current policy settings). For most individuals superannuation withdrawals are also tax free.

<sup>12</sup> Industry Super Australia (2013) Retirement and Labour Force Participation

<sup>13</sup> Productivity Commission (2013), An Ageing Australia – Preparing for the Future

The Productivity Commission estimates that the (collective) additional cost pressures on the Australian government's budgets due to ageing will be around six per cent of national GDP by 2060.<sup>14</sup>

### 3. An investment and productivity led growth model

Investment in capital must play a central role underpinning Australia's future economic growth. In the near term, it will contribute to GDP and help rebalance the economy as the contribution from mining sector investment wanes. Over the longer term, investment in productive capacity, or capital formation, drives productivity growth.

Higher productivity is essential to alleviating the pressure on economic growth and government finances in the face of an ageing population. It is the foundation of rising living standards.

In the long term, enhancing the quantity and quality of capital is a primary condition for productivity growth.<sup>15</sup> The link between capital formation and capital intensity, on the one hand, and productivity gains on the other hand are intuitive and have been widely acknowledged for decades.<sup>16</sup> Capital intensity and productivity gains are empirically related.<sup>17</sup>

The relationship between investment in capital and productivity growth, on the other hand is strong across time and across jurisdictional boundaries. The relationship between Australian productivity growth and investment in capital is very strong, as shown in Figure 12.

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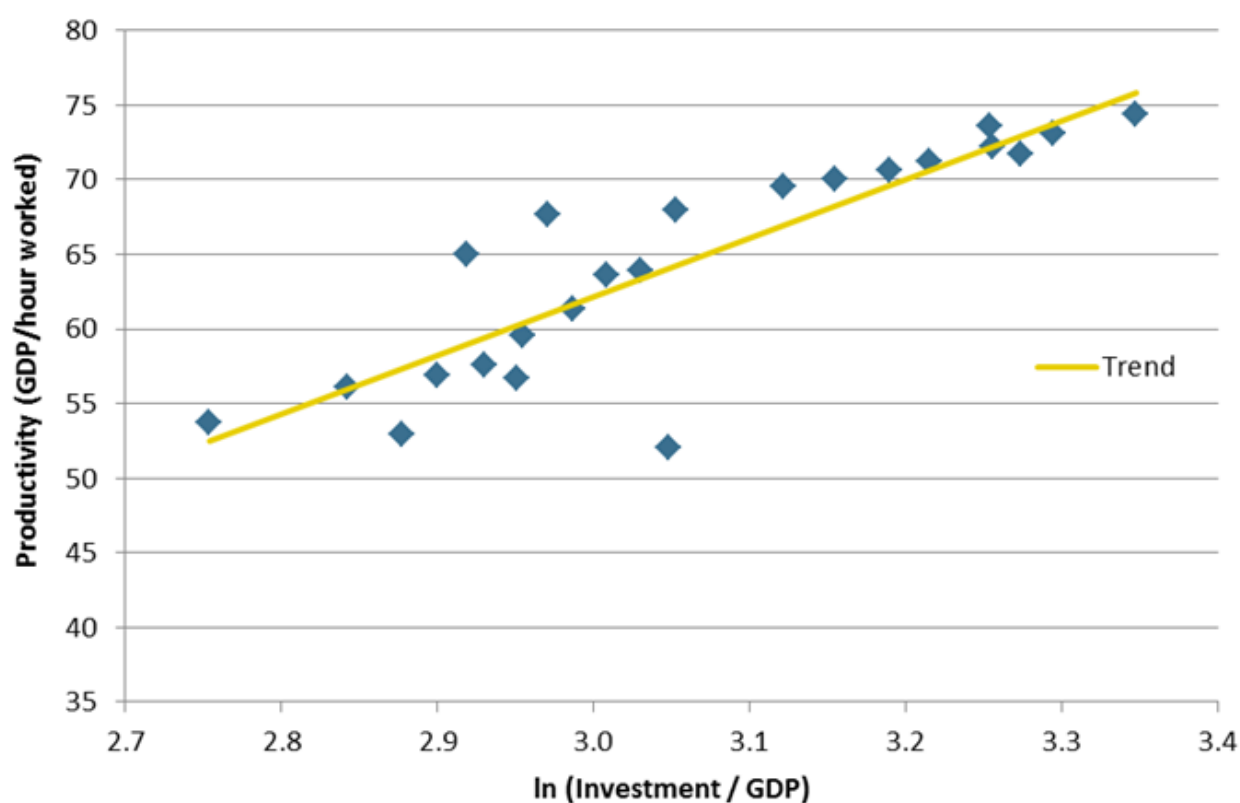
<sup>14</sup> Id.

<sup>15</sup> Stiroh (2000) What drives productivity growth? Economic Policy Review

<sup>16</sup> Edmunds (1950) Financing capital formation. Harvard Business Review

<sup>17</sup> See, e.g., Rao, Tang and Wang (2008) What explains the Canada-US productivity gap? Canadian Public Policy

Figure 12 – Capital formation and productivity relationship, Australia



Source: National Accounts ABS 5204.0, OECD, and ISA calculations

Note:  $\ln (\text{Investment} / \text{GDP})$  is the natural log of the Investment (capital formation) to GDP ratio.

The relationship between capital formation and productivity holds across jurisdictions. For example, about 30 percent of the productivity increases across Anglosphere countries since the 1980s can be explained by capital deepening. Across the OECD jurisdictions, there is a strong link between investment to GDP ratio levels and the growth in labour productivity Figure 13.

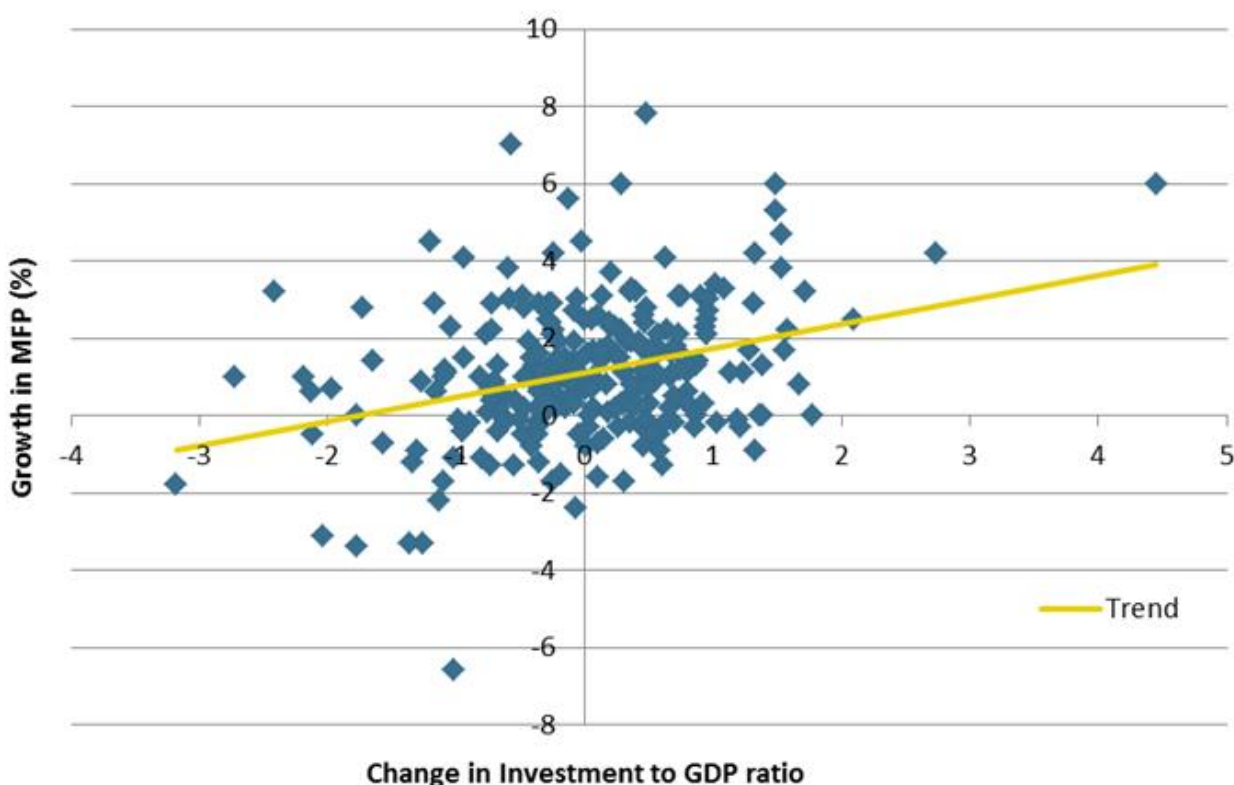
Figure 13 – Capital formation and labour productivity, selected jurisdictions, 1985-2012



Source: OECD Stats and ISA calculations

In addition, capital formation would appear to spur innovation and greater usefulness in the deployment of new technology. This is represented by a strong relationship between capital formation and multifactor productivity across jurisdictions as shown in Figure 14. This is intuitive, as newer technologies and techniques would be developed and deployed in connection with the formation of new capital.

Figure 14 – Capital formation and multifactor productivity growth, selected jurisdictions, 1985-2012



Source: OECD Stats and ISA calculations

Shifting from a consumption and mining-investment based growth model to a sustainable investment and productivity-led growth model will involve changes to:

- *Financial services.* Australian financial services, particularly reform that facilitates the mobilisation of savings into long-term investments in fixed capital. This is the principal focus of this submission as a whole, with particular attention throughout Sections 4 and 0. Superannuation is a strong foundation from which to build a long-term funding channel.
- *Operating companies.* Australian business, particularly in a formal partnership with long-term investors to develop and fund expansions—including overseas. This will enable Australia's large pool of private savings to translate into domestic and overseas asset creation, reduce excessive and destabilising short-termism, and more generally to focus on long-term value creation. In the long term, we believe this is an appropriate response to the Asian Century and the strategies of regional players, particularly by leveraging the current advantage of higher per capita wealth of Australia. It is also a superior alternative to development of Australia as a "financial services hub" and the otherwise inexorable investment of Australian savings in foreign-domiciled firms. This is discussed in Section 9.4.
- *Government.* Australian government, particularly the provision of infrastructure and public goods that lift productivity. This is discussed in Sections 9.2 and 9.2.1.1.

### 3.1 Financial sector

As discussed in more detail in Section 4, the financial sector has a key role to play in lifting capital investment in partnership with business and government. Among the array of its functions, the financial

sector's critical role is to mobilise and allocate savings to investment in new capital – so called capital formation.<sup>18</sup>

As observed by the Group of 30, “efficiently and seamlessly matching global savings with long-term investment opportunities is a core function of the financial system.”<sup>19</sup>

Capital formation – such as construction of new plants, equipment, IT systems, R&D and skills development is typically performed by businesses, not financial intermediaries. However, it is the financial system that determines the scale of business investment, and which businesses and projects receive funding and on what terms.

Perhaps the biggest long-term issue faced by this Financial System Inquiry is how to improve the efficiency of the financial system at performing its core function: mobilising and allocating savings to investment in new capital, that is, facilitating capital formation. Research undertaken by ISA found that the financial system had become relatively less efficient at capital formation over recent decades. During the 1980s and 1990s, the Australian financial system consumed \$360 of labour and capital, on average, for every \$1,000 of capital formation. In 2013, for the same \$1,000 of capital formation, the system consumed over \$500 of labour and capital.

## 3.2 Government

Governments play an important role in supporting the productive capacity of the economy, including through investment in science and research, and education and training.<sup>20</sup>

Government also has a key role to play in driving productivity growth in the delivery of key economic and social infrastructure in its own right or, where appropriate, in partnership with the private sector.

## 3.3 The firm

Government has a key role in getting the economic and policy settings right. After that it is up to operating companies themselves – and their partners in the financial sector – to take the steps necessary to lift productivity, and achieve the growth that supports profits and employment.

The drivers of productivity growth depend not only on the resources and capabilities available in the wider economy but also how those resources are applied by firms.<sup>21</sup> At the firm level, productivity increases on two fronts: (i) technical improvement, or innovation within the firm, and (ii) reallocation of resources, or shifting the factors of production from low productivity to high productivity firms.

A financial system focused on capital formation, driven by the objectives of long-term investors, can be a constructive partner with business to make these productivity changes. An efficient financial system can facilitate the transfer of fixed capital among firms (such as by relaxing the financing constraints on M&A) and relieve financing constraints and support internal improvements within firms.

# 4. The role of the financial system

The financial sector has a key role to play in lifting investment in partnership with business and government.

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<sup>18</sup> See, e.g., Tobin (1984). See also, Merton (1995) (observing that, at its core, finance has “the single primary function of resource allocation”)

<sup>19</sup> Group of 30, (2013) Long term finance and economic growth

<sup>20</sup> Dolman and Gruen (2012) Productivity and structural change

<sup>21</sup> Id.

The financial system performs a number of critical economic functions. As noted above, chief among these is the mobilisation of savings for investment in capital.

This submission focuses on this function because it is core to the future growth of Australia.<sup>22</sup> However, we also set out a framework for evaluating the Australian financial system across its various economic functions (not just fixed capital formation) and make some preliminary observations in each area.

A successful financial system must be *efficient* – judged by the price to end users of financial services, and by the economic outputs per unit of labour and capital. It must be *effective* – for example, the investments in capital must be that which is most needed for production, and the allocation of capital must be toward its most socially useful purpose. It must also be *stable* and *socially responsible*. In this context, *stable* means the robustness of the system to both adapt to emerging trends (e.g., ageing, global regulation) and respond to system shocks (e.g., the GFC). Social responsibility, in this context, means the business conduct of financial services firms comports with just and equitable principles of trade, and that markets are fair (all participants have equal information and other public goods such that the rewards flow to those who make good decisions, not those who have superior access to information or public goods).<sup>23</sup>

This section:

- Outlines the economic functions of finance;
- Outlines the highlights and trends of the system from a macro and institutional perspective;
- Discusses the efficiency of the financial system from a financial and economic point of view; and
- Looks more carefully at the efficiency of the banking system and the capital markets system.

## 4.1 The economic functions of finance

The financial system performs a number of important *economic functions*. These functions have been characterised in a variety of ways, but typically include:

- The facilitation of transactions by providing mechanisms and networks of payments;
- The pooling of risks and their allocation to those most able and willing to bear them;

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<sup>22</sup> Facilitating capital formation also is the only economic function of finance that must be conducted by the private sector in a capitalist economy. See, e.g., Friedman (2012) (stating that “The essential role of the financial system, in an economy like ours, is to allocate scarce investment capital. (This includes determining how much the economy in aggregate invests.) The financial system, of course, performs other functions too: operating the payments mechanism and providing liquidity, providing various forms of insurance for both households and firms, providing households with retirement saving opportunities, and others besides. But all of those are activities for which we have well-established public-utility models. The one function that is essential to the private sector of a free-enterprise economy is the allocation of scarce investment capital.”)

This observation becomes a potentially important point insofar as financial functions such as insurance interfere with the efficient allocation of capital. (For example, if the capital allocation function was oriented around liability management, that is not necessarily the same as capital allocation to achieve the long term generation of economic returns).

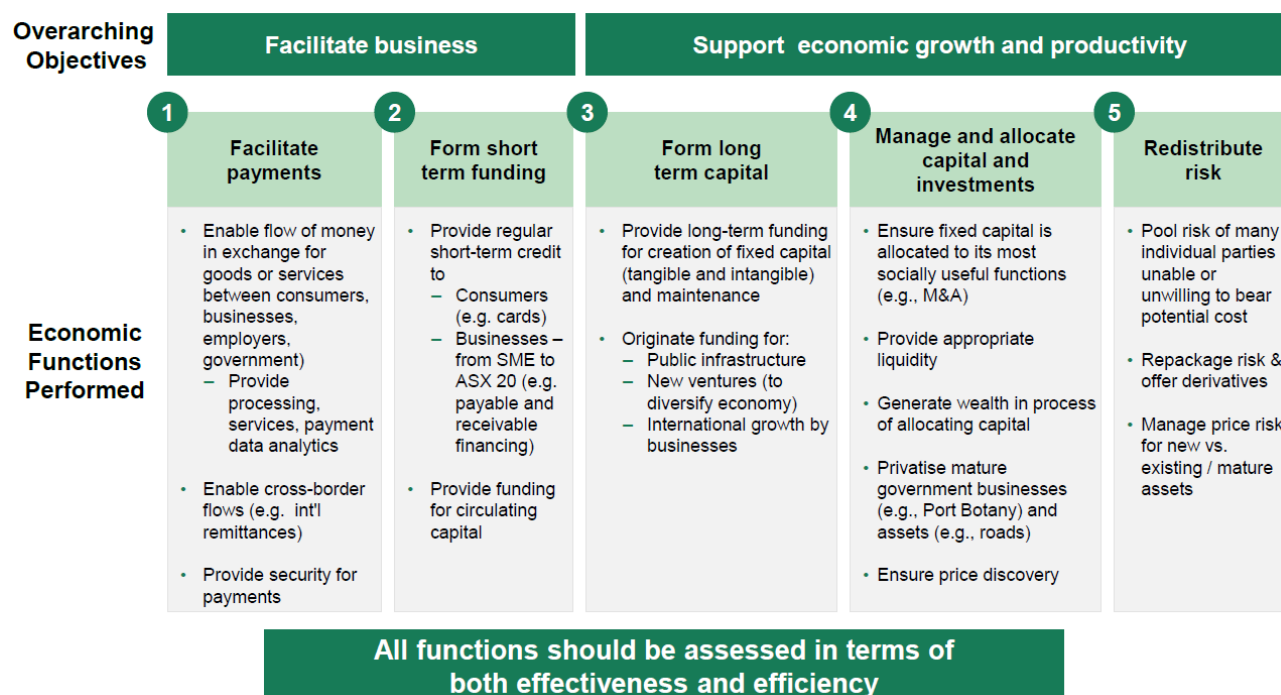
<sup>23</sup> This is a stronger requirement than “equal access” to information and public goods. For example, it would be inappropriate for listed companies to sell information about the company to investors, claiming that “equal access” to the information is available since anyone can buy it. Not all investors would pay for it, and those that did not would view the gains others have made at their expense as “unfair.”

Fairness is a bedrock principle of functioning financial markets. “Investors lose confidence in the fairness of the markets when they know that other participants may exploit ‘unrecoverable informational advantages’ derived not from hard work or insights, but from their access...” US Securities and Exchange Commission, Release No. 33-7881 (2000)

Information and public goods asymmetry is acceptable in most areas of commerce, but not in financial markets. See, e.g., Securities and Exchange Commission v. Texas Gulf Sulphur, 401 F.2d 833, 854 (2d Cir. 1968), cert. denied, 394 U.S. 976 (1969).

- A generalised insurance function, i.e., the ability for parties to insure for themselves deliveries of goods and services in future contingencies, either by surrendering some of their own resources now or by contracting to deliver them in specified future contingencies; and
- The mobilisation of savings for investments in physical and human capital, and the allocation of savings to their more socially productive uses.<sup>24</sup>

Figure 15 – Functions the financial system should perform



Source: BCG and ISA

Each of these functions is important. However, as noted above, there is a renewed global interest in retooling financial sectors to focus on growth-enhancing investment. The Group of 30 have observed:

Growth and job creation require long-term investment in the assets that expand the productive capacity of a modern economy, such as infrastructure, factories and equipment, new housing and commercial buildings, education, and research and development (R&D). Efficiently and seamlessly matching global savings with long-term investment opportunities is a core function of the financial system.<sup>25</sup>

The European Commission's recent work on the Long-Term Financing of the European Economy was similarly focused:

The long-term growth prospects of any economy depend inter alia on the financial sector's ability to channel ... savings into **productive investment**.<sup>26</sup>

As noted above in Figure 12, the relationship between capital formation and productivity growth is very strong. For this reason, together with the apparent declining efficiency with which the Australian financial system is supporting capital formation discussed in Section 4.3, below, we believe the Inquiry should "focus less on increasing the size of the financial sector and more on improving its intermediating function.

<sup>24</sup> Tobin (1984). This functional approach to analysing finance has been followed by others, Cf. Merton (1995), Stevens (2010), and Mulino (2013)

<sup>25</sup> Group of 30, Long term finance and economic growth (2013)

<sup>26</sup> European Commission, Green Paper: Long-Term Financing of the European Economy (2013) (emphasis original)



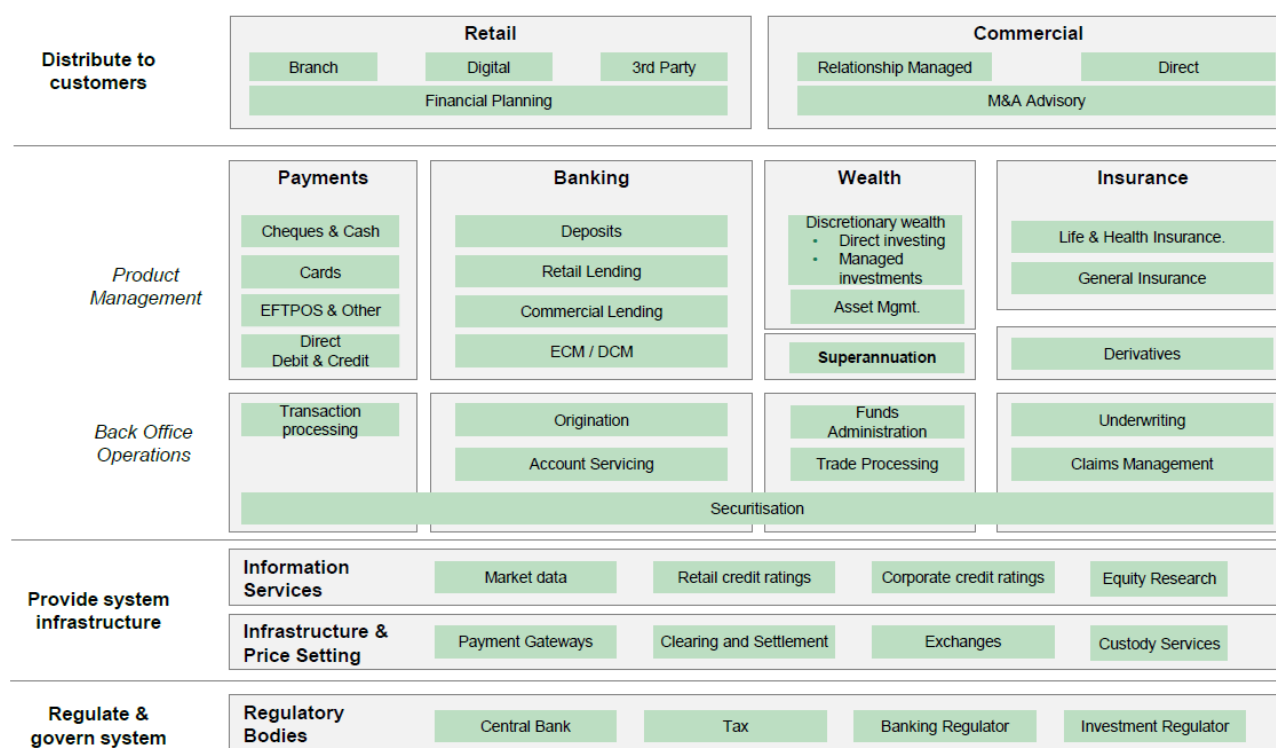
Measures to strengthen quality and moderate finance need to be undertaken ... in fostering economic development. In addition, ... other growth-enhancing strategies need to be highlighted in maintaining long-run economic benefits.”<sup>27</sup>

Capital formation – such as construction of new plants, equipment, IT systems, R&D and skills development is typically performed by businesses, not financial intermediaries. However, it is the financial system that determines the scale of business investment and which businesses/projects receive funding and on what terms.

## 4.2 Overview of the Australian financial system

The Australian financial system has layers of institutions and relationships, which interoperate to perform the economic functions of the system. An accurate but stylised institutional structure is outlined in Figure 16. Figure 17 sets out the footprint with the economic functions overlaid.

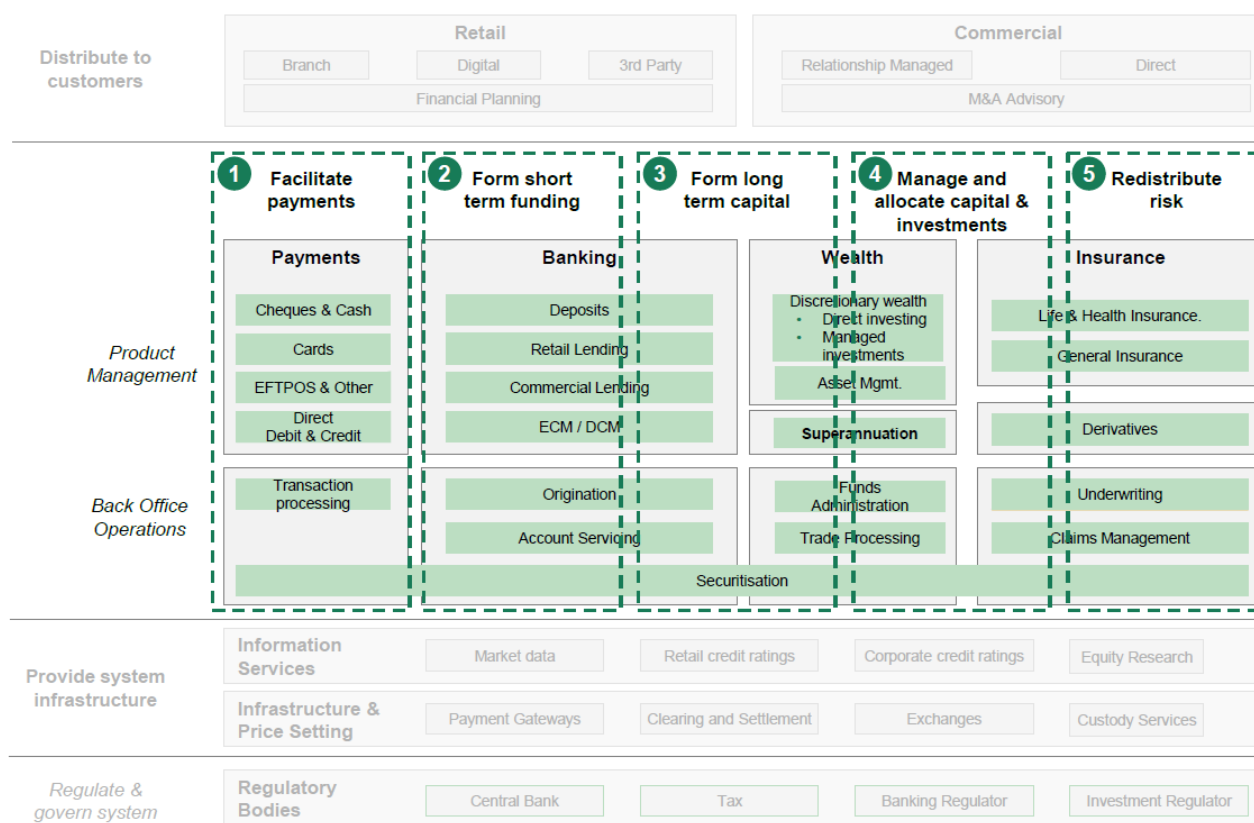
Figure 16 – Institutional footprint of Australian financial system



Source: BCG

<sup>27</sup> Law, S. H., & Singh, N. (2014). Does Too Much Finance Harm Economic Growth?. Journal of Banking & Finance

Figure 17 – Institutional footprint and economic functions



Source: BCG

#### 4.2.1 Size, revenue, profits, employment and wages

The Australian financial system is an important part of the economy and a significant component of GDP.

In 2013, the Australian financial system employed around 375,000 (FTE) workers, recorded about \$124 billion of value added and contributed over \$6 billion in taxation<sup>28</sup> to the wider Australian economy. In addition, the financial system used over \$57 billion of intermediate inputs purchased from other local industries which in turn contributes further to Australia's total employment and GDP.<sup>29</sup>

On the production and consumption side, the Australian financial system in 2013 is estimated to have produced over \$200 billion of services that were mainly used by households (40 per cent) and other businesses (46 per cent) with a small share being exported (1 per cent).<sup>30</sup> The Construction, Professional Services and Public and Health Services industries were the most prominent business consumers of finance-related products and services.

##### 4.2.1.1 Size

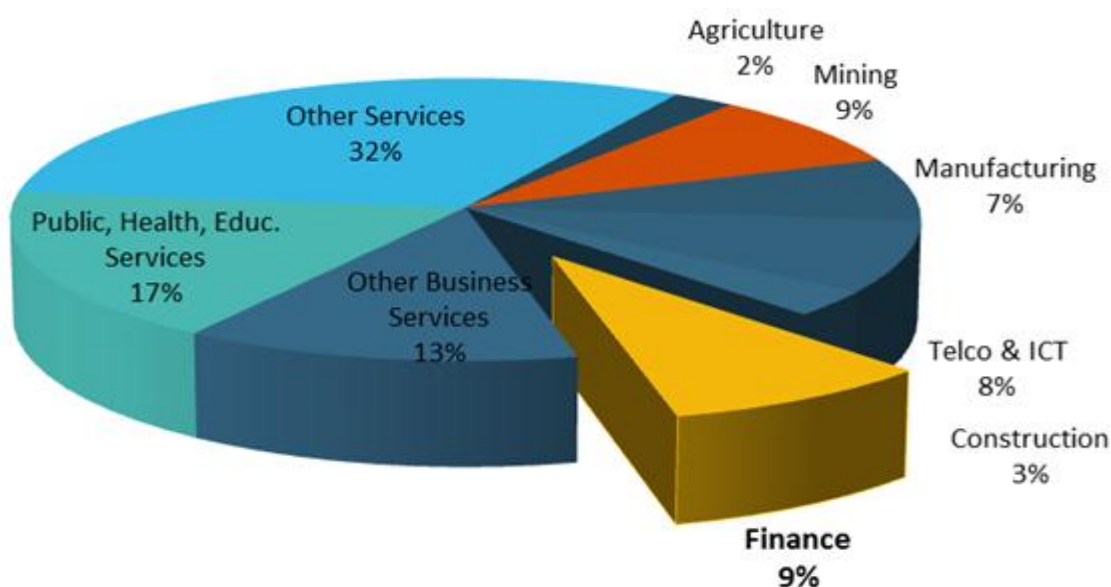
As a share of the wider economy, the Australian financial system in 2013 was about 8.7 per cent of GDP, representing a significant share of all business-related services produced by the Australian economy. The finance sector is the largest industry in Australia, similar in size to the mining industry and greater in scale than the manufacturing and agriculture industries (Figure 18).

<sup>28</sup> Does not include the various taxes levied on the incomes received by the resources employed in the sector, such as personal income taxes and company taxes

<sup>29</sup> National Accounts: Input Output Tables, ABS5209.0.55.001 and ISA estimates. See methodology section for more details

<sup>30</sup> The remainder is intra-industry sales

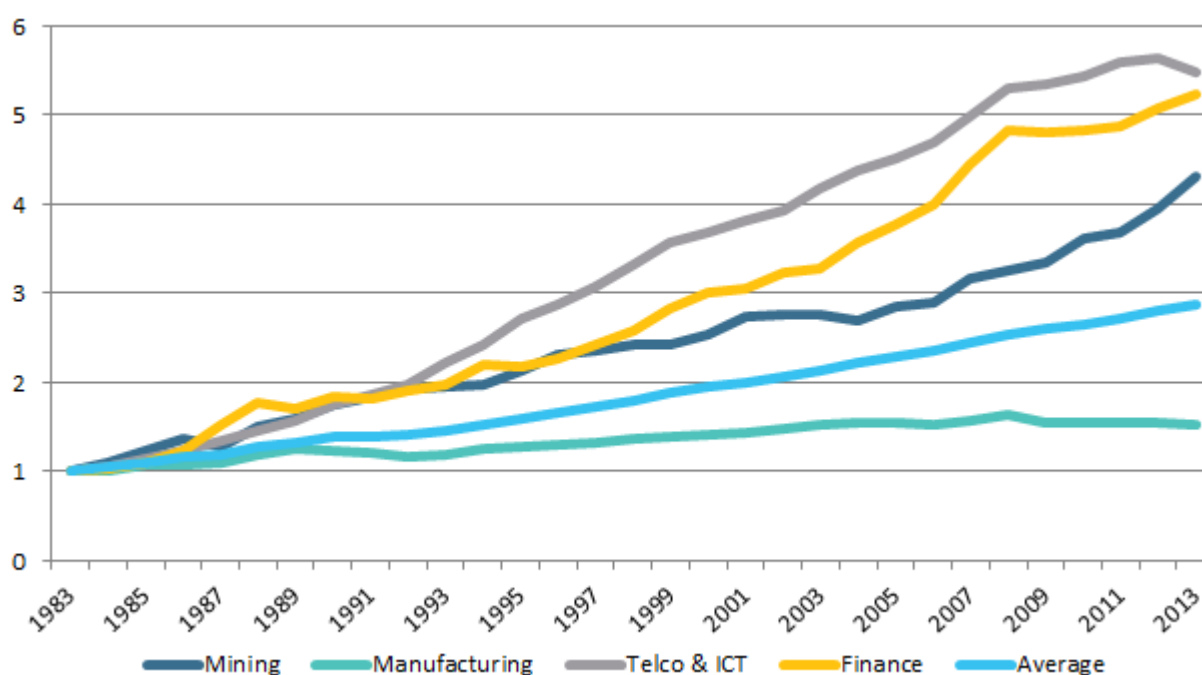
Figure 18 – Industrial composition of the Australian economy, 2013



Source: National Accounts, ABS 5204.0

The financial sector is the second fastest growing industry over the past 30 years, and experienced particularly strong growth over the last 20 years as shown in Figure 19.

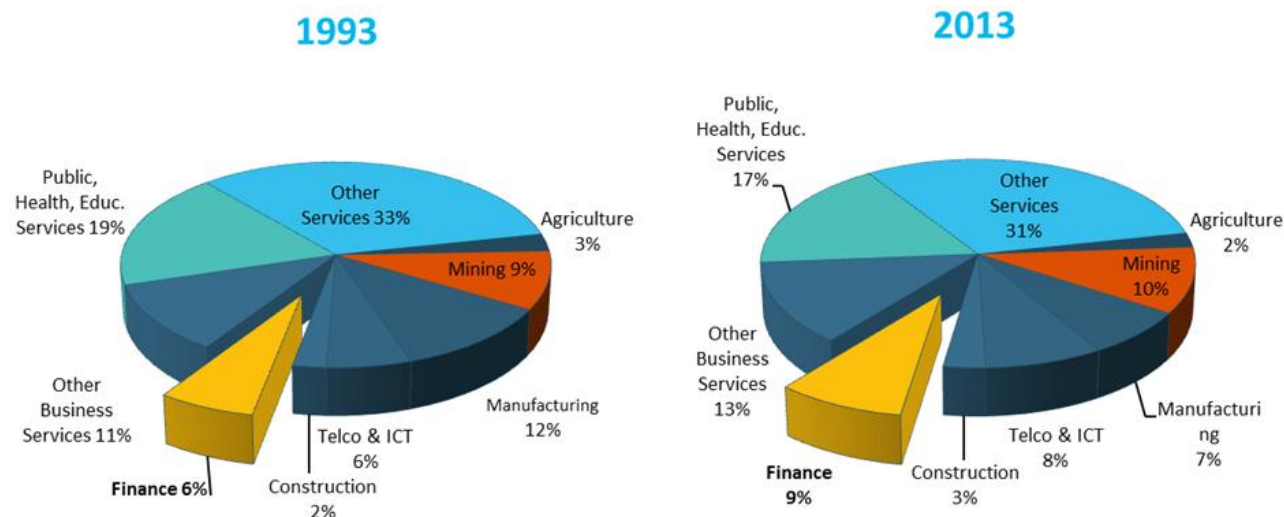
Figure 19 – Growth in the Australian economy by sector, index, 1983=1



Source: National Accounts, ABS 5204.0

This extraordinary growth rate has been achieved on an already large base (Figure 20). Over the 10 years to 2013, in the midst of the mining boom and the GFC, the financial services sector has sustained strong growth at 4.8 per cent per year in real terms, even outpacing the 4.5 per cent growth rate of the mining industry.

Figure 20 – Industry shares of GDP, 1993 and 2013



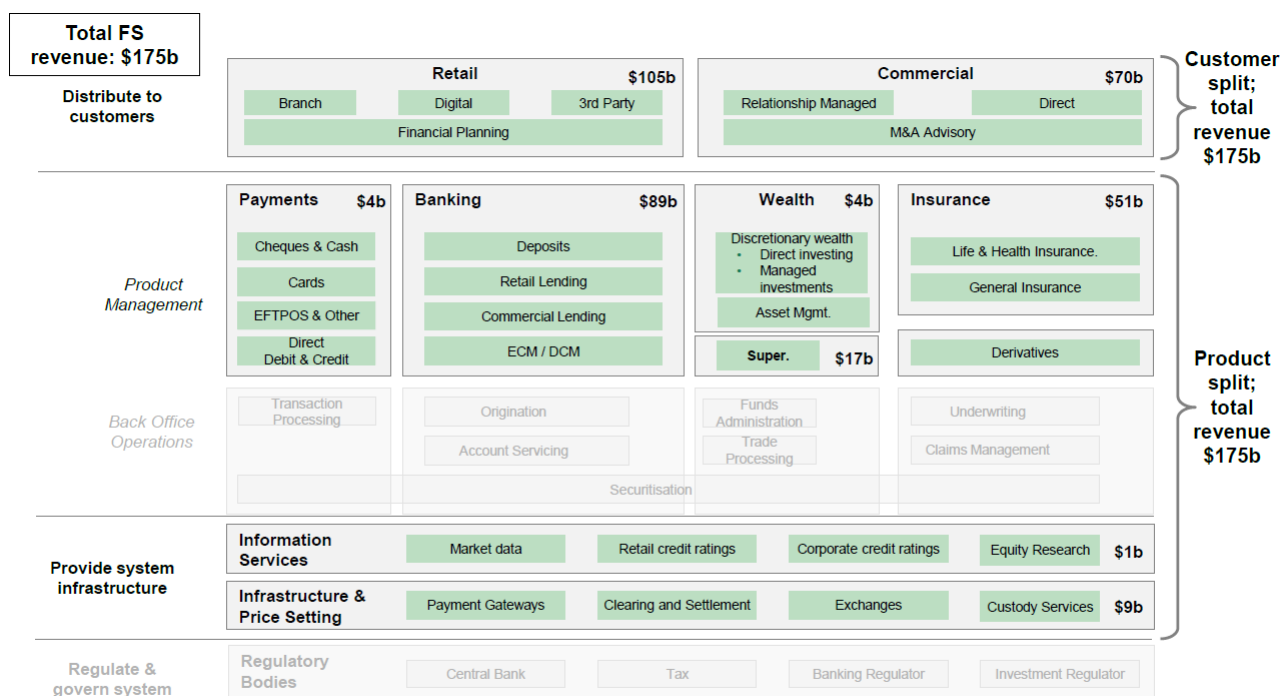
Source: National Accounts, ABS 5204.0

#### 4.2.1.2 Revenue and profit

The Australian financial system generated total revenue of about \$133 billion in 2013

As shown below in Table 1, the centre of gravity of the financial system in employment terms is banking. This is borne out in the all other measures. Figure 21 shows system size in terms of revenue, with banking about quadruple the combined size of wealth management (\$4 billion) and superannuation (\$17 billion). The payments system is small in revenue terms, notwithstanding its ubiquitous presence.

Figure 21 – Revenue by core elements (\$ billion), 2013

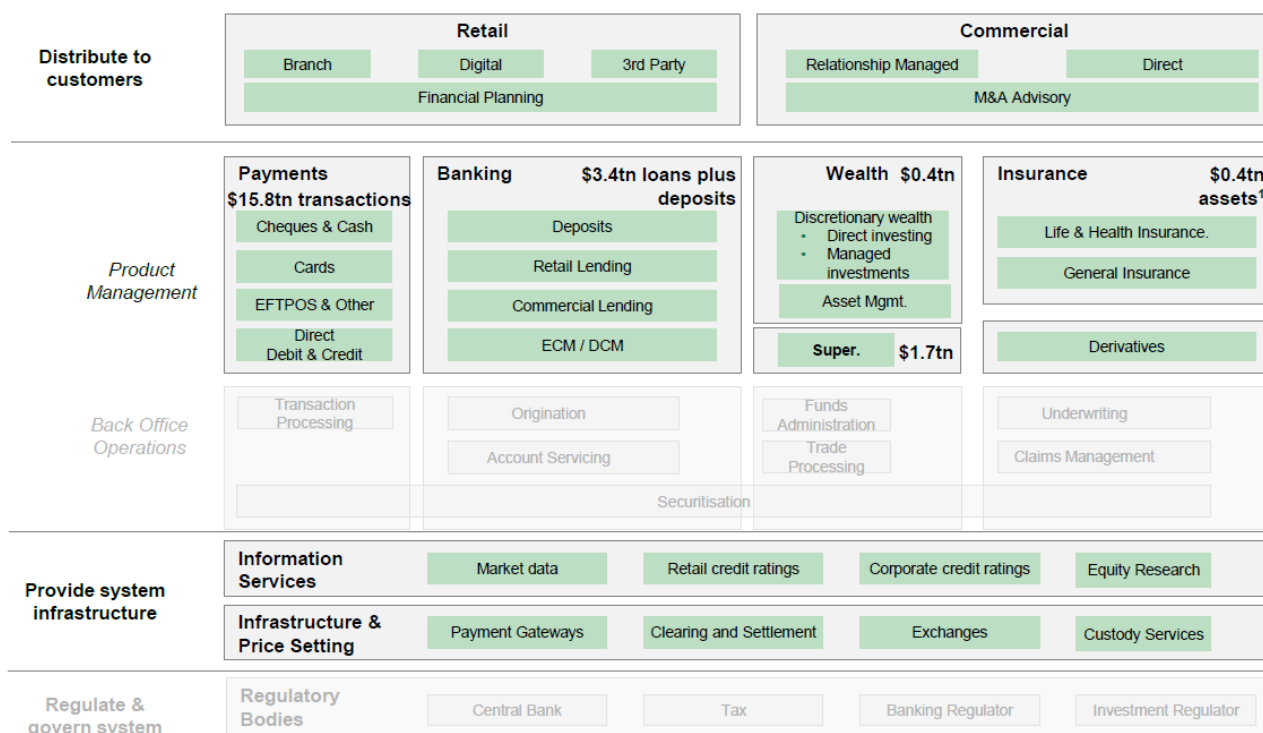


Note: Insurance includes investment management by insurance sector  
Source: APRA, PHIAC, Annual reports, BCG case experience (Global Value Pools database)

Source: BCG

In terms of “footings” (or assets, liabilities, and investments of an institution), banking is again dominant, more than double the size of superannuation and wealth combined, as shown in Figure 22. Figure 22 also presents flows for certain industry segments, specifically payments and settlement. The transition to a payment system characterised primarily electronic direct payment (credit and debit) is largely complete; next steps would include extension of underlying data about the nature of payments insofar as the benefits justified the costs.

Figure 22 – Footings and flow by core element (\$ trillions), 2013



1. In life and non-life insurance

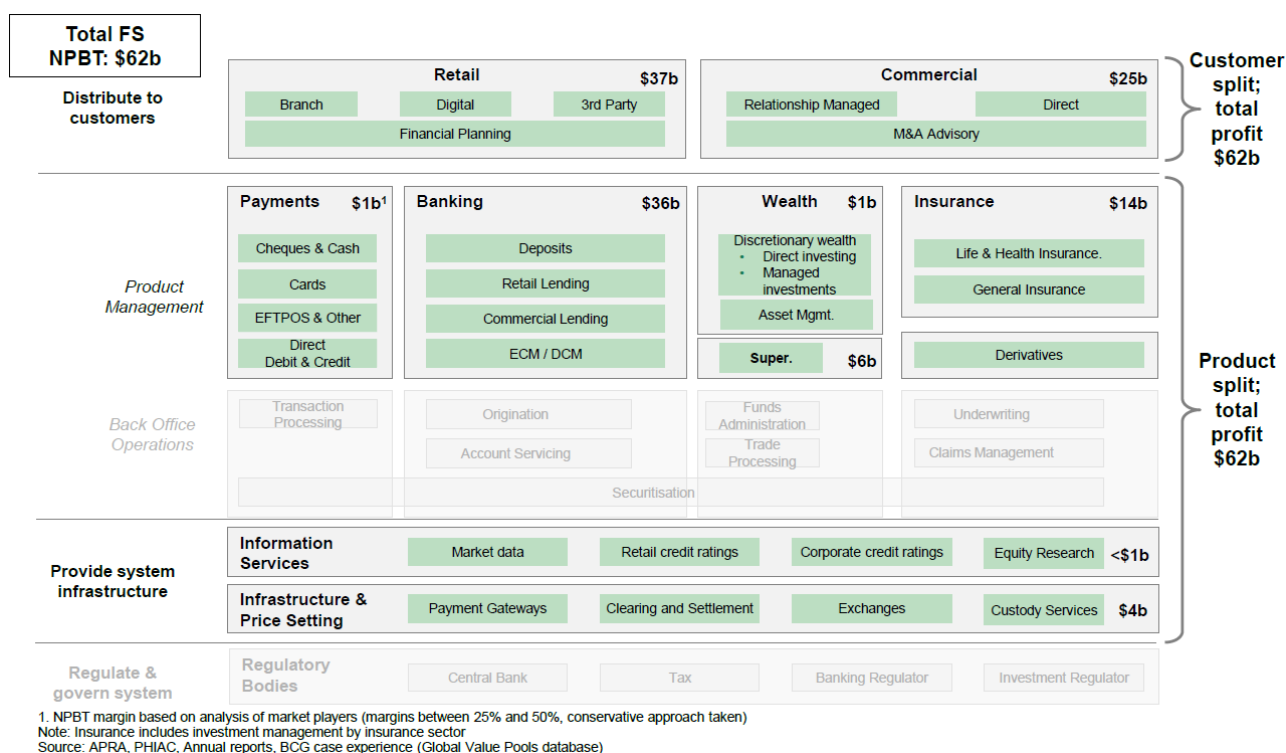
Source: ABS: 5232.0 Australian National Accounts; ABS Year Book 1980; Funding Australia's Future Project; RBA; Rice Warner; EIU; Press search; APRA

Source: BCG

Figure 23, below shows the profitability of the financial system by core industry segment. Overall net profits before taxes for the financial system were about \$62 billion in 2013. The weight of the industry is toward retail financial services, with about 60 per cent of the net profit arising from retail, consistent with the share of industry revenue arising from the retail side.

Once again, banking is on top of the core segments, completing the sweep of revenue, footings, and net profit, with about \$36 billion in net profit before taxes in 2013. This picture of the banking system as the centre of gravity for the financial sector as a whole is consistent with where capital is allocated across institutional segments, with banks employing about 80 per cent of the capital.

Figure 23 – Net profit before tax, core elements (\$ billions), 2013



Source: BCG

#### 4.2.1.3 Employment and wages

In 2013, the Australian financial system employed around 375,000 (FTE) workers, or about 3.9 per cent of total employment (FTE basis).

Employment data for an industry generally gives some indication of its centre of gravity and context for its structure. Table 1 shows financial sector employment at the finest level of detail. The 'Banking' and 'General Insurance' categories account for just over 55 per cent of total finance industry employment. The level of employment in the 'Other Auxiliary Finance and Investment Services' classification is perhaps unexpectedly high.

Also of note is the relative stability of the employment shares across industry subdivisions between 2006 and 2011 (the two most recent ABS Census years), suggesting no major structural changes have occurred over this timeframe. Some subtle differences are evident, however, such as the declining employment shares for 'Financial Asset Investing' and 'Financial Asset Broking Services' that may be the result of the GFC; also notable is the rise in 'Superannuation' perhaps driven by the continual growth in the economy-wide savings delivered through the compulsory Super Guarantee.

Table 1: Employment in the finance industry 2006 and 2011

Sub-Sector	2006	2011
<b>FINANCE (TRADITIONAL BANKING)</b>		
Central banking	1,535	1,640
Banking	137,942	150,482
Building society operation	3,473	3,586
Credit union operation	9,586	8,080
Other depository financial Intermediation	2,126	2,536
Non-depository financing	7,642	7,635
Financial asset investing	12,149	10,831
<b>INSURANCE AND SUPERANNUATION</b>		
Life insurance	5,347	6,009
Health insurance	8,537	10,756
General insurance	50,123	57,647
Superannuation funds	6,422	11,335
<b>AUXILIARY FINANCE</b>		
Financial asset broking services	14,816	11,419
Other auxiliary finance and investment services	74,276	80,507
Auxiliary insurance services	14,609	14,907
<b>Total</b>	<b>348,583</b>	<b>377,371</b>

Source: ABS Census data, 2006 and 2011

#### 4.2.1.4 Industry dynamics

Over time, growth in the finance sector's valued added has leaned toward profit growth.

Over the period 1990 to 2013, profits in the sector have grown 9.5 per cent a year compared to 6.3 per cent for wages and salaries. Compared to the sustained growth in profits, and wages and salaries, on the one hand, the growth in employment, on the other hand, is noticeably different: over the period 1990 to 2013, FTE employment in the financial services sector grew at a slow rate of 0.5 per cent a year.

The pattern suggests strong and sustained growth in earnings in the financial services sector with relatively few new employment opportunities. For comparison, the average across all Australian industries was 1.4 per cent employment growth and 5.9 per cent wage and salary growth.

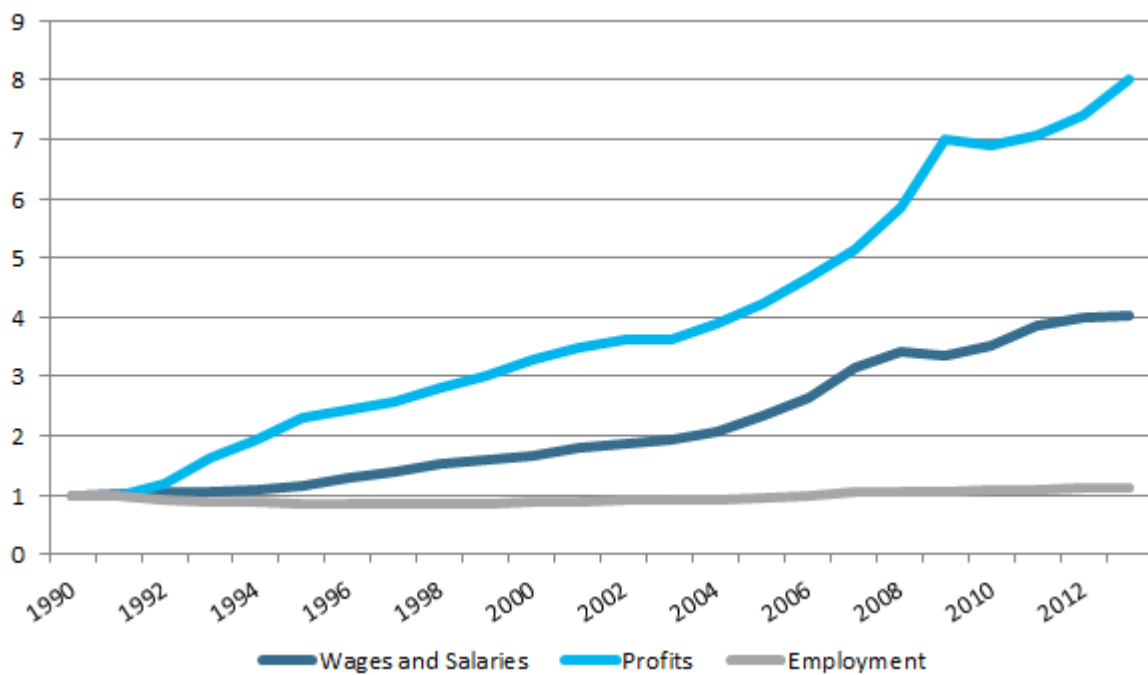
Government projections of employment growth by industry suggest this trend will continue. Projected finance sector employment growth to 2016-17 is just 0.8 per cent a year.<sup>31</sup>

The trend of favouring profit growth to wage growth, combined with weak employment growth, is even stronger post-GFC: from 2007 to 2012, nominal profits have grown 56 per cent compared to 28 per cent for wages and salaries.

Figure 24 shows the growth in profits, wages and employment for the finance sector since 1990. Figure 25 compares each of these factors to the average across all Australian industries.

<sup>31</sup> Department of Education Employment & Workplace Relations (2012)

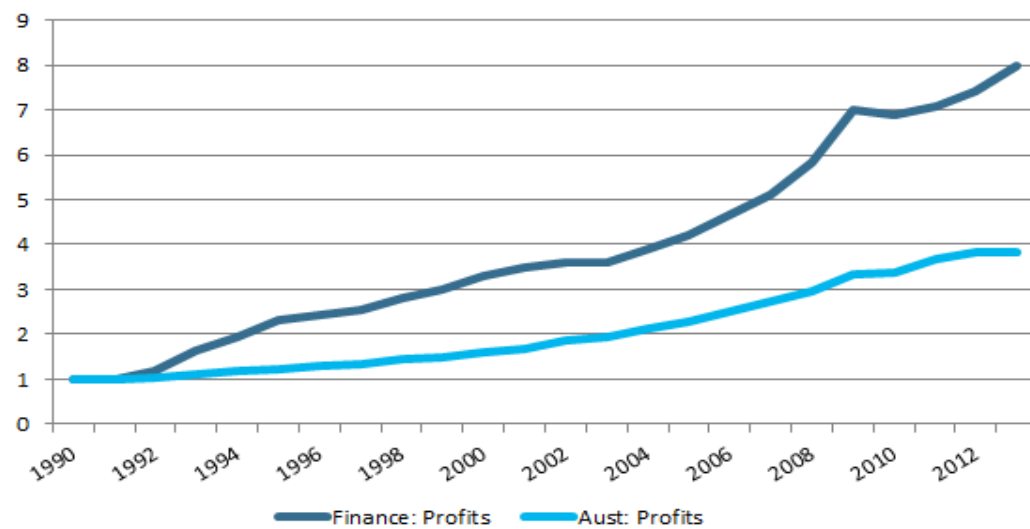
Figure 24 – Growth in finance sector profits, wages and employment, index, 1990=1



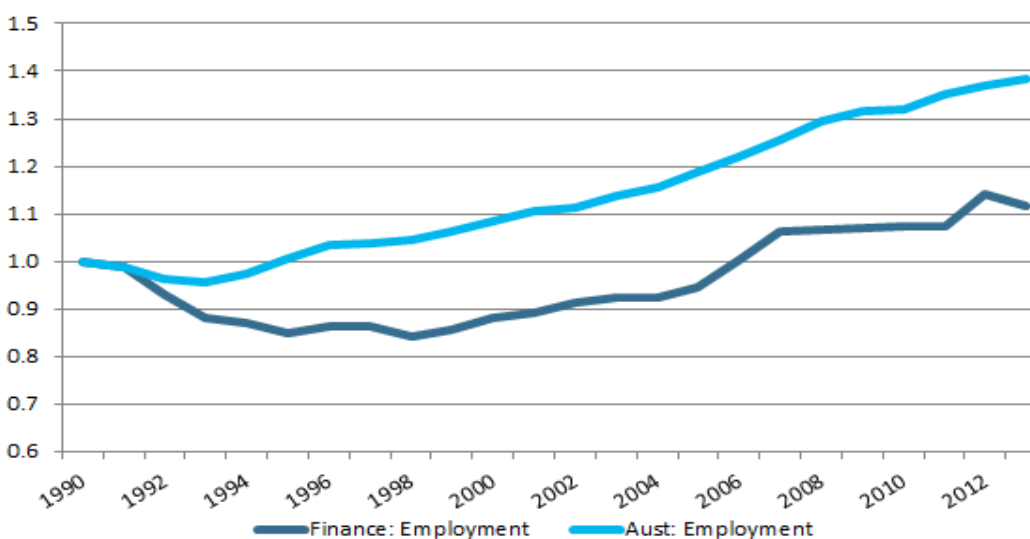
Source: National Accounts, ABS 5204.0



Figure 25 – Growth in profits, wages and employment, all industries and finance sector, index, 1990=1



Wages in finance are about three times the national average, yet still managed to grow faster than the national average

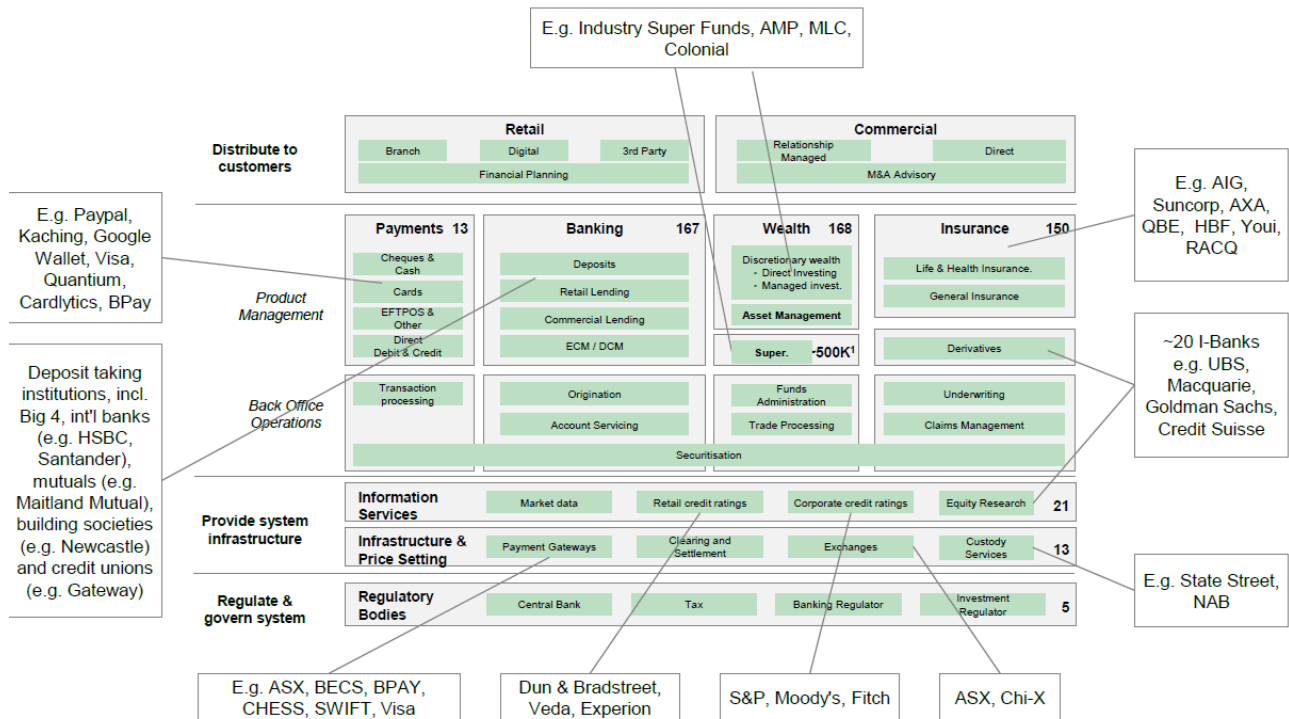


Source: National Accounts, ABS 5204.0

#### 4.2.1.5 Institutional footprint and concentration

The institutional footprint of Australia's financial system is fairly broad. Based on the number of institutions in each space, the number of institutions supporting each segment is fairly large, in particular banking, discretionary wealth and insurance (Figure 26).

Figure 26 – Number of institutions by core element

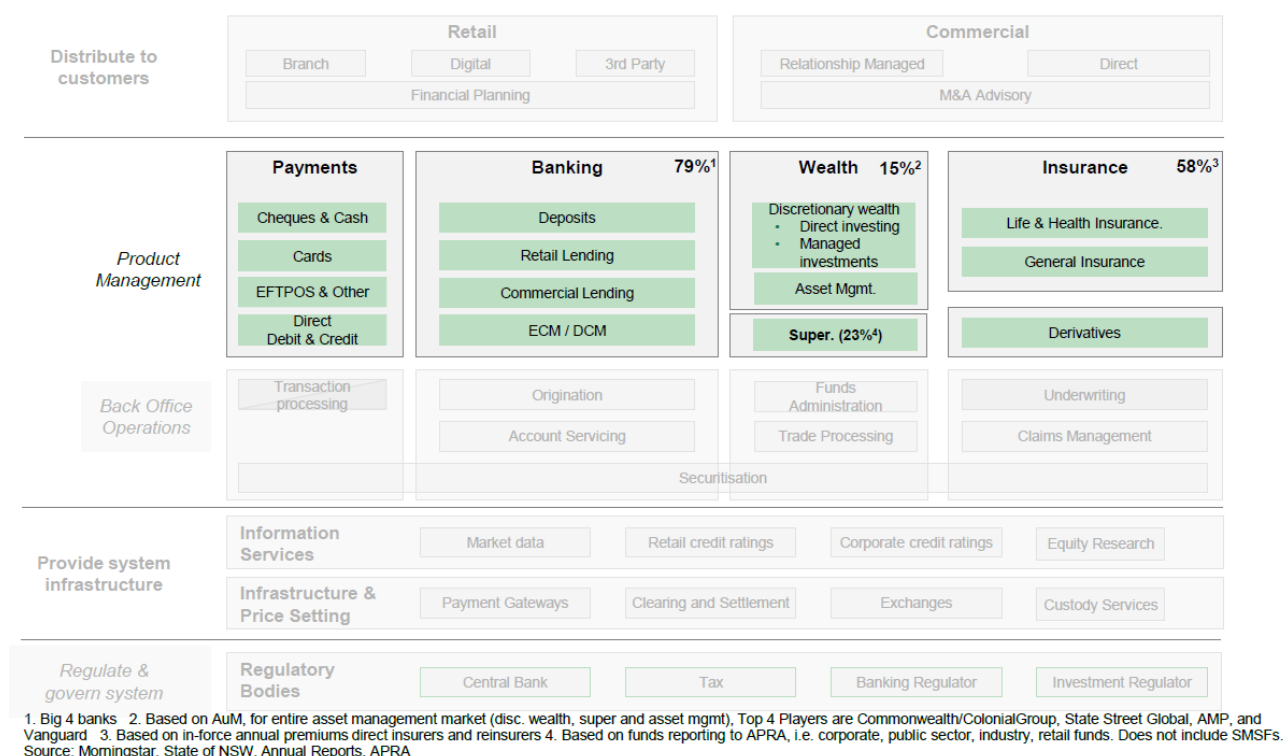


<sup>1</sup>. Includes SMSF  
Source: APRA, RBA/APCA, Plan for Life, Thomson Reuters, public sources

Source: BCG

The numbers of institutions is not, however, reflective of the concentration of each part of the system. The Australian banking sector is highly concentrated, with the Big 4 holding 79 per cent of the banking assets. These levels of concentration are not seen in other parts of the financial system (Figure 27). The banking system, including its efficiency and concentration, is discussed in detail in Section 4.4, below.

Figure 27 – Concentration by core element



Source: BCG

## 4.3 The efficiency of the financial system

Measuring the efficiency of a process or system involves comparing inputs to outputs.

Evaluating the efficiency of finance requires analysis using two “lenses,” because the relevant outputs and inputs for certain questions differ.

- **Financial:** in which the inputs can be either (i) financial costs (prices paid by end users) or (ii) economic resources allocated to financial services (e.g., labour and capital), compared to the outputs which are the relevant financial assets and services.<sup>32</sup> For example, the efficiency of funds management measured from a financial perspective might compare the management fees (e.g., the asset-based fee) against the volume of funds under management. Financial measures also include comparing the inputs of the economic resources allocated to financial services (i.e., the labour and capital) against financial services and financial assets and liabilities.<sup>33</sup>
- **Economic:** in which the inputs are the economic resources allocated to financial services (i.e., the labour and capital) compared to the outputs which are the relevant real economic measures. For example, the efficiency of circulating capital formation from an economic perspective would compare the value

<sup>32</sup> Prior to the GFC, this was the short-hand way financial services were evaluated, and that productivity measures of finance were performed. Although there were concerns about these methods, those concerns were largely cordoned in the academic literature around measuring the productivity of the financial sector

<sup>33</sup> There might be some debate about whether this is the correct financial measure, insofar as some would argue that the fee should not be structured primarily around the asset base, but primarily around the allocation of new inflows with a smaller asset-based fee which should be largely custodial. In any case, the inputs and outputs are financial, and the effect of the financial service on the economy is not considered

added<sup>34</sup> of the sector or institutions engaged in circulating capital formation as an input against the volume of circulating capital formation for the relevant period.

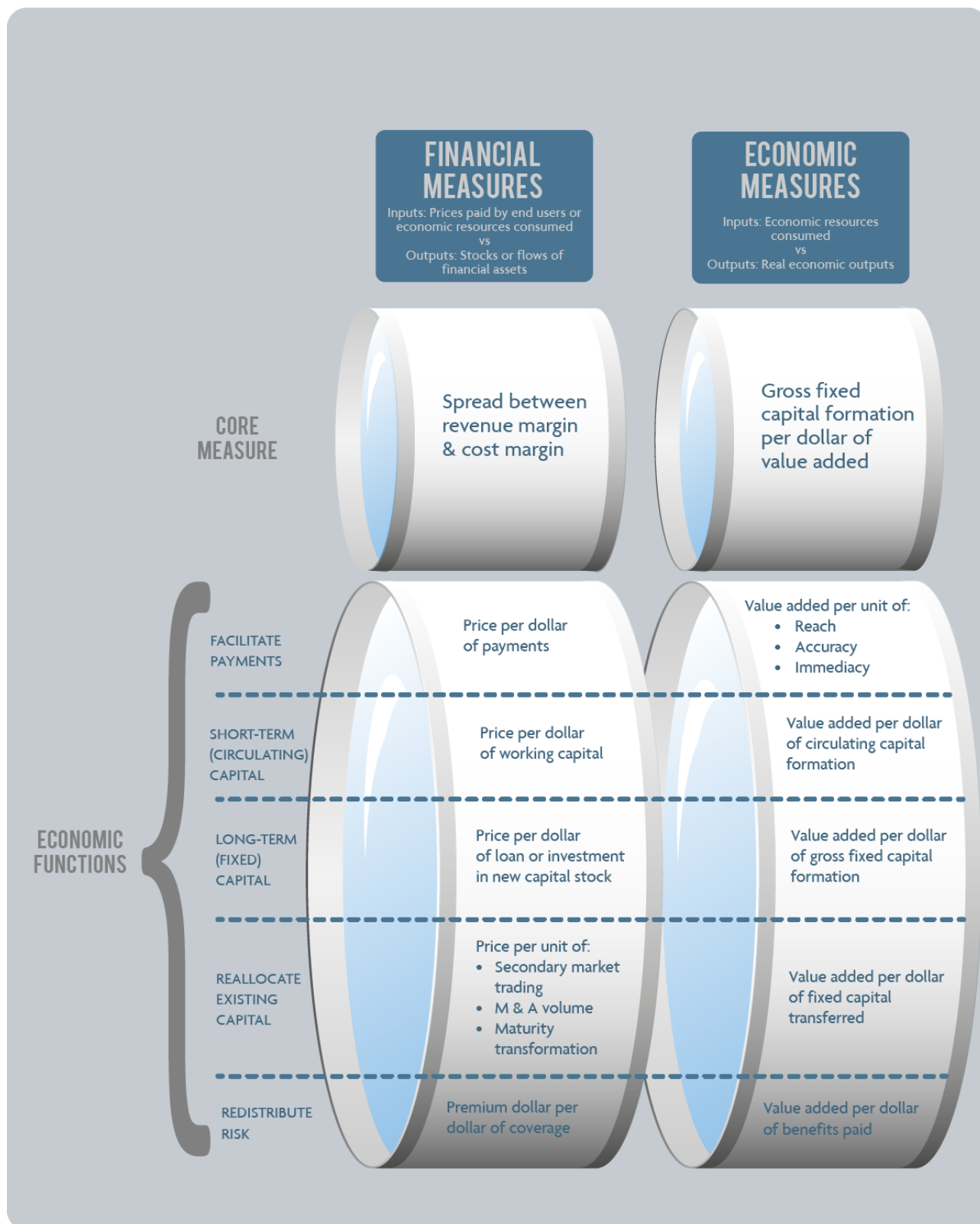
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<sup>34</sup> Value added is the combined wages and profits (plus certain taxes less subsidies on production) of an industry. It “represents the contribution of labour and capital to the production process” of an industry. See, European Commission, International Monetary Fund, Organisation for Economic Co-Operation and Development, United Nations, and World Bank, System of National Accounts (2008)

In this way, value added is a reflection of the economic resources – namely, labour and capital – allocated to a sector

Note: for finance, the taxes and subsidies recorded in value added are negligible, totalling about 2.6 per cent of value added in the most recent input/output tables issues by the ABS

Figure 28 – Two lenses for measuring financial efficiency



Each of these perspectives – financial and economic efficiency – is important. Measuring the efficiency of the financial system in financial terms is important to understanding the fairness of prices for financial services to consumers and other end users, and gives insight into the level of competition in the

marketplace for such services. Measuring the efficiency of the financial system in economic terms is important to understanding the GDP growth effects of finance and the interaction of financial and economic variables.

#### 4.3.1 Finance, the economy, and growth

Researchers affiliated with the US National Bureau of Economics Research, the US Federal Reserve System, the Bank of International Settlements, The International Monetary Fund, The World Bank, and a number of major academic institutions are exploring the efficiency of finance in performing its economic functions, and revisiting earlier research that found a strong positive relationship between financial development and growth.<sup>35</sup>

The earlier research utilised data dominated by the 1960-1980s period, during which financial systems worldwide were starkly different from modern systems, and the intensity of finance as part of economic activity was much less (in the leading advanced economies, about one half of its current size relative to GDP). More recent research includes data from the 1990s and 2000s, and extends through 2009 and 2010, with results that are starkly different. The methodologies differ as well, with newer research testing for “threshold” effects, whereby after certain thresholds of *financial* measures the impact of finance on GDP growth and other *economic* measures becomes negative.<sup>36</sup>

All research papers since 2008 of which we are aware that consider the efficiency of modern finance as a system have found troubling results.<sup>37</sup> This is a high-energy area of research that will continue to reshape and improve the understanding of the relationship between finance and growth, and other real economic factors.

Typical of newer research findings is Figure 29 below, indicating a negative relationship between financial sector growth and productivity growth,<sup>38</sup> and Figure 30 below, indicating that banking sector size and capital markets size have a non-linear relationship with growth and become negative after a certain point.

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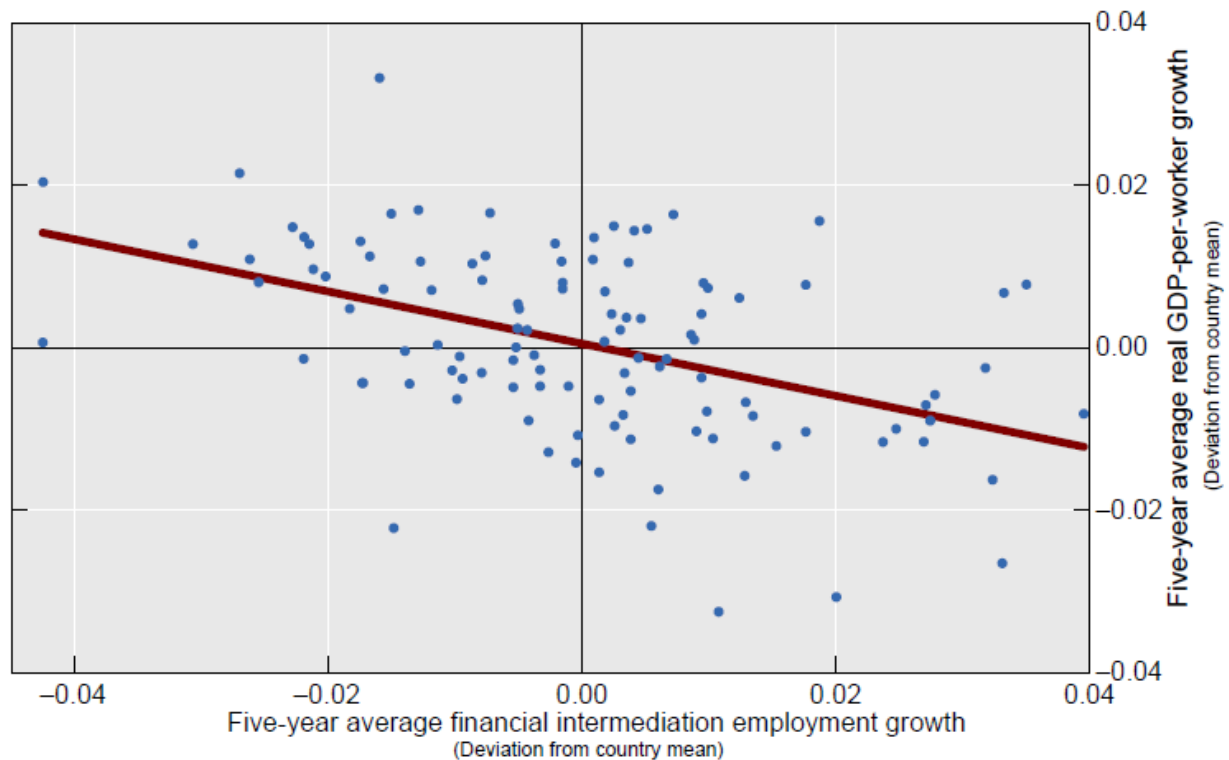
<sup>35</sup> A segment of the new research programs focuses on the relationship between the composition of finance sectors (e.g., whether they are weighted toward capital markets or banking) and underlying industrial and economic factors. See, e.g., Gambacorta et al. (2014) and Demirgüç-Kunt et al. (2011)

<sup>36</sup> This is consistent with the view that, rather than reflecting predictions about future economic activity, financial markets are a reflection of sentiment that, through financial mechanisms, *causes* real economic activity (particularly when finance is above a certain size)

<sup>37</sup> These include: Arcand et al. (2012); Beck et al. (2012); Cecchetti and Kharroubi (2012) ; Cecchetti and Kharroubi (2013); Gambacorta et al. (2014); Law and Singh (2014); Philippon (2012); Feldkircher (2014); Sawyer (2014); Greenwood and Scharfstein (2013), Demirgüç-Kunt and Huizinga (2010); Epstein & Crotty (2013); Hein (2011); Barajas et alia (2013); see also earlier research such as Rioja & Valev (2004); Aghion et al (2005) among others

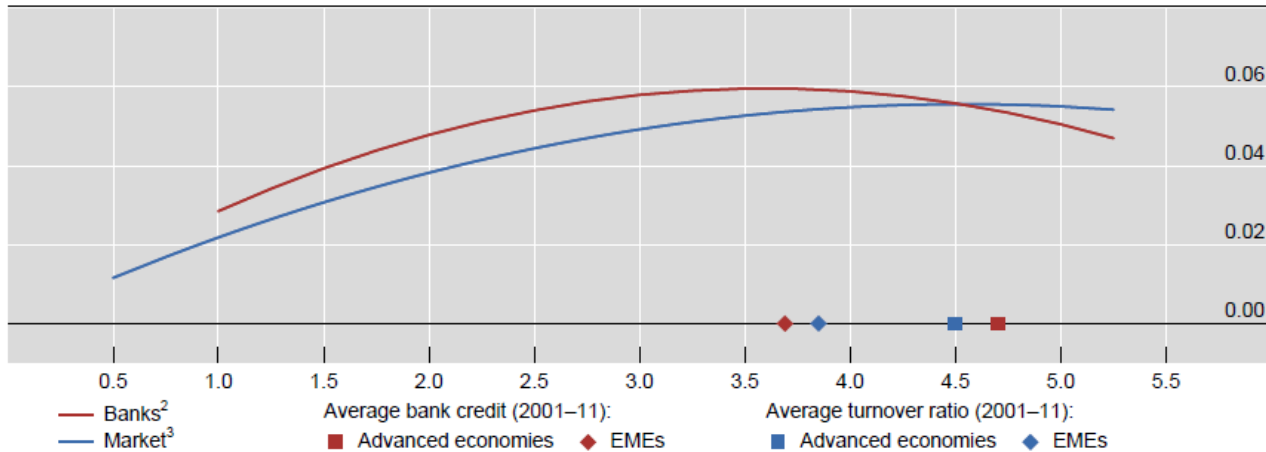
<sup>38</sup> This analysis measures financial sector growth by comparing financial services employment growth to economy-wide productivity growth

Figure 29 – Financial sector growth and productivity growth



Source: Cecchetti and Kharroubi (2013)

Figure 30 – Relationship between GDP growth/capita and financial indicators



<sup>1</sup> The non-linear effect is calculated from the regression in column II of Table 1. The country sample contains the same list of advanced economies and emerging market economies (EMEs) reported in Graph 1. <sup>2</sup> Bank credit is given by the logarithm of the ratio between bank credit and GDP. <sup>3</sup> The market indicator is given by the logarithm of the turnover ratio. The latter is calculated by dividing the value of the trades of shares on domestic exchanges by the total value of listed shares.

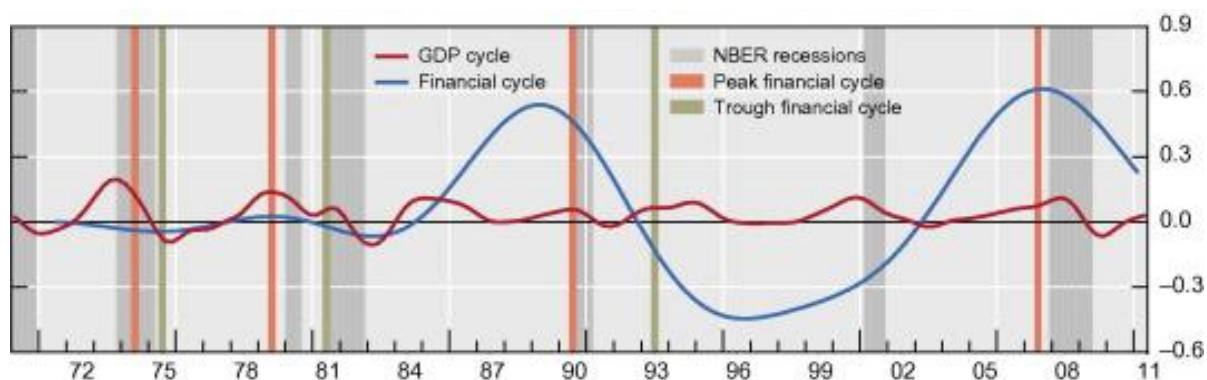
Source: Gambacorta et al. (2014)

The findings regarding the non-linear growth effects of financial deepening are a logical outgrowth of earlier work finding that the finance sector in the US had grown “enormously;” and that this growth is evident by a number of measurements such as its share of GDP, the quantity of financial assets created and

traded, and the employment and average wage growth of the sector.<sup>39, 40</sup> Analysis of the growth indicated that finance has expanded primarily in non-core activities rather than its core intermediation role.<sup>41</sup>

Besides direct effects, modern financial systems would appear to have unleashed stronger financial cycles of longer frequency than the business cycle, as shown in Figure 31. In the case of the United States, beginning in the 1980s, the financial cycle increases substantially in amplitude.

Figure 31 – Financial and business cycles in the US



Source: Borio (2013)

The amplitude and frequency of the cycle are not natural constants, but powerfully affected by public policy settings, including financial policy, monetary policy, and economic policy. Focusing on financial policy, “Financial liberalisation weakens financing constraints, supporting the full self-reinforcing interplay between perceptions of value and risk, risk attitudes and funding conditions.”<sup>42</sup> It is important to recognise that policy tools exist, particularly because the peaks of the financial cycle are closely associated with systemic crises (Figure 32).

<sup>39</sup> Greenwood and Scharfstein (2013) The growth of finance. Journal of Economic Perspectives. Volume 27. pp 3-28

<sup>40</sup> This phenomenon is not confined to the US. Evidence of fast growing finance and banking sector can be found in the UK and European countries (Smaghi, 2010) Has the financial sector grown too big? ECB Nomura Seminar, The paradigm shift after the financial crisis, Kyoto, 15 April 2010

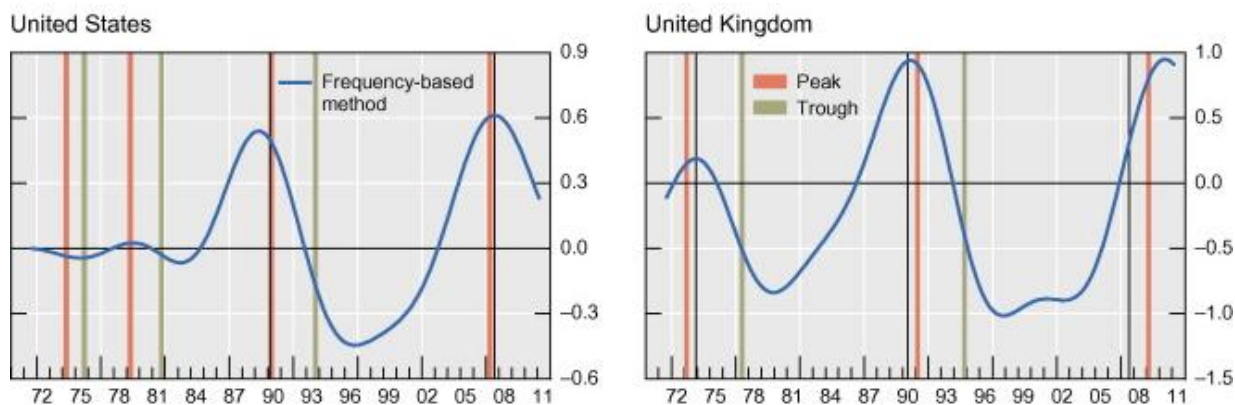
<sup>41</sup> Greenwood and Scharfstein (2013) documented that asset management and the provisions of household credit were the two key growing areas in the US finance industry

Internationally, the evidence points to a similar phenomenon. Looking at 1334 banks in 101 countries leading up to the 2008 financial crisis, Demirgüç-Kunt and Huizinga (2010) found that banking institutions shifted their strategies toward non-core income-generating activities, such as trading, and away from lending activities

<sup>42</sup> Borio (2013)



Figure 32 – Financial cycles and financial crises<sup>43</sup>



Source: Borio (2013)

These findings and the research referenced in footnote 37 may have informed the outcome of the consideration of Australia as a financial centre. This is discussed briefly in Appendix 3.

#### 4.3.1.1 What it means for the Financial System Inquiry

Unlike the Wallis Inquiry, this Inquiry is taking place in the midst of a paradigm shift. While the Wallis Inquiry issued recommendations at a time when the theoretical and philosophical underpinnings of finance policymaking were stable and reasonably settled, that is not the case today. The relationship between finance and the real economy is being actively explored, and the intellectual edifice on which much of financial regulation and public policy was built is gone.

The completion of the revolution in theory and practice will take time, and there is no alternative to a new framework for approaching financial regulation.

It is important that the Financial System Inquiry is fully aware of existing findings and upcoming research that seeks to link finance to real economic outcomes so that any recommendations issued remain durable over the coming years.

We would echo this recent counsel to policy makers:

The empirical findings suggest that more finance is definitely not always better and it tends to harm economic growth after a point. Therefore, knowing the optimal level and efficient channelling of financial resources to productive activities are important in ensuring the effectiveness of financial development for growth. In terms of policy implications, policy makers could focus less on increasing the size of the financial sector and more on improving its intermediating function. Measures to strengthen quality and moderate finance need to be undertaken, rather than just promoting more finance, in fostering economic development. In addition, if the role of finance is minimal or negative in a particular situation, then other growth-enhancing strategies need to be highlighted in maintaining long-run economic benefits, even though financial development has been identified as one of the most powerful determinants of growth.<sup>44</sup>

<sup>43</sup> Orange and green bars indicate peaks and troughs of the financial cycle as measured by the combined behaviour of the component series (credit, the credit to GDP ratio and house prices) using the turning-point method (Harding and Pagan (2006))

The blue line traces the financial cycle measured as the average of the medium-term cycle in the component series using frequency based filters

Black vertical lines indicate the starting point for banking crises, which in some cases (United Kingdom 1976 and United States 2007) are hardly visible as they coincide with a peak in the cycle

Original source: Drehmann et al (2012)

<sup>44</sup> Law and Singh (2014)

## 4.3.2 Assessing the efficiency of Australia's financial system

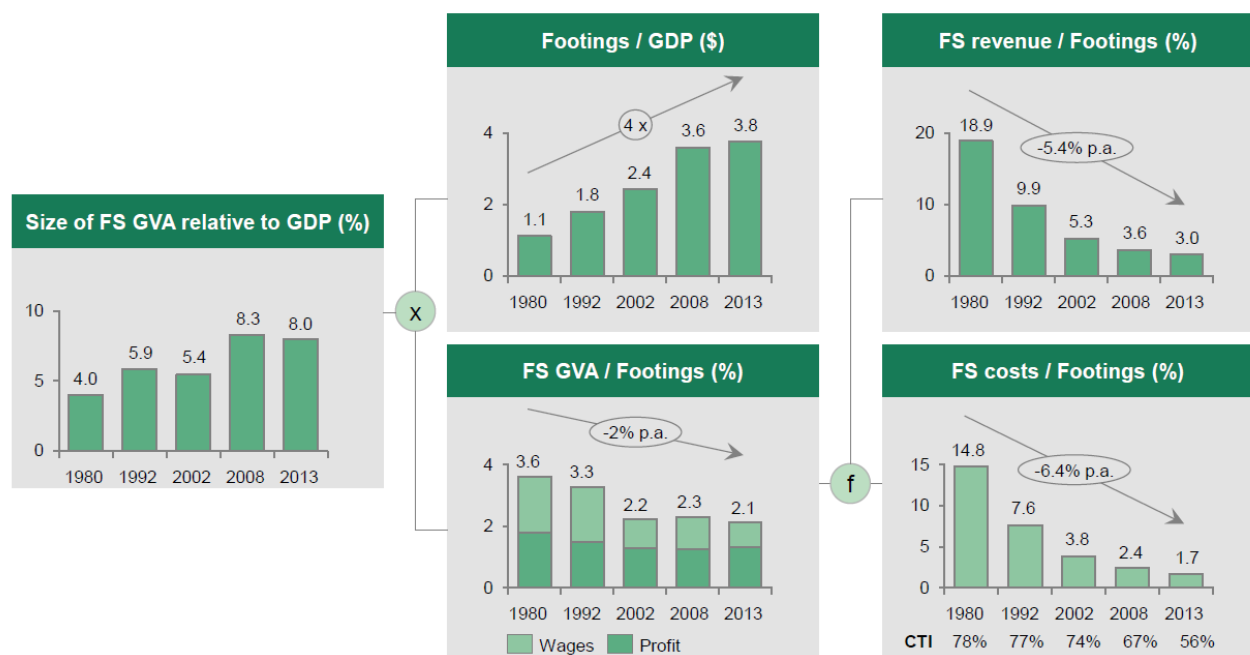
### 4.3.2.1 Efficiency in terms of financial measures

At the highest level, the financial system has performed well on a number of important dimensions, however, we believe there is potential for improvement in how the financial system forms new long-term capital.

Over the last 20 years, the Australian Financial System has become more efficient in terms of many financial measures, as shown in Figure 33:

- The economic resources consumed (represented by gross value added of the financial sector) has grown less than the growth of footings – financial assets, liabilities, and investments – within the financial system. This implies the economic resources committed to administering footings have become relatively more efficient overall.
- Revenue per dollar of footings has declined, but not as much as internal costs (e.g., the costs of sales, not the costs to consumers) per dollar of footings. This indicates that not all cost savings are being passed on to consumers.
- Overall industry volumes have increased substantially during this period, growing by a factor of 4 relative to GDP since 1980.

Figure 33 – Efficiency in terms of financial footings



Note: Priced in 2012 dollars. Banking footings = Loans plus deposits. Wealth assets = Assets under Management (AUM). Insurance assets = assets. Insurance includes life, general and health insurance; Banks exclude other depository corporations. Pre-2008 revenue based on assumptions and ratios in FS sectors. Costs based on CTI ratios, annual reports of major players. Analysis assumes historic revenue margins for Wealth and Insurance have grown/declined at the same rate as for banking. Average annual inflation between 1980 and 2013 at 4.4% p.a.  
Source: ABS: 5232.0 Aus'n Nat. Accounts; ABS Year Book 1980; ABS:5204.0 Aus'n System of Nat. Accounts; Funding Australia's Future Project; RBA; Rice Warner; EIU; BCG analysis

Source: BCG

Despite these improvements, Australia is still relatively inefficient compared to its global peers, as shown in Figure 34.

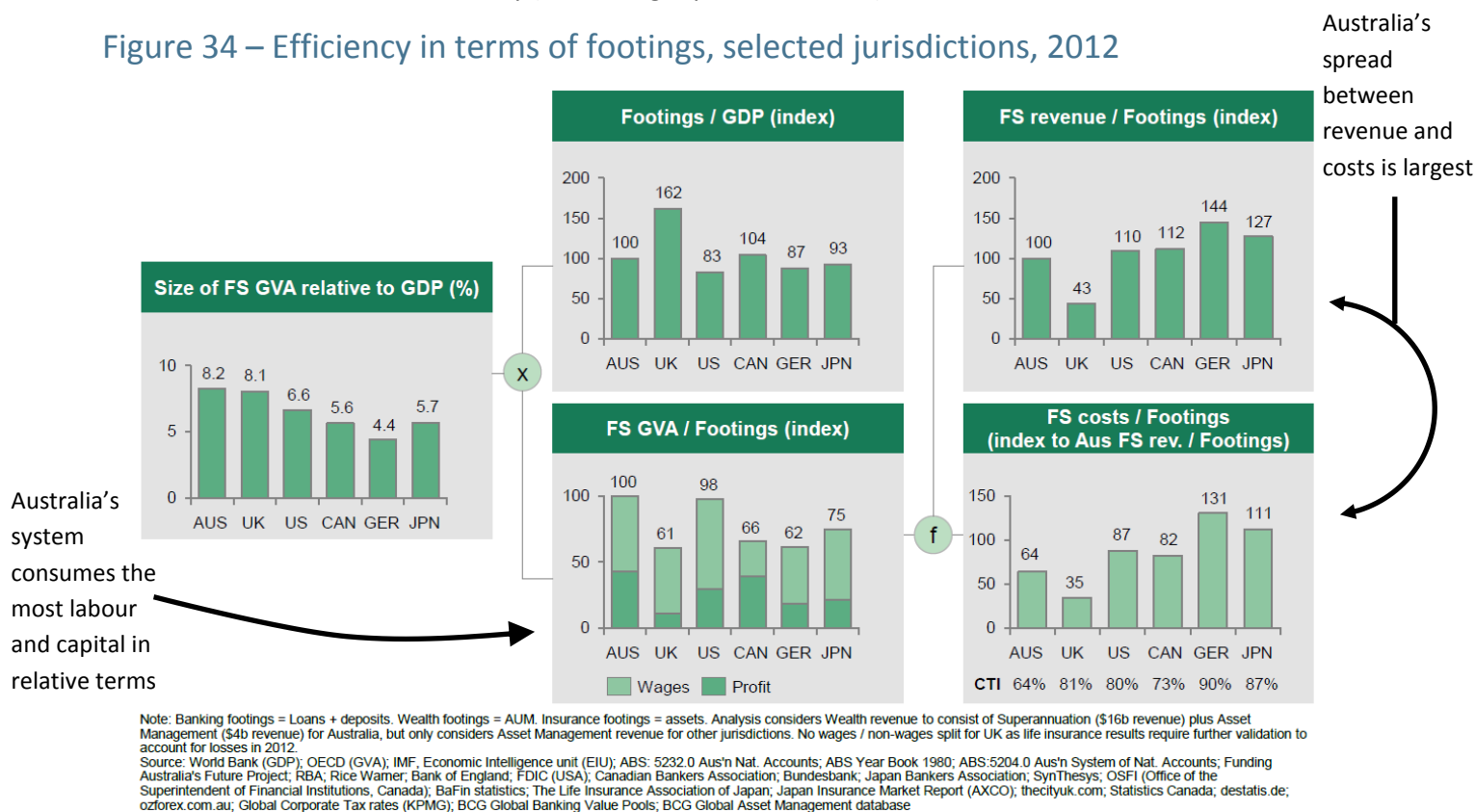
Most importantly, the spread between financial institutions' costs per dollar of footings and revenue per dollar of footings is the largest among comparable countries. When combined with the fact that revenue per dollar of footings has declined, but not as much as internal costs per dollar of footings, it is reasonable

The spread between costs and revenues implies that not all of the cost reductions are being passed on to consumers

to conclude that, relative to other jurisdictions, Australian consumers have shared in less of the cost reductions than consumers in other jurisdictions. Other facts warranting attention include:

- Relative to global peers, Australia's financial system consumes a higher level of economic resources per dollar of footings (Australia is at the top of the index of countries with respect to its gross value added for finance relative to footings).
- Relative to global peers, Australia's financial system consumes a higher level of economic resources relative to the size of its economy (at over eight per cent of GDP).

Figure 34 – Efficiency in terms of footings, selected jurisdictions, 2012



Source: BCG

Decomposing the overall performance into underlying factors, it appears that efficiency gains (measuring output based on financial instruments) made over the past decades have been driven by cost-controls, translating into (i) profit and returns to capital, and (ii) to a somewhat lesser extent, wage growth for existing staff domiciled in Australia, as shown in Figure 24, above.

These industry dynamics are remarkable and raise questions about the degree of competition in the sector. In a competitive market, growth in the payments to labour and capital would be expected to coincide in growth in the number of employees entering into the industry. This is especially likely where, as in financial services, wages and salaries significantly exceed the national average,<sup>45</sup> and the growth rate of wages and salaries exceeds the national average.

Figure 31 shows the differences between costs/footings and revenues/footings (indexed) for the three main lines of business in financial services, banking, wealth,<sup>46</sup> and insurance. The wealth businesses

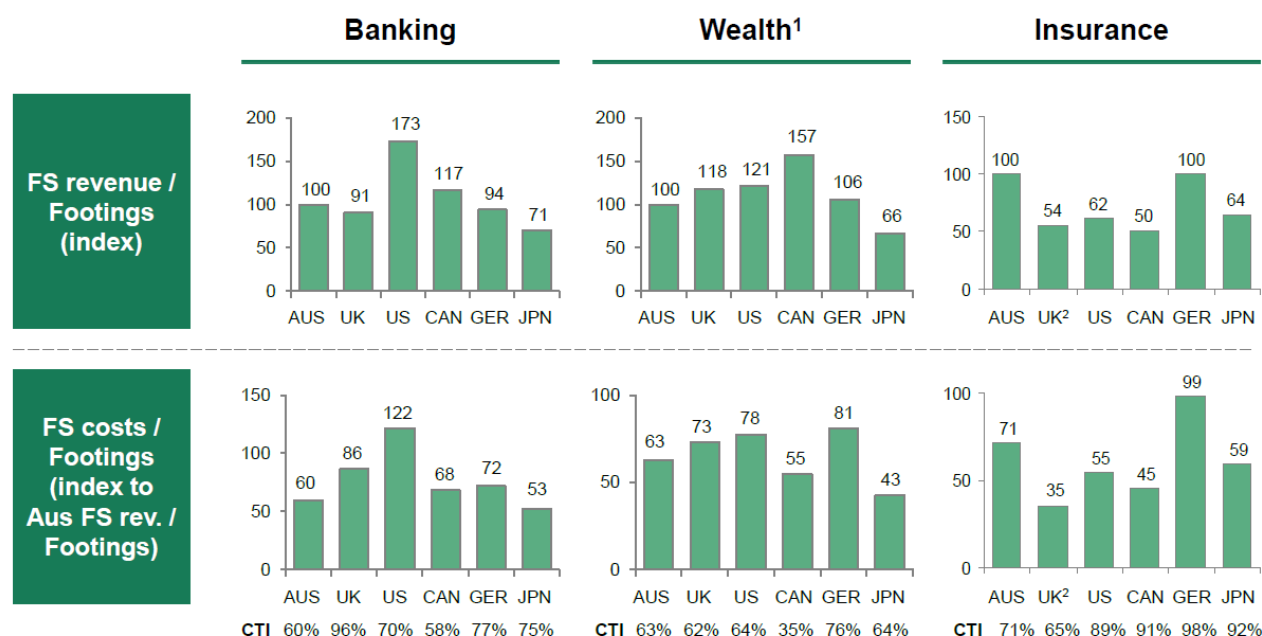
<sup>45</sup> The most recent data issued by the ABS indicate that average annual employee compensation in the financial sector is over \$160,000. The average annual employee compensation in Australia is less than ½ of that, coming in at under \$73,000. See, National Accounts: Input Output Tables, ABS5209.0.55.001

<sup>46</sup> Excluding superannuation for comparability

worldwide would appear to generate a high rate of profit, with a spread of about 40 per cent between costs and revenues in all jurisdictions except Germany. It may be that consumers in this sector are paying relatively high prices compared to costs in all jurisdictions.

What seems to be driving the relatively higher spreads between costs and revenue in Australia (and therefore, impliedly, higher consumer prices) is the banking sector, and to a lesser degree, insurance. Banking is discussed in greater detail in Section 4.4, below.

Figure 35 – Revenue and cost, selected jurisdictions and sectors (2012)



1. Australian Wealth revenue adjusted to allow cross-jurisdictional comparability (Asset Management included, Superannuation excluded). 2. UK represents non-life only. Benefits > GWP in 2012. Note: Banking footings = Loans + deposits. Wealth footings = AUM. Insurance footings = assets. UK insurance considers only non-life (life #s need further validation). CTI = (Rev. – PBT) / Rev. Source: World Bank (GDP); OECD (GVA); IMF, Economic Intelligence Unit (EIU); ABS: 5232.0 Aus'n Nat. Accounts; ABS Year Book 1980; ABS: 5204.0 Aus'n System of Nat. Accounts; Funding Australia's Future Project; RBA; Rice Warner; Bank of England; FDIC (USA); Canadian Bankers Association; Bundesbank; Japan Bankers Association; SynThesis; OSFI (Office of the Superintendent of Financial Institutions, Canada); BaFin statistics; The Life Insurance Association of Japan; Japan Insurance Market Report (AXCO); thecityuk.com; Statistics Canada; destatis.de; ozforex.com.au; Global Corporate Tax rates (KPMG); BCG Global Banking Value Pools; BCG Global Asset Management database

Source: BCG

#### 4.3.2.2 Shortcomings of measuring financial system output solely by reference to financial measures

Our measures of financial system efficiency in which the outputs (to which we compare inputs) are financial stocks or financial flows suffer the same problems as measurements of financial system multifactor productivity that rely on FISIM. The limitations of this approach, and the degree to which it misled policymakers prior to the GFC, have been widely discussed.<sup>47</sup> It is generally acknowledged that these measures, while useful when the limitations are front-of-mind, are unsatisfactory standing alone.

Financial system productivity is typically analysed on the industry Multi-Factor Productivity (MFP) estimates published annually by the ABS.<sup>48</sup> In addition, the Productivity Commission publishes extensively on the topic of productivity; analysing and extending the data produced by the ABS.<sup>49</sup>

MFP estimates, as observed below, are based on the concept of Financial Intermediation Services Indirectly Measured (FISIM), which in turn is based on financial assets and financial liabilities. As a result, difficulties with FISIM and MFP measurement in respect of finance would also be present if the efficiency of the financial system was evaluated solely on output measures based on financial instruments (rather than economic output measures). This is why two “lenses” are needed (Figure 28, above).

<sup>47</sup> See, e.g., Haldane, Brennan and Maduros (2010)

<sup>48</sup> See, e.g., Li (2013) (noting that the “MFP measurement framework is not in its maturity.”)

<sup>49</sup> See, e.g., Barnes (2011) and Parham (2012)

It is well recognised that errors in the measurement of the inputs and outputs erode the quality of the MFP estimates.<sup>50</sup> This is particularly true for the finance sector where measurement of output is difficult and controversial. As Diewert, Fixler and Zieschang (2011) put it:

One of the most difficult to measure parts of the System of National Accounts and the Consumer and Producer Price Indexes is the measurement of the outputs (and the inputs) of the financial sector. The pricing of financial services is so controversial that there has not been general agreement on how to measure the value of various types of financial services like banking and insurance outputs and there is even less agreement on how to measure the quantity (or price) of financial services.<sup>51</sup>

A large part of the challenge in measuring financial sector output is around the concept of Financial Intermediation Services Indirectly Measured (FISIM). Whilst the literature on the problems with FISIM is extensive<sup>52</sup> basically it measures the growth in financial assets and liabilities generated by the financial system, especially the growth in new loans. The manner in which financial services output is measured can significantly affect the result.<sup>53</sup>

By relying heavily on FISIM, the MFP measure for finance is, indirectly, arguably more of an estimate of its productivity in generating financial assets<sup>54</sup> as opposed to the productivity of any of its economic functions, including the mobilisation of savings into investment in capital.

#### 4.3.2.3 Efficiency in terms of economic measures

This subsection will focus on the efficiency of gross fixed capital formation of the Australian financial system. Our emphasis on fixed capital formation is because of the strong relationship between capital formation and productivity growth, and the importance of these to the country's long-term prospects and the wellbeing of its people.

At a high level, the development and performance of Australia's financial system would appear to be similar to the general pattern in the international research outlined above in Section 4.3.1. The Australian financial system shows signs of declining efficiency at growth-supporting activity.

In terms of economic inputs, the operation of the Australian financial sector has consumed economic resources in large quantities and at a rapidly growing rate. The financial sector has been the second fastest growing industry over the past 30 years, and it has experienced even stronger growth over the last 20 (Figure 19, above). It is the largest industry in Australia, at about 9 per cent of GDP (Figure 18, above).

In light of these growing economic inputs, the question to ask is whether the economic outputs have grown more?

The Australian economy generated around \$407 billion in gross fixed capital formation, per year, on average over the three years ended 2013. Of this, an average of about \$231 billion in capital formation is attributable to the financial system on average over those three years, as shown in Figure 36.<sup>55</sup>

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<sup>50</sup> Parham (2012), see also Li (2013)

<sup>51</sup> Diewert, Fixler, and Zieschang (2011)

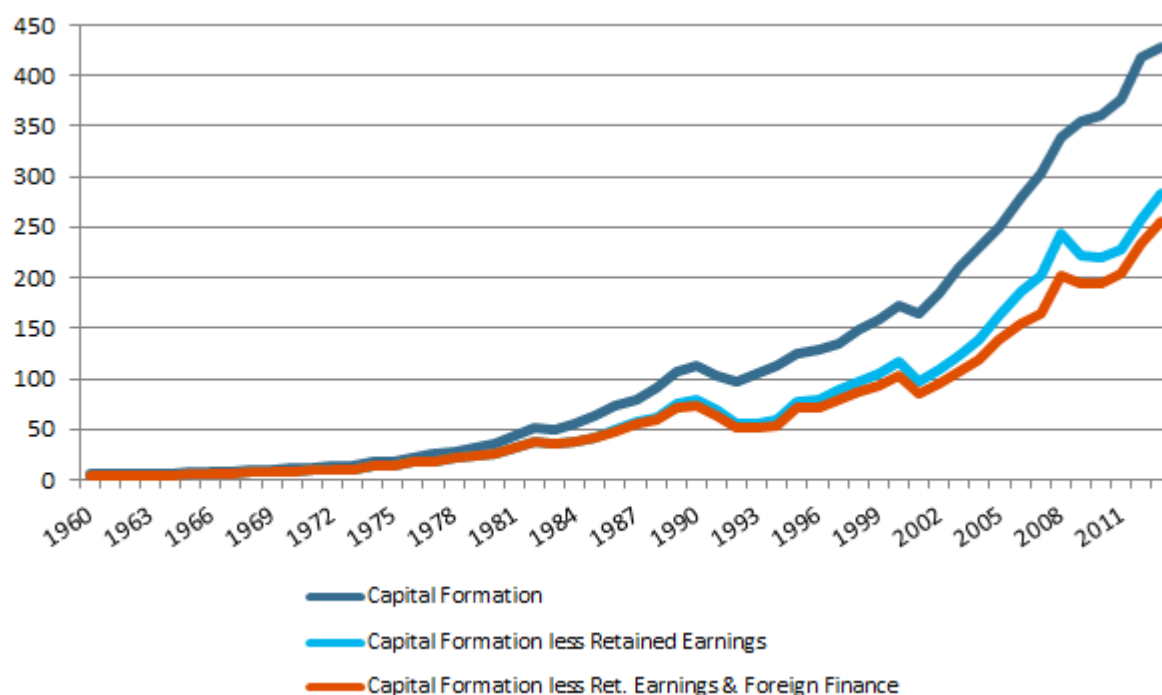
<sup>52</sup> See Yadon (2012) for a survey of the literature and a summary of the issues

<sup>53</sup> See, e.g., Inklaar and Wang (2013)

<sup>54</sup> Burgess (2011)

<sup>55</sup> The capital formation attributable to finance is the Gross Fixed Capital Formation for the entire economy, less capital stock produced by companies through retained earnings, and through foreign intermediation

Figure 36 – Capital formation less retained earnings and foreign financial intermediation, \$ billions, current prices



Source: National Accounts, ABS 5204.0 and ISA calculations

Efficiency would, at a high level, be revealed by considering the relative level of capital formation facilitated by the financial system against the value or amount of economic resources allocated to achieve it. Has the amount of capital formation arising from the financial system increased more or less than the increase in financial system size? Put another way, an efficient and well-functioning financial system will, like any well-functioning industry, tend to have an increasing ratio of output to per unit of input.

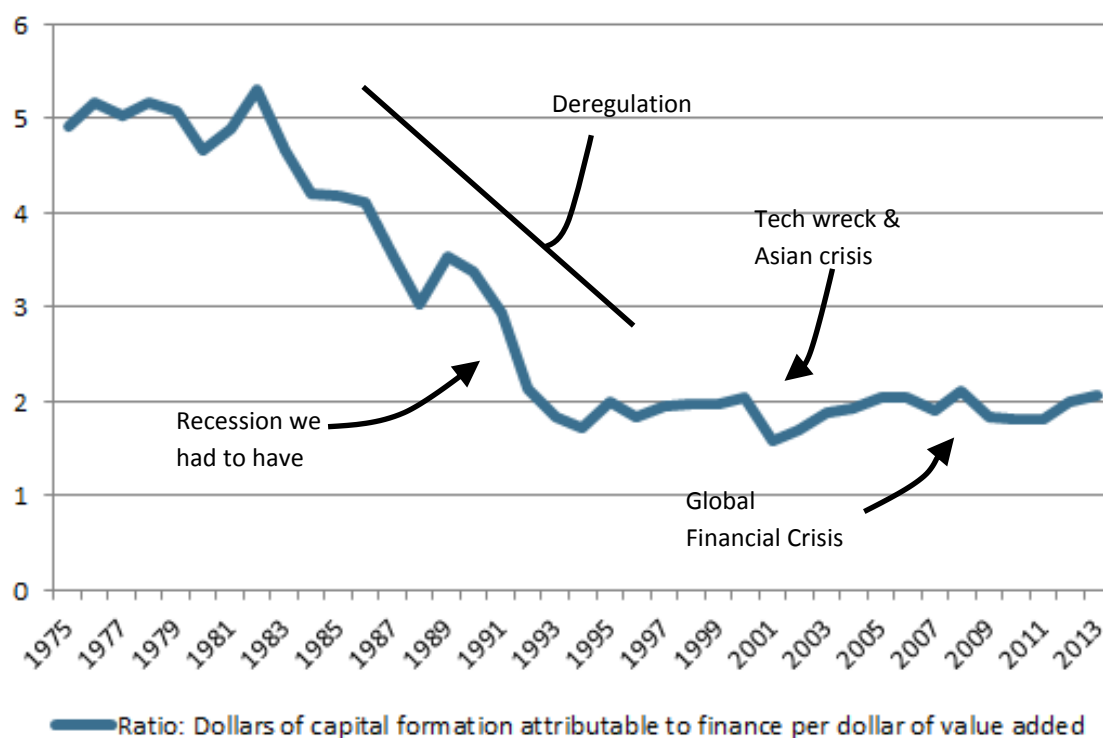
An efficient financial system would not only have a relatively high level of capital formation per unit cost, but the per unit cost would decline over time due to productivity and efficiency gains, such as through the introduction of useful technologies.

Unfortunately, we do not find increasing capital formation efficiency in finance. Measuring the value of economic resources allocated to financial services (the economic inputs), and comparing it to capital formation attributable to finance (the economic outputs), shows that, over time, the efficiency of the financial system at capital formation has declined.

During the 1980s and 1990s, the Australian financial system consumed \$360 of labour and capital, on average, for every \$1,000 of capital formation. In 2013, for the same \$1,000 of capital formation, the system consumed over \$500 of labour and capital.<sup>56</sup> The long-term decline in the capital formation efficiency of the sector is set out in Figure 37.

<sup>56</sup> ISA (2013) performed a similar analysis using ABS data through 2012 and found a similar trend. The specific values are different than ISA (2013) because the ABS revised the data series significantly. The overall analysis remains consistent notwithstanding the revisions

Figure 37 – Capital formation attributable to finance per dollar of financial services



Source: National Accounts, ABS 5204.0 and ISA calculations

Note: The efficiency ratio before 1990 is an estimate using reflated real data for gross fixed capital formation

#### 4.3.2.4 Capital formation in focus

Drilling down on the capital formation and allocation functions, and setting institutions aside, in conceptual terms, the financial system facilitates the allocation of savings to productive investment through two channels:

- Bank based funding – where investments are intermediated by financial enterprises such as lending by banks
- Market based funding – where there is a more direct exchange of funds from investors to operating firms via a market often intermediated by underwriters and dealers.

### 4.4 Banking capital formation efficiency

#### 4.4.1 Financial measures of banking system efficiency

There is some evidence, using financial measures, that there is a lack of competition in the financial sector, particularly in the banking sector.

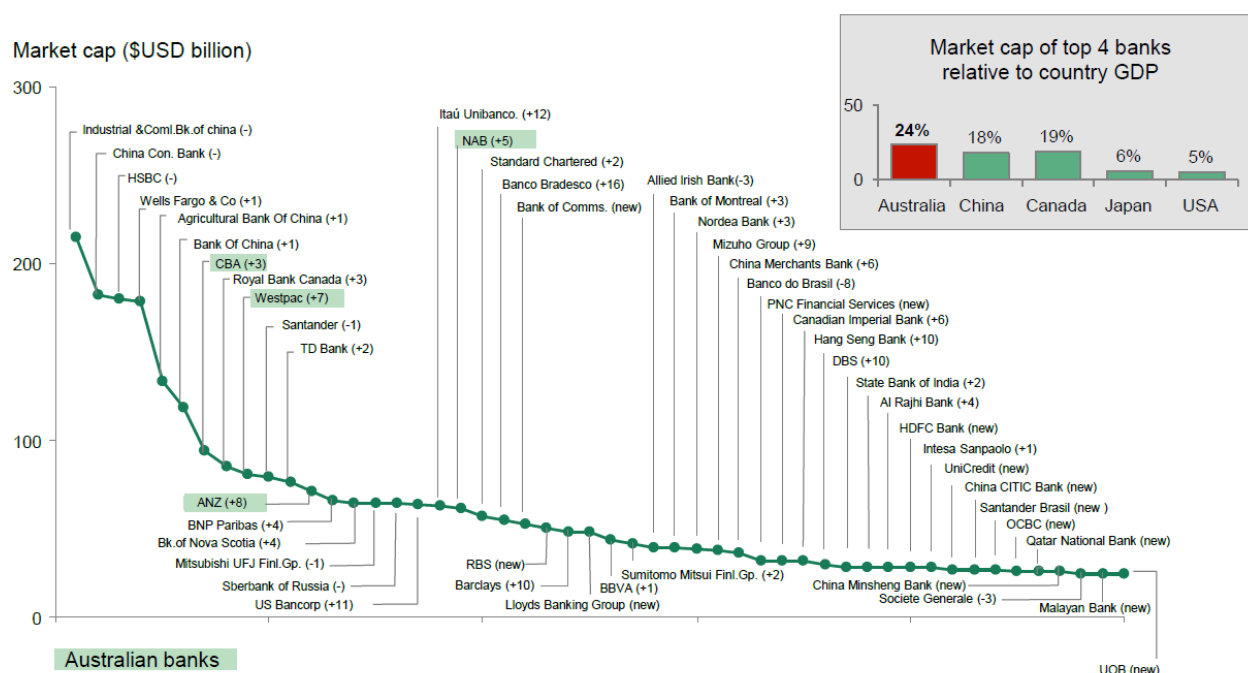
- Relative to the size of the Australian economy, the profits and market capitalisation of the major Australian banks is high (Figure 38).
- Major banks have been able to hold double digit ROEs in the face of global regulation increasing the amount of capital held by not passing on productivity improvements to customers. Over the long term, the cost margin of banks (basis points of cost per dollar of assets) has declined by 5 per cent per year



since 1990,<sup>57</sup> but revenue margins have declined only four per cent, with the difference not being passed on to business and consumer customers. (Figure 39). Since the GFC, the major banks may have a greater capacity to not pass on cost savings to consumers, perhaps due to reduced competition. Since 2007, the cost margin of banks has declined by four per cent per year, but revenue has declined by just two per cent per year. As a result, the spread between costs and revenue since the GFC is larger than the long-term average, and has not been passed on to consumers (Figure 40).

- Australian (and also Canadian) financial institutions have been able to do this due to highly concentrated markets (Figure 41) (NAB is an outlier in this chart, perhaps due to its UK operations).

Figure 38 – Selected bank market capitalisations, 2012



Note: Bracketed number indicates change in ranking since 18 August 2011. Estimated market capitalisation of Australian banks and Chinese banks based on market capitalisation of top 4 (Aus) and top 5 (Chi) banks pro-rated based on share of banking assets, shown as a percentage of GDP. GDP data prorates market capitalisation of leading banks to estimate total banking market capitalisation against GDP (data 2012)

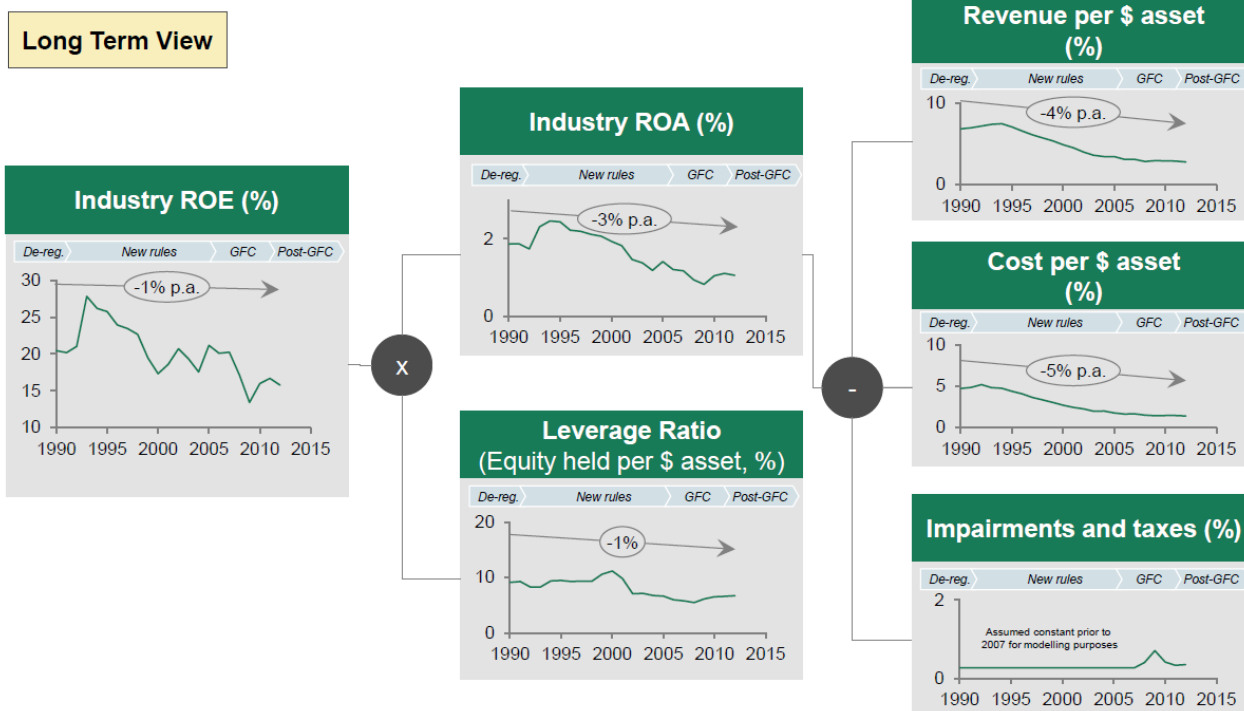
Source: Capital IQ 17 October 2012, Economist Intelligence unit GDP data

Source: BCG

<sup>57</sup> These declines in costs are largely the result of nominal costs being kept flat, while asset prices have risen.



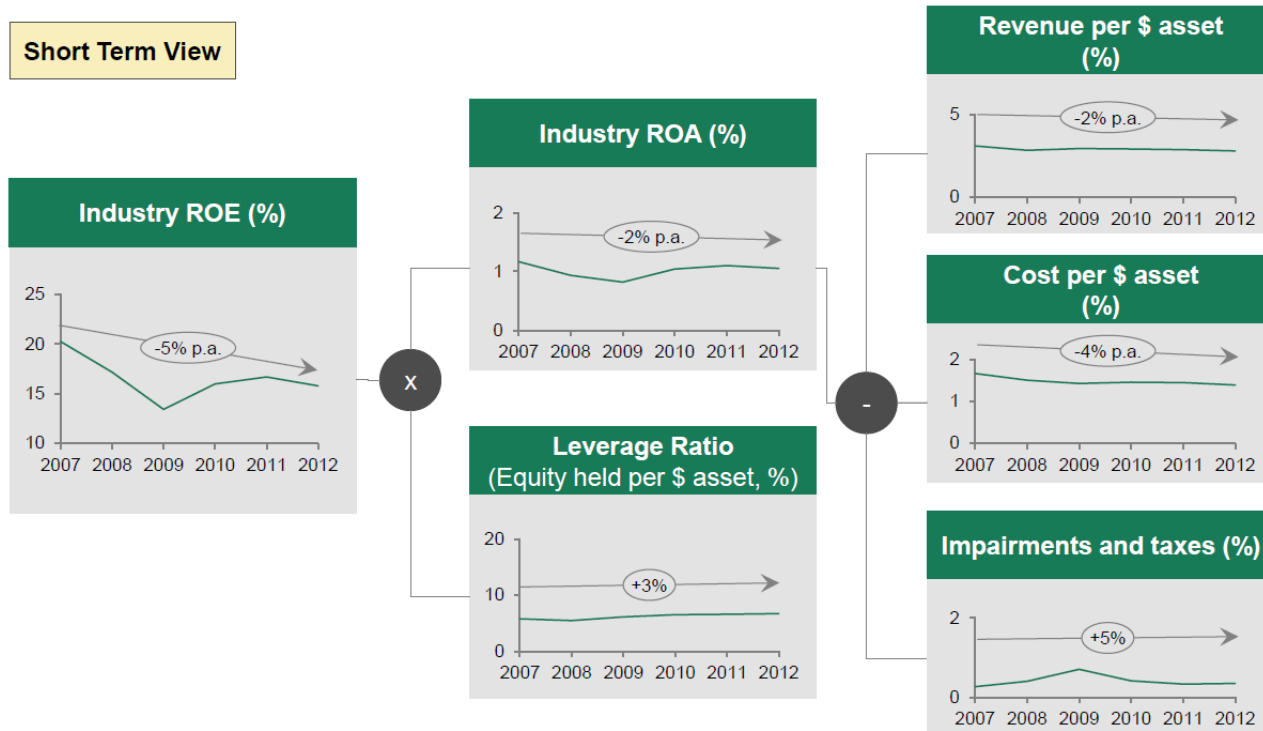
Figure 39 – RoE and changes in margin, Australian banks, 1990-2012



Note: Estimates based on performance of big 4 banks  
Source: Annual reports, APRA Monthly Banking Statistics; RBA; BCG Estimates

Source: BCG

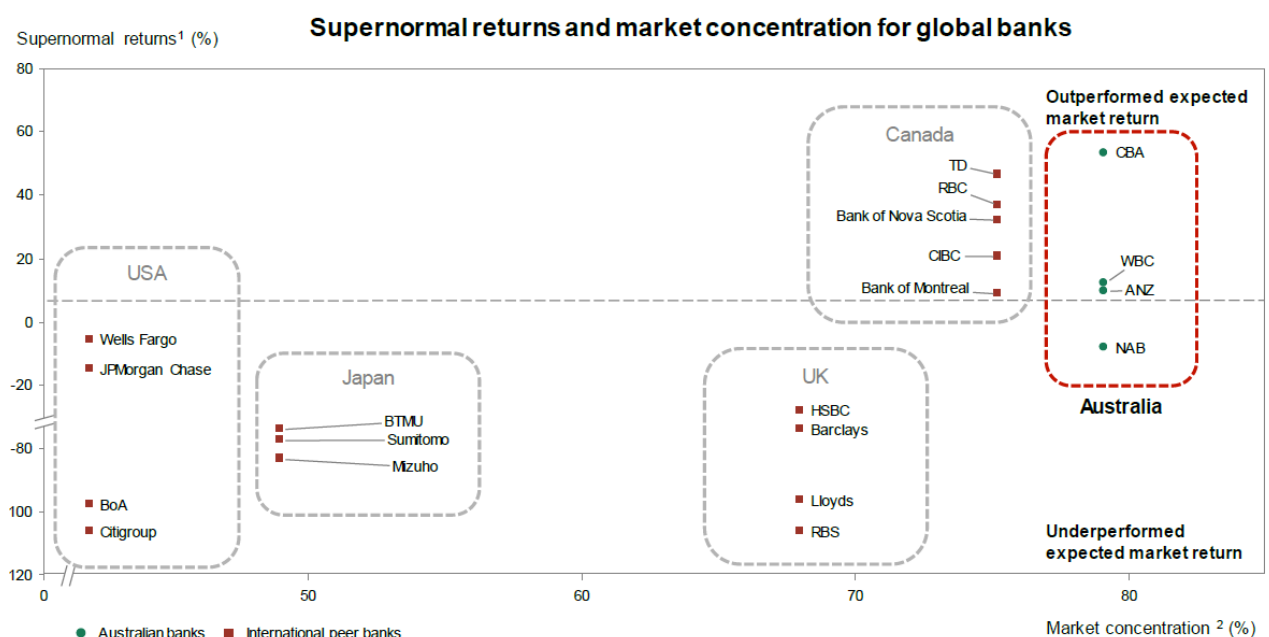
Figure 40 – RoE and changes in margin, Australian banks, 2007-2012



Note: Estimates based on performance of big 4 banks  
Source: Annual reports, APRA Monthly Banking Statistics; RBA; BCG Estimates

Source: BCG

Figure 41 – Concentration and returns, selected banks and jurisdictions



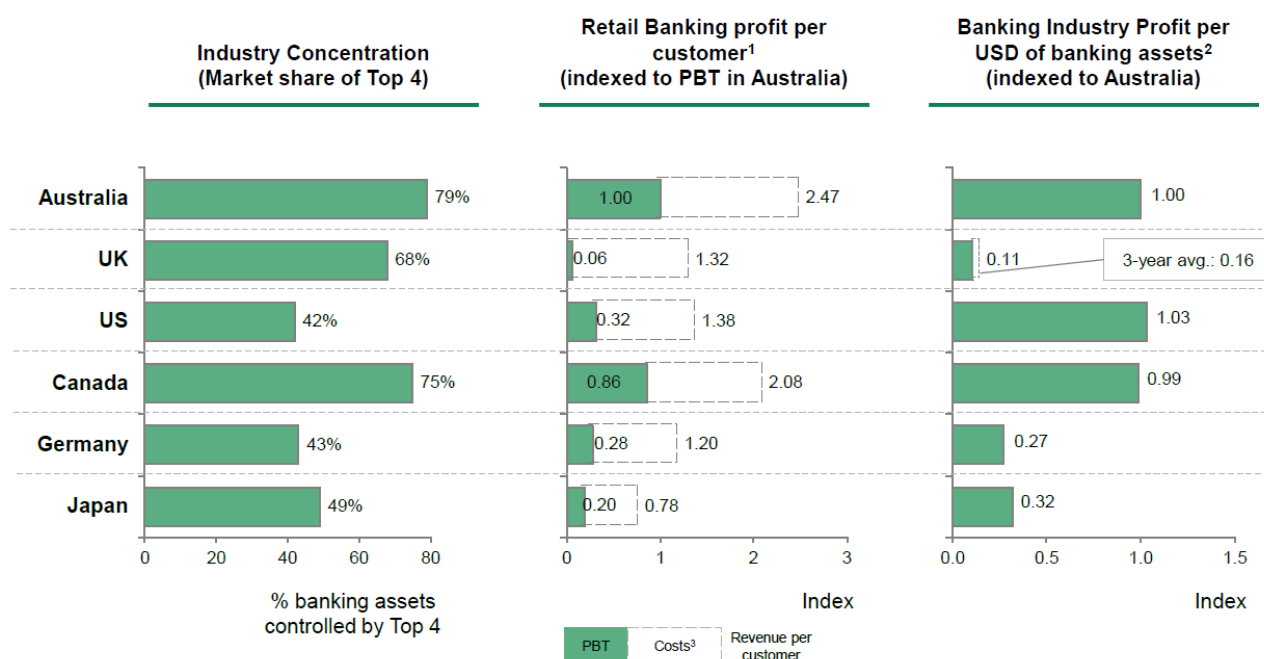
Source: BCG

The notion that the spread between costs and revenues flows through to consumer prices that are high relative to other countries is supported by other measures.

Retail banking revenue per customer is high relative to comparable countries (Figure 42). Retail banking profitability per customer is nearly 25 per cent higher than Canada, and almost double the level of the UK and US. Australia's relatively high retail banking profitability is perhaps more troubling because the allocation of risks between consumers and banks places greater risks with consumers than comparable countries. In particular, in the mortgage market, consumers bear greater interest rate risk due to the prevalence of variable rate loans in Australia.<sup>58</sup>

<sup>58</sup> The Research Institute for Housing America found that Australia has the highest level of variable rate mortgages (over 95 per cent) among major jurisdictions based on new loans issued in 2009

Figure 42 – Retail banking profit, selected jurisdictions, 2012

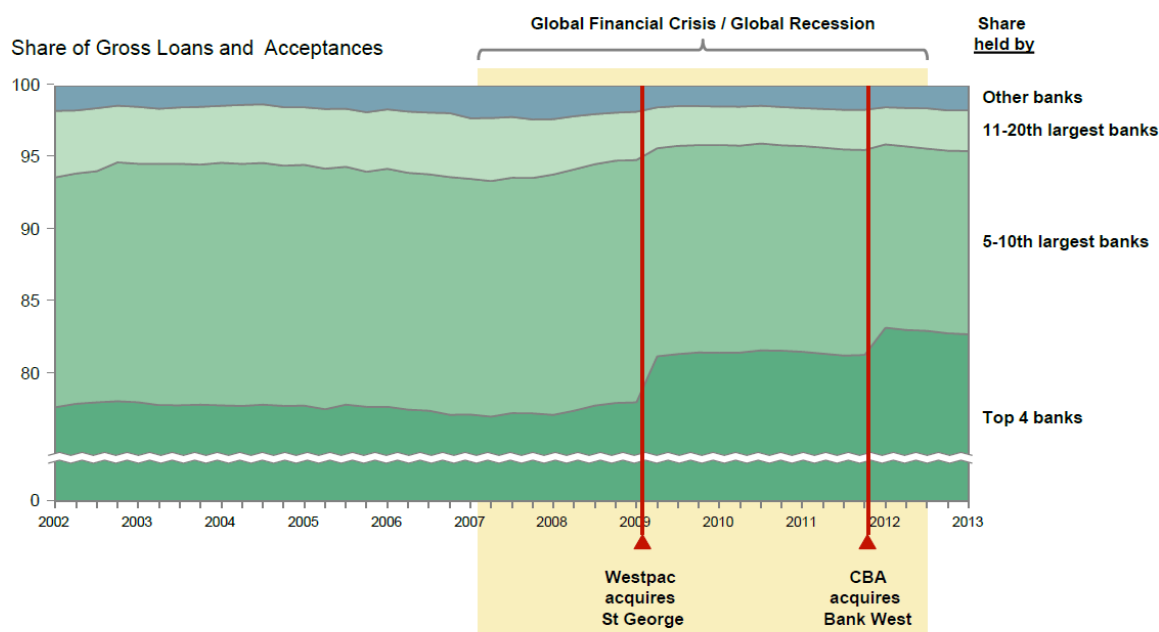


1. Based on pop'n >16yo. Calculated as PBT / # retail bank customers. 2. Indexed based on a calculation of PBT (retail plus corporate banking) / Total banking Assets. Total banking assets defined as 3. Incl. opex, LLP and other costs. Source: Company annual reports; APRA; RBA; ABS; APRA, Bank of International Settlements, company websites, Bank of England; FDIC (USA); Canadian Bankers Association; Bundesbank; Japan Bankers Association; BCG RBOE benchmarks, BCG corporate banking benchmarks; BCG global banking revenue pools; BCG experience

Source: BCG

The key take-aways are that financial institutions, particularly the major banks, have done well in reducing their internal costs relative to footings. They have not passed on all of these cost savings to end users. This is evidence that the major banks engage in oligopolistic competition. However, returning to a more competitive environment will involve industry recalibration to reverse the consolidation (driven in recent years by acquisitions) show in Figure 43.

Figure 43 – Banking competition, pre and post GFC



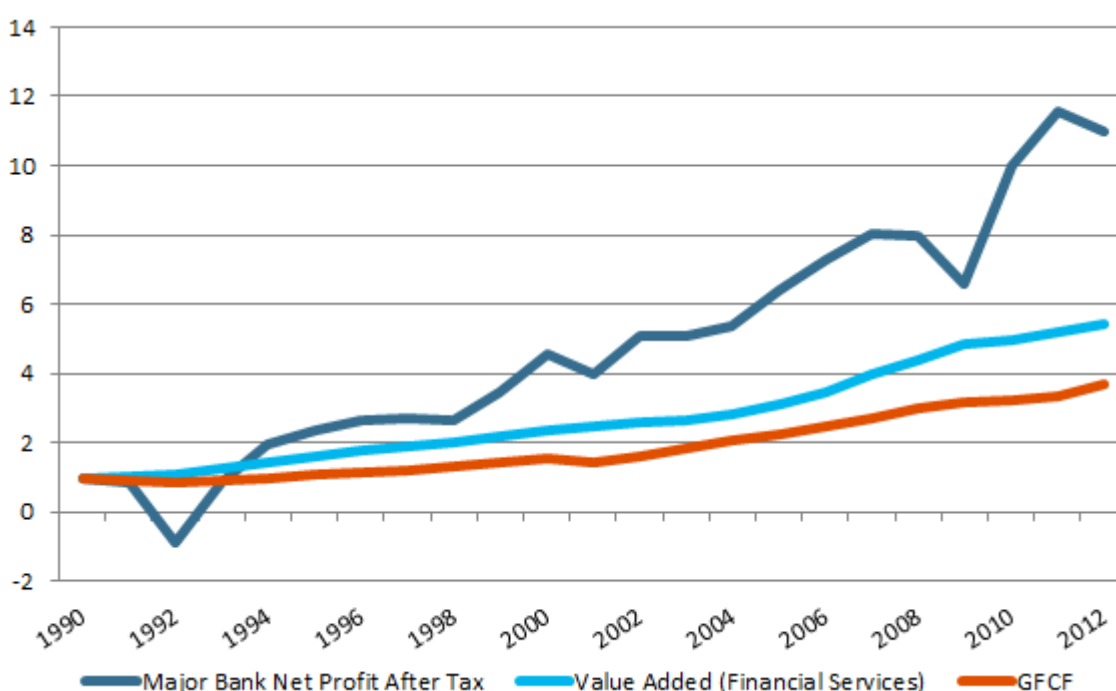
Source: APRA, BCG Analysis

#### 4.4.2 Economic measures of banking sector efficiency

Major bank profits have been a major driver of the substantial growth in the financial sector's value added, drawing capital resources from elsewhere in the economy. This is one of the factors behind the apparent decline in the capital formation efficiency of the financial system.

Profits are good in a competitive market. Economic rents are bad in all circumstances. The profits recorded from the four major banks – which conceptually should reflect the payments for capital resources deployed in banking – are likely to include economic rents as well as payments to capital. This is because of distortions outlined in this section. Banking profits have disconnected from the real performance of the broader economy, and even outpaced the growth in value added of the financial sector as a whole, as shown in Figure 44.

Figure 44 – Major bank profit growth, value added, gross fixed capital formation, index, 1990=1



Source: National Accounts, ABS 5204.0 and individual company reports

Two potential reasons why the efficiency of the Australian banking system at capital formation appears to have declined include:

- (1) Government subsidisation of the four major banks, which has encouraged them to be larger than is optimal (potentially enabling them to charge excess margins).
- (2) Government intrusion on capital allocation decisions through regulatory capital requirements based on risk-weighted assets. This could reasonably be expected to distort the capital allocation decisions of banks.

#### 4.4.3 Government subsidisation of the four major banks

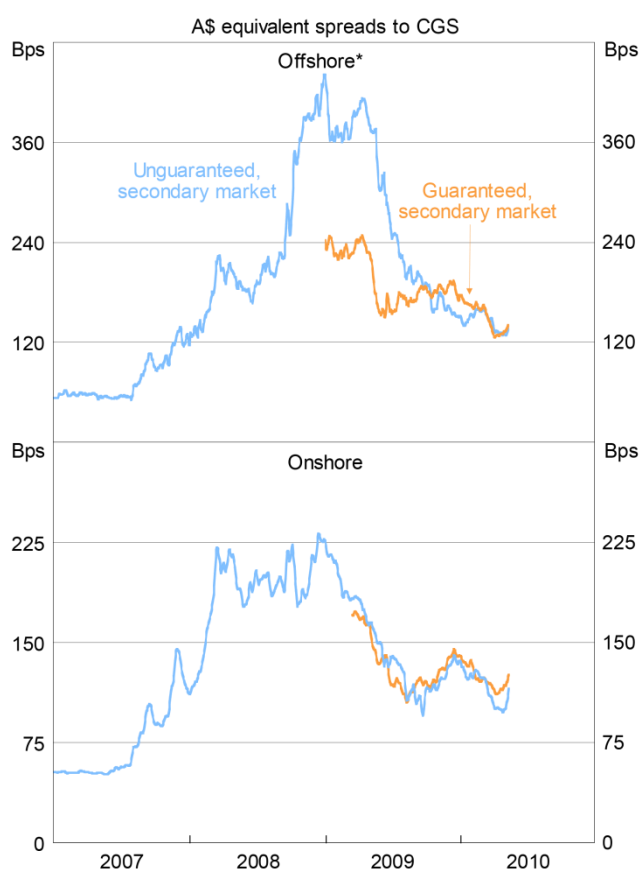
Bank profits are partially a function of the difference between what they charge businesses and consumers for loans, and what they pay depositors and other bank liability holders like investors.

One of the likely reasons the major banks are so profitable is that their cost of funding is less than that of their competitors.

Their funding costs are lower because, in part, the markets and credit rating agencies believe that the government will treat each of the major banks as “too big to fail;” that is, the government will support each of the major banks if they get into financial difficulty.<sup>59</sup> This expected government support causes the financial markets to reduce the cost of funding for major banks because the default risk of the investment is perceived to be reduced.

This too-big-to-fail ratings uplift is expressly acknowledged in reports by credit rating agencies in respect of the major banks.<sup>60</sup> It is also clear from the behaviour of the debt capital markets when the government introduced a formal debt guarantee program for Australian banks. As shown in Figure 45, the market fairly quickly ascribed substantially the same price to debt issuances of the major banks whether or not they were part of the express government guarantee program.

Figure 45 – Spreads on major bank debt, guaranteed and non-guaranteed



Source: RBA

<sup>59</sup> This expectation is supported by the behaviour of the Australian Government during the GFC, in which bank deposits and bank debt were both expressly guaranteed. In addition, during the GFC, the terms of certain transactions between banks and the RBA were modified in ways that reduced the risk of bank failure

We stress that we do not question the importance of financial stability or the efforts of the Government or the RBA to reduce the effect of the global financial crisis on Australia’s financial system

Our focus is solely on the resulting effect on the cost of funding for major banks

<sup>60</sup> See, e.g., Standard and Poor’s report on ANZ Banking Group, December 2012 (“Our issuer credit rating on ANZ is two notches higher than the SACP [stand alone credit profile], reflecting our view of a high likelihood of extraordinary government support in a crisis.”) and the Fitch Ratings report on CBA, February 2013 (“CBA’s Support Rating and Support Rating Floor reflect its systemic importance, and an extremely high probability of support from the Australian authorities, if needed.”)

This government support, which is functionally a subsidy in the form of a credit guarantee, is valuable. If a major bank sought to obtain a similar credit guarantee in the private capital markets, it would be quite expensive, assuming it was even available (particularly given the quality of the guarantor as a currency-issuing, AAA-rated sovereign). Instead, the government provides an implicit credit guarantee, but it is free. This is a subsidy and creates a competitive advantage for the major banks.

The Financial Stability Assessment of Australia by the International Monetary Fund (IMF) noted that:

The major banks are highly profitable, enjoying a funding cost advantage derived partly from implicit government support and earning larger net interest margins than smaller banks and international peers.

#### 4.4.3.1 What is the government subsidy of the major banks worth?

Estimating the value of the government subsidy of the major banks through the implicit credit guarantee, in essence, involves determining how much major bank funding costs were reduced by comparing their actual funding costs with what their funding costs would have been without the subsidy (i.e., with a credit rating lowered to remove the government support).

There are at least two publicly available estimates of the value of the government's implicit guarantee: one by the staff of the IMF, and one by UBS analysts reported by Adam Creighton, the economics correspondent for *The Australian*. The underlying data and the precise methodologies, however, are not all public and we cannot reproduce them.

Our research staff have prepared an in-house estimate of the value of the government subsidy using publicly available data, which we are also providing in this report. Our estimate is lower than the IMF and UBS estimates, which utilise different data including non-Australian banks.

The available estimates produce a range of possible subsidy values. The International Monetary Fund staff has estimated the value of the subsidy to be a reduction in long-term funding costs of about 80 basis points (bps) before the global financial crisis, and about 120 bps during the crisis.<sup>61</sup> The analysis by UBS estimated the value of the subsidy to be a reduction of between 50 bps and 80 bps.<sup>62</sup> Our estimate, using only publicly available information, suggests the value of the subsidy is about 32 bps in general, and 44 bps for non-guaranteed funding during the crisis.

In dollar terms, the average estimate of the value of the implicit subsidy to the major banks was \$2.1 billion in 2012 with estimates ranging from \$1.2 to about \$3.1 billion.

Over the period 2007 to 2012, the value of the subsidy has been in the range of \$1.2 to about \$3.7 billion per year, as shown in Figure 46. This figure is derived using all three estimates (in their relevant periods) of the reduction in funding costs due to implicit government support and long-term liability data from APRA.

The UBS estimate for 2012 and the IMF estimate for pre-GFC periods are both 80 bps. Spread data confirms that the long-term funding market for banks is comparable if not more costly than pre-GFC periods, though far tighter than during the crisis. Taking this consistency between pre- and post- GFC estimates into account, upper estimates for the subsidy in 2010 and 2011 are calculated on a funding advantage of 80 bps.<sup>63</sup> These estimates are conservative as they only apply the funding cost reduction to long-term liabilities, which, while having the largest impact on funding costs, constitute approximately half of the major banks wholesale funding.

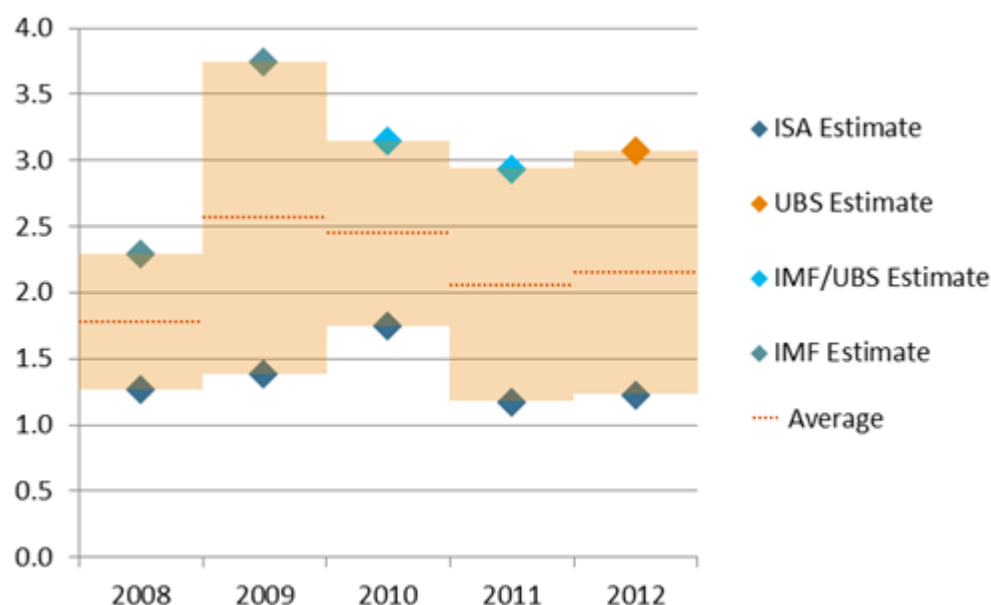
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<sup>61</sup> IMF (2012)

<sup>62</sup> Creighton, A. 'How taxpayers cosset the banks', Economics Correspondent, The Australian, June 01, 2012

<sup>63</sup> It is assumed that in the absence of the subsidy, the full increase in funding costs would be translated into income expense. The calculations do not take into account a corresponding potential decline in fee income from a smaller or less risky lending portfolio

Figure 46 – Subsidy of the major banks, \$ billions



Source: APRA, IMF estimates and ISA estimates, UBS estimates quoted in The Australian

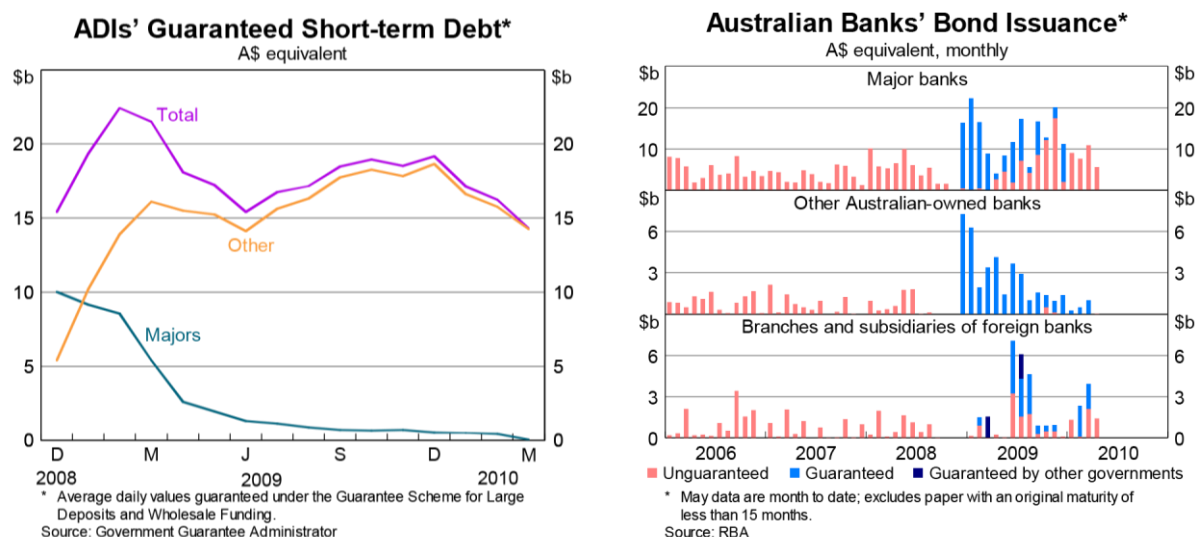
This subsidy is significant. As noted earlier, the average estimate of the subsidy equates to 4.8 per cent of the average net annual interest income for the major banks over the five years ending 2012 with the estimates ranging from 2.3 to 8.2 per cent. The implicit subsidy of the major banks is orders of magnitude larger than more publicised subsidies (such as to car manufacturers).

Australian Depository Institutions, including the major banks, issued government guaranteed debt while the funding markets, especially overseas, remained dislocated during the GFC. However, the major banks were able to transition to unsecured debt issuance from mid-2009 onwards as funding markets returned to normal.

As market liquidity improved post GFC, issuing government guaranteed debt became more expensive for major banks, factoring in the 70bps fee, than issuing debt without the explicit guarantee (but still enjoying the implicit too-big-to-fail guarantee), as shown above in Figure 45.

This funding cost difference, accordingly, affected the propensity of the major banks to issue expressly government guaranteed debt. As shown in Figure 47, the major banks sharply moved away from using the formal guarantee program and issued debt outside the program. The implicit government guarantee of the major banks' debt is already factored into the pricing for wholesale debt of the major banks, therefore negating the need for the banks to pay for the guarantee (during the GFC and to this day).

Figure 47 – Issuance of government guaranteed debt



Source: RBA

#### 4.4.3.2 Indirect advantages of the implicit guarantee

As noted above, the average estimate of the implicit subsidy to the major banks is \$2.1 billion in 2012 with estimates ranging from \$1.2 to \$3.1 billion in 2012, and has averaged in the range of about \$1.2 to \$3.7 billion per year over the period 2007 to 2012. This estimate of the implicit guarantee may understate the benefit to the major banks because it fails to capture indirect advantages that arise due to credit ratings uplift. An example of this is the Australian Government Guarantee Scheme for Large Deposits and Wholesale Funding (the Guarantee Scheme) in operation between October 2008 and March 2010. Under the scheme, ADIs were able to issue government guaranteed wholesale debt through paying a fee determined by the credit rating of the institution.

The major banks were able to purchase the guarantee at 30 bps less than they otherwise would have due to the two-notch ratings uplift gained from the implicit government support (see Table 2). Had the major banks guaranteed the same level of long-term funding without the implicit support and corresponding ratings uplift, funding costs between 2009 and 2011 would have been \$1.3 billion higher.

Table 2 – Fee for use of the Government Guarantee Scheme

Credit rating	Fee per annum
AAA to AA-	70 basis points
A+ to A-	100 basis points
BBB+ and below and Unrated	150 basis points

Source: Treasury

In a sense, the RBA and other government support that is sensitive to the credit ratings of a bank functionally allow that bank to “double dip” in the subsidy jar: once for the implicit guarantee ratings uplift reducing its funding costs, and again in reduced fees when the government does charge for its support based on credit ratings because the major banks’ credit ratings are artificially higher.

Market distortions could be present in several other facets of the funding and regulatory structure of the Australian banking framework. Two recent examples include (i) the establishment of a committed liquidity



facility<sup>64</sup> provided by the RBA to help the major banks meet liquidity requirements under Basel III, and (ii) the introduction of covered bonds and the associated benefits of funding diversification.<sup>65</sup>

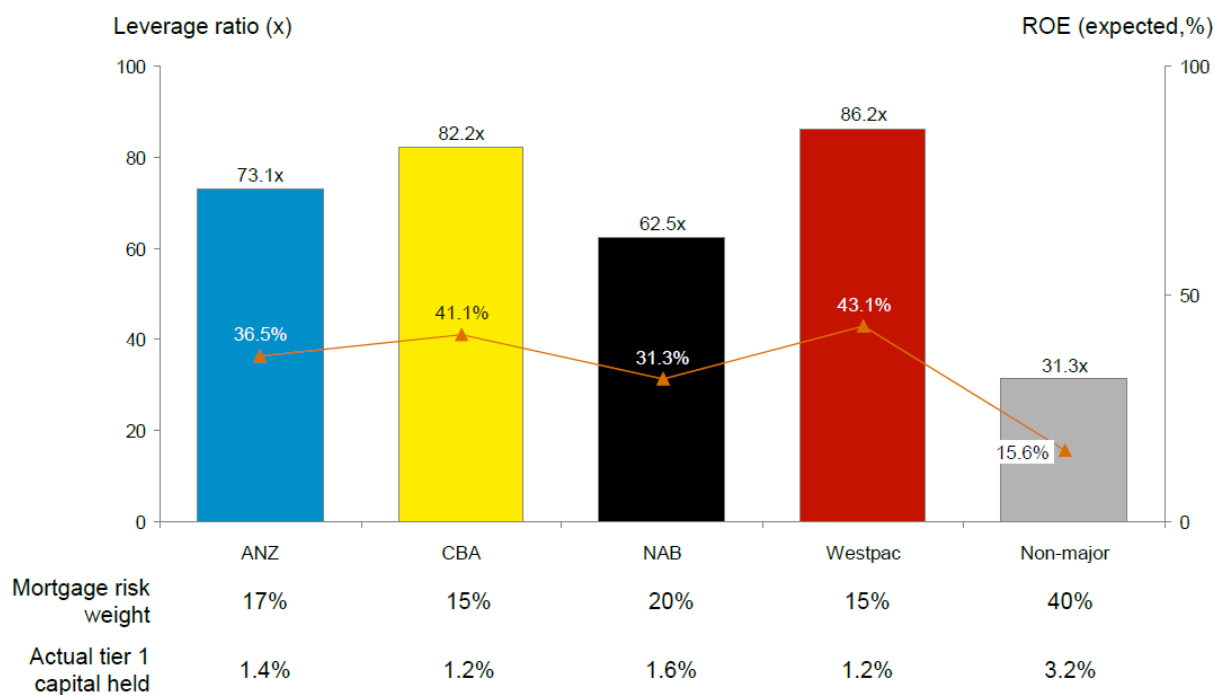
#### 4.4.4 Regulatory capital and banking competition

In Australia, the major banks utilise a different method of computing the level of risk weighted regulatory capital they must hold against assets: the major banks utilise internal models, whereas most other banks must hold a level of capital against particular kinds of loans and other assets specified by a public authority.

Major banks consistently hold relatively less regulatory capital than other banks. For example, for mortgage assets, major banks hold capital of about 16 per cent on average against these assets; other banks hold capital of around 40 per cent on average against these assets. Return on equity is sensitive to regulatory capital requirements and the internal model approach has served to increase major bank return on equity. Figure 48 sets out the leverage ratios and mortgage risk weight for regulatory capital purposes of the four major banks and the average for the other banks, as well as the expected return on equity.

It is possible that market distortions – the implicit Government guarantee as well as regulatory capital differences – are combining to make competition between the major banks and other banks extremely challenging.

**Figure 48 – Leverage ratios, expected RoE, and mortgage risk weight for regulatory capital of Australian Banks**



1. Assumes APRA tier 1 capital target of 8%, est. 0.5% mortgage margin to generate expected return  
Source: RBA, ABS, APRA, Plan for Life, Rice Warner, PHIA, AFR, BCG Analysis

Source: BCG

<sup>64</sup> The committed liquidity facility (CLF) allows participating banks to access a pre-specified amount of liquidity by entering into repurchase agreements with the RBA for which a 15 bps fee is payable. It is expected that only the major banks will require access to the CLF to comply with the liquidity reforms

<sup>65</sup> While covered bonds were introduced as part of a reform to increase competitiveness in the Australian banking system, covered bond issues to date have been primarily carried out by the major banks (with the exception of a single issue by Suncorp aggregating less than five per cent of total covered bond offerings by Australian banks). It is unclear to what extent the covered bond market has impacted the unsecured and securitisation markets, which are more commonly accessed by the smaller Authorised Deposit-taking Institutions

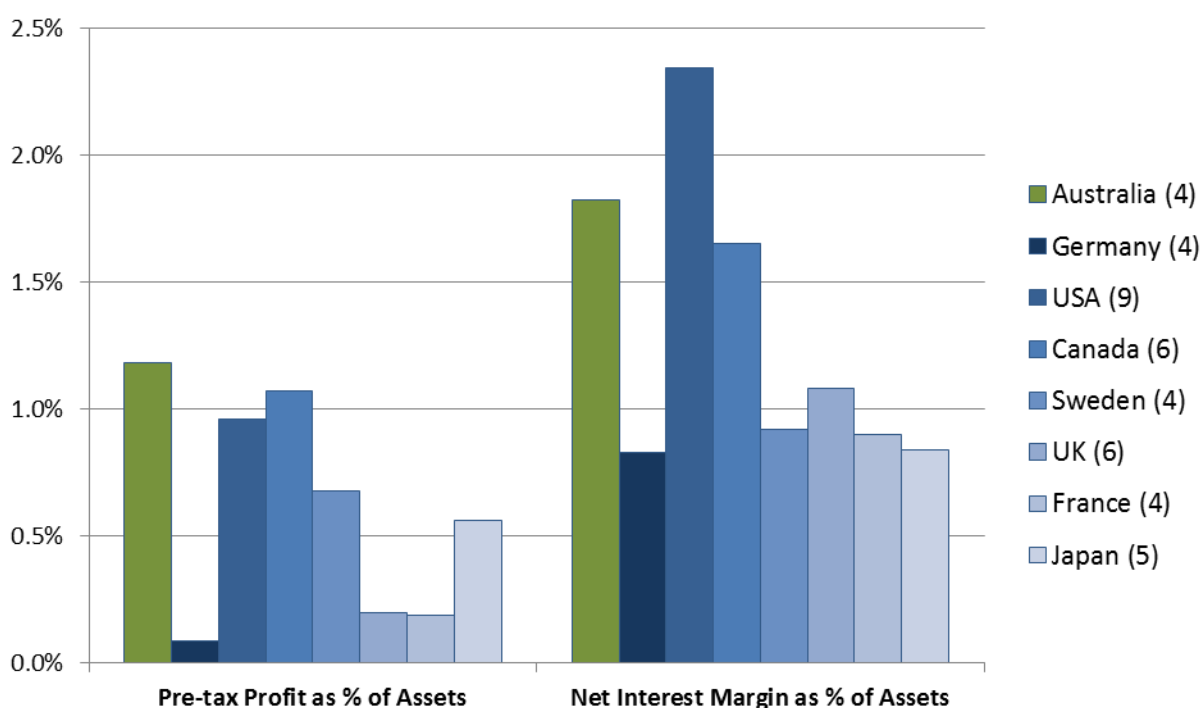
#### 4.4.4.1 Subsidies, concentration, and major bank profits

As acknowledged by IMF staff, the reduced funding costs arising from an implicit government subsidy leads to a competitive advantage for large institutions in wholesale funding markets, “which provides them with the means and the incentive to become even more systemic.”<sup>66</sup>

Consistent with these incentives, Australia’s banking sector is generally recognised as the most concentrated of developed economies, and, relatedly, is also the most profitable by some measures. Australia’s four major banks hold a relatively larger proportion of total banking system assets than do large banks in other jurisdictions. As shown below in Figure 98, nearly 80 per cent of total banking system assets are held by the major banks.

The level of concentration in Australia’s banking system is associated with correspondingly high levels of pre-tax profits and net interest margins. As shown in Figure 49, Australia’s major banks have higher pre-tax profit as a percentage of assets than the major banks in other jurisdictions. Only the major banks of the United States have higher net interest margins relative to assets.

Figure 49 – Profits and net interest margin of major banks in developed economies



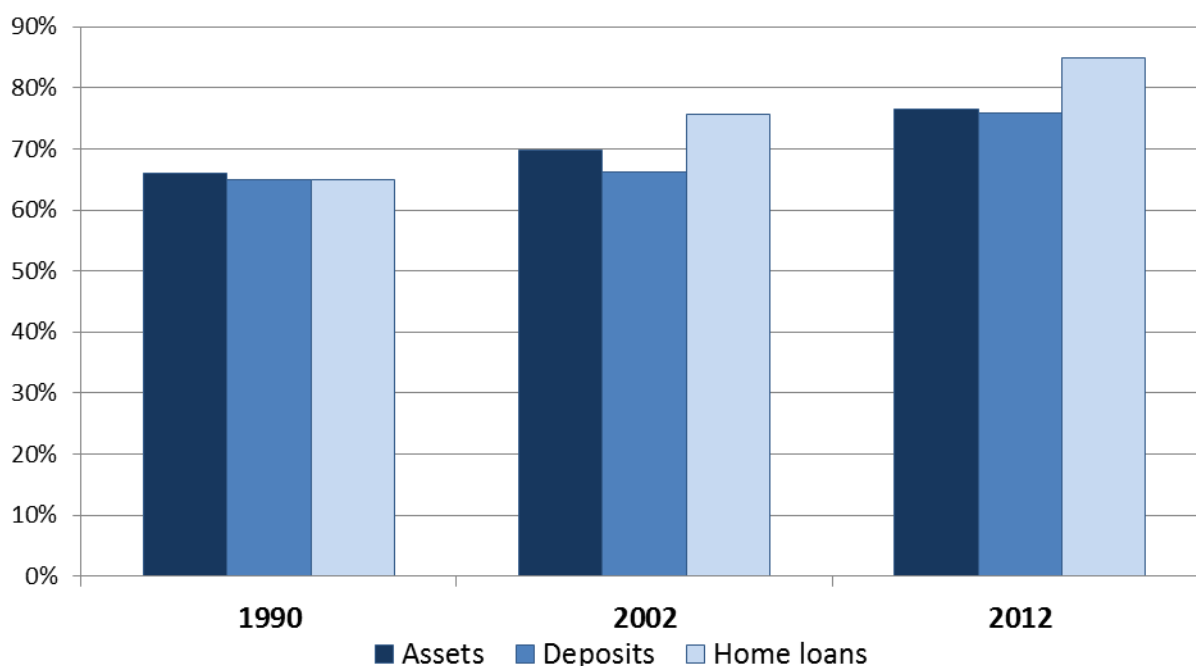
Source: Bank of International Settlements (BIS), Annual Report, 2013

Note: Numbers in parentheses state the number of major banks for each country as determined by the BIS

The degree of concentration in the Australian banking sector has increased since the 1990s. As shown in Figure 50, in the 1990s the major banks held about two-thirds of banking system assets, including home loans, and were the recipients of about two-thirds of deposits. By 2012, the degree of banking system concentration had increased significantly from this already concentrated starting point: about three-quarters of banking system assets now sit within the major banks, including 85 per cent of home loans. Dominance in deposit taking has also increased, with about 75 per cent of deposits in the banking system sitting with one of the four major banks by 2012.

<sup>66</sup> IMF (2012)

Figure 50 – Major banks' share of total assets, deposits and home loans, %



Source: APRA Monthly Banking Statistics and Senate Economics Committee

As noted above, one could reasonably expect that the subsidisation of the major banks by the government has caused the banking sector to be more concentrated and the major banks to be larger and more profitable than they ought to be in a competitive market.

To the extent competitive distortion in banking results in artificially high profits arising from excess margins paid by business and consumers, more economic resources would be allocated to banking than is warranted, undermining capital formation efficiency.

It is also the case that profits achieved through competitive distortion are not likely to result in net benefits to shareholders, like super funds. First, agency costs within the bank reduce the likelihood that all net profits are passed on to shareholders. Second, the anti-competitive profits of banks likely arise from artificially high net interest margins, fees, and other costs paid by bank customers, including the other companies that make up a super fund's portfolio. Moreover, the artificially high cost of credit could dampen aggregate demand and indirectly reduce the profitability of other companies in the portfolio.

We have modelled some of the economic effects of eliminating this subsidy, and found substantial benefits for the broader economy. This is discussed in Section 9.6.1.1.

#### 4.4.5 Changes in banking business

Changes in banking, separate and apart from the too-big-to-fail phenomenon and related government subsidies, also may explain some of the decline in capital formation efficiency. Since 1990, the business of banking has changed in a variety of ways, but two are of particular importance to understanding the apparent decline in financial system efficiency.

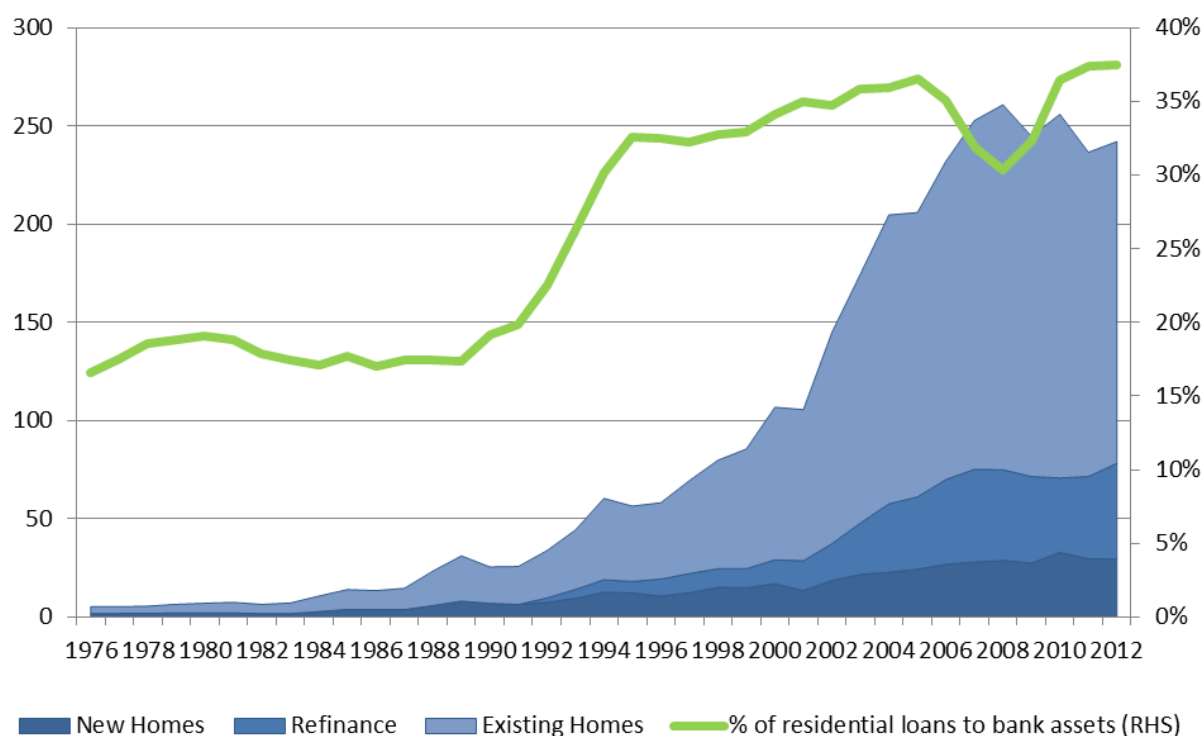
First, residential loans have changed from a modest component of the banking book to the largest class of assets in the banking book. Second, the nature of the residential loans made by banks has shifted away from the construction of new housing stock, which is a manner of capital formation, and now is dominated by financing the resale of existing housing stock.

Figure 51 shows the strong change in the banking book from 1990. There are two key trends. First, the nature of banking has shifted toward residential finance, and second, this shift to residential lending was accompanied by a change in the composition of the residential loans themselves.

In 1990 and the preceding 15 years, residential loans were just 15 per cent of total bank assets. By 2012, residential lending had more than doubled, to about 37 per cent of total assets. In addition, the purpose of residential lending, starting around 1990, shifted toward the purchase of existing housing stock, in contrast to financing in support of the purchase of newly constructed housing stock. Over the last three years only 12.5 per cent of all new housing finance was directed towards newly constructed dwellings; in the early 1990s it was 22 per cent and in the 1970s it was over 30 per cent.

This shift away from finance in support of the purchase of new construction, and toward finance in support of the purchase of existing housing stock, has important implications for capital formation. The exchange of existing housing stock does not increase the productive capacity of the country and there is, strictly speaking, no new capital formed. The creation of new housing stock is considered capital formation.<sup>67, 68</sup>

**Figure 51 – Bank finance, residential, by purpose, \$ billions and %**



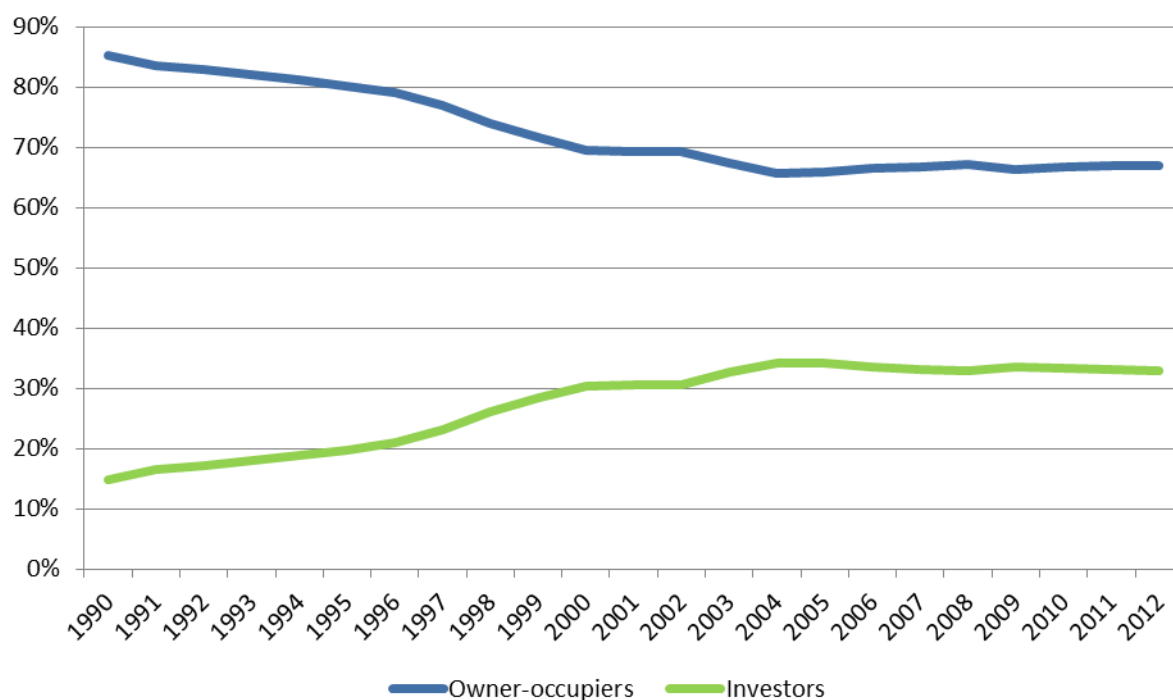
Source: ABS Housing Finance (ABS 5609.0) Lending Finance (ABS 5671.0) and RBA Statistics (D2 Bank Assets)

It is worth noting that the expansion of residential lending to facilitate housing turnover does not appear to have been a response to policies in support of first-time home buyers. As shown in Figure 52, residential lending has increasingly been to facilitate purchases of existing housing stock by “investors,” not owner-occupiers.

<sup>67</sup> See, Kuznets (1961). See also Australian Bureau of Statistics 5216.0 (2012)

<sup>68</sup> The construction of a new house creates a good that is used to produce something that is consumed, i.e., shelter. If, instead of building a new house, a pre-existing house is purchased, the overall level of capital in the economy has not increased. The same shelter exists, it is just the person(s) consuming it that differs

Figure 52 – Distribution of residential loans of Australian banks, %



Source: RBA Statistics, D5 Bank Lending Classified by Sector

#### 4.4.5.1 Banking and regulatory capital

This striking change in the nature of banking is likely due, at least in part, to the introduction of risk-weighted regulatory capital requirements. Risk weightings differ for different kinds of assets held by the bank (Figure 53). As a result, different levels of capital need to be held against these assets, and some can therefore generate greater returns relative to capital than others.

Figure 53 – Regulatory capital risk weightings for different banking products

**Examples of risk weightings for select product groups:  
Standardised approach to credit risk method**

Product group (Examples)	1980	1990 Basel I <sup>1</sup>	2008 Basel II	2013 Basel III
<b>Mortgages</b> (Standard, LVR <60%)	100%	50%	35%	35%
<b>Other retail</b>	100%	100%	100%	100%
<b>Business</b>	100%	100%	20% - 100%	20% - 100%
<b>Government</b> (Australian)	10%	0%	0%	0%

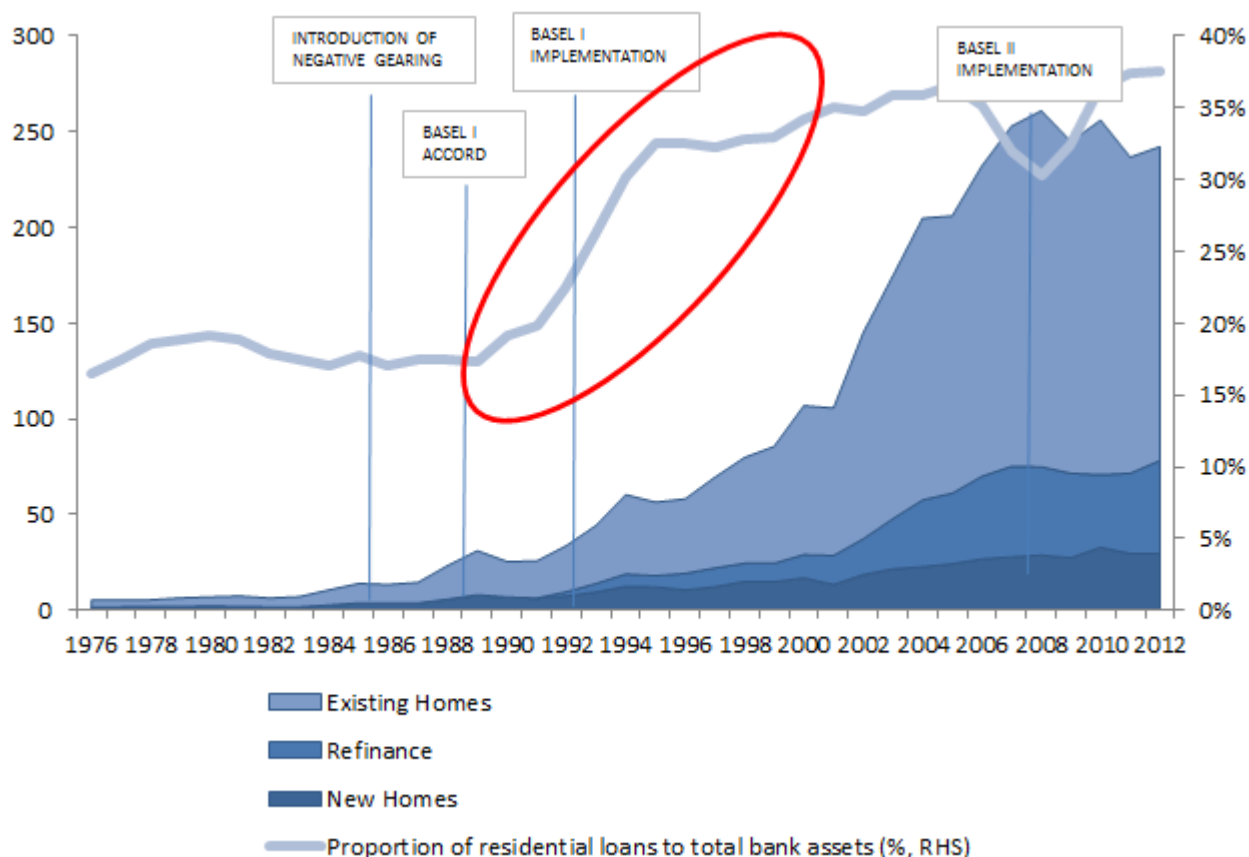
External estimates of the mortgage risk weights of the major banks is between 15 and 20 per cent

Note: For many products, higher risk weightings used for riskier counterparties  
 1. Weightings based on APRA May 2000 release  
 Source: APRA, RBA, broker reports incl. Bank Pillar 3 release

Source: BCG

This has influenced the nature of bank loans, as suggested in Figure 54, which is a reproduction of Figure 51 overlaid by significant dates related to the introduction of the Basel risk-weighted asset regulatory capital regime in Australia.

Figure 54 – Bank assets and regulatory capital



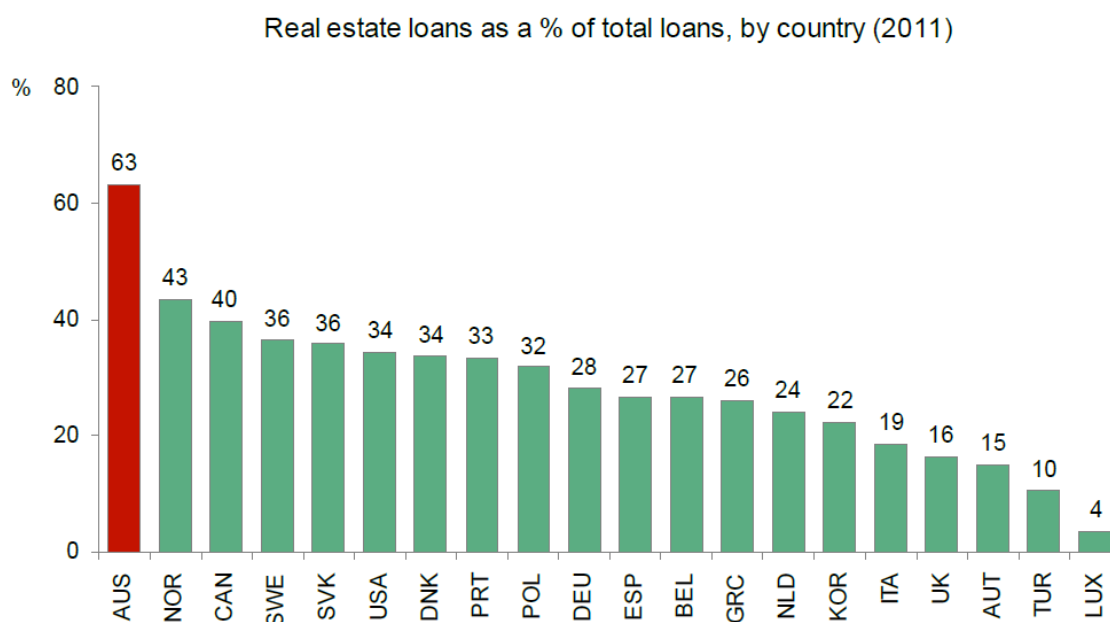
Source: ABS Housing Finance (ABS 5609.0) Lending Finance (ABS 5671.0) and RBA Statistics (D2 Bank Assets), ISA analysis

It is unlikely that regulatory capital requirements have been solely responsible for the shift in bank business activity. First, assets with high regulatory capital requirements, such as small business loans, have not been securitised in Australia, which would provide significant regulatory capital relief. Second, other jurisdictions that are subject to risk-weighted regulatory capital requirements have not shown the same degree of focus on residential lending for existing housing stock (Figure 55).

Perhaps an additional reason why mortgage lending is desirable for Australian banks is because of the relatively low level of interest rate risk mortgages place on banks. As noted above, consumers bear greater interest rate risk due to the prevalence of variable rate loans in Australia than do consumers in other jurisdictions.<sup>69</sup>

<sup>69</sup> The Research Institute for Housing America found that Australia has the highest level of variable rate mortgages (over 95 per cent) among major jurisdictions based on new loans issued in 2009. This has allowed banks to re-price their back book as interest rates fluctuate. Cf., RBA F5 with RBA F13

Figure 55 – Australian banks hold relatively more mortgages than banks in other jurisdictions



Source: The future of Australian bank funding KPMG & Australian centre for financial studies report 011 – data updated from IMF statistics

Source: BCG

In addition to distorting the lending decisions of banks, regulatory capital has been a driver of problematic innovation in the finance sector, which has received its own label: “regulatory capital arbitrage.”

A well-known example outside of Australia is tranching Collateralized Debt Obligations (CDOs). These were thought to “transform risk” (in that they facilitated the issuance of AAA ratings in respect of obligations that were nothing like AAA, i.e., subprime debt). CDOs also permitted the arranging institution to reduce its regulatory capital requirements, and were marketed on this basis: for example, the March 2002 Barclays Capital Guide to Cash Flow Collateralized Debt Obligations stated that “Issuing institutions can sell off portfolio credit risk, reduce regulatory capital requirements and lower funding costs.” By transferring lower risk loans to CDOs and keeping lower-quality, higher-yielding loans on their balance sheets, banks sought to earn “higher spreads, lower their capital requirements and increase their return on risk-adjusted capital.”<sup>70</sup> CDOs were designed (and marketed) to engage in regulatory capital arbitrage to increase the amount of risk relative to the amount of regulatory capital that banks were required to hold.

Bank funding is not long-term funding. For regulatory capital and business reasons, bank lending tends to have tenors of five years or less.<sup>71</sup> Commercial bank loan maturities average only 2.8 years in emerging economies and 4.2 years in advanced economies.<sup>72</sup>

<sup>70</sup> The Barclays Capital Guide to Cash Flow Collateralized Debt Obligations (March 2002) at 13

<sup>71</sup> Financial Stability Board, Update on financial regulatory factors affecting the supply of long-term investment finance, Report to G20 Finance Ministers and Central Bank Governors, 29 August 2013: 3

<sup>72</sup> Group of Thirty, Long-term Finance and Economic Growth, 2013: 14



#### 4.4.5.2 Banking and capital formation

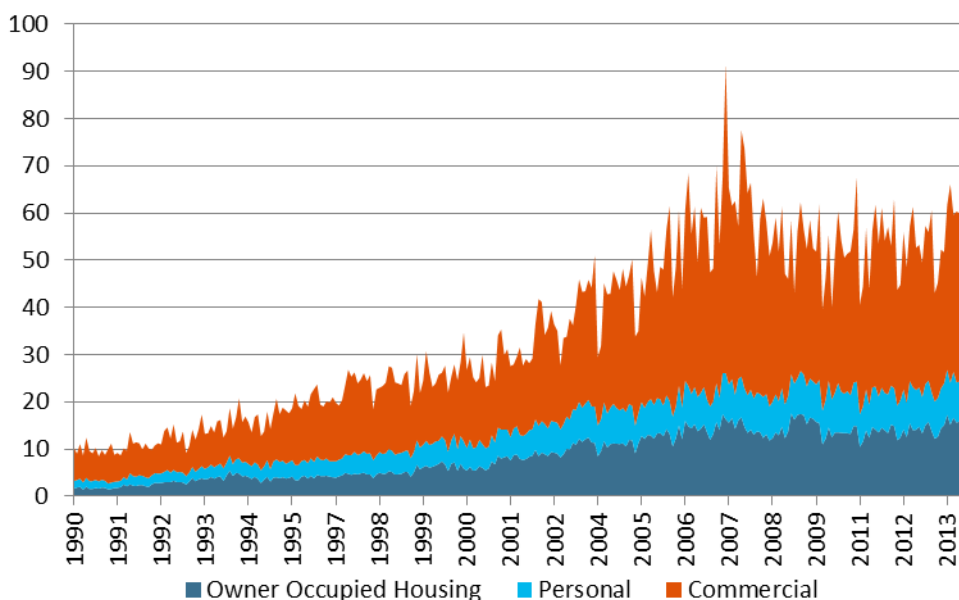
Banks through their lending activities contribute to the wider economy's capital formation. Each dollar that a bank lends can fund current consumption, fund working capital, purchase existing assets or buy new assets that contribute to the macroeconomic level of gross fixed capital formation. By looking at the lending patterns of the banks it is possible to estimate their contribution to capital formation per dollar of loan extended.

The ABS identifies three broad lending categories in its data series Lending Finance, Australia. While this data series covers more than just bank lending the banks are the dominant lender in all categories.<sup>73</sup>

The 3 broad groups of lending are:

1. *Owner Occupied Housing*. New houses, purchases of existing housing stock, alterations and extensions and refinancing.
2. *Personal Finance*. Cars and other transport vehicles, blocks of land, and various forms of revolving credit.
3. *Commercial Finance*. Construction, real property (including residential investment properties), wholesale finance, plant and equipment, refinancing, lease finance, and various forms of revolving credit.

Figure 56 – Bank loan composition over time, \$ billions,



Source: Lending finance, Australia, ABS 5671.0

Note: Lending for residential investment properties is included in commercial lending

For each class of loan it is possible to estimate how much of each dollar lent contributes to capital formation and how much is devoted to purchases of existing financial assets and the funding of consumption expenditure and working capital. A weighted average across the various classes of lending is then an estimate of the banking sector's contribution to the wider economy's capital formation per dollar of loan extended.

For most classes of loan it is self-evident what share is directed to capital formation. For example, all loans for new housing construction, purchases of new houses, purchases of land, commercial construction and the purchases of machinery and equipment are assumed to add directly to capital formation.

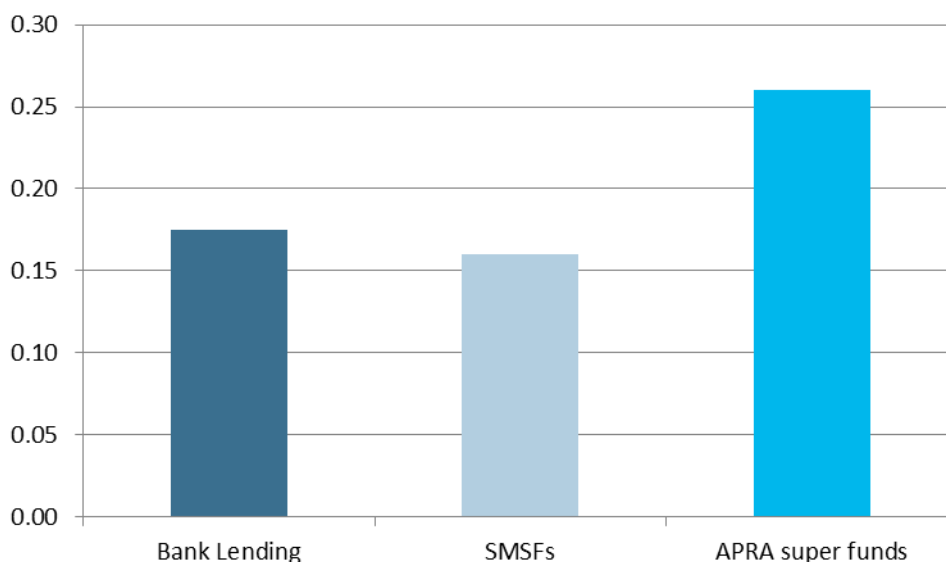
<sup>73</sup> According to the data series, banks supply over 90 per cent of all lending finance

Similarly, for many other types of loans it is relatively clear that the purpose of the finance is not directly related for Gross Fixed Capital Formation (GFCF), particularly so for the various forms of revolving finance. However, it is also likely some of the revolving credit will be used to purchase 'lower cost' plant and equipment such as computers and office equipment. For this reason we assume that 10% of all revolving credit contributes to capital formation.

A final class of lending remains where it is not obvious what share is directed to capital formation. Commercial lending for the purpose of purchasing real property contains a mix of capital formation and existing asset purchases. Importantly, this class of lending includes the purchases of residential investment properties, often for the purpose of tax minimisation. The ABS provides additional data on the lending activities related to individuals' purchases of properties for rent. This amount is then subtracted from the total amount of commercial property lending and the remainder is assumed to contribute to capital formation. All up, around 22 per cent of all commercial property lending is estimated to contribute directly to capital formation.

Taking these various assumptions into account, it is estimated that currently, based on a three-year average, for every dollar lent by the banks around 18 cents can be attributed to new capital formation. The similar ratio for APRA-regulated funds was estimated to be 26 cents (Figure 57).

**Figure 57 – New capital formation per dollar of loans/investments, 3 year average<sup>74</sup>**

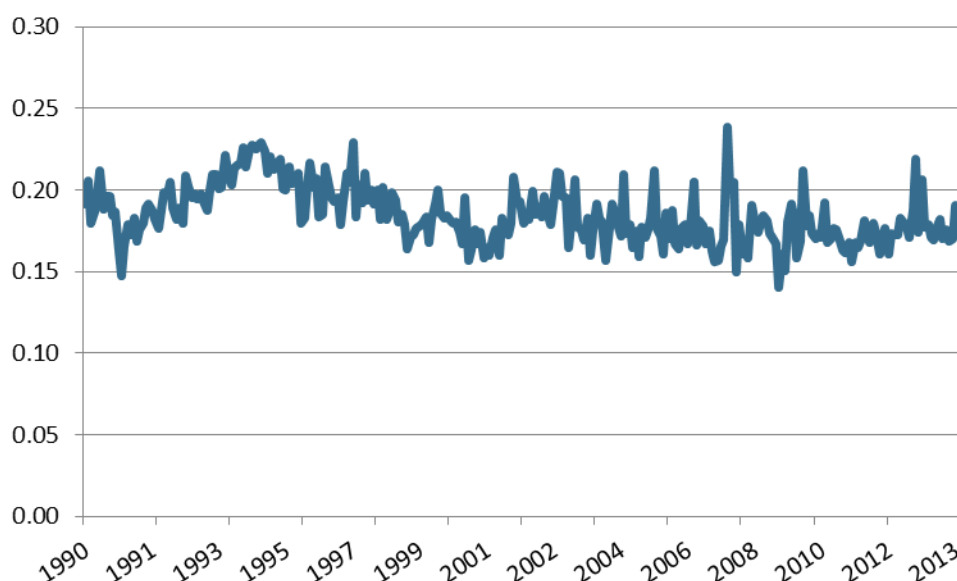


Source: ISA calculations

Over time, the bank loans' capital formation ratio displays a slow decline as the banks increased their share of loans directed towards the purchases of existing housing stock (Figure 58).

<sup>74</sup> The estimate for APRA-regulated super funds is from ISA (2014). The limitations of that estimate include the heavy bias toward industry super fund allocations and sample size; however, they reflect ISA's best currently available information

Figure 58 – New capital formation ratio for bank lending, 2008-2013



Source: ABS and ISA estimates

## 4.5 Capital markets' capital formation efficiency

Capital markets are an important part of a well-functioning financial system and Australia's capital markets in particular are generally deep and liquid, particularly in relation to the size of the Australian economy.

However, there are troubling signs that trends in the capital markets are contributing to the apparent decline in the efficiency of Australia's financial system in performing one of its core economic functions, namely mobilising savings for investment in capital.

At a high level, these trends include:

- A significant increase in secondary market trading.<sup>75</sup> In the late 1990s, the ratio of primary capital raised to the turnover of secondary equity markets was, on average, about 1:10 (i.e., for every \$1 of public capital raising there was about \$10 of trading activity). In 2012, the ratio was 1:28. Secondary market trading involves the exchange of existing financial instruments.
- Equity trading in secondary markets has been dwarfed by trading in derivatives since the mid-2000s. In 2012, total equity market turnover was about \$1.2 trillion. Total turnover of derivatives was about \$70 trillion (\$43 trillion on-exchange and \$27 trillion over-the-counter).
- Notwithstanding the increase in trading activity, and the potential increase in liquidity arising therefrom, capital raising on listed equity markets appears to have become more challenging. This is reflected in the declining ratio of capital raising to trading, noted above, and in the increasing shortfalls in follow-on offerings by listed companies (when an already-listed company returns to the market to raise capital but fails to raise the desired amount).

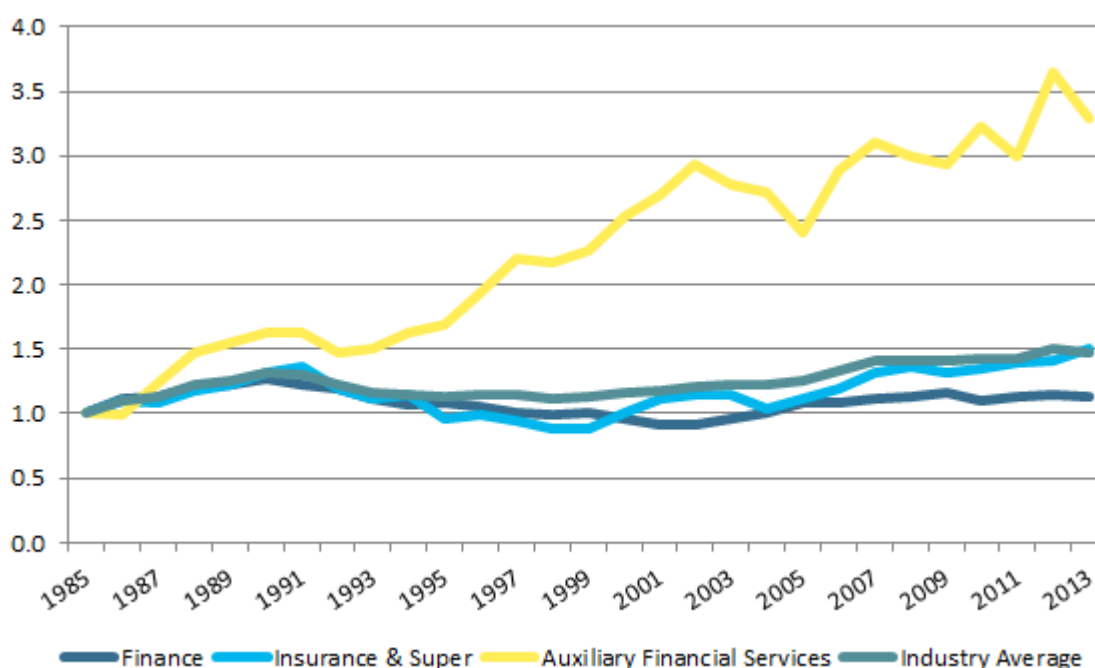
<sup>75</sup> Secondary market trading involves the transfer of an interest in a financial instrument held by a person other than the issuer in exchange for payment from another person. In the common case of cash equities, the company that issued the ordinary share does not receive any proceeds from the secondary market trade. The seller receives the proceeds from the buyer, less various commissions to brokers, fees to exchanges, among other possible costs. Secondary market trading is different from capital raising, in which an operating company issues a financial instrument, such as ordinary shares, to investors, in exchange for an investment in the enterprise. The seller is the company, and it receives cash to fund its business from the investors

### 4.5.1 Industry dynamics

The Australian financial services industry has grown substantially, but not evenly. Figure 59 shows the growth in employment in the three finance industry subsectors, highlighting the strong growth in employment in Auxiliary Financial Services (which includes funds management, securities trading, stock exchanges, and financial advice)<sup>76</sup> compared to average growth in Insurance & Superannuation and traditional Finance.

The growth in employment in these “auxiliary” areas of advice, like funds management and trading, has been so consistently strong that by 2012 it has 42 per cent more FTE employees than Insurance and Superannuation. Back in 1985, the Auxiliary Financial Services sector had about half the number FTE employees as Insurance and Superannuation.

Figure 59 – Employment by finance industry subsector, index, 1985=1



Source: Labour Force, Australia, Detailed, Quarterly, ABS 6291.0.55.003

### 4.5.2 Consequences for activity in the capital markets

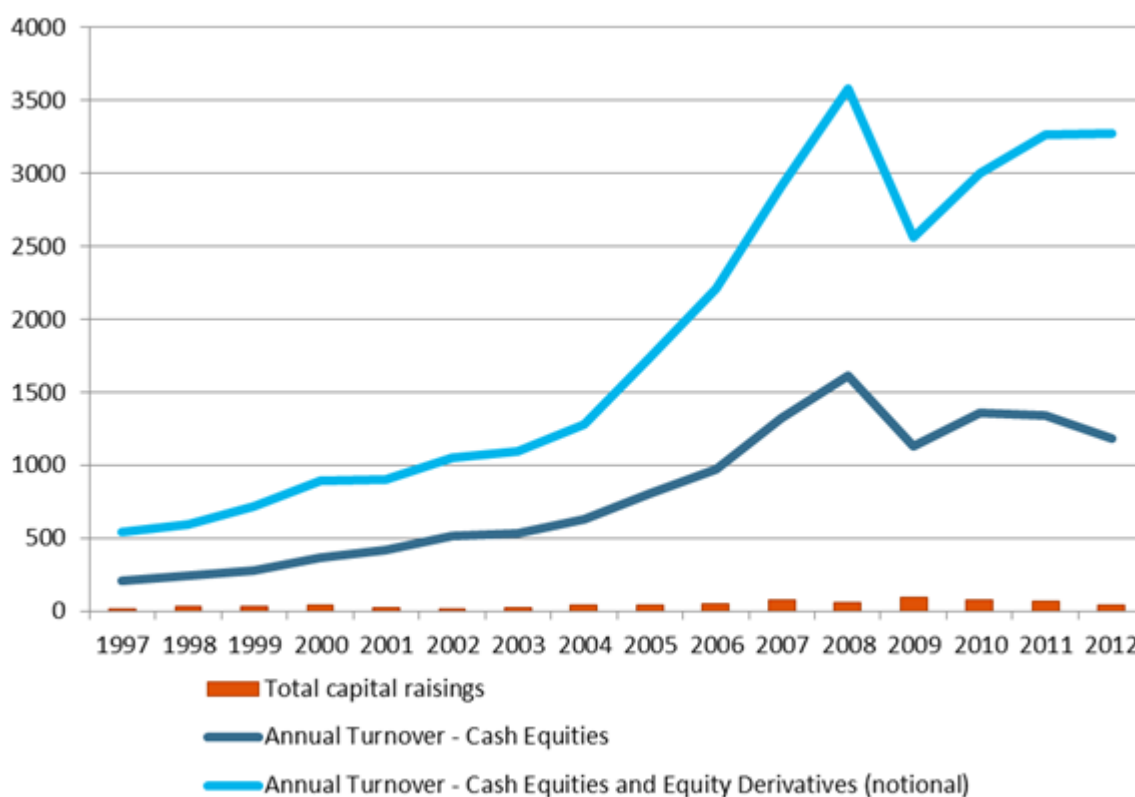
These changes in industry dynamics – an expansion of resources allocated to Auxiliary Financial Services, such as securities trading, financial advice, and funds management – find expression in how the financial system operates, and what kinds of activities it performs more of and what kinds of activities it performs less of.

As shown in Figure 60, there is a clear expansion in secondary market trading measured by the turnover of equities relative to equity capital raising. In the late 1990s, the ratio of cash equities trading turnover to total capital raisings was, on average, about 10:1. In other words, for every \$10 of trading activity, there was \$1 of public capital raising. By 2012, the relative amount of capital raising had decreased to about a third, such that there was \$28 of trading per dollar of capital raising. Put another way, as recently as the late 1990s, about 10 per cent of listed cash equities market activity related to raising new capital, but today less than four per cent of market activity relates to raising new capital, and the vast majority of activity relates to trading of previous issues.

<sup>76</sup> ABS (2006)

The emphasis on trading compared to capital raising is even greater if trading in equity derivatives is considered.<sup>77</sup> The ratio of trading (cash equities and derivatives) to capital raising in the late 1990s was 33:1. By 2012, the ratio had widened to a remarkable 77:1.

Figure 60 – Capital raisings and traded



Source: AFMA

Trading activity and liquidity are important features of well-organised financial markets since they facilitate the process of price formation.<sup>78</sup> Trading activity also can potentially help to reduce ambiguity faced by investors, and encourage efficient flows of capital. Trading activity also supports profits for brokers, traders, stock exchanges and other market centres. However, a well-functioning stock market must ultimately have a positive impact on the overall capital market, and capital formation. Policy makers should “be careful not to confuse what was best for their stock markets with what was best for their capital markets.”<sup>79</sup>

While liquidity and trading are not the same, there is some relationship; and increases in liquidity can reduce search costs and ease of ownership transfer. That said, increasing liquidity and trading can also

<sup>77</sup> Figure 60 includes on-exchange equity derivatives only

<sup>78</sup> However, the connection between price formation and facilitating long term investment may be more remote than traditionally believed:

“Another function of trading is the transmission of information within the market, an activity often described as ‘price discovery’. ...[F]rom the perspective of long-term decision-making by savers and companies, what matters is value discovery, i.e. activity which yields insight into the fundamental value of a company’s shares. ... Only the process of analysis can acquaint investors with the long-term prospects of a company, and only as a result of analysis will companies receive relevant signals from the market about the direction of the business.” Department for Business, Innovation & Skills and HM Treasury (2012) *The Kay Review Of UK Equity Markets And Long-Term Decision Making*, Final Report July 2012

<sup>79</sup> O’Hara (2007)

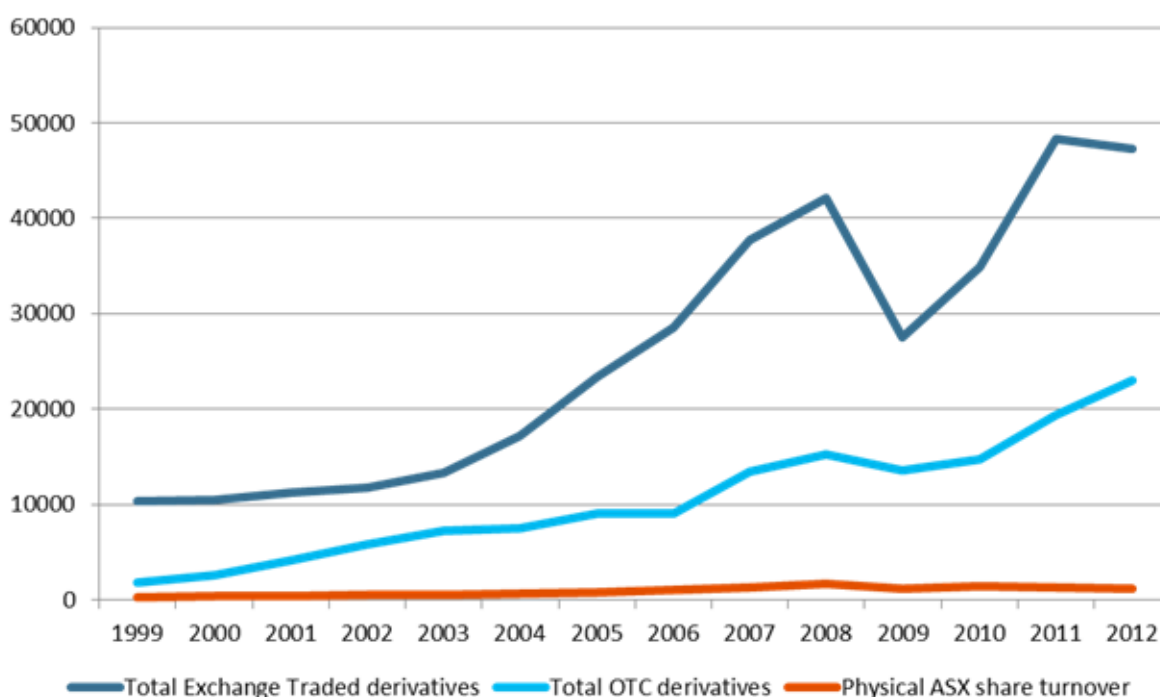
mean that the commitments to provide long-term capital and monitoring may diminish.<sup>80</sup> High levels of trading can also give rise to short-termism.

While some trading is necessary to assist the provision of liquidity to investors, current levels of trading activity exceed those necessary to support the core purposes of equity markets. ... The most important recent development in UK equity markets has been the simultaneous decline in new issuance by UK companies and growth in secondary market trading in existing securities of UK companies.<sup>81</sup>

Excessive secondary market trading could reasonably be expected to diminish the efficiency of the financial system in performing its capital formation role. “Every financial market absorbs private resources to operate, and government resources to police.”<sup>82</sup> Or, put differently “The existence of some trading activity assists the functions of markets. Trading provides investors with liquidity and may facilitate the dissemination of information among market participants. It is, however, a matter of simple arithmetic that any net profits from trading activity in aggregate are a cost to investors.”<sup>83</sup>

While the level of trading activity in listed equities has increased substantially, it should be noted that this phenomenon is not unique to listed equity. Figure 61 shows the relative level of trading in over-the-counter, and on-exchange derivatives, as well as the ASX cash equities turnover for comparison. The derivatives trading volumes relate to a range of assets, not just equities; nonetheless, the degree to which resources are allocated to trading activities, rather than capital formation, is plain.

Figure 61 – Derivatives turnover and cash equities turnover



Source: AFMA

<sup>80</sup> Bhidé (1993)

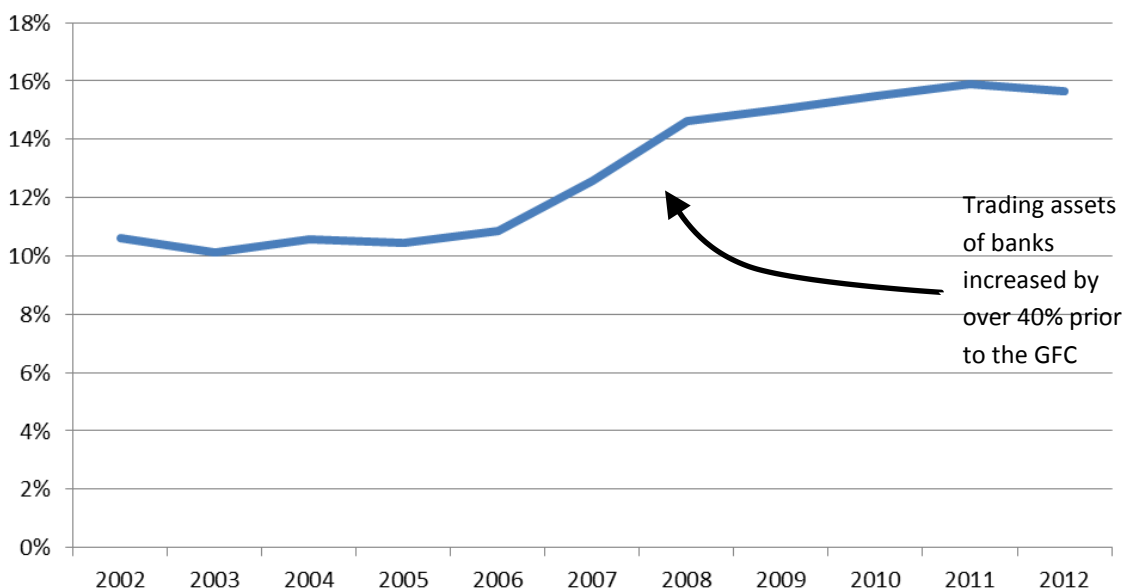
<sup>81</sup> Dpt for Business, Innovation & Skills and HM Treasury (2012) The Kay Review

<sup>82</sup> Tobin (1984)

<sup>83</sup> Dpt for Business, Innovation & Skills and HM Treasury (2012) The Kay Review

The trend in finance toward an emphasis on trading is also present in the activities of banks. In recent years the major banks have been expanding their trading books.<sup>84</sup> As shown in Figure 62, these assets as a per cent of total assets rose by 40 per cent between 2006 and 2008, in what may have been the early stages of a transition to the US and UK banking model prior to the global financial crisis. The major banks' relative allocation to trading assets has continued to increase in the wake of the GFC, but at a slower pace.

Figure 62 – Share of total bank assets held at fair value, %



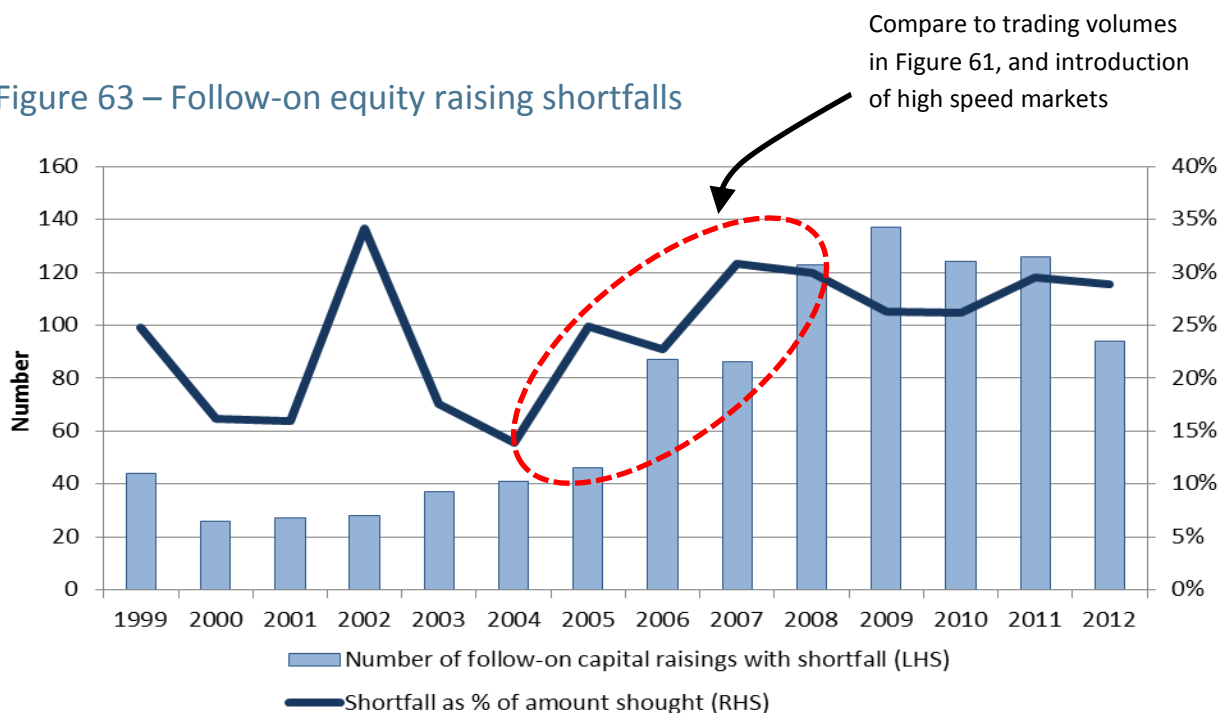
Source: APRA Monthly Banking Statistics

#### 4.5.3 Although trading is up, capital raising seems more difficult

While trading activity has increased, the use of capital markets for capital raising has declined and, according to many industry practitioners, seems more challenging for companies and investors seeking to finance economic activity. We find evidence for this view in the data regarding shortfalls in follow-on equity offerings by listed companies. Since the late 1990s, the number of follow-on offerings that have had a shortfall in the funds raised has displayed worrying trends (Figure 63). The amount of shortfalls can be as high as 30-35 per cent of the amount sought. The rapid growth in trading volume beginning around 2004 (Figure 60, above) corresponds with rising shortfalls and other difficulties.

<sup>84</sup> Assets held at 'fair-value' on the books of Australian banks are tradable assets and are indicative of the size of the banks' trading books

Figure 63 – Follow-on equity raising shortfalls



Source: Connect4, ISA estimates

There are positive and negative aspects of secondary market trading. In the case of the Australian capital markets, the expansion of trading activity has not clearly resulted in a capital market that is friendlier to capital raising, and indeed the opposite appears to have happened.

## 4.6 Reasons why finance may have become a drag on growth

### 4.6.1 Short-termism

Short-termism in business may be characterised both as a tendency to under-investment, whether in physical assets or in intangibles such as product development, employee skills and reputation with customers, and as hyperactive behaviour by executives whose corporate strategy focuses on restructuring, financial re-engineering or mergers and acquisitions at the expense of developing the fundamental operational capabilities of the business.<sup>85</sup>

Short-termism is a well-recognised problem in the UK, the US, and increasingly in Australia.<sup>86</sup>

The twin goals of capital markets - to operate and sustain high performing companies and to earn good returns for savers without undue risk - are essentially identical propositions. In the long run, the profits earned by high performing companies are the only source of returns for savers who invest in them.<sup>87</sup>

The UK, the US, and the OECD countries overall have had declining levels of investment to GDP. Australia shows a similar pattern if the effects of the mining investment boom are removed, as shown in Figure 64.

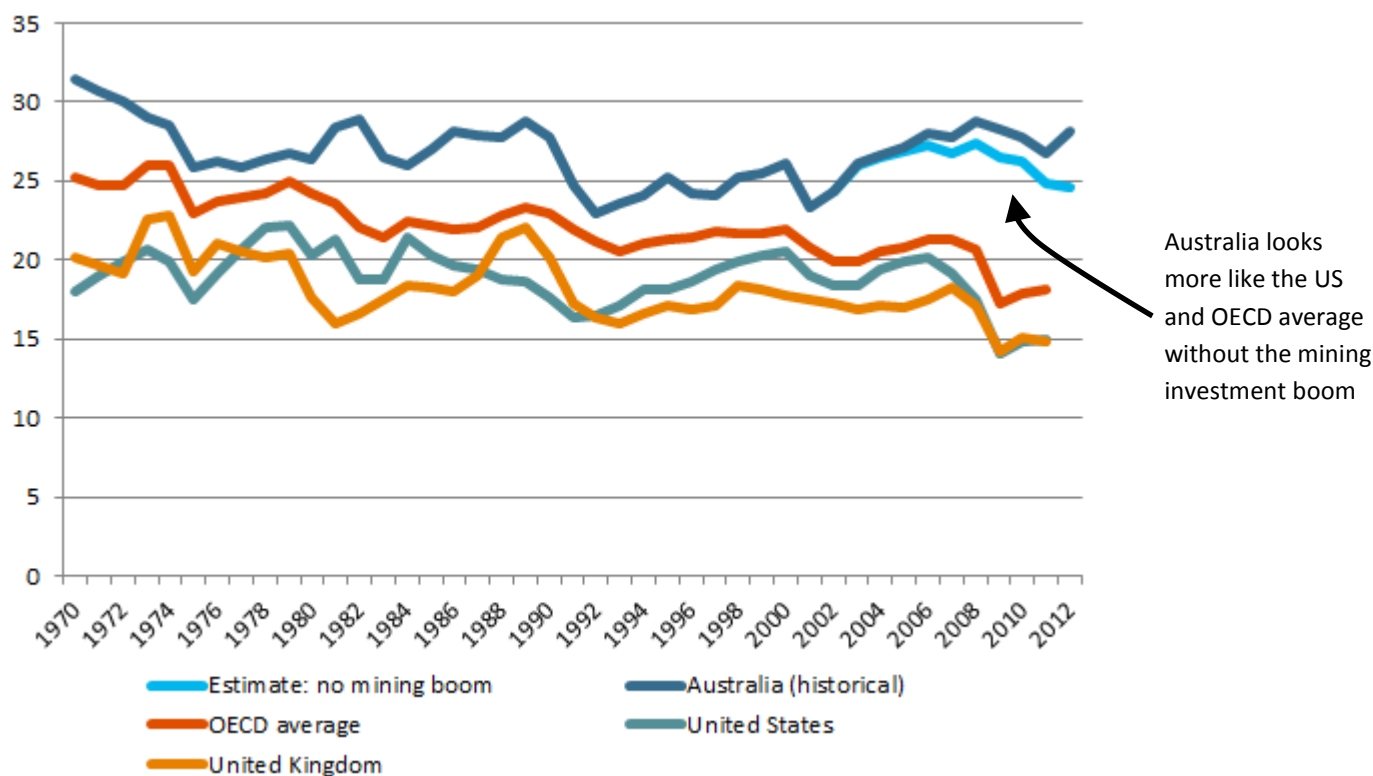
<sup>85</sup> UK Department for Business, Innovation and Skills, Final Report (July 2012). UK equity markets and long-term decision making (The Kay Review)

<sup>86</sup> See, e.g., Business Council of Australia (2004), Beyond the Horizon – Short-termism in Australia: a call to think into the future

<sup>87</sup> Kay Review at 14



Figure 64 – Capital formation to GDP ratios, %, selected countries



Source: National Accounts, ABS 5204.0, OECD, and ISA estimates

It is neither accurate nor sufficient to interpret these declining investment levels as evidence that there are few good opportunities for companies and investors to invest in capital in Australia or the OECD. It is a critical point worth underscoring:

The ability of companies to find profitable investments in tangible assets [and other fixed capital] depends mainly on their earlier investment in intangible assets – the skills, capabilities, brands and reputations that are the source of competitive advantage for businesses and national economies.<sup>88</sup>

Accordingly, it is not appropriate to conclude that the level of capital expenditure and investment in Australia is necessarily optimal, simply because many large companies in Australia and other advanced economies can fund their operations and expansion through revenue. The level of investment by operating companies may be adequate at an economy-wide level (given growth objectives) and corporate unwillingness or inability to tap markets – especially equity markets – for expanded project and business funding should be addressed. Otherwise, capital allocation decisions will be constrained by financing limitations, even if operating company management (perhaps impacted by short-termism) believe retained earnings are adequate to fund identified capital expenditure.

Short-termism, the tendency to overweigh near-term outcomes relative to future long-term growth opportunities, seems a likely culprit for the above phenomenon. Empirical evidence suggests that future cash-flows are discounted heavily,<sup>89</sup> and listed firms reject positive long-term investment projects in favour of short-term earnings.<sup>90</sup>

<sup>88</sup> Id. at 15

<sup>89</sup> Poterba, J. M., & Summers, L. H. (1995). A CEO survey of US companies' time horizons and hurdle rates. *Sloan Management Review*, 37, 43-43.

<sup>90</sup> Graham, J. R., Harvey, C. R., & Rajgopal, S. (2005). The economic implications of corporate financial reporting. *Journal of accounting and economics*, 40(1), 3-73.

The effects of short-termist behaviour are serious at both firm and national levels. It can materially affect “the rates of investment by companies and the stock of capital whether physical or human<sup>91</sup>.” This would have important implications for countries’ future growth rates. The stock of capital at listed firms could be much higher if short-termism were reduced. Moreover, estimates of the effects of short termism indicate that output could be 20 per cent higher in a more long-term focused environment.<sup>92</sup>

Conversely, empirical research has established that long-term investors have a positive influence on operating companies’ investment decisions and performance. Firms with long-term investors are less likely to cut R&D to manage their short-term earnings.<sup>93</sup> These firms also experience lower level of volatility when there are variations in earning expectations and results.<sup>94</sup> The stability and long-term focus from investors are also rewarded in the marketplace. In M&A cases, firms held by long-term investors receive significantly higher premiums.<sup>95</sup>

There are a range of factors that have driven short-termism. These include:

- *Incentives:* There is a bias towards action and trading found at almost every point in the chain by which savings is transformed into investment. An emphasis on developing liquidity in financial instruments has reduced the incentives for some investors to engage with the companies in which they are invested. Company management is under pressure to frequently report financial performance, emphasising relatively short-term periodic measures rather than long-term value creation. Funds manager remuneration and the basis on which they are monitored by many asset holders, and by advisers to asset holders and retail investors is often short-term relative performance. There are second order incentives as well for “action:” “Corporate executives find that they can make a visible difference to the shape and perhaps performance of their companies by reorganisations, acquisitions and disposals; traders and market makers earn returns which are closely related to the volume of activity in the securities in which they deal; analysts are rewarded for the narratives they provide that generate buy or sell recommendations; investment bankers and advisers derive earnings from transactions; independent financial advisers have traditionally been rewarded by commissions and ... are more likely to be willing to pay for advice to do something than for advice to do nothing. Many people in the financial services industry who claim to be in the business of providing advice are in fact in the business of making sales.”<sup>96</sup>
- *Behavioural dispositions and cognitive limitations.* These factors can lead to decisions which are not “rational” or do not correctly reflect the long-term interests of the decision maker. “People may be unduly optimistic about their ability to pick outperforming stocks, identify talented asset managers, or obtain useful information about the capabilities of agents through ‘beauty parades’. If the information we would like is not available, we may attach undue significance to the information we have. Anchoring is a tendency to deal with copious but imperfect information – noise – by seizing on, and perhaps building narratives around, data which appears salient but may have little relevance to the point at issue. Loss aversion is an inclination to attach more weight to losses than to equivalent gains. Because there are substantial elements of randomness in short-term price movements, even someone who

<sup>91</sup> Davies, R. & Haldane, A. & Nielse, M., Pezzini, S. (2013) Measuring the costs of short-termism. *Journal of Financial Stability*

<sup>92</sup> Id.

<sup>93</sup> Bushee, B. J. (1998). Investors on Myopic R&D. *The accounting review*, 73(3), 305-333

<sup>94</sup> Hotchkiss, E. S., & Strickland, D. (2000). Does shareholder composition affect stock returns? Evidence from corporate earnings announcements. Unpublished working paper. Boston College, Boston, MA and Ohio State University, Columbus, OH

<sup>95</sup> Gaspar, J. M., Massa, M., & Matos, P. (2005). Shareholder investment horizons and the market for corporate control. *Journal of Financial Economics*, 76(1), 135-165

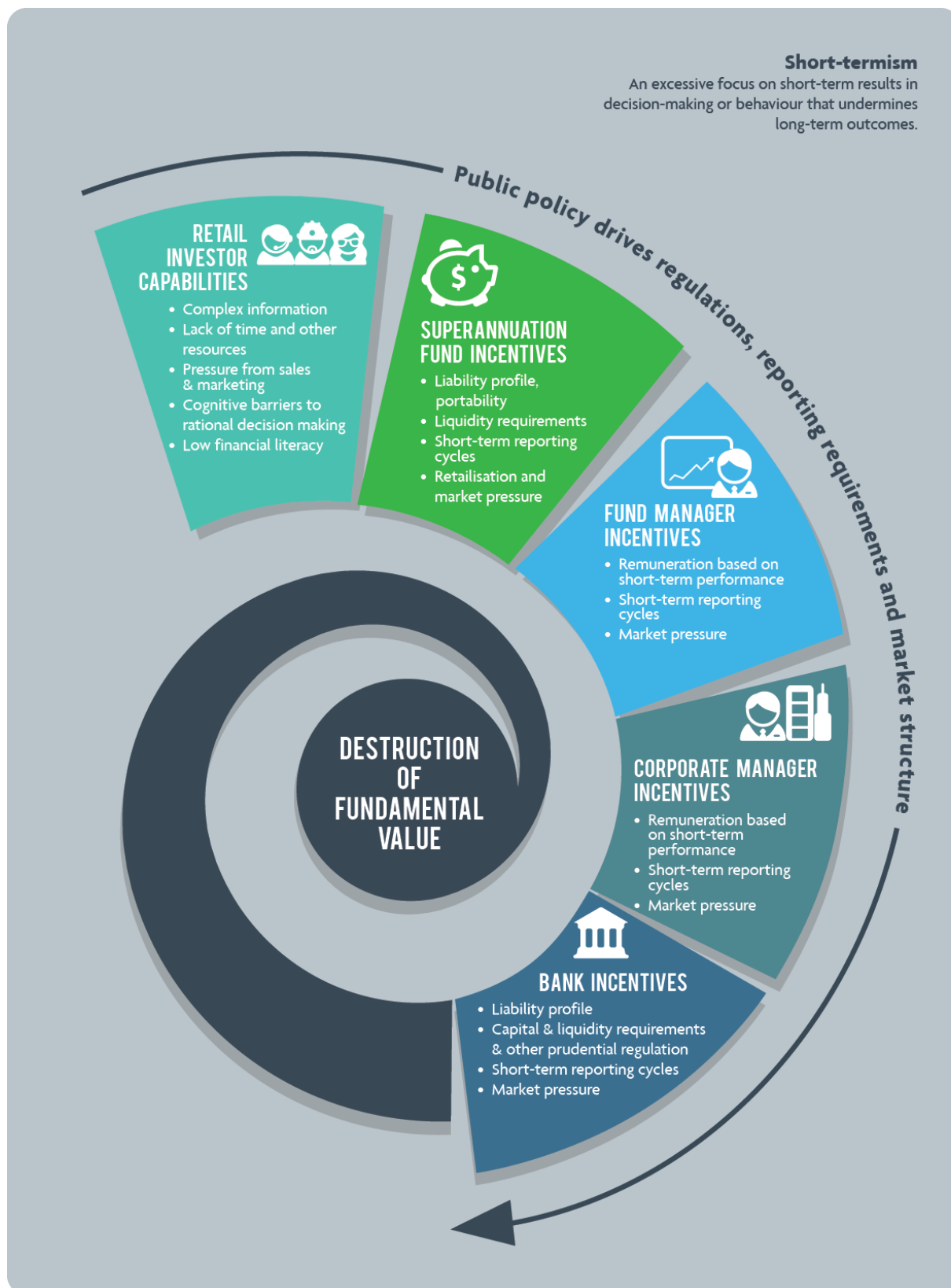
<sup>96</sup> Kay Review at 35

makes money in speculative markets in the long run will lose money on many days. Optimism bias, anchoring and loss aversion have been widely documented in human behaviour generally, and in business and financial contexts specifically.”<sup>97</sup>

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<sup>97</sup> Id

Figure 65 – Drivers of short-termism



The Australian evidence of short-termism includes not only the declining levels of investment to GDP (after removing the mining investment boom) as shown in Figure 64, but also:

- Declining average holding period in the listed equity markets: The average holding period for Australian shares dramatically reduced from around six years in late 1986 to less than one year in 2011.<sup>98</sup> More than 70 per cent of Australian investors hold shares for less than five years according to the latest report from the Australian Stock Exchange.<sup>99</sup>
- Greater volatility: the three-year rolling volatility for the Australian stock market increased significantly in the period leading up to the dotcom crash in 2000 to around 13 per cent and shot to 25-30 per cent in the period around the GFC. Overall, the Australian market has experienced a higher level of volatility. In 2003, volatility was at around 7 per cent, and at the end of 2012, the level of volatility was 15-17 per cent.<sup>100</sup>
- Opinions within the business community: Australian corporate managers are viewed as being under growing pressure to deliver short-term results. Furthermore, the existence of short-termism in corporate managers, investors and the public sector would be a “potential constraint on long-term value creation.”<sup>101</sup>

#### 4.6.2 Regulatory capital

Regulatory capital requirements that are implemented at the asset level, and based on risk-weighting, affect the asset-level decisions made by banks.

This is analysed above at Figure 54 and the related text. The introduction of Basel I (along with banking deregulation) resulted in significant credit growth, and resulted in credit growth of particular kinds: mortgages and consumer credit. This phenomenon extended through the implementation of Basel II and we anticipate similar effects on bank lending under Basel III. Regulatory capital based on risk-weighted assets has played a role in the shift of bank lending to financing for existing housing stock. Figure 66 shows the approximate level of capital held against certain categories of bank loans, indicating that mortgages are some of the most attractive assets from a capital perspective for banks.

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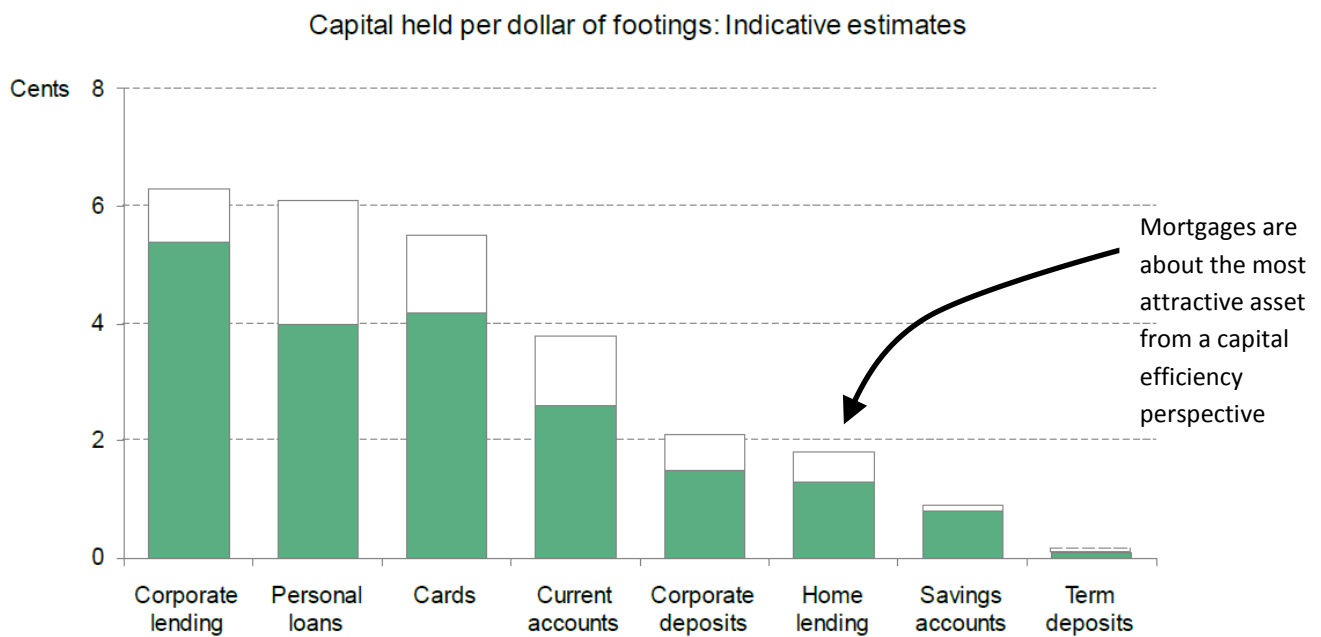
<sup>98</sup> Arnold, M. & Orthman, J. (2011) The Economic Costs of Short-termism. Hyperion Asset Management

<sup>99</sup> Australian Stock Exchange (2013). Australian Share Ownership

<sup>100</sup> See, e.g., Vanguard, (2012). The role of Australian equities and the impact of home country equity bias, Figure 8

<sup>101</sup> Business Council of Australia (2004). Beyond the horizon. Short-termism in Australia: a call to think into the future

Figure 66 – Cents of Regulatory Capital per Dollar of Footing, 2013

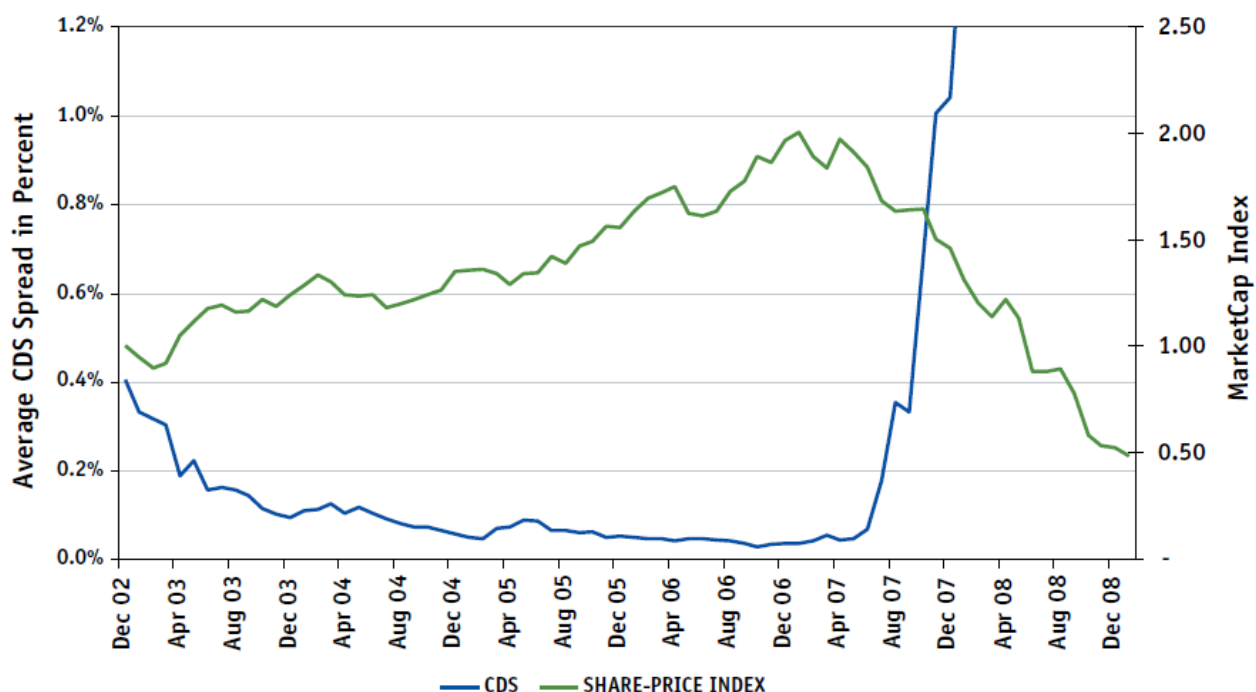


Source: BCG global benchmarks, BCG estimates; UBS

Source: BCG

Market discipline is an alternative to regulatory capital based primarily on risk-weighting. Market discipline may even provide false signals insofar as banks are large and have operations that are opaque. Figure 67 shows the market signals about the safety and soundness of financial institutions during the GFC. Not only did the market signals fail to meaningfully predict the fragility of the institutions, they became procyclical drivers after sentiment shifted.

Figure 67 – Composite time series of select financial firms' CDS and share prices



Firms included: Ambac, Aviva, Banco Santander, Barclays, Berkshire Hathaway, Bradford & Bingley, Citigroup, Deutsche Bank, Fortis, HBOS, Lehman Brothers, Merrill Lynch, Morgan Stanley, National Australia Bank, Royal Bank of Scotland and UBS

CDS series peaks at 6.54% in September 2008.

Source: Moody's KMV, FSA calculations

Source: UK Financial Services Authority (2009)

#### 4.6.3 Human capital, and markets as a guide for decisions rather than a place to execute them

The perceived profitability of developing and selling a strategy or an auxiliary product or service, on an existing asset or financial measure is higher than it is to make judgments about forward-looking financing opportunities. Relatedly, due to theory and public policy, practitioners make decisions based on analysis of historical information. This is much easier to do for existing capital in conforming asset classes than it is for new capital and alternative asset classes.

This has catalysed a negative feedback loop in which fixed and human capital has been developed that specialises in the analysis and development of new financial products based on historical information, and the sales of such products. As a result, the cost of human capital for those kinds of activities becomes relatively less expensive than it otherwise would be (though it is still increasing in absolute terms). Developing technology and human capital that is targeted on relaxing the financing constraints on fixed capital formation is needed to break this trend.

##### 4.6.3.1 Human capital: is finance crowding out engineering and other useful development?

Some of the recent research on the real economic effects of the growth of finance finds that finance "crowds out" other kinds of economic activity with higher utility.<sup>102</sup>

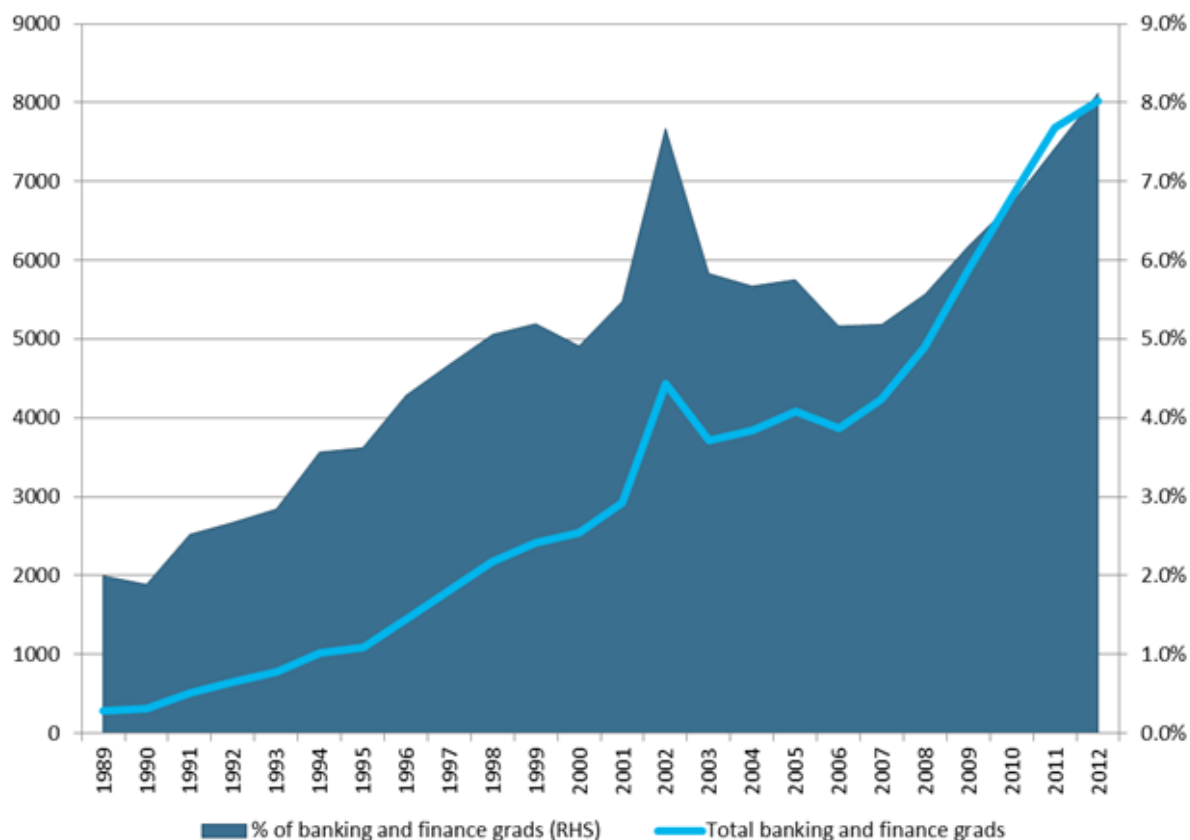
<sup>102</sup> See, Cecchetti and Kharroubi (2013)

We conducted a preliminary analysis of whether this phenomenon is occurring in Australia.

We find some evidence consistent with the “crowding out” hypothesis.

The number of banking and finance graduates has increased substantially since 1989 (Figure 68). The proportion of business and commerce students in banking and finance displays a similar trend.

Figure 68 – Banking and finance graduates, levels and %



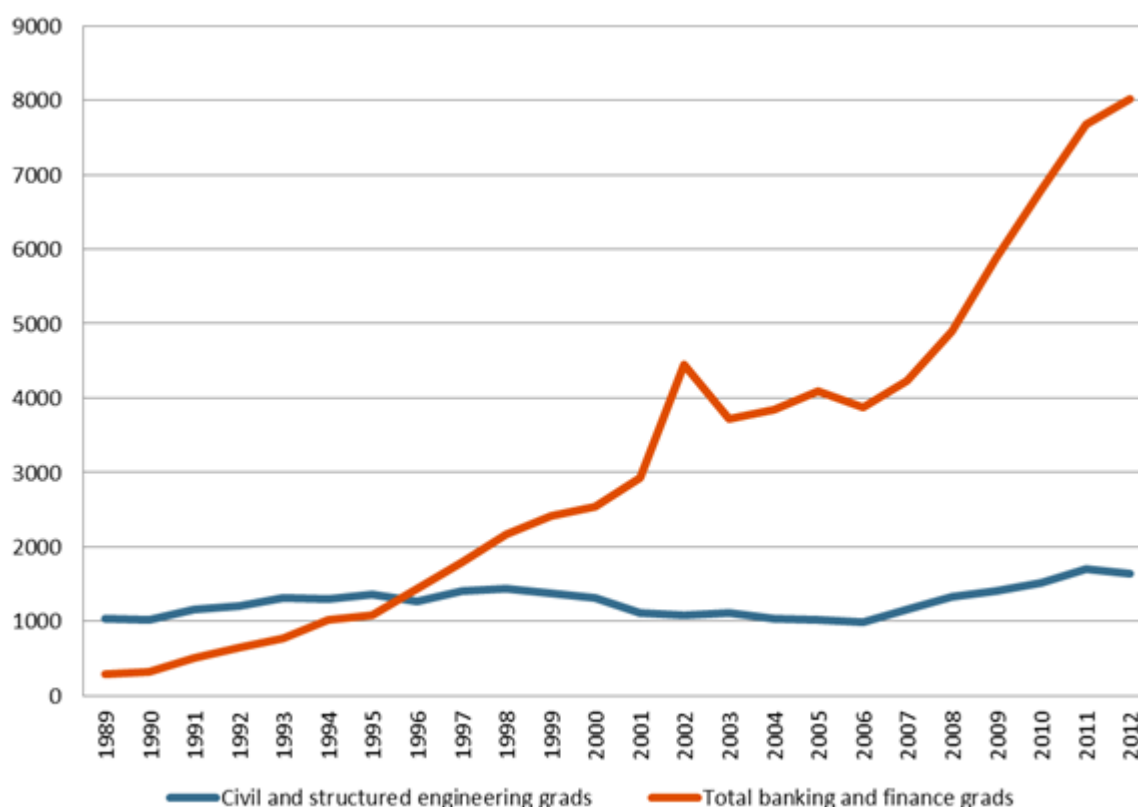
Source: Department of Industry. Higher Education statistics<sup>103</sup>

The number of finance graduates has grown much faster than the number of engineering graduates. The trend for engineering graduates has been stable for more than 20 years (Figure 69).

<sup>103</sup> The banking and finance graduate series is part of the Business, Administration, Economics (prior to 2001) Management and Commerce series (from 2001 until now). The series present the number of graduates each year, sorted by fields of study



Figure 69 – Engineering graduates, finance graduates



Source: Department of Industry. Higher Education statistics<sup>104</sup>

The above trend indicates a possible imbalance in the economy. There is evidence of skill shortage in engineering. There are a number of engineering occupations appearing in The Skilled Occupation List in 2013, which details the demand of Australia for skilled immigrants for a selected number of occupations due to a shortage in domestic supply.

#### 4.6.4 Hyperactive retailisation

Savings – and therefore investment – occurs in the household sector and the business sector. The manner in which households, in particular, make investments can profoundly affect the way in which savings are mobilised for investment in capital.

Households can invest directly. This would generally be in secondary markets involving little measurable effect on new capital formation, due to information collection costs, information asymmetry, and the cost to issuers of disclosure requirements, offering process requirements, and overcoming collective action problems). Households can also invest through an intermediary, in which case the household decision is in regard to the provider (e.g., which super fund, or which managed fund), and, depending on the level of individual direction, the strategy and nature of the investments.

There are different ways in which the household investment decision process can happen. In general there are two models:

- Structured choice (well-considered default choices are presented to individuals in a manner designed to facilitate careful decision-making that is in their best interests)

<sup>104</sup> The banking and finance graduate series is part of the Business, Administration, Economics (prior to 2001) Management and Commerce series (from 2001 until now). The series present the number of graduates each year, sorted by fields of study

- Hyperactive retail (the structure of the choices individuals make is the outcome of product providers, consistent with the maxim that financial products are “sold not bought.”)

Financial services choices are almost entirely made within the hyperactive retail environment. This is no doubt a driver of short-termism, because the profit interests of individual financial institutions – to increase assets under management or transaction-based fees – drives action by consumers.

The “structured choice” model was largely reduced to disclosure regulation in financial services for historical and philosophical beliefs that emerged in the 1980s and were largely if not entirely embraced in Australia in the 1990s. The evolution and consequences of regulatory philosophy are discussed in more detail in Section 7.

The hyperactive retail model drives inefficiency in finance for at least three reasons.

- First, it results in suboptimal decisions by consumers as discussed in Sections 7.4, and 9.1.
- Second, it creates externalities resulting in short-termist pressure on other participants in the financial markets whose inclinations lie in other directions (such as super fund trustees) and in operating company management.
- Third, a hyperactive retail model is expensive, with significant costs in terms of advertising, sales, customer interaction, and administration. Figure 70 shows the advertising, administrative, and support costs involved in retail financial services under the existing model. For a major retail banking business, the total costs are roughly in the range of two to three billion dollars per year on average. For Wealth Management, the total costs are roughly in the range of one to one and one-half billion dollars per year, on average. For comparison, the total operational expenses (including advertising, administrative, and similar costs) for an average major not-for-profit super fund are only about ten per cent of this, coming in at under \$145 million per year.<sup>105</sup>

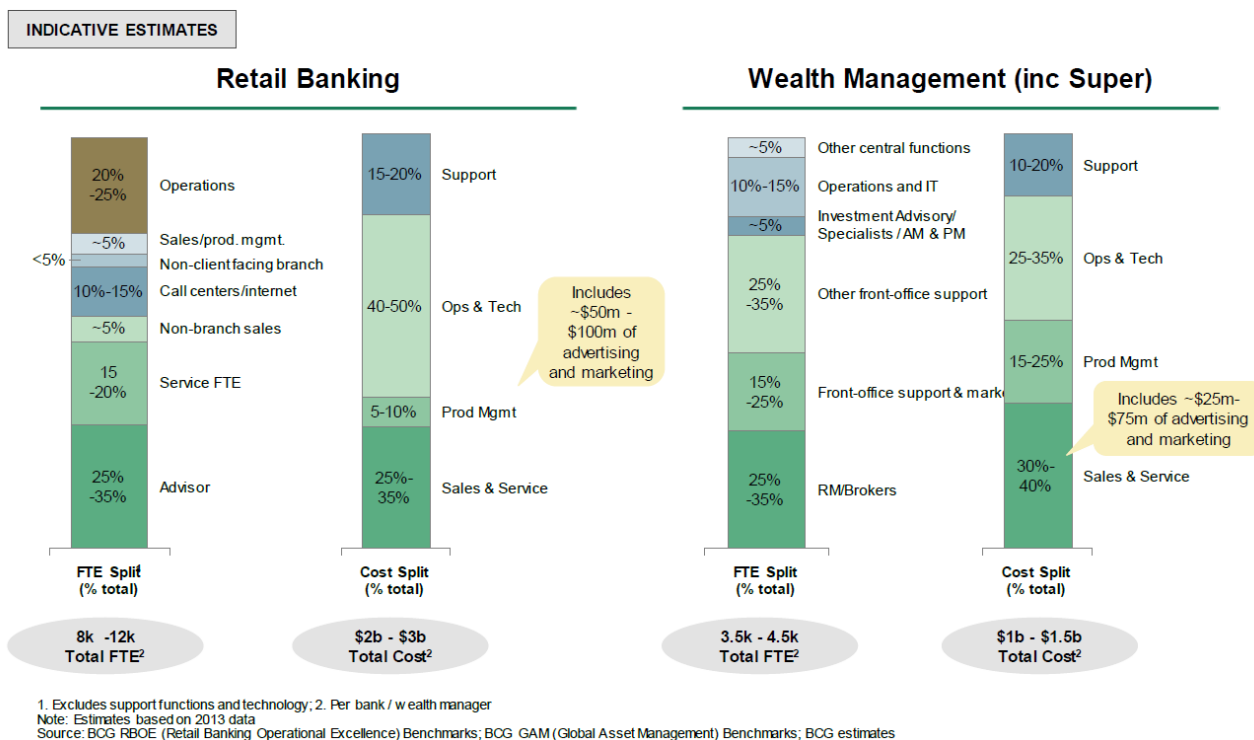
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<sup>105</sup> See, APRA Fund Level Reports 2012-2013 (operating expenses include expenses incurred which are not ordinarily directly associated with the generation of investment income (i.e. expenses that are not directly related to the investment portfolio of the superannuation entity, but more toward the administration of the superannuation entity)).

Because these operating expenses are not decomposed, it is difficult to make direct comparisons or to specifically identify the underlying reasons for such significant differences between the indicative estimates of an average retail financial institution and an average major not-for-profit superannuation fund.

Insofar as costs are a function of an institution’s assets, this may explain some of the differences.

Figure 70 – Retail financial services costings (average major institution)



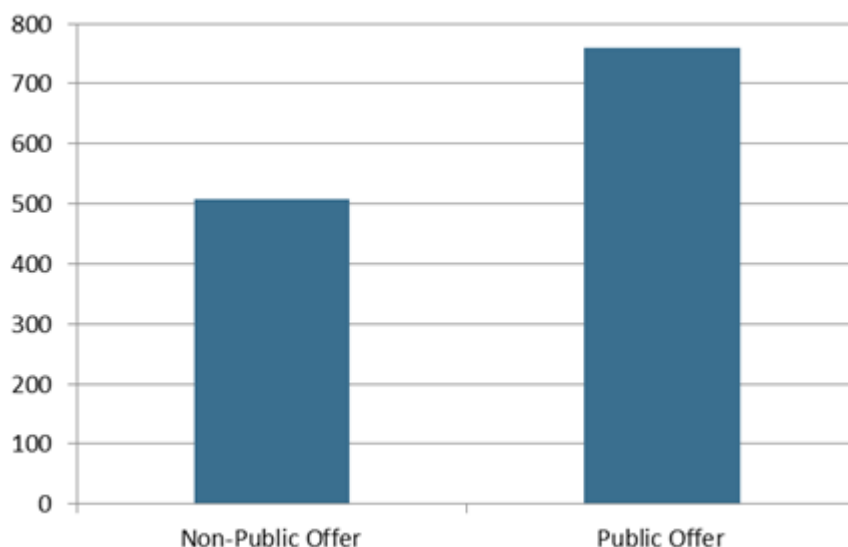
Source: BCG

The costs of hyperactive retailisation in superannuation can also be seen through an analysis of the costs of public offer relative to non-public offer funds.

Some superannuation funds are not open to the public and do not engage in a retail environment (but do need to provide quality administration, investment, and other services). By comparing the administrative, operating, and marketing costs of these funds (i.e., non-public offer funds) to funds that are public offer enables an analysis of the costs of retailisation.

Figure 71 shows the average annual fees for similar public offer and non-public offer funds between 2008 and 2013 (public sector and corporate sector funds have been excluded as their fees are heavily subsidised by their sponsoring institution; were they included the disparity between public offer and non-public offer would be even greater). The fees shown are calculated on an account balance of \$50,000. The figure demonstrates that the fees (on a \$50,000 balance) for public offer funds have been 50 per cent higher than those for non-public offer funds between 2008 and 2013 (\$761 per year compared to \$507 per year).

Figure 71 – Costs and hyperactive retailisation



Source: SuperRatings

## 4.7 What if finance was more efficient?

ISA has performed a simple analysis of the effects on capital formation and productivity if the financial system were more efficient at facilitating capital formation.

Our central finding is that if Australia's financial system regained the level of efficiency at capital formation it had on average during the 1980s and 1990s, we could achieve major improvements in productivity:

- A productivity increase estimated to be 3.9 per cent.
- Productivity would lift from current three-year average levels of about \$74.60 of real GDP per hour worked to about \$77.50 of real GDP per hour worked.
- With these productivity impacts, current levels of GDP could be achieved with fewer hours of work. Expressed in this way, the savings in hours worked is 8.5 days per year for an average full-time employee.
- We would also see a boost to labour productivity growth of about 0.3 per cent per year. This would, by itself, fill a large part of the productivity growth gap between the 1.6 per cent growth per year projected by Treasury (2010) in the *Australia to 2050: future challenges* intergenerational report, and the two per cent per year productivity growth level sought for in that report.

## 5. Superannuation and its role in public policy and the economy

Since the inception of the SG, the system has gone from strength to strength. Today the superannuation system comprises over 1.8 trillion<sup>106</sup> in assets and this is estimated to exceed 7 trillion by 2033.<sup>107</sup>

Australia is one of the few countries where pension assets are worth more than GDP. This growth has allowed superannuation to support retirement incomes, with superannuation benefit payments now at more than double age pension expenditures. Over time, the payment of retirement benefits by the

<sup>106</sup> APRA, Quarterly Superannuation Performance, December 2013

<sup>107</sup> Deloitte, Dynamics of the Australian Superannuation System: The next 20 years, September 2013

superannuation system will continue to outpace the age pension. Aside from the provision of retirement income, superannuation investment has substantially diversified the assets of Australian households, particularly for households in the middle of the wealth spectrum.

The superannuation system has become much more than just a retirement savings vehicle. During the recent global financial crisis, Australia's superannuation system acted as a critical pool of capital in the economy. In doing so, the Australian superannuation system provided liquidity and bolstered confidence, asserting itself as an important macroeconomic stabiliser.

The superannuation system is also a significant contributor to innovation and capital deepening in the Australian economy. As members' contributions are received they are invested back into the economy in a multitude of ways, supporting growth and jobs.

## 5.1 Social policy

Superannuation is one of Australia's public policy success stories.

Superannuation is primarily a fixture of Australian social policy, specifically to support the wellbeing of the aged. This policy is delivered through a combination of three pillars (The means-tested Age Pension, the superannuation system, and private savings), and is widely regarded as one of the better systems in the world. In the 1980s, Australia had the highest rate of elderly poverty in the OECD. With the introduction of the Superannuation Guarantee and improvements to the Age Pension, Australia has improved considerably. However, Australia still has aged poverty rates above the OECD average.<sup>108</sup>

Prior to the introduction of the Superannuation Guarantee in 1992 and the National Wage Case decisions that preceded it, superannuation was the preserve of a minority of Australian workers who were employed in the public sector or who were highly paid executives in the private sector. Today almost all Australian workers can look forward to a better standard of living than can be provided by the Age Pension alone.

Today, superannuation is growing, and will achieve over \$6 trillion in assets by 2030. Moreover, although the superannuation system is still decades from maturity, it is providing retirement benefits that already are more than double the benefit payments by the Age Pension. Benefit payments will increase substantially as workers who have been covered by the Superannuation Guarantee for longer approach retirement, and as the Superannuation Guarantee reaches 12 per cent.

Superannuation also interacts with the financial system, primarily as a source of savings for investment. The superannuation system has boosted financial stability: it acted as a macroeconomic stabiliser and deleveraged companies in the GFC. And the superannuation system is investing in the real economy, with significant investment in infrastructure, real property, and private equity. But the superannuation system is defined by its social policy objective: if the system does not improve the wellbeing of older Australians when mature, no amount of useful participation in financial services would prevent its reform.

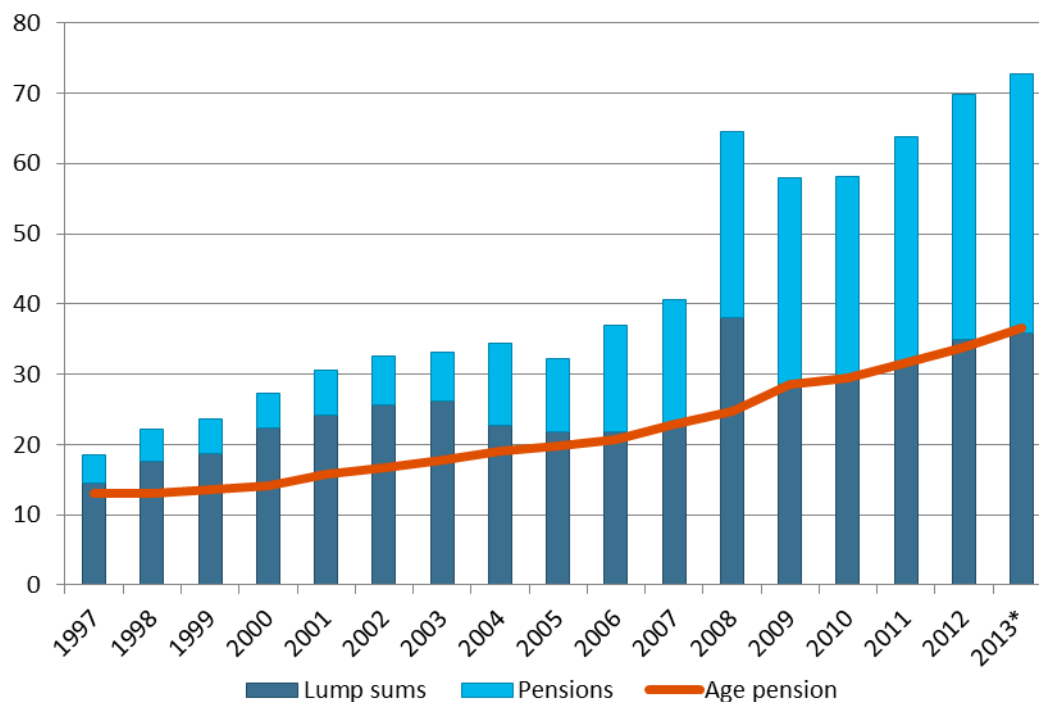
## 5.2 Retirement benefits

The superannuation system is already an important source of retirement benefits for Australians. Benefits paid in financial year 2012/13 were approximately \$72 billion – consisting in roughly equal measure of lump sums and income stream payments. This is around double the \$36 billion in expenditure for the age pension in the same year as shown in Figure 72.

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<sup>108</sup> Zaidi, A. (2009), Poverty and Income of Older People in OECD Countries, Bank of Italy, Pension Reform, Fiscal Policy and Economic Performance Workshop, collected papers. (Analysing poverty across OECD countries measured by the percentage of persons aged 66 and above with disposable income below 50 per cent of the median)

Figure 72 – Superannuation benefits paid per year, \$ billions

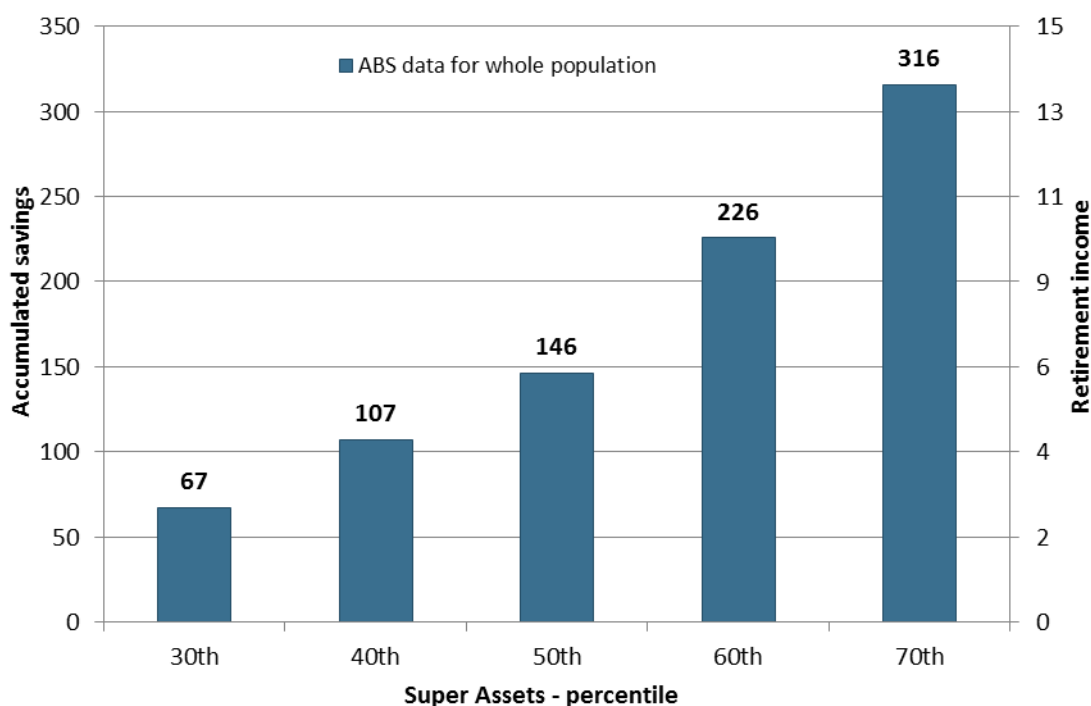


Source: APRA (2013), Parliamentary Library (2009), DHS (2013) \*The 2013 figure is based on benefits in APRA-regulated funds, grossed up to include an estimate for benefits in SMSFs.

For beneficiaries nearing retirement age, superannuation account balances are estimated to average about \$146,000 per person. The boost to retirement income potential, even for those at the lower end of this range, is material to the recipients. This level of retirement savings can translate into an income stream of around \$6,600 per year, as shown in Figure 73.<sup>109</sup> Income streams at these levels represent a boost to income from the age pension of about 10 to 20 per cent. These amounts can substantially improve wellbeing in retirement, and are only expected to increase as the superannuation system matures and compulsory contribution levels step to 12 per cent. In addition, and unlike the Age Pension, superannuation is available as a lump sum to fund lumpy expenditures, as a contingency for financial need or for bequest, particularly for those who do not live to advanced old age.

<sup>109</sup> The income stream projections were calculated by ASIC's *Moneysmart Retirement Planner*, in respect of a male, who is a home owner, has no partner, and otherwise with the standard assumptions (in terms of personal assets, investments outside super, returns, inflation and fees), except living standards after retirement were assumed to remain constant, rather than rise. Note: Moneysmart uses a default inflation rate of 3.5% p.a. to reflect both cost of living and rising community standards. Rate of return for Moderate investment allocation is 6.4% p.a. and term is 25 years (65 – 90)

Figure 73 – Member balances and estimated retirement income boost for 60-65 years old, December 2013<sup>110</sup>



Source: ISA analysis based on data from ABS (HILDA microdata, 2012)

The distribution of superannuation assets, as with other forms of wealth, is skewed upwards, particularly in the older demographic. This is not only because of different levels of income resulting in different levels of contributions. It is also, in part, because many of the workers in this group have only had the benefit of employer superannuation contributions for a relatively small proportion of their working lives, and generally have been less able to make additional voluntary personal contributions. Over time, the combination of universal coverage, concessional contribution caps, and increased compulsory contributions, should reduce some of the inequities present in the superannuation system.

### 5.2.1 Tax incentives and mandates for retirement savings

Individual retirement savings in Australia are supported through public policy, including tax concessions and mandates. The preferred treatment of retirement savings compared to other savings is justified because of the mandatory nature of the Superannuation Guarantee (SG) and because of preservation requirements, as shown in Figure 74. The relatively higher tax concessions for super have boosted retirement incomes as shown in Figure 72; without these concessions, discretionary savings would move into non-preserved classes. This would erode the effort to achieve self-funded retirement, with significant public budget effects.

<sup>110</sup> ABS data is for 2010, grossed up to reflect contributions and investment returns between 2010 and 2013. ISF data is for 2012, grossed up to reflect contributions and investment returns during 2013

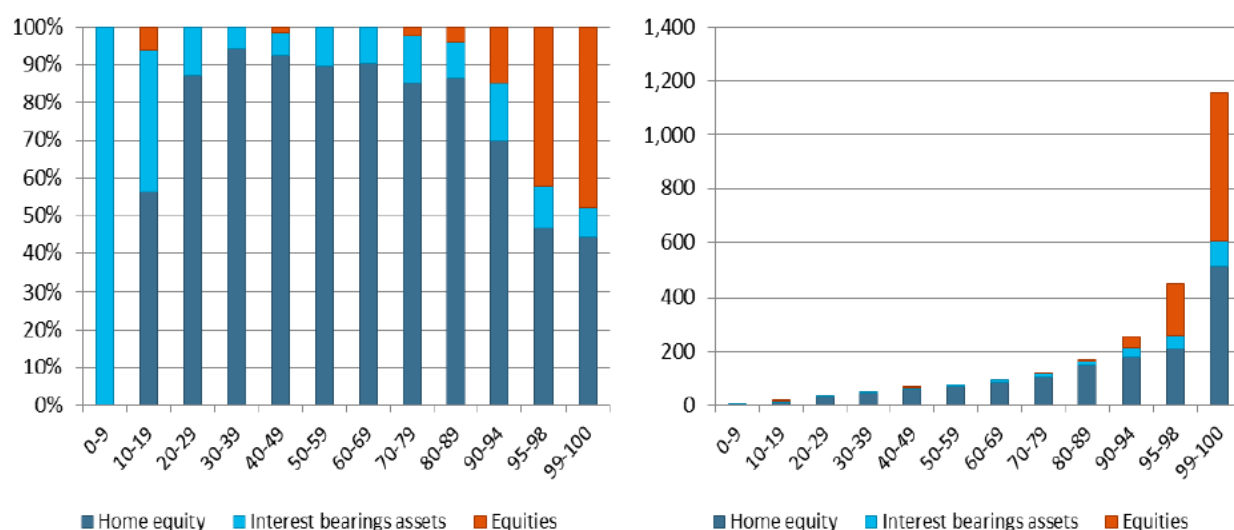
Figure 74 – Table of savings channels

Product	Description	Provider	Eligibility criteria	Thresholds	Tax treatment	Withdrawal restrictions
Savings account	<ul style="list-style-type: none"> <li>Transaction account</li> <li>May be a joint account</li> </ul>	Authorised deposit taking institutions (ADIs)	No restrictions	No thresholds	Interest earned is treated as income for taxation purposes and taxed at the marginal tax rate	<ul style="list-style-type: none"> <li>No restrictions</li> </ul>
Term deposits	<ul style="list-style-type: none"> <li>Deposits fixed for a specified term</li> </ul>	ADIs (for retail)	No restrictions	Thresholds may apply to individual products	Interest earned is treated as income for taxation purposes and taxed at the marginal tax rate	<ul style="list-style-type: none"> <li>Term restrictions apply though generally able to break the contract subject to interest surrender conditions</li> </ul>
First home savers account	<ul style="list-style-type: none"> <li>Minimum post-tax contribution of \$1000 for 4 years (not necessarily consecutive) before the account can be accessed</li> <li>Government co-contribution of 17% on the first \$6000 of contributions</li> <li>Individual accounts only</li> </ul>	ADIs	Eligible to be a first home owner	Maximum account balance of \$90,000 (indexed).	<ul style="list-style-type: none"> <li>Contributions are post tax (subject to marginal tax rates)</li> <li>15% tax on interest earned (including interest on co-contributions amount).</li> </ul>	<ul style="list-style-type: none"> <li>Must be used to purchase first home; or</li> <li>Rolled into superannuation (subject to non-concessional contributions cap) and accessed when conditions of release are met.</li> </ul>
Retirement savings account	<ul style="list-style-type: none"> <li>Capital guaranteed (no negative interest expense) superannuation account invested in a fixed or floating cash option.</li> </ul>	ADIs and Life companies	Eligible for superannuation	<ul style="list-style-type: none"> <li>No caps for account balance though rules apply for account balances under \$1000</li> <li>Contribution cap rules apply consistent with superannuation.</li> </ul>	<ul style="list-style-type: none"> <li>Contribution and earnings tax consistent with superannuation</li> </ul>	<ul style="list-style-type: none"> <li>Conditions of release must be met consistent with SIS Act.</li> </ul>
Superannuation savings	<ul style="list-style-type: none"> <li>SMSF account or accumulation/pension account with a superannuation fund</li> </ul>	SMSF or Trustees/Super funds		<ul style="list-style-type: none"> <li>Concessional and non-concessional contributions limits apply.</li> </ul>	<ul style="list-style-type: none"> <li>Contributions tax of 15% if below surcharge threshold</li> <li>Contribution tax of 30% if above income is above surcharge threshold of \$300,000</li> <li>15% tax on earnings</li> <li>No tax on earnings in pension phase</li> </ul>	<ul style="list-style-type: none"> <li>Retirement age or other conditions of release in accordance with the SIS ACT</li> </ul>

Source: ISA

Placing retirement savings in superannuation is preferable to other forms. Prior to universal superannuation, most household assets were in bank deposits and home equity, as shown in Figure 75. Tax concessions have underpinned a significant growth in superannuation assets, contributing depth and liquidity to Australia's financial and capital markets, and deleveraged the financial system. Moreover, as savings have been invested, this has expanded the productive base of the economy. As shown in Figure 57, above, and the related text, based on an Industry SuperFund sample, superannuation investment has resulted in higher rates of direct capital formation per dollar of assets relative to bank lending.

Figure 75 – Composition of household assets, proportions and '000s dollars by wealth decile, 1990



Source: ABS data (IDS microdata) cited in Bacon 1995 (from RIM Group Treasury)

Note: The 90-100 decile is split across three categories.



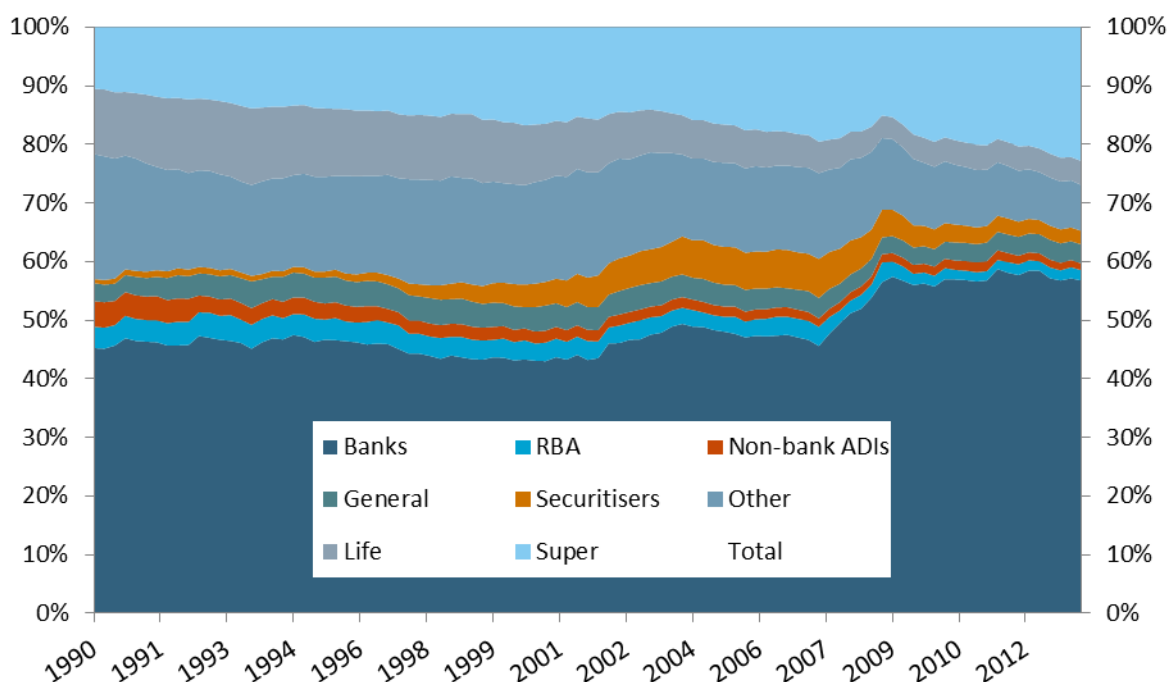
## 5.3 Financial stability

The development of superannuation has led to a significant decrease in financial system leverage, reduced risk concentration in financial sector exposure to Australian housing than would otherwise be the case, and greater diversification in financial institution composition. Beyond these improvements to the resilience of the financial system, APRA-regulated superannuation funds performed a macroeconomic stabilising role. During the Global Financial Crisis (GFC), superannuation funds invested strategically as asset prices fell, supporting the liquidity and stability of markets. Consistent with this, Australian listed companies have historically low levels of leverage, which places them in a strong position for future growth. New ISA analysis also finds that the accumulation of assets to fund retirement benefits adds to the security of Government finances, as reflected in sovereign credit ratings.

### 5.3.1 Financial system concentration

Over the last two decades, the dominance of the banks within the Australian financial sector assets has intensified, with the proportion of assets held by banks increasing from 35 per cent to 57 per cent (Figure 76). At the same time, the proportion of bank assets controlled by the big four has increased: between 2002 and 2007 the big four lost market share of ADI assets from 70 per cent down to 63 per cent, but since the beginning of the GFC have regained this ground and substantially more, reaching more than 79 per cent market share in 2013.

Figure 76 – Financial system assets, 1990-2013

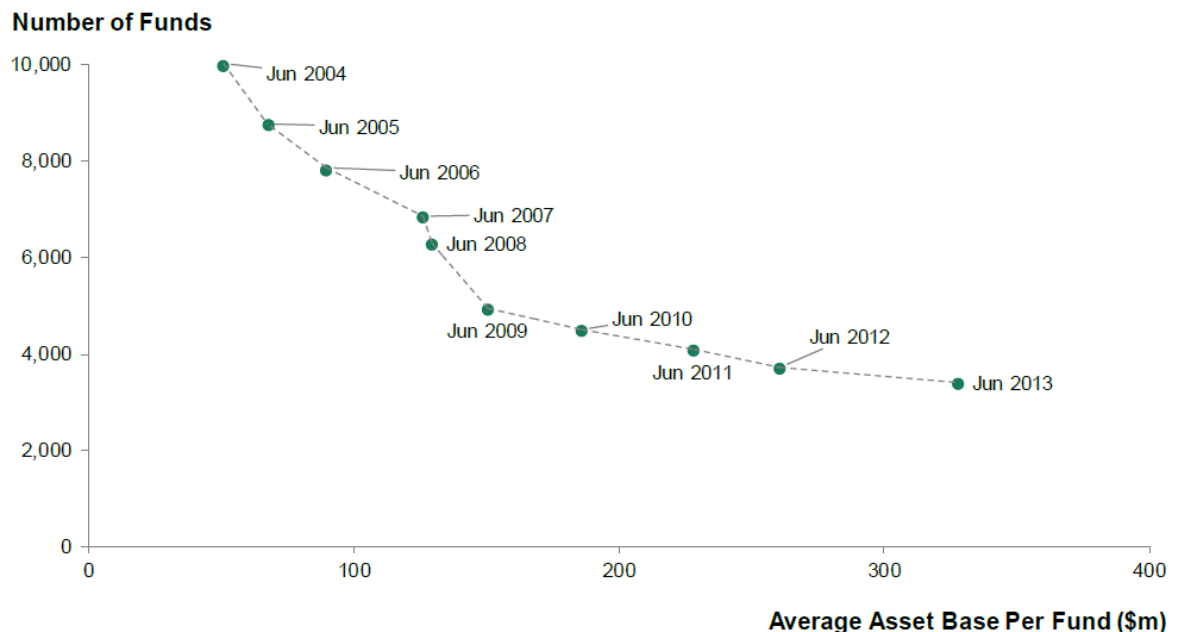


Source: RBA (2013) Statistical Table B1

Since 1990, superannuation is the only sector of the financial system to have grown outside of the big four banks, increasing from 11 per cent of assets to 23 per cent of assets. In combination with life insurance, assets have grown from 22 per cent to 27 per cent of system assets. The number of superannuation funds

has reduced significantly during this period, as shown in Figure 77, but still exhibits much lower levels of concentration than other sectors of the financial system.<sup>111</sup>

**Figure 77 – Consolidation of superannuation funds<sup>112</sup>**



Note: Excludes self-managed funds, includes small APRA funds  
Source: APRA annual superannuation bulletin 2013, BCG Analysis

Source: BCG

#### 5.3.1.1 Macroeconomic stabilisation and re-equipping ASX listed companies

During the GFC, Australian financial and non-financial corporates sought to deleverage and reduce the degree to which upcoming debt payments would bite into operating income.

The Australian Share market has now returned to its pre-GFC market capitalisation. It has achieved this through the injection of new capital into the system, which has offset decreases in price to book multiples (Figure 78). Superannuation played an important role in this process, as shown in Figure 91 from Section 5.7.3.

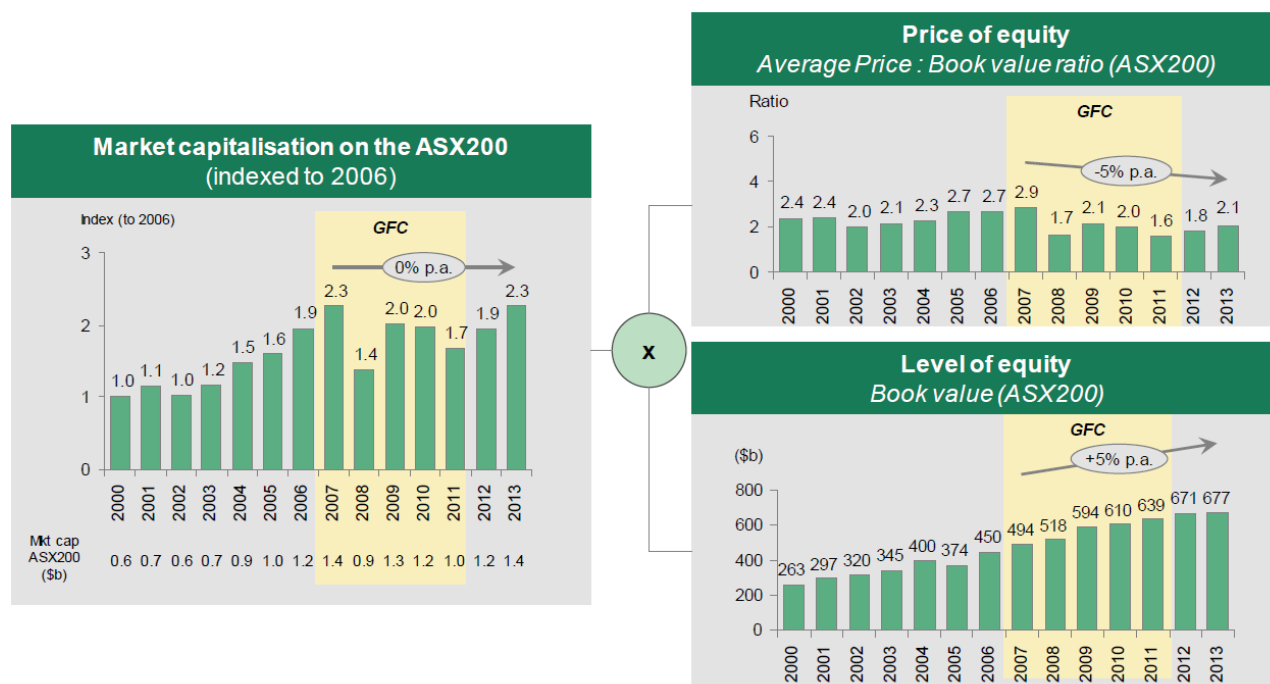
The majority of the new equity in the system has been invested in banks and resources companies. For banks, the focus has been on reinforcing the balance sheet during the GFC. For resources, the focus has been on large scale capital investment.

Looking forward, superannuation funds now need to identify and support the next wave of major investment in the Australian economy. Policy frameworks to the superannuation system and the investment environment that promote long-term thinking and investment in fixed capital can help deliver these objectives.

<sup>111</sup> The number of large APRA-regulated funds has fallen from over 4,700 in 1997 to 325 in 2013 (APRA, 2014)

<sup>112</sup> This analysis includes only APRA-regulated funds, not SMSFs

Figure 78 – Recapitalisation of equity markets during GFC



Note: Shares outstanding includes shares in public domain, excludes Treasury shares. Companies in ASX200 not held constant.  
Source: Datastream, Thompson Reuters, ASX, BCG Analysis

Source: BCG

## 5.4 Capital formation

Compulsory superannuation has generated around \$1 trillion in savings that otherwise would not have been available for investment.

Australia's superannuation savings is one of the top five pools of retirement savings in absolute terms, and among the highest in the world on a per capita basis.<sup>113</sup>

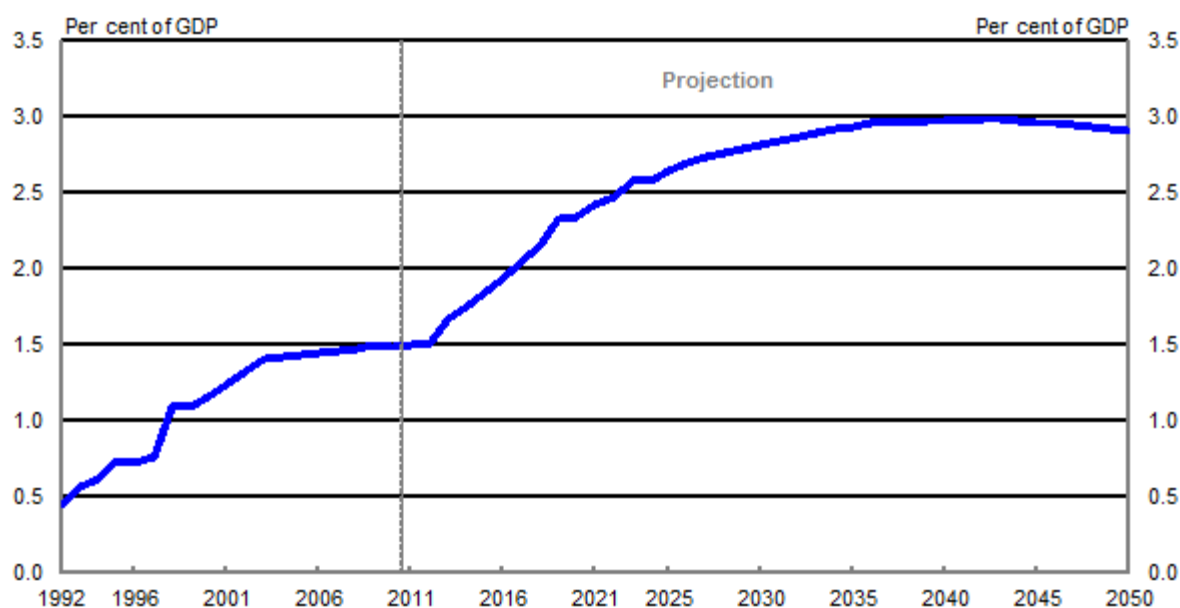
System assets at September 2013 were \$1.75 trillion.<sup>114</sup> With the Superannuation Guarantee rising to 12 per cent, total system assets are expected to rise to over \$6 trillion by 2030. The growth of superannuation is likely to be so strong that by around 2030, superannuation assets are likely to exceed those of the banking system.

There has been some debate regarding whether some of the additional household savings attributable to superannuation are offset by decreases in savings elsewhere, such as a reduction by households in non-superannuation savings. Research on this question has generally found relatively little offsets are taking place in relation to compulsory superannuation savings. Figure 79 shows Treasury estimates of the contribution of compulsory superannuation to private savings, currently at about 1.5 per cent of GDP, rising significantly as the Superannuation Guarantee rises gradually from nine to 12 per cent.

<sup>113</sup> OECD Pensions at a Glance

<sup>114</sup> APRA (2013)

Figure 79 – Estimated contribution of compulsory super to private savings



Source: Gruen and Solding (2011)

ISA research on this question is empirical, comparing changes to voluntary superannuation savings behaviour among groups of members on very different levels of compulsory workplace contributions and after changes to compulsory contributions. The research finds very low levels of offsetting, and therefore that additional compulsory superannuation savings are largely additional to existing financial assets. After analysing the historical data on employer and member contributions, and varying rates of offsetting we estimate that due to compulsory workplace super between \$800 billion and \$1 trillion in superannuation savings (47 to 58 per cent of system assets) have been accumulated that would not otherwise be available.<sup>115</sup>

#### 5.4.1 Superannuation and capital formation

To assess the contribution of superannuation to funding Australian economic activity involves understanding how the savings placed within superannuation are invested.

At a system level, superannuation utilises cash 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 utilised for capital expenditure by the issuer.<sup>116</sup>

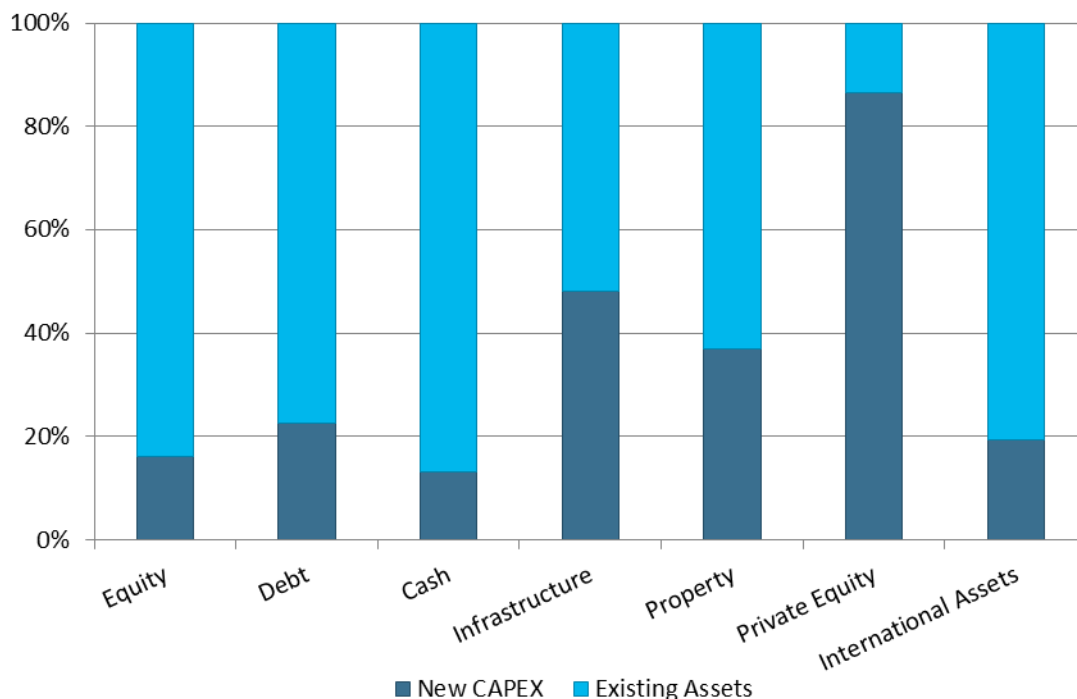
Additionally, to maintain the effectiveness of existing capital, a certain proportion of investment will take the form of ‘maintenance capex’ – capital injections to support expenditure on repair or modernising existing assets. A financially sustainable asset should fund maintenance capex from income.

<sup>115</sup> Shanker and Vidler, forthcoming

<sup>116</sup> 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

The ratio of new and maintenance capex, relative to the purchase of existing financial assets involving no obvious capex, varies by asset class, as shown in Figure 80.<sup>117</sup>

Figure 80 – Estimated ratio of new CAPEX to existing asset purchases, %, 2012



Source: ISA estimates using data from APRA, ABS and UBS, Tang (2013) and discussions with fund managers

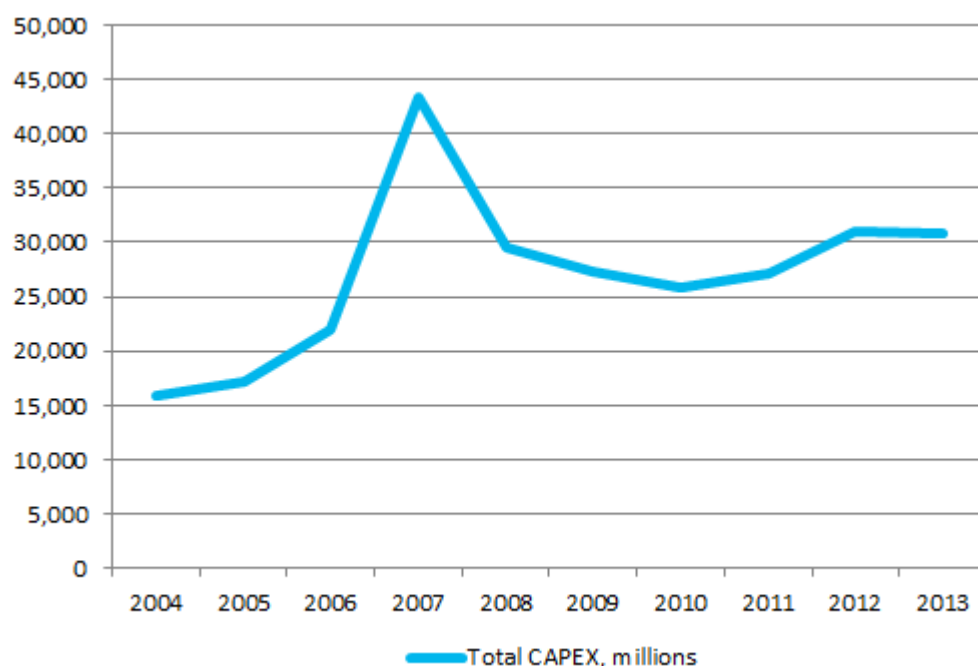
Note: Estimated ratios apply only to APRA regulated superannuation investors

Secondary market transactions in financial assets are important for a variety of reasons, including that they support market liquidity and facilitate price formation. Liquidity and information about price, at least up to a point, also support the capacity to undertake primary market transactions. But the use of savings to expand and improve capital stock is generally of greater interest to opinion leaders because of the strong connection between capital formation, economic growth, and productivity, as discussed above in Section 3.

Based on average levels of investment in new capital and expansion or improvement of existing capital, it is possible to estimate the aggregate amount of capital formation attributable to the APRA-regulated superannuation system overall, and to the compulsory Superannuation Guarantee. Figure 81 shows the estimated level of capital formation per dollar of superannuation contributions over the period 2004 to 2013 for APRA-regulated funds, and the annual levels of additional capital stock attributable to new net savings arising from compulsory super. Over the period 2003 to 2014, superannuation contributed an estimated total of \$201 billion to Australia's capital stock.

<sup>117</sup> We note that the sample data underlying the estimates in Figure 15 for some asset classes are comprised largely of industry and other not-for-profit super fund information; for purposes of this analysis we have assumed that the same asset classes held by different kinds of APRA-regulated super funds would be associated with similar levels of capital formation relative to existing asset purchases. Due to differences between retail and wholesale products, and participation in primary offerings, these estimated ratios would not apply to retail or SMSF investors

Figure 81 – Capital Expenditure Attributable to Superannuation



Source: ISA estimates using data from APRA, ABS and UBS, Tang (2013) and discussions with fund managers

For additional discussion of the role of superannuation in funding the economy, supporting financial stability, and providing retirement benefits, please refer to [Appendix 1](#).

## 5.5 Superannuation and demographics

As discussed above in Section 2.2.4, the population is ageing. Ageing directly impacts pension systems, as the ratio of contributors to beneficiaries changes. In unfunded systems this implies alteration of benefit structures – or borrowing to meet shortfalls. Funded systems, such as Australian superannuation, are better placed due to the use of contributions for asset acquisition to fund pension liabilities; however, there are still important implications for fund liquidity, cash flow and therefore asset allocation.

Superannuation fund cash flow is a function of a number of variables. Under current policy settings, these factors include the relative proportions of workers and retirees in the fund membership, the proportions of compulsory and voluntary contributions and the level of income, wealth and engagement of the membership.

Liquidity can be a more pressing consideration for fund trustees as their fund membership ages. With the baby boomers entering retirement (the oldest, born in 1946, are turning 68 in 2014), fund trustees will already be giving consideration to the age demographic of their fund in terms of anticipated benefit payments (both income stream and lump sum).

Changing demography can potentially influence cash flow, liquidity and asset allocation in a number of ways:

1. Retirees will generally have ceased making contributions and are drawing benefits from the fund, so a higher proportion of retirees will have a corresponding effect on outflows.
2. Older people may be more likely to hold cash or other low risk assets, depending on how they balance longevity risk and the preservation of their financial capital (having reduced income earning potential or human capital available).

3. Older people will have more assets on average, so their behaviour in respect of asset allocation and withdrawal will be more impactful.
4. Due to (2) and (3), older people are likely to be more engaged and to respond to downward market movements.

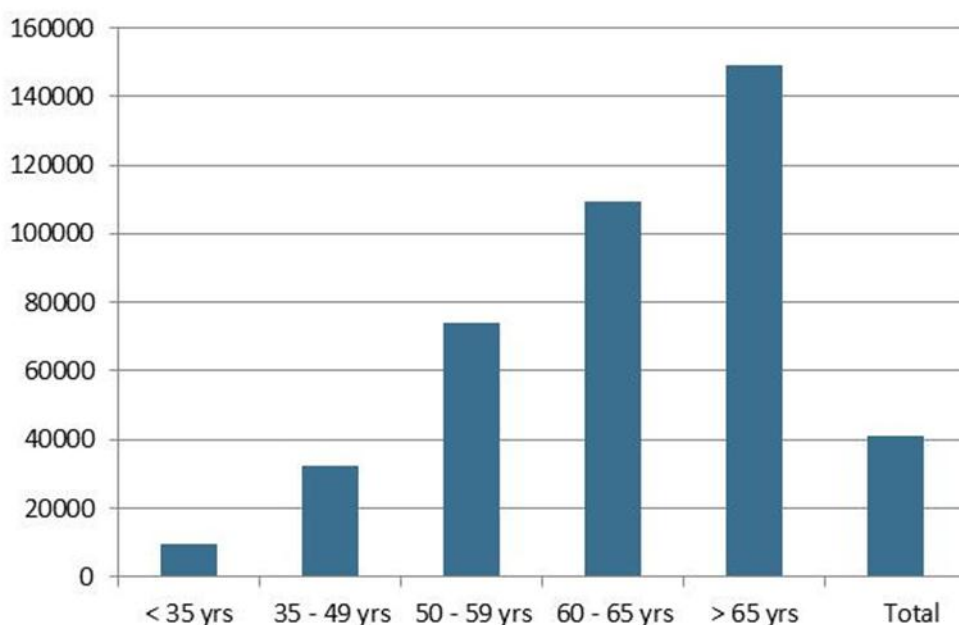
The remainder of this section explores these factors and their potential impact on fund liquidity and asset allocation.

### 5.5.1 Age and assets

Older super fund members tend to have higher balances as they have had the benefit of long-term savings, compounding interest, higher contribution limits and most likely, a greater ability to contribute. This translates to a disproportionately higher stake in total superannuation assets at both the fund, and aggregate level. In 2005, members aged 60 years and over accounted for approximately 23 per cent of total vested benefits; only 8 years later, this is up to almost 34 per cent. Members 50 and over accounted for almost two-thirds of assets.

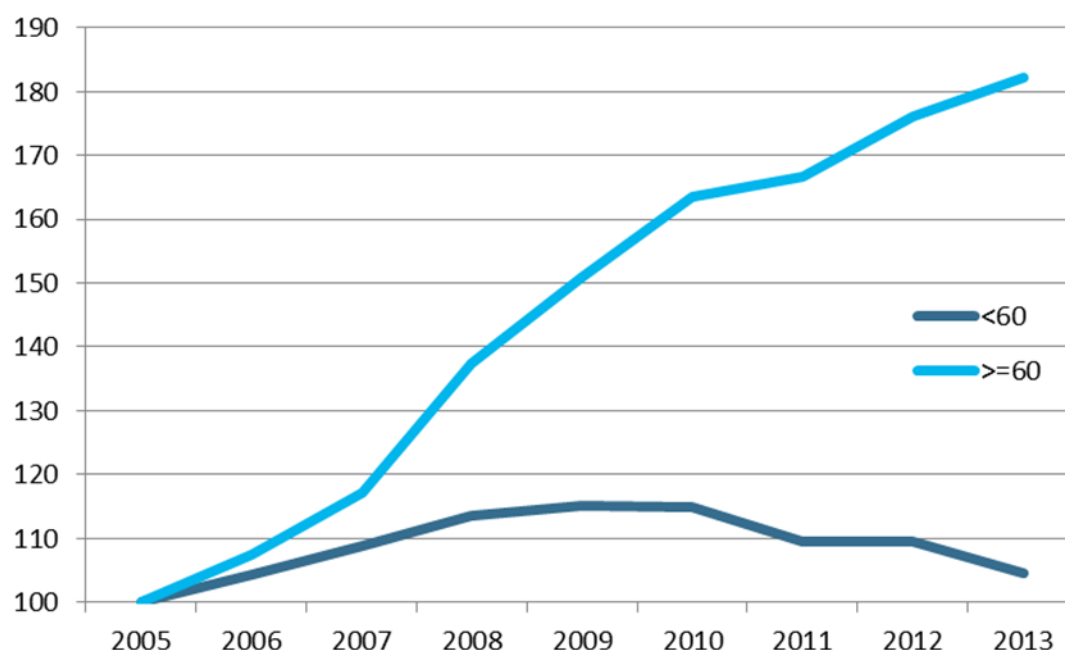
In terms of average account balances, those over 65 years of age have almost double the assets of those aged 50-59, and about four times that held by those aged 35-49 (Figure 82). Further, the number of accounts for those aged over 60 years of age is increasing at a much faster rate than the growth of accounts for those under 60 (Figure 83).

Figure 82 – Average account balance (vested benefits) by age, 2013



Source: APRA (2013) Annual Superannuation Bulletin

Figure 83 – Growth in account numbers by age, 2005-2013, Index, 2005=100



Source: APRA (2005-2013) Annual Superannuation Bulletin

### 5.5.2 Age, risk tolerance, and procyclicality

Older investors are generally expected to be more conservative than younger investors. This is because their financial capital is proportionately more important to them, due to higher accumulations, and because they have partially or completely exhausted human capital (i.e. they are in, or are soon to be in, retirement).

Analysis in Australia confirms the negative correlation between age and risk in terms of investment preferences.<sup>118</sup> All things equal, such a relationship would tend to drive more conservative asset allocations as the population ages.<sup>119</sup>

In Australia and other countries, member switching in investment choice in superannuation/pension funds currently is relatively low.<sup>120</sup> A study of member behaviour during a 30 month period including the intense volatility of the GFC found that 5 to 6.5 per cent of members made an investment change.<sup>121</sup>

Nonetheless, the study highlighted important risks for the superannuation system in light of portability requirements and switching within fund allocations.

<sup>118</sup> Livanas (2007)

<sup>119</sup> Importantly, this implies that, as investment decisions take on a more insurance-like character, the allocations may become less oriented toward allocating capital to its highest and best uses, and instead becomes more focused on minimising risk. It is not clear that such a shift is desirable for the economy and it may be appropriate to consider whether these risks should be shifted away from private investors (whether individuals or financial institutions)

<sup>120</sup> See Agnew et al (2003) Portfolio choice and trading in a large 401(k) plan; Clark-Murphy et al (2008) Retirement Savings Investment Strategy: Member Choices and Performance; Ameriks and Zeldes (2004) How do household portfolio shares vary with age?

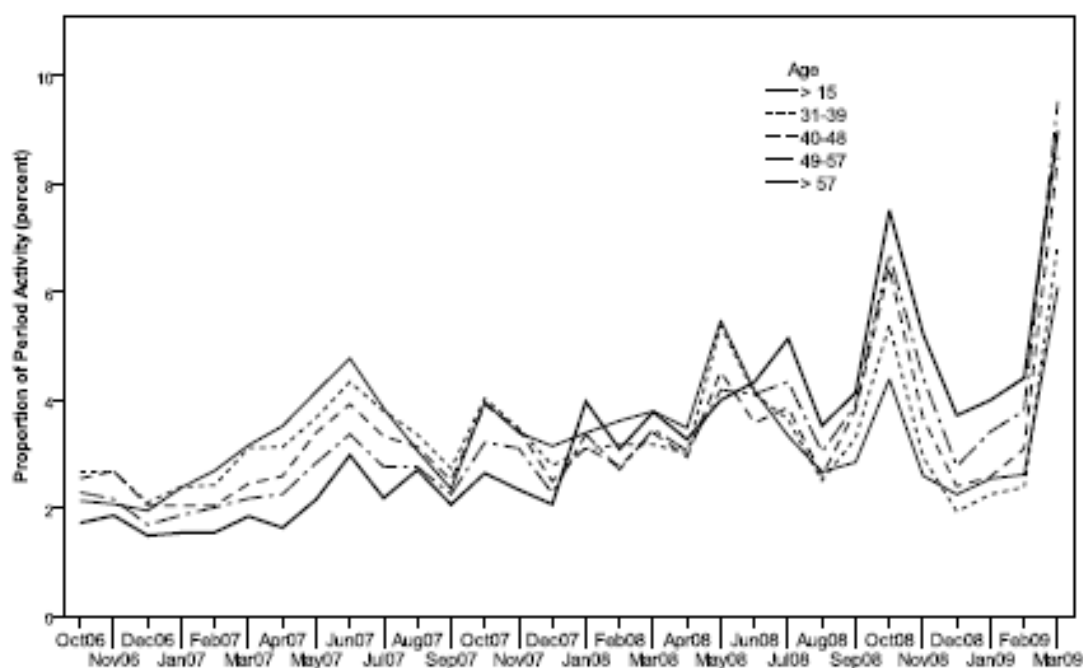
<sup>121</sup> Gerrans (2010) (Analysis conducted using data from 4 industry funds and one public sector fund that represent 3.6 million members with superannuation assets (at the time) of \$74 billion)



1. The majority of change was made during the GFC (65 per cent of all changes) and were in response to significant market downturns.
2. Overall, older members were slightly more likely to switch than younger members.
3. Older members were particularly likely to respond more to downward movements in the market (they were most active during the GFC). This would follow from older individuals being more concerned about the immediate impact the GFC was having on their retirement balance. In particular, the two peak points for investment change activity during the GFC (October 2008 and March 2009) were dominated by those over 57 years of age (Figure 84).
4. Further, those who switched generally moved to more conservative options, with most switching into a single asset class – mainly cash. Indeed, those who didn't have access to a single asset investment class switched to the option that had the largest cash allocation (Figure 85).
5. Finally, the individuals that switched tended to be in the highest quintile of balances and contribution rates.

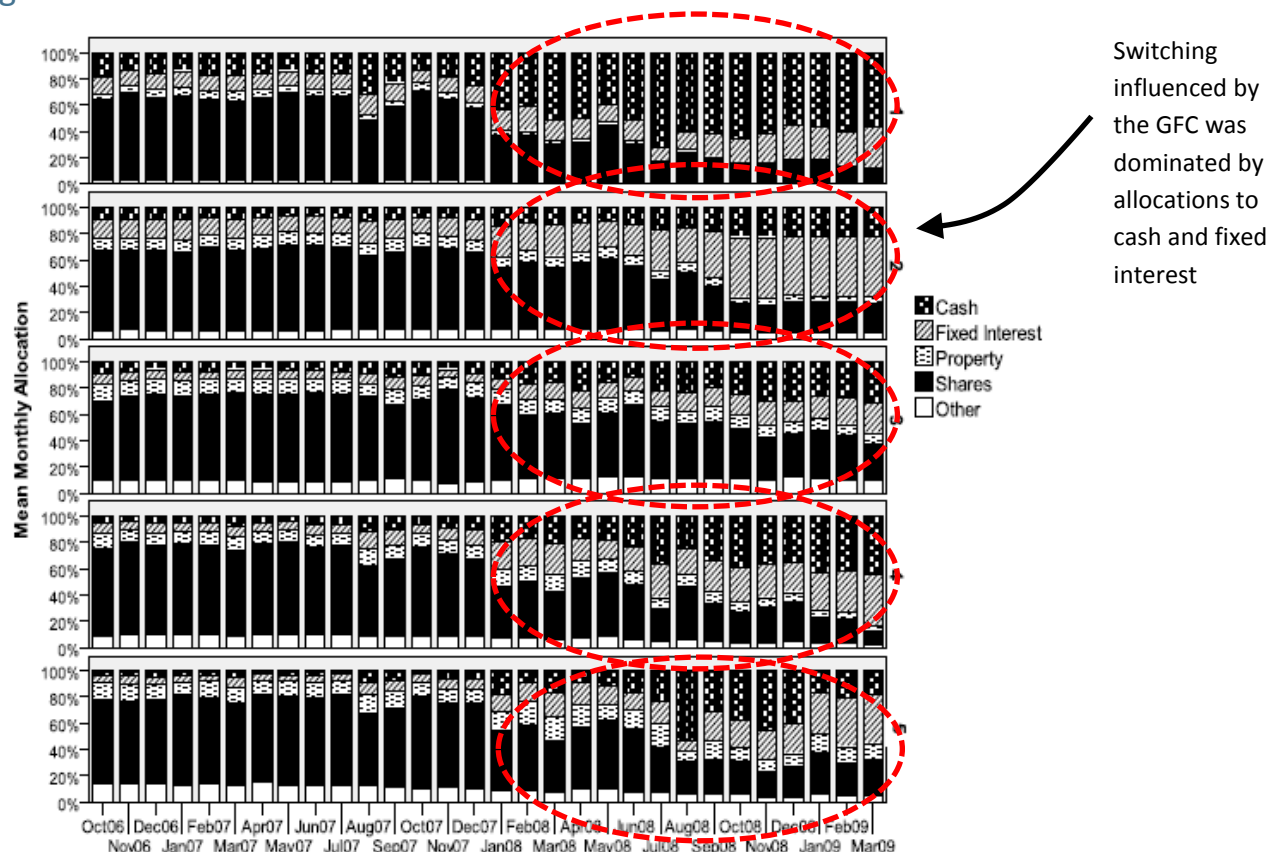
The implication is that an older demographic will mean an increased propensity for changes in investment option, that this will be felt most intensely during market downturns and that the changes will typically be to reduce risk. Those that switch will also have more assets than an average member, and consequently have disproportionate impacts on overall fund liquidity and asset allocation.

Figure 84 – Investment switching activity by age and year



Source: Gerrans (2010)

Figure 85 – Asset allocation of switchers



Source: Gerrans (2010), ISA commentary

### 5.5.3 Investment switching and performance

A more recent study conducted by Gerrans et al (2013) looks at longer term trends (between 2002 and 2012) to determine if switching lead to more favourable returns. Analysing almost 800,000 monthly returns observations, they found that switching is generally detrimental to performance, and wholesale investors perform better than retail investors,<sup>122</sup> and older members (aged over 59) perform poorer than younger members in the post-GFC period. For members who were close to retirement, the impact of a poor investment decision would be far greater than that experienced by those who have time to wait for market recovery.

There is a similar experience of this internationally. Tang et al (2009) analysis of almost one million members of US 401(k) plans found evidence that members failed to construct efficient portfolios, compared to those offered by sponsors which were found to be generally efficient. Tang suggests that over a 35 year period, the impact on the member's retirement wealth could be a reduction of up to one-fifth.

### 5.5.4 Implications for asset allocation

Older member behaviour, in an environment of high levels of investment discretion, will inevitably and significantly influence fund-level asset allocation, most likely in favour of a higher level of liquid assets. While the majority of members did not make a change during the GFC, as the superannuation system matures, balances increase and people are encouraged to become more engaged, trustees may have an increasingly difficult role structuring appropriate investments.

<sup>122</sup> Individuals are generally treated as retail clients

Conservative investment strategies or highly liquid asset allocations have consequences, including lower returns.

Moreover, the switching behaviour of members, while it can be modelled, is fundamentally unpredictable.

For funds that take a more consolidated approach to investing, they will need to closely monitor the demographics of their fund, as pressure to quickly liquidate fund assets could have adverse impacts for other members in the fund.

Investments in infrastructure have proven to deliver superior returns over the short, medium and longer term relative to many other types of assets. They exhibit lower volatility over other assets, with the exception of cash and fixed interest. Even through the unprecedented turmoil of the GFC, unlisted infrastructure investments by IFM Investors returned an average of 8.3 per cent per annum. If demographics and other factors drive up the levels of allocations to liquid assets, however, this will decrease the level of investment in infrastructure the superannuation system can undertake.

A shift towards members in retirement taking benefits as an income stream, rather than a lump sum, would reasonably be expected to remove some of the uncertainty about member switching and thereby may enable trustees to hold a higher level of assets that generate higher returns, which will benefit all members of the fund. The uplift in capacity to invest in illiquids arising from members taking benefits as an income stream would fall far short of the negative impacts that demographics, wealth, and regulation will have.

In addition, the availability of a liquidity facility would enable trustees to better manage short term liquidity concerns. This is discussed in more detail in Section 9.1.4.1.

One could argue that it is possible that investment in infrastructure and similar assets could be undertaken using a listed instrument. However, the negative externalities of liquidity (short termism of investors and issuers), and the higher costs (arising from market operations and secondary market transactions)<sup>123</sup>, without benefits in terms of the capacity to raise investment capital are some of the key takeaways from analysis of Australia's listed equity markets and the analysis of the growth of finance more generally.

## 5.6 Current superannuation policy issues

We believe the Inquiry should focus on the economic functions of the financial system and whether reforms are necessary or appropriate to improve the efficiency of these functions, particularly capital formation, in light of Australia's long-term economic objectives.

We recognise that there are a number of active, near-term, policy reform initiatives underway in respect of superannuation, including:

- The need for an independent umpire and performance standards for default funds in modern awards,
- The need for protections against conflicts of interest in the provision of financial advice, and
- The need to preserve private ordering in respect of trustee governance.

These matters are being actively considered by government directly or in forums other than the FSI, and would not seem to warrant the attention of the FSI. Our position on these matters, in summary form, is set out in [Appendix 2](#) if the FSI becomes interested in them. Should the FSI anticipate expressing a view on any of these matters, ISA would be prepared to furnish extensive material for the record.

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<sup>123</sup> These costs are in addition to any costs arising from more frequent and perhaps heightened disclosure, and costs arising from litigation risk

Other active policy issues in respect of superannuation exist, but are expected to be covered in future reviews:

- Retirement phase policy, and
- The equity and sustainability of the tax settings for superannuation.

With regard to retirement phase policy, we wish to confirm for the FSI that the superannuation industry is focused on the matter of demographics and the retirement phase, and approaching it with a high degree of energy. It is expected that a future government inquiry will focus on this issue. It would not appear to be a core matter for this FSI because it relates primarily to retirement security rather than the financial system. Demographic issues and how they may affect investment, capital formation and other financial matters, however, would seem more appropriate for the FSI to consider (always being sensitive to ensure that any recommendation do not prioritise the financial system effects of the superannuation system above its retirement security objective).

## 5.7 The self-managed super fund sector

Self-managed super funds (SMSFs) are a large and rapidly growing part of the superannuation system. At September 2013 they were estimated to hold assets of \$530 billion, having grown at about 10 per cent per year since 2007, compared to 5.4 per cent per year for APRA-regulated funds during the same period.<sup>124</sup>

Some commentators believe SMSFs represent an ideal governance structure because the beneficiaries must all be trustees, potentially reducing agency costs.<sup>125</sup> Until recently, it was impossible to evaluate whether this confidence was justified because there was no data available to analyse important aspects of SMSF operation, including cost and diversification. However, the ATO has released a large dataset of original depersonalised SMSF records have been made available by on a confidential basis to an external academic who has recently published summary statistics based on the ATO data (Raftery, 2013).

Careful analysis of the data indicates that SMSFs are expensive and poorly diversified. Moreover, SMSFs have implications for systemic risk, acting procyclically and taking on greater leverage. In terms of capital formation, SMSFs seem to be less efficient mechanisms for aggregating and deploying savings for long-term capital projects. Some commenters have observed the search for dividends by SMSFs has reduced the capacity of operating companies to undertake capital expenditure.

Taken together, there is emerging evidence that SMSFs may result in inferior outcomes from the standpoint of aggregate public welfare (even though they may be desirable for tax and other reasons to the specific individuals who participate in them, as well as to their service providers). This raises concerns under the Treasury wellbeing framework. It also raises sustainability and fairness concerns insofar as SMSF participants forego prudential regulation, and pay a lower share of tax, yet remain entitled to the Age Pension.

### 5.7.1 SMSFs and cost

It is clear from published data<sup>126</sup> that, on average, running costs of SMSFs are significantly higher than the costs for not-for-profit APRA-regulated funds, for all but the largest SMSFs.

The most recent data show that 30 per cent of SMSFs have less than \$100,000 in funds under management (Figure 86) and have costs of between three per cent and seven per cent per year. (Figure 87). These expense levels represent a significant leakage from the superannuation system, resulting in lower

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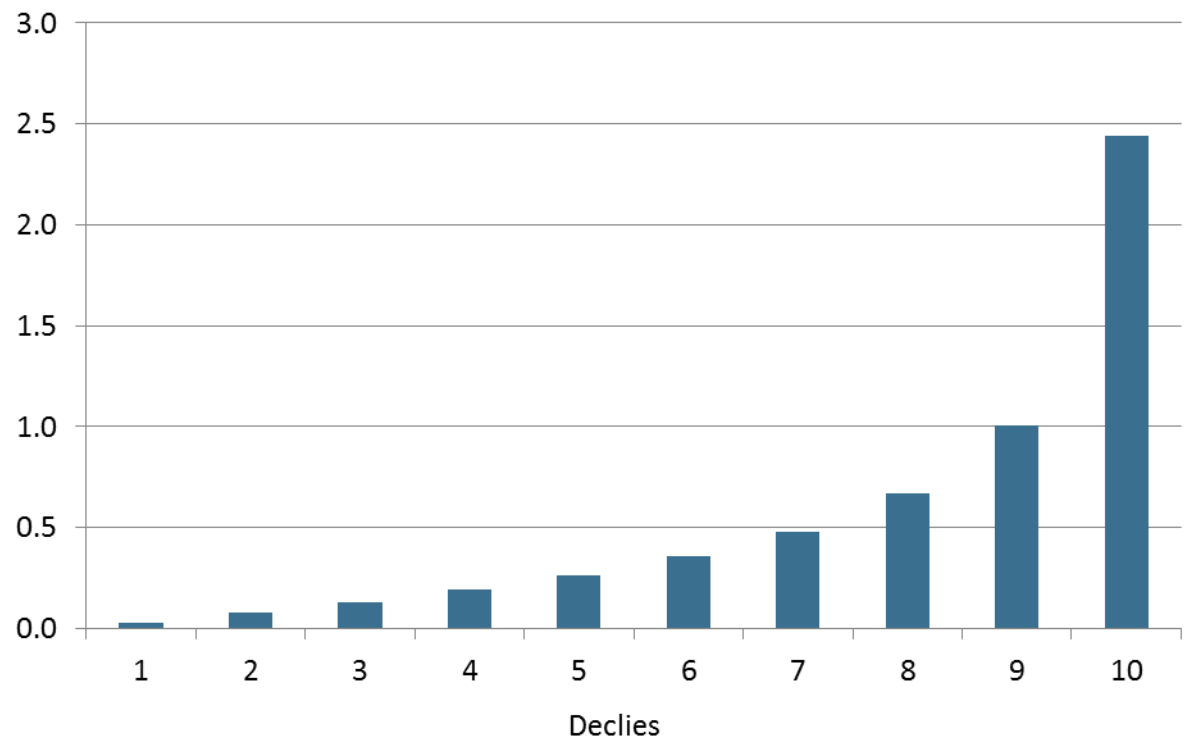
<sup>124</sup> APRA (2013)

<sup>125</sup> Cooper Review (2010)

<sup>126</sup> Raftery (2013)

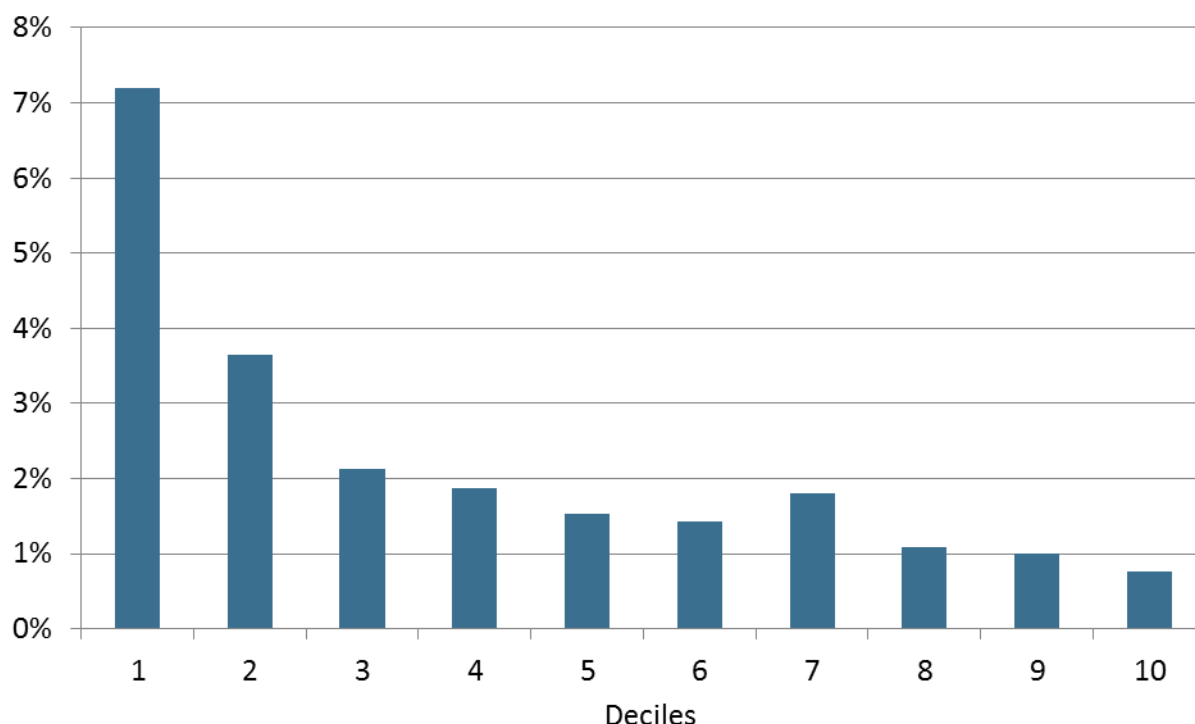
retirement accumulations for those with SMSFs who are least able to afford it. SMSF trustees and account holders with assets in this range are likely to qualify for full or part Age Pensions, so reduced accumulations in this range will also result in increased public pension outlays in coming years.

Figure 86 – Distribution of SMSFs by size: average assets within deciles, 2010, \$ millions



Source: ISA modelling based on ATO data cited in Raftery et al (2013)

Figure 87 – Distribution of SMSF costs: average management expense ratios (MERs) by size (deciles), 2010



Source: ISA modelling based on ATO data cited in Raftery (2013)

These high costs calculations exclude the labour of trustees working on administration and investment. Individual-by-individual trustee labour is likely to be considerable on a per capita basis, and a massive allocation of economic resources on an aggregated basis. The efficiencies of a market economy and the specialisation and exchange of labour weigh against public policy that encourages the SMSF structure for savings and investment allocation.

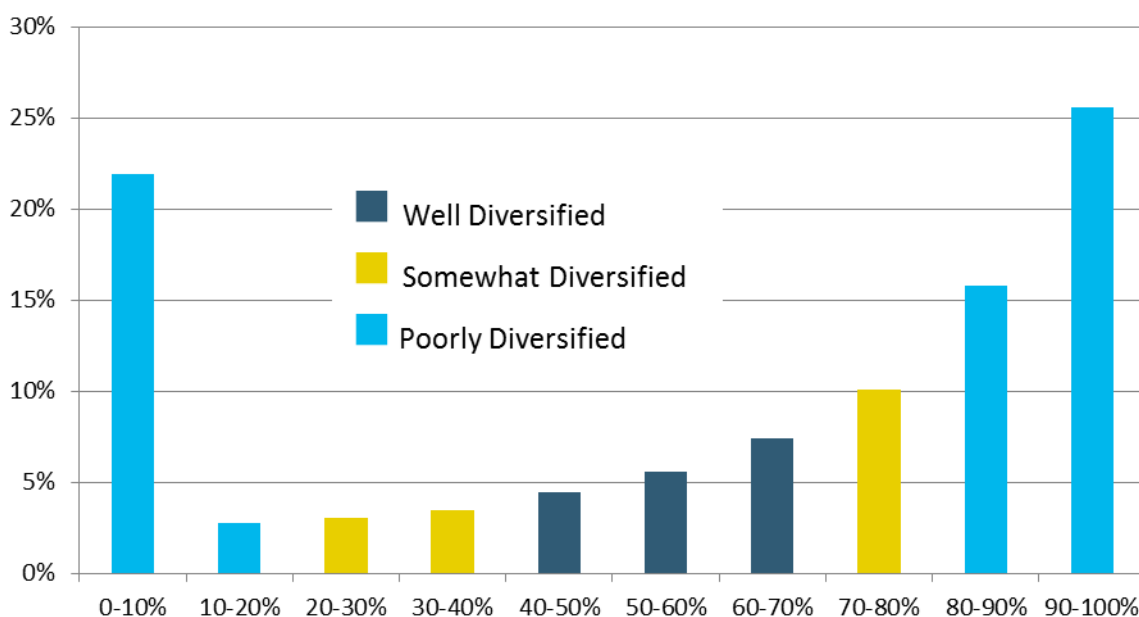
It also should be noted that financial products purchased by SMSFs typically are distributed through a retail model. This makes investment in alternative asset classes challenging and expensive. More generally, the per-dollar cost of allocation tends to be higher due to the cost of collecting and furnishing information for a retail environment, as well as higher cost of sales for investment product providers. Another implication of this is structure is that the potential agency issues at the trustee level are shifted to the product provider, advisor, or investment management level, where there is no fiduciary duty (notwithstanding that the capacity of the trustee to monitor agency issues is likely to be less than APRA-regulated trustees).

### 5.7.2 SMSF investment and diversification

The data also show that most SMSFs are poorly diversified, with around two-thirds having the overwhelming majority of assets in either high risk assets or low risk assets, rather than an appropriate combination of the two (Figure 88). SMSFs also have almost all assets held within Australia, reflecting low geographical diversification.

An excess of low-risk assets will reduce long-term expected returns. An excess of high risk assets will lead to a very high level of volatility. The lack of a strategic asset allocation target that requires equities to be sold down as they rise in value and bought as they fall in value is also likely to reduce risk-adjusted returns over time.

Figure 88 – Distribution of asset diversification: percentage of assets held in growth assets, 2010



Source: ISA modelling based on ATO data cited in Raftery (2013)

### 5.7.3 SMSFs, leverage, asset bubbles, and systemic risk

Changes to the SIS Act in 2007, and ATO rule interpretations in 2010, have seen an increase in investment in property by SMSFs.

The rule changes allow SMSFs to borrow to purchase certain assets, including real property and equities. The lending is in the form of purchase via instalment receipts, and is intended to be non-recourse. Consistent with this aim, the lender cannot make a claim on other assets within the super fund. The lender can, however, require a personal guarantee, which allows them to make a claim on assets of the trustee *outside* the super fund. This clearly presents new risks for superannuation investors: for example, the superannuation fund becomes a vector for contagion.

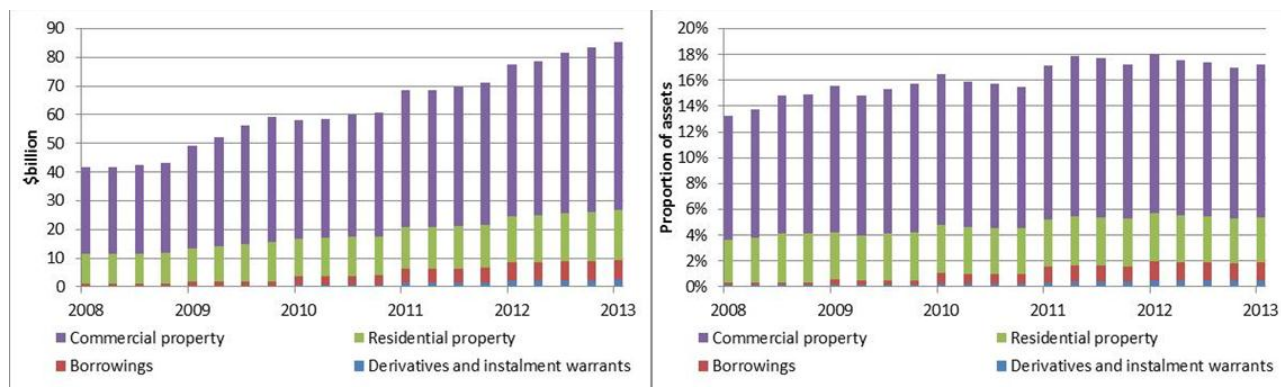
Investment in residential property accounts for 3.5 per cent of total SMSF assets and commercial property accounts for approximately 12 per cent of total SMSF assets.<sup>127</sup> The RBA has already noted its concern with the level speculative sentiment in respect of property within the SMSF sector.<sup>128</sup>

Between 2008 and 2013, SMSF investment in residential property increased from \$10.6b to \$17.5b. Including all instalment receipts and borrowings, the SMSF exposure to property is in the order of \$85 billion (Figure 89).

<sup>127</sup> ATO (2013)

<sup>128</sup> RBA – Financial Stability Report September 2013

Figure 89 – SMSF investment in property (\$ billion and %), 2008 - 2013



Source: Australian Taxation Office (2013)

The overwhelming majority of wealth outside superannuation is in the form of residential property. Two important strengths of superannuation for households and the financial system has been that (i) superannuation assets are held away from residential property and (ii) are not leveraged, so it should not be a source of financial contagion.

By offering a channel for superannuation funds to be redirected towards residential housing and to be leveraged, the current rules on SMSFs may lead to the erosion of these key benefits.

The Cooper Review considered this issue, recognising similar concerns.

The Panel is concerned that if direct borrowing had been more widespread before the recent GFC then a substantial amount of retirement savings could have been lost. The Panel therefore believes that the 2007 amendments to the SIS Act, which relaxed the borrowing provisions, are inconsistent with Australia's retirement policy.<sup>129</sup>

Aside from growing leverage and re-concentrating wealth in residential property, SMSF behaviour also raises systemic risk concerns, particularly when compared to professionally-managed large APRA-regulated funds.

A significant proportion of the assets in large APRA-regulated funds are held in default or flagship 'pre-mixed' multi-asset class investment options. These investment options are based on a strategic asset allocation intended to provide strong risk-adjusted returns over the long term.

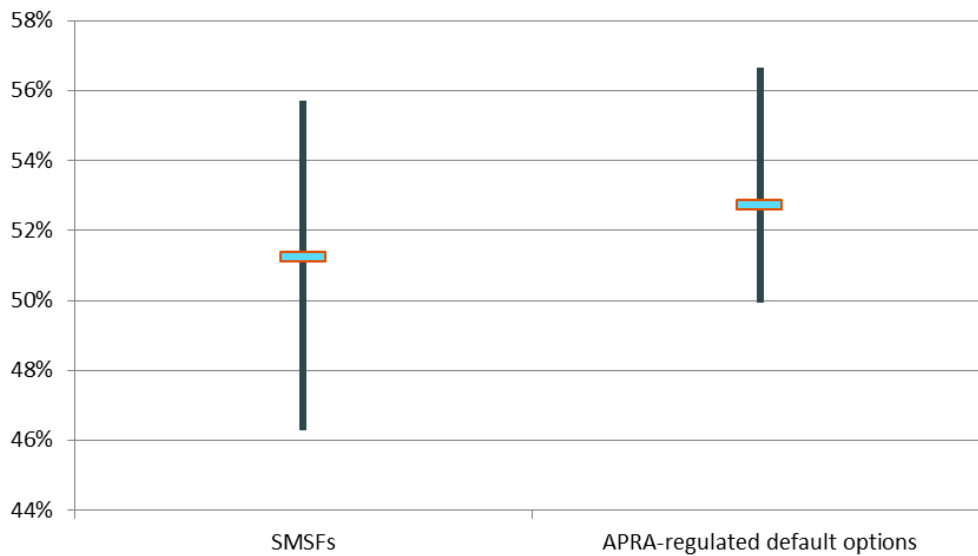
One benefit of investing according to a pre-determined strategic allocation is that it discourages procyclical behaviour: when the value of an asset class falls, the portion of the portfolio comprising that asset also falls and those assets should be purchased to restore the desired allocation. Similarly, when an asset class exhibits rapid price increases, such as during a bubble, those assets should be sold.<sup>130</sup> Figure 90 compares range of equity allocations for SMSFs and APRA-regulated default fund options over the period 2005 to 2013. The range of allocations varies significantly less for APRA-regulated funds than for SMSF funds, indicating a lower level of procyclical investment. The average levels over the period for both SMSFs and APRA-regulated funds are marked by vertical bars.

<sup>129</sup> Cooper Review at 241

<sup>130</sup> Cf., Schwartz, A. (2002) "Asset Price Inflation and Monetary Policy," National Bureau of Economic Research (2002), Working Paper 9321. The fixed portfolio approach of professionally managed default funds has some important similarities to Schwartz's recommended countercyclical approach for banking regulators in respect of asset price risks within banks. Schwartz's specific approach was not viewed with favour at the time by APRA researchers, see Carmichael J. and Esho N. (2001), Asset Price Bubbles and Prudential Regulation, APRA working paper 2001-03



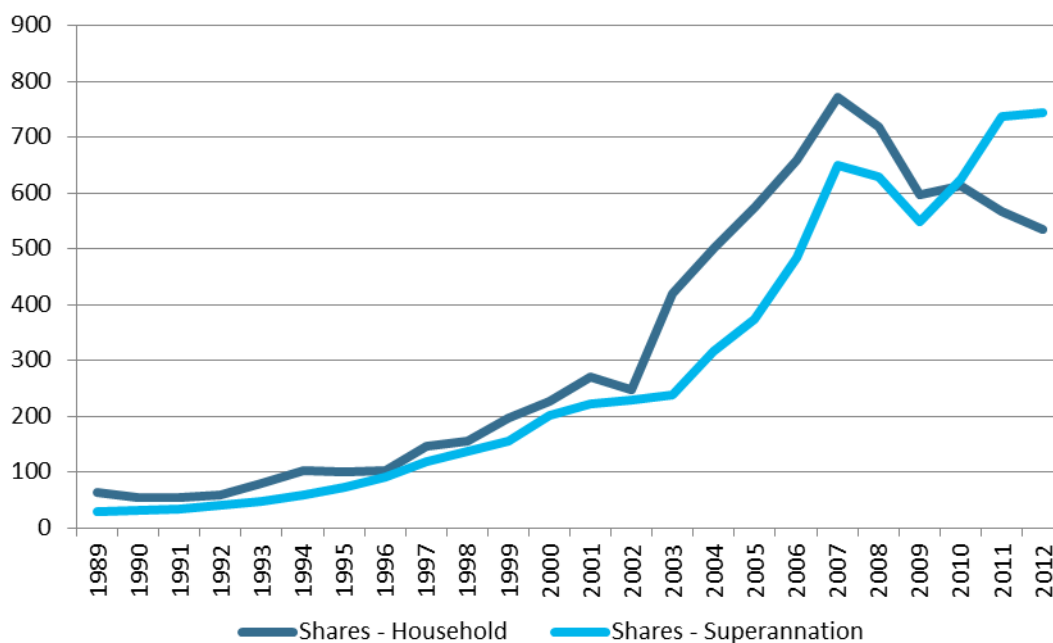
Figure 90 – Range and average equity holdings by APRA superannuation funds and SMSFs, 2005-2013



Source: ATO (2013) Self-managed super fund statistical report – June 2013, ATO. APRA Annual Statistical Bulletins 2005 through 2013, Table 18

The countercyclical behaviour of superannuation managed to strategic asset allocations contrasts with the procyclical tendency of other investors, including retail investors, to sell as prices fall, and buy, as they rise. Some evidence of this pattern can be seen by comparing the holdings of households and super funds in Australian equities during the GFC. Households reduced direct ownership, but super funds, driven by strategic asset allocations, boosted holdings (Figure 91). This strategy should provide benefit over the long term, and certainly boosted fund returns in calendar 2013, when the value of Australian equities rebounded.

Figure 91 – Holdings of equity: households vs. superannuation



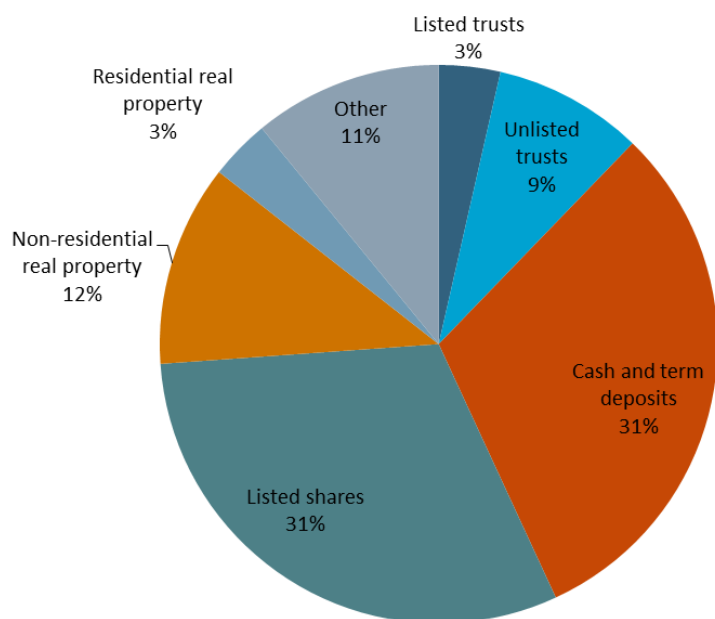
Source: ABS 5232.0 - Australian National Accounts: Financial Accounts, Jun 2013

### 5.7.4 SMSFs and capital formation

SMSFs through their investment activities contribute to the wider economy's capital formation. Each dollar that an SMSF invests either purchases existing assets (which has ambiguous effects on capital formation) or new assets that contribute to the macroeconomic level of capital formation. By looking at the investment patterns of SMSFs, it is possible to estimate their contribution to capital formation per dollar invested.

The ATO identifies 19 assets classes in its collection of SMSF related data, summarised in Figure 92, as of December 2012. The top three asset classes are Listed Shares (31.3%), Cash and Term Deposits (30.5%) and non-residential real property (11.6%). Since 2008, the asset allocation has remained relatively stable, with some increase in the share of assets held in cash and non-residential property at the expense of listed trusts (Figure 92).

Figure 92 – Asset composition of SMSFs at December 2012



Source: ATO

For each asset class, it is possible to estimate how much of each dollar invested contributes to capital formation and how much is devoted to purchases of existing financial assets. A weighted average across the assets classes is then an estimate of SMSFs contribution to the wider economy's gross fixed capital formation per dollar invested.

The estimates within each asset class for the amount of new capital formation were taken from previous work on estimating capital formation by APRA-regulated funds amalgamating a spectrum of sources including funds manager data, academic research on participation in new equity issues, among others.<sup>131</sup> For example, in the previous work it was estimated that for each dollar invested in cash and term deposits, 13 cents was used for new capital formation. These asset class level estimates of new capital formation were applied to the SMSF asset allocations with a number of adjustments to account for the unique investments patterns of non-institutional investors.

The first adjustment relates to equity investments. In previous work on APRA-regulated funds it was estimated that for every dollar invested in listed equity 16 cents was used for gross fixed capital formation. However, for SMSFs this number is likely to be lower since non-institutional investors participate less in

<sup>131</sup> See, Industry Super Australia (2014). Limitations of the estimates include the heavy bias toward industry super fund allocations and sample size; however, they reflect ISA's best currently available information

‘follow-on’ equity raisings (an issue often raised by the Australian Shareholders Association<sup>132</sup>); as a result, each dollar invested in equity by an SMSF is much more likely to purchase existing equity, with the proceeds of the sale coming to rest with another investor instead of the operating company, and therefore not directly contribute to new capital formation. For the purpose of calculating the SMSF capital formation ratio it is assumed the share of equity investment that is attributable to capital formation is 5 cents lower than APRA funds, or 11 cents per dollar invested.

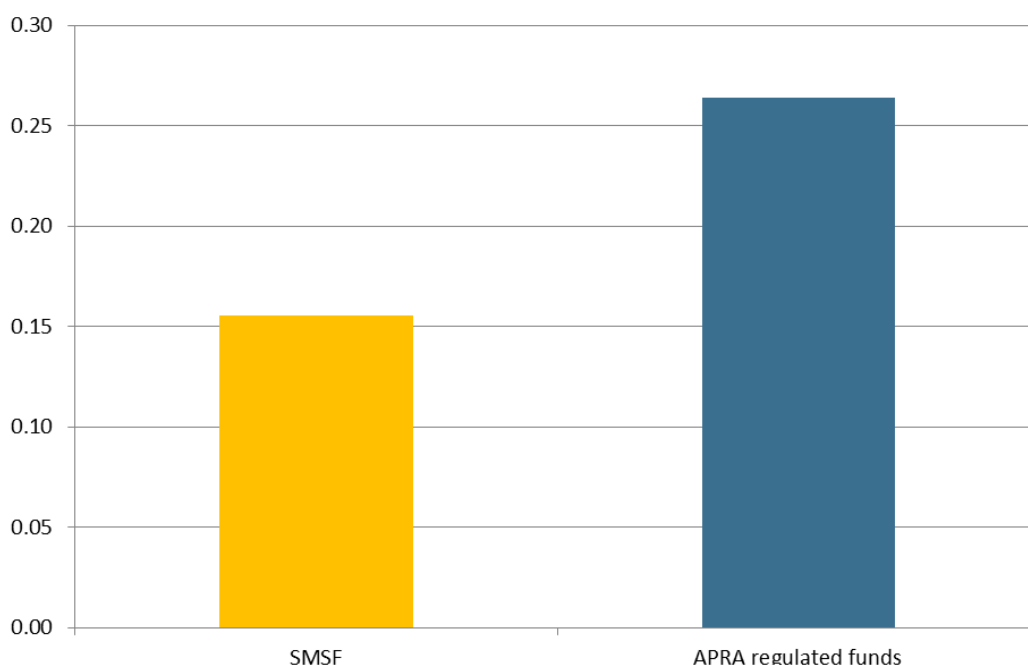
A similar issue exists for investment in non-residential property. For APRA-regulated funds, based on discussions and data supplied by funds managers, it was estimated that for each dollar invested in non-residential property 37 cents could be directly attributed to new capital formation. The relatively high number, compared to other assets classes, stems from the high levels of CAPEX in the commercial property sector on construction, refurbishments, extensions, and improvements to office buildings and shopping centres.

For SMSFs, on the other hand, investments in non-residential property are usually investments in property used by the SMSF trustee’s other business activities; a purchase of existing capital stock, often from a related-party. Therefore, for SMSF’s we assume that the relevant ratio is half the estimate used for APRA-regulated funds. That is, for each a dollar an SMSF invests in non-residential property around 19 cents can be attributed directly to new capital formation.

For all the other asset classes we assumed the same ratio as used for the analysis of capital formation by APRA-regulated funds.

Taking these adjustments into account it is estimated that, in 2012 for every dollar invested by a SMSFs around 16 cents can be attributed to new capital formation. For APRA-regulated funds, this ratio was estimated to be 26 cents (Figure 93).

Figure 93 – New capital formation per dollar invested, 2012

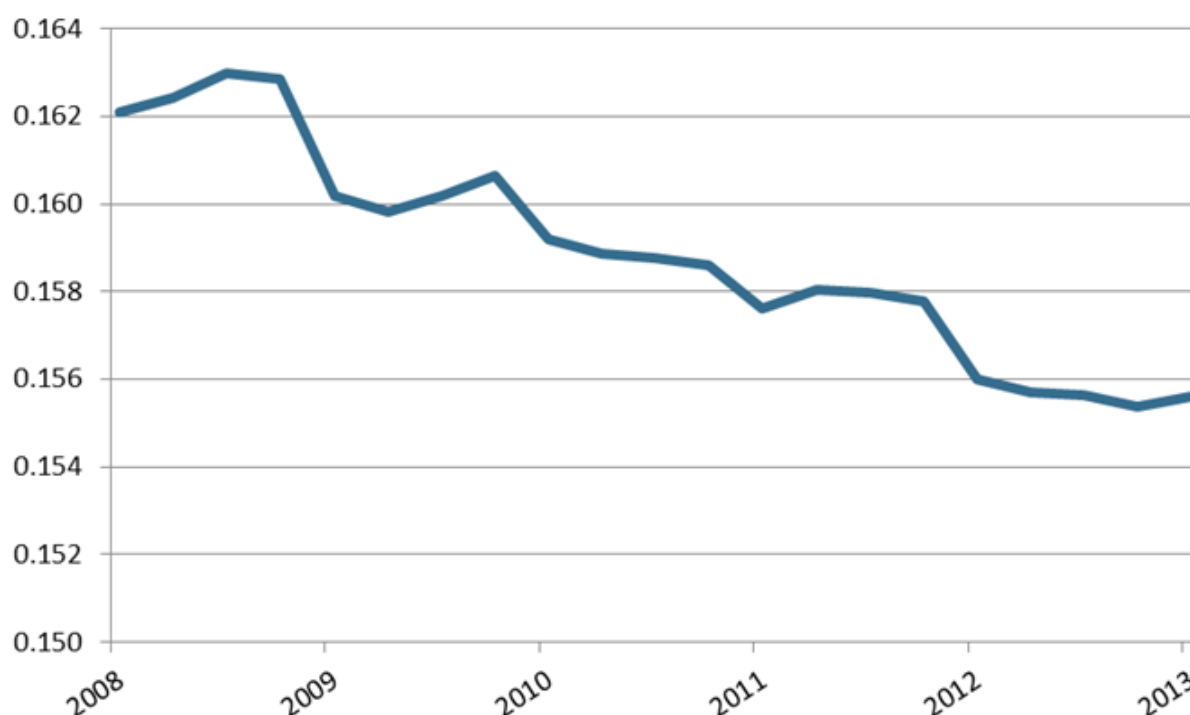


Source: ATO, APRA, and ISA calculations

<sup>132</sup> See e.g. Australian Shareholders’ Association, Submission to ASX consultation on Strengthening Australia’s Equity Capital Markets Mid to Small Cap Draft Listing Rules, 14 May 2012

Over time the SMSF capital formation ratio has shown a slow decline, reflecting that SMSFs have proportionally increased their holdings of cash and term deposits, which have a relatively lower capital formation ratio compared to other asset classes (Figure 94).

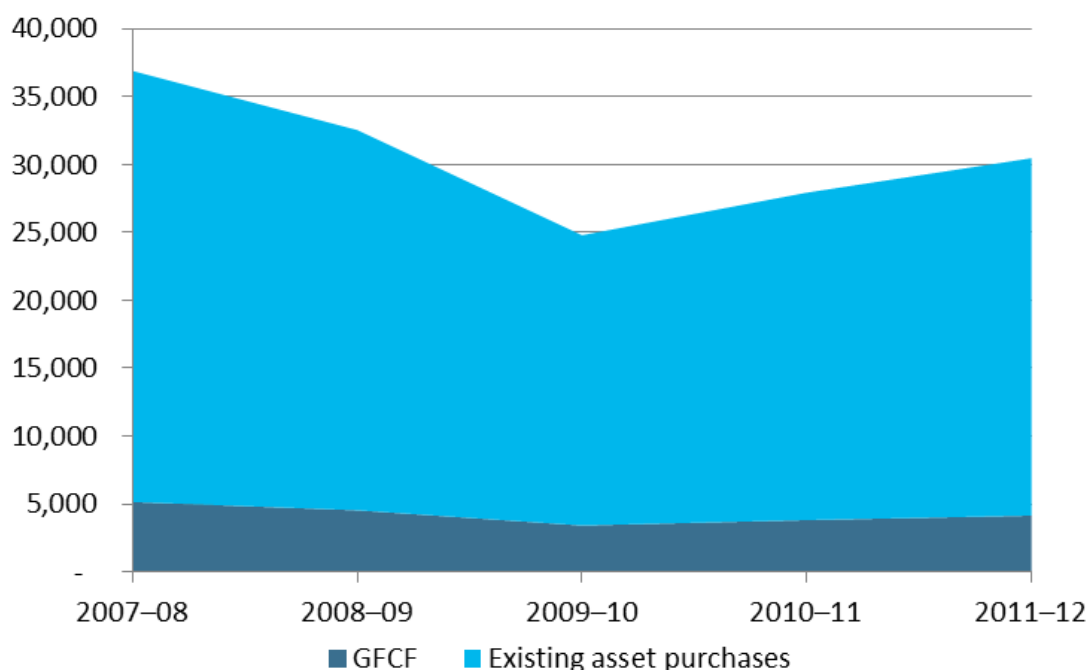
Figure 94 – New capital formation ratio for SMSFs, 2008-2013



Source: ATO, APRA, and ISA calculations

Applying the estimated capital formation ratio to the level of contributions into SMSFs (employer and member), it is possible to estimate the level of capital formation attributed to the investment activities of SMSFs. For 2011/12 the estimate level of capital formation funded by SMSF was around \$4.1 billion down from \$5.1 billion in 2007/8 driven mainly by the fall in contributions (Figure 95). In calculating these capital formation numbers it should be noted that in addition to contributions the growth in the SMSF sector's holdings of assets is characterised by significant inward asset transfers. ISA have assumed these inward asset transfers have no net impact on aggregate capital formation as they by definition must be pre-existing assets.

Figure 95 – Gross fixed capital formation funded by SMSFs, \$ millions



Source: ATO and ISA calculations

## 5.7.5 Tax and sustainability

### 5.7.5.1 In-specie transfers

SMSFs are able to make in-specie contributions through direct transfer of assets from the member to the super fund.

The typical in-specie contribution to an SMSF is a related-party transaction, and there is a significant risk that the value of the contributed assets is determined in a way that avoids appropriate taxation. In particular, the undervaluation of assets being transferred to the SMSF offer a number of avenues for tax avoidance. These include abuse of contribution cap limits (for example, through transfer of an asset with a fair value of \$50,000 to the fund with a value recorded for tax purposes at just \$25,000 as a pre-tax contribution).

Transfer of an asset to the SMSF is a capital gains tax (CGT) event. The transfer may result in a tax liability for the individual, and will result in a recording of a value for subsequent evaluation of CGT liability within the fund. It is mostly likely preferable for any CGT to be payable within the fund, so it is advantageous to undervalue assets being transferred to the fund. For example, if a property purchased for \$200,000 ten years ago is now worth \$1,000,000 but is transferred to the SMSF at a value of \$450,000 as a three year post-tax contribution, the individual taxpayer will only incur a CGT liability on the recorded capital gain of \$250,000. The fund will incur a tax liability if the property is sold again, unless it is held until the member is in the retirement phase, at which point no tax is payable.

A requirement for SMSF's receiving in-specie contributions to record the contribution pursuant to an independent valuation is an obvious and simple policy response.<sup>133</sup> However, it is unclear whether

<sup>133</sup> The Cooper Review recommended that "any acquisition or disposal of an asset (including in specie acquisitions and disposals) to a related party where there is an underlying formal market or exchange (for example, securities quoted for trading on the ASX) must be conducted through that market. Where a market does not exist, then that acquisition or disposal must be supported by a current independent valuation from a registered valuer (for example, a business real property transaction will need to be supported by a valuation)"

compliance could be policed in a cost-effective way. Perhaps a more pragmatic approach would be to simply prohibit in-specie transfers.<sup>134</sup>

#### 5.7.5.2 Effective tax rates

Recent work undertaken by academics from the University of New South Wales, the University of Technology Sydney and APRA's former Head of Research utilises an ATO dataset sample of in excess of 70,000 SMSFs for each of the years 2008-2010 inclusive.<sup>135</sup>

The large ATO dataset shows that the reported mean taxes paid by SMSFs over the years 2008-2010 were \$1,221 per annum or 0.22 per cent of assets. The ATO data shows that the SMSF tax rate on net income is a mere 6.31 per cent which provides a significant tax advantage over the 15 per cent concessional tax applying to APRA regulated funds. The concessional tax arrangements possible within SMSFs could reasonably be expected to distort allocations toward SMSFs, notwithstanding the concerns they raise.

Whilst the actual rates paid by SMSFs may differ from the rates reported to ATO, it is clear that the tax rates paid by SMSFs are considerably lower than the 30 per cent business and 15 per cent standard superannuation fund rate of tax.

There are a number of reasons for why the effective tax rate within an SMSF regime is so low, the most common are.

- SMSFs provide an effective means by which assets held within a business tax environment can be transferred to a concessionally taxed superannuation environment at market value. This effectively halves the tax rate from 30 to 15 per cent.
- The rate and availability of deductions within an SMSF is greater than in a business environment. Many of these deductions are not available to APRA-regulated funds.
- An SMSF provides greater flexibility to shift income and debt between beneficiaries to minimize tax.
- SMSFs benefit from negative gearing through limited recourse borrowing, which is not available to a business entity, or to trusts regulated by APRA. This effectively takes an individual benefit and provides it in a trust environment.
- SMSFs provide a greater ability for personal assets to be transferred into a concessionally taxed environment. Income derived from these assets is tax-free for those aged over 60. The average age of an SMSF member is currently 64.
- SMSF beneficiaries are able to avoid capital gains taxation by transferring assets into their SMSF and liquidating after they have turned 60 years of age.
- SMSF members do not need to crystallise losses when converting from the accumulation to the pension phase, provided their fund has sufficient liquidity to meet minimum drawdown requirements for pension members.

The promoters of SMSFs emphasise the tax advantages of SMSFs over standard business environments and APRA-regulated funds for the above reasons. Complex strategies are often proposed to minimize or avoid tax within an SMSF tax environment.

<sup>134</sup> Prohibiting in-specie transfers other than those conducted at arms' length would not appear to be an appropriate public policy response because it, too, is likely to be impractical and costly to enforce

<sup>135</sup> Arnold. B, Bateman. H, Ferguson. A, and Raftery. A, The cost, asset allocation and investment performance of self-managed superannuation funds in Australia. University of New South Wales Conference paper 2013. This work is unpublished and was presented in draft form to a University of New South Wales Colloquium of Superannuation Researchers on 26 June 2013

### 5.7.6 SMSF trusteeship

Defined contribution pension systems place important financial decisions in the hands of individuals. However, the costs and benefits of those decisions are borne not just by the individual, but also by the broader public. One obvious example is that a shortfall in retirement income may be partially recouped through an increased rate of the means-tested Age Pension.

There a number of possible dimensions on which member/trustees of SMSFs could be vulnerable. Member-trustees with poor financial literacy and skills may themselves make poor decisions to their own detriment. A dominant member-trustee may make poor decisions which also impact on other member-trustees. Passive member-trustees may be left in a vulnerable position after the death or illness of a dominant member-trustee. Member-trustees are as vulnerable to accepting poor advice as anyone, including advice reflecting conflicted remuneration structures.

It is important to note in this context that member-trustees of SMSFs operate in an environment with much more limited regulatory protection and enforcement. They also are not eligible for the statutory insurance against fraud to which members of APRA-regulated funds are entitled (and it is not clear how such insurance could equitably be extended to SMSFs).

Financial management requires a high level of cognitive function; however, cognitive function can deteriorate with age. Moreover, the incidence of dementia doubles every five years after 65. Researchers have observed that financial skills decline in the year before development of Alzheimer's.<sup>136</sup>

The SMSF membership of close to 1 million Australians is older on average than the wider population and the APRA-regulated fund membership: in 2011, 62 per cent were aged 55 and over and 46 per cent were aged 64 and over. Many SMSF members are already in the pension phase (at which assets are earning-tax free) or will move into that phase in the years to come.

In a research exercise with a relatively small sample, Earl et al (2013) have found that SMSF members who have had a diagnosis of dementia are much more likely (50 per cent compared to 12 per cent) to make what appear to be poor financial decisions in web-based surveys.

The potential vulnerability of SMSF member-trustees creates an important ethical issue – and potentially a regulatory issue also – for advisers to SMSFs trustees, including accountants. These advisers will in many cases be left with responsibility for managing an SMSF's affairs for remaining passive members or for other family members or fund beneficiaries. The risk of significant agency costs developing in this environment is high.

Recalling that the SMSF sector holds over \$500 billion in retirement savings, we would urge regulators to explore mechanisms to manage potential conflicts of interests around SMSFs with vulnerable seniors before they develop in scale.

## 5.8 The future

Australia will need greater levels of investment in capital to maintain living standards growth and overcome the headwinds our economy faces.

### *Banking*

Can the banks be retooled to be providers of long-term capital? There are economic and regulatory reasons that the banking system could reasonably be expected to shrink, and almost certainly will be

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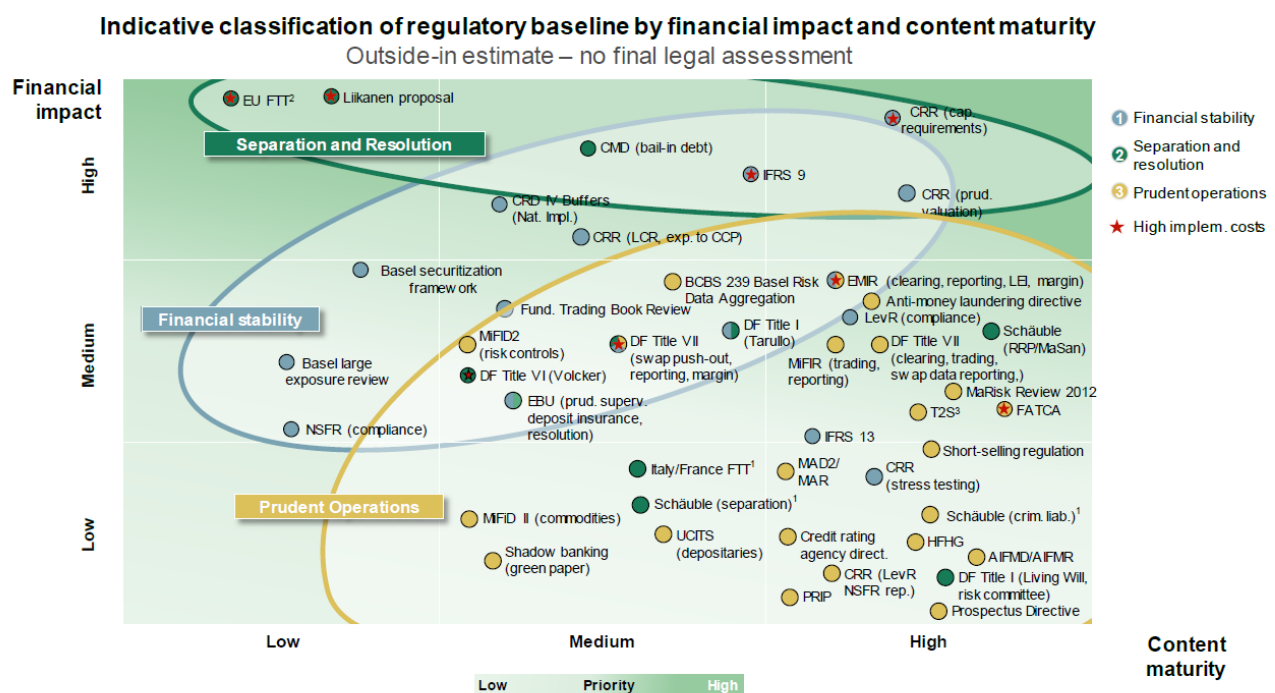
<sup>136</sup> Gerrans, P, 'Investment Decision Making in Superannuation: The Role of Cognitive Functioning' presented at AIST 2013 Research Symposium, , Ernst & Young, Melbourne, Tuesday 3 December, 2013

unable to be a source of greater long-term stable capital investment. As noted above, the level of private credit has reached its safe peak relative to GDP and credit growth is unlikely to again safely exceed GDP growth over long periods. Private credit levels that exceed 100% of GDP have a negative effect on growth. Layered on top of this economic barrier is the impost of prudential regulation after the GFC. Prudential regulation is tightening, and this is sensible. Australia's banking system required significant government intervention to remain stable, including guarantees of liabilities to depositors and bondholders, and expansion of RBA support (in addition to the overall economic stimulus provided by Government and the resulting boost to bank portfolio credit quality). However, the tightening of prudential regulation will curtail the ability of banks to make investments that are subject to long-term market risk. Prudent lending standards have meant that banks face little underwriting risk in respect of mortgages, and the prevalence of adjustable rate mortgages means banks face little interest rate risk. Conversely, expansion by banks into the capital markets will expose them to greater levels of market risk, and it is not clear that their liability or capital structures would be well suited to absorbing those risks.

For regulatory capital and business reasons, bank lending tends to have tenors of five years or less.<sup>137</sup> Commercial bank loan maturities average only 2.8 years in emerging economies and 4.2 years in advanced economies.<sup>138</sup> Banks are structurally organised to engage in short term lending, and increasingly to focus on home lending.

Change to global policy would be needed to reverse this, but global regulation is only partially complete and will have significant continuing impacts on banking (Figure 96).

**Figure 96 – Global regulations affecting banks and other financial institutions**



1. Schauble proposal is technically adopted but subject to change by future EU legislation (Liikanen). Same is valid for Italy/France FTT proposal  
2. Separation and resolution changes due to adjustments of booking model/legal entity setup 3. TARGET2-Securities  
Notes: Indicative analysis—not all regulations show n, DF: Dodd-Frank, HFHG: Hochfrequenzhandelsgesetz  
Source: BCG analysis

Source: BCG

<sup>137</sup> Financial Stability Board, Update on financial regulatory factors affecting the supply of long-term investment finance, Report to G20 Finance Ministers and Central Bank Governors, 29 August 2013: 3

<sup>138</sup> Group of Thirty, Long-term Finance and Economic Growth, 2013: 14



Whether these reforms will ultimately make financial systems more resilient is unclear. Moreover, because global reforms focus largely on institutional strength rather than dampening the short-termism and sentiment-driven volatility of finance, it is fundamentally similar in concept to pre-GFC global regulation. Rather than decide to also “smooth the roads,” post-GFC regulation continues to seek to “strengthen the shock absorber.”

### *Superannuation*

What about superannuation? On the one hand, superannuation assets will grow substantially, and are predicted to exceed banking system assets in 2033.<sup>139</sup> However, this does not necessarily mean that the savings within superannuation will be able to be allocated to long-term investment in capital. In fact, the capacity of the superannuation system to be a source of long-term investment and to continue to act as a countercyclical force in the economy and financial system is in its twilight *without changes to public policy*.

Superannuation should be able to make investments in long-term capital formation. It is invested by trustees, who are required to operate the fund in the best interests of beneficiaries, including in investments. Recognising that superannuation savings are contributed for retirement benefits, which may not be paid for decades, superannuation trustees necessarily should take a long-term perspective on their investments, and must therefore assess investment opportunities and risks that may unfold only over years.

This long-term fiduciary horizon of superannuation trustees has been a critical counterbalance to the short-term focus and incentive systems that typically prevail in other parts of the institutional investment chain, such as stock broking, proprietary trading and many forms of commercial investment management.

It will be increasingly difficult for trustees to maintain the same focus on long-term investment, even though their duties will remain oriented in that direction. This is due to a range of factors, including:

- *Demographics*: as members become older and have larger balances, they are more inclined to move allocations within the fund in response to sentiment and market movements. They may or they may not switch from one fund to another, or among options within a fund. But they could, and the balance sized will be large. As a result, trustees will need to hold ever-increasing levels of liquidity to accommodate the *risk* that a member might switch. In practical terms, it is difficult for a superfund to hold large amounts of illiquid, long-term investments, and stand ready to honour potentially large allocation changes by members.
- *Retailisation and liquidity requirements*: financial institutions seeking to grow assets under management are encouraging individuals to be active. The objective of the hyperactive retail environment is to encourage members to move. This is in the interest of institutions (except for the incumbent), which means that the vast majority of messages individuals receive about finance and investing is to be a switcher. Public policy encourages this mentality, suggesting it is appropriate for individuals to be uncommitted and shop for the best deal. In retail product markets, this is appropriate. In investing, that mentality undermines the ability to make long-term commitments to projects. And therefore it is no surprise that the financial centres which have most embraced this mentality have experienced large declines in investment to GDP ratios.
- *Performance measures*: short term measures can be reported frequently: they are generated frequently. Long-term measures can only be reported infrequently. The majority of messages received by individuals will be short term, and the framing of decision-making will be oriented toward short term

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<sup>139</sup> Deloitte (2013)

measures. This phenomenon is supported by cognitive biases within individuals to prioritise recent information. In addition, coordination problems typically prevent individuals from breaking this trend toward shorter and shorter time horizons. The equity markets are a perfect example: as financial deepening occurs, they have moved to greater levels of trading, more bits of information published more frequently, and shorter holding periods and time horizons. There appears to be a point of not only diminishing returns to this activity, but actually negative effects.

Failure to meet short term benchmarks could result in exits from the fund (harming remaining members through reduced scale and undermining the capacity to stay in long-term illiquid positions), as well as triggering liquidity policies crafted under prudential guidelines that require short-term action, rather than staying on the long-term plan.<sup>140</sup>

Aside from the institutional capacity of the superannuation sector to continue to play its role as the long-term, patient source of investment in capital, the investment environment – the market settings and the investment instruments and vehicles available – can be better designed to facilitate long-term capital investment.

## 6. The role of Government

Governments play an important role in supporting the productive capacity of the economy, including through investment in education and training and science and research.<sup>141</sup> We will focus on its role in providing public infrastructure.

### 6.1 Infrastructure

Government also has a key role to play in driving productivity growth in the delivery of key economic and social infrastructure in their own right or in partnership with the private sector.

Australia's infrastructure deficit is conservatively estimated by Infrastructure Australia to exceed \$300 billion (and by other sources at over \$700 billion).<sup>142</sup>

However, government can fund Australia's infrastructure deficit, particularly if it combines with superannuation funds as long-term equity investors in projects.

- In order to overcome Australia's infrastructure deficit over the next decade (based on total revenue in 2012-13 of \$376 billion), the Australian Government would need to increase its expenditure on infrastructure by about \$37 billion per year. This could be achieved in a budget neutral way if revenues increased by about 10 per cent (or expenditures declined by a similar amount). Given current GDP growth projections and the trajectory of budget deficits neither is realistic.
- The Australian Government does have the balance sheet capacity to take on some additional debt- by way of issuing bonds - to fund infrastructure based upon its AAA credit rating. It has already publicly stated that infrastructure bonds are under consideration. However, whether the government utilises this option is unclear and depends on its preferences regarding lifting productivity whilst also adding (at least temporarily) to the upward trajectory of government debt, relative to the commitment to return the budget to surplus and repay debt.

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<sup>140</sup> It is well-recognised that any market-price triggered behaviour has procyclical implications. Cf., UK Financial Services Authority (2009)

<sup>141</sup> Dolman and Gruen (2012) Productivity and structural change

<sup>142</sup> Citigroup (2008) Australia's infrastructure supercycle

- Alternatively, the Australian Government, through legislation, could create another account with the RBA, dedicated to infrastructure expenditure, with an initial balance specified at, e.g., \$400 billion. Expenditure could be directed into infrastructure projects from this account consistent with existing practice in respect of the Consolidated Revenue Account, or decisions about infrastructure projects to be funded could be delegated to Infrastructure Australia. Expenditures would be made at levels designed to complement the RBA's efforts to achieve its inflation and full employment mandate.
- State and territory governments have limited budget and balance sheet capacity to fund significant investments in infrastructure. There is a widespread reluctance to increase net debt positions that will affect AAA credit ratings (as happened in Western Australia). Infrastructure assets are regarded by credit rating agencies as adding to balance sheet risks and regarded as requiring longer term capital funding commitments.<sup>143</sup>

### 6.1.1 Partnerships

Government and the private sector can cooperate in connection with infrastructure provision. Australia's significant infrastructure deficit co-exists alongside a large and growing pool of superannuation assets.

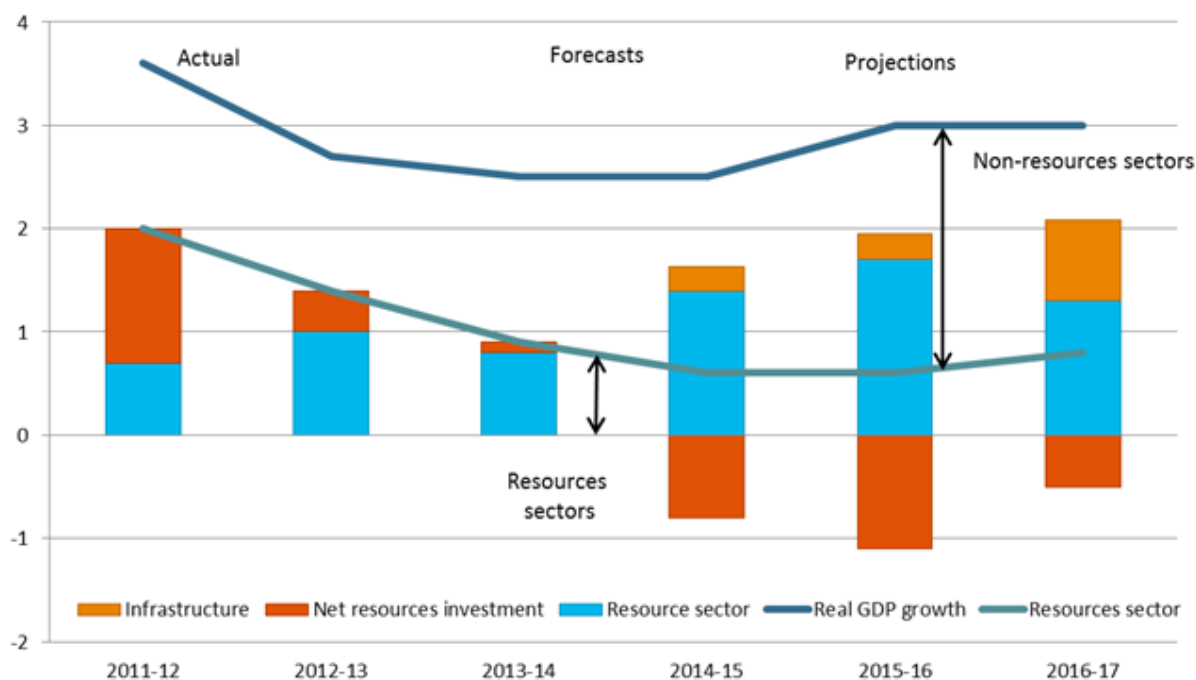
There are a number of reasons why, under current policy settings, investors in Australia typically do not participate in greenfield PPP projects either as a bid sponsor or primary equity investors.<sup>144</sup> These include very high bid costs and long procurement processes with 'patchy' deal flow limit the number of parties who can afford to dedicate large teams for such projects.

A breakthrough in infrastructure development would go a significant way to shoring up and rebuilding the foundations for long-term GDP growth in the wake of the mining investment boom. Figure 94 shows the degree to which an additional \$45 billion in needed infrastructure expenditure, made over a three year period, would boost GDP growth. We have assumed one-third of the expenditure would be government, one-third would be superannuation funds, and one-third would be state governments. Industry SuperFunds have made clear that they will make investments in infrastructure of up to \$15 billion were appropriate projects made available.

<sup>143</sup> Infrastructure Australia (2012) Infrastructure finance and funding reforms

<sup>144</sup> ISA (2014) Supplementary Submission to Productivity Commission Inquiry: Public Infrastructure

Figure 97 – Contribution to GDP growth of additional infrastructure investment



Source: Treasury, ISA estimates

### 6.1.2 Infrastructure bid models

Long-term equity investors like superannuation funds, with their long-term investment horizon and their appetite for illiquid assets, make them ideal partners for greenfield infrastructure projects, however, the current process is biased towards short term financiers and contractors and requires reform to level the playing field.

The current PPP bid process produces a major misalignment of interests between bid sponsors, who are able to extract outsized fees tied to winning and financing the bid – so called fee leakage - which is ultimately borne by government and taxpayers - and the equity investors they bring into the project. As such, PPP bid syndicate leaders are motivated by considerations other than the return to equity and the long-term success of a project.

Australia is not alone. In 2012, the UK National Audit Office stated: *“The PFI procurement process takes too long, costs too much and ...constitutes a barrier to market entry for financial investors such as pension funds. Successful bidders recover their procurement costs in the contract price, which means the taxpayer foots the bill.”*<sup>145</sup>

Industry SuperFunds believe that there is a better procurement process that satisfies both governments’ need for a competitive process and value for money outcome, as well as investors’ risk/return appetite, ultimately providing certainty and value for money for governments, patrons and investors.

Under the proposed “inverted bid model,” the traditional bidding process is reversed by tendering initially for the long-term owner-operator followed by separate bids for construction, operations and management, and debt. The most effective models could involve the long-term owner-operator bidding on their margin over the construction cost.

<sup>145</sup> UK Public Accounts Committee (2012), Equity investment in privately financed projects

The critical benefit of the proposed “open book” inverted bid model is that it will reduce the cost and level the playing field for genuine long-term equity investors who are seeking to make a reasonable return over the economic life of the asset, and not through the initial bidding, structuring and building of the asset.

The inverted bid model is discussed below in Section 9.2, one of several options to boost long-term patient investment in capital.

## 7. Financial regulation

### 7.1 Current settings and theoretical underpinnings

The current regulatory architecture of Australia’s finance system was put in place in the late 1990s, based largely on the recommendations of the 1996 Financial System Inquiry (Wallis Inquiry).

The Wallis Inquiry assessed the requirements and risks of the finance system. The environment was shaped by deregulation of the finance sector in the 1980s, privatisations and demutualisations of major financial corporations, rapid technological advances in computing and communications and increasing levels of international trade and capital flows.

Nearly two decades onwards, following the widespread market collapse of the Global Financial Crisis (GFC) and major changes both in the local and global financial markets, including increasing concentration and vertical integration in financial services, it is both inevitable and necessary for us to contemplate once more the structure of our financial system, its goals and the role that the Government need and must play to deliver these objectives.

The Wallis Inquiry reflects the view that allocative efficiency of resources could be best achieved through free and competitive markets, and, perhaps more importantly, that markets were generally and naturally inclined to be efficient except in limited circumstances. From this framework, the primary role identified for Government was to ensure market participants had accurate information, such as through disclosure regulation (and limiting false and misleading information), and conduct regulation (preventing fraudulent or collusive conduct).

In looking specifically at the financial sector, the Wallis Inquiry identified that due to the complex nature of the system and products, a greater intensity of regulation was required to ensure consumer protection. Conversely, and again in line with the then-prevailing efficient markets theory, specific *competition* regulation was deemed unnecessary for the financial services sector; instead broader competition regulation was viewed as adequate.

Fundamental to the Wallis Inquiry’s philosophy is a view of the financial system as the ‘framework within which [financial] promises are created and exchanged’.<sup>146</sup> The inquiry recommended that stronger regulation be applied in areas where the ‘intensity of the promise’ was the greatest.

While acknowledged, the Wallis Inquiry seemed far less motivated by consumer-driven (or ‘demand-side’) sources of market failure. The review did not entertain that consumer disengagement, limitations of human cognition, or product and pricing complexity might result in market failure of inefficiency.<sup>147</sup>

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<sup>146</sup> Commonwealth of Australia, 1997, Financial System Inquiry Final Report. Chapter 5. Available online: <http://fsi.treasury.gov.au/content/FinalReport.asp>

<sup>147</sup> For example the concept of sticky deposits – retails depositors have been shown to be ‘sticky’ i.e. disinclined to shift banking relationships due to come competitive products

## 7.2 Outcomes and recommendations of the Wallis Inquiry

The final report contained 115 recommendations across the spectrum of the Inquiry's terms of reference. Over time, the great majority of recommendations have subsequently been adopted by governments. Most significant amongst these was the creation of the 'twin-peaks' regulatory model with APRA being formed as an integrated prudential regulator and Australian Securities and Investments Commission (ASIC) as the securities regulator responsible for disclosure, conduct and licensing. The Wallis inquiry also endorsed the trend towards Reserve Bank independence and explicit articulation of its regulatory responsibilities including systemic stability.

## 7.3 The Global Financial Crisis

The years since the Wallis Inquiry have seen a series of financial crises unfold, beginning with the Asian Financial Crisis (which began soon after the Government received the Inquiry's final report), the Russian and Argentine currency crises, The Dot-Com Crash and finally, in 2007, the Global Financial Crisis (GFC).

The GFC saw the impacts of sentiment, short-termism, leverage, and finally contagion played out in a truly globalised and integrated financial system. A collapsing US housing market saw significant and widespread financial turmoil in prices and major institutions under pressure or collapsing in several jurisdictions around the world.

Pre-GFC regulation was grounded on the notion that institutions could absorb shocks. It was a "shock absorbers" rather than "smooth road" approach. The Chairman of the US Federal Reserve observed:

Although a number of developments helped trigger the crisis ... the system's vulnerabilities, together with gaps in the government's crisis-response toolkit, were the principal explanations of why the crisis was so severe and had such devastating effects on the broader economy.<sup>148</sup>

The structure of US financial regulation that emerged post-Depression under the Glass-Steagall Act allowed commercial banks to access central bank liquidity facilities and otherwise receive government assistance under certain circumstances, but not securities firms (or merchant banks).<sup>149</sup> Banking structural separation in the US was repealed in piecemeal form over more than a decade by governments on a bipartisan basis, culminating in the Financial Services Modernization Act of 1999.

The GFC punished universal banks and merchant banks (and other institutions acting to insure certain financial risks taken by those banks). Under the post-Depression approach, merchant banks would have been allowed to fail. This stance is designed to prevent 'moral hazard' where institutions (shareholders and executives) might be excessively incentivised to take risks as profits would be privatised but the losses covered partly or wholly by the tax payer.

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<sup>148</sup> Ben Bernanke, Statement to US Financial Crisis Inquiry Commission, September 2, 2010

<sup>149</sup> In the United States, most aspects of capital markets (securities and options exchanges, clearing organisations, and intermediaries (brokers and dealers)) are regulated by the Securities and Exchange Commission. Operating companies whose securities-related activities warrant the attention of the US federal government (e.g., because they are undertaking a public offering, are listed on an exchange, or have a large number of shareholders) are subject to investor protection regulation, largely based on disclosure. In 1940, investment companies and investment advisers were brought under SEC jurisdiction. Investment companies were subject to disclosure and certain operating regulations, and investment advisers were subject to a regulatory model based on agency law, in which advisers owed fiduciary duties to investors

Commodity derivatives markets, clearing organisations, and intermediaries are regulated by the Commodity Futures Trading Commission. Non-agricultural commodity derivatives markets, particularly financial derivatives, are far larger than the cash securities markets and are perhaps the centre of gravity of the financial side of the capital markets

This was the approach taken to Lehman Brothers. However, it was immediately abandoned when it became apparent that the traditional merchant banks (at the time, this included large players like Lehman, Lazard, Goldman, Morgan Stanley, and Merrill Lynch) were intimately interconnected with the universal banks (such as Citibank, Bank of America, and JP Morgan) and their commercial and retail operations through a variety of channels, including the short term funding markets and the OTC derivatives markets. This meant any large failure posed systemic risks.

A great many institutions, including some that had developed new and very risky business models, were in this context found to be 'too big to fail' ... or too interconnected to fail.

Governments in a number of jurisdictions intervened to purchase assets, inject capital in institutions, provide explicit guarantees of financial institutions, and support liquidity in private markets. Several institutions were nationalised. The idea of a largely self-regulating global financial system failed the acid test. The GFC highlighted:

- The extent of interdependencies amongst markets and assets outweighed what was priced and expected by the institutions, investors, other market participants, and regulators.
- The failures of institutions, policy makers and regulators to identify the channels and speed of contagion within and between firms and markets, and to respond to that contagion
- Failures of institutions, internal models, external ratings agencies, and investors to identify and price risk

Loans were provided on imprudent bases (whether in US residences or European financial institutions and sovereigns), and the financial system leveraged these assets. Quite apart from dampening and moderating risks, the financial system multiplied the risks (through synthetic products, repos, and other credit creation). Quite apart from distributing risks to those most able to bear them, the financial system concentrated risks in institutions that were not adequately resilient: each institution could fail, and the failure of an institution could lead to a daisy chain of failures. Unsophisticated investors also were sold inappropriate risks. As has been well documented,<sup>150</sup> these risks were identifiable and had been identified by many isolated regulators and market participants.

Contributing factors include:

- an explicit belief in the capability of financial markets to allocate and price risks appropriately;
- a series of financial innovations that sought to avoid regulatory capital requirements,<sup>151</sup> or to create new financial asset classes and markets on existing capital stock and risks; and
- structuring of incentives that encouraged risk-taking by rewarding short-term outperformance but not punishing long-term underperformance.

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<sup>150</sup> See, e.g., US Financial Crisis Inquiry Commission, Financial Crisis Inquiry Report (2011) (finding that "The crisis was the result of human action and inaction, not of Mother Nature or computer models gone haywire. The captains of finance and the public stewards of our financial system ignored warnings and failed to question, understand, and manage evolving risks within a system essential to the well-being of the American public.")

<sup>151</sup> See, e.g., Barclays, 2002, Capital Guide to Cash Flow Collateralized Debt Obligations



But at its core, the GFC was a reflection of the need for order and structure to combat sentiment and irrationality; only then can durable liberty arise.

It is unclear whether the correct lessons have been learned. Many interpret the GFC simply by its proximate causes, such as remuneration practices that were out of alignment with long-term financial viability to help manage the agency costs (discussed below) seemingly endemic to the sector. Incentives are very important to understanding and shaping behaviour. Unfortunately for proponents of these efforts, *the value of incentives is itself subject to sentiment*.

The aftermath of the GFC has seen many changes in the regulatory landscape with supranational regulatory agencies gaining increasing prominence in setting the regulatory agenda with systemic stability and macro-prudential regulation sitting front and centre of the reforms. The Financial Stability Board,<sup>152</sup> backed by the G20, has led the international efforts for greater consistency and harmonisation not merely between jurisdictions but also across banking and insurance.<sup>153</sup>

The key post GFC regulatory priorities have been:<sup>154</sup>

- The Basel III prudential reforms – the GFC highlighted the inadequacy of regulatory capital across jurisdictions, and the lack of international consistency on the quality of capital. Institutions appearing to be highly capitalised collapsed as the complexity of capital instruments, in particular hybrid and Tier 2 capital, offered limited loss absorbing capacity in the fast moving crisis. Basel III increases minimum capital ratios, introduces specific counter-cyclical capital measures and provides a more strictly defined and simpler definition of capital and seeks to constrain the overall level of leverage in the banking sector.
- Global systemically important financial institutions (G-SIFIs) – it is recognised that multinational financial institutions are particularly susceptible to contagion and are often ‘too big to fail’ thus requiring large tax payer funded subsidies in times of crisis. Global systemically important banks (G-SIBs) have been identified and now face a tougher capital and regulatory regime with increased focus on supervisory cooperation and crisis management channels.
- Over-the-counter (OTC) derivatives - improving the functioning of markets for over-the-counter (OTC) derivatives, particularly in respect of margining, price formation, and position reconciliation, so as to reduce risk of contagion in the financial system. This is achieved through (i) central clearing of standardised OTC derivatives contracts, and (ii) adding to transparency through trade reporting, to the extent possible, undertaking transactions on a multilateral market; and
- Shadow banking – entities and activities outside the regulated banking system that are associated with credit intermediation and maturity transformation i.e. performing banking like activities without adequate prudential regulation.

There is ongoing robust debate about whether the international regulatory response is “too deferential to banks”<sup>155</sup> or conversely “over-regulation.”<sup>156</sup> Given the costs of the financial crisis, which the US Government Accountability Office has reported could “range from a few trillion dollars to over [USD] \$10

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<sup>152</sup> FSB comprise of various national central banking institutions, international organisations such as the IMF and international standard setting bodies such as BCBS

<sup>153</sup> APRA undertook a project to align definitions of capital across banking, general insurance and life companies in 2012

<sup>154</sup> Glenn Stevens, Financial Regulation: Australia in the Global Landscape, 26 March 2013

<sup>155</sup> The Economist, 2011, Central Banks a more complicated game, Available: <http://www.economist.com/node/18178251>

<sup>156</sup> Asia Pacific Banking and Finance, 2010, Flying the flag against over-regulation, available: <http://www.australianbankingfinance.com/banking/flying-the-flag-against-over-regulation/>



trillion” for the US alone,<sup>157</sup> and the respectable levels of improvements in real living standards during the more tightly regulated era following World War II, it is fairly easy to favour greater levels of regulation.<sup>158</sup>

Globally regulatory settings have focused strongly on not just the regulations in effect but also the supervisory practices which implement the framework. The Basel Committee on Banking Supervision’s (BCBS) core principles, updated in 2012 from an earlier 2006 version, highlight the international acknowledgement that the “how” of regulation is as significant as the “what.” The revised core principles require a more intrusive approach to supervision recognising that regulating through disclosure regimes alone is inadequate to prevent failure.<sup>159</sup> The core principles also emphasise the importance of crisis management capacities and the ability to manage contagion.

These reforms, while costly, are lacking in a philosophical and theoretical grounding. They were expedient responses to a crisis where confidence needed to be restored, and many of the reforms had been in mind of legislators and banking regulators for some time.

## 7.4 Significant changes in theory are underway; no overarching philosophy has consensus

### 7.4.1 An evolution in economic theory

The regulatory framework inherited from Wallis owes a lot to neoclassical concepts. Within this framework, rational, informed, profit-maximising individuals, as both consumers and producers, interact in free markets to achieve mutually beneficial exchange and efficient allocation of resources. Welfare is maximised through individual competitive action.

However, economic theory has come a long way from the neoclassical concept, arguably beginning in 1955 with the introduction of ‘bounded rationality’.<sup>160</sup> In the decades that followed, researchers have also come to recognise that perfect information is an unrealistic assumption. The discipline’s initial approach (that such assumptions, although idealised, were still useful stylisations that made modelling possible), has generally given way to the realisation that these assumptions obscure fundamental questions from view and pre-determine inquiry.

Behavioural economics is the name given to the range of areas of inquiry around bounded rationality and imperfect information. Finance is a major area of application of the resulting concepts, where the label ‘behavioural finance’ is often used. Some important dimensions of behavioural finance are described below.

### 7.4.2 Myopia and inter-temporal effects

Myopia is the term given to the tendency for people to behave as if remote costs and benefits have little or no value. In the neoclassical view, future costs and benefits are discounted, but investment returns price and account for this discount, so current and future (and past) costs and benefits are effectively equalised. In practice, however, most consumers are myopic, resulting in, e.g., under-saving for future needs.

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<sup>157</sup> US Government Accountability Office (2013)

<sup>158</sup> The Federal Reserve Bank of Dallas research department “conservatively estimate” the cost of the financial crisis to the US was between “\$6 trillion to \$14 trillion, the equivalent of \$50,000 to \$120,000 for every U.S. household.” See, Atkinson, Luttrell, and Rosenblum, *How Bad Was It? The Costs and Consequences of the 2007–09 Financial Crisis* (July 2013)

<sup>159</sup> Basel Committee for Banking Supervision, *Core Principles for Effective Banking Supervision*, September 2012

<sup>160</sup> Simon, Herbert, 1955, *A Behavioral Model of Rational Choice*, *The Quarterly Journal of Economics* (1955) 69 (1): 99-118

Myopia also results in inadequate analysis of the pricing and other characteristics of products, such as retirement savings, investment and insurance products, the impact of which will only be felt in the distant future. In relation to superannuation and other financial services, this is often described as leading to consumer disengagement.

More generally, difficulties in reconciling costs and benefits over time may also have implications for investment behaviour, potentially reflected in short-termism – where recent information is over-valued relative to historical information.

### 7.4.3 Bounded rationality, imperfect information and financial products

Under assumptions of perfect information and unbounded rationality, a consumer would be able, without cost, to assess many different products, including financial products, and choose the most appropriate for their needs. The aggregate effect of such decisions would put direct commercial pressure on providers to optimise offerings. In fact many consumers have limited numeracy and financial literacy, relevant product information is complex, described in obscure jargon and buried in detailed product disclosures, and product conditions may also make switching difficult. Finding, understanding and acting on relevant information are all costly and financial markets are uncertain environments.

Combined with the tendency discussed above to excessively discount future costs and benefits, many consumers do not consider financial products in adequate detail, or do not act on that consideration. Product choices that are made may be influenced by the framing of the choice – broadly speaking how the choice is described and what it is compared to – as much as its actual characteristics.

### 7.4.4 Principal-agent problems

Under the assumption of perfect knowledge, contracts between principals and agents can be easily enforced. The incentives for both parties in mutually beneficial exchange should be clear and aligned. Once the assumption of perfect knowledge is relaxed, it may be possible for an agent to act in a manner which maximises their own interest but does not maximise the interest of the principal. In combination with myopia and other cognitive distortions – where consumers are not focused on remote costs and benefits and do not necessarily appropriately understand product features or pricing – the risk for abuse of principal-agent relationships is paramount. Related costs are described as agency costs.

In retail financial services markets, there are often many degrees of separation between principals and agents. The consumer is reliant on principal-agent relationships many layers thick. Conflicts of interest are not uncommon. Agency costs are a major risk.

The GFC involved numerous instances of agents acting contrary to the interests of principals. Misalignment of incentives often had a role in such problems developing. These notably include many circumstances where parties were paid to create, repackage, rate, sell or advise on financial products, either in wholesale or retail settings, but bore no risk associated with a potential fall in value of those assets. An industry developed to create such assets and present them in a manner that enabled them to be sold, and the incentives for the organisations and individuals involved ensured there was inadequate consideration of the risks being created and passed onto others.

(Traditionally, these concerns arising from human imperfection would be front-and-centre, and the layers of agents could be used to set “ambition against ambition;” avarice against avarice.<sup>161</sup>)

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<sup>161</sup> The Federalist Papers No. 51 (discussing the separation of powers in political liberalism: “Ambition must be made to counteract ambition.”). Cf. The Federalist Papers No. 72

The inherent tension within liberalism is between order and liberty. In the context of political liberalism, the objective is to realise self-government, while guarding against “factions” – individuals or groups acting against the interests of the public whilst subject to the “turbulence and weakness of unruly passions.” The Federalist Papers No. 10

### 7.4.5 Efficient markets

The efficient market hypothesis (EMH) formulated in the early 1960s maintains that market prices fully reflect all available information, and that they are an accurate valuation of a security. The EMH underpins large parts of the structure of financial regulation with a focus on disclosure regimes and a reliance on market prices for risk and asset valuations.

Public policies grounded in EMH include:

- Incorporation by reference
- Summary prospectuses
- Mark-to-market prioritisation in fair value accounting
- Retailisation of securities markets (persons with low financial literacy and investment horizons could nonetheless expect a fair price since markets were efficient)
- Pillar 3 prudential regulation<sup>162</sup>

Industry practices that rely on efficient markets theory include:

- Modern portfolio theory
- Capital asset pricing model
- Share-based incentive remuneration

The reliance on EMH for public policy and industry practice has transformed historical information reflecting the perspectives of particular counterparties (of often unknown quality and motivations) into guides that shape future activity and binding valuations on other assets. Put another way, as EMH has weakened, the legal and practical framework built on the faith in market efficiency has not also shifted. This has been particularly distressing in consumer protection and in prudential regulation.<sup>163</sup>

Sophisticated critics of EMH acknowledge both that (i) securities prices are generally poor indicators of the actual value of an enterprise's business, because they "frequently and substantially" deviate from fundamental value,<sup>164</sup> and (ii) the assumptions underlying EMH are unrealistic, but also that (iii) securities prices are potentially useful information and often better than other valuation measures. For this reason, the core response to the weaknesses of EMH may be to reform public policy that relied upon it, which could require stronger consumer protection around disclosures, greater structuring around the trading activity of individuals to improve decision making quality and reduce excess volatility, and the incorporation of other valuation measures for any purpose other than the direct reporting of historical prices.

### 7.4.6 Complex systems theory

Behavioural finance can be characterised as a programme to seek to identify exceptions (and the causes for such exceptions) to the assumptions underlying neoclassical economics.

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<sup>162</sup> See, e.g., Basel Committee on Banking Supervision, 2001, Pillar 3 - Market Discipline working paper number 7 ("Market discipline [through disclosure] imposes strong incentives on banks to conduct their business in a safe, sound and efficient manner, including an incentive to maintain a strong capital base as a cushion against potential future losses arising from risk exposures.")

<sup>163</sup> Stanasic, Nemanja M., Popovicic-Avric, Snezana D., Mizdrakovic, Vule M. and, Djenic, Marina M. (2013), Financial Aspects of Recent Trends in the Global Economy, Vol 2, Mark to Market Accounting as a Magnifier of Financial Crises ("While the mark-to-market rule does not cause financial crises on its own, it does magnify the underlying market volatility caused by the positive feedback mechanism inherent in efficient market economies. Mark-to-market accounting does not only reveal volatility, it is also generates it.")

<sup>164</sup> Summers (1986)

See generally, Fox J., The Myth of the Rational Market: A History of Risk, Reward, and Delusion on Wall Street. Harper Business (2009)

Whilst behavioural finance is having a significant effect on economic thinking, another waxing discipline – complexity economics – could result in even greater shifts. This area of work approaches economic and financial systems as evolving networks. It sees the economy as in motion, perpetually “computing” itself—perpetually constructing itself from prior conditions. Where equilibrium economics emphasizes order, determinacy, deduction, and stasis, complexity economics emphasizes contingency, indeterminacy, sense-making, and openness to change.<sup>165</sup>

This has practical implications for a number of financial phenomena that may be emergent, including systemic risk (for *credit networks*, it may increase as the number of counterparties increases beyond a threshold point). This phenomenon perhaps arises because individual financial fragility feeds back on itself and may amplify the effect of an initial shock.<sup>166</sup>

## 7.5 New economic thinking, the GFC, and financial regulation

After the GFC, a number of national governments have undertaken to examine the failures in public policy within respective jurisdictions.

In the UK, the Kay Review recently wrestled with the degree to which abstract theory (particularly in finance) has affected industry practice and regulation, with harmful effects. As the Review put it:

The level of abstraction of theories such as the strong efficient market hypothesis and capital asset pricing model is high: but their practical influence appears to be considerable, even among people who express general scepticism about this kind of reasoning. Some practitioners to whom we talked displayed an almost mystical faith in market efficiency, expressed in simple maxims such as ‘you can’t buck the market’, and ‘the market knows best’.

Faith in the conclusions of the strong version of the efficient market hypothesis appears to be unaffected by recent experience of persistent asset mispricing in markets such as those for dot.com stocks, securitised debt instruments and sovereign lending, and subsequent abrupt correction of these asset mispricings. The case for the general application of mark to market accounting relies to a substantial extent on the belief that market prices have the informational content implied by similarly strong versions of the efficient market hypothesis: that market prices are the best available estimate of the fundamental value of the relevant assets.

The UK have separated the Financial Services Authority’s previous mandate across both prudential and consumer protection, with the mandate for prudential regulation being absorbed by the central bank. The UK is also applying more scrutiny to outcomes from competition forces in financial markets.<sup>167</sup>

In addition, currently, regulatory policy seeks to enable the financial system to tolerate large potential volatility in individual-by-individual decision-making by boosting the resilience of financial firms (e.g.,

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<sup>165</sup> See, e.g., Jackson M.O. (2008), *Social and Economics Networks*, Princeton University Press. See also, Arthur, W.B., *Complexity Economics: A Different Framework for Economic Thought*, Santa Fe Institute Working Paper No. 2013-04-012

<sup>166</sup> See, Battiston, S., Delli Gatti, D., Gallegati, M., Greenwald, B.C., and Stiglitz, J.E. (2009), *Liaisons Dangereuses: Increasing Connectivity, Risk Sharing, and Systemic Risk*, NBER Working Paper No. 15611 (January 2009)

<sup>167</sup> In contrast, the response by the US Federal Government to the GFC was the Dodd Frank Wall Street Reform and Consumer Protection Act. The Dodd-Frank Act is not an outgrowth of a coherent reorientation of economic theory. It is instead a response to the perception that US financial regulators lacked sufficient authority and sufficient coordination to oversee the financial system. Its major item, Title VII, will at least significantly reduce operational risk in OTC derivatives. Other reforms to the US regulatory structure (Title I, Title X, and Title III, in particular) should enable regulators to be more active on systemic risk and consumer protection, but does not change their orientation

In the face of the GFC, US financial regulators did behave pragmatically rather than dogmatically, particularly after the bankruptcy of Lehman Brothers. For example, rather than hold to the assumption that markets are efficient and self-correcting, the US Securities and Exchange Commission prohibited short selling in hundreds of financial institutions See, Release Nos. 34-58166, 34-58190, 34-58572, and 34-58592

through substantial liquidity and capital held against external market risk or customer switching). This is notwithstanding that economic reality is far less volatile than market risk and sentiment. Greater structure around individual decisions could reduce market risk and reduce the frequency and the potential size of sentiment-driven customer behaviour.

## 7.6 Philosophical frameworks

The Wallis Inquiry was a creature of its time that has stood the test of time reasonably well given the significant changes that have occurred since its final report.<sup>168</sup>

The major philosophical changes since that time involve the waning support for financial liberalisation.<sup>169</sup> This is consistent with major research streams finding an inverse relationship between modern finance and growth after a certain point, which are discussed in Section 4.2.1.5, above.

Francis Fukuyama, who is well-known for crystallising changes and dynamics in political economy has observed:

There were two critical weaknesses in the economic liberalization agenda. The first was the fact that liberalization works much better in the real economy than in the financial sector. In the late 1990s, there was almost universal consensus among economists that freer and more globally integrated financial markets would lead to more efficient capital allocation and thus higher growth. However, it turned out that global financial markets are not necessarily efficient; they are subject to bubbles, manias, and irrational exuberance, whose costs are ultimately borne by taxpayers. Much of the apparent growth during the 2000s was illusory and based on excessive bank risk-taking. Countries such as Mexico, Thailand, and South Korea quickly got into trouble after they followed American advice and opened up their capital accounts in the 1990s. Those countries that did not liberalize, like China, found themselves protected from the damaging impact of volatile hot money. The United States was hoisted by its own petard when it dismantled the Glass-Steagall regulatory regime in the late 1990s and opened itself up to a wave of liquidity washing in from China and other emerging markets. All of this facilitated the financial crisis of 2008 and led to the most serious recession since the Great Depression.<sup>170</sup>

Without a broad consensus about the bases for financial system policy, this Inquiry should proceed with caution. It should privilege new thinking over old, and facts over ideology, for the outcomes to be durable.

Can a new framework be crafted, and if so, what might its foundations be?

## 7.7 Financial regulation – issues in Australia

During the GFC, financial markets reacted dramatically, wealth was destroyed, and serious consequences reverberated through the real economy and the public sector, including a collapse in the government budget position.

One focus of financial regulation in the years since the GFC has been on the implementation of the many regulatory changes generated through the international standard setting bodies such as the Basel Committee on Banking Supervision (BCBS) and the International Association of Insurance Supervisors (IAIS); Australia is a member of both organisations. In the process of implementing internationally coordinated regulation, Australia has often sought to maintain tougher regulatory standards to meet its objectives.

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<sup>168</sup> The final report was issued after the Asian Financial Crisis, which purportedly

<sup>169</sup> Across the OECD, finance is being subject to increasing regulation and suffers waning popular support. While pursuing economic liberalisation, China, Brazil and India are undertaking more measured financial liberalisation, quite different in pace and scope from the Anglophone approach.

<sup>170</sup> See also, Fukuyama F. and Colby S. (2009), What Were They Thinking, The American Interest, September 2009.

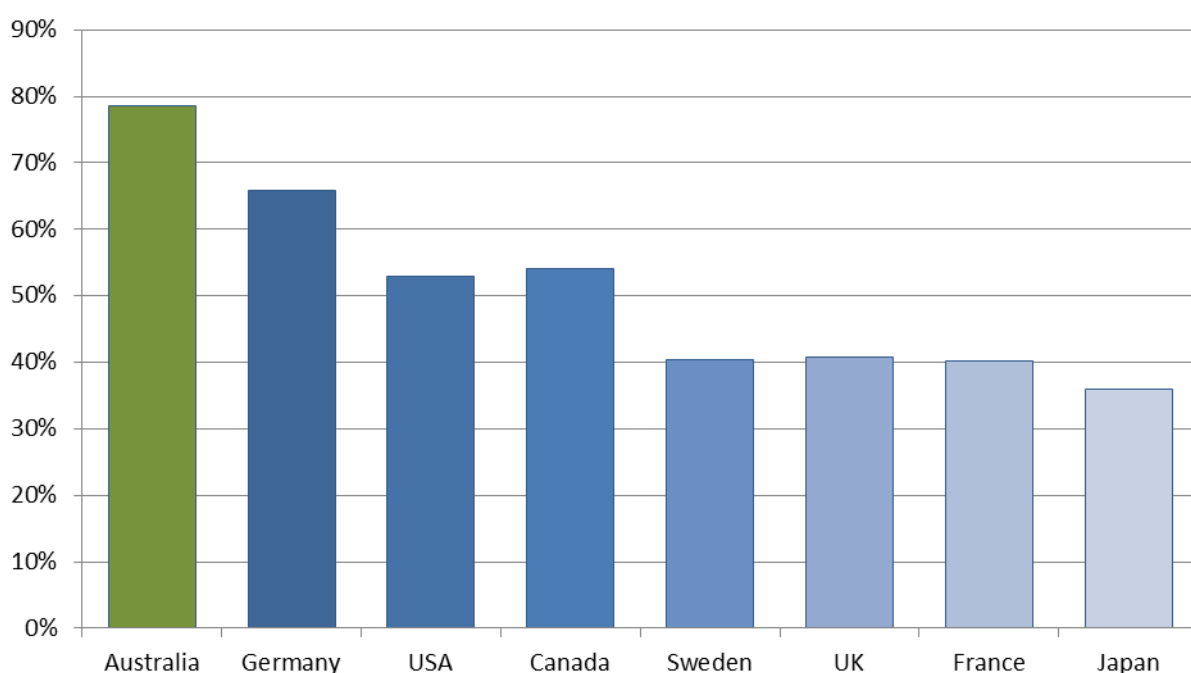
However these objectives of regulation, formulated at the time of the Wallis Inquiry, remain largely unchallenged.

### 7.7.1 Banking, concentration and competition

The Wallis Inquiry believed that the regulation of the financial sector should seek to balance the need for safety against competition and efficiency and identified market failures to be most likely in terms of systemic stability and disclosure, while competition was an expected outcome of market forces.

The International Monetary Fund's (IMF) Financial Sector Assessment Program (FSAP)<sup>171</sup> found that Australia has one of the most concentrated banking sectors in the developed world, as shown in Figure 98. The FSAP identified concentration within the banking sector as a key source of risk for Australia.<sup>172</sup>

Figure 98 – Share of banking system assets of four biggest banks in developed economies, %



Source: IMF, Financial System Stability Assessment for Australia 2012

Section 4.4, above, sets out a range of evidence regarding the lack of competition in Australia's banking sector.

Competition, essential for efficiency, is often considered as a trade off with stability, particularly within the banking sector.<sup>173</sup> The arguments against competition in the banking sector stems from the view that increased competition leads to higher costs of funding as banks compete for limited deposit funding. This results in engagement in riskier activities generating higher systemic risks. However, recent papers published by the IMF and the World Bank have argued that competition in itself does not yield negative

<sup>171</sup> The Financial Sector Assessment Program (FSAP) assesses the compliance of regulatory jurisdictions with global international minimum standards. These include standards set through the BCBS, IAIS and IOPS

<sup>172</sup> International Monetary Fund, Australia: Financial System Stability Assessment, November 2012

<sup>173</sup> David Richardson, The rise and rise of the big banks Concentration of ownership, The Australia Institute December 2012

impacts on stability but rather the regulatory landscape within which competition occurs is the key in particular impacts from leverage and remuneration incentives.<sup>174</sup>

While the relationship between competition and stability is contentious, studies have found that increased competition within the financial sector increases the efficiency and access to finance in the economy.<sup>175</sup>

With natural economies of scale, in the lead up to and during the GFC, the growth of the four major banking groups has continued increasing the concentration in an already concentrated market place. APRA's current mandate while requiring consideration of competition impact does not place fostering of competition as a core objective. To achieve a dynamic and efficient capital system it is necessary to acknowledge the role of regulation in fostering healthy competition and carefully consider whether simply removing regulatory barriers that currently institutionalise the lack of competition in the Australian market,<sup>176</sup> would be sufficient.

The role of the financial sector in the broader economy also merits further exploration. While the financial system is the framework for the exchange of financial promises it also forms an essential every day service similar to most other utilities. In regulating for efficiency there needs to be regard for this facet of finance which is markedly absent from the Wallis report. Consistent with the treatment of other utilities, considerations of pricing of essential services, of which finance is one, needs to be reviewed.

### 7.7.2 ASIC funding

ASIC plays an essential role in regulating the Australian financial industry. Being a corporate, markets and financial services regulator, ASIC's responsibilities are broad, covering a number of important and complicated areas. These include market integrity, credit and financial reporting of companies, financial advice and services, among others.

ASIC's mission is to ensure that the markets are "fair and transparent, supported by confident and informed investors and consumers."<sup>177</sup> In an environment in which financial services and financial transactions are increasingly complex and international in nature, the regulatory task becomes more difficult and challenging.

In recent years, ASIC has been tasked with more responsibilities, becoming a "regulatory conglomerate that also covers insurance, superannuation, credit markets, margin lending, business names and share market disclosure".<sup>178</sup>

#### *ASIC funding model*

Since its inception, ASIC has been funded entirely by the Government: "Funding for ASIC comes from allocations within the annual budget of Parliament".<sup>179</sup> On the other hand, the majority of RBA's income comes from its "portfolio of financial assets" while APRA's funding is "largely financed by fees imposed on the financial sector entities it supervises as determined and collected by the Australian Government—as a levy on supervised entities."<sup>180</sup>

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<sup>174</sup> Global Financial Development Report 2013: Rethinking the Role of the State Finance – World Bank; How Does Bank Competition Affect Systemic Stability? - Anginer, Demircuc-Kunt, and Zhu - The World Bank, Feb 2012; Banking Competition and Stability: The Role of Leverage, Freixas and Ma February 2013

<sup>175</sup> See, e.g., OECD (2009), Competition and the Financial Crisis, and references therein

<sup>176</sup> As an example the ability and utilisation of internal models to determine capital requirements by the major banks creates a framework that has negative impacts on competition (through lower capital requirements on major banks for similar functions)

<sup>177</sup> ASIC website <http://www.asic.gov.au/asic/asic.nsf/byheadline/Our+role?openDocument>

<sup>178</sup> Maiden, Malcolm (2013) Funding the key to ASIC overhaul. Sydney Morning Herald, 11 October 2013

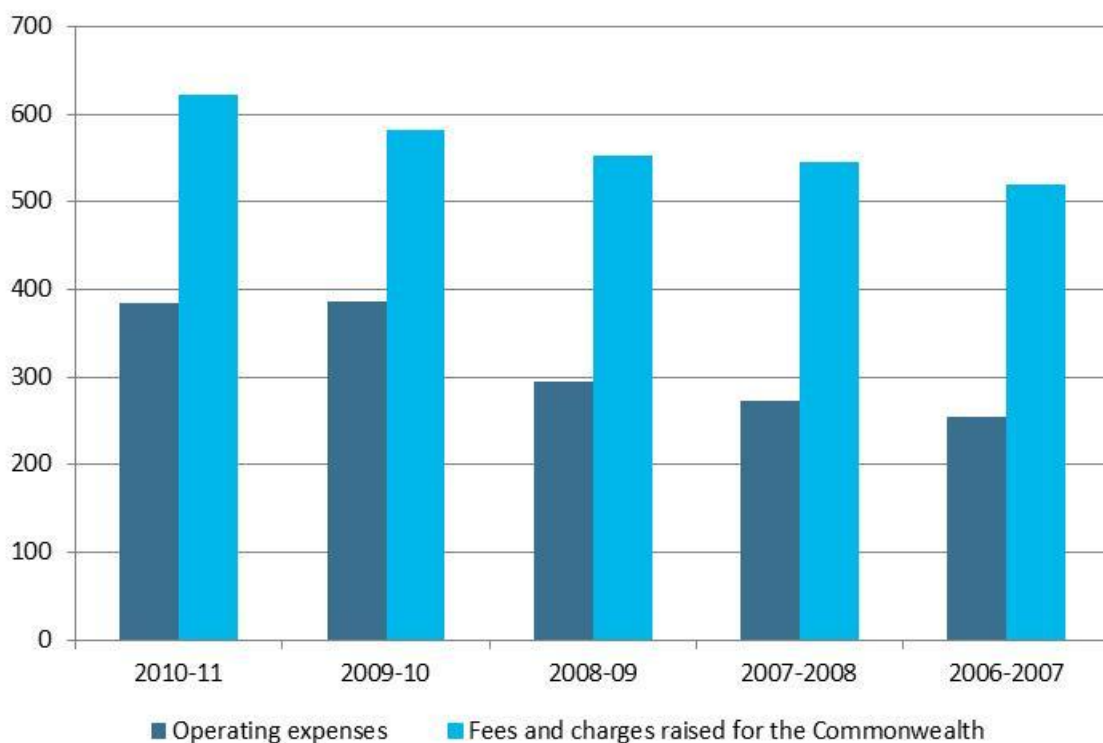
<sup>179</sup> Group of 30 (2013) The Structure of Financial Supervision – Approaches and Challenges in a Global Marketplace

<sup>180</sup> Ibid. 28



As part of its operations, ASIC also collects fees and charges on behalf of the Commonwealth Government under the Corporations Act, fees and charges under the National Credit Act from 1 July 2010, and also new fees collected by ASIC since 1 August 2010 from market operators. The following chart summarises ASIC's operating expenses and fees and charges collected on the behalf of the Government for the past five years.

**Figure 99 – ASIC operating expenses and fees and charges collected on the behalf of the Government**



Source: ASIC Annual Reports

There have been concerns that the budget for ASIC is inadequate given their broad and complex regulatory focus and this might prevent ASIC from working effectively.<sup>181</sup> ASIC's funding is divided into core and non-core funding. In recent years, non-core funding for specific projects has been a significant part of its budget. This, according to IMF, prevents ASIC from proactive regulation.<sup>182</sup>

Tightness and inflexibility in budget can limit ASIC's effectiveness, turning it into a "desktop regulator". Due to resource constraints, ASIC relies more on "its initial risk-based assessments, self-reporting of breaches of regulatory requirements and third party notifications" rather than more frequent onsite reviews and proactive surveillance.<sup>183</sup>

The finance world is increasingly complicated with emerging risks and challenges. It is essential that ASIC is adequately funded and resourced to carry out its duties.

It is appropriate to review alternative funding options for ASIC, including the self-funded agency model (or user-pay regulation). Under this model the industry is levied to fund the regulator's activities, and the budget for activities is set by the regulator in consultation with Government. Essentially, the sectors that

<sup>181</sup> For example, in 2012 the IMF called for increase funding for ASIC. See, *Sydney Morning Herald*, "ASIC needs more funding, says IMF," 23 November 2012

<sup>182</sup> Group of 30 (2013) at 22

<sup>183</sup> Id



require the most costly supervision will be paying the most. The Financial Conduct Authority (FCA) in the UK has been following this practice.<sup>184</sup> In the US, a broad range of stakeholders (including the full American Bar Association) have argued for a similar level of budget independence for the US Securities and Exchange Commission and the US Commodity Futures Trading Commission.<sup>185</sup>

Some advantages of the self-funded agency model are:

- The agency can independently set its budget based on necessary activities without relying entirely on the Government. This means there is potentially no need to delay important actions, which can result in more effective regulation.
- Financial regulation is paid for by participating firms, not by tax payers. Moreover, the area which requires the most regulatory resources will be allocated more charges.

For this model to work, it is necessary to have a process which clearly defines the types and amount of fees paid by firms and how fees are raised. More importantly, there needs to be a clear accountability framework for the regulator to operate in. This should detail the regulatory body's responsibilities, reporting duties and also outline criteria for a periodic auditing process.

The Financial Conduct Authority (FCA) in the UK may be a good example of this model.<sup>186</sup> Instead of Government funding, the FCA charges fees to all authorised firms that carry out activities that it regulates, as well as other bodies such as recognised investment exchanges.

In terms of accountability, Treasury can appoint independent auditors to examine the FCA's actions and process. However, the criteria for evaluation are still in the process of being developed.

### 7.7.3 Regulatory arbitrage, tax arbitrage, and the regulation of SMSFs

SMSFs now account for approximately a third of superannuation sector assets and compared with members of other types of superannuation funds, SMSF members tend to be older, earn a higher income and have larger superannuation balances. SMSFs are also subject to a different regulatory regime than other superannuation funds. These include:

- *Regulatory responsibility.* Primary responsibility for regulation of the SMSF sector rests with the Australian Taxation Office (ATO). The Australian Securities and Investment Commission (ASIC) regulates certain aspects of the 'gatekeepers'—the advice providers, SMSF auditors, and providers of products and services to SMSFs. Other superannuation funds are prudentially regulated by APRA.
- *Trustee obligations.* Trustees of APRA-regulated superannuation funds are required to have a RSE Licence. This requirement does not apply to the SMSF sector where the members and trustees are the same.<sup>187</sup> There are strong governance and competency requirements for obtaining an RSE licence which do not apply to SMSFs. APRA also has a range of fitness and propriety requirements that apply to Trustees.

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<sup>184</sup> Durie (2013) ASIC eyes radical funding rethink on UK lines

<sup>185</sup> See, e.g., Letter of 17 May 2012 from the American Bar Association to The Honorable Spencer Bachus, Chairman of the Committee on Financial Services, US House of Representatives, The Honorable Tim Johnson, Chairman, Committee on Banking, Housing and Urban Affairs, US Senate, The Honorable Barney Frank Ranking Member, Committee on Financial Services, US House of Representatives, and The Honorable Richard Shelby, Ranking Member, Committee on Banking, Housing and Urban Affairs, US Senate. See also Born and Donaldson (2013) Self-funding of regulators would help fiscal mess

<sup>186</sup> The Financial Services Authority was split into two separate regulatory authorities, both operating under the Bank of England from 1 April, 2013. The FCA is in charge of market supervisory and consumer protection while the Prudential Regulatory Authority focuses on banks and insurance firms

<sup>187</sup> Exemptions apply where a member is under 18 or is subject to a mental disability – refer to ATO for full guidelines

- *Prudential regulation of investments.* APRA's prudential standards require trustees of APRA-regulated funds to formulate views and undertake assessments of the fund's position in relation to liquidity and diversification.<sup>188</sup> No such requirement exists in relation to SMSFs.<sup>189</sup>
- SMSFs are not protected in the case of fraud or theft as with APRA regulated funds under Part 23 of SIS
- Cost motivation –some service providers to the SMSF sector are based on a low cost high volume (and potentially lower quality) model.<sup>190</sup> There may be limited motivation for service providers to adopt best practice unless mandated through standard setting.

There are material differences in the regulatory settings for SMSFs and APRA regulated funds. The SMSF sector remains in the domain of self-regulation with the underlying ideology that members investing in their own interest will have a vested interest in optimal decision making. This is not too far from the market self-regulation principles that since the GFC have been largely abandoned as the preferred paradigm for regulation. As the SMSF sector grows, the impact of suboptimal asset allocation and regulation will become increasingly systemically important. The paradigm for SMSF regulation merits a review in this context.

The future of the SMSF structure, from a practical perspective, will likely be as a distribution channel for the major banks' wealth arms. This will remove the final reason that the ATO had regulatory oversight of SMSFs (namely that looking after a large number of individuals may be a challenge for APRA). As the SMSF provider market concentrates around the major banks, the basis for APRA regulation increases.

#### 7.7.4 Superannuation more generally

Superannuation is primarily a component of public policy to provide retirement security. When the system achieves maturity, if it does not deliver improved retirement security then no amount of utility in the financial system should save it from significant reform. APRA's authority to make prudential standards for certain superannuation funds is in its early days. Time should be given to see whether this authority can build upon the strengths of the trustee system. Trustees have the potential to overcome many of the limitations faced by any single individual in appropriately saving for retirement, including reviewing (and even creating) investment opportunities, filtering investment options for fund members, monitoring portfolio companies and participating in voting decisions, among other things. A reduction in the role of the trustee, or the continued shift of superannuation savings into environments not overseen by an APRA-regulated trustee would not only undermine core protections, but may entail a shift in regulatory responsibilities to agencies other than APRA.

<sup>188</sup> Prudential Standard SPS 530 Investment Governance – APRA

<sup>189</sup> SMSF financial accounts must be audited, which covers "that the fund trustee has an investment strategy, that the trustee has given consideration to risk, return, liquidity, diversification, the insurance needs of fund members, and that the fund's investments are made in line with that investment strategy. No opinion is made on the investment strategy or its appropriateness to the fund members." Australian Taxation Office, 'Self-managed superannuation fund independent auditor's report: instructions for Instructions and form for approved SMSF auditors

<sup>190</sup> Rafferty, Adrian, The size, cost, asset allocation and audit attributes of Australian self-managed supranational funds, December 2013 (PHD Dissertation)

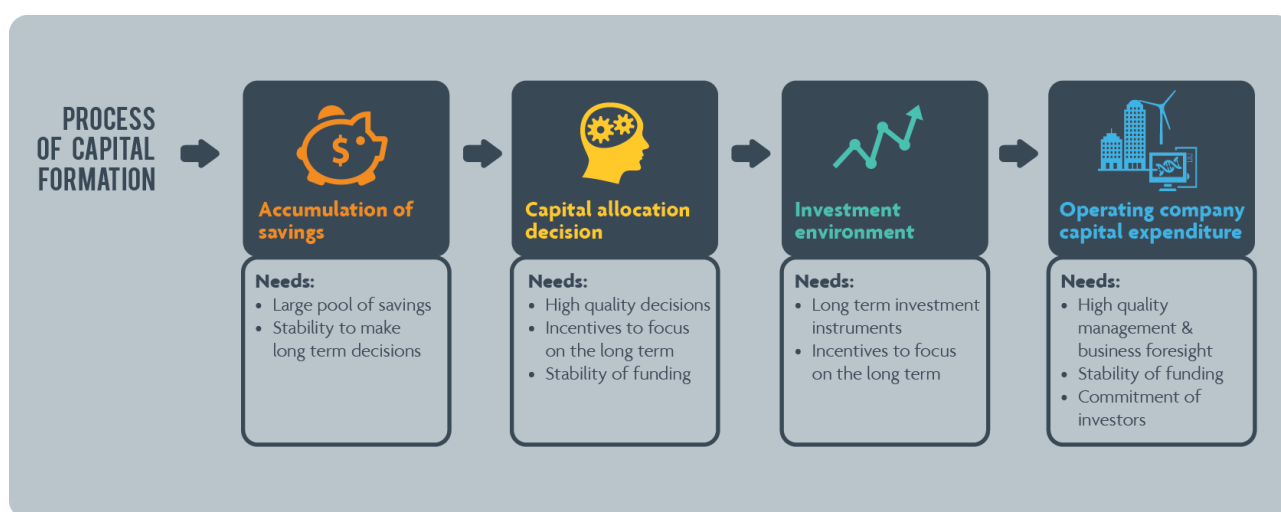
## PART II: Financial reform options to support long-term investment in capital

### 8. Introduction

The accumulation of savings and transformation of savings into long-term investments in fixed capital happens through processes and institutions. There are potential improvements that could be made to each stage of these processes and among the institutions. This submission identifies a range of policy options that could be applied to the major stages and institutions involved.

The process by which savings is transformed into investment is depicted on Figure 100.

Figure 100 – Process of capital formation



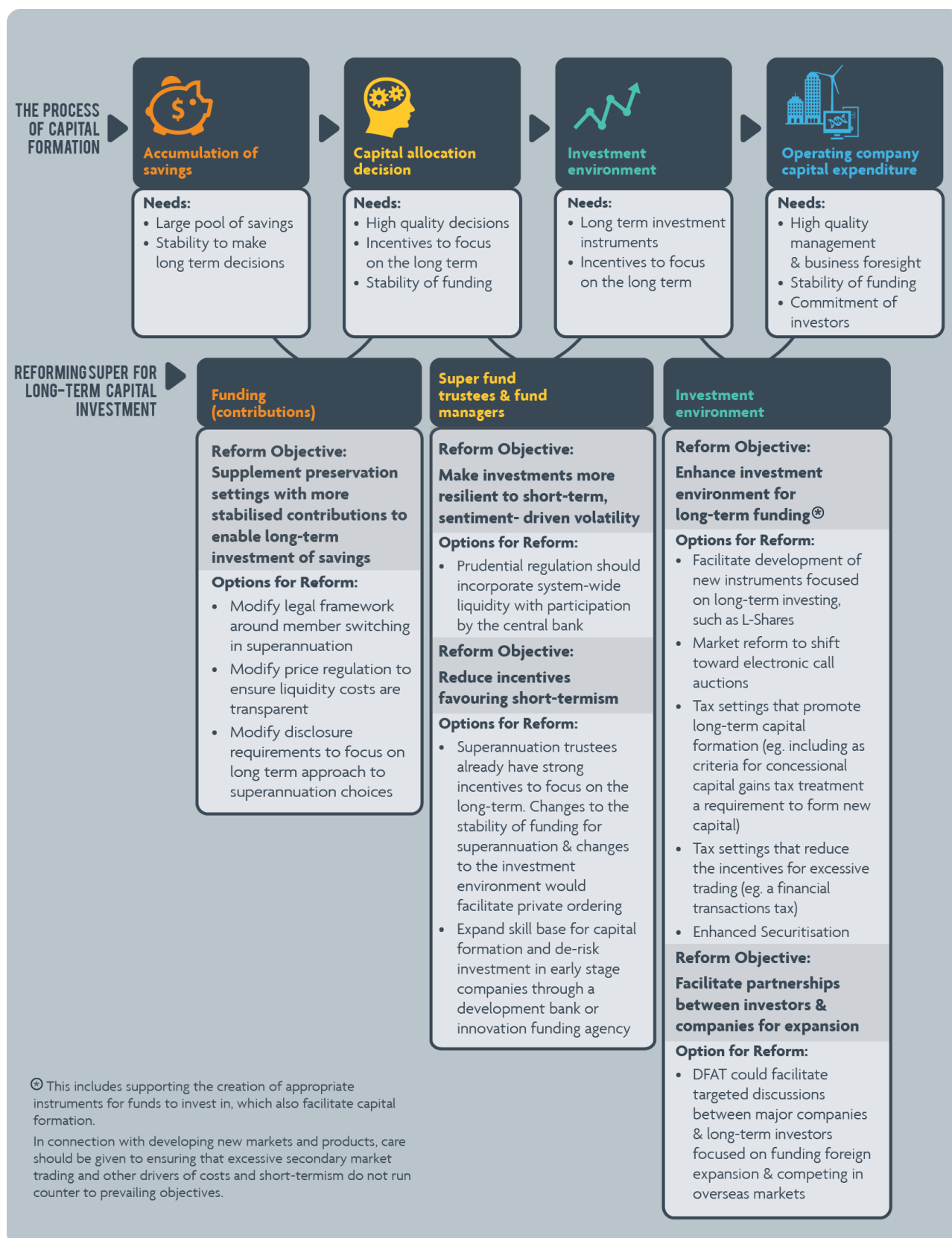
This section briefly sets out certain options that we believe the panel should consider in connection with improving the efficiency and effectiveness of each aspect of the capital formation process.

We begin with the recognition that the superannuation system has certain critical features that make it well suited for long-term investment in capital. Many of the options presented build upon these natural features to unlock the potential of the superannuation system to make investments that are more forward looking and longer in duration, consistent with the system's primary purpose of providing retirement benefits to members.

We also acknowledge that the banking system performs critical functions and is naturally suited to allocations to different kinds of business and household funding needs, with shorter durations. Indeed, regulatory capital requirements are likely to permanently and irrevocably limit the degree to which banks can make long-term investments in capital. This is consistent with a global trend shifting market risk away from leveraged financial institutions (and therefore governments) and onto individuals (directly or indirectly on unleveraged institutions such as defined contribution retirement funds).

Some options for reform that may warrant further consideration are summarised in Figure 101.

Figure 101 – Reform options to facilitate long-term capital investment



## 9. Unlocking the potential of superannuation to fund long-term capital investments

Superannuation is fundamentally about saving for retirement. But Australia's public policy settings for superannuation are generally a strong platform from which to build a pillar of long-term funding. Some of the key policies that must be maintained and strengthened include:

- Compulsory savings, which ensure not only that individuals are saving for retirement, but that the allocation is not volatile and subject to sentiment. Voluntary contributions, by contrast, are valuable for savings but do introduce volatility.
- Preservation requirements, which ensure that savings in the superannuation system are available for long-term investments.
- A trust structure, which brings forth a fiduciary duty to beneficiaries that, in combination with preservation requirements, should involve the trustee taking a long-term perspective (provided countervailing forces do not encourage short-termism).

### 9.1 Accumulation of savings that are stable and oriented toward the long-term

Compulsory superannuation has been very successful at generating savings available for investment that otherwise would not exist. ISA estimates the aggregate additional savings attributable to superannuation at about \$1 trillion.<sup>191</sup> Treasury estimates suggest the additional savings have been about 1.5% of GDP per year (see Figure 79, above).

However, the savings accumulated are not optimally stabilised and pooled to facilitate long-term investment in capital for at least four reasons.

- First, behavioural finance research confirms that individuals will tend to engage in “market timing” with harmful effects not only on their net returns, but will tend to put downward pressure on illiquid and long-term investments at the most vulnerable time of the investment cycle. Although only a small minority of super fund members engaged in active switching behaviour during the GFC, unless public policy settings change, the level of switching will increase due to marketing and sales efforts, as well as higher balances and older demographics.
- Second, an accumulation environment characterised by high levels of retailisation is much more costly in terms of advertising, marketing, and administration. Retail sales activity seeks to and does drive action<sup>192</sup> and short termism; this is counter to greater patience and stability is needed.
- Third, market conditions create incentives on trustees and fund managers that encourage short term behaviour. These include that performance is reported and evaluated on a short term basis, such

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<sup>191</sup> ISA (2014)

<sup>192</sup> Cf., The Kay Review (observing that “One important misalignment arises from the bias towards action which is found at almost every point in the equity investment chain. Corporate executives find that they can make a visible difference to the shape and perhaps performance of their companies by reorganisations, acquisitions and disposals; traders and market makers earn returns which are closely related to the volume of activity in the securities in which they deal; analysts are rewarded for the narratives they provide that generate buy or sell recommendations; investment bankers and advisers derive earnings from transactions; independent financial advisers have traditionally been rewarded by commissions and even after the Retail Distribution Review (RDR)21 will recognise that their clients are more likely to be willing to pay for advice to do something than for advice to do nothing. Many people in the financial services industry who claim to be in the business of providing advice are in fact in the business of making sales.”)

that engaging in a strategy that is expected to have short term negative effects on financial performance, but superior long-term economic and financial benefits, may be difficult to undertake.

- Four, the various factors driving greater switching (retailisation, demographics, and behavioural/cognitive) could reasonably be expected to combine with liquidity regulations to produce in the coming years a significant curtailment in the ability of the superannuation system to make long-term investments in illiquid assets. Liquidity regulations can distort asset allocations toward liquid assets. Liquidity regulation is conducted on an institution-by-institution basis, which will have procyclical effects even though preservation requirements mean that there can be no liquidity event from a system perspective. As a consequence, the superannuation system as a whole will hold excess liquidity for a systemic event: in a systemic event, if there is switching, for every outflow from a fund, there will be an inflow to another fund, but no funds will be able to include that inflow in their stress testing. This argues in favour of a system-wide liquidity framework, ideally including participation by the central bank to ensure public goods are captured.

### 9.1.1 The public policy landscape in respect of switching

In 2004, the Superannuation Legislation Amendment (Choice of Superannuation Funds) Act 2004 (commonly known as “Choice of Fund”) was enacted. The legislation became effective in July 2005, allowing employees to choose which superannuation funds will receive their compulsory superannuation. In addition, prior to the implementation of Choice of Fund, superannuation funds also increased their investment offerings, providing members more and different investment options.<sup>193</sup>

Prudential regulation requires superannuation funds to manage liquidity in each investment option independently rather than just at the “whole of fund” level.<sup>194</sup> As such, the effects of fund members switching from funds to funds, or between investment options on members’ retirement outcomes and investment decisions can have similar effects.

The Choice of Fund legislation drew a strong debate prior to its introduction. The proponents of Choice of Fund argued that, in principle, individuals should be able to take control over their own money. It was based on the assumption of rationality, that superannuation members understand their investment preferences and make choice based on those preferences.<sup>195</sup> These rational members could therefore manage their own affairs, minimise risk exposure and choose the right investment strategy for their retirement.<sup>196</sup>

In addition, it was argued that greater choice in superannuation would encourage competition and efficiency in the sector. The result would be reduction in fees for fund members. This view was expressed by the Wallis Committee.<sup>197</sup>

On the other hand, the argument against Choice of Fund centred around consumer protection, specifically the inadequacy of disclosure together with the lack of regulation on fees and charges. Also of concern was consumers’ lack of sufficient understanding of finance to make informed choices.<sup>198</sup> There were also

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<sup>193</sup> Clark-Murphy, M., & Gerrans, P. (2001). Choices and retirement savings: some preliminary results on superannuation fund member decisions. *Economic Papers: A journal of applied economics and policy*, 20(3), 29-42

<sup>194</sup> APRA (2010) Liquidity management in superannuation

<sup>195</sup> Drew, M. E. and Stanford, J. D. (2002). The economics of choice of superannuation fund. *Accounting, Accountability and Performance*, vol. 8, no. 1, pp. 1–20

<sup>196</sup> Parliamentary Joint Committee on Corporations and Financial Services. (2007). The structure and operation of the Superannuation Industry, Parliament of Australia, Canberra

<sup>197</sup> Wallis Committee. (1997). Final report of the Financial System Inquiry. Canberra

<sup>198</sup> Fear, J. & Pace, G. (2008) Choosing not to choose: Making superannuation work by default. The Australian Institute & Industry Super Network

assertions that associated superannuation fees would be higher due to the need to pay for financial advice, and the rise of insurance costs as group insurance arrangements were unwound.<sup>199</sup>

The Wallis Inquiry provided support for Choice of Fund. However, the Committee noted that increased competition would only happen if consumers had “appropriate information”. They recommended disclosure and education of investors, and providing members with investment knowledge and understanding about the benefits and costs of exercising choice.

This is one of the areas where the Wallis Inquiry perspective has not stood the test of time.

### 9.1.2 Switching and retirement outcomes

Since the introduction of Choice of Fund, there has been a significant increase in the number of investment options offered by public-offer funds to members, as shown in Figure 102. This is especially true in the case of retail funds. The average number of investment options presented by retail funds tripled to nearly 700 options from 2004 to 2013. This phenomena is consistent with hyperactive retailisation.

Removing retail funds to look more closely at the data and behaviour of other kinds of funds reveals some interesting dynamics (Figure 103). Most non-retail superannuation funds have had a fairly stable number of investment offerings since 2004. However, there has been an increase in the number of investments options by public and corporate sector funds as they shifted from non-public offer to public offer status.<sup>200</sup>

Public offer funds tend to have built more investment options than non-public offer funds. This would appear to be the result of the different retail environment. It is not clear that public welfare has improved.

Figure 102 – Average number of investment options per fund (including retail funds)

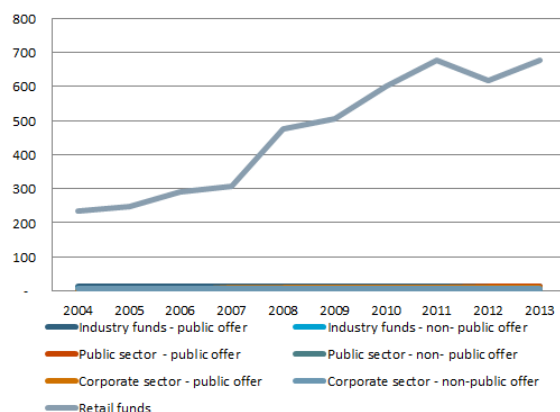
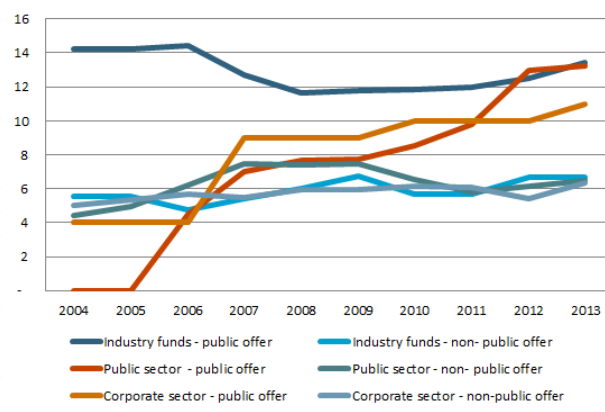


Figure 103 – Average number of investment options per fund (excluding retail funds)



Source: APRA Superannuation Fund-level Profiles and Financial Performance

While funds in a retail environment behave differently, are these behaviour changes useful? The nature of competition arising after the introduction of Choice of Fund is important. On what basis have funds competed? Did funds compete for growth in (i) members or (ii) funds under management, or something else? Did funds compete to achieve that growth on the basis of (i) net performance, (ii) flexibility and options, (iii) simplicity, (iv) trust, or other factors?

<sup>199</sup> AXA (2005). It's your Choice Fact Sheet

<sup>200</sup> The disparity between the number of investment options in retail and not-for-profit funds may be because trustees in the latter category tend to premiss options



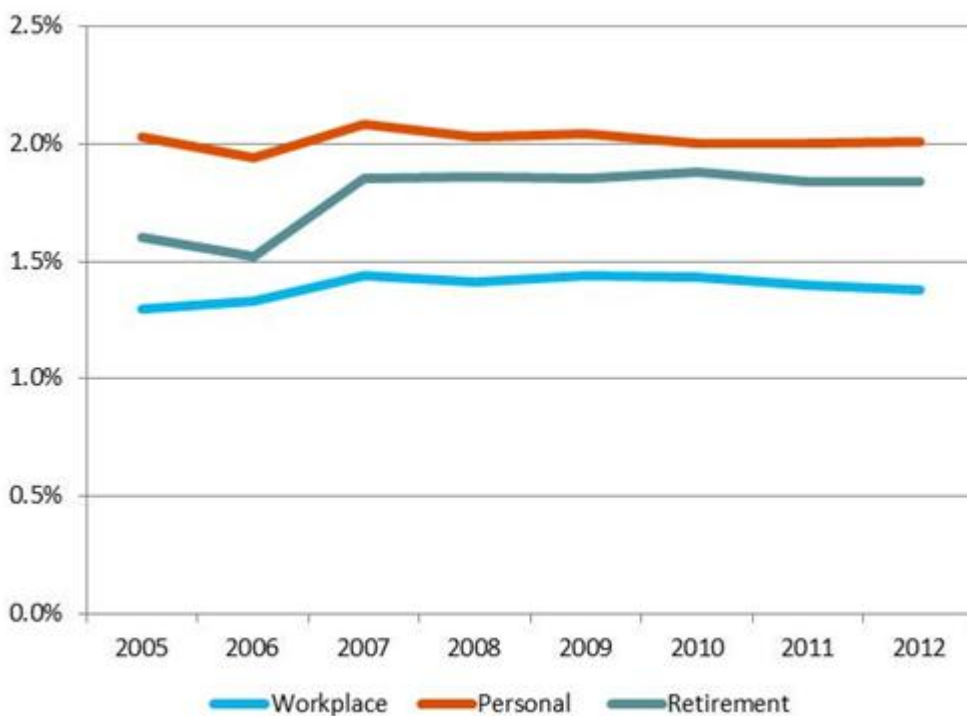
### 9.1.3 Choice, switching, fees, costs and performance

Choice of Fund has increased the number of investment options to superannuation members. But has it delivered the proposed benefits to superannuation members that motivated the policy? The Wallis Inquiry and the proponents of Choice predicted that it would lead to a reduction in fees, rational and informed decision-making by individuals, and superior scale and risk-adjusted returns.<sup>201</sup>

#### 9.1.3.1 Fees

The evidence indicates that the goal of fee reduction has not been achieved. At the headline level, Rainmaker calculated that the fees charged by superannuation funds (excluding insurance costs) were around \$17 billion in 2012. In terms of historical trends, Figure 104 shows that fees in superannuation have not reduced significantly since the introduction of Choice of Fund.<sup>202</sup>

Figure 104 – Superannuation Total Expense Ratios, By Segment, %



Source: Rainmaker (2012), Superannuation Industry Revenue Report

Since the introduction of Choice legislation, the superannuation industry has been in the process of consolidation and growing funds under management.<sup>203</sup> This increasing level of economic of scale, coupled with “technological advancement and efficiency dividends,” should have resulted in a notable fall in the level of fees. This has not been the case. The persistent trend of superannuation fees shows that the sector “is largely immune from normal competition forces,”<sup>204</sup> or simply that people and institutions do not

<sup>201</sup> See, e.g., Drew, M.E. and Stanford, J.D. (2003) ‘Principal and Agent Problems in Superannuation Funds’, Discussion Paper No. 142, March 2003, Discussion papers in economics, finance and international competitiveness, Queensland University of Technology

<sup>202</sup> Rainmaker (2012). Rainmaker Consulting Report: Superannuation Industry Revenue. Prepared for Industry Super Network, October 2012

<sup>203</sup> Fear, J. & Pace, G. (2008) Choosing not to choose: Making superannuation work by default. The Australian Institute & Industry Super Network

<sup>204</sup> Rainmaker. (2012). Rainmaker Consulting Report: Superannuation Industry Revenue. Prepared for Industry Super Network, October 2012



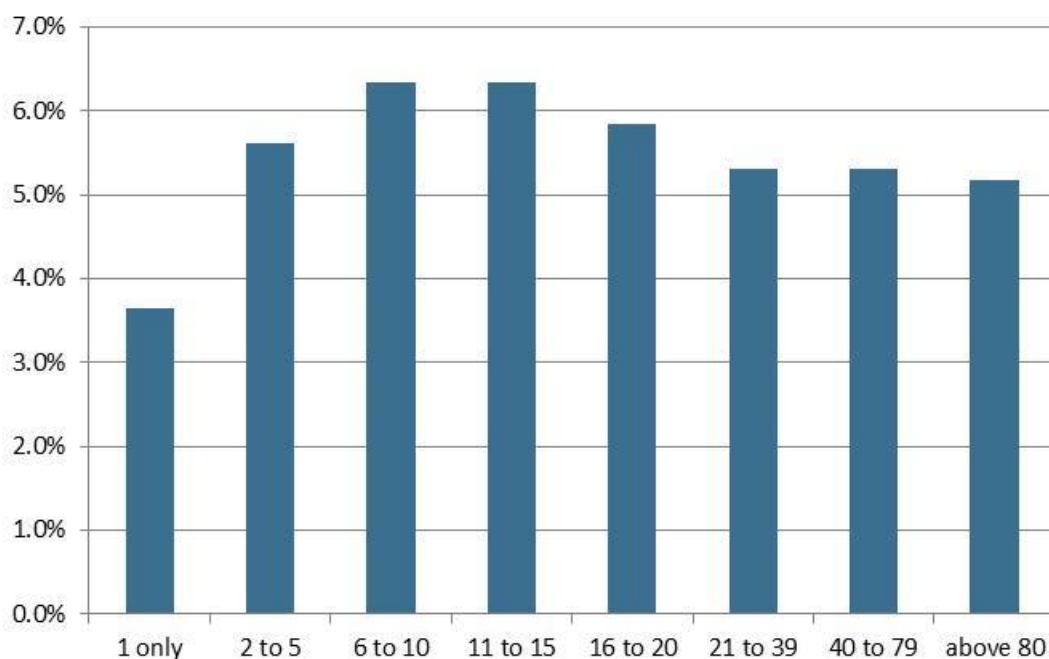
behave as was assumed. The trend of fees may also be attributable to the additional costs in product development, investment option administration, advertising and related processes.

### 9.1.3.2 Net returns

In terms of net returns delivered to members, evidence also shows that more investment option choices do not translate to better returns. Funds which have a larger number of investment options on offer have consistently underperformed relative to funds with fewer options.

Figure 105 shows the average returns of superannuation funds for the period from 2004 to 2013, sorted by the average number of investment options for the same period. It appears that funds with 6-15 options have the highest net returns. Beyond this threshold, net returns get worse as the number of options increases.

Figure 105 – Rate of return and number of investment options



Source: APRA Superannuation Fund-level Profiles and Financial Performance, ISA calculations

### 9.1.3.3 Costs

The costs of hyperactive retailisation in general, and specifically for superannuation, were analysed above in Figure 70 and accompanying text. In short, there is evidence that retailisation increases costs.

### 9.1.3.4 Decision-making quality of members in an environment of hyperactive retailisation

Under the rational choice theory, greater choice is associated with greater utility since individuals are assumed to choose options to maximise their own utility based on available information.<sup>205</sup> However, behavioural finance has shown that individuals are often not rational in their decisions, especially in respect of issues such as financial decisions that may be complex, involve several factors, or require consideration over long time horizons. Individuals face a number of pitfalls, such as bounded rationality and choice overload among others.<sup>206</sup>

<sup>205</sup> Fear, J. (2008). Choice Overload. Australians coping with financial decisions. The Australia Institute

<sup>206</sup> Parrish, T., & Delpachitra, S. (2012). On Selection of Superannuation Fund: Impact of Choice and Information. Economic Papers: A journal of applied economics and policy, 31(3), 369-379

Even purportedly sophisticated investors can make serious errors.<sup>207</sup>

Rationality of individuals is bounded by a person's ability to process complex issues in decision making.<sup>208</sup> In an environment of unstructured choice and hyperactive retailisation, all working Australians would face a number of complex and important decisions regarding their superannuation throughout their lives. Such decisions require financial knowledge to compare hundreds of funds and options, and analyse performance, fees and risks. Research has indicated that when it comes to choosing a fund, individuals tend to focus on returns and ignore risks and fees.<sup>209</sup> Additionally, according to an Australian survey, retirement savings for those under 40 is "suboptimal due to short-sightedness or procrastination and the complexity of the calculations required to formulate an appropriate savings plan."<sup>210</sup>

The number of funds and investment options can easily overwhelm individuals. This problem is referred to as "choice overload". The leading research in this space documents this phenomenon and shows that individuals actually prefer fewer choices.<sup>211</sup> In the pension/retirement fund literature, a study into the US 401(k) defined contribution retirement savings market found that participation rates decreased when there were more options from which to choose. The participation rate was highest when members had to choose from only two funds.<sup>212</sup> A similar preference for a small number of investment options is also reported in an Australian study into superannuation investment choice.<sup>213</sup> As shown in Figure 102 and Figure 103, these preferences and the actual behaviour of superannuation funds overall since Choice of Fund have been inconsistent.

Superannuation participants are likely to have difficulty choosing the right investment options offered within each fund. A number of members choose the default strategy without regard to whether it is the most suitable for their circumstances.<sup>214, 215</sup>

This phenomenon is also observed in the Australian superannuation fund landscape. Figure 106 shows that the level of assets in default funds have been reducing at a slow speed since 2005. This trend is also true for retail funds.

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<sup>207</sup> See, e.g., Tversky, A., and Kahneman, D. (1991), *Judgment Under Uncertainty: Heuristics and Biases*, 16-17 (Daniel Kahneman et al. eds., 1991) (finding optimism bias in estimating knowledge certainty common to both sophisticated and naïve subjects); Tversky, A. (1974), *Assessing Uncertainty*, 36 *Journal of the Royal Statistical Society* 148, 151-152 (finding professional researchers demonstrated erroneous belief in the law of small numbers).

<sup>208</sup> Ibid

<sup>209</sup> Harless, D. W., & Peterson, S. P. (1998). Investor behavior and the persistence of poorly-performing mutual funds. *Journal of economic behavior & organization*, 37(3), 257-276

<sup>210</sup> Bateman, H. (2006). Saving the future: can the under-40s afford to grow old? *JASSA*, no.2, Winter 2006: 22-23

<sup>211</sup> Iyengar, S. S., & Lepper, M. R. (2000). When choice is demotivating: Can one desire too much of a good thing?. *Journal of personality and social psychology*, 79(6), 995

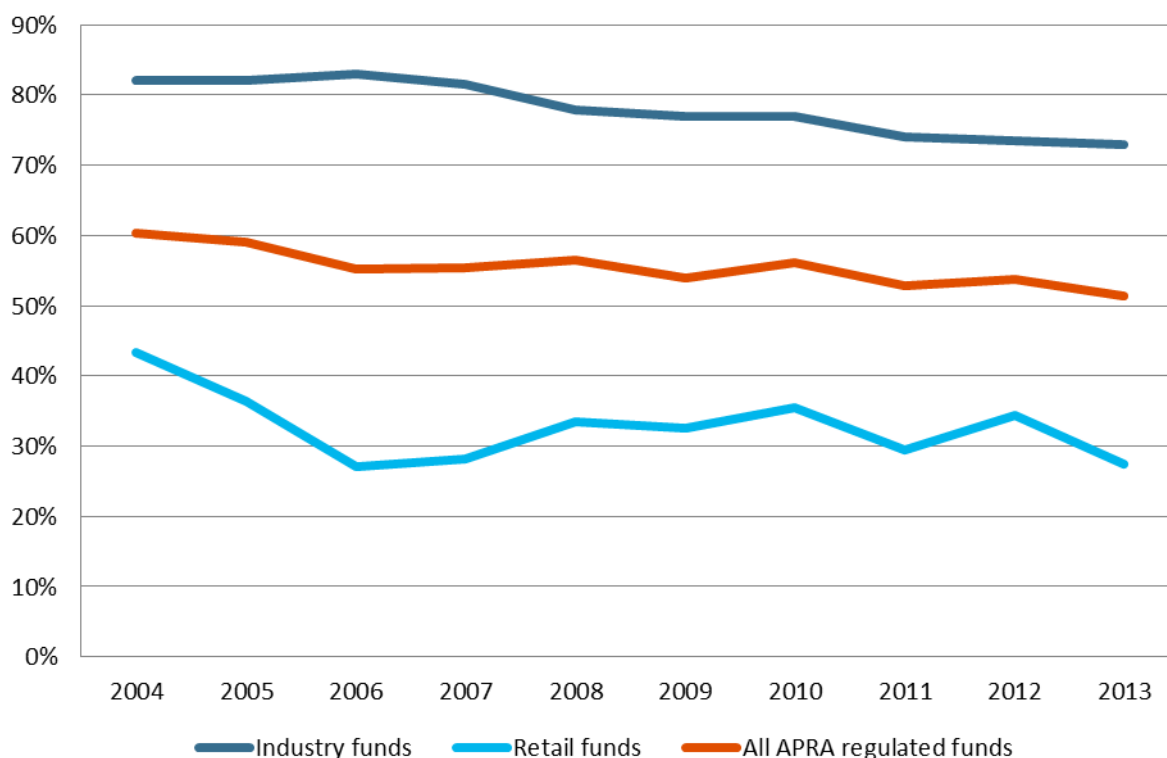
<sup>212</sup> Iyengar, S. S., Huberman, G., & Jiang, W. (2004). How much choice is too much? *Contributions to 401 (k) retirement plans. Pension design and structure: New lessons from behavioral finance*, 83-95

<sup>213</sup> Gerrans, P., & Yap, G. (2010, February). *Sophistication in Retirement Savings Investment Choices*. In Australian Centre for Financial Studies-Finsia Banking and Finance Conference

<sup>214</sup> Beshears, J., Choi, J. J., Laibson, D., & Madrian, B. C. (2009). The importance of default options for retirement saving outcomes: Evidence from the United States. In *Social security policy in a changing environment* (pp. 167-195). University of Chicago Press

<sup>215</sup> Gallery, G., Gallery, N. & Brown, K. (2004). Superannuation Choice: The Pivotal Role of the Default option. *Journal of Australian Political Economy*

Figure 106 – Proportion of assets in default strategy, APRA-regulated funds, %



Source: APRA (2014) APRA Superannuation Fund-level Profiles and Financial Performance

When superannuation members do make choices under the current policy framework, the outcomes of these decisions exhibit the welfare-reducing characteristics predicted by behavioural finance. An examination of the choices made by Australians over a three year period including the GFC found that those members who did exercise choice they clearly acted in response to short-term market performance, and chased returns. Specifically, these members moved out of shares and growth assets at the bottom of the market despite communication efforts from funds advising them to focus on long-term outcomes. This resulted in a “double hit” to their retirement savings — they suffered the declines in asset prices, but did not share in the subsequent market rebound.<sup>216</sup>

The Wallis Inquiry suggested that education about finance and choice was essential to promote competition in superannuation.<sup>217</sup> The experience of the past decade, as shown by some of the evidence above, suggests that the effects of financial education have been limited. Research has also concluded that financial education has at best modest positive effects on saving behaviour.<sup>218</sup> Achieving informed choice for individual members through education was “important but overemphasised”<sup>219</sup> during the debate about Choice of Fund and in the Wallis Inquiry’s recommendation.

#### 9.1.3.5 The UK experience

In 2002, the UK government undertook a survey of the pension landscape, and determined that the regime at the time would yield inadequate and unequal pensions. The government’s response to this was to

<sup>216</sup> Gerrans, P. (2012). Retirement Savings Investment Choices in Response to the Global Financial Crisis: Australian Evidence. Australian Journal of Management

<sup>217</sup> The Wallis Inquiry, p485

<sup>218</sup> Choi, J. J., Laibson, D., Madrian, B. C., & Metrick, A. (2002). Defined contribution pensions: Plan rules, participant choices, and the path of least resistance. In Tax Policy and the Economy, Volume 16 (pp. 67-114). MIT Press; cf. footnote 207, above

<sup>219</sup> Gallery, G., Galerry, N. & Brown, K. (2004). Superannuation Choice: The Pivotal Role of the Default option. Journal of Australian Political Economy

introduce an automatic enrolment (AE) framework, in which employees meeting certain criteria could be automatically enrolled into a defined contribution pension product. The AE framework has been introduced progressively from 2012.

In January 2013, the UK Office of Fair Trading launched a market study into defined contribution workplace pensions. It concluded that there were market failures requiring government intervention.

Increased disclosure was discussed as an avenue to address market failure, however the challenges arising from the principal agent problem and the sheer complexity of the charges faced by members indicated that disclosure alone would be insufficient.

The necessity to ensure that all members participating in a pension scheme are provided with fair opportunities and not disadvantaged through costs arising from inefficient employer choices has resulted in a proposed cap on fees charged on pension savings. It was determined that annual fees would be capped at 0.75 per cent to 1 per cent of assets.

The UK fee cap regulation proposal for workplace default funds reflects the need for government intervention in light of evidence that neither worker nor employer choices could reasonably be expected to produce (nor in fact do produce) fair and appropriate outcomes in workplace default pension markets. The UK fee cap proposal is outlined in [Appendix 5](#).

#### 9.1.3.6 Switching and long-term investment in capital

Besides the above effects on superannuation members' outcomes, Choice of Fund policy can also influence long-term investment decision by funds themselves, which also has potential impacts on the real economy.

Much has been said about the fact that superannuation funds are the natural investors of long-term investments such as infrastructure assets. Long-term investments, with an illiquidity premium, can benefit superannuation members' retirement outcomes. However, Choice of Fund can distort the focus and incentives of super funds (or their investment managers) toward "short-term thinking" rather than long-term investment.<sup>220</sup>

In addition, an environment dominated by switching (or risk to the fund of switching behaviour by members) also changes the risk profile of fund portfolios, especially around liquidity management. When a fund member exercises choice, the member's old fund is required by law to produce cash equal to the member's account balance quickly and transfer that to the member's new fund. Managing redemption requests requires having sufficient cash available, and/or liquid assets available to sell in both normal and stressed times. Prudential regulation layers on top of basic liquidity management, requiring super funds to hold sufficient liquidity to meet ordinary course obligations, as well as extreme stress scenarios. Some of these scenarios include systemic events. As a result, regulation will result in individual funds each holding sufficient liquid assets to survive a systemic crisis, rather than holding adequate liquidity on a system-wide basis. This is a particularly pronounced issue in superannuation, where assets are *preserved* within the system such that each individual fund's stress testing will assume outflows and switching behaviour that cannot be true on a system-wide basis (because the outflows will come to rest elsewhere in the superannuation system). From a system-wide perspective, choice, switching, and prudential liquidity requirements will combine to require the superannuation system to allocate capital to an excessively high proportion of liquid assets, with follow on effects on the capital markets<sup>221</sup> and investment returns.

The effect on investment returns of excess allocations to liquid assets is straightforward. Cash and liquid assets typically earn lower returns than other asset classes. By increasing a fund's allocation to cash and liquids beyond that which is optimal, Choice of Fund would reasonably be expected to, all else being even,

<sup>220</sup> White, A. (2013). Gonski urges choice rethink. The Australian

<sup>221</sup> As noted above, holding liquid assets affects the incentives of investors and portfolio companies. Most notably, liquidity encourages a short term perspective

reduce the risk adjusted return of super funds, resulting in inferior outcomes for members' retirement (with follow on public budget effects). As super funds are less able to commit to an investment for the long-term, allocations to infrastructure and productivity-enhancing projects, and their capacity to act as patient capital providers, is also limited. For the economy as a whole, this is a significant opportunity lost.

Perhaps less is more when it comes to switching and member liquidity in superannuation. Empirical data indicate that Industry Superfunds, which have fewer options than their retail counterparts, seem to have the ability to invest more in infrastructure and unlisted assets (see Table 3). The higher proportion in illiquid assets has earned the Industry Superfund members higher returns lower volatility over the year.<sup>222</sup>

**Table 3 – Typical asset allocation for Industry Superfunds and Retail Funds**

Asset Class	Industry Superfund	Typical listed retail portfolio
Cash	4.90%	14%
Domestic equities	32.30%	30%
Foreign equities	22.70%	27%
Unlisted infrastructure & Private Equity	17%	-
Listed property trust	2.60%	10%
Unlisted property trust	10.10%	-
Domestic fixed interest	6%	14%
International fixed interest	4.50%	5%

Source: APRA Superannuation Fund-level Profiles and Financial Performance and ISA (2013)

#### 9.1.3.7 Switching and financial stability

In times of stress, the ability to switch between funds and investment options may reduce the resilience of superannuation funds. Gerrans (2012) documented that during the GFC, there was an increase in the level of members making amendments to their investment strategy. Even though the proportion of engaged members were low, between 5-6.5 per cent of members, it did point to a “flight to cash” mentality just when the system was in need of stability.<sup>223</sup>

As the superannuation system matures, with more members in older demographics, it is reasonable to expect that more members will be “engaged” and exhibit the behaviour documented during the GFC, but on a much larger scale. While there can be no run on the superannuation system as a whole, liquidity pressures on funds can result in the unnecessary sale of valuable assets and wealth destruction.

#### 9.1.3.8 Reform options

#### 9.1.3.9 Structure consumer choice to facilitate improved decisions and stability to enable more long-term investment in capital by superannuation

The challenges of hyperactive retailisation and “market failures” are simply finance-specific manifestations of a well-recognised challenge for liberalism: that humans are not all-knowing or always rational. These are not new problems, and have been successfully solved in enduring ways.

One specific option for dealing with hyperactive retailisation and instability in the APRA-regulated superannuation environment is that superannuation members would generally be committed to a super

<sup>222</sup> Industry Super Network, Building Australia - super investment initiative, June 2013, see also Cummings and Ellis, 2011, APRA Working Paper, Risk and Return of Illiquid Investments

<sup>223</sup> Gerrans, P. (2012). Retirement Savings Investment Choices in Response to the Global Financial Crisis: Australian Evidence. Australian Journal of Management Australian Evidence. Australian Journal of Management

fund (and an investment option or set of them) for several years after becoming members; once this time has passed, members could switch, with a similar stable period after that decision. Members who anticipated leaving the fund or making switching decisions during that time could opt in to a *liquid* account, with appropriate charges because such a decision would adversely affect the liquidity, returns and administration costs of the fund. Insofar as “defaults” reflect an anchor point and the community’s judgment about the generally appropriate course of action, it would seem correct that the default setting in superannuation should be a long-term stable relationship between members and funds. When members join a fund they typically would expect to be members for a long time, thus the default arrangements would be an accurate reflection of preferences at the time the account was formed.

#### **9.1.3.10 The “election model” of decision-making**

In designing a more stable and long-term oriented framework for member decisions, it may be worth considering to provide all superannuation members across the system with the same date for eligibility to make switching decisions (either for all of an account balance, or just a fraction (such as a third, akin to senate elections)). This would enable superannuation system participants to make a focused decision that is known to be for the long term, along with friends and family and the community. The decision on how superannuation savings would be invested becomes more of a long-term, forward looking decision, akin to elections. It would be a focused time of potential action, and the exception to general apathy. It also may reduce the costs of advertising and administration that accompanies the “hyperactive retail” environment in which member decisions are currently required to be made. Moreover, externalities related to short termism might be reduced. An election model could result in sizeable amounts of switching occurring at the same time if there is widespread dissatisfaction, but this may be easier to manage than a sizeable amount of switching based on unpredictable sentiment.

Another option would be to require all superannuation funds to offer a “stable account” pursuant to which members could opt in to make no switching for a significant period (perhaps several years), presumably in exchange for a reward. This option would have less of an impact on long-term investing, costs, and short-termist externalities than the option above pursuant to which the default setting is a long-term allocation.

#### **9.1.3.11 Reform superannuation fund reporting requirements to members such that information is provided to members to highlight long-term investments in capital by the fund**

Superannuation fund reporting should provide members with relevant and concise information to inform their decisions about their investment and retirement benefits. A key disclosure is how funds’ investments can affect the potential future outcomes of fund members once they reach retirement age.

In addition to this, members may be more likely to behave in a long-term manner in respect of their superannuation decisions if the information provided to them is oriented toward longer term, forward looking outcomes.

In recent years, superannuation funds have been required to considerably increase their disclosure and transparency to the investing public. For example, as part of the Stronger Super reforms, superannuation funds will be required to disclose their portfolio holdings to the underlying asset level. Some funds have also started to disclose the remuneration structure of their directors and key executives.

While increased transparency is generally welcomed, it is also the case that an increase in the quality of disclosure helps improve analysis, but increased quantity of disclosure does not always or necessarily

translate to improved quality.<sup>224</sup> In fact, increased disclosure can lead to information overload where “useful information may itself be buried by sheer volume of data”.<sup>225</sup>

For superannuation members, the financial information presented may become complex and overwhelming.<sup>226</sup> This can be true whether the member has a high level of financial literacy or not.<sup>227</sup> Furthermore, increasing information production is costly for funds and ultimately members. It is therefore important to understand what information would be relevant and useful for superannuation fund members. As Kay (2012) puts it, “useful information is provided when the content of information is driven by the needs of users, and when the providers of information benefit from establishing a continuing relationship with their users.”<sup>228</sup>

The type of information presented, and the frequency at which it is presented, may also reinforce behavioural biases ultimately not in the best interest of members. In particular, for superannuation fund members accumulating savings for retirement benefits, the focus should be on the long-term aspects of the decisions available to them. Given the long horizon to retirement, funds should disclose information on long-term investments, and how these can potentially help members achieve their retirement objectives. Information on short-term returns may encourage a highly active approach to investment on the part of the member, which Australian research shows is likely to lead to lower returns and inferior outcomes (Gerrans et al, 2013).

The trend in performance reporting is towards shorter time-frames, with many funds, including some industry funds, offering daily unit prices on the main investment options, and also offering options with immediate trading so intra-day asset pricing become relevant.<sup>229</sup>

The Cooper review and Government response, Stronger Super, has recognised several of these issues. The ‘product dashboard’ is designed to capture simple, useful information in a consistent format to enable straightforward evaluation and direct comparison. It includes a net returns measure for 10 years, or the longest period for which data is available (if less than 10 years) among other things. Industry consultation on the product dashboard has highlighted the need for a longer term risk measure.

Returns and risks are often measured based on short-term daily measurements such as stock prices.<sup>230</sup> The benefits of long-term investments are often given less prominence, if presented at all. This prompts superannuation members to fall in the trap of short-termism, which may not result in the best outcomes.

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<sup>224</sup> Beretta, S., & Bozzolan, S. (2008). Quality versus quantity: the case of forward-looking disclosure. *Journal of Accounting, Auditing & Finance*, 23(3), 333-376

<sup>225</sup> UK Department of Business Innovation and Skills, The Kay Review of UK Equity Markets and Long Term Decision Making, UK Department of Business, Innovation, and Skills

<sup>226</sup> Industry Super Network. (2010). *Supernomics: Addressing failures of competition in the superannuation market*

<sup>227</sup> See, e.g., Cf., Testimony of Sandra F. Braunstein, Director, Division of Consumer and Community Affairs, Board of Governors, US Federal Reserve System, Before the Subcommittee on Oversight of Government Management, the Federal Workforce, and the District of Columbia, Committee on Homeland Security and Governmental Affairs, US Senate, 29 April 2009

<sup>228</sup> Kay, John, 2012, The Kay Review of UK Equity Markets and Long Term Decision Making, UK Department of Business, Innovation, and Skills

<sup>229</sup> Favouring daily pricing for purposes of distributions to members or switching ultimately requires a similar form of cognitive dissonance between price and value that is present in the current approach to fair value accounting. It puts members in the position of an arbitrageur on their super fund (and therefore the other members). Moreover, the internal logic favouring daily pricing over pricing based on longer duration averages (i.e., that it is unfair for members to experience falls in value after a disbursement is requested) ultimately will require minute-by-minute pricing, then second-by-second and so on

Insofar as there is ambiguity between price and value, and that some price setting using longer term averages will help the member to whom a disbursement is owed at least as often as it will harm them (to say nothing of administrative cost savings), it would have been quite reasonable to take an approach more akin to liberalism: a balance

<sup>230</sup> Lydenberg, S. (2007). Long-term Investing: a proposal for how to define and implement long-term investing. 2007 Summit on the Future of the Corporation



Superannuation trustees and managers may also feel the pressure of short-term reporting, choosing to make decisions based on short-term gains at the expense of long-term prospects.

#### 9.1.3.12 Options to facilitate longer term reporting

Consideration should be given to:

- Requiring funds to discuss their long-term investments and the potential benefits of such investments for superannuation members.
- Requiring funds to report on their contributions to long-term capital formation and associated economic benefits.
- Changing the content of performance reporting such that reporting on performance of the fund uses longer rolling average calculations (e.g. five year or even ten year) to focus members on the long-term nature of superannuation.
- Reporting on performance should be provided with six month frequency.

It is true that public policy is not needed for one or more superannuation funds to report additional information. However, public policy is important to overcome collective action problems and to ensure comparability, both of which are barriers to reform in disclosure practices.

#### 9.1.3.13 Market signals should be used to inform members of the costs of liquidity and switching

This would come in the form of a requirement to pass on costs to members in the form of discrete fees. The practical effect of this option would be limited. The evidence suggests that fee differences are not substantial drivers of behaviour change in superannuation (whether in Australia or other jurisdictions).

### 9.1.4 Improve institutional capacity of superannuation funds to make long-term investments

If the environment in which individuals make decisions about superannuation is subject to greater order, there would remain three barriers to long-term investment by super funds that would reasonably be expected to put downward pressure on long-term investment and capital formation:

- (i) liquidity requirements, particularly regulations and demographics
- (ii) funds manager and super fund incentives
- (iii) risk and human capital capacity for investment in innovation

#### 9.1.4.1 Reform options to address liquidity barriers to greater long-term investment in capital

Liquidity generally refers to the ability of an institution to meet its obligations as they fall due without incurring significant unexpected costs.

The Productivity Commission recently issued a draft report on public financing for Infrastructure.<sup>231</sup> While provisional, it questioned whether a liquidity facility is necessary for further investment in infrastructure by super funds, before concluding that “liquidity constraints affecting superannuation funds may warrant consideration by policy makers”.<sup>232</sup>

Industry SuperFunds are growing fast and enjoy net contributions well above the industry average. However, this is not necessarily the case for the superannuation system as a whole. In addition, regardless of the particular facts and circumstances of any super fund, the regulation of liquidity in superannuation occurs solely on a fund-by-fund basis. As a result, there may be a role for an approach to liquidity from a

<sup>231</sup> Productivity Commission (2014). Public Infrastructure: Productivity Commission Draft Report. March 2014

<sup>232</sup> Id.



more system-wide perspective. ISA is continuing to examine the costs of benefits from a system perspective of public liquidity facilities for superannuation. We provisionally believe there are significant net benefits available. If this holds true when our analysis is complete, we intend to discuss options with appropriate public authorities.

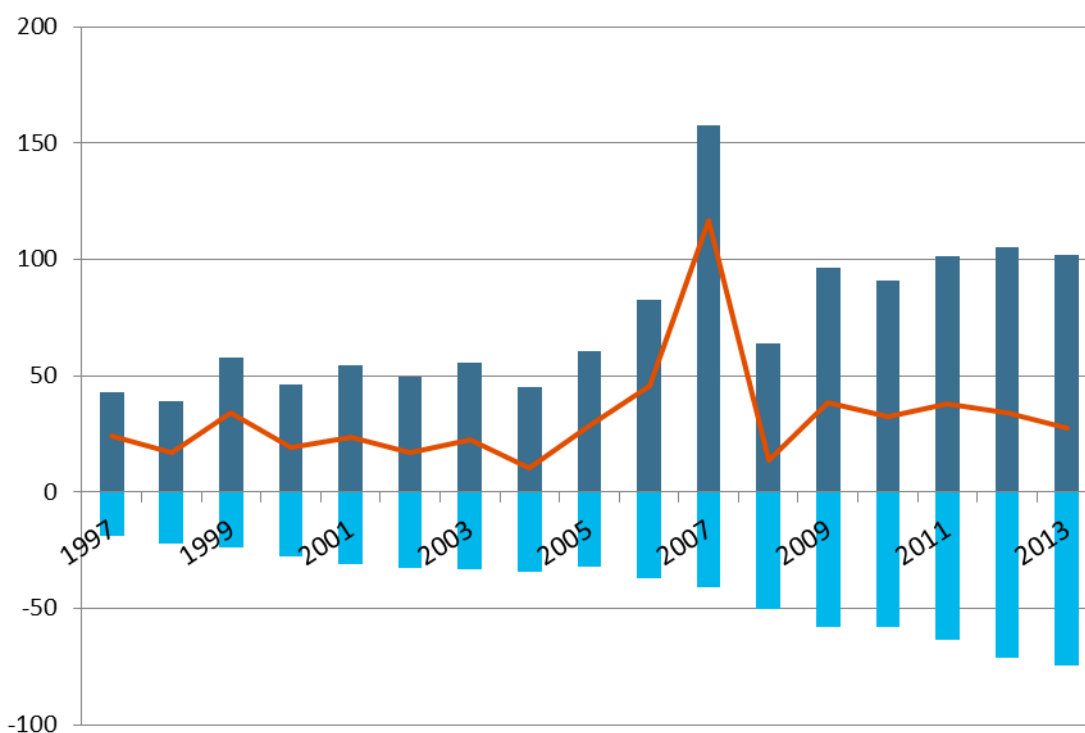
However, our preliminary views and some underlying data may be useful to the Inquiry.

#### 9.1.4.2 The coming liquidity pressures

At the moment, superannuation flows after expenses remain inward on a net basis (excluding investment returns). However, the trend over the long term is toward a steady state, as shown in Figure 107. As demographic changes bite, it is quite possible that superannuation flows will be outward on a net basis, excluding investment returns. In such circumstances, superannuation funds may need to actively liquidate positions on an ongoing basis to meet obligations to the extent that those obligations exceed inflows plus crystallised investment gains. This will drive a system-wide shift toward greater liquidity.

Superannuation is facing significant liquidity pressures in the coming years, and the capacity of the system to invest in illiquid assets will shrink (at least until demographic changes reverse, and perhaps not even then).

Figure 107 – Net superannuation flows (excluding investment returns)



Source: APRA, Annual Superannuation Bulletin 2013

#### 9.1.4.3 Liquidity facilities

In normal times, private participants typically transact in cash and liquid assets (such as government securities) in the financial system pursuing their own interests. In times of systemic stress, both the cost and availability of liquidity will depend crucially on official or public liquidity provided by the central bank. Liquidity is critical to the operation of an individual financial institution and more generally, the efficiency and stability of the financial system as a whole.

As it relates to super funds specifically, APRA has explained that liquidity risk refers to “the risk of not having enough cash inflows (after taking into account the available liquid assets) to meet cash outflows

over any given time period, and in the case of superannuation funds, this means the potential inability to meet its payment obligations to beneficiaries in a timely and efficient manner.”<sup>233</sup> Superannuation funds have developed and maintained liquidity management policy in accordance with APRA Superannuation Prudential Standards SPS220 and SPS530.

#### 9.1.4.4 The nature of liquidity in superannuation

It is important to recognise that the nature of payment obligations to beneficiaries can affect the liquidity of a super fund. Broadly speaking, there are two categories of payment obligations of particular focus from APRA: (i) decumulation payments (both lump sums and pensions), in which cash is leaving the superannuation system, on the one hand, and (ii) rollover or transfer payments, in which member assets are moved within the superannuation system (either within a fund to different investment options, or between different funds), on the other hand. In addition, there are embedded or contingent payments obligations, such as margin calls and collateral requirements for derivatives positions.

The distinction between these forms of payment obligations is important. Payment obligations to beneficiaries in the form of pension payments must be in cash and reasonably on demand or as scheduled. This form of payment can be monitored and forecasted with a certain level of confidence based on a fund’s demographics and other information.

Rollovers, however, involve transfers that come to rest somewhere else in the superannuation system. This behaviour is harder to predict. Figure 108 illustrates that for APRA-regulated funds, the net rollovers as a proportion of total fund assets peaked in 2006 (shortly after Choice of Fund legislation became effective) and 2011, and has trended downwards. The pattern shows the strong inflows due to compulsory superannuation. The more worrying trend is the proportion of outward rollovers, indicating outflows for funds on a system-wide basis is on the rise. The peak in 2008 coincided with the Global Financial Crisis, signalling that market events do have an effect on beneficiary behaviour, and these may influence liquidity.

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<sup>233</sup> Venkatramani, R. S. G. (2008). Liquidity, Licensing and Super Funds: What’s On Apra’s Agenda

Figure 108 – Net rollovers and outward rollovers as proportion of total assets, %



Source: ISA calculation based on APRA's Superannuation Fund Level Statistics.

Another environmental factor to understand in analysis of liquidity is the difference between the balance sheet structures of banks and super funds. Figure 109 shows the aggregate balance sheet of the banking system, where a large portion of illiquid assets (loans) are funded by the mix of stable funding (including capital) and “flighty funding” such as at call deposits. Banks also hold a sizeable portion of high quality liquid assets (HQLA) such as government bonds, which can be used to access the RBA's public liquidity facility via repo transactions.

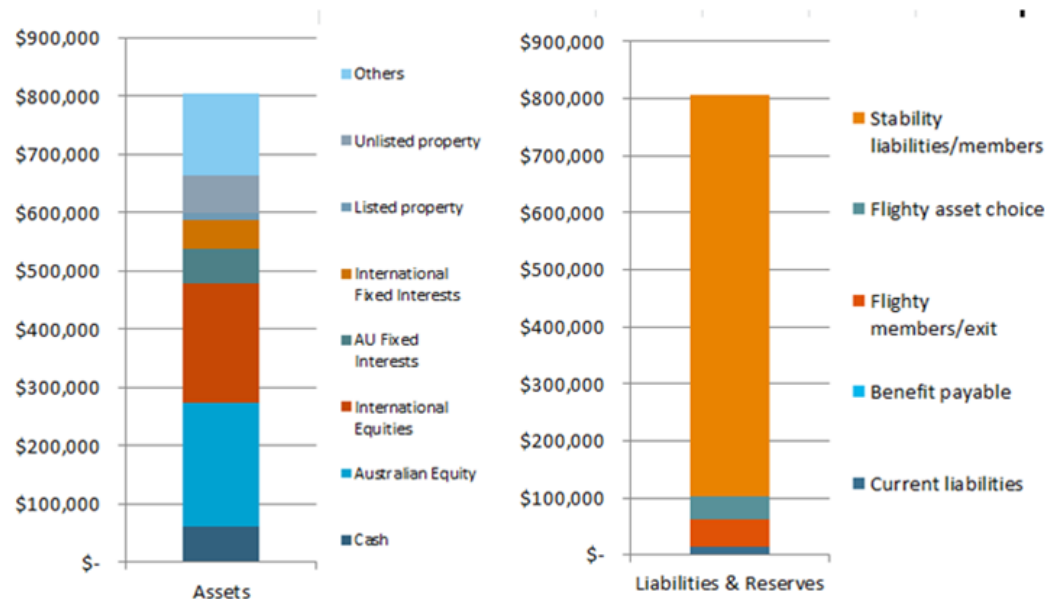
The aggregate balance sheet of the super system and its structure is presented Figure 110. Unlike banks, super funds invest heavily in marketable and liquid securities such as equity and fixed interest instruments (around 70% of their asset) despite having a relatively stable funding base. The real liquidity risk for individual super funds is where members change funds or investment options (represented by “flighty asset choice” and “flighty members/exit”). The liability-side of the balance sheet structure suggests that super funds should be the natural holder of long-term assets. However, as has been discussed and we discuss below, liquidity-related factors are a barrier to this.

Figure 109 – Banks' balance sheet structure (\$ millions), 2013



Source: Financial Institutions & Management Advisory (FIMA) & ISA estimates based on APRA Quarterly ADI Performance as at June 2013<sup>234</sup>

Figure 110 – APRA-regulated funds' balance sheet structure (\$ millions)



Source: FIMA & ISA estimates based on APRA Superannuation Statistics as at June 2013<sup>235</sup>

<sup>234</sup> "Flighty funding" includes call/on demand deposits and short-term borrowings etc. "Stable funding" includes term deposits, and long-term deposits among others.

<sup>235</sup> Flighty members/exit is based on the proportion of outward rollover in the total assets at end of period. We assume that the proportion of "flighty asset choice" is 5% of total assets based on a finding in Gerrans (2012) that 5-6.5% of members switched investment choice in the period from 2006 – 2009 (including the GFC).

Factors affecting superfund liquidity management include:

- The demographics of the fund: as fund membership ages, net flows reasonably disconnected from market risk (contributions received less benefits paid) become neutral and eventually perhaps negative;<sup>236</sup>
- Fund portability and member switching, manifesting in two ways: firstly, members can switch from one fund to another; and secondly, an increasing number of investment options are offered by funds. In each case, assets may need to be liquidated to honour member choices. This factor was of some importance during the GFC as discussed above in 5.5;
- Switching or “short-termist” behaviour of an increasing portion of members, arising from demographics, marketing, and political narratives. Under current policy settings, engaged and individually-focussed members may contribute to procyclical pressure on asset prices and other members’ balances in times of stress, even if rational, coordinated member patience would result in greater aggregate welfare (this is the internal challenge of liberalism, and has been solved in other contexts);
- Voluntary contributions, which are deemed to be an inflow of liquidity, may be becoming more volatile and sentiment-based;
- Prudential regulation of liquidity is on a fund-by-fund basis, even for systemic events. As a result individual fund levels of liquidity will be designed to enable a fund to withstand a shock on its own, even when a more systematic approach would result in superior allocative efficiency and comparable systemic resilience;
- To maximise members’ returns, funds may want to increase investments in illiquid assets, which can result in tension between short-term liquidity prudential requirements and long-term performance objectives; and
- Increased financial market volatility and the potential for systemic events, including exchange rate depreciation and the impact on hedging collateral requirements.

The above factors, together with the lack of support for super funds in a systemic liquidity event, are barriers to the super system’s potential investments in long-term projects (such as infrastructure), which can deliver benefits for both members and the economy as a whole.

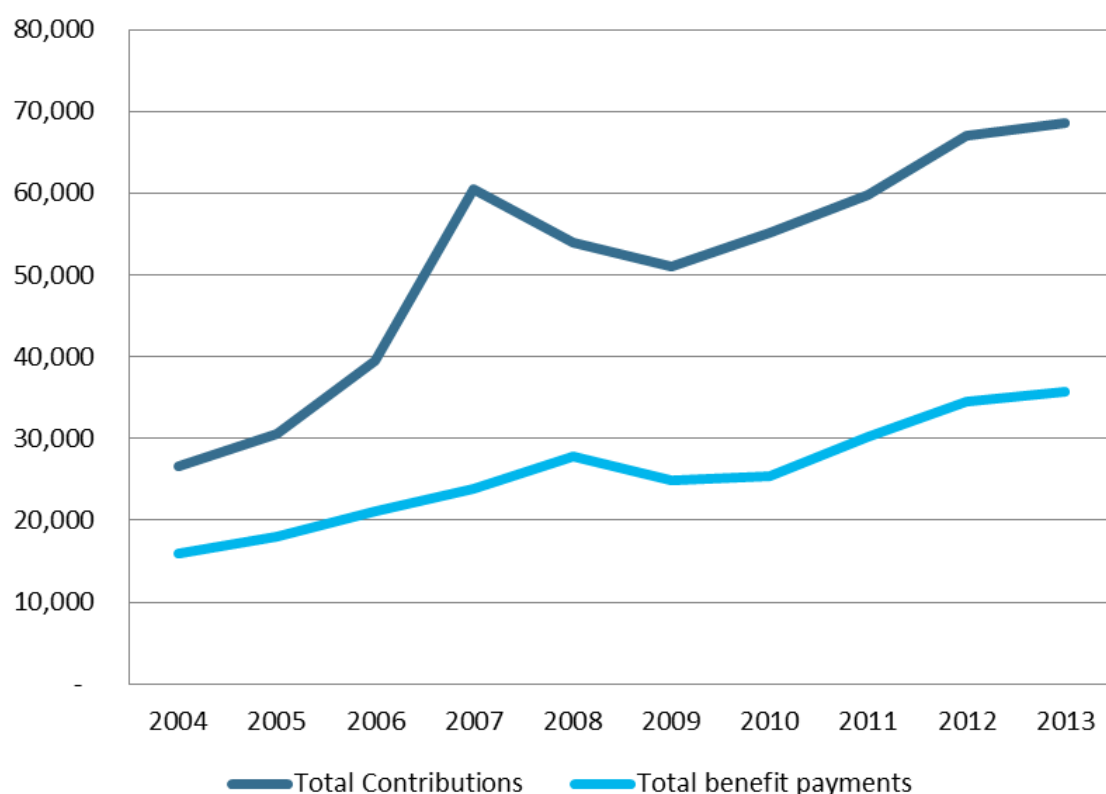
#### 9.1.4.5 Super funds as an important part of the liquidity “plumbing” system

With the compulsory superannuation contribution, super funds are custodians of an important flow of funds from savings. This flow of funds has been increasing and will continue until the system matures. Figure 111 shows the total contribution and total benefit payments of APRA-regulated funds. Clearly, the inflow of funds is currently larger than the outflow of funds.<sup>237</sup>

<sup>236</sup> Amani Venkatramani, ‘Liquidity, Licensing and Super Funds: What’s on Apra’s Agenda’, Australian Prudential Regulation Authority, Conference of Major Superannuation Funds 2008, Monday 17 March 2008, stating that “The number of people aged 65 years and over will increase rapidly over the next 50 years, from 2.6 million in 2004 to between 7 and 9 million people in 2051. By then, slightly more than one in four Australians will be aged 65 years and over (around one in 8 at 2004).”

<sup>237</sup> There are rollovers in and out of a particular fund, but in these cases, the funds stay in the superannuation system. Benefit payments are the only sources of outflow for super system as a whole

Figure 111 – APRA-regulated funds’ total contributions and benefit payments (\$’000s)



Source: APRA Superannuation Statistics as at June 2013<sup>238</sup>

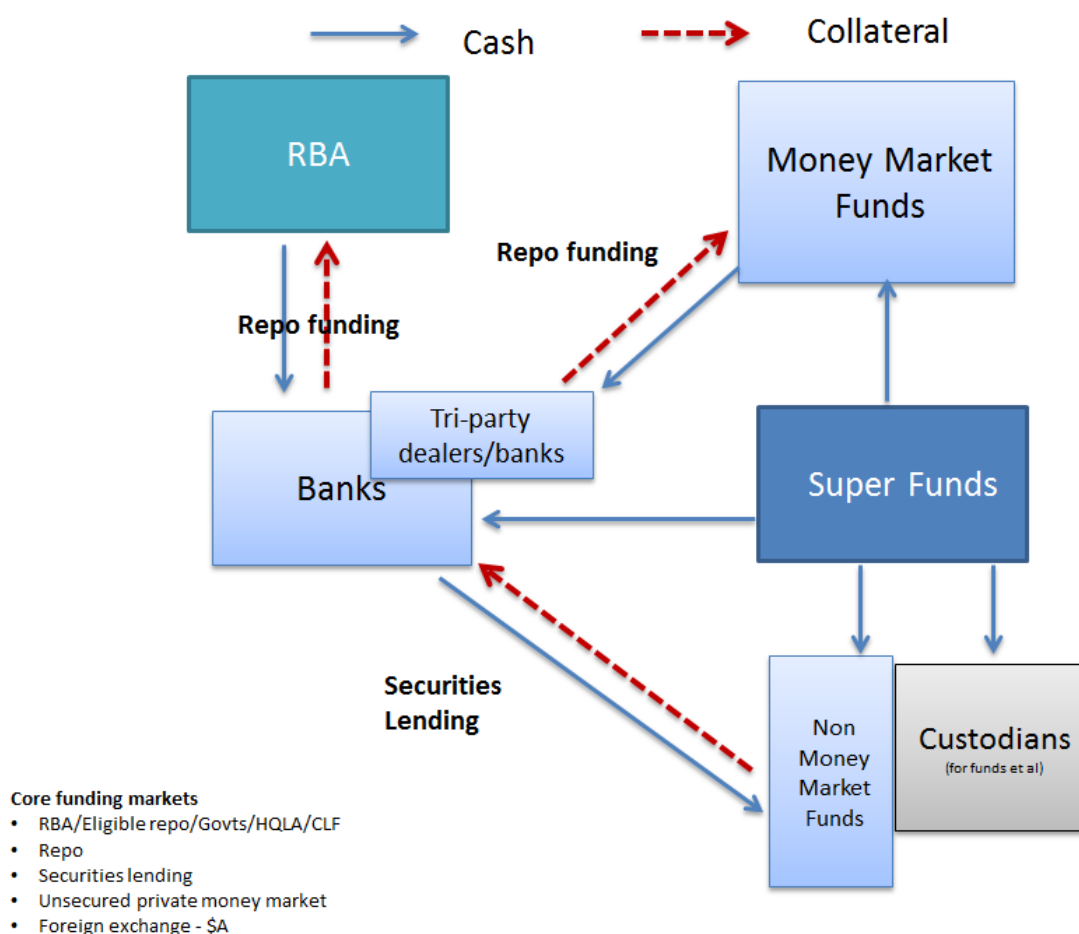
Flows of funds are allocated into different asset classes, with a significant amount into cash and liquid marketable securities such as equities.<sup>239</sup>

The strength of fund inflow has enabled super funds to support the capital markets. During the GFC, superannuation has helped to recapitalise the balance sheet of Australian companies, including banks (Figure 78, above). Super funds, as part of their cash management and fixed income asset investment, have also been part of short-term funding markets. Through these channels, super funds have become an important part of the liquidity system. The following diagram (Figure 112) illustrates this point.

<sup>238</sup> Flighty members/exit is based on the proportion of outward rollover in the total assets at end of period. We assume that the proportion of “flighty asset choice” is 5% of total assets based on a finding in Gerrans (2012) that 5-6.5% of members switched investment choice in the period from 2006 – 2009 (including the GFC)

<sup>239</sup> APRA-regulated funds allocate 7.53% of assets to cash in 2013, and around 50% to equities

Figure 112 –Collateral/liquidity “Plumbing” – system wide



Source: FIMA

#### 9.1.4.6 Systemic liquidity

Industry SuperFunds have been strong and successful competitors in superannuation. As a result they enjoy very high levels of net contributions.

Net inflows for Industry SuperFunds as a whole are so strong that, in the case of some funds, the allocation to illiquids could more than double relative to current allocations while still being able to pay benefits.

However, Industry SuperFunds have always sought to promote the optimal policy settings for the superannuation system as a whole, and the future resilience of the system.

In a systemic liquidity event, banks have long accessed special, external, facilities as part of their liquidity management.<sup>240</sup>

In a systemic liquidity event, a number of financial institutions can face short-term funding pressures, such as an inability to roll short-term debt or obtain additional funding. Banks at risk of a bank run may need access to additional liquidity to pay off a sudden surge in withdrawals. There could also be pressures on the liability side, including rolling over short term wholesale funding.

<sup>240</sup> ISA notes that the nature of banks and super funds are quite different. For example, banks are more leveraged, and take on risk instead of depositors and other individual liability holders.

Banks, however, have a number of tools at their disposal, including:

- Banks have access to the RBA repo facility through its open market operation. This is an important aspect of banks' liquidity management, enabling banks to manage short-term liquidity pressures. Since the GFC, the RBA expanded the range of securities eligible for repo transactions.<sup>241</sup> The scope for longer duration repo transactions also has increased since the GFC. In addition, certain banks can access the Committed Liquidity Facility.
- Banks may receive Government support, such as in the GFC where the Commonwealth Government guaranteed bank debt issues, enabling banks to raise funding in the capital markets;
- Banks can also raise additional equity capital in the stock market. During the GFC, banks were able to recapitalize quickly through a number of private placements.

Super funds, on the other hand, currently must rely solely on the strength of their cash positions, such securities as are able to be liquidated in an orderly market (which may be limited), and inflows from contributions. In crisis time, funds may face liquidity problems as margin or collateral is due in respect of hedging positions, or if a number of members switch between different investment options or to another super fund. If payment obligations continue after cash and liquid securities become exhausted, funds must seek to sell their illiquid assets at a time where prices are likely to be far from fair value (or seek relief from APRA). Such sales would add pressures to an already disorderly market.

Industry SuperFunds are well-placed to manage these issues. But that does not mean that all segments of the superannuation industry are as well-placed or that improvements to public policy cannot result in better outcomes for the public.

Leading up to and during the GFC, the superannuation system was experiencing net cash flows that were strongly positive. Some retail funds raised gates on withdrawals, but for the most part the system was able to cover its commitments and ride through the liquidity pressures. Industry SuperFunds, and other funds with strong cash positions, were able to recapitalise the Australian sharemarket (Figure 78).

In ISA's discussion with a number of super funds and liquidity management experts, there is a consensus that while super funds did well in the GFC, future systemic events likely will be more challenging. As the system matures, net contribution flows are likely to be reduced. Furthermore, as indicated earlier, member behavior and sentiment will likely lead to more instability, which can make liquidity management harder in a crisis. These risks to the system should be considered carefully.

Furthermore, without predictable systemic liquidity support for a systemic event, super funds will hold larger amounts of liquid assets to manage their liquidity risk, moving away from the optimal portfolio structure and reducing the potential role of super funds as long-term investors in the economy. Asset allocation for institutional risk management purposes, rather to obtain optimal risk adjusted net returns, could reasonably be expected to result in a misallocation of resources in the economy. It also presents an opportunity lost to earn additional illiquidity premiums for those members who stay committed.

#### **9.1.4.7 Liquidity facility for super funds – the framework and possible structures**

A public liquidity facility for the super system warrants consideration as an option not only to shore up systemic stability, but also to enable more long-term investment during good times. Access to a public liquidity could form part of a good and approved liquidity management policy and practice. Because of the nature of superannuation liabilities, and the lack of contagion through channels other than distressed sales, it should not lead to problems such as "too big to fail."

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<sup>241</sup> Guy Debelle, Assistant Governor (Financial Markets) Reserve Bank of Australia, 'Market Operations in the Past Year', 2008 FTA Congress, Melbourne, 31 October 2008



Preliminarily, the framework for a liquidity facility for super funds should be based on repo transactions with the RBA (the RBA, as part of its public policy objectives, should determine the appropriate eligible securities for repo transactions).

Super fund participation in the RBA's public liquidity facility could be beneficial in a number of ways:

- reduce systemic risks and mitigate the perceived risks by members of illiquidity and a resulting pressure on a fund during times of systemic stress;
- provide an additional tool for super funds' liquidity management policy and practice;
- allow super funds to optimise portfolio allocations, supporting further investments in illiquid assets, especially infrastructure, that otherwise would not occur; and
- thereby achieve higher returns to members and reduce the public pension outlays.

### 9.1.5 Adjustments to ensure fair value and long-term value are harmonised

Adjustments to fair-value reporting may be able to improve institutional capacity of superannuation funds to make long-term investments.

Fair value accounting aims to show the value of assets and liabilities within an enterprise or a fund to external stakeholders. The underlying philosophy of fair value accounting is open to doubt. For example, the effort to value assets within an enterprise or a portfolio ignores that generally "the whole is greater than the sum of its parts."<sup>242</sup>

The most forceful concern with fair value accounting is the method by which it seeks to value the internal assets and liabilities. To the extent possible, reporting entities are required to utilise market prices for the value of assets. Market prices necessarily reflect what someone else did pay for an asset, but not necessarily what the enterprise or the fund believes the asset is worth (in fact, the reporting entity by implication believes the asset is worth more (including transaction costs) than the quoted market price). Equally, both theoretical and empirical works indicate that (and it is well known that) market prices, including in the more efficient markets, "frequently and substantially" deviate from fundamental value.<sup>243</sup>

In addition, market prices are sentiment-based and volatile. Reporting on market values can create excessive volatility in the financial statements of companies and investors, some of whom (including institutional investors with long-term liabilities), use a range of inputs to value assets. According to the Financial Stability Board,

"to the extent that the regulations use short horizons for assessing solvency or apply different methods of fair valuing the assets and liabilities, thereby creating excessive volatility in financial statements, they may promote myopic behaviour and impinge on the ability of those investors to participate in certain LT [long-term] asset classes."<sup>244</sup>

Similar concerns were raised by a staff working paper informing the European Commission's Green Paper on Long-Term Financing of the European Economy.<sup>245</sup> The Green Paper concluded that

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<sup>242</sup> This distinction is why businesses are sought to be reorganised as going concerns wherever possible: because assets generally have greater value as part of an enterprise.

<sup>243</sup> Summers (1986).

<sup>244</sup> Financial Stability Board, Financial regulatory factors affecting the availability of long-term investment finance, Report to G20 Finance Ministers and Central Bank Governors, 8 February 2013: 10

<sup>245</sup> European Commission, Long-Term Financing of the European Economy, Commission Staff Working Document

Accompanying the document Green Paper Long-Term Financing of the European Economy, SWD(2013) 76, Brussels, 25.3.2013: 13

“There is merit in examining further whether these [fair value accounting] standards are fit for purpose when it comes to long-term investment. In this context, it would be useful to identify ways to balance the accuracy of the information given to investors with sufficient incentives to hold and manage very long-term assets.”<sup>246</sup>

Responses to the Commission’s consultation on the Green paper confirmed these concerns. Suggestions from institutional investors, peak bodies and regulators included:

- returning to more use of amortised cost;
- adapting IFRS (and capital requirements) to take account of the specific business models of long-term investments, for example by creating a specific category of assets and liabilities;
- complementing fair value accounting with further disclosures about the information reported in the statements of financial performance;
- encouraging companies to provide additional information about their future cash flows; and
- reintroducing the concept of prudence.<sup>247</sup>

Fair value accounting as currently implemented might be distorting investor behaviour, operating company behaviour, and potentially inhibiting long-term investment. Ensuring that accounting standards are ‘fit for purpose when it comes to long-term investment’ is an important topic for consideration in assessing and increasing the efficiency of Australia’s financial system.

The FSI may wish to consider the responses to the European Commission’s consultation and whether there may be policy options that would improve the efficiency of Australia’s financial system, particularly in relation to facilitating long-term productive investment.

#### 9.1.5.1 Reporting by super funds on performance should prioritise longer term rolling averages

Short-termism is present in funds management. The current performance and risk evaluation system in place may discourage long-term investments. While the benefits of long-term investments are widely recognised, fund managers’ incentives are normally determined annually and often tied up with particular benchmarks (for example, S&P ASX 200). This may discourage long-term focused managers whose annual performance may vary from the benchmarks. Furthermore, risks often are measured based on short-term horizon variations (monthly or quarterly), limiting fund managers’ incentives to ride through short-term volatilities for potentially higher long-term returns.<sup>248</sup>

Similarly, the nature of reporting by superannuation funds themselves can weigh toward short termism in a hyperactive retail environment.

#### 9.1.5.2 Options

A large portion of superannuation contributions are directed to fund managers to invest in a number of asset classes. Incentives of funds managers to focus on long-term value-creating investments are an important task. Short-term pressures from reporting should be reduced.

The options presented on reporting in Section 9.1.3.8 should reduce short termist incentives pressuring superannuation funds. In principle, many of these options could be achieved through negotiations between super funds on a contract-by-contract basis. Public policy could assist however, by making it mandatory (which can help overcome collective action problems, improve comparability, and improve compliance), and reducing the costs of serially negotiating contracts to achieve a minimum standard.

<sup>246</sup> European Commission, Green Paper Long-Term Financing of the European Economy, Brussels, 25.3.2013: 15

<sup>247</sup> European Commission, *Summary Responses to Commission Green Paper on Long-Term Financing of the European Economy*, Brussels, January 2014: 16-17

<sup>248</sup> World Economic Forum. (2011). The Future of Long-term Investing

- Fund managers should report their performance and risk measures on a long-term basis. A report by World Economic Forum recommends three, five and even ten year bases.<sup>249</sup>
- For long-term fund managers, appropriate benchmarks should be determined and agreed upon.
- Turnover ratios should be reported.

Implementation of longer term reporting should enable fund managers' incentives to be tied to long-term performance reporting.

While desirable, it is important to note that (as with all disclosure-based reform), the practical effects on behaviour of these options are likely to be somewhat limited.

#### 9.1.5.3 Capital gains tax relief should focus on economic capital formation

Capital Gains Tax was introduced in Australia in 1985. Prior to the introduction of the tax, capital gains were tax free. The purpose of the tax was to reduce tax avoidance behaviour where other forms of income were masked as tax-free capital gain. The introduction of capital gains tax also helped business with their investment decisions by removing certain distortions, according to Treasury.<sup>250</sup>

The 1999 Ralph Review of Business Taxation recommended changes to CGT to "support a stronger investment culture among Australian households." One of the recommendations to achieve this was to reduce capital gains tax by one-half. The Government adopted this recommendation, along with some exemptions to small businesses.

In its current form, the CGT is applied in full if investors hold assets for less than 12 months. Beyond this period, CGT is applied at a concessional rate of 50 per cent of the tax payer's income tax rate, regardless of how long the assets are held for.

There are two clear options for CGT reform:

#### 9.1.5.4 Tailor CGT to provide concessions for economic capital formation

Current CGT provides for a lower tax rate than for income, which is intended to create incentives for investment. However, its design does not ensure that the gains are related to real economic investment, i.e., in capital. The design does not distinguish between the purchase of a financial instrument in the secondary market, and the funding of an enterprise. As a result, purchases of financial instruments that result in no investment are treated as CGT, and can obtain the concessional tax treatment. This is likely to be part of the reason why economies with developed financial systems and large numbers of financial instruments nonetheless have declining investment to GDP ratios.

Tax preferences for capital gains could differentiate between (i) gains on financial instruments acquired in the secondary markets, and (ii) gains on financial instruments acquired in a primary transactions (i.e., in exchange for funding an operating company). Gains on instruments obtained in the secondary markets could have concessional treatment if there is a post-acquisition funding injection, to the extent of that injection.

#### 9.1.5.5 Place the concessional rate for holding periods on a sliding scale

The current CGT concessional treatment is based on holding periods, not actual investment as noted above. In addition, it is not a particularly long holding period, and is binary.

<sup>249</sup> World Economic Forum. (2011). The Future of Long-term Investing

<sup>250</sup> "As for investment, the introduction of a Capital Gains Tax could be seen as ameliorating some of the present distortions on decisions to invest. At the margin the absence of a CGT means that decisions to invest are determined not only by the overall yield of a project but also by the composition of that yield as between capital gains and income."

It may be worth considering extending the period of time before the full concession is available to reflect something more akin to a long-term investment, and providing the concessions on a sliding scale.

## 9.1.6 Build human capital and risk support for long-term investment

### 9.1.6.1 Establish an innovation funding agency or development bank

In a number of jurisdictions, including among Australia's major trading partners in Asia, specialised agencies have been successful in combining public and private funding for investment in innovation or critical sectors. They have also been successful in developing human capital that moves into the private sector and supports investment in fixed capital at a lower cost. Examples include developed economies like Australia (e.g., Canada and Finland), and importantly, our trading partners in our region, including China and South Korea.

The existence of these agencies has overcome a barrier facing Australian investment in innovation: the cost of capital for early stage companies is too high from the issuer perspective, and the risk-adjusted return on investment from the perspective of investors is too low. A development bank or funding agency can build human capital specialising in investment in innovation (driving down the cost of capital)<sup>251</sup> and funding by these agencies can de-risk and change the risk-adjusted returns for private investors.

A recent review of State Financial Institutions (SFIs) undertaken by the World Bank has found that these institutions have re-emerged in many developed economies after the GFC and are successfully allocating funding (especially credit) to sectors cyclically not attractive for commercial banks.<sup>252</sup> In recognising that the 'financial crisis has impaired banks' ability to lend at long maturities, as they need to deleverage, correcting the excesses of the past', the European Commission has also recommend SFIs to promote long-term investment. According to the European Commission's 2013 *Green Paper on the long-term financing of the European economy*:

"Development banks active both internationally and nationally should play a role in helping to catalyse long-term financing and enhance the efficiency and effectiveness of financial markets and instruments. Despite the positive net contributions of certain investments to economic welfare, market failures can prevent investors from taking certain risks and/or making certain investment decisions. In these instances, national and multilateral development banks can be useful in stimulating private financing given their specific public policy objectives related to broader economic, social and environmental (as opposed to purely financial) value added."<sup>253</sup>

Aside from development banks, which intermediate funds, it is also possible to establish an innovation funding agency, which uses public funds.

The mandates for agencies and public funds should be clearly defined such that public funding complements rather than replaces private funds, generating "input additionality." Mandates may also steer innovation in particular ways, generating "behavioural additionality."

In concrete terms, input additionality can be achieved through funding early state venture capital which incorporates the research and screening of projects. This can significantly reduce the risk profiles of RDI investment for other private investors. Behavioural additionality on the other hand can include developing a skill base and talent pool around particular forms of investing.

<sup>251</sup> Human and fixed capital within the investment-making portion of the finance sector has been weighted toward evaluating and making investments in mature listed companies, with securities acquired in secondary market purchases rather than primary offerings

<sup>252</sup> Heinz P. Rudolph, State Financial Institutions: Mandates, Governance, and Beyond, Policy Research Working Paper 5141, Financial Systems Department, The World Bank, November 2009

<sup>253</sup> European Commission, *Green Paper Long-Term Financing of the European Economy*, Brussels, March 2013, p 7

An example of an innovation fund that does not perform intermediation is the Finnish innovation funding agency, Tekes (Finnish Funding Agency for Technology and Innovation). A review of Tekes has found that the agency approach has been very effective. The review concludes that the findings from a suite of separate evaluations of the agency:

“clearly indicate that public R&D funding has improved firms’ R&D practices and strategies and helped them become more competitive. It has also improved capabilities of their human capital and the quality of their R&D, and facilitated expansion of their co-operation networks. These types of changes bring benefits not just to the firm but the economy as a whole and the well-being of the country’s citizens. Both econometric results and survey response imply that firms have increased their own R&D financing after acquiring public R&D funding.”<sup>254</sup>

Based on the successful use of development banks and funding agencies by Australia’s regional partners and other advanced economies, these agencies could help to boost innovation in Australia. They also could help develop human capital oriented toward early stage investment and investment in fixed capital.

More detail regarding development banks and innovation funding agencies is in Appendix 4.

### 9.1.7 Improve the investment environment for long-term investing

Long-term investing is a key to capital formation and increases in future productivity. However, to encourage a focus on longer term investment, incentives and structures should be considered to discourage short-termism, and to unlock the capacity of investors to make long-term investments in illiquid assets. At the same time, barriers to investment in long-term projects such as infrastructure should be reviewed to make the process for those seeking to invest more efficient. This section outlines some options available that may help deliver these outcomes.

#### 9.1.7.1 L-Shares

As discussed above, short-termism is a challenge to financial markets in a range of jurisdictions. Australia is showing signs of short-termism, as discussed above in Section 4.6.1, above.

The focus on short-term gains can undermine the creation of long-term economic value. Share market sentiment and expectation can influence management decision making. A survey with CFOs in the US by Graham et al (2005) found that nearly 80% of those executives would give up economic value in exchange for smooth earnings. More than half would ignore highly beneficial projects (measured by net present value) if it falls short of consensus earnings expectation.<sup>255</sup> This behaviour would lead to serious misallocation of economic resources, failures to invest in capital and would be detrimental to long-term investors such as super funds.

The damaging consequences of short-termism have been recognised in various jurisdictions, including the Kay Review (2012) in the UK,<sup>256</sup> the Aspen Institute proposal in the US (2009),<sup>257</sup> and in the European Commission.<sup>258</sup>

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<sup>254</sup> Jari Hyvärinen, ‘Behavioural Additionality of Public R&D Funding in Finland’, Chapter 6 in Organisation for Economic Co-operation and Development, *Government R&D Funding and Company Behaviour: measuring behavioural additionality*, 2006, p 126

<sup>255</sup> Graham, J. R., Harvey, C. R., & Rajgopal, S. (2005). The economic implications of corporate financial reporting. *Journal of accounting and economics*, 40(1), 3-73

<sup>256</sup> Kay, John, 2012, *The Kay Review of UK Equity Markets and Long Term Decision Making*, UK Department of Business, Innovation, and Skills

<sup>257</sup> Aspen Institute, 2009, *Overcoming Short-termism: A Call for a More Responsible Approach to Investment and Business Management*, Aspen Institute, New York

<sup>258</sup> Brussels aims to reward investor loyalty, *Financial Times*, Jan 23, 2013

Part of the response to short-termism and to supporting greater long-term investment in fixed capital is ensuring that the investment environment includes financial instruments that are designed with long-term investment front-of-mind.

Loyalty shares (L-shares) is an example of a financial instrument designed to encourage long termism. The idea is to provide appropriate rewards and incentives for long-term investors to hold shares for at least a specified period.

L-shares may help operating companies to identify and create a stable base of investors, allowing them to focus on long-term value creating projects rather than chasing short-term gains. As noted above in the discussion of short-termism, firms with long-term investors are better able to manage for the long term, and are less likely to cut R&D to manage their short-term earnings.

There are at least three key considerations in L-share design:

- (i) the reward for a long-term investor,
- (ii) the commitment by the investor (if any) in exchange for the reward, and
- (iii) the protections afforded to the investor (if any).

#### 9.1.7.2 Rewards

There are a range of possible rewards that could flow to shareholders who are committed investors in the company for the specified period of time (the loyalty period). These include:

- Greater voting rights: special voting rights are granted for long-term shareholders. Dallas (2011) suggests this proposal to differentiate short-term and long-term shareholders, giving control to long-term shareholders “who have the incentive to look to the long-term health of such firms”.<sup>259</sup>
- Special dividends: holders of L-shares can be awarded with one-off or recurring extra dividends or share bonuses after a specified period (Butler, 2006).<sup>260</sup>
- Warrant: a warrant is attached to L-shares, which entitles the shareholders who hold onto them for the loyalty period to purchase additional shares at a predetermined quantity and price.<sup>261</sup>

#### 9.1.7.3 Commitments by the investor and the trigger

Typically the only obligation a shareholder who holds an L-share must meet is to continue to hold the share for a specified period of time (often around three years).

Long-term shareholders are required to hold the instruments continuously during the loyalty period to qualify for the rewards. Stock lending is not permitted.

In designing L-shares, it is worth considering an affirmative commitment on the part of the investor to hold the share for a period of time. This would be more akin to a “lock up” rather than simply a reward for holding the share. The advantage of an ex ante commitment is that the incentives of corporate management may not change if the shareholder is able to sell at any time: management would still be concerned that short term performance remains strong enough that (in combination with the reward) the investor will be patient. *By making an ex ante commitment to hold the shares for at least a certain period, the incentives of management and of shareholders change and become more long term focused.*

Investors may require greater rewards for a “lock up,” but this structure may nonetheless be more likely to deliver the sought-for benefits. Moreover, firm commitments and structures have been more successful in

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<sup>259</sup> Dallas, L. (2011). Short-termism, the financial crisis, and corporate governance. *Journal of Corporation Law*, 37, 264. Chicago

<sup>260</sup> Butler, P. (2006). Address to the ICGN Annual Conference

<sup>261</sup> Bolton, P., & Samama, F. (2013). Loyalty-Shares: Rewarding Long-term Investors. *Journal of Applied Corporate Finance*, 25(3), 86-97

managing sentiment than simply rewards and incentives (particularly because the value of incentives is itself subject to sentiment).

Implementation of the “lock up” also could enable a potentially significant option to long-term investors: taking L-shares as a different class of share from ordinary shares, with a separate secondary market and *pricing*. In particular, the pricing of L-shares would reflect the valuation judgments of long-term holders. Creating a different class of shares for long-term shareholders would require the establishment of an efficient registry system to track ownership movements (as rare as they may be).

#### 9.1.7.4 Examples of L-shares

L-shares have been issued by a number of companies. The forms of rewards are typically voting rights and special loyalty dividends. Some of the examples of L-shares in practice are:<sup>262</sup>

- **Extra Voting Rights:** companies in France can award double voting rights to long-term shareholders who register and hold their shares for a minimum of two years. Some large French corporations have provided these rights.
- **Dividends:** A few French companies have issued loyalty dividends for shareholders who hold their shares for a minimum specified period. These include some well-known companies such as L’Oreal, Credit Agricole and Air Liquide among others. Dividends can also come in the form of one-time bonus share. For example, for its IPO, Telstra offered extra bonus shares for shareholders who held their shares continuously from the listing date in 2006 until May 2008.
- **Loyalty Warrants:** the issuance a loyalty warrant is relatively rare. An example would be the warrants issued by Michelin in 1991. Following a dividend cut, the company issued call warrants for investors. The warrant was to buy additional shares (one share for every 10 shares held) at a pre-determined strike price after a four year loyalty period.

#### 9.1.7.5 Australian application

The L-shares concept is a promising option to incentivise long-term equity investments and could be a step in the right direction to curb short-termism. The nature of L-shares also should fit well with the long-term investment horizon of superannuation. In addition, having a stable investor base will allow company management to focus on strategic decisions such as capital and R&D investments to enhance the company value in the future.

In Australia, L-shares can be created provided that the company’s constitution allows for the issuance of shares with different rights. However, for L-shares to become effective long-term securities, public policy may be needed to overcome collective action problems, at least initially.

## 9.2 Reform infrastructure bid models

### Barriers to greater investment by super funds

As noted above in Section 6.1.1, very high bid costs and long procurement processes combined with ‘patchy’ deal flow, has limited the number of parties who can afford to establish and dedicate the necessary resources for such projects. Bid costs are estimated to average 1.5 per cent of the total project cost and the average length of procurement for PPP projects is 17 months.<sup>263</sup> With potentially only three or so PPP projects coming to market each year and a similar number of established bidding consortia, the barriers are high for new entrants.

<sup>262</sup> Mercer (2012). Building a long-term shareholder base: Assessing the potential of a loyalty-driven securities. Consultation findings

<sup>263</sup> KPMG (2010) PPP procurement review of the barriers and competition and efficiency in the procurement of PPP projects



The current PPP bid process has resulted in a major misalignment of interests between short-term financiers and contractors, and the equity investors (and the public interest). This has been perfectly illustrated by a series of failed toll road PPPs in Australia over the last eight years. PPP bid syndicate leaders have been motivated by considerations other than the actual return to equity and the long-term success of a project. The investment banks acting as bid sponsors have been compensated significantly at the front end of the project and have extracted tens of millions of dollars in transaction and advisory fees – so called fee leakage - which is ultimately funded by government and tax payers.

In addition, the construction company generates its returns from project construction and has little to no equity exposure to the investment once operations commence.

Driven by these significant short term incentives, bidders have put forward aggressive patronage forecasts as, at the end of the day, this puts them in the winning position. Exacerbated by high levels of gearing, these overly optimistic traffic forecasts have led to the financial failure or significant stress of the projects. Ultimately, this risk is borne by the equity investors (who have been brought into the deal by the investment bank and contractor as bid sponsors), as the bid sponsors have extracted their returns upfront and have limited to no on-going equity exposure to the transaction. The ultimate outcome is a poor value for money outcome for government and tax payers, as well as a loss of shareholder value leading to risk aversion and scarcity of funding.

Whilst the limitations of the PPP procurement model have been best illustrated by the toll roads, similar issues exist for social (or availability based) PPPs where significant value capture and fee leakage occurs during the initial bid process and the achievement of financial close on a transaction.

In the absence of long-term equity investors as bid sponsors, short term focused project sponsors are motivated to put forward aggressive financing assumptions to lower the cost of capital. This can result in a financing package heavily skewed towards debt: generally a financing package is comprised of 80-90 per cent debt and 10-20 per cent equity. Such finance packages may provide an upfront lower cost but they also have a latent cost because they may not be capable of refinancing. Ultimately, the risk is borne by equity or, in the case of reversion to the government, by the taxpayer. Debt will always be a significant source of finance for infrastructure projects, however, reform of the bid model would be expected to help foster more sustainable capital structures with reduced refinancing risk and, hence, a reduced likelihood in equity having to inject further capital or for assets to enter receivership.

### **Bid model reform**

In condensed form, the major challenges to greater long-term investor participation in greenfield infrastructure are (i) the costs of the bidding process in terms of time and excessive complexity in bids, and (ii) the misalignment of incentives due to short-term participants in the project (i.e., construction firms and investment banks), being the major sponsors of projects.

#### *The inverted bid model*

There is a better procurement process that both improves on the desire of governments for a competitive process and high value for money outcomes, as well as addressing the concerns of long-term investors with the current process.

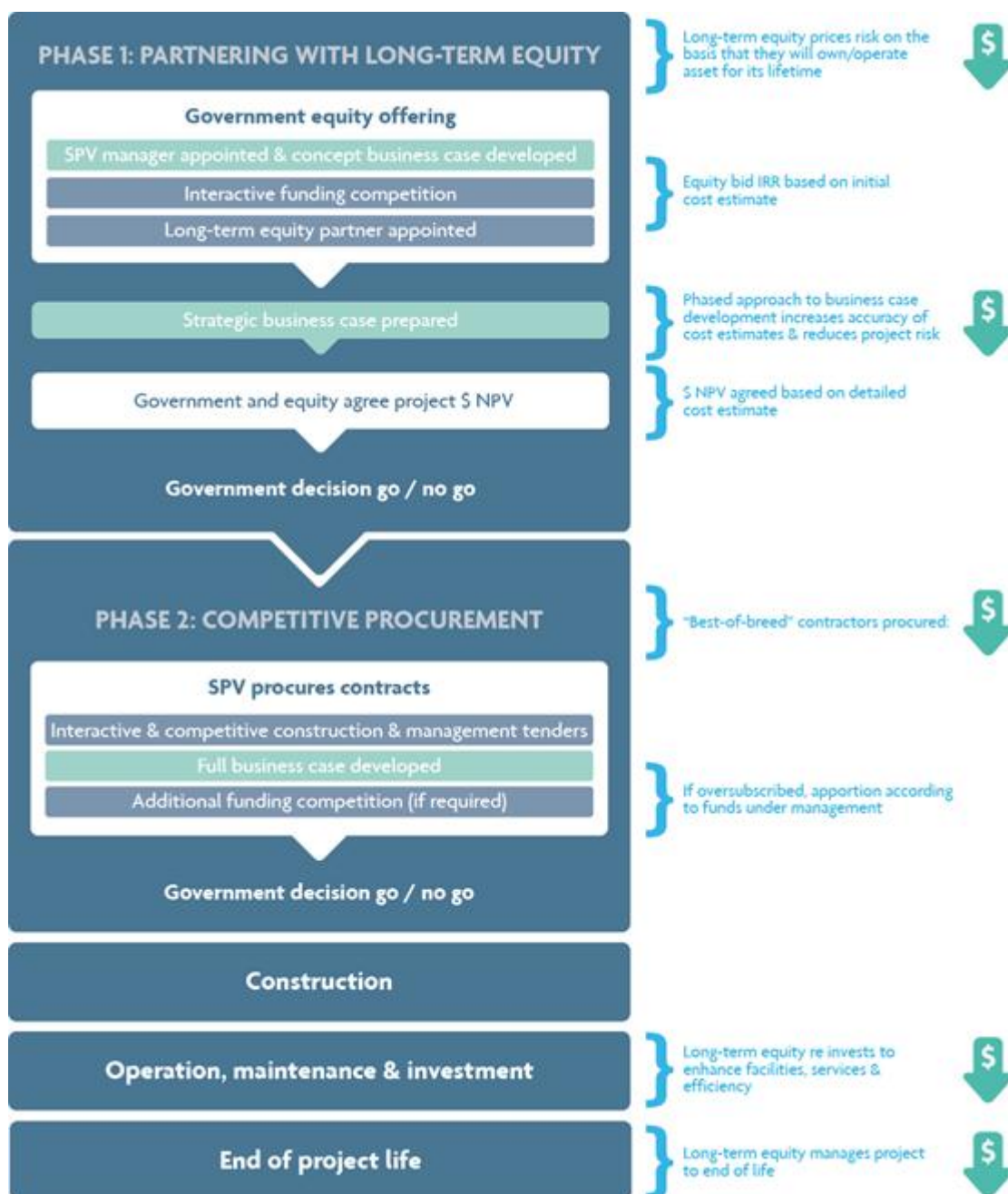
This inverted bid model aligns the interests of government and long-term equity investors whose investment time horizon accords with the long life cycle of an infrastructure project. Such an alignment significantly increases the likelihood of the success of the project because equity investors are motivated to price project risk accurately on the basis that they will own the asset over the long term as “owner-operators”. Unlike project sponsors under the current model, such investors make their returns through efficient operation and asset management not upfront fees and a subsequent sell down of their equity after construction.



Under the inverted bid model, the traditional bidding process is inverted and broken into two stages. In the first stage, the bidding process is inverted by securing project financing through an equity funding competition prior to the construction and operation and maintenance (O&M) tenders and raising of debt.<sup>264</sup> In other words, the government tenders initially for the long-term owner-operator. In the second stage, after the project SPV has been funded by long-term equity investors, there is a separate bid process administered by the SPV for construction, O&M and debt finance. This effectively inverts the bid process relative to current PPP procurements that typically only see long-term equity after an initial sell down by project sponsors.

This process is summarised in Figure 113.

Figure 113 – Inverted bid model



<sup>264</sup> This process is focussed on greenfield projects rather than government privatisations of existing assets

The expected benefits of the inverted bid model include:

- *Efficiency*: costs are estimated to be reduced from 1.5 per cent of the total project cost to 0.8 per cent of the total project cost. The drivers of these costs savings include the competitive tendering of funding and construction, the incremental design of the project, and the effects of participation in the process of owners with long-term incentives.
- *Speed*: time to delivery is estimated to improve by about 30 per cent, from an average of 17 months to 12 months. The drivers of these improvements is that the process is undertaken in bite-sized pieces, and that the detail and complexity of each stage would be more fit-for-purpose.

These benefits are expanded upon below, along with other benefits such as greater transparency.

The most effective models could involve the long-term owner-operator bidding on their margin over the other project capital, operating and financing costs.

An inverted bid process would more effectively align the interest of all parties, significantly reduce fee leakage and deliver a better value for money outcome.

### International experience with inverted bid models

There are two international examples that approximate the inverted bid process in that they separate the procurement of financing from the tendering for construction: The Education Funding Authority (EFA) “Aggregator” Model in the UK<sup>265</sup> and to a lesser extent the NPD model in Scotland.<sup>266</sup> Under the first, a separate structure called the Aggregator is established to secure debt finance. A manager is appointed for the Aggregator. Multiple bundles of projects are competitively tendered. Contractors have to provide equity funding that is matched by the EFA with the majority of debt funding coming from the aggregator. Projects are PFI based for a set term. The model has a somewhat different motivation to the inverted bid model: achieving scale by grouping the financing of a series of small projects but also similarities: centralising financing through an interactive tender process to achieve time and cost savings, and achieving greater competition amongst contractors since they are not tied to a single consortium and are able to tender for multiple contracts. The NPD model also separates financing from construction.

### Well aligned partnership

The critical benefit of the proposed “open book” inverted bid model is that it allows long-term equity investors to compete along with other investors to deliver significant greenfield infrastructure projects and better value for money outcomes. This is made possible by the likely reduction in bid costs and shorter project time frames anticipated under this model. This will result in the alignment of interests between government, the long-term owner-operator of these assets and the long lifecycle of infrastructure project. Decisions made will be in the long-term interest of the project and its users. It will also result in the significant reduction of fee leakage through the removal of short term interests and intermediaries.

### Faster procurement and lower bid costs

The proposed inverted bid model is expected to reduce project procurement timeframes and lower bid costs due to the following:

- More appropriate levels of design and plan development for each stage of the project (e.g., removes the need to have a fully-detailed design and costing plan developed at the start of the project).

<sup>265</sup> Education Funding Agency (2013) Aggregator: Introduction and program overview

<sup>266</sup> Scottish Futures Trust (2011) NPD Model Explanatory Note

- Avoids the duplication of bid costs and advisory costs across multiple bidding groups as well as for the government.
- Increases the pool of contractors available to the preferred bid sponsor.
- Enables construction contractors to tender based upon more precise project specifications, leading to reduced tender costs.

### **Lower financing costs**

In the inverted bid model, the preferred bidder will have access to a greater number of banks than would a bidder in a competitive bid. In a competitive bid, large banks typically run multiple teams to cater to multiple bidders, however, smaller banks unable to run multiple teams are only available to a single bidder. In an inverted bid model, the entire pool of banks, large and small, would be available to the preferred bidder. Based on market soundings, we believe that the greater availability of bank capacity is likely to improve liquidity and lead to more competitively priced fees and margins than may otherwise be the case. Banks are also likely to be more responsive when there is bidder certainty.

### **Incentive to invest in projects**

As long-term owners and operators of infrastructure assets, the owners are motivated to invest heavily in those assets over their lifetime to enhance facilities and services. For example, IFM Investors has committed to further enhancements of its assets, estimated to require a further \$6.8 billion over the next ten years for their five largest assets. This includes a significant commitment to the development of a new parallel runway at Brisbane airport – the first major runway in the world to be built by the private sector.<sup>267</sup>

### **Transparency**

With an agreed minimum internal rate of return and an open book approach, projects under the inverted bid model will withstand the highest levels of scrutiny.

The separation of the construction tender from financing means the most capable and best value contractors and lenders can be selected without compromise as each will not be tied to a particular consortium. Similar to debt, the ability to obtain a more competitive bonding arrangement over construction becomes more likely under our proposed model. Similarly, the separation of the O&M selection from funding means that the most capable and best value operator and maintainer can be selected without compromise.

### **Better value for money**

The inverted bid model is designed to deliver value for money for government, tax payers and long-term equity. In the absence of short term interests and intermediaries it will address the leakage of tens of millions of dollars in fees during the early stages of a project. It will maximise transparency and competition. Every aspect of the project will be open to competitive and interactive tendering. Financing will be secured through an “open book” funding competition, first for equity and then for debt.

Sell down and change in ownership would be permitted only after a material period following construction completion and only with the consent of the government. All purchasers would need to meet the same criteria as the original bid sponsors.

The above will ensure that infrastructure is built, owned and operated by genuine long-term investors seeking to make a reasonable return over the economic life of the asset, not through the initial bidding, structuring and build of the asset.

<sup>267</sup> IFM Investors (2013) Submission: Productivity Commission inquiry into public infrastructure

### **9.2.1.1 Governments should commit to a pipeline of infrastructure projects and consider whether to “recycle” the proceeds of sales of existing assets**

There is reluctance amongst many public officials and within the community to consider the sale of existing public infrastructure to finance the construction of new assets which may not otherwise be immediately suitable for private sector investment. Superannuation funds have the capacity to cut through public concerns about private ownership to facilitate the privatisation of state government-owned infrastructure assets by virtue of public confidence in them as custodians of strategic economic assets.

#### **Greenfields or brownfields**

Industry SuperFunds have financed a number of greenfields investments, however new greenfields projects are not always suitable for super fund investment.

Bid processes, construction risk, investment lags, and the lack of suitable user charge or availability payment mechanisms can make new infrastructure unsuitable for super fund investment.

By contrast, brownfields infrastructure investments can be more attractive because of absence of investment lags, and construction and patronage risk.

An alternative financing mechanism for public sector greenfields infrastructure investment exists if a way can be found to effectively “recycle” the capital from public brownfields infrastructure.

#### **Funding new infrastructure from the sale of old**

Infrastructure projects, for a variety of reasons, may not be appropriate for private investment, including because of strategic importance, externalities, the duration over which the costs and benefits need to be amortised, or other reasons.

Very often these factors may not diminish the need for such infrastructure, but in the absence of a workable private sector financing model the only option is for Governments to fund the construction themselves.

To the extent that public expenditure is constrained, a workable option is to raise the funds for new infrastructure from the sale of existing assets which are more suitable for private sector investment – so-called recycling of infrastructure.

Privatisation of key infrastructure assets does, however, raise significant public concerns which must be addressed including continued amenity from the infrastructure, pricing, service and employment impacts.

While many of these issues can be effectively dealt with by structuring a deal with appropriate contractual or regulatory arrangements to ensure access and pricing remains within public expectations, others go to the motivations of the new owner.

The public has been rightly concerned by public sector asset sales where new owners have been motivated by short-term incentives to slash costs, cut jobs, gear up and bail out without regard for the long-term needs of the business or community.

Unfortunately, public sentiment has been damaged by the perception that private investment in government-owned core infrastructure has been driven by financiers with a motivation to increase wealth as quickly as possible. In order to ensure ongoing public support for private infrastructure investment, it is critical to deal with the potential for a lack of alignment between the public and the buyer.

#### **Addressing concerns about private ownership**

Superannuation funds as buyers have the potential to cut through community concerns about private sector ownership and potentially change the game. Research commissioned by ISA and conducted by Newspoll shows 77.8 per cent would be more supportive of private investment if it involved super funds. Other key takeouts of the research are:

- 97.8 per cent of respondents thought governments should be investing more in building new or improving old infrastructure;
- Only 30.3 per cent thought governments should tax more and 32 per cent cut services to pay for it (two-thirds opposed);
- 74.8 per cent believe investment from super funds (which nearly everyone has a stake in) would provide more benefits to the community than short-term investors like investment banks (12.9 per cent).

Industry SuperFunds have proven themselves to be long-term responsible investors and they seek stable, income-generating investments capable of delivering sound returns with an investment time horizon measured in decades.

When acquiring an asset, Industry SuperFunds take into account environmental, social and governance factors rather than looking at financial factors alone.

Unrealistic growth expectations, mergers that make no sense, high leverage, high remuneration packages that incentivise risk-taking are just a few examples of short-termism or 'irresponsible' behaviour.

Responsible investment is the opposite. Industry SuperFunds recognise that short-termism introduces unacceptable risks that are inconsistent with realising the long-term value of assets. In short, it makes sense for super funds to manage infrastructure in exactly the manner the public desires – with a responsible approach to employment, service provision and government relations.

In addition, because super funds and fund managers invest for the long term, they are also likely to make available additional funding to future proof assets to improve their amenity. An example of this includes Industry SuperFunds' investment in airports, where over \$4.9 billion was injected into capital investment compared to \$2.4 billion in distributions over the period 2002-2010.

When it comes to improving the quality of assets, super funds will not hesitate in making the necessary investments. In contrast cash-strapped governments will often fail to invest or defer decisions for as long as possible.

Finally, this ownership model also ensures the public continue to have direct stake in the asset providing a unique alignment between the owners and users of an asset (as they will often be one and the same). So the toll a member might pay for using a road will be paid back with interest when they retire.

### **Predictability**

Australia has nearly 600 different local, state and territory governments that, together with the Australian Government, fund and plan infrastructure projects. This multitude of government stakeholders makes infrastructure funding and development fragmented and slow, when compared to other benchmark countries.

A clear and coordinated national plan for infrastructure projects, potentially integrated with infrastructure project sales, could help unlock greater long-term investment.

## **9.3 Electronic call auctions**

Over recent decades, capital markets, especially the equity capital markets, have increasingly facilitated secondary market trading relative to raising capital.<sup>268</sup> In the late 1990s, the ratio of primary capital raised

<sup>268</sup> Secondary market trading involves the transfer of an interest in a financial instrument held by a person other than the issuer in exchange for payment from another person. In the common case of cash equities, the company that issued the ordinary share does not receive any proceeds from the secondary market trade. The seller receives the proceeds from the buyer, less various commissions to brokers, fees to exchanges, among other possible costs. Secondary market trading is different from capital raising, in which an operating company issues a financial instrument, such as ordinary shares, to investors, in exchange for an investment in the enterprise. The seller is the company, and it receives cash to fund its business from the investors

to the turnover of secondary equity markets was, on average, about 1:10 (i.e., for every \$1 of public capital raising there was about \$10 of trading activity). In 2012, the ratio was 1:28.

This trend may be contributing to declining capital formation efficiency in the finance sector. In more recent years, this trend has been exacerbated by the proliferation of high frequency trading (HFT) in Australian exchanges. HFT also presents a number of system risks to capital markets.

HFT has been observed in exchanges around the world. HFT now accounts for over 73 per cent of the entire equity trading volume in the United States<sup>269</sup> and almost 30 per cent of trading volume on the Australian Stock Exchange (ASX).<sup>270</sup> Unless the market structure which facilitates HFT is addressed, the trend observed in the US will reproduce itself in Australian capital markets.

Market structure plays an important role in determining market quality and market fairness. There is considerable scope for improvement in Australia's market structure:

- The current market structure facilitates high frequency trading, and is resulting in wealth being redistributed from investors like superannuation funds to certain classes of traders.
- In addition to significant private costs, the current market structure is costly in broader economic terms, encompassing ever-growing operating costs, interactivity costs, and regulatory and surveillance costs.
- The current market structure is fragile and requires effective implementation of kill switches and other endogenous features to seek to reduce systemic risk.

For the past two years ISA has undertaken considerable work on market structure and the potential for its improvement.<sup>271</sup> Based upon this work we have a proposal.

Under the proposal, equity trading would be conducted throughout the day in a series of sealed bid double call auctions. These call auctions would replace the continuous double auction executed through a limit order book, which is the current order matching microstructure of Australian cash equities markets.

Call auctions are used in a number of major exchanges around the world, including at the open and close of trading on the ASX. The key feature of call auctions is that they "concentrate liquidity," by aggregating orders over a period of time and executing them together at 'the call'. The auction transacts between multiple parties (is multi-lateral) and clears at a single price and volume. The auction clearing price is the one at which the maximum number of shares are exchanged. In contrast, in continuous auctions orders are executable on a price-time priority, which gives rise to latency arbitrage achieved by HFT.

Regulators and researchers generally accept that the above features of a call auction lead to better market quality in comparison to continuous trading.<sup>272</sup> The specific benefits of call auctions include:

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<sup>269</sup> Easley, D., de Prado, M.M.L., O'Hara, M., 2011. The microstructure of the "flash crash": Flow toxicity, liquidity crashes, and the probability of informed trading. *Journal of Portfolio Management* 37, 118–128

<sup>270</sup> There have been different estimates of HFT activity as a portion of market activity in Australia. According to TABB, HFT is estimated at 20% of market volume. Frino, Lepone and Mistry (2011) are reported to provide a much higher range from 30-80%. See, Psomadelis, W., & Powell, S. B., 2011, High frequency trading – credible research tells the real story, *Schroders Special Report* The Hon. Belinda Gibson, Deputy Chairman, Australian Securities and Investments Commission stated that HFT activities are around 25% of total trading. See [http://asic.gov.au/asic/pdfflib.nsf/LookupByFileName/ASICs-focus-relating-to-markets--speech-to-FISD.pdf/\\$file/ASICs-focus-relating-to-markets--speech-to-FISD.pdf](http://asic.gov.au/asic/pdfflib.nsf/LookupByFileName/ASICs-focus-relating-to-markets--speech-to-FISD.pdf/$file/ASICs-focus-relating-to-markets--speech-to-FISD.pdf)

Australian Securities and Investments Commission's recent research included in *Report 331: Dark liquidity and high-frequency trading*, found that HFT constituted 27% of trading by value and 32% of traders. The report provides no figure for volume, i.e., total shares transacted

<sup>271</sup> Industry Super Australia, Frequent Sealed Bid Call Auctions with Random Durations, February 2013, <http://www.industrysuperaustralia.com/wp-content/uploads/2013/02/Toward-a-fairer-and-more-efficient-market.pdf>

Industry Super Australia, Some Costs of High Frequency Trading in Low Latency Markets, June 2013, <http://www.industrysuperaustralia.com/wp-content/uploads/2013/06/Quantifying-HFT-costs-June-2013as-published.pdf>



- A reduction in the prevalence and costs on investors of high frequency trading, and an improvement in investor confidence due to the removal of the advantage of relative speed when trading in sub-second time frames.
- The provision of numerous opportunities for price formation that better reflect all available information.
- The establishment of a stable market microstructure that is resilient against liquidity crashes and the risk of systemic failure.
- The establishment of a more straightforward market system that investors and policy makers can understand, increasing confidence.

ISA is continuing its research and policy development regarding market structure and submits to the panel some recent findings for consideration. ISA in collaboration with researchers at the Department of Banking and Finance at Monash University have simulated a call auction using market data from the ASX in selected periods over the past eight years. Our simulation was initiated before the publication of, but follows, two more recent pieces of research submitted to the US Commodity Futures Trading Commission (CFTC) consultation on Risk Controls and System Safeguards for Automated Trading Environments.<sup>273</sup> A University of Michigan study simulated a fragmented market and found that the presence of HFT, in their words a “latency arbitrageur”, degrades overall market quality and allocative efficiency.<sup>274</sup> In relation to call auctions specifically, a model developed by researchers at the Chicago Business School found that batching orders through utilising a call auction provide several benefits: it stops an ‘arms race’ in low latency trading technology which has no economic nor social benefit, it transforms competition on speed into competition on price, and has several stability benefits.<sup>275</sup>

The ISA/Monash simulation will be published in detail full in due course. Preliminary findings however are that processing historical market data in a simulated call auction results in higher liquidity and lower intraday volatility compared with the observations of the continuous market. As shown in the charts below, average daily volume (measured by stock turnover) increased in all sample periods and significantly increased (up to 62%) in the periods 2008, 2012 and 2013. Intraday volatility (measured as intraday price range) also decreased for all time periods.

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<sup>272</sup> Industry Super Australia, Frequent Sealed Bid Call Auctions with Random Durations, February 2013, <http://www.industrysuperaustralia.com/wp-content/uploads/2013/02/Toward-a-fairer-and-more-efficient-market.pdf>

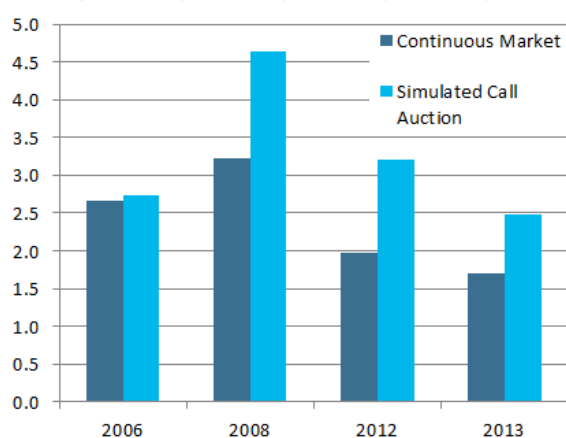
<sup>273</sup> Commodity Futures Trading Commission (2013) *Concept Release on Risk Controls and System Safeguards for Automated Trading*, RIN 3038-AD52: <http://www.cftc.gov/ucm/groups/public/@newsroom/documents/file/federalregister090913.pdf>

<sup>274</sup> “Our results demonstrate that market efficiency is negatively affected by the actions of a latency arbitrageur, with no countervailing benefit in liquidity or any other measured market performance characteristic.” Elaine Wah and Michael P. Wellman, (2013) ‘Latency Arbitrage, Market Fragmentation, and Efficiency: A Two-Market Model’, University of Michigan, submitted to the Secretary of the Commission, Commodity Futures Trading Commission in relation to RIN No. 3038-AD52, Concept Release on Risk Controls and System Safeguards for Automated Trading Environments

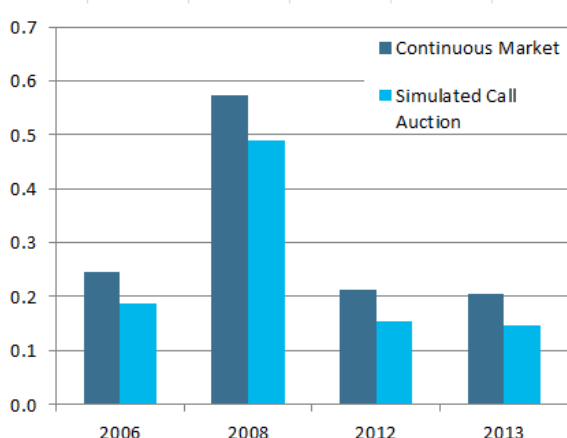
<sup>275</sup> Budish, E., Cramton, P., and Shim, J., ‘The High-Frequency Trading Arms Race: Frequent Batch Auctions as a Market Design Response’, Chicago Business School, 11 December 2013, submitted to the Secretary of the Commission, Commodity Futures Trading Commission in relation to RIN No. 3038-AD52, Concept Release on Risk Controls and System Safeguards for Automated Trading Environments

Figure 114 –Market Quality Metrics, Continuous and Call Auction Simulation

Average Daily Volume, shares, billions



Intraday Price Range, \$



Source: Monash University and ISA

The details of the study are provided in Table 4 below.

Table 4 – Details of call auction simulation

Data	ASX Limit Order Book Data for Largest 10 stocks by market cap 10 Mid-Cap stocks randomly selected 10 Small stocks randomly selected
Periods	September for each of the following years: 2006, 2008, 2012 and 2013
Call Auction Parameters	Duration of five minutes Executed on price priority No pro-rata filling of orders at same price Unfilled orders will enter subsequent auctions throughout the day. No leftover unfilled orders will be carried through to the next trading day.

Limitations regarding the use of historical order data sourced from a continuous market environment simulated in a call auction will be addressed in the forthcoming report. The simulation makes no attempt to model trading behaviour under a call auction. The five-minute duration of the auction has been selected to be long enough for the historical data to remain meaningful, while short enough to test the impact of a 'frequent' call auction. The current ASX opening auction starts from 10am to 10.10am, aggregating orders from the pre-opening session starting at 7am. Its closing auction goes from 4pm to 4.10pm. Auction durations as short as one second are technically feasible. The full study will test other auction durations.

The benefits of employing frequent electronic call auctions should receive thoughtful consideration from the panel. We will keep the panel up to date with our developing analysis and present the results once analysis is complete.



### 9.3.1 Reduce incentives for short-term speculation and excessive trading

#### 9.3.1.1 Position limits

After the GFC, a number of countries have committed to improve regulation and supervision of markets. One of such proposals is the imposition of position limits for certain commodity derivatives (physical and otherwise). Proposals, reviews and legislation has been underway in both the US (as part of the US Dodd-Frank Act) and the EU (as part of the MiFD, Markets in Financial Instruments Directive).

The purpose of these efforts is to prevent excessive speculation and manipulation by imposing limits on market share that any one trader and its affiliates can control in the designated commodity contract. Such a concern comes after periods of highly volatile commodity markets, partly caused by “billions of dollars of bets placed on expectations of temporarily rising prices” instead of fundamental changes in the physical market.<sup>276</sup>

The financialisation of commodity derivative markets is significant. Volumes of derivatives market are 20-30 times larger than physical production. Financial investors now account for more than 85 per cent of this market, a sharp increase from 25 per cent in the 1990s. “The influence of financial markets has systematically transformed these real markets into financial markets,” resulting in a disconnection with fundamental demands and supplies.<sup>277</sup>

In the US, position limits on key commodity contracts have been in place since the 1930s. The Commodity Futures Trading Commission (CFTC) has administered the position limits to agricultural contracts since the 1975. After the GFC, as part of financial regulation reform, the Dodd-Frank Act authorised the CFTC to apply position limits on all commodity contracts, including those traded in the OTC markets.

The CFTC has been working on the ruling of position limits. The latest version of the rules was introduced in November 2013. The key points of the proposal cover the following area:<sup>278</sup>

- Specifying initial spot-month and non-spot-month limits for covered 28 physical commodity futures and economically equivalent futures, options and swaps. For e.g., the monthly limit can be set at 25 per cent of the deliverable supply estimates. Details are being worked on and consulted;
- Bona fide hedging is exempted from the rules, with the definition of bona fide hedging being work on.

The ruling on position limits is complicated and the process of public consultation just passed its deadline of February 2014. As with the original position limits rules, which was vacated by US Federal Court, the revised rules will face considerable challenges, mainly with the calculation of limits and the exemption rules.

In the EU, the ruling on position limits on commodity derivatives have been discussed and is being finalised as part of the Markets in Financial Instruments Directive 2 (MiFID 2). The aim is to limit positions in commodity derivatives across Europe to support fundamental pricing and prevent market manipulation. Like its US counterpart, it would apply to both exchanged traded and OTC derivatives. The draft legislation is expected in April 2014.<sup>279</sup>

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<sup>276</sup> There has been increasing concern about excessive speculation in commodities in recent years, particularly after periods of highly volatile commodity markets. The Chief Economist of the United Nations Conference on Trade and Development suggests price volatility has been caused at least in part by “billions of dollars of bets placed on expectations of temporarily rising prices” instead of fundamental changes in the physical market. Volumes of derivatives market are 20-30 times the size of physical production. Financial entities now account for more than 85% of this market, a sharp increase from 25% in the 1990s. “The influence of financial markets has systematically transformed these real markets into financial markets,” resulting in a disconnection with fundamental demands and supplies. Flassbeck, H. (2012)

<sup>277</sup> Ibid.

<sup>278</sup> Nazareth, A. & Polk, D. (2013). CFTC Re-Proposes Position Limits and Aggregation Standards for Derivatives

<sup>279</sup> Carr, G. (2014) Energy traders breathe sigh of relief over Mifid II position limits

ISA is not aware of any current similar efforts in Australia<sup>280</sup> to establish position limits in commodity derivative markets. However, given the importance of commodity trading in Australia economy, we recommend the following:

- Conduct a review of the current commodity derivative market, including details about its participants and practices;
- Consider applying position limits rules in Australia, in line of what has been proposed in the US and EU.

### 9.3.1.2 Financial taxes

One of the possible solutions to short-termism and an excessive focus on trading is the introduction of a Financial Transaction Tax (FTT) on secondary market trading. The tax, which is a levy on financial transactions, can potentially bring a number of benefits. It can be designed to curb excessive trading, bringing the right equilibrium to the market. The tax can also act as a revenue stream to the Government.

*What is an FTT? What is an FAT?*

The FTT is a tax, which is designed to apply a levy on financial transactions. The FTT is sometimes called the Tobin Tax, after the proponent James Tobin.<sup>281</sup>

While an FTT may help address financial system efficiency by reducing excessive speculation and secondary trading through a levy on transactions, an alternative measure is a Financial Activities Tax. Value added taxes (VAT) are rarely applied to the finance sector due to the complexity of pricing in the sector. To address this, a value added Financial Activities Tax (FAT) could be applied to the finance sector, by taxing elements of the profit and loss statements of financial institutions. Such taxes have been considered by the IMF<sup>282</sup> and the European Commission.<sup>283</sup>

The policy objective of a FAT is often to generate public revenue in the absence of a finance sector VAT. However, a FAT can also be designed to reduce the riskiness of the finance sector and increase its efficiency. In broad terms, a basic FAT taxes the profits and wages of financial institutions, where sectors may be too large, and can lead to a reduction in the size of the finance sector. Another variety of FAT, focusing on rent-seeking, taxes the excess profits of financial institutions, while a FAT focussing on risk-taking taxes the excess returns of financial firms. The careful and effective design of the tax base will depend on the policy objectives of the FAT and the relative weights given to these objectives.

Greater international attention has been given to FTTs, so this discussion focuses on them.

The salient details of an FTT include its base, means of collection and the rate.

#### *Tax Base*

In principle, an FTT can be applied to all financial transactions. However, it is generally accepted that primary offerings should not be included in the tax base as these transactions are for capital-raising

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<sup>280</sup> While ASX Clear does have position limits for Participants, these position limits are Capital Based Position Limits (CBPL) which restricts the exposure level of a Participant to within their financial capacity (currently set at twice their net liquid assets). These position limits are narrower in scope and objective than the position limits in the US and EU discussed in this section.

<sup>281</sup> James Tobin originally proposed a tax on foreign currency transactions (often referred to now as FCT) in 1972 in the context of the Bretton Woods system. A more general tax on financial transactions was originally proposed by John Maynard Keynes in 1936 in *The General Theory of Employment, Interest and Money*

<sup>282</sup> International Monetary Fund, *A Fair and Substantial Contribution by the Financial Sector: Final Report for the G-20*, June 2010.

<sup>283</sup> European Commission, *Financial Sector Taxation*, Brussels, October 2010.

purposes. Daily personal financial transactions such as bank transfers or home-loans and central bank activities should also be excluded.<sup>284</sup>

FTT can also be applied on derivatives. Including all tradable instruments ensures that substitution is harder, and would limit flows of trading to un-taxed instruments.<sup>285</sup>

Taxing derivatives, however, presents a number of practical issues. The ability to include “off-exchange” trades is more difficult because it would involve a “decentralised” collection method.

**Table 5 – Centralised and decentralised FTTs**

Centralised FTTs	Decentralised FTTs
<ul style="list-style-type: none"> <li>• The tax is implemented through the electronic settlement facilities of centralised exchanges.</li> <li>• The major impediment is that to prevent traders from avoiding the tax by moving transactions to exchanges outside of the taxation program, all exchanges within the trading time-zone would need to implement the FTT.</li> </ul>	<ul style="list-style-type: none"> <li>• The tax applies to transactions executed by banks and brokers. It is levied on individuals who order these transactions, only if they are residents of the country in which the FTT applies.</li> <li>• This form of tax can be applied to over-the-counter financial products as well as those traded on exchanges.</li> </ul>

#### *Rate*

The rate for an FTT is usually considered to be small, generally around 0.1 per cent or 10 basis points. In practice, France introduced a 0.2 per cent levy on ownership transfer of equity instruments and a number of derivatives. A related tax, called High Frequency Trading (HFT) tax is set at 0.01 per cent for each message above a cancellation or modification ratio of 80 per cent.<sup>286</sup>

#### *Discussion on the FTT*

Proponents of the FTT argue that such a tax would reduce financial activity that is considered socially useless and to raise revenue. Opponents of an FTT are concerned about ability of the FTT to achieve those goals, and the potential adverse effects on volatility. In this section, we will look into potential benefits as well as concerns regarding the FTT.

#### *Potential benefits*

The primary means by which an FTT can affect trading behaviour is to raise trading costs.

Modelling of FTT shows, not surprisingly, that the increased trading costs would affect short-term traders more than long-term traders.<sup>287</sup> In modelling foreign exchange markets, similar studies have also found that small increases in trading costs does result in “less volatility and less mispricings” while a high trading cost

<sup>284</sup> European Commission.(2013) . Financial Transaction Tax through Enhanced Cooperation: Questions and Answers. MEMO/13/98

<sup>285</sup> Matheson, Thornton. (2011). Taxing Financial Transactions : Issues and Evidence, 28

<sup>286</sup> Colliard, J., & Hoffmann, P.(2013). Sand in the chips: Evidence on taxing transactions in an electronic market. Retrieved from <https://umdrive.memphis.edu/pjain/SSRN-id2215788.pdf>

<sup>287</sup> Demary, Markus, ‘Who Does a Currency Transaction Tax Harm More : Short-Term Speculators or Long-Term Investors ?’, Jahrbucher Fur Nationalokonomie Und Statistik, 2008, 228-251

can lead to instability, due to a decrease in liquidity and more persistent uncorrected trends.<sup>288</sup> An FTT would have its greatest effect on high volume & low margin trades.<sup>289</sup>

Another expected effect of increasing trading costs is a lengthening of the average holding period of securities.<sup>290</sup> This is relevant regarding instability caused by high frequency trading and the concern that an increase in trading costs would reduce asset prices and increase the cost of capital. An IMF working paper finds that a 0.1% transaction tax reduces the value of a security by 25% if it is held for 36 days or less, but has a negative effect of less than a one per cent for holding periods greater than three years.<sup>291</sup>

On the issues of transaction costs and FTT, Persaud (2013) suggests that FTTs will form part of the transaction costs of equity trading, together with other costs such as “administration, management, research, broker and banker commissions, clearing and settlement fees”. For long-term investors, who turn over their portfolio only once every two to three years, FTT costs are spread over a longer horizon. As the result, FTT will only account for “no more than 5 per cent of annual transaction costs for long-term equity holders”.<sup>292</sup>

These findings were considered positive against the backdrop “that financial markets [in major financial centres] are characterized by excessive liquidity (“overtrading”).<sup>293</sup>

Other important benefit from the FTT is allowing finance industry to make a “fair and substantial contribution to public finances”. The European Commission estimated that FTT could raise €30-35 billion a year if it is applied in the 11 Member States.<sup>294</sup>

### Concerns

There are a number of concerns about the application of the FTTs.

The first concern is around market quality. Some argue that FTTs will harm market quality by increasing volatility. However, both empirical and theoretical works in this area have not reached a consensus result about the effects of FTTs on market quality. For example, Keynes (1936), Tobin (1978), Stiglitz (1989), and Summers and Summers (1989) all argue that FTTs can curb noise traders, hence reduce volatility. On the other hand, Amihud and Mendelson (2003), arguing that FTT will hurt informed traders the most, and would lead to more volatility. Empirically, some studies find that FTTs lead to an increase in volatility (for example, Pomeranets and Weaver, 2011). Others find that FTTs have no impact on volatility (for example, Sahu, 2008).

It is worth noting that previous empirical work focused on market conditions that were quite different from today’s (like the New York Stock Exchange and Sweden in the 1980s). In the most recent empirical research, which considers the French FTT, there is no evidence of increasing volatility.<sup>295</sup>

The second concern questions whether FTTs would have a positive effect on systemic stability, arguing that (i) trading volume is a poor proxy for instability<sup>296</sup>, (ii) the FTT does not distinguish between stabilizing and destabilizing trading<sup>297</sup> and (iii) it cannot distinguish between speculative and non-speculative trades.<sup>298</sup>

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<sup>288</sup> Demary, Markus, ‘Transaction Taxes and Traders with Heterogeneous Investment Horizons in an Agent-Based Financial Market Model’, Economics, 4 (2010)

<sup>289</sup> European Commission, Proposal for a Council Directive on a Common System of Financial Transaction Tax and Amending Directive 2008/7/EC (Brussels, September 2011), 5

<sup>290</sup> Matheson, Thornton, Taxing Financial Transactions : Issues and Evidence, 14

<sup>291</sup> Matheson, Thornton, Taxing Financial Transactions : Issues and Evidence., p 15

<sup>292</sup> Persaud, A.(2013) Europe should embrace a financial transaction tax

<sup>293</sup> Schulmeister, Stephan, Implementation of a General Financial Transactions Tax (Vienna: WIFO - Austrian Institute of Economic Research, 2011)

<sup>294</sup> Ibid.

<sup>295</sup> See section of 3.2 of this report for a more detailed literature review and discussion of the French FTT

Most proponents of an FTT are focused on curbing speculative and high frequency trading, with any reduction in systemic risk considered a helpful by-product. As a result, one could respond to the objections by conceding that secondary trading volume might not be a good proxy for instability, but it is a good proxy for inefficiency.<sup>299</sup> A reduction in such trading volume (at least relative to primary capital raising) due to a reduction in excessive trading and high frequency trading, may allow trading decisions grounded in fundamental analysis rather than market analysis to more strongly influence pricing, and thereby more strongly tie market activity with the real economy.

One could respond to the objection that the FTT does not distinguish between different types of trades by noting that, although the tax cannot determine the purpose of an individual trade, its behavioural effects are likely to differ depending on whether a person engages in intensive trading behaviour and less intensive trading behaviour. Moreover, recognizing that there can be good reasons for speculative trading and hedging, it may be possible for bona fide hedging to be exempt from the base. As Schulmeister explains,

“If a system of a "Standard Classification of Financial Transactions" (SCFT) is developed in connection with the FTT implementation so that any transaction is assigned a specific code, it would be easy to exempt from the FTT hedging of counter-positions in the real economy as well as all financial transactions which constitute an equivalent to "real-economy transactions" (e. g., foreign exchange transactions stemming from international trade or direct investment). In a similar manner, the "Standard International Trade Classification" (SITC) had been developed decades ago to manage the system of tariffs. A similar system for financial transactions would also help to improve the supervision of financial market developments.”<sup>300</sup>

The design of the FTT, therefore, is important. The European Commission has, for example, aimed at “taxing the 85 per cent of financial transactions that take place between financial institutions” in its FTT design. Households and businesses’ transactions are exempted.

Another concern is that if one country or region were to implement an FTT, trading would simply relocate to countries without the tax. This behaviour is more likely to come from high-frequency trader group, who earns low margins on high volume. HFT is not necessarily economically beneficial, and discouraging this form of trading is one important purposes of an FTT.

### *Application of the FTTs*

#### *Overall picture*

Different forms of the FTT have been applied in various jurisdictions around the world. The table below provides a snapshot of how FTTs are applied in selected countries.

<sup>296</sup> International Monetary Fund, A Fair and Substantial Contribution by the Financial Sector: Final Report for the G-20, June 2010, 19

<sup>297</sup> Matheson, Thornton, Taxing Financial Transactions : Issues and Evidence, 20

<sup>298</sup> European Commission, Financial Sector Taxation (Brussels, October 2010), 14

<sup>299</sup> In a similar vein, the IMF ultimately determined not to recommend an FTT in part because it is not focused on core sources of financial instability, which according to the IMF are institution size, interconnectedness, and substitutability, and that the real burden may fall largely on final consumers rather than, as often seems to be supposed, earnings in the financial sector. This reflects the question presented to the IMF, rather than a judgment that an FTT would not be effective for other purposes (such as limiting socially harmful trading). Indeed, the IMF’s view that an FTT may be passed on to final consumers rather than intermediaries is not necessarily a bad result, insofar as the final consumers are traders; this would have the effect of the FTT falling more heavily on high frequency and professional traders.

<sup>299</sup> Schulmeister, Stephan, Implementation of a General Financial Transactions Tax, 24

Table 6 – FTTs in selected countries, as at 31 October 2013

Country	Equity	Bonds/Loans	Options	Futures
Australia	There are cost recovery fees collected by ASIC as part of the cost recovery regime for ASIC Market Supervision. Fees are levied on market participants and market operators. <sup>301</sup> State-level taxes may apply to shares	State-level taxes may apply to shares		
France	0.2% levy on ownership transfer of equity instruments (for French company with market cap larger than EUR 1 billion) HFT tax: 0.01% for each message above a cancellation or modification ratio of 80%	Vanilla bonds are excluded. Some convertible bonds may attract FTT.	Some derivatives trading will attract FTT if there is a delivery of underlying shares. <sup>302</sup>	
India	0.25% on stock price, 0.025% on intraday transactions (on sellers). Local stamp duties may apply.	Local stamp duties may apply.	0.017% on premium; 0.125% on strike price	0.017% on delivery price
Italy	0.12%-0.22% on equity related transactions. HFT tax: 0.02% applied to the value of cancelled or modified orders which exceed for each trading day the threshold of 60% of the overall orders transmitted. <sup>303</sup>		Fixed tax range from € 0.01875 to € 200.00. Instruments traded on organised exchange are taxed at 20% of original notional amount.	
United Kingdom	Stamp duty of 0.5% on secondary sales of shares and trust holding shares		50 basis points on strike price, if executed	50 basis points on delivery price
USA	A very small tax on transactions known as "SEC Fee" — Section 31 Transaction Fees is levied to support the operation of the SEC.			

Source: ISA, Matheson (2011), Pomeranets (2012)

<sup>301</sup> ASIC (2013). About the cost recovery regime for ASIC market supervision (1 July 2013–30 June 2015)

<sup>302</sup> <http://www.cms-bfl.com/The-French-tax-on-financial-transactions-the-FTT-19-06-2012>

<sup>303</sup> <http://blogs.law.harvard.edu/corpgov/2013/01/20/italy-introduces-a-financial-transaction-tax-as-of-2013>

Recently, there have been discussions of applying a more uniformed version of the tax to all applicable financial transactions. The push for this FTT was from the Global Financial Crisis and its aftermath effects, with billions of Government bailouts to the finance sector. This form of FTT has been adopted in France and Italy, with the plan to extend the coverage to several other European countries. Other countries, such as the US, Australia, Denmark and the UK have openly elected not to apply the tax.

### *France*

In March 2012, the French Parliament passed the two important taxes on equity market transactions: the Financial Transaction Tax and a High Frequency Trading (HFT) tax.<sup>304</sup> These two new taxes became effective since August 1, 2012.

### *The French FTT*

The FTT introduced a 0.2 per cent levy on ownership transfer of equity instruments and a number of derivatives (originally the tax rate was proposed at 0.1 per cent of acquisition value). The tax is calculated based on daily net position of transactions and payable by the buyer of the transaction. It is levied on financial intermediaries, and if the transactions do not involve a financial intermediary, the purchaser's custodian is responsible.

The FTT only applies to a selected number of companies, i.e. those with head offices in France and a market capitalization of more than one billion euros on the 1 January of each year. This excludes shares of small companies, American Depositary Receipts (ADR) and Global Depositary Receipts (GDRB). Both French and non-French investors will be subject to the rules.

The tax includes a number of other important exceptions, including new shares, transactions by clearing houses and employee stock ownership plan. More importantly, transactions due to market makers are not taxed. This, in addition with the fact that intraday activities are not accounted for, means that market makers in effect do not have to pay tax for end-of-day positive position if they can prove that the position is due to market making activities. "The main agents directly affected by the tax are buy-side investors" (Colliard & Hoffmann, 2013).

This version of the FTT is similar to the stamp duty on transfer of ownership currently in place in the UK.

### *The HFT (High Frequency Trading) Tax*

The HFT tax applies to only high frequency traders located in France, who transact through their own accounts. The tax rate is set at 0.01 per cent for each message above a cancellation or modification ratio of 80 per cent.

Market makers, smart-order routing and automated execution of large orders are exempted. For the purpose of the tax, high frequency traders are defined as those who submit more than one message for every 0.5 second.

### *The effects of the French FTTs*

There have been several academic papers examining the effects these taxes on market quality.

Overall, trading volume declined after the taxes were introduced but recovered subsequently. Colliard & Hoffman (2013) found that trading volume dropped significantly in August 2013 by 30 per cent on average. September saw trading volume decline by only 8%. As expected, the effects were stronger in "larger size and more heavily traded stocks" (Becchetti, Ferrari, & Trenta, 2013).

There is no clear evidence that liquidity and market quality were affected by the tax, except for some level of reduction in depth. Spreads did not increase as feared (Meyer, Wagener, & Weinhardt, 2013). Intraday

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<sup>304</sup> A tax on naked credit default swap transactions was also introduced and put into effect



volatility declined after the taxes were introduced (Becchetti et al., 2013). Additionally, there is evidence that liquidity suppliers adjusted their strategy to reduce trading messages (Meyer et al., 2013).

The effects of the taxes on HFT activities were moderate. Comparing the French stocks affected by the taxes with the unaffected matched Dutch stocks, orders inside the quote stayed active longer, from “2 seconds to close to 4 seconds”. Order aggressiveness appeared to be dampened with “the probability of an order being cancelled within milliseconds decrease by about 2.5 per cent” (Colliard & Hoffmann, 2013).

Interestingly, there is anecdotal evidence suggesting that institutional investors seek to avoid the tax by trading Contracts for Difference (CFD) (Cimino, 2012). Similar strategy is reported to be used by trading firm to avoid stamp duty tax in the UK. This behaviour emphasises the importance of designing a holistic and efficient tax framework to close off potential loopholes.

### *Italy*

Italy has started to implement its own version of the FTT on Italian equity instruments traded and settled as from 1 March 2013 and Italian equity derivatives traded as from 1 July 2013. The FTT also has a special regime for HFT, similar to the one in France.<sup>305</sup>

For transactions on eligible equity instruments, the tax rates are as follow:

- 0.12 per cent FTT for the year 2013 if the transactions are executed on a regulated market or a multilateral trading facility established in an EU member State or in a European Economic Area (EEA) State which has adequate exchange of information with Italy. The rate will be reset to 0.1 % after 2013; or
- 0.22 per cent FTT for the year 2013 in any other cases, falling to 0.2 per cent after 2013.<sup>306</sup>

Derivatives attract a fixed tax which ranges from € 0.01875 to € 200.00, depending on the type of instrument and the value of the agreements. If the instruments are traded in an organised exchange, the tax is 20 per cent of the original notional amount.<sup>307</sup>

HFT tax is at the rate of 0.02 per cent (2 bps) applied to the value of cancelled or modified orders which exceed for each trading day the threshold of 60 per cent of the overall orders transmitted.<sup>308</sup> Exemptions from this rule are market makers, orders where execution time is more than 0.5 seconds in interval, and orders which satisfy the best execution rule.

Preliminary analysis by Rhul and Stein (2014) suggests that Italian market has experienced an increase in volatility and quoted spreads but not a decrease in trading volume in the 120 days surrounding the tax introduction date. The authors argue that the results have been driven by an increase in liquidity constraints. ISA views that more study is needed to examine the long-term effects of the tax. We also note that the results may also be partly driven by the instability in Italy economic and political situation in 2013.

### *European FTT scheme*

In February 2013, the European Commission announced that financial trading tax would be applied in 11 EU countries, including Austria, Belgium, Estonia, France, Germany, Greece, Italy, Portugal, Slovakia, Slovenia and Spain. The other 16 countries in the EU could elect to join the scheme at a later date.

<sup>305</sup> Wiesenhoff & Egori (2013) 2013 Italian Financial Transaction Tax

<http://www.freshfields.com/uploadedFiles/2013%20Italian%20Financial%20Transaction%20Tax.pdf>

<sup>306</sup> <http://www.nortonrosefulbright.com/knowledge/publications/74950/italian-financial-transactions-tax-italy-imposes-tobin-tax-on-financial-transactions>

<sup>307</sup> Ibid. 21

<sup>308</sup> <http://blogs.law.harvard.edu/corpgov/2013/01/20/italy-introduces-a-financial-transaction-tax-as-of-2013/>



The proposed tax scheme would apply to all transactions involving a party located in one or more of the 11 participating countries. For derivatives, the minimum tax rate would be 0.01% for every transaction. Other financial transactions will attract a minimum tax rate of 0.1%. Participating countries may choose to apply higher tax rates.

The tax would not cover “everyday financial transaction activities” by individuals and businesses (for examples, buying mortgages, credit card purchases etc.). The scheme is expected to deliver revenue of €30-35 billion a year.

To date, progress has been slow as the 11 member countries have struggled to agree on the details of the taxes. The European FTT tax scheme has also subject to heavy lobbying by financial firms.

In addition, the UK has challenged the legality of the FTT scheme covering 11 EU countries. The challenge has been ruled as having no suspending effects.

At the moment, the FTT scheme has been postponed to mid-2014.<sup>309</sup> The new government in Germany has recently confirmed its commitment to introduce FTTs in Europe.<sup>310</sup>

### 9.3.1.3 Enhanced securitisation

Banks currently enjoy a comparative advantage in analysing individual and SME credit risk. The provision of finance that is influenced by this risk analysis could be expanded if other sources of funding beyond the relevant bank’s balance sheet was available. Securitisation is the well-understood arrangement through which sources of funding in the capital markets can be made available for greater levels of prudent bank lending.

Securitisation in Australia could be boosted with consideration of certain reforms, such as a combination of:

- (i) comprehensive loan-level disclosure,
- (ii) establishment of a public utility or investor-paid credit rating agency with access to all underlying data,
- (iii) meaningful requirements for additional minimum new capital formation underlying the loan portfolio for a securitised pool, and
- (iv) “skin in the game” requirements.

Reforms in this vein could be accompanied by commitments from the superannuation industry to the arrangers to make funding available for certain volumes of securities meeting minimum credit ratings and other conditions.

## 9.4 Partnering with Australian companies for overseas expansion

Currently 17.1 per cent<sup>311</sup> of superannuation fund investments are placed overseas. It is possible to obtain the diversification benefits of overseas investment whilst also promoting domestic employment, human capital development, the tax base, and GDP. The benefit for investors also would include less direct currency exposure, and the related costs of hedging these.

An option that the FSI panel should consider is recommending that The Department of Foreign Affairs and Trade solicit and organise separate “steering committee” meetings in respect of the top Australian domiciled companies, at which major long-term investors and company management would have targeted

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<sup>309</sup> Ibid. 5

<sup>310</sup> Griffith-Jones, S. (2013) Germany wants the Robin Hood tax – and Europe's voters do too. The Guardian. <http://www.theguardian.com/commentisfree/2013/oct/30/germany-robin-hood-tax-europe-financial-transaction-tax>

<sup>311</sup> ABS Cat No. 5655.0

discussions on investment needs for foreign expansion and competition. The participation of DFAT would help overcome collective action problems and facilitate smooth interfacing with more general trade activity.

Under this option, matters related to remuneration and governance of the company would not be tabled because the discussion would focus on forward-looking expansion project(s); however discussion of the sustainability and other matters in respect of the execution and the funding of the potential project(s) would be appropriate.

Funding for any project should seek to be obtained through L-Shares (discussed above) to the extent possible.

Participating investors would be subject to strict confidentiality requirements and prohibitions on trading on the basis of any material non-public information.

## 9.5 Innovation and tax

As recognised by the OECD, “innovation performance is a crucial determinant of competitiveness and national progress” and moreover will help “address global challenges, such as climate change and sustainable development”.<sup>312</sup>

As the OECD go on to explain, a functioning innovation policy will include both public investment in science and basic research, and appropriate public support of private innovation activity, including through “direct and indirect instruments such as tax credits, well-designed public-private partnerships, support for innovative clusters and rigorous evaluation of such public support.”<sup>313</sup>

Notwithstanding this, innovation policy has been seen as a source of incremental budget savings in recent years. A prime example is the rollback of access to the R&D tax incentive for large firms (over \$20b in revenue). These (mostly multinational) firms would have some discretion as to where they conduct R&D, especially in the medium to long term, and this tax change is anticipated to have a significant negative effect on innovation funding.

Sensible reforms that would make a difference have already been developed. For example, the Board of Taxation has recommended a restructuring of the R&D tax concession to quarterly credits for small businesses, and amendments to the tax treatment of gains from registered venture capital which would put all domestic investors on a level footing with international investors in such funds, thereby facilitating further private capital raising for these entities. These are the kinds of reforms that implement the OECD recommendations, and are consistent with the essential role that Government can play in unlocking private sector funding for innovation. Innovation will play a leading part if Australia is to capture the opportunities of the Asian century.

## 9.6 Competition in banking

There is evidence that competition is lacking in the banking sector, discussed throughout Section 4.4 and in Section 7.7.1.

Public policy options should be focused on increasing competition in banking. This is desirable for two reasons:

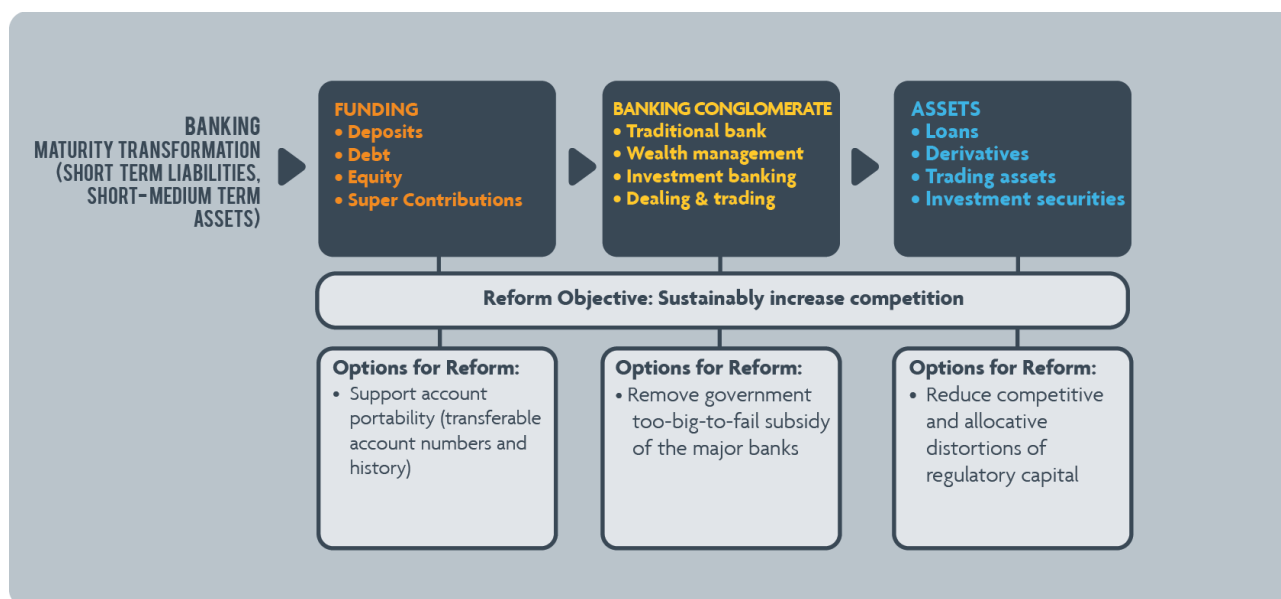
- To achieve the benefits of banking competition for businesses and household, and

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<sup>312</sup> OECD (2007) Innovation and growth rationale for an innovation strategy

<sup>313</sup> Id

- To ensure the dominant positions that the major banks enjoy in banking do not enable them to dominate other areas of financial services. In particular, because superannuation can provide a competitor to the banks in terms of funding businesses and perhaps certain household liabilities, public policy should ensure banks cannot translate market power in banking into the super sector, choking competition in the business funding market.



## 9.6.1 Reform options to reintroduce competition in banking

### 9.6.1.1 Claw back the too-big-to-fail subsidies of the major banks, and thereby reduce some of the competitive funding advantages enjoyed by them

As discussed above in Section 4.4.3, the Government subsidises the funding of the four major banks. Eliminating this subsidy would improve the competitive environment in banking, improve prices for businesses and consumers, and result in either reduced contingent Government liabilities (even if not recorded) or increased Government revenue.

The most straightforward way to do this would be an *ex post* annual levy on each of the four major banks reflecting the value of the subsidy to them. The methods to estimate the subsidy are reasonably well established.<sup>314</sup>

Using a computable general equilibrium (CGE) model of the Australian and global economies ISA has estimated the economic impacts of removing the implicit ‘big 4’ bank subsidy.

For the year 2012 the estimates of the size subsidy range from 1.3 billion to 3.1 billion. The average of these estimates, \$2.1 billion, is modelled as a reduction in the costs of banking services to the rest of the Australia economy. That is, the removal of the implicit subsidy is likely to lead to an increase in competition in the banking services sector leading to lower overall banking costs, in term of both deposits and loans.<sup>315</sup>

<sup>314</sup> Cf., Figure 40 and accompanying text

<sup>315</sup> Within the model’s underlying database, the removal of a \$2.1billion implicit subsidy is similar to reducing banking costs, on average, by around 4 per cent compared to current levels. So, if an individual was paying \$100 a year for personal banking services (e.g. the sum of account keeping fees, less interest earned, plus credit card fees) then a 4 per cent decline in price of the services equates to new annual cost of \$96

The 4 per cent reduction in the price of banking services is then modelling within the CGE framework as a 1 year cut in the cost of banking services. The reported economic impacts take into account the full impact of the fall in price of banking services flowing through to the rest of the economy

Table 7 – Impacts of removing implicit bank subsidy.

	Effect	%
GDP, \$A billion	4,094	0.28
Employment, FTE	42,205	0.44
Investment, \$A billion	3,912	0.94
Consumption, \$A billion	2,686	0.34
Terms of trade		0.08
Real wages		0.15

Source: Model estimates

The modelling indicates the removal of the implicit ‘big 4’ bank subsidy would have significant positive effects on GDP, investment, employment, and household consumption (Table 8). Real GDP is expected to be around \$4.1 billion higher or 0.28 per cent. The impact on GDP is slightly less than twice the size of the implicit subsidy.

A similar sized impact is expected for investment, increasing 0.94 per cent, or \$3.9billion, in line with a more competitive banking system funding additional investments in productive capacity, especially for SME’s with less reliance on extending loans for the purchase of existing housing stock.

Along with the expansion in investment and economic activity employment is expected to increase by around 0.44 per cent, or by about 42,000 extra full time equivalent positions. The employment impact is relatively strong since the large increase in investment leads to a strong increase in the demand construction and building services (up 0.85 per cent); a sector that relatively labour intensive.

The rise in employment and more generally the demand for labour leads to rising real wages, 0.15 per cent, and the expansion of household consumption by 0.34 per cent, or \$2.7 billion.

#### 9.6.1.2 Improve account portability

Creating transferable account numbers (akin to mobile number portability) and ensuring that transaction history and settings are portable among banks would increase competition on the banking sector. Account portability is a pre-condition for choice in a retail environment.

#### 9.6.1.3 Capital requirements

Current regulatory capital requirements have distorting effects on capital allocation, and would appear to be gamed (or subject to regulatory arbitrage). They also result in inconsistent levels of capital held by different institutions against similar risks, and different approaches to capital measurement across institutions and jurisdictions. This has some effect on competition, but significant effects on risk supervision.

Further challenges to supervision include the complexity of Basel II and III capital ratios (particularly if calculated by internal models).

- One option for capital regulation that could be less distorting on an asset basis, and easier to supervise and implement, may be a ratio of tier one tangible equity (adjusted) against tangible assets (adjusted).<sup>316</sup> This also may reduce the competitive distortion of the internal model approach for only some banks.

<sup>316</sup> See, Remarks of Hoenig, Thomas M., Director, Federal Deposit Insurance Corporation, Back to Basics: A Better Alternative to Basel Capital Rules (14 September 2012)

- An alternative that would increase supervisory challenge, but also improve the competitive landscape is to facilitate the use of internal model calculations for risk-weighted regulatory capital by more Australian banks.
  - At the moment for banks to receive “advanced accreditation” status, they must meet APRA requirements for advanced accreditation across credit, market and operational risk. An option open to APRA is to allow advanced accreditation for one or more streams rather than all three.
  - The process to receive advanced accreditation is long (about seven years) and costly. ARPA could consider a staged process for banks to achieve advanced accreditation and with risk weightings that also move down in stages. A staged approach also makes the change to capital levels more gradual, rather than significant bump in excess capital the day after accreditation is granted.

#### 9.6.1.4 Technology in the interests of consumers

A range of interrelated factors will drive the future development of financial services: (i) technology, (ii) retailisation, (iii) demographics, (iv) Post-GFC regulation, and (iv) financial deepening is likely, among others. These are not inevitable, but are likely absent change in the policy environment.

Technology has been deployed extensively in finance since the 1980s, with truly significant effects only in some areas: primarily communications and data storage and processing.

Technology (electronic communication) radically affects information transmission. This has resulted in upheavals in exchange markets, payment methods, and interaction with financial accounts.

We have outlined a reform option for electronic exchange markets above in Section 9.3.

Technology (storage and processing) does allow batch analysis of more data. But judgements in finance – especially investment and risk judgments – are not subject to solely technical or mathematical analysis because markets and economics are social. Analysis of them should be informed by complexity, awareness of emergent properties, and factors that may not be suitable to reduction to a calculation. Disclosures will increasingly be machine readable format, and technical analysis will more be more readily available, but high quality investment decisions and risk decisions will almost certainly always require judgement.

Data storage and analysis will enable more targeted advertising to customers at times and in contexts where the desired behaviour is more likely (e.g., pitching a super account at the time a person announces a new job on social media). While this would appear to favour new entrants, competitive advantages could inure to large institutions that have customer data to pitch tailored products.

There are at least three risks arising from “big data” and the development and use of “customer assets” in banking and finance: (i) the data is obtained and used in ways that the customer would not like, (ii) the data and analysis create externalities and risks for persons other than the client (such as the ability to determine the behaviour or preferences of persons other than a consenting customer, such as the customer’s customers or friends and family), and (iii) customer data becomes such an advantage for large incumbents that it acts as a barrier to competition.

A reform option the FSI may wish to consider, therefore, is to place control of customer data with the customer (e.g., use if data for cross selling requires consent; consumer can direct their information to be provided to competitors), and carefully analyse the risk of privacy impacts and other externalities on persons who are not customers of a financial institution.

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See also, Remarks of Norton, Jeremiah O., Director, Federal Deposit Insurance Corporation, A More Prominent Role For The Leverage Ratio In The Capital Framework (6 February 2013)

## 9.6.2 Reform options to reduce systemic risk and check market power of banks

In efforts to build safer and more resilient banking and financial systems after the GFC, the three most developed economic zones in the world are implementing structural banking reform. In general, these reforms seek to limit the exposure of banks (and therefore the public authorities) to market risk.

The United States, through legislation and regulation known as the “Volcker Rule,” has circumscribed the financial activities that banks are permitted to perform. Particularly, banks are banned from proprietary trading activities and required to divest ownership of hedge funds.

The United Kingdom has adopted recommendations from the Independent Commission on Banking, known as the “Vickers Plan,” that will generally require traditional banking activities (deposit taking and lending to households and non-financial businesses) to be “ring-fenced” from investment banking activities.

The European Commission High-level Expert Group on reforming the structure of the EU banking sector, chaired by Eriikki Liikanen, also recommended structural separation for large banks whereby risky activities would be assigned to a separate legal entity if they account for a significant share of a bank’s business. The implementation of this from the European Commissioner for Internal Market and Services, Michel Barnier, is perhaps more aggressive, and will ban proprietary trading, require the transfer of other high-risk trading activities to separate legal trading entities within the group, and ring fence the trading entity from the banking group.

Similarly, leading observers of financial services have suggested structural banking reform in the form of “narrow banks.” Narrow banks are those who take deposits and invest in safe assets. Under the “narrow banking” approach, only deposits in these banks would be guaranteed by the Government.

The above reforms are driven by the view that banks which combine traditional banking and investment banking activities suffer from moral hazard, and have tended to take on inappropriate risk because capital is fungible between (a) investment banking and other risky activities and (b) the banks’ less risky operations.

Should these structural reforms be implemented in Australia? There are reasons to believe that they should at least be considered carefully because the policy concerns underlying structural banking reform in the Northern Hemisphere are present or growing in Australia:

- Prior to the GFC, the major banks were increasingly engaged in derivatives and trading of assets, and this continues (Figure 62).
- It is anticipated that debt finance of non-financial corporates in Australia will increasingly be provided by investors through bonds, rather than banks through loans and credit facilities. It is reasonably likely that the banking institutions in Australia will engage in deal arranging, market making, and distribution of these bonds. Major banks will seek to increase their investment banking activity, and come to resemble even more closely pre-GFC universal banks in the Northern Hemisphere. It is anticipated the derivatives market will increase, including OTC derivatives.
- More generally, the public policy objectives of structural reform in banking currently are issues in Australia. In particular, it is acknowledged that the major banks did receive, and are expected to receive Government support in times of stress, resulting in moral hazard and competitive distortion. This has allowed risky investment banking activities to receive at least indirect public assistance.

Policy changes that reduce the subsidisation of major banks, and the resulting misallocation of economic resources in financial services, will improve the capital formation efficiency of the sector.

### 9.6.2.1 Objectives and reasoning behind structural banking reforms

#### The objectives of structural banking reforms

The major objective of structural banking reform is to reduce systemic risks and ensure financial stability. The Global Financial Crisis has highlighted the weaknesses of the financial system, particularly the banking sector. In the chase for returns and profits, traditional banks in the US and Europe engaged in other non-core activities and transformed into “diversified retail banks”.<sup>317</sup> Their excessive risk taking behaviour in non-traditional activities such as proprietary trading had exposed their capital and customers’ deposits to massive losses.<sup>318</sup> During the GFC, banks received billions of direct bailouts from governments, together with implicit guarantees and indirect support to survive.

In the aftermath of the GFC, some major changes to banking regulation have been proposed and taken place. For example, Basel III sets out tighter capital and liquidity requirements for banks with the objectives of promoting a more resilient banking sector. While the Basel accords provide a prudent framework for banks to operate, structural banking reform aims to create a safe foundation for the system. The objectives of such reform are:

- Define, where possible, the core activities of banks.
- Separate or “ring-fence” traditional banking activities from risky non-traditional banking activities to prevent risks and problems from spreading through the whole system in time of crisis.
- To limit public support to the services of banks which are essential and in public interests. Non-core services should not be allowed to receive Government implicit support, since it would distort competition and encourage reckless risk taking behaviour.
- To increase depositors’ protection so that their deposits are not exposed to non-core risk-taking activities.

For Australia, there is an additional concern: competition. The Australian banking system is among the most concentrated in the world. Aside from the systemic risks presented by each major bank, they are horizontally and vertically integrated. As a result, the intense market power of the major banks in banking can and is leveraged into other channels of finance. If a determination is made to permit a highly concentrated banking system, it is essential that other funding channels remain off limits to banks, lest anti-competitive conditions spread.

#### The reasoning behind structural banking reform

Banks receive bail-outs and other government support because some of their services are critical to the economy. The degree of government involvement in underwriting the supply of goods and services can be classified into three categories:<sup>319</sup>

- *Public utility*: very essential service. Even brief disruption will cause systemic disorder and huge economic losses. For examples: electricity grid, telecoms network;
- *Essential goods and services*: continued supply is necessary but temporary disruption can be accommodated. For examples: food, fuel;
- *Nice to have*: market can supply these goods and services. Most goods and services are in this category.

Financial stability is essentially a public good,<sup>320</sup> and banks play an integral part in keeping the financial system in good shape. However, not all of the services provided by modern banks fall under *public utility* or

<sup>317</sup> Kay, J. (2011). Should we have “narrow banking”? Future of Finance: the LSE Report

<sup>318</sup> Aguilar, L. S. (2013). Statement on the Volcker Rule and Reducing Systemic Risk. U.S. Securities and Exchange Commission

<sup>319</sup> Kay, J. (2011). Should we have “narrow banking”? Future of Finance: the LSE Report



*essential goods and services*. The traditional service provided by banks, being the provision of credit to businesses, mortgages to consumers and deposit taking, falls into the second category. A major disruption in these activities would significantly harm people and the economy. Most of other financial services (such as derivatives, trading, investment banking activities etc.) are in the “nice to have” category and should be provided by the market. Any support banks receive from the Government should be limited to the essential goods and services they provide.

The above distinction is the basis for a number of recommendations to solve banks’ moral hazard problems such as the Vickers plan, Volcker rule and the Liikanen plan. The basic idea is to limit the support for non-traditional banking services and thereby reduce the costs of “too big to fail”.

### **The structural reforms**

There are at least three major proposals to separate traditional banking activities from other activities such as trading and other risk taking behaviour, namely the Volcker Rule (US), the Vickers plan (UK) and the Liikanen group report (EU). Additionally, the concept of “narrow banking” has also been proposed.

We focus on the Vickers plan and the approach to reform in the UK.

#### *The Vickers Plan*

After the GFC, the UK Government set up the Independent Commission on Banking (ICB) which was chaired by Sir John Vickers. The ICB final report proposed ring-fencing of British domestic retail banks, i.e. separating deposit and lending (utility) functions from investment banking activities. This is referred to as the Vickers Plan.

The Vickers Plan seeks to restrict public guarantees such that they apply to ring-fenced banks that perform vital banking services. Unlike the Volcker Rule, this does not require operational separation and would allow universal banks to benefit from diversification due to their integrated business models. It does, however, place strict requirements on retail and investment banking operations within a wider banking group.<sup>321</sup> For example, all the relations between the ring-fenced banks and related entities in the group should be on a third party basis.

The ring-fenced banks are required to take deposits from and provide lending to individuals and SMEs. They are prohibited from investment banking activities (derivatives, underwriting, investing and trading securities), commercial banking services with exposure to financial companies and banking services to non-European customers. Some use of basic derivatives as part of risk and liquidity management is allowed.<sup>322</sup> The Vickers Plan also recommends that ring-fenced banks should hold 4.06 per cent of capital against total assets, which is higher than the 3 per cent ratio required under Basel III.

There has been debate about the definition of permitted risk-management activities allowed within the ring-fence. Additionally, concerns also arise about contagion risks between the ring-fenced banks and other entities in the same banking group.

The UK Government has decided to adopt the major recommendations in the Vickers Report, including ring-fencing of retail banking activities from the rest of banking operation. The details were outlined in the Banking reform paper released in June 2012.<sup>323</sup> By December 2013, the Financial Services (Banking Reform) Act 2013 containing the ring-fencing provision was passed into law. The secondary legislation required to

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<sup>320</sup> Shirakawa, M. (2012). International stability as a public good. Keynote address.

<sup>321</sup> Chow and Surti. (2011). Making banks safer: can Volcker or Vickers do it? IMF Working Paper.

<sup>322</sup> Ibid. 9

<sup>323</sup> Department for Business Innovation and Skills. (2012). Banking reform: delivering stability and supporting a sustainable economy. HM Treasury



implementing the Banking Reform Act is scheduled to be finalised by May 2015. Implementation is expected by 2019.<sup>324</sup>

The UK Government proposals soften recommendations made by the Vickers Plan. Notably, ring-fenced banks are allowed to provide currency hedging and simple derivative services for small and medium sized companies. The Vickers Plan suggested that these functions stay outside of the ring-fenced entities. Furthermore, under the Government proposal, ring-fenced banks will have to hold 3 per cent of capital against total assets. This requirement is below the suggestion of 4.06% in the Vickers Plan.<sup>325</sup>

#### *Kay's Narrow Banking*

Sir John Kay has suggested an alternative structural banking reform known as “narrow banking”. Kay focuses on the traditional activities that banks offer non-financial economy and proposes the following:<sup>326</sup>

- Only narrow banks can be called “banks”. Their deposits are expressively guaranteed by the Government. Funds provided to other institutions are not guaranteed by the Government. This point must be made clear to the public to clarify the actual scope of government guarantee.
- Narrow banks participate in the payment system. They take deposits of individuals and small to medium sized enterprises.
- Narrow banks must invest in “safe assets”, which should be determined by regulators rather than rating agencies. Kay suggests that these should be limited to OECD Government Securities.
- Narrow banks can offer lending to individual and businesses *but should not enjoy monopoly power in these activities*.
- Narrow banks can be standalone institutions or subsidiaries of another company.

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<sup>324</sup> Shearman & Sterling LLP. (2013). Vickers Recommendations on Bank Ring-fencing Made Law in the UK

<sup>325</sup> Vina and Finch. (2012). U.K. Softens Vickers' Bank Proposals, Prompting Criticism. Business Week.

<sup>326</sup> Kay, J.(2009). Narrow Banking: The reform of banking regulation. <http://www.johnkay.com/wp-content/uploads/2009/12/JK-Narrow-Banking.pdf>

Table 8 – Comparison table of major proposals

Policy	What entities are covered	What activities are covered	How is the structural reform achieved
Volker Rule	Any banking entities and its affiliates	Prohibit banking entities from proprietary trading and investing in any hedge fund or private equity fund	<p>Outright separation of banking activities and prohibited activities is mandated. Therefore, the banking entity must divest these.</p> <p>All affected banks must file compliance reports with appropriate regulators.</p>
Vickers Plan	Any deposit taking bank or building society with deposits greater than £25bn.	<p>Ring-fencing entities are required to take deposits from and provide loans to individuals and SMEs.</p> <p>Prohibited activities include: investment banking activities, services that increase exposure to financial companies and banking services to non-European customers.</p>	<p>Ring-fenced entities could be stand-alone or separate subsidiary companies in a wider banking group.</p> <p>Banks can place non-core activities outside the ring-fence.</p>
Liikanen Plan	Banks with trading books larger than €100bn or trading assets more than 15-25% of their balance sheet.	<p>Mandatory separation of non-core bank activities if they amount to a significant share of a bank business.</p> <p>Non-core activities include: proprietary trading, market making and investment in hedge fund and private equity.</p>	<p>Depository institutions can be part of a banking group.</p> <p>Other subsidiaries in the same group can engage in proprietary trading, market making and investment in hedge fund and private equity.</p>
Narrow Banking	Banks taking deposits which are guaranteed by the Government.	Narrow banks only take deposits (which are guaranteed by the Government) and invest in safe assets. All other activities are not within the scope of narrow banks.	Activities are limited. Narrow banks can be standalone institutions or subsidiaries of another company.

## Australian applications

Structural banking reform is well underway in the largest economic zones in the world – the US and the UK have adopted laws to do so, and the European Commission has issued proposals. Whether Australia also should consider similar reforms depends on whether the public policy concerns driving structural banking reform in the Northern Hemisphere are present here, or such reforms otherwise would be in the public interest.

At first blush, structural reform of Australia's banking sector would not appear to be needed because the Australian banks did not fail to the degree of their Northern counterparts.

It is often said that Australian banks weathered the Global Financial Crisis. From a profitability standpoint, they remain some of the most profitable banks in the world.<sup>327</sup>

However, Australian banks did require extraordinary Government support during the GFC. Some of the support was direct: Explicit Government guarantees of bank bonds and deposit liabilities. Some of the support was implicit because the capital markets perceive the major banks as being “too big to fail” and therefore view the major banks as certain to receive Government support in times of stress. Finally, some of the Government support was indirect, in the form of economic stimulus that reduced the default risk of bank assets and the credit risk Australian consumers.

The Guarantee Scheme, which was the direct support from the Australian Government during the GFC, covered \$166 billion worth of bank liabilities as at January 2010.<sup>328</sup> The implicit support was in the range of \$1.2 billion to \$3.7 billion per annum.

*Are the policy concerns underpinning the structural reform of banking in the Northern Hemisphere present in Australia?*

The key objectives of structural reforms are reducing systemic risks and establishing a new foundation for financial stability. All proposals from the Northern Hemisphere focus on creating a firewall between core activities of banks and other risky activities such as derivatives and trading. Such separation will help to define Government support to only essential banking services and also protect depositors from unwanted risks.

Looking at the Australian banking system, there are some signs of potential problems. First off, the level of concentration in the industry increased after the GFC.

This increasing level of concentration exacerbates the “too big to fail” problem. It is well-established that the major banks enjoy implicit government support (see footnote 60 and related text).

While enjoying Government support, major Australian banks have also been increasingly engaging in non-core banking activities. Evidence of this includes that the major banks have been expanding their trading books as shown in Figure 62, above.

In terms of size and scope of activities, Australian banks do not appear to be as complicated as some of the large US or European banks. It is not clear whether this will persist. It is anticipated that Basel III, over-the-counter derivatives reform, and other measures will encourage banks to expand their business lines toward investment banking activities, such as deal arranging, market making, and distribution of corporate bonds, as well as derivatives dealing. Leading commenters have argued that the major banks must not be permitted to engage in greater levels of investment banking activities.<sup>329</sup>

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<sup>327</sup> Yeates, C. (2013). Why Australia's bank profits defy hard times. The Sydney Morning Herald Business Day

<sup>328</sup> Schwartz, C. (2010). The Australian Government Guarantee Scheme. The Reserve Bank of Australia.

<sup>329</sup> See comments of Dr Blundell-Wignall, Special Advisor to the Secretary-General on Financial Markets and Deputy Director in the Directorate for Financial and Enterprise Affairs at the OECD, referenced in Greber, J. (2013). Son of Wallis Adviser urges more reserve capital; Review ‘must back big four’. Australian Financial Review. 29 November 2013

### *A comprehensive review of Australian banks' non-core activities is recommended*

Banks' engagement in non-core activities such as trading and derivatives business can lead to dangerous consequences. They expose banking institutions to market risks that they are not necessarily well-equipped to handle.

For the Australian banking industry, the research regarding the extent to which Australian banks engage in non-core activities such as trading and derivatives is limited. Conducting a comprehensive review into the practice of the banking industry in this area, and likely future trends, would be an appropriate thing to do to.

### *Clearly defining utility and non-utility activities in Australian banks*

Recent Australian experience indicates that the line between utility services and non-traditional banking activities needs to be more clearly defined.

In October 2008, the Australian government announced two separate schemes to support the banks: (i) a guarantee scheme for wholesale funding and (ii) a guarantee scheme for large bank deposits.<sup>330, 331</sup> Macquarie Bank was among those benefit from this guarantee. It was suggested in the press that Macquarie Bank used part of its Government-backed funding for the Corporate and Asset Finance (CAF) division, which lent to other businesses onshore and offshore. The division profit tripled in the financial year ending 2010 in the midst of the crisis. This drew significant criticism.<sup>332</sup>

### *Alternative utility banking services*

In 2010 iterations of the possible terms of reference for an inquiry into the Australian financial system, The Hon Joe Hockey proposed the idea of "better use of existing government infrastructure such as Australia Post and Medicare Offices, for distribution of financial products to facilitate improved competition, but without government assuming balance sheet risk by competing directly with the private sector."<sup>333</sup>

Establishing utility banking services using existing infrastructure is a potential option for providing these services at a lower cost and encouraging competition in the banking industry.

The utility banking should focus on mass-market retail banking (deposits and lending to small and medium businesses) and utilise technology advancement to drive down costs and increase efficiency.

The successful experience of the Swedish lender Handelsbanken in this space provides useful insights. Handelsbanken is well capitalised (its Tier 1 Capital Ratio is 17.3%) and it runs a retail-focused strategy instead of chasing high-risk high-growth strategies. It remains a broad-retail bank with 4 million private customers and 330,000 company clients. The bank is profitable, and its shares have grown in value.<sup>334</sup>

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<sup>330</sup> In May 2009, the Federal Government announced that they also guaranteed state government debts. This move was to eliminate the competitive disadvantages the banks enjoy over state governments with federally guaranteed bank debts

<sup>331</sup> Under the Government's Financial Claims Scheme, which is permanent, deposits of up to \$1 million are protected under the Banking Act free of charge. The large deposit guarantee scheme is not permanent and is up to institutions to nominate to guarantee deposits of more than \$1 million threshold subject to a fee

<sup>332</sup> See the article in Business Day of the Age, <http://www.theage.com.au/business/the-brains-behind-macbanks-bonanza-20100530-wnka.html>

<sup>333</sup> Quoted in Peter Martin, economics editor for The Age and Sydney Morning Herald, 'It's time for a new financial system inquiry. Here are the Terms of Reference', <http://www.petermartin.com.au/2010/11/its-time-for-new-financial-system.html>.

<sup>334</sup> Milne, E. (2013). Swedbank finds 'utility banking' pays dividends. Financial Times

Admittedly, the success of Handelsbanken is based on a range of factors, including an equitable profit-sharing scheme with its employees and a focus on local customer services.<sup>335</sup> It, however, provides an interesting example of how banks can be successful when they focus on their core activities.

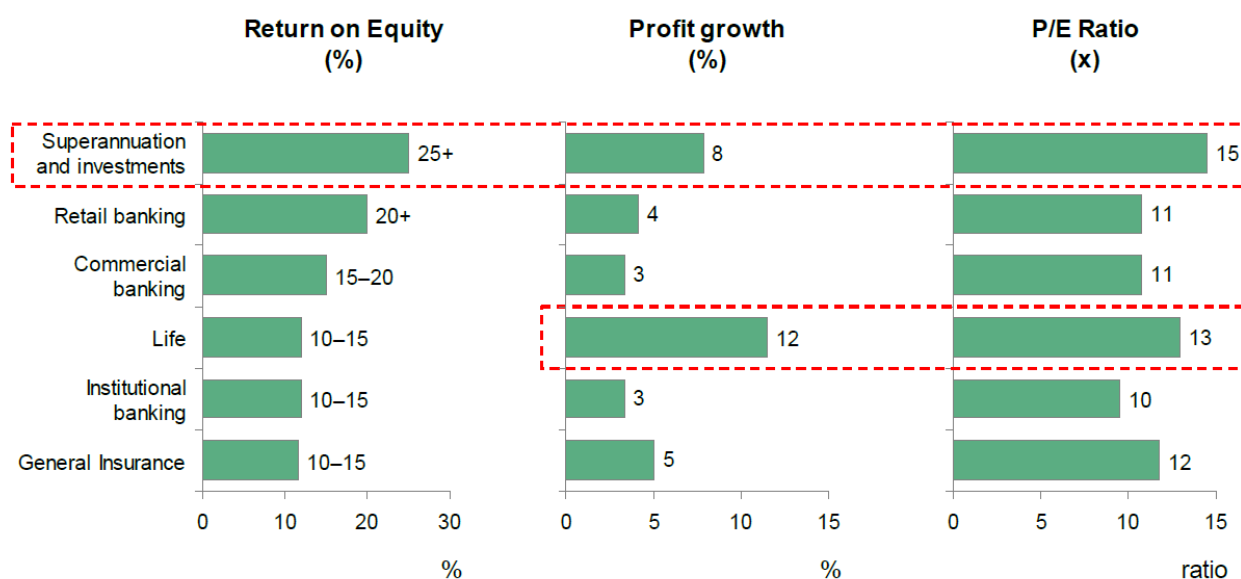
#### 9.6.2.2 Concentration in banking and competition in other areas of financial services

Establishing competition in the banking sector will be very challenging for public policy.

The panel should consider recommending, in parallel with efforts to improve competition in banking, policies to ensure that concentration in banking, and resulting market power, is not used to limit competition in other areas.

Superannuation and investments is the most desirable line of business for the major banks, as shown in Figure 115.

Figure 115 – RoE and other measures, selected lines of business of Australian banks



Source: Public data, annual reports, BCG estimates

Source: BCG

Currently, major banks have incentives to horizontally and vertically integrate for capital reasons, as well as to spread fixed costs across different business lines. Concerns have been expressed regarding the operation of superannuation funds by major banks, particularly in relation to conflicts of interests and conflicts of duty that trustee directors of bank superannuation funds may have, arising from association with the wealth management services run by parent banks. Some risks of conflicts of interest include:

- The tension which exists between the interests of shareholders or management of the banking corporation controlling the super fund trustee and the best interests of members of the super fund.
- The parent company/related party is often a significant provider to the superannuation fund of primary services (including administration, funds management, insurance and financial planning). APRA research has found:

<sup>335</sup> Treanor, J. (2013). Sweden's Handelsbanken - the publicity-shy bank with a growing empire. The Guardian <http://www.theguardian.com/business/2012/sep/14/handelsbanken-sweden-customers-first>

Retail funds are much more likely to use service providers that are related parties, because up to about 66% of the funds by number and 81% by asset value operate within broader financial conglomerate structures. Typically, the provider is the parent company of the trustee, or the provider and trustee have a common parent company. Such relationships are found in the survey in 39% of retail funds, 10% of corporate funds and not at all in the other funds. The existence of such relationships also increases the likelihood of associations of service providers with board directors.<sup>336</sup>

As a result of this and the prior bullet, there could be inevitable and continuous related party transactions insofar as the directors are related to the bank or the bank's wealth management arms.

- It is expected that a bank's MySuper product would be pitched to the clients of the bank's business arm, particularly if the Government proceeds with its plan to remove the safety net of modern awards.<sup>337</sup>
- Bank owned funds may seek to invest allocations to cash into accounts operated by the parent bank. This system is employed by some of Australia's biggest superannuation companies.<sup>338</sup> Members of the super fund would not be getting the best returns insofar as the parent bank is not providing market-leading rates. Banks may have an incentive to provide lower returns to cash investments to the extent possible. Banks currently tend to be clustered around the 2.4 per cent return mark for their cash fund customers. If the banks pay out a lower rate of interest, they reduce the cost of funding other operations and improve their profitability for shareholders but not for members.
- ISA's work (based on APRA data) has shown that over the 17-year period to 30 June 2013, the rate of return to investors in retail (bank-owned) superannuation funds lagged those of the not-for-profit funds, on average by about 2 per cent per year. Retail funds returned an average of 4.11 per cent per year, just above the average rate of return for cash over this period of 3.93 per cent per year.<sup>339</sup>
- The APRA data also shows that retail funds do not appear to pass on the benefits of scale to their members and that profit orientation is a prime determinant of returns. In short, it could be that the major financial institutions are resolving the conflict between their duties to members, on the one hand, and their duties to shareholders, on the other hand, by trading off member returns for shareholder distributed profit.

This counsels in favour of policy undoing the incentives to integrate banking and superannuation beyond natural efficiencies. To ensure competition in the market for business funding, it may be desirable for policymakers to place incentives against integration across lines of business.

<sup>336</sup> APRA Working Paper, Wilson Sy, August 2008; *Superannuation fund governance: An Interpretation* Pages 8-9

<sup>337</sup> See, Financial Standard, "BT reveals post-awards strategy", 20 February 2014.

<sup>338</sup> Sydney Morning Herald, "Superannuation: Banks eating into savings," 20 December 2013

<sup>339</sup> APRA (2014) *APRA Annual Statistics*; ABS (2013); ISA Analysis (2014). Returns are calculated as the geometric average.

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Consider a fund's PDS and your objectives, financial  
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## APPENDICES

31 March 2014

Industry  
Super  
Australia



## Appendices

1. Funding Australia, ISA, 2014
2. ISA Briefing note on current issues in superannuation policy
3. Australia as a financial centre
4. Innovation funding agencies and development banks
5. United Kingdom fee caps

# Funding Australia



## SUPERANNUATION AND THE FINANCIAL SYSTEM

March 2014

Industry  
Super  
Australia



## About Industry Super Australia

Industry Super Australia (ISA) is an umbrella organisation for the industry super movement. ISA manages collective projects on behalf of a number of industry super funds with the objective of maximising the retirement savings of five million industry super members. Please direct questions and comments to:

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# | SUMMARY

*Funding Australia: Superannuation and the financial system* surveys the contribution that super has made in building our national savings, and foreshadows just how much of a bearing this collective fund could have on our nation's economic future.

With Australia's growth prospects under threat, unlocking the power of super as an efficient generator of capital is top-of-mind; and likely to be a major focus of the forthcoming Financial System Inquiry.

Getting beyond debate and into strategies to capitalise on our pool of super savings has to start with an accurate assessment of what it has helped us achieve so far – for individuals, and for us as a nation. And, it's a positive story.

The fact that our national super savings has eclipsed our national GDP is not news locally, but it is world leading. The current pool of \$1.8 trillion dollars is on track to reach \$7 trillion by 2030.

The real news is how deeply compulsory super has penetrated our day-to-day economic life to the benefit of millions of every day Australians, often without much fanfare:

- Super is already providing over \$70 billion in retirement benefits each year
- It has generated around \$1 trillion in savings that otherwise would not have been available for investment
- Over the period 2003 to 2014, superannuation contributed an estimated total of \$201 billion to Australia's capital stock
- Just last year, the super system invested an aggregate of around \$30 billion in infrastructure, private equity, and direct property
- Its \$11 billion stake underpins the commercial property market, with a 140 per cent increase over the last decade
- It now accounts for two out of every three Australian dollars sourced by private equity for investment
- Super has taken pressure off pension obligations on the government balance sheet, improving credit ratings and saving an estimated \$6 billion a year in interest payments
- By taking a counter-cyclical (long-term) approach to investing compared to other market participants, super acts as a stabiliser not only as the GFC bit into market prices – saving Australia from the worst effects – but also moderating the intensity of rising asset prices in the good times.

Ultimately the analysis in this report builds on previous conclusions from the Productivity Commission that capital deepening – investments that enable greater economic output, like major office blocks, ports or airports – are responsible for over half of Australia's recent productivity growth.

Industry SuperFunds are therefore committed to long-term, patient stewardship of key infrastructure assets, because they benefit our members through broader economic growth as well as healthy investment returns.

Over the coming decades, Australian Governments can generate jobs, boost growth, and become less reliant on foreign dollars by putting in place policies that better facilitate the transformation of national savings into capital investments.

Over the coming months, we will be highlighting what needs to change in terms of thinking and policy so that super and the finance system can work alongside each other to improve the lives of Australians.

## 1. Introduction

Superannuation has evolved rapidly since the 1980s, when it was available only to public sector workers and private sector executives, to become a key part of Australia's retirement income system for all working Australians. Superannuation improves retirement incomes of working people in a fiscally sustainable manner.

The superannuation system has grown to the point where Australia is one of the few countries where pension assets are worth more than GDP. Although still maturing, annual superannuation retirement benefit payments are already double age pension expenditures.

Superannuation also has had profound, and positive, effects on the Australian financial system. Household financial assets are now higher, more diversified, and more broadly shared than before. Our financial system is less concentrated, more broadly diversified and carrying lower leverage than it would without the growth of superannuation.

## 2. Super and retirement income

Australia's superannuation system provides a strong and stable base upon which to deliver a lasting and meaningful retirement for many Australians. The system forms an important part of Australia's policy solution to meet the challenges of an ageing population.

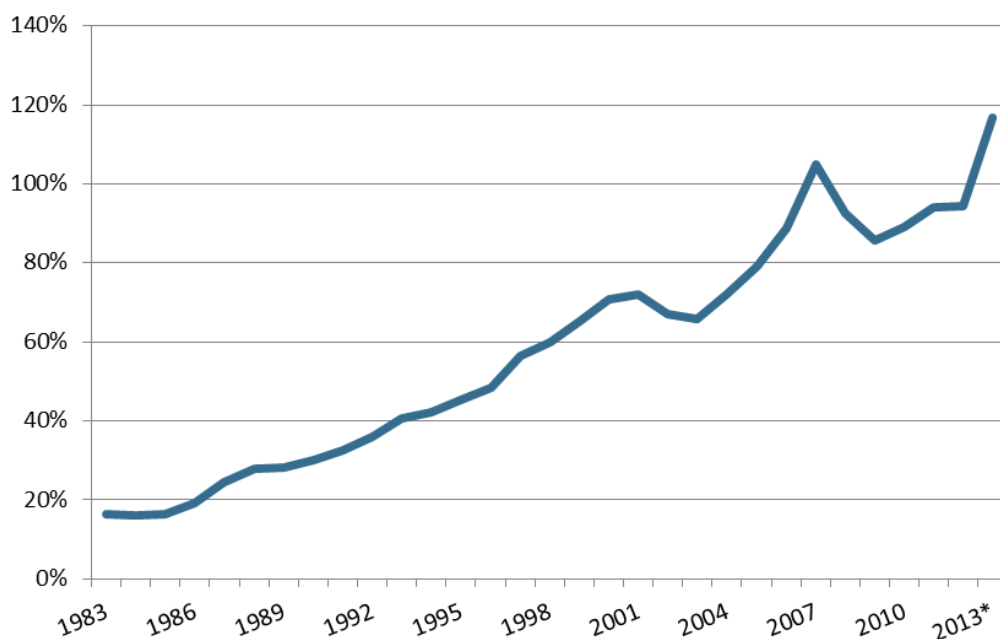
The superannuation system has also led to a major reconfiguring of the types of assets held by households, with a strong shift away from a single focus on domestic housing towards a much more diversified portfolio.

### 2.1 Retirement income today and into the future

Superannuation assets have grown rapidly since the early 1980s (Figure 1). Growth has been driven by (i) award and compulsory employer contributions, (ii) concessional tax treatment of contributions, earnings and retirement income, and (iii) relatively strong investment returns for most of this period, particularly for not-for-profit workplace default funds.



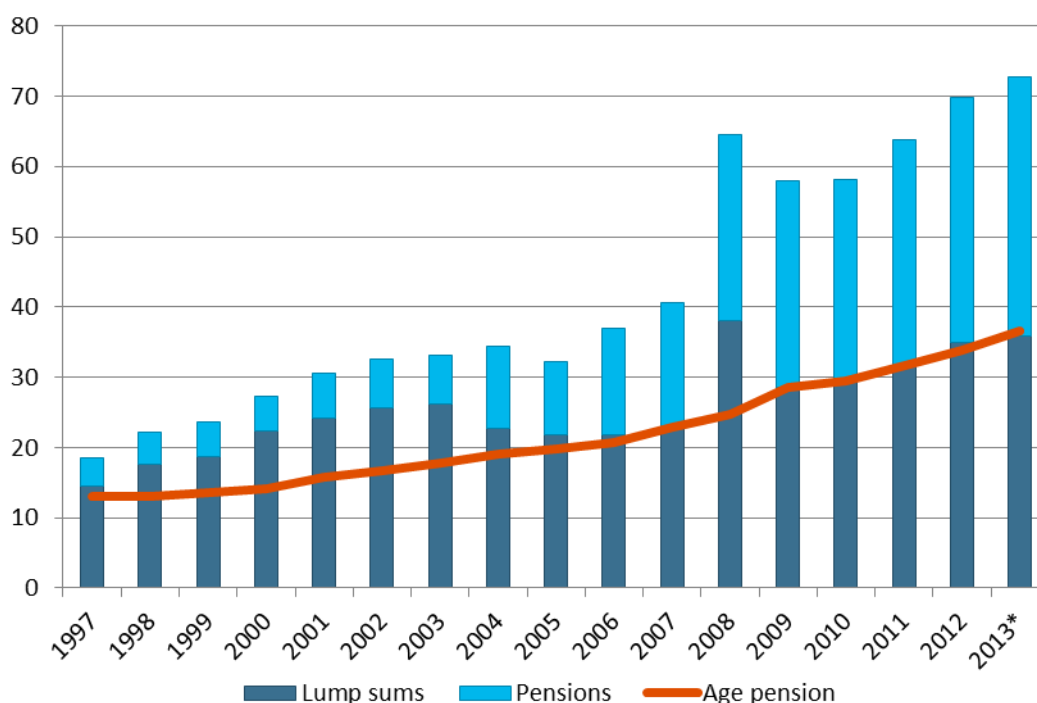
Figure 1: Ratio of superannuation assets to GDP



Source: APRA, ABS (ABS 5206.0)

Funded pension systems take more than a generation to mature. Nonetheless, the superannuation system is already an important source of retirement benefits for Australians. Benefits paid in financial year 2012/13 were approximately \$72 billion – consisting in roughly equal measures of lump sums and income stream payments. This is around double the \$36 billion in expenditure for the age pension in the same year as shown in Figure 2.

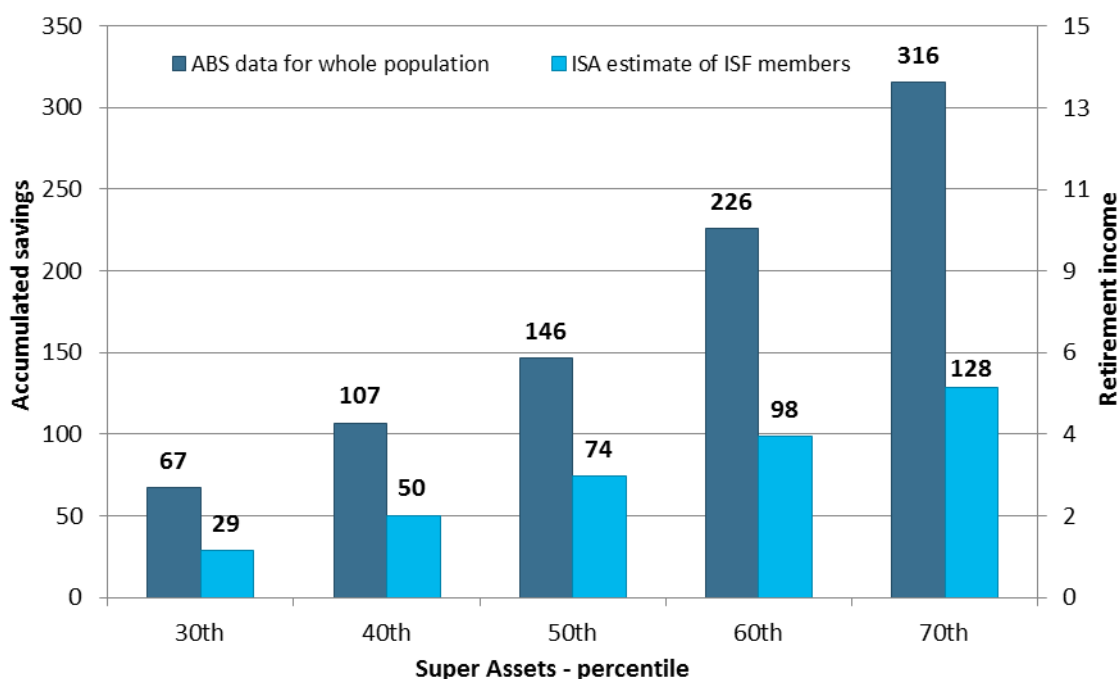
Figure 2: Superannuation benefits paid per year, \$b



Source: APRA (2013), Parliamentary Library (2009), DHS (2013) \*The 2013 figure is based on benefits in APRA-regulated funds, grossed up to include an estimate for benefits in SMSFs.

For beneficiaries nearing retirement age, median superannuation account balances are estimated to be about \$74,000 per person for Industry SuperFund members and about \$146,000 per person for the superannuation system as a whole<sup>1</sup>. The boost to retirement income potential that this represents, even for those at the lower end of this range, is material to the recipients. This range of account balances can translate into an income stream of between \$3,500 and \$5,900 per year, as shown in Figure 3.<sup>2</sup> Annual income from superannuation at these levels represents a boost to income from the age pension of about 10 to 20 per cent. These amounts can substantially improve wellbeing in retirement, and are only expected to increase as the superannuation system matures and compulsory contribution levels step to 12 per cent. In addition, and unlike the age pension, superannuation is available as a lump sum to fund lumpy expenditures, as a contingency for financial need or for bequest, particularly for those who do not live to advanced old age.

Figure 3: Member balances and estimated retirement income boost for 60-65 years old, December 2013<sup>3</sup> (\$ 000s )



Source: ISA analysis based on data from SuperPartners (2013) and ABS (HILDA microdata, 2012)

The distribution of superannuation assets, as with other forms of wealth, is skewed upwards, particularly in the older demographic. This is not only because of different levels of income resulting in different levels of contributions. It is also, in part, because many of the workers in this group have only had the benefit of employer superannuation contributions for a relatively small proportion of their working lives, and generally have been less able to make additional voluntary personal contributions. Over time, the

<sup>1</sup> The disparity is partly explained by lower average incomes of Industry SuperFund members, as well as lower average lifetime contribution rates and a higher likelihood of multiple accounts.

<sup>2</sup> For each of the \$74,000 and \$146,000 balances at retirement, the income stream projections were calculated by ASIC's *Moneysmart Retirement Planner*, in respect of a male, who is a home owner, has no partner, and otherwise with the standard assumptions (in terms of personal assets, investments outside super, returns, inflation and fees), except living standards after retirement were assumed to remain constant, rather than rise. Note: Moneysmart uses a default inflation rate of 3.5% p.a. to reflect both cost of living and rising community standards. Rate of return for moderate investment allocation is 6.4% p.a. and term is 25 years (65 – 90).

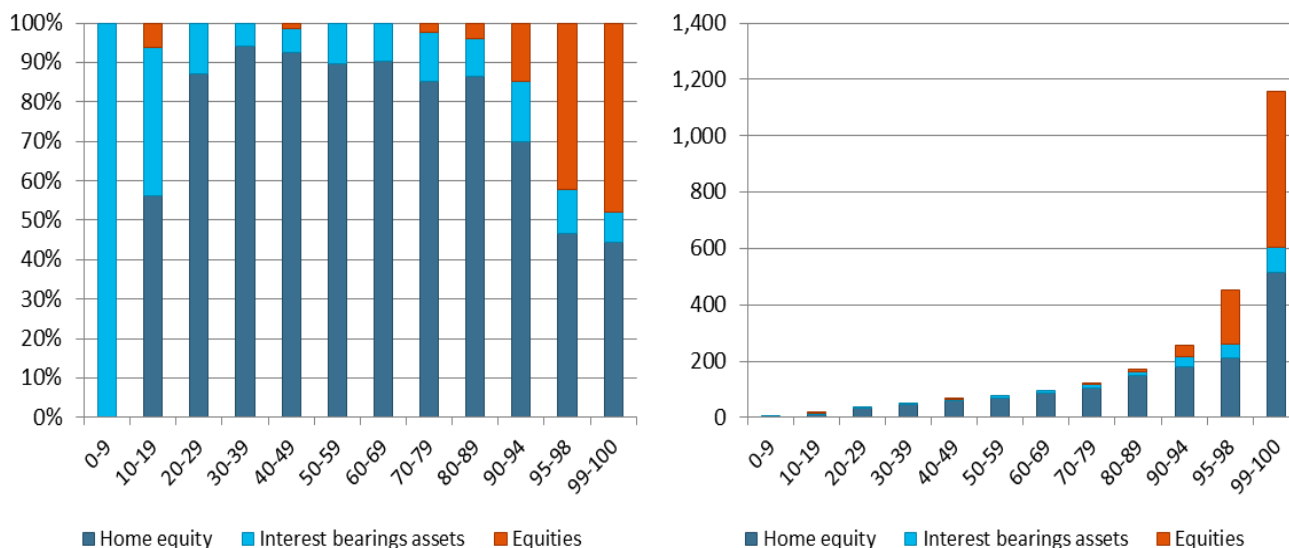
<sup>3</sup> ABS data is for 2010, grossed up to reflect contributions and investment returns between 2010 and 2013. ISF data is for 2012, grossed up to reflect contributions and investment returns during 2013.

combination of universal coverage, concessional contribution caps, and increased compulsory contributions, should reduce some of the inequities present in the superannuation system.

## 2.2 Household asset diversification

Before universal super, most households kept the overwhelming majority of wealth in real estate, particularly the family home, with around 10 per cent of wealth also held in bank accounts. In 1990, only the top 10 per cent of households by wealth had holdings of any significance in other financial assets, such as shares in listed companies (Figure 4).

Figure 4: Composition of household assets, proportions and '000s dollars, by wealth decile, 1990



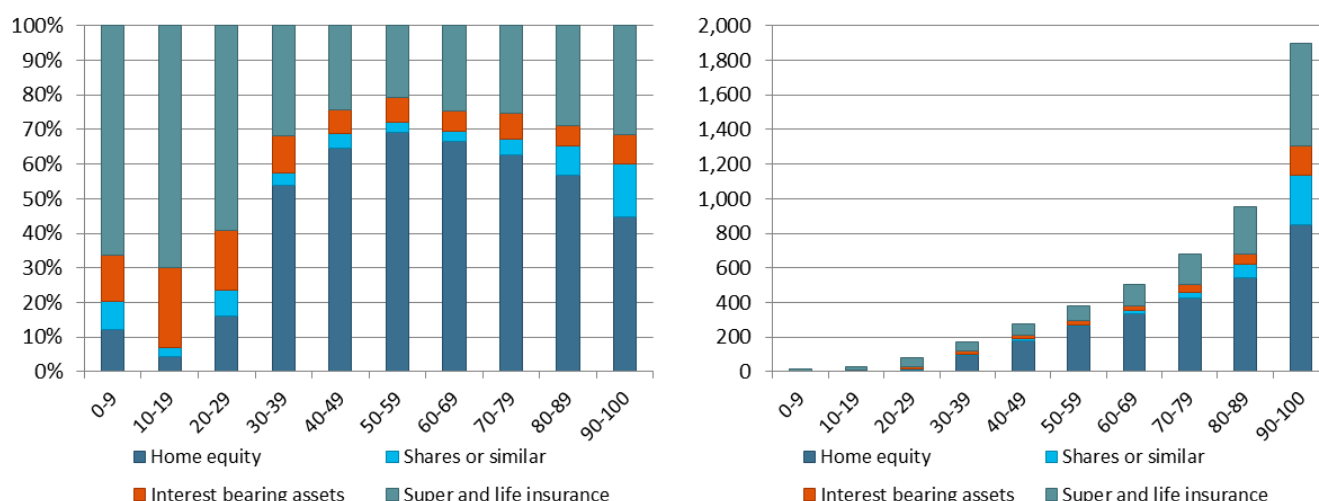
Source: ABS data (IDS microdata) cited in Bacon 1995 (from RIM Group Treasury)

Note: The 90-100 decile is split across three categories.

Two decades later, in 2010, households all the way across the wealth distribution hold financial assets (Figure 5). Direct holdings of shares, while still highly skewed, exhibits some distribution across the middle deciles, due in part to a series of major privatisations and demutualisations in the 1990s that saw many households issued with shares for the first time.

The most significant change over this period, however, is the significant proportion of wealth held in the form of super right across the wealth distribution. Super has added substantially to the diversification of assets held by most working Australian families.

Figure 5: Composition of household assets, proportions and dollars, by wealth decile, 2010



Source: Hilda (2012) Wealth Survey

Universal superannuation has unambiguously improved the asset diversification of Australian households, broadening the asset base beyond property for the first time for families outside the wealthiest 10 per cent. Exposure to equities, bonds and commercial property is now shared much more broadly across the wealth distribution. New asset classes have been developed, such as infrastructure equity and debt, which are available to all workers through workplace default funds and investment options. APRA-regulated superannuation funds have also contributed to a reduction in ‘home bias’ by investing a significant minority of assets overseas. All these factors contribute to improved risk-adjusted returns and provide at least marginally reduced exposure to the housing market, where all previous non-cash wealth was held for all but the wealthiest households.

### 3. Superannuation and the financial system

The emergence and growth of universal superannuation profoundly improves the Australian financial system. The Australian financial system aside from super is increasingly dominated by the four major banks, is increasingly exposed to the residential housing market, and is highly leveraged. The growth of superannuation has been an eddy against a general tide of increasing system-wide asset share by the banks. Superannuation institutions also have reduced exposure to the housing market and have much lower credit and market risks than those associated with other types of financial institutions.

#### 3.1 Superannuation and savings

Australia’s superannuation savings is one of the top five pools of retirement savings in absolute terms, and among the highest in the world on a per capita basis.<sup>4</sup>

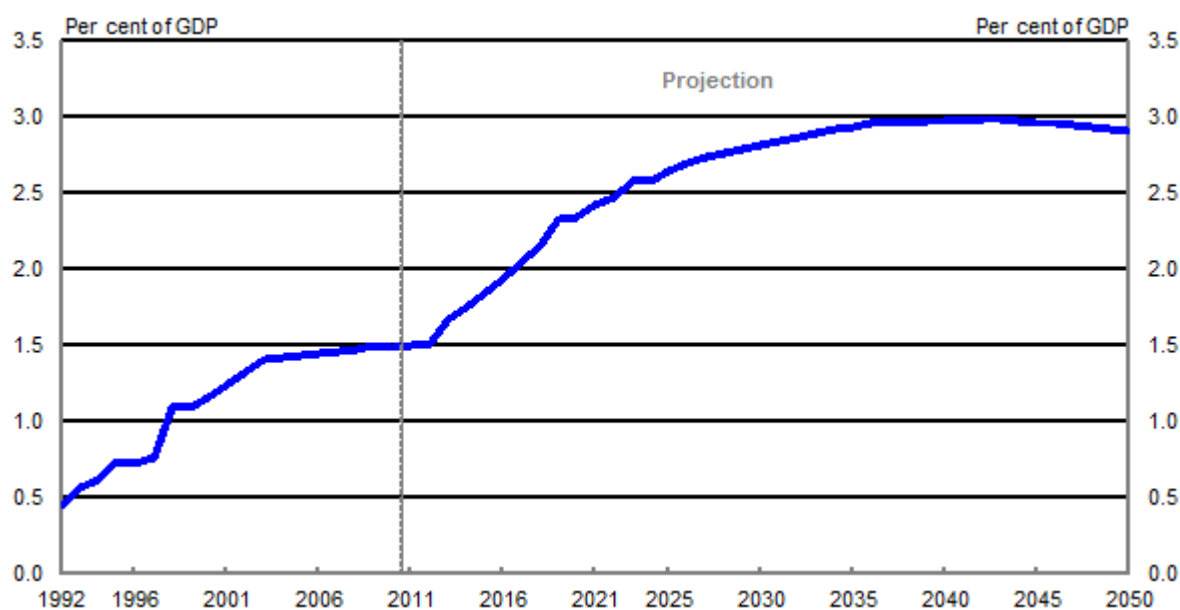
System assets at September 2013 were \$1.75 trillion (APRA, 2013). With the Superannuation Guarantee rising to 12 per cent, total system assets are expected to rise to over \$7 trillion by 2030. The growth of superannuation is likely to be so strong that by around 2030, superannuation assets are likely to exceed those of the banking system.

There has been some debate regarding whether some of the additional household savings attributable to superannuation are offset by decreases in savings elsewhere, such as a reduction by households in non-superannuation savings. Research on this question has generally found relatively little offsets are

<sup>4</sup> OECD *Pensions at a Glance*

taking place in relation to compulsory superannuation savings. Figure 6 shows Treasury estimates of the contribution of compulsory superannuation to private savings, currently at about 1.5 per cent of GDP, rising significantly as the Superannuation Guarantee rises gradually from nine to 12 per cent.

Figure 6: Estimated contribution of compulsory super to private savings



Source: Gruen and Solding (2011)

ISA research on this question is empirical, comparing changes to voluntary superannuation savings behaviour among groups of members on very different levels of compulsory workplace contributions and after changes to compulsory contributions. The research finds very low levels of offsetting, and therefore that additional compulsory superannuation savings are largely additional to existing financial assets. After analysing the historical data on employer and member contributions, and varying rates of offsetting we estimate that due to compulsory workplace super between \$800 billion and \$1 trillion in superannuation savings (47 to 58 per cent of system assets) have been accumulated that would not otherwise be available as financial assets to fund retirement income.<sup>5</sup>

### 3.2 Financial system concentration

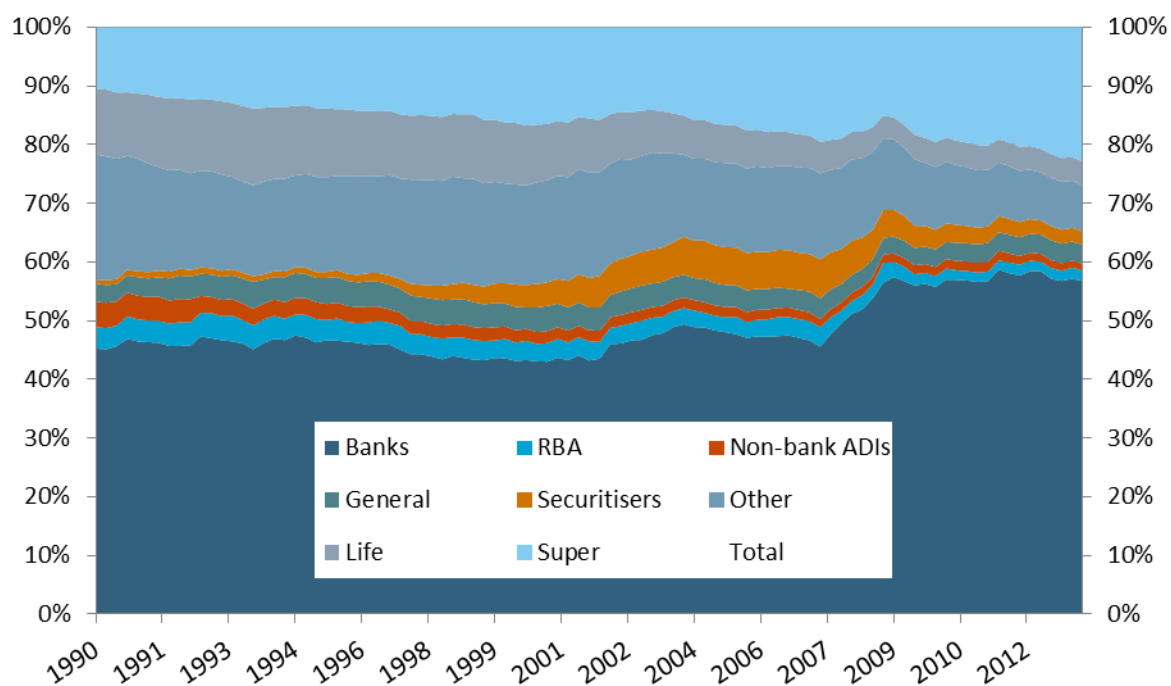
Over the last two decades, the dominance of the banks within the Australian financial sector has intensified, with the proportion of assets held by banks increasing from 35 per cent to 57 per cent (Figure 6). At the same time, the proportion of bank assets controlled by the big four has increased: between 2002 and 2007 the big four lost market share of ADI assets from 70 per cent down to 63 per cent, but since the beginning of the Global Financial Crisis (GFC) have regained this ground and substantially more, reaching more than 79 per cent market share in 2013 (Figure 7).

Since 1990, superannuation is the only sector of the financial system to have grown outside of the big four banks, increasing from 11 per cent of assets to 23 per cent of assets. In combination with life insurance, assets have grown from 22 per cent to 27 per cent of system assets. The number of superannuation funds has reduced significantly during this period but still exhibits much lower levels of concentration than other sectors of the financial system.<sup>6</sup>

<sup>5</sup> Shanker and Vidler, forthcoming.

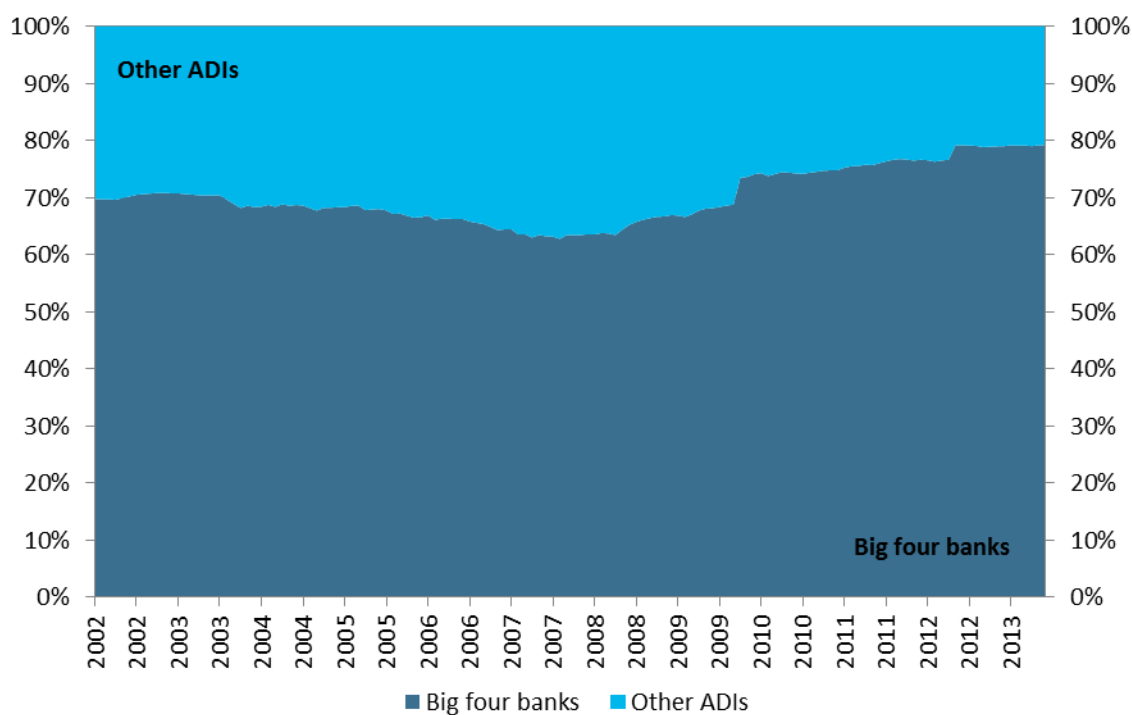
<sup>6</sup> The number of APRA-regulated funds has fallen from over 4,700 in 1997 to 325 in 2013 (APRA, 2014).

Figure 7: Financial system assets, 1990-2013



Source: RBA (2013) *Statistical Table B1*

Figure 8: Big four banks' market share, assets, 2002-2013



Source: APRA (2013) *Monthly Banking Statistics back series*

### 3.3 Leverage and financial contagion

Most Australian superannuation accumulations are in funded schemes.<sup>7</sup> The growth of universal superannuation has largely been in the form of defined contribution funds. APRA estimates that claims in defined benefit are valued at \$175 billion of \$1,619 billion in assets at June 2013.

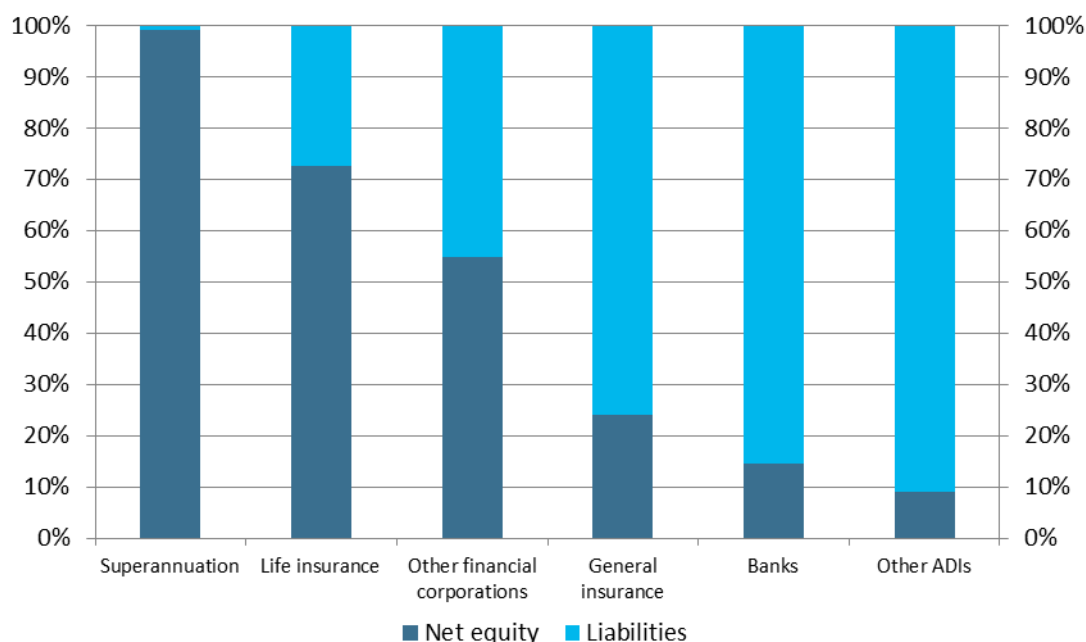
One benefit of this structure is that superannuation should not be a transmission mechanism of financial risks. In countries where defined benefit schemes dominate, decreasing asset values due to financial market downturns (or increasing liability values due to falling interest rates) can adversely impact sponsoring employers, including threatening their viability. In such systems, pensions are one mechanism by which financial market crises are transferred to the wider economy.

In Australia, instead of adding to financial system risks, superannuation reduces them. Super funds can absorb losses, and their lack of leverage means they do not pass on losses to counterparties through defaults on obligations. Indeed, super funds are largely free from leverage, although developments in the SMSF market – where leveraged investments in property and shares are increasingly rapidly – are clearly threatening this situation.

All other financial institutions, including banks, life insurers and general insurers, have direct exposure to market, credit, currency and/or interest rate risks, and may rapidly become insolvent and be unable to pay creditors. Due to the high levels of horizontal, vertical and conglomerate concentration, any such institutional weakness also carries a significant risk of contributing to financial contagion and perhaps systemic failure.

In the absence of significant leverage, super funds can absorb market volatility without risk to themselves or other institutions. In contrast to other types of financial institutions, superannuation funds effectively are entirely capitalised (Figure 9).

Figure 9: Leverage of financial institutions by category, 2013



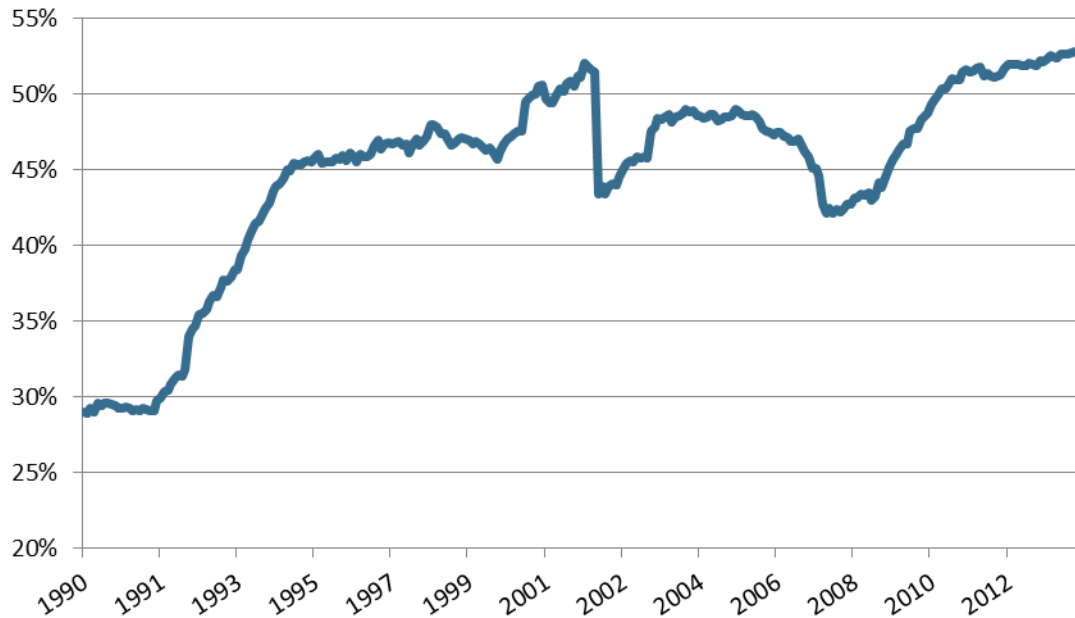
Source: ABS 5232.0 - Australian National Accounts: Financial Accounts, Jun 2013

<sup>7</sup> 'Funded' pension schemes are those that hold financial assets against pension liabilities. 'Unfunded' schemes or partially funded schemes hold no assets or assets less than liabilities. The ABS *National Accounts* at June 2013 recognises unfunded pension claims (held exclusively against public sector employers) at \$371b compared to funded super and life office reserves of \$1,653b.

### 3.4 Financial sector asset diversification

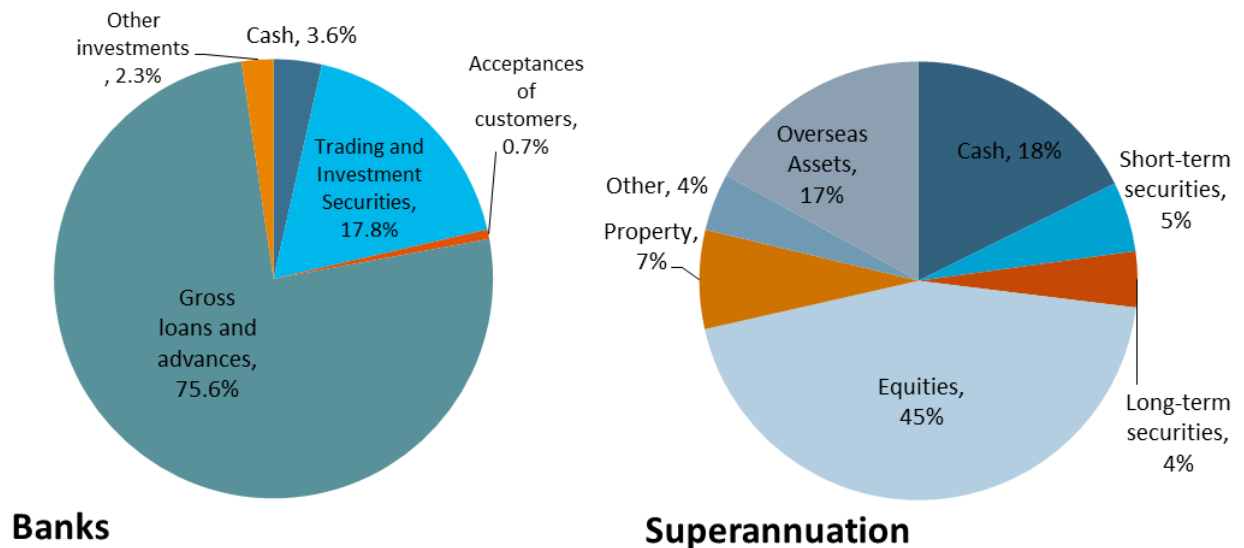
A feature of Australian banking is the high and increasing level of orientation to housing finance, both for owner-occupiers and investors (Figure 10). Superannuation, through a broader asset allocation, including to overseas asset classes, adds diversification and stability to the Australian financial system (Figure 11).

Figure 10: Percentage of banks loans to housing, 1990-2013



Source: RBA (2013) Statistical Table D5

Figure 11: Assets allocation of banks and superannuation, 2012, %



Source: RBA (2013) Table D5 and APRA Monthly Banking Statistics

### 3.5 Macroeconomic stabiliser

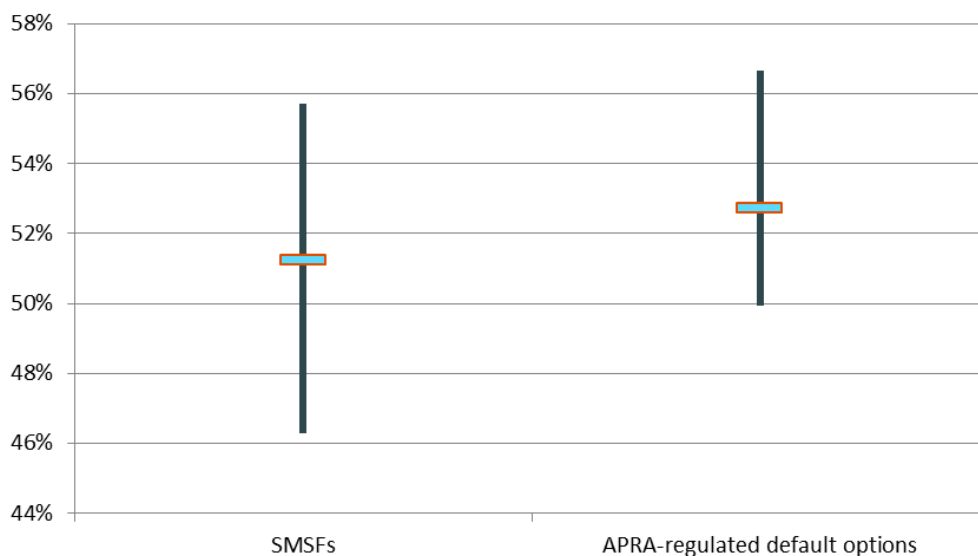
A significant proportion of the assets held in large APRA-regulated funds are held in default or flagship 'pre-mixed' multi-asset class investment options. These investment options are based on a strategic asset allocation intended to provide strong risk-adjusted returns over the long term.



One benefit of investing according to a pre-determined strategic allocation is that it discourages procyclical behaviour: when the value of an asset class falls, the portion of the portfolio comprising that asset also falls and those assets should be purchased to restore the desired allocation. Similarly, when an asset class exhibits rapid price increases, such as during a bubble, those assets should be sold.

Figure 12 compares the range of equity allocations for SMSFs and APRA-regulated default fund options over the period 2005 to 2013. The range of allocations varies significantly less for APRA-regulated funds than for SMSF funds, indicating a lower level of procyclical investment. The average levels over the period for both SMSFs and APRA-regulated funds are marked by horizontal bars.

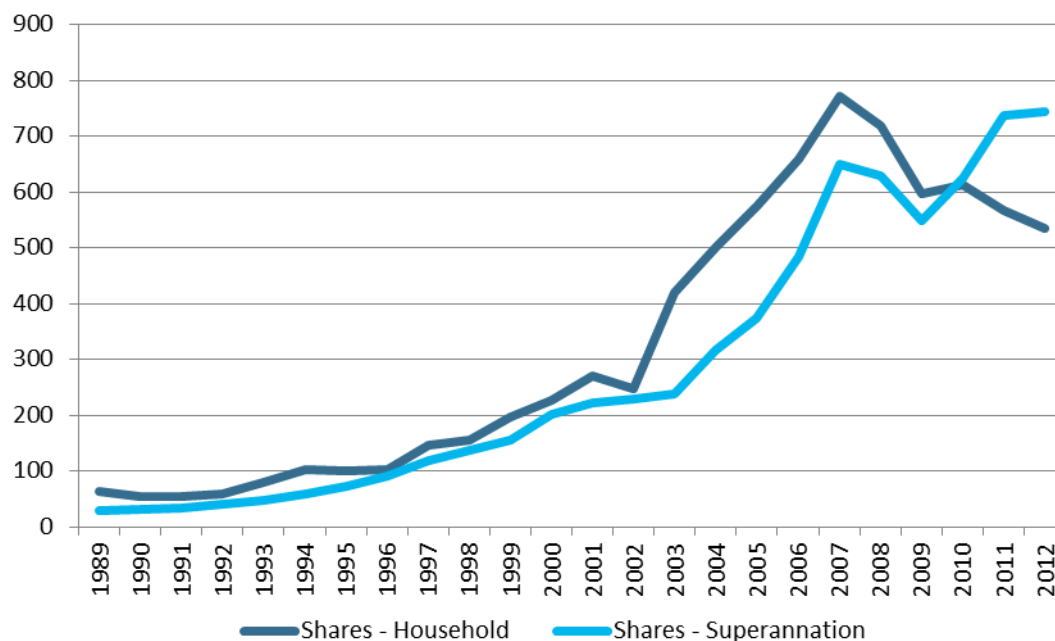
**Figure 12: Range and average equity holdings by APRA superannuation funds and SMSFs, 2005-2013**



Sources: ATO (2013) Self-managed super fund statistical report – June 2013, ATO. APRA Annual Statistical Bulletins 2005 through 2013, Table 18.

The countercyclical behaviour of superannuation managed to strategic asset allocations contrasts with the procyclical tendency of other investors, including retail investors, to sell as prices fall, and buy, as they rise. Some evidence of this pattern can be seen by comparing the holdings of households and super funds in Australian equities during the GFC. Households reduced direct ownership, but super funds, driven by strategic asset allocations, boosted holdings (Figure 13). This strategy should provide benefit over the long term, and certainly boosted fund returns in calendar 2013, when the value of Australian equities rose sharply.

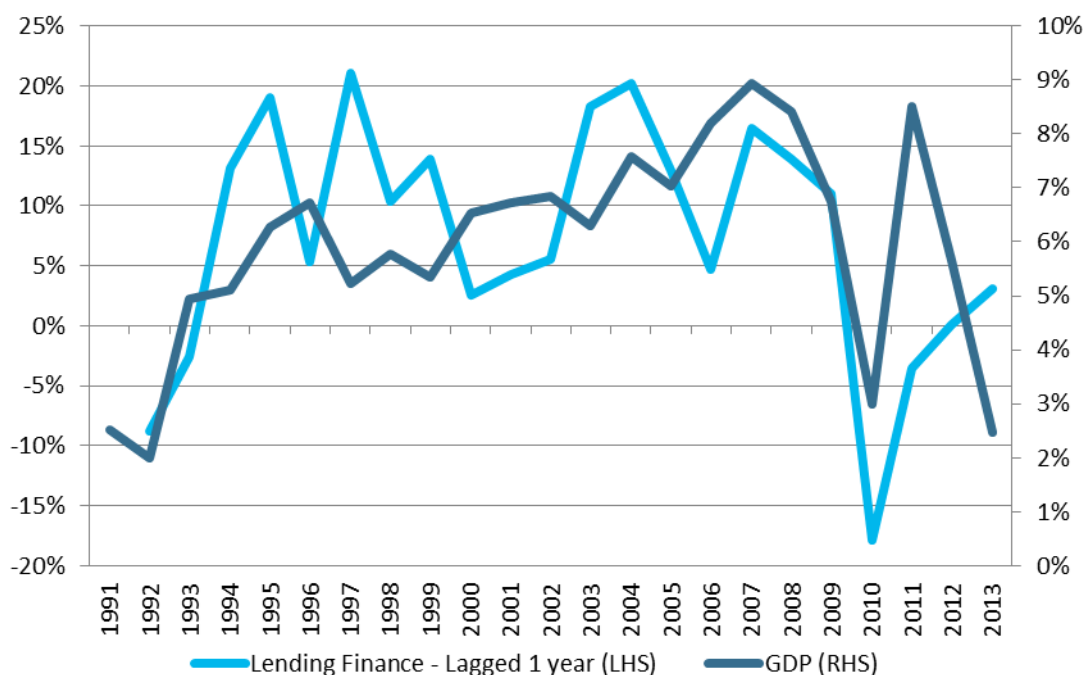
Figure 13: Holdings of equity – households vs. superannuation



Source: ABS 5232.0 - Australian National Accounts: Financial Accounts, Jun 2013

In contrast with superannuation, banks also are procyclical sources of funding. Banks' lending, and credit growth more generally, lags GDP growth, as shown in Figure 14. There are a variety of reasons for this pattern of behaviour, including that borrower risk appears lower during periods of expansion, and that bank loans that are non-performing, and write-downs for bad debts, are generally low during expansions, but become more prevalent toward the end of an expansion, and then rise dramatically during the downturn. Regulatory capital requirements also tend to encourage procyclical behaviour by banks, insofar as raising additional capital in times of stress is difficult, therefore reducing new lending during economic downturns becomes a more straightforward way of addressing capital ratios.

Figure 14: GDP growth vs. lending finance growth (lagged one year)



Source: ABS National Accounts (ABS 5206.0) and Lending Finance (5671.0)

### 3.6 Superannuation, demography and financial strength

Retirement income systems that include significant funded elements, such as superannuation, reduce the expected future financial impact on government of longevity and investment risks.

The *Intergenerational Report 2010* projects that by 2050 Australia will have about 2.7 people of working age for each Australian aged 65 years and over. The direct fiscal impact of this change is more limited in Australia because unlike many other OECD countries, we do not have a large contributory unfunded pension system.

Retirement income systems that are solely or more heavily reliant on unfunded pay-as-you-go pensions are far more financially vulnerable to population ageing. Barring productivity increases well beyond historical levels, as the age dependency ratio increases, these nations will be forced to cut benefits, raise contribution rates,<sup>8</sup> or increase borrowing. As changes to benefit and contribution levels are politically challenging, increases in borrowing are expected.

An ISA analysis across 34 OECD nations shows that higher funded pension assets as a proportion of GDP are correlated positively with central government's credit ratings. The data analysed covers GDP (i.e. size of economy), GDP per capita (i.e. wealth), superannuation assets<sup>9</sup> and government debt as a proportion of GDP along with credit ratings. The analysis finds that, all other factors equal, a 100 per cent increase in the ratio of superannuation assets to GDP is consistent with a 27 per cent reduction in the risk score underlying sovereign credit ratings.

The most obvious impact of a higher credit rating is a reduced cost of borrowing. Credit ratings are in essence one source of analysis of risk factors available to market participants. Although the relationship between ratings and cost of borrowing is not mechanical, higher ratings indicate lower risk and lower borrowing costs, both for the sovereign issuer, and for 'semi-Government' (e.g. state government) issuers, banks and corporates within the jurisdiction. Corporate issuers and banks domiciled in a given country, for example, cannot be rated above the sovereign.

To the extent that banks in particular achieve lower cost of borrowed funds due to the improved rating of the sovereign, including due to implied guarantees for major banks, all their borrowers will also ultimately benefit.<sup>10</sup>

Given the vagaries of wholesale capital markets, quantifying the dollar impact on Australian borrowers is inherently approximate. The two necessary steps are to (i) estimate the impact on the credit rating of the higher concentration of super assets in the economy, and (ii) estimate the cost benefit consistent with that improved rating.

Over the past three decades, super assets over GDP have increased from 16 per cent to 100 per cent – an increase of 6.25 times or 625 per cent, consistent with a significant (170 per cent) reduction in risk score. However, given the logarithmic relationship on which the risk score translates to credit ratings, this reduction is consistent with an improvement of only one rating level, such as between AAA and AA+.

Our analysis of the semi-Government bond market over the last two years suggests bonds issued by AAA rated states attract a discount of 25 to 30 basis points relative to AA+ rated states.<sup>11</sup> We use this as our guide for the benefit in terms of Commonwealth and state borrowing.

In analysing the corporate bond market (predominantly financial corporations), Reserve Bank of Australia researchers (Black et al, 2012: 26) finds that in the period since 2007 on average, AAA-rated issuer bonds

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<sup>8</sup> These are already at or above 20% of wages in several European countries.

<sup>9</sup> Described as funded pension assets in most countries and by most researchers overseas.

<sup>10</sup> The speed with which benefits are passed onto customers will ultimately depend on the level of price competition in the marketplace.

<sup>11</sup> Raw data from Bloomberg.

trade at a 36 bps discount to AA, which trade at a 87 bps discount to A, which trade at a 73 bps discount to BBB. The average discount per rating improvement is 65 bps, which we use as a guide for the benefit in corporate bonds.<sup>12</sup>

Table 1 sets out the estimated reduction in borrowing costs attributable to the ratings uplift benefit of superannuation.

**Table 1: Wholesale borrowing and rating discount by segment, Australia**

	Assets (\$bn)	Discount (bps)	Discount (\$bn)
Commonwealth Government Securities	240	25	0.6
Semi-government	200	25	0.5
Financial corporations	610	65	4.0
Non-financial corporations	210	32.5	0.7
Total	1,260		5.7

Source: Assets - RBA (2013), and ISA modelling.

## 4. Superannuation investment in the real economy

Beyond the benefits to individual retirement incomes and stability of the financial system, Australia's superannuation system is a consistent and long-term focused source of financial capital to fund investment.

Savings is the portion of output set aside for purposes other than consumption. Investment is possible through the mobilisation of savings for purposes of forming capital, or capital deepening. By supporting the growth of national savings, the superannuation system has increased the pool of savings available for investment. Moreover, the superannuation system has put those savings to work by investing in new capital, rebuilding existing capital, and supporting liquidity and price formation in the secondary markets.

### 4.1 Superannuation and capital formation

To assess the contribution of superannuation to funding Australian economic activity involves understanding how the savings placed within superannuation are invested.

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

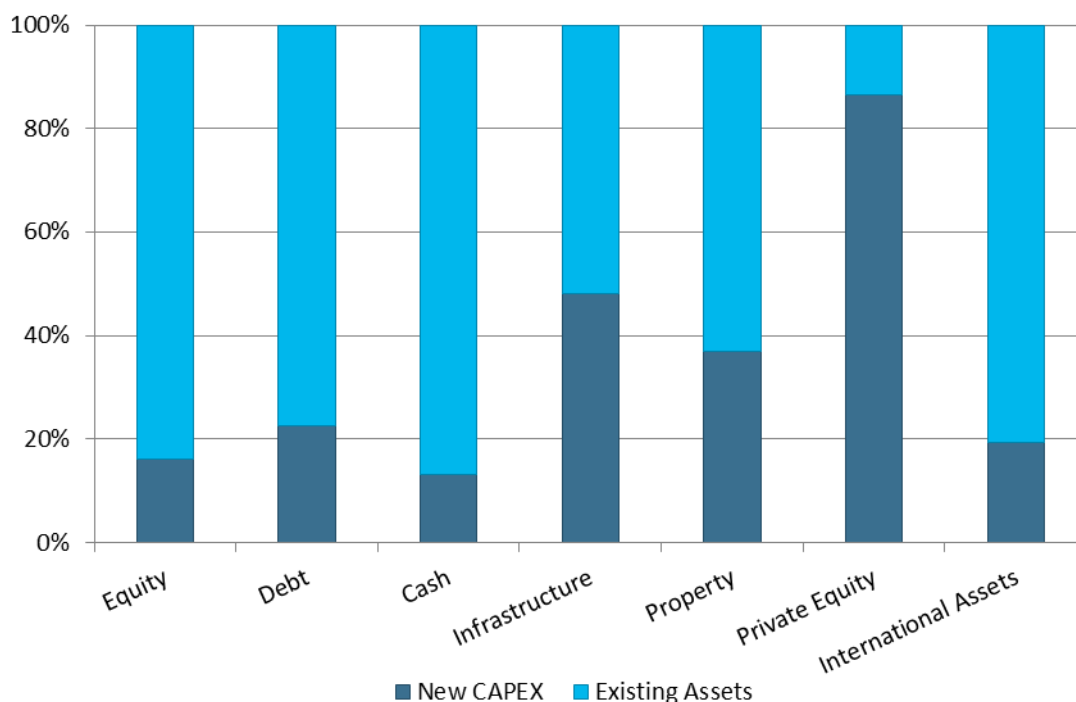
1. Purchasing existing financial assets in secondary market transactions, such as acquiring listed equity previously issued by an operating company; and
2. Purchasing new financial assets reflecting an interest in new capital, such as newly issued listed equity, the proceeds of which are received by the issuer and utilised for capital expenditure by the issuer.<sup>13</sup>

Additionally, to maintain the effectiveness of existing capital, a certain proportion of investment will take the form of 'maintenance capex' – capital injections to support expenditure on repair or modernising existing assets. A financially sustainable asset should fund maintenance capex from cash flows.

<sup>12</sup> Note that 45 per cent of issuance is at the AA level (mainly by the major banks, all rated AA), benefiting by 87 bps on average relative to A rated issues.

<sup>13</sup> In addition, in some circumstances a superannuation fund, as an investor, might have 'control' of an operating company, in which case the investor may influence the capital investment decisions of the company. For example, the investor might determine to direct net income of a controlled company into further capital investment by that company, as opposed to seeking to distribute net income to investors as a dividend.

Figure 15: Estimated ratio of new CAPEX to existing asset purchases, %, 2012



Source: ISA estimates using data from APRA, ABS and UBS, Tang (2013) and discussions with fund managers

Note: Estimated ratios apply only to APRA regulated superannuation investors.

The ratio of new and maintenance capex, relative to the purchase of existing financial assets involving no obvious capex, varies by asset class, as shown in Figure 15 (above).<sup>14</sup>

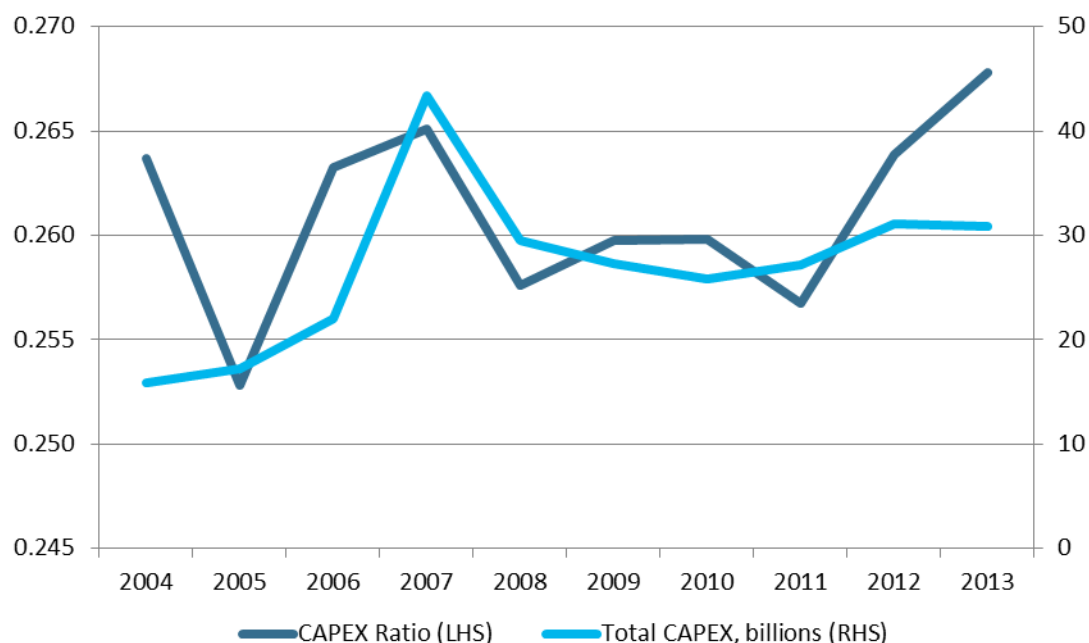
Secondary market transactions in financial assets are important for a variety of reasons, including that they support market liquidity and facilitate price formation. Liquidity and information about price, at least up to a point, also support the capacity to undertake primary market transactions. But the use of savings to expand and improve capital stock is generally of greater interest to opinion leaders because of the strong connection between capital formation, economic growth, and productivity. As observed by the Group of 30:

Growth and job creation require long-term investment in the assets that expand the productive capacity of a modern economy, such as infrastructure, factories and equipment, new housing and commercial buildings, education, and research and development (R&D). Efficiently and seamlessly matching global savings with long-term investment opportunities is a core function of the financial system.

Based on average levels of investment in new capital and expansion or improvement of existing capital, it is possible to estimate the aggregate amount of capital formation attributable to the APRA-regulated superannuation system overall, and to the compulsory Superannuation Guarantee. Figure 16 shows the estimated level of capital formation per dollar of superannuation contributions over the period 2004 to 2013 for APRA-regulated funds, and the annual levels of additional capital stock attributable to new net savings arising from compulsory super. Over the period 2003 to 2014, superannuation contributed an estimated total of \$201 billion to Australia's capital stock.

<sup>14</sup> We note that the sample data underlying the estimates in Figure 15 for some asset classes are comprised largely of industry and other not-for-profit super fund information; for purposes of this analysis we have assumed that the same asset classes held by different kinds of APRA-regulated super funds would be associated with similar levels of capital formation relative to existing asset purchases. Due to differences between retail and wholesale products, and participation in primary offerings, these estimated ratios would not apply to retail or SMSF investors.

Figure 16: CAPEX per \$ of contribution and level of CAPEX



Source: ISA estimates using data from APRA, ABS and UBS, Tang (2013) and discussions with fund managers

Whilst the capital formation arising from superannuation savings is impressive, it is important to note that these levels have been achieved during an environment of contributions growth, but counterbalanced by public policy settings, such as Choice of Fund, that have decreased the stability of savings allocations for APRA-regulated superannuation funds.

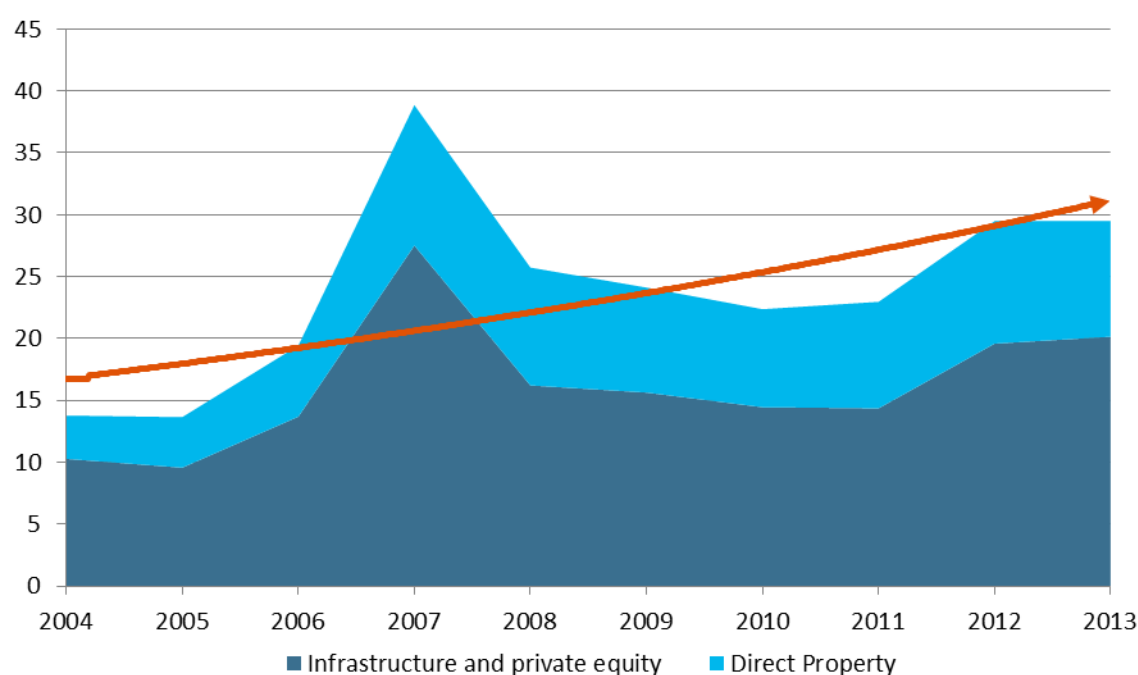
It is also important to note that greater levels of capital formation will be needed to best manage the demographic changes facing Australia. The population is ageing, meaning that the number of people working, and who are producing goods and services, will decline relative to the number of people in retirement.

To maintain the improvements in living standards to which Australians have become accustomed, the country must sustainably produce more with relatively less labour. To achieve these productivity gains will depend largely on capital formation and capital intensity: production will need to transition to a more capital intensive form on average.

## 4.2 Investing in the real economy: from nation building infrastructure to venture capital

The investments made by APRA-regulated superannuation funds are diverse and include support for critical parts of the economy, such as nation building infrastructure, private equity, and real property other than housing. Figure 17 shows the superannuation investments flowing into these areas.

Figure 17: Superannuation gross annual contributions to infrastructure, private equity and property, \$ billions



Source: APRA, ISA estimates

Note: Calculations based on APRA 'default fund' assets allocations

#### 4.2.1 Infrastructure

Infrastructure is the physical and organisational structures needed for an economy to function. It includes roads and other transport networks, energy and communication networks, water and sewerage systems, as well as the health and education systems that build and preserve human capital.

Improved infrastructure enables more effective use of the factors of production, so cost-effective investment in necessary infrastructure will boost economic output, reflected in higher levels of capital and labour productivity.

Such investment is often described as capital deepening. Capital deepening in the economy has a powerful effect on productivity and GDP growth. OECD research<sup>15</sup> suggests investment in physical infrastructure can boost long-term economic output more than other types of investment.

The Productivity Commission has estimated that in Australia's recent economic history, capital deepening accounted for 52 per cent of productivity growth in the economy.<sup>16</sup> The Productivity Commission has also estimated that infrastructure investment, coupled with market reforms to achieve best practice in energy, transport and other activities, could increase GDP by nearly two per cent.<sup>17</sup>

Unlisted assets including infrastructure (and commercial property) have delivered superior returns over the short, medium and longer term relative to other assets.

Infrastructure has a number of features which underpin its strong investment performance:

- Infrastructure assets typically have stable and predictable cash flows by virtue of their monopoly characteristics and inelastic demand curves

<sup>15</sup> OECD 2009a, *Economic Policy Reforms: Going for Growth*, Organisation for Economic Co-operation and Development

<sup>16</sup> DCITA, 2006, *Forecasting Productivity Growth 2004-2024*

<sup>17</sup> Productivity Commission, 2006, *Potential Benefits of the National Reform Agenda*, Report to the Council of Australian Governments

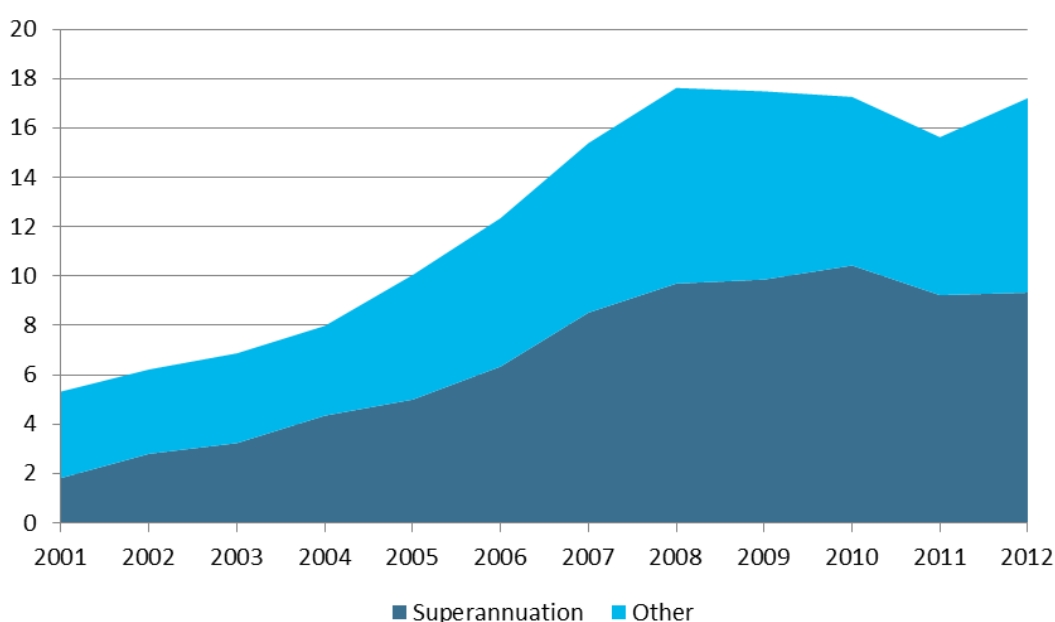
- They tend not to be highly correlated with other asset classes whose performance can be heavily influenced by financial market dynamics and investor sentiment
- Strategic ownership of the assets reduces the costs associated with financial intermediaries that would otherwise be integral to an asset being offered through a listed financial instrument
- Strategic ownership gives more control over the management and development of the asset thereby maximising its economic value

Industry SuperFunds have been pioneers in infrastructure investment. A brief summary of the history and performance of this investment is provided at Appendix A.

#### 4.2.2 Private equity and venture capital

Superannuation has also contributed significantly to private equity investment, including venture capital. As of the financial year ended 2012, superannuation funds collectively have committed over \$9.3 billion to private equity, up from \$1.8 billion in 2001. Superannuation funds are also the largest contributor of funds to private equity in Australia, accounting for over 62 per cent of domestically sourced funds, and over 54 per cent of all funds.

Figure 18: Private equity commitments, \$ billions, total outstanding



Source: ABS 5678.0 (2013)

The growth in commitments over time from superannuation has also been strong, averaging 16 per cent growth a year since 2001. The growth in superannuation's investment in private equity means its share of total funds committed has increased from 34 per cent in 2001 to current levels of 54 per cent (Figure 18, above).

Superannuation funds in private equity and venture capital are invested in a wide range of industries, helping to drive innovation, productivity growth and employment; together with prospects of rapid growth or high rates of return for members. Of the total of \$7.1 billion invested in 2012, the major industries into



which private equity investment flowed were finance and property, and health and other services, followed by manufacturing and utilities, and transport and communication.<sup>18</sup>

Although the most significant contributor of funding for private equity, including venture capital, allocations by superannuation funds to private equity (at around 1.2 per cent) remain low by international standards. The allocation varies considerably around this average, however, with many funds having a zero allocation, and those that do having an average allocation of 4 to 5 per cent. Obstacles to increased investment in private equity include liquidity constraints for defined contribution accumulation funds, and price sensitivity on the part of trustees, who recognise the relatively high fund management fees for private equity.

#### 4.2.3 Real property

Property is the broad asset class incorporating office buildings, factories, shopping centres and residential developments. Superannuation funds can either invest in these investments directly or indirectly, via listed property trusts.

Property – and the private sector’s investment in it – plays a vital role in the functioning of any modern economy. Property provides the physical premises to support the output of modern service and manufacturing based economies, as well as meeting the fundamental need for housing.

Investment in commercial property forms a significant share of the total fixed capital formation in Australia. Over the last 30 years, private sector non-dwelling investment (a proxy of property investment) accounted for 22 per cent of total capital expenditure, compared to 16 per cent for machinery and equipment. Capital expenditure includes not just the construction of new buildings, as a significant amount is devoted to repair or improvement of existing or ‘stabilised assets’. The IPD Australian CAPEX index shows that on average each year there is \$53 of CAPEX per square metre of existing office, retail, industrial and other non-residential property.<sup>19</sup>

Superannuation is a major contributor to the Australian property sector, providing long-term stable funding and directly investing in many new and existing property developments. In return, property investment has provided superannuation beneficiaries with strong medium to long-term capital growth and lower volatility than many other assets classes, particularly equity. From the standpoint of beneficiaries, the unique characteristic of property investment is that it has provided bond-like income together with equity-like capital growth.

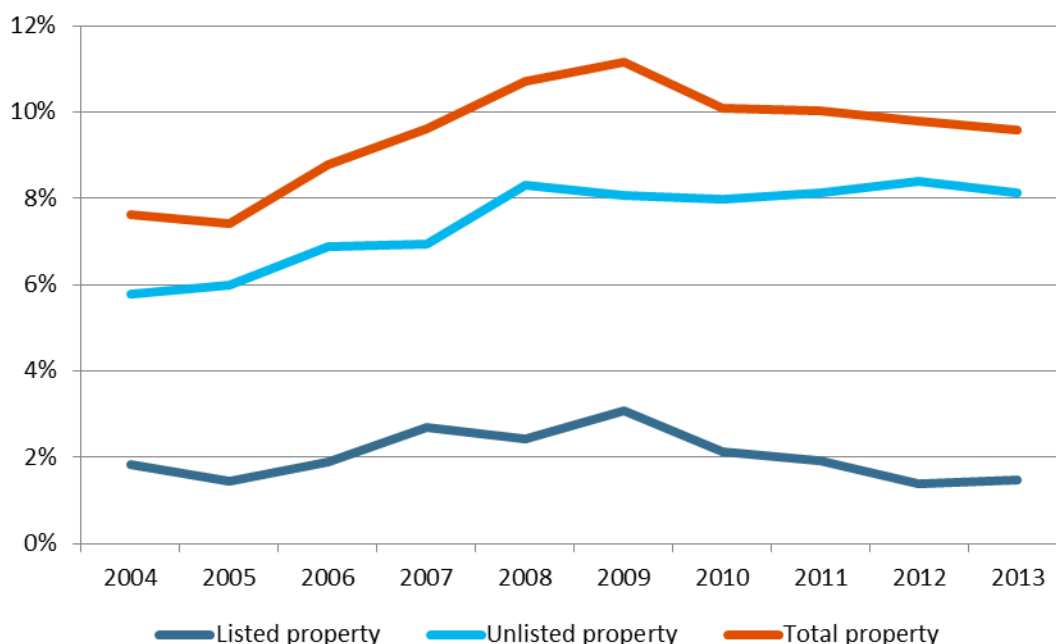
Consistent with this, unlisted property investment has grown faster than nearly all other asset classes among APRA-regulated funds. As of June 2013, APRA-regulated superannuation funds have around 9.6 per cent of their assets in commercial property, the vast majority in unlisted property. Over time, the share of assets held in property, especially unlisted property, has increased strongly (Figure 19).

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<sup>18</sup> Ibid

<sup>19</sup> IPD (Sept 2013) <http://www.ipd.com/regional/CAPEX%20snapshot%20flyer%20Q3-13.pdf>

Figure 19: Share to total assets held in property, %, APRA regulated funds



Source: APRA

Note: Estimates based on APRA 'default fund' assets allocations

Similarly, the flow of new superannuation contributions into commercial property is strong, rising from around an estimated \$4.6 billion in 2004 to over \$11 billion in 2013; an increase of just over 140 per cent. The additional contributions to the sector are split between purchases of existing assets, CAPEX on established properties and new construction activity. Superannuation's contribution to property CAPEX is estimated at around \$4 billion in 2013, up from around \$1 billion a year in 2004. The annual CAPEX expenditure directly contributes to Australia's total annual capital formation, providing a sizable injection to capital deepening and future productivity growth.

### 4.3 Superannuation and corporate governance

Superannuation is invested by trustees, who are required to operate the fund in the best interests of beneficiaries, including in investments. Recognising that superannuation savings are contributed for retirement benefits, which may not be paid for decades, superannuation trustees necessarily take a long term perspective on their investments, and must therefore assess investment risks that may unfold only over months and years, as well as those that pose an immediate and quantifiable threat to their members' savings.

This long-term fiduciary horizon of superannuation trustees is a critical counterbalance to the short-term focus and incentive systems that typically prevail in other parts of the institutional investment chain, such as stock broking, proprietary trading and many forms of commercial investment management.

In keeping with this long-term focus, Australian superannuation funds have been pioneers in investment approaches that take account of environmental, social, and corporate governance (ESG) risk factors. Of particular note has been the work of the Australian Council of Superannuation Investors (ACSI) since 2001 as an efficient and effective mechanism through which not-for-profit superannuation funds exercise shareholder ownership rights on behalf of their members, and to engage constructively with boards and management of listed Australian companies on important governance, shareholder value and long-term investment risk issues.

ACSI, which is itself a not-for-profit provider, is financed and guided by 33 Australian and five international asset owners in the not-for-profit superannuation/pension fund sector. The 33 Australian funds collectively manage over \$400 billion in superannuation assets and the members of those funds total over eight million Australian residents. The five international members are among the largest and most respected asset owners globally in terms of their approach to corporate governance.

In undertaking its responsibilities, ACSI has also collaborated closely with industry bodies representing investors outside its membership base, such as the Financial Services Council (FSC), with peer investor representative bodies such as Regnan and Hermes, and with major institutional investors outside the superannuation sector, such as public sector investment agencies and commercial investment managers. Collectively these organisations today represent a formidable 'buy-side' voice and source of thought leadership in the Australian corporate governance realm.

Some of the benefits that this industry collaboration has contributed to the transparency and integrity of Australia's capital markets over the past decade include:

- The development of authoritative guidelines (now in their sixth edition) detailing the reasonable expectations of asset owners for governance standards that should be adopted by listed investee companies, and under which sustainable long-term investment can prosper
- Creation of a productive model of engagement between Boards of major listed companies and their superannuation investors, who collectively represent a significant and growing proportion of the share register (typically in the order of 8-10 per cent in the case of ASX300 companies)
- Securing of significant policy and self-regulatory reforms in key governance areas including executive remuneration, disclosure of material non-financial risks, capital raising practices and proxy voting administrative processes
- Development of a sound evidence base on material ESG investment risks facing Australian companies and how these might be better managed, through focused empirical research (recent topical examples include the exposure of Australian corporations to significant risks in their expanding offshore operations, notably bribery and corruption and supply chain labour and human rights abuses)
- Active participation with industry peers in significant cross-sector collaborations including the ASX Corporate Governance Council, and in key international forums including the International Corporate Governance Network (ICGN) and UN-backed Principles for Responsible Investment (PRI)

Importantly, the culture of engagement that has evolved between major corporates and their superannuation investors in Australia is one of mutual respect, discretion, factual evidence base and focus on material investment risk issues. This stands in marked contrast to the more adversarial, dogmatic or litigious approaches that prevail in some other jurisdictions and which arguably serve to inhibit meaningful dialogue and change at either an individual company or broader market level.

This level of openness and sophistication in the institutional investor/corporate relationship is a key strength of the Australian corporate governance landscape and, we believe, a significant indicator of the maturity of the not-for-profit superannuation sector in this country. It is also a widely commended model in international governance circles, and one that will stand our market in good stead for the very significant fiduciary challenges of the future.

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## Appendix A. Industry SuperFunds: leading the way on infrastructure

Over the last 18 years IFM Investors (IFM's) unlisted infrastructure portfolio has delivered after tax returns averaging over 12 per cent per annum, outstripping most other asset classes. Even over the past 5 years through the unprecedented turmoil of the GFC, unlisted infrastructure returns have averaged 8.3 per cent per annum. As well as delivering stronger average returns both unlisted infrastructure and property have exhibited lower volatility than other asset classes with the exception of cash and fixed interest.

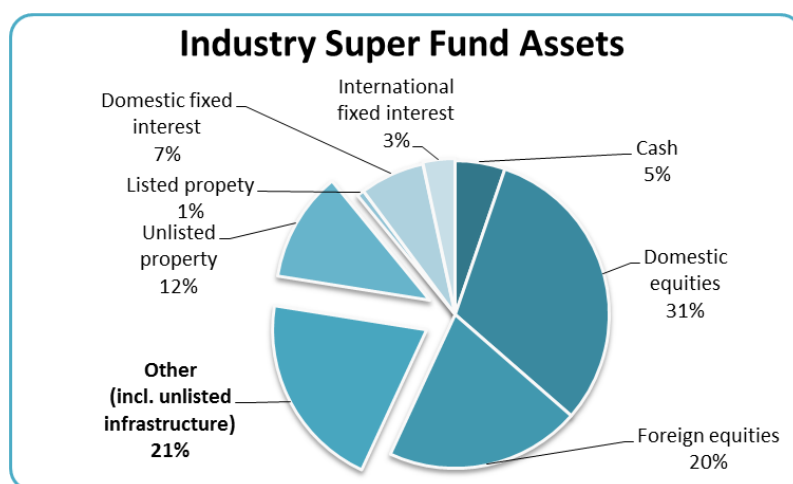
Over the past 15 years volatility of unlisted infrastructure (measured by the standard deviation of annual returns) was 6.5 per cent –one third the volatility exhibited by domestic and international equities.

Soon after the legislation of the Superannuation Guarantee, Industry SuperFunds recognised the opportunities presented by direct investment and sought to build internal capability and expertise. The OECD has recognised that these steps were at the leading edge of direct infrastructure investment by Australian funds pension funds globally.

Unlisted investment through pooled vehicles or direct ownership is often able to achieve better returns for members by eliminating the costs of intermediaries and allowing more control over the performance of assets, and the ability to take a more active role in manager compensation and investor protections.

Unlisted investments also are intended to be long-term in nature and seek to capture an illiquidity premium to compensate for the fact that they are not liquid and cannot be redeemed for cash readily.

Figure 20: Industry SuperFund asset allocation (average of default of ISF member funds)



Source: APRA 2012

On average, Industry SuperFunds allocate almost 21 percent of funds under management to alternative assets which include direct and pooled infrastructure investments and private equity (PE)<sup>20</sup>. Retail super funds allocate less than half this amount to similar assets<sup>21</sup>.

Among Industry SuperFunds a further 12 percent on average is allocated to direct (unlisted) property investment. Additionally a portion of fixed interest will have exposure to infrastructure through debt. Taken together these asset classes comfortably exceed exposure to international equities and eclipse the investment in Australian equities.

APRA has found that not-for-profit funds, such as industry super funds, have characteristics<sup>22</sup> which can sustain a relatively high level of illiquid investment due to scale, member demographics and strong cash

<sup>20</sup> Among Industry SuperFunds approximately three quarters of 'other' investments are exclusively infrastructure with most individual funds maintaining allocations between the range of 10-16%

<sup>21</sup> APRA 2012, Superannuation Fund-level Profiles and Financial Performance

<sup>22</sup> Cummings and Ellis, 2011, APRA Working Paper, Risk and Return of Illiquid Investments

flows. Importantly the structure of Industry Super Funds provides additional flexibility to take strategic investment decisions on behalf of members. Such flexibility is diminished in the retail and SMSF super fund environment because investment decisions are normally left up to individual retail level financial advisers and their clients.

If other sectors of the superannuation industry invested to the same extent as Industry SuperFunds in infrastructure, an additional \$100 billion would be available for investment.

Figure 21: IFM Australian infrastructure investments



Source: IFM Investors

Table 2: Portfolio comparison

Asset Class (Benchmark)	Industry Super Fund	Typical retail portfolio	SMSF
Cash	4.9%	14%	40%
Domestic equities (S&P ASX/300)	32.3%	30%	44%
Foreign equities (MSCI World)	22.7%	27%	1%
Unlisted infrastructure + Private Equity	17%	-	-
Listed property trust	2.6%	10%	5%
Unlisted property trust	10.1%	-	5%
Domestic fixed interest	6%	14%	5%
International fixed interest	4.5%	5%	-
<b>Average Annual Return (15yrs)</b>	<b>7.12%</b>	<b>5.94%</b>	<b>6.44%</b>
Volatility	9.3%	9.9%	8.2%

Source: ISA



## CURRENT ISSUES IN SUPERANNUATION POLICY

31 March 2014

Industry  
Super  
Australia





# 1. Governance in Superannuation

Australia has adopted a retirement savings system that has at its core compulsory and preserved contributions into regulated retirement savings vehicles. The introduction of compulsory superannuation arrangements more than 20 years ago have resulted in a mature and diversified retirement savings system. The allocation and tuning of taxation concessions within the system have resulted in significant non-compulsory contributions into superannuation funds and a distribution of assets between for-profit, not-for-profit and self-managed funds.

All of the funds, including self-managed funds are operated as trusts. Self-managed funds are regulated by the ATO and the rest of the industry by APRA which administers the provisions of the *Superannuation Industry (Supervision) Act 1993*, including the allocation of licensees to operate a superannuation fund.

## Good governance supports better retirement outcomes

In the context of superannuation, good governance is about enhancing the quality of decision-making of the trustee such that it produces superior risk-adjusted net returns to members (and otherwise supports good retirement outcomes).<sup>1</sup> Eliminating the conflicts of interest that undermine performance and undercut the ability of the fund to maximise retirement outcomes is a critical part of accomplishing this goal.<sup>2</sup> The representative trustee model utilised by industry and corporate funds is a direct response to this conflict and has produced superior retirement outcomes for members.

The principles of trust law impose an obligation on trustees to act in the best interests of beneficiaries. All decisions of the trustees should be unfettered and made in the interests of beneficiaries before all others. Funds cannot be governed by the membership as a whole and potential conflicts of interest are difficult to avoid entirely. The pertinent issue is how they are managed.

APRA has sufficient powers to ensure regulated superannuation entities apply the highest standards of governance to ensure the Board and individual directors fulfil their fiduciary and regulatory obligations. These requirements have recently been significantly enhanced as part of the Stronger Super reforms.

The governance of superannuation funds is important to delivering the retirement outcomes that the superannuation system is expected to provide. Governance principles to be applied to superannuation funds should (i) be designed to address the conflicts of interest that are likely to affect the ability of the trustee to act in the best interests of members, particularly in delivering retirement outcomes, and (ii) be based on the best available empirical information about what structures produce good outcomes for members, and what structures do not.

Given the important public policy objective of superannuation, too much is at stake for superficial approaches to governance that are based on theory and imported from the listed company context. Instead, governance requirements should rest upon clear empirical evidence.

The for-profit structure generates conflicts of interest that have adversely affected performance: retail fund boards are populated by persons who have interests aligned with the financial conglomerate that is affiliated with the fund. An APRA working paper finds that “In the case of a retail fund ... the trustee (or the corporate group to which it belongs) has the strong expectation of profiting from its superannuation

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<sup>1</sup> Fiona Stewart and Juan Yermo, Op Cit

<sup>2</sup> Recent revelations regarding the investment by trustees of superannuation cash deposits in lower earning but related bank entities by retail funds are a practical example of the conflict where bank profits are put before the interests of beneficiaries. Sydney Morning Herald, *Superannuation: Banks eating into savings*, Michael West, 20 December 2013 Page 1 Accessed 13 January 2014

business. That retail trustees must reconcile their (group's) profit motives with their fiduciary duty to act in the members' best interest gives rise to agency risk."<sup>3</sup>

In 2008 APRA published the results of a governance survey it undertook. The survey found that the practice of trustees in the retail sector was significantly different from those of trustees in other sectors in that retail trustee boards acted more like the boards of shareholder-owned corporations, relied more upon fund executives to drive decision making, were paid more, unlikely to be a member of the fund, more than half were employed by related parties or the fund itself and more likely to outsource to related parties or entities.

Further survey work by Wilson Sy on behalf of APRA in 2008 found that retail directors are more often placed in situations of conflict of interest with service providers and funds often having a common parent company.<sup>4</sup>

In his more expansive work for the Journal of Pension Management Mr Sy concluded:

"Unlike non-retail trustees who negotiate the best possible terms for investment management services for their funds, retail trustees with investment managers as executive directors on their Boards have impaired incentives to negotiate the best terms for investment management services."<sup>5</sup>

The for-profit structure generates conflicts of interest that have adversely affected performance: retail fund boards are populated by persons who have interests aligned with the financial conglomerate that is affiliated with the fund. An APRA working paper finds that "In the case of a retail fund ... the trustee (or the corporate group to which it belongs) has the strong expectation of profiting from its superannuation business. That retail trustees must reconcile their (group's) profit motives with their fiduciary duty to act in the members' best interest gives rise to agency risk."<sup>6</sup>

### **Representative trustee funds outperform**

The equal representation model adopted by not-for-profit funds has been a key reason why the returns to beneficiaries of such funds have exceeded those of retail funds.

ISA's work (based on APRA data) has shown that over the 17-year period to 30 June 2013, the rate of return to investors in retail superannuation funds lagged those of the not-for-profit funds, on average by 2 per cent per annum. Retail funds returned an average of 4.11 per cent per annum, just above the average rate of return for cash over this period of 3.93 per cent per annum.<sup>7</sup>

The APRA data also shows that retail funds do not pass on the benefits of scale to their members and that profit orientation is the prime determinant of returns. In short, it seems that the major financial institutions are resolving the conflict between their duties to members, on the one hand, and their duties to shareholders, on the other hand, by trading off member returns for shareholder distributed profit.

The overwhelming evidence is that funds operating under a representative trustee model provide better returns to members. APRA's fund-level rate of return data shows that over a 10-year period, 96 per cent of the top performing 50 funds are from the not-for-profit sector. At the other end of the scale, the majority of the lowest performing 50 funds were for-profit (80 per cent).<sup>8</sup>

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<sup>3</sup> Kevin Liu and Bruce R Arnold, *Australian Superannuation Outsourcing – Fees, Related Parties and Concentrated Markets*, APRA Working Paper, 12 July 2010, Page 6

<sup>4</sup> APRA Working Paper, Wilson Sy, August 2008; *Superannuation fund governance: An Interpretation* Pages 8-9

<sup>5</sup> Wilson Sy, *Pension Governance in Australia: An Anatomy and an Interpretation*, International Journal of Pension Management, Fall 2008, Page 36

<sup>6</sup> Kevin Liu and Bruce R Arnold, *Australian Superannuation Outsourcing – Fees, Related Parties and Concentrated Markets*, APRA Working Paper, 12 July 2010, Page 6.

<sup>7</sup> APRA (2014) *APRA Annual Statistics*; ABS (2013); ISA Analysis (2014). Returns are calculated as the geometric average.

<sup>8</sup> Analysis excludes ERFs

APRA has found that the characteristics of not-for-profit representative trustee funds allow for a higher level of illiquid asset allocation,<sup>9</sup> enabling them to take advantage of scale and negotiating power when making investment decisions. Industry SuperFunds<sup>10</sup> allocate almost 21 per cent<sup>11</sup> of funds under management to alternative assets which include direct and pooled infrastructure investments and private equity.<sup>12</sup> Non-representative super funds allocate less than one quarter of this amount at the whole of fund level to similar assets.<sup>13</sup>

As retail funds typically operate as platforms that allow members hundreds of choices through highly intermediated structures, this limits the opportunities for trustees to take a consolidated approach to investing,<sup>14</sup> resulting in transaction costs for members.

### ISA proposes change

Notwithstanding the outperformance of the representative trustee system ISA has proposed governance change that will place a positive obligation on boards to consider their composition with a view to adopting a governance structure that includes an enhanced role for independents<sup>15</sup>, including an independent chair and a board composition of up to one third independent directors. Where a board considers it would be best served by a board composition that differs from a one third independent director and independent chair arrangement, the reasoning and consideration process adopted would be transparent and available to APRA. There appears to be no empirical evidence that a majority of independent directors add value to a board and shareholders.<sup>16</sup>

This change would retain the benefits of the representative trustee system whilst introducing further dynamics to superannuation boards which could add value. The adoption of an arrangement that would require or encourage a majority of independent directors is not supported as it would, in our view, ultimately have a negative impact on fund members as it would remove the driver of outperformance in the industry.

## 2. Workplace Superannuation arrangements

Superannuation is not simply another financial product; it is a critically important component of Australia's unique retirement system. As a public policy, supported by a special legal regime, regulatory oversight and tax concessions, the social and economic objectives of superannuation must always remain prioritised above individual and private interests. At the top of any list of objectives for superannuation, must be that the system, to the greatest extent possible, results in broadly experienced improvement to retirement outcomes.

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<sup>9</sup> Cummings & Ellis (2011) *Risk and Return of Illiquid Investments* page 19-20 APRA Working Paper

<sup>10</sup> Participating funds: AustralianSuper, CBUS, HESTA, HOSTPLUS, MTAA Super, CareSuper, LUCRF Super, Media Super, NGS Super, TWUSUPER, AustSafe Super, Energy Super, First Super, legalsuper, REI Super

<sup>11</sup> APRA (2012) *Superannuation Fund-level Profiles and Financial Performance*

<sup>12</sup> Among Industry SuperFunds approximately three quarters of 'other' investments are exclusively infrastructure with most individual funds maintaining allocations between the range of 10-16 per cent.

<sup>13</sup> Cummings and Ellis (2011) *Risk and Return of Illiquid Investments* APRA Working Paper

<sup>14</sup> Cummings (2012) *Effect of fund size on the performance of Australian superannuation funds* page 24-25 APRA Working Paper

<sup>15</sup> ISA has proposed the adoption of the definition of independent director found in the ASX Corporate Governance Guidelines with amendments to reflect the trust system that superannuation funds operate in.

<sup>16</sup> See: Lawrence, Jeffrey, and Stapledon, Geof, *Do Independent Directors Add Value?*, Centre for Corporate Law and Securities Regulation Faculty of Law The University of Melbourne 1999 Page vii; Tung, Frederick, *The Puzzle of Independent Directors: New Learning*, Boston University Law Review, Vol. 91, No. 3, pages 1175-1190, May 2011; Boston Univ. School of Law, Public Law Research Paper No. 11-33; Boston Univ. School of Law, Law and Economics Research Paper No. 11-33. Available at SSRN: <http://ssrn.com/abstract=1882903>; *Does Board Independence Improve Firm Performance?* Outcome of a Quasi-Natural Experiment Fischer Marc-Oliver and Swan Peter L, Australian School of Business, University of NSW 18 November 2013 Page 43

Australian employers are required to make compulsory superannuation contributions, (currently at 9 per cent of ordinary time earnings and scheduled to increase to 12 per cent over the next six years), on behalf of their eligible employees. Whilst most employees have the option of choosing which fund these monies are paid to, most fail to exercise this choice. This is a clear indication of the imperfect competition in the superannuation market and strong default fund arrangements are required to protect the interests of the majority of employees who do not exercise choice.

Employer default superannuation arrangements are found in Modern Awards or Workplace Agreements. Workplace superannuation is a product of the industrial relations environment and has the character of deferred wages.

The system for the selection of default funds should be transparent and competitive and ensure that the only most appropriate funds with better than average long-term net returns should be named in modern awards. The representative trustee not-for-profit default funds currently found in modern awards have significantly outperformed those not named and any system change which results in the naming of inappropriate and under-performing funds will be a public policy failure which will harm beneficiaries and impose additional cost on the public taxpayer.

### **Default funds in awards outperform**

The current process for the selection of default funds is in the process of changing to be a more open and transparent one that applies a quality filter of criterion found in s156F of the *Fair Work Act 2009* with the aim of ensuring employers have a choice of high quality default funds to choose from when selecting a default superannuation fund for their employees who have failed to exercise choice.

Central to this criterion is the net returns paid into the accounts of members. An indication of the success of the existing default fund selection arrangements is the fact that those funds named in modern awards have over 1, 3, 5, 7 and 10 years a short and long-term outperformed those not named in modern awards.<sup>17</sup> This result is not surprising as the majority of the funds named in modern awards are industry not-for-profit representative trustee funds which have historically outperformed retail for-profit funds.

While the superannuation industry acknowledges that past performance is not necessarily an indicator of future performance, following APRA's recent data release, Chant West director Warren Chant commented: "There's no question that the industry funds have historically been better performers. And we don't see that really changing... If anything, the difference in performance will probably widen a bit because the retail funds have introduced quite a bit of indexing to get to their [new] price points."<sup>18</sup>

Some industry representatives have downplayed the importance of fund performance in the selection considerations applying to default funds. The taxpayer- funded compulsory superannuation system is an integral part of Australia's retirement system. Its success is properly measured by the long-term retirement income provided to beneficiaries and the cost borne by all Australians when the system fails to maximise returns to beneficiaries.

A small difference in the fees paid to a MySuper default fund could mean tens of thousands of dollars less in retirement. It is improper and poor public policy to downplay the importance of net returns delivered to members.

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<sup>17</sup> APRA (2014) Annual Superannuation Bulletin ; APRA (2007) 10 Years of Superannuation Data Collection 1996-2006, Insight Volume Two; SuperRatings fund reported returns to June 2013

<sup>18</sup> Retail/industry performance gap set to widen – InvestorDaily23/01/2013 , <http://www.investordaily.com.au/34889-retail-industry-performance-gap-set-to-widen>

## Employers seek to rely on system to select default funds

Work undertaken on behalf of the ATO showed<sup>19</sup> that the vast majority of employers are satisfied with the existing default fund arrangements and that allowing an employer to choose any MySuper default fund will not add to competition in the industry or reduce costs to employers and employees. The clear evidence is that with few exceptions, employers, particularly employers who rely upon modern awards, do not have a high engagement with issues relating to the superannuation of their employees. Where employers do consider choice of default fund the determinative considerations relate to those which impact the employer directly, such as cost to the employer and ease of interface with the product provider and in a small number of cases incentive received by the employer. Employers do not see superannuation as a priority for their business. Superannuation is considered by many employers, especially those with limited human resource and payroll resources, to be an inconvenience.

In 2010 the ATO released the results of the largest quantitative and qualitative survey of the attitudes of employers to superannuation released to date. The quantitative<sup>20</sup> and qualitative<sup>21</sup> research undertaken by Colmar Brunton Social Research on behalf of the ATO was released in early 2010.

The qualitative survey of over 1000 employers reflects the above perspective, with employers declaring they didn't have the skills, resources or time to make key decisions relating to superannuation on behalf of their employees.

The Colmar Brunton qualitative survey found that the majority of employers were adamant that it is not their role to provide superannuation advice or assistance to employees and that some employers were reluctant to even provide information regarding the company's default fund<sup>22</sup> as they considered this financial advice that could leave them susceptible to litigation. These survey results are supported by statements from employer organisations such as the Council of Small Business Australia (COSBOA) which is adamant that the selection of default superannuation funds is not a role employers have the skills or resources to undertake.

It has been estimated that if the responsibility for the selection of default funds was placed solely upon employers, the annual search costs for Australian employers would exceed \$160 million.<sup>23</sup>

These findings and views support the need for Fair Work Commission, as an independent third party, to ensure employers have a manageable and high quality list of default funds from which they can select.

## Productivity Commission review into default fund selection process

In 2012 the Productivity Commission undertook a review into the process by which default funds are named in modern awards.

At recommendation 8.4 of the Productivity Commission's final report released in October 2012, the Commission suggested an Expert Panel be established within the Fair Work Commission to identify 'a small subset of those listed products judged as best meeting the interests of the relevant employees'. The relevant part of the recommendation reads:

"In addition, it is highly desirable that, where possible, the panel identify in each modern award a small subset of those products found suitable for listing that it judges best meet the interests of employees who derive their default superannuation product in accordance with that modern

<sup>19</sup> Colmar Brunton Social Research prepared for Australian Taxation Office. *Investigating Superannuation: Quantative Investigation with Employers*, 20 January 2010

<sup>20</sup> Colmar Brunton Social Research Ibid

<sup>21</sup> Colmar Brunton Social Research prepared for Australian Taxation Office. *Understanding Superannuation: Preliminary Report: Qualitative Investigation with Employers, Consumers and Industry*, 25 March 2010.

<sup>22</sup> Colmar Brunton qualitative survey page 20

<sup>23</sup> In members' interests: ISA submission to government discussion paper 12 February 2014

award. Identifying a small subset of products will assist employer choice and encourage competition.”<sup>24</sup>

The Commission in its final report did not support the proposition that an employer should be provided with the discretion to choose a default fund from the list of any authorised MySuper products (currently approximately 120).

“The Commission does not support this discretion provision. The Commission was unable to design an appropriate test that would not place an undue burden on employers, while at the same time safeguarding the best interests of employees who derive the default superannuation product in accordance with modern awards.”<sup>25</sup>

Employer submissions to the Productivity Commission were in overwhelming support of this position and support the process being undertaken by the Fair Work Commission.

### 3. The Future of Financial Advice (FoFA) reforms

#### A need for reform

Over the past decade, Australia has seen a series of financial advice scandals in which investors have suffered significant losses. At the centre of these scandals was conflicted remuneration where commissions and other incentives encouraged planners to recommend certain products coupled with the lack of a legal requirement for financial planners to act in their client’s best interests<sup>26</sup>. This sales-driven culture, created an environment where these numerous and large-scale financial scandals were possible and called for swift reforms in order to protect the system. Furthermore, the direct and indirect costs of commission driven advice impacts on individual and aggregate retirement savings, the cost of which is ultimately borne by future generations in higher age pension outlays.

#### Background on FoFA

After several years of consultation the Future of Financial Advice (FoFA) reforms were introduced in two main Bills in 2011<sup>27</sup> premised on two key pillars: the banning of the receipt of conflicted forms of payment for financial advice and the imposition of a requirement for financial advisers to act in the best interests of their clients.

Notably, the legislation:

- Introduced a best interests duty requiring that financial advice be in the best interests of the client
- Prohibited sales commissions and other forms of conflicted remuneration for new clients
- Required advisers to seek biennial client approval to charge ongoing fees (the ‘opt-in’ requirement)
- Prohibited sales commissions on life insurance inside super

These laws were the subject of significant compromise with industry in order to pass the last hung Parliament and came into effect on 1 July 2012, with compliance not required until 1 July 2013.

ISA (then ISN) were strong advocates for these reforms and the positive impact they would have on the affordability and provision of financial advice, as well as the future level of superannuation and other

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<sup>24</sup> Productivity Commission Final Report Page 25

<sup>25</sup> Ibid, Box 3, Page 3.

<sup>26</sup> Parliamentary Joint Committee on Corporations and Financial Services (2009) *Inquiry into financial products and services in Australia*, Nov 2009

<sup>27</sup> *Corporations Amendment (Future of Financial Advice) Bill 2012; Corporations Amendment (Further Future of Financial Advice Measures) Bill 2012*

savings. Uncontested research by Rice Warner Actuaries undertaken in 2013 found that the FoFA laws would:

- Boost Australians' private savings under advice by \$144 billion by 2027
- Reduce the average cost of financial advice from \$2,046 before the reforms to \$1,163 after the reforms by 2026/27 (in 2012 dollars).
- Double the provision of financial advice to Australians – by 2026 there will be 1.88 million pieces of advice provided compared to 893,000 pieces under a no reform scenario.

### **Windback of FoFA**

During the last election campaign, the Coalition committed to wind back key aspects of the FOFA reforms. Following their election, the Government announced a package of reforms<sup>28</sup> which would, if implemented in full, undo key elements of the Future of Financial Advice (FOFA) reforms. These include:

- Diluting the best interests obligation
- Allowing the scope of advice to be “agreed” with a client thus relieving the adviser with responsibility for ensuring the advice is in the client’s best interests
- Creating a number of exemptions to the ban on conflicted remuneration
- Removing the opt-in requirement, and allow ongoing indefinite fees to be deducted even where no ongoing advice is provided
- Removing the requirement to provide an annual fee disclosure statement to clients in ongoing fee arrangements prior to July 2013

Despite much opposition, the bill to implement these changes was introduced into Parliament on March 19 2014. A proposal to implement these measures ahead of parliamentary scrutiny by making regulations was not preceded with due to community concerns with the reforms.

Industry Super Australia has welcomed the announcement and will engage constructively with the Government and industry to contribute to charting a new way forward.

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<sup>28</sup> *Corporations Amendment (Streamlining of Future of Financial Advice) Bill 2014* (“the Bill”) and the Exposure Draft of the *Corporations Amendment (Streamlining of Future of Financial Advice) Regulation 2014* (“the Draft Regulation”) and their accompanying Explanatory Memorandum and Explanatory Statement



The following table provides a short summary of ISA's key concerns to the windback of FoFA, and their cost to consumers and the structure of the super system.

Commissions	Cost to Consumers	Impact on the super system
The original FoFA legislation included a number of very significant exemptions and concessions to various parts of the industry. The current proposal includes lifting the ban on commissions in general advice, allowing product suppliers to pay commissions to advisers for sales of super products, allowing commissions and other conflicted payments if the client consents, and extending exemptions to allow commission based bonuses to be paid by banks	<p>Conflicted forms of remuneration :</p> <ul style="list-style-type: none"> <li>- Cause a conflict of interest because the adviser is paid by the product provider not the client, and so will only be paid for recommending a certain product and receives payment only after a recommendation is implemented</li> <li>- Are often combined with other conflicted remuneration structures such as shelf fees and volume rebates</li> <li>- Are anti-competitive in the sense that products with higher commissions are favoured; good products which do not pay a commission will seldom be recommended even if they are superior</li> <li>- Are economically inefficient in the sense that they are not tied to the provision of a quantity of advice – commissions are paid irrespective of ongoing provision of advice services</li> </ul>	<p>Since 1996, conflicted remuneration has contributed to around \$97 billion in national savings being foregone due to planners recommending poorly performing products<sup>29</sup>.</p> <p>The compulsory, long-term, and government-supported nature of superannuation savings gives rise to public policy concerns with permitting conflicted remuneration to be paid on superannuation products. The availability of such incentives will undermine merit based product selection. They may distort advice leading to a narrowing of products which an adviser is prepared to recommend. This will impair competition in the system and could lead to sub-optimal product recommendations to retail investors who would bear the cost through lower investment returns and potentially inappropriate exposure to risk</p>

<sup>29</sup> Industry Super Australia analysis based upon APRA data



Best Interests Duty	Cost to Consumers	Impact on the super system
The best interest duty is crucial to ensuring that consumers can expect impartial, trustworthy and quality advice. It provides statutory protection for consumers that financial advice is in their best interest. The newly proposed changes to the duty, dilute it so that it would be possible to meet the test without acting or even considering the client's best interests.	The proposed changes to the best interests duty will enable an adviser to meet the legislative duty without having to consider or act in the client's best interests. Research has repeatedly found that a majority of consumers don't trust financial advisers and don't believe that advisers act in clients' best interests <sup>30</sup> . In fact, a 2010 survey found that 'one of the main reasons for not seeking advice is the lack of trust they (consumers) have in financial planners <sup>31</sup> .'	The best interest duty is the cornerstone of a professional advice system. A professional advice industry that meets consumer needs as would be delivered under FoFA will boost Australians' private savings under advice by \$144 billion by 2027. The dilution of the duty could increase the risk of financial advice scandal with accompanying losses. In aggregate, these collapses resulted in total losses over \$6 billion and affected over 120,000 Australians.

Opt in	Cost to consumers	Impact on the super system
The opt-in measure requires that a planner charging an ongoing fee asks their client at least once every two years if they can continue to deduct the fee. The opt-in is already a compromise measure, necessary only because FoFA allowed ongoing percentage-based fees to continue.	Analysis of Roy Morgan research and APRA data suggests around two million super fund members were paying ongoing fees for financial advice but not receiving any financial advice at all. <sup>32</sup> Ongoing fees can be particularly erosive in superannuation and can reduce the average Australian's retirement savings by around \$46,000 over their working life. <sup>33</sup>	Opt in is critical to ensuring that charging for financial advice shifts to a more professional and economically efficient basis, and one in which there is a mechanism to ensure fees are not charged unless ongoing advice is being provided. Advice paid for by ongoing fees or commissions is estimated to cost up to 17 times more than advice paid for on an up-front basis.

### Protecting the system

Superannuation is a compulsory long-term investment. Its sole purpose is to provide benefits to people in retirement. The regulation of super must ensure that both private savings and public contributions are protected through appropriately stringent regulation. Regulation must address the systemic conflicts of interest, remove commissions and other incentives which erode individual and national savings and minimise future instances of financial collapse.

<sup>30</sup> State Street and Center for Applied Research, *The Influential Investor: How investor behavior is redefining performance*, Nov 2012, p 20, quoted in ASIC (2012) *Future of Financial Advice: Best interests duty and related obligations*, Dec 2012, p 5

<sup>31</sup> Australian Securities and Investment Commission (2010) *REPORT 224 Access to financial advice in Australia*, Australia Government, Dec 2010, p 60

<sup>32</sup> Roy Morgan (2011) *Retirement Planning Report*, June 2011 and ISA estimate

<sup>33</sup> Using ASIC Moneysmart superannuation calculator (Inputs: AWOTE, .5%, 40 year time span, starting balance \$10k)

Member inertia and disengagement are well-documented market failures in the structure of the superannuation system. The majority of consumers are passive and disengaged from their superannuation, which is typically the only investable asset they hold. While the average retirement balance for Australian workers is still reasonably modest, balances will increase as our superannuation system approaches maturity.

ISA believes that there should be no place for superannuation products to be sold or recommended based on the availability of commissions or other forms of financial incentive and that only merit based selection should be permitted, in relation both to financial products advice provided to individuals or in relation to default fund settings.

## Appendix: Australia as a financial centre

The Rudd Government organised the Australian Financial Centre Forum to examine policy settings which would “capitalise on Australia's competitive advantages in the financial sector and exploit opportunities in the region to increase cross-border trade and investment in financial services.” The Forum issued its major report in 2009 (typically referred to as the *Johnson Report*). The objective of the Johnson Report was to outline steps that could improve the ability of Australia to become a financial services centre.

We agree with the Johnson Report’s dismissal of calls for Australia to become a financial centre by competing in a race to the bottom on regulation and tax concessions:

Some offshore financial centres have been largely built on providing ... concessions to international financial services companies to entice them to establish their regional headquarters in that country. A number of parties have suggested that approach to the Forum as the best model for Australia. In the Forum’s view, such an approach is neither desirable nor sustainable. As the financial crisis has demonstrated, the most important characteristic of a leading financial centre is that it is stable and well regulated, and that at its core is the provision of a wide range of financing and investment products for domestic consumers, businesses and governments as efficiently and competitively as possible. The assessment of this Report is that, for the most part, Australia already has such a base.

We also agree with the Johnson Report’s view on what will attract foreign investors to place their funds under the management of Australian financial firms:

[O]ne feature which most frequently comes at or near the top of the list in terms of importance [in attracting offshore financial capital] is [domestic] human capital.

However, the *Johnson Report* was an outgrowth of its mission statement: it was to position Australia as a leading financial services centre.

In addition, the *Johnson Report* was informed by older research from 2005 and before finding a strong relationship between finance sector growth and economic growth.<sup>1</sup> At the time of the *Johnson Report*, questions about the economic efficiency of finance were only at the “more philosophical level.”<sup>2</sup> A wave of more recent research is indicating that this relationship only holds up to a certain point: financial sectors that become too large relative to the overall size of the economy seem to become a drag on growth (see Section 4 of the main Submission).

The *Johnson Report* reflects the difficulty of crafting public policy in respect of finance during a paradigm shift, particularly when the centre of gravity of the debate is geographically remote from Australia and influenced by the severity of a country’s experience in the GFC.

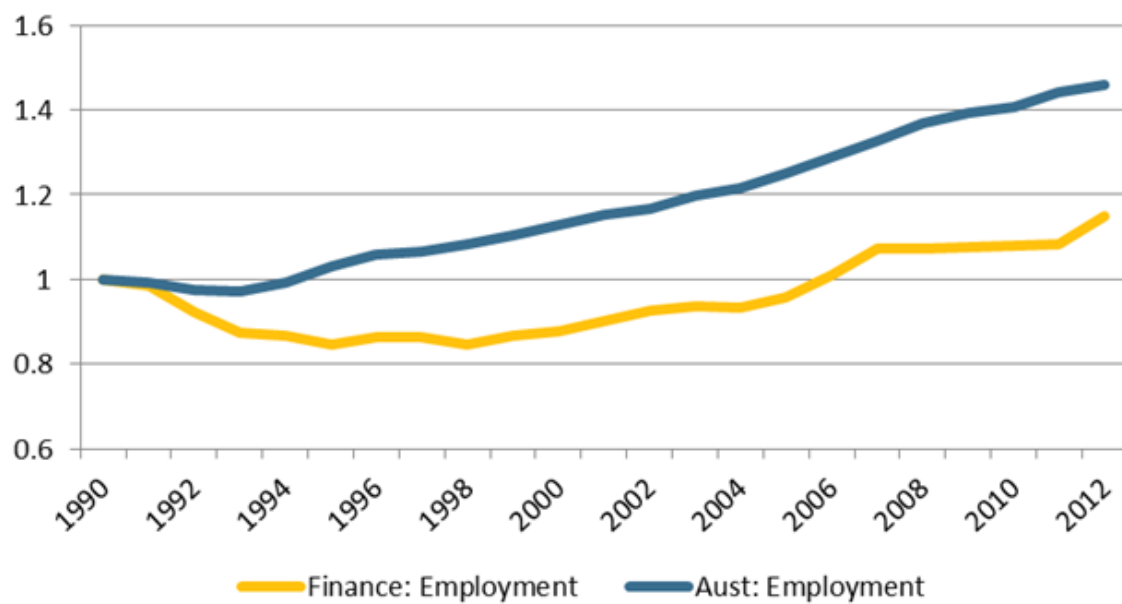
In addition, the *Johnson Report*’s view that growth in finance would support job creation in Australia is open to doubt. ISA’s report on finance and capital formation in Australia shows that although finance has experienced tremendous growth for the past three decades, employment growth in the sector has been anemic, and lagged average employment growth across Australian industries, as shown in Figure 1. There may be sectors that would drive greater job creation.

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<sup>1</sup> The Johnson Report references Levine R., ‘Finance and Growth: Theory and Evidence’ in Handbook of Economic Growth, ed P Aghion and S Durlauf, 2005.

<sup>2</sup> Johnson Report at 8.

Figure 1 –Employment growth, index, 1990=1



Source: National Accounts, ABS 5204.0

There is no doubt the jurisdictions like China are mindful of the myriad findings which suggest that large financial sectors are a drag on growth after a certain point. It may affect how China undertakes financial liberalisation,<sup>3</sup> and these jurisdictions may shift industrial policy to avoid the finance sector growth paths characteristic of recent history in the Anglosphere countries. Australia's finance sector may need to reorient its significant human capital to satisfy the demand for finance focused on fundamental long term investment in capital.

<sup>3</sup> Cf., Government of China, Third Plenum of the Central Committee of the Communist Party (November 2013).

## Appendix: Innovation funding agencies and development banks

### Background

Investment in research, development and innovation (RDI) can boost Australia's productivity and the wellbeing of its people.<sup>1</sup> This objective is shared with many advanced economies.

Australia's investment in RDI can be improved. Australia's input into RDI (public expenditure on RDI and spending on tertiary education, both relative to GDP) falls well behind many European nations. More significantly, the economic impact of RDI in Australia, measured as multifactor productivity, has grown only 0.9% per year from 1985 – 2010, well below the OECD average of 1.24%.<sup>2</sup> There is also evidence that current government support for RDI investment is less effective than it could be.<sup>3</sup>

Across the globe, government owned or mandated financial institutions, including banks, funds and agencies have become common public policy instruments for boosting investment in RDI. Many of these institutions have developed a specific focus on venture capital, start-ups and other small and medium enterprises (SMEs).

Although the roles of these institutions vary across time and jurisdiction, they broadly address deficiencies in the investment needs of a nation or region. Such deficiencies can be due to market failure – for example investment in basic research and development for which the level of private investment is lower than that which is socially optimal, or due to systemic failure arising from path dependencies – for example following a war or financial crisis or structural shifts in an economy.

A recent review of State Financial Institutions (SFIs) undertaken by the World Bank has found that these institutions have re-emerged in many developed economies after the GFC and are successfully allocating funding (especially credit) to sectors cyclically not attractive for commercial banks.<sup>4</sup> In recognising that the “financial crisis has impaired banks' ability to lend at long maturities, as they need to deleverage, correcting the excesses of the past”, the European Commission has also recommend SFIs to promote long-term investment. According to the European Commission's 2013 *Green Paper on the long-term financing of the European economy*:

“Development banks active both internationally and nationally should play a role in helping to catalyse long-term financing and enhance the efficiency and effectiveness of financial markets and instruments. Despite the positive net contributions of certain investments to economic welfare, market failures can prevent investors from taking certain risks and/or making certain investment decisions. In these instances, national and multilateral development banks can be useful in stimulating private financing given their specific public policy objectives related to broader economic, social and environmental (as opposed to purely financial) value added.”<sup>5</sup>

In addressing market and systemic failures, SFIs facilitate financing and provide technical assistance through grants and loans, leasing, brokerage services, securitisation and restructuring,

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<sup>1</sup> Department of Industry, Innovation, Science, Research and Tertiary Education 2012 National Research Investment Plan, Commonwealth of Australia 2012

<sup>2</sup> John Daley, Julian Reichl and Leah Ginnivan, Australian government spending on innovation, Grattan Institute, Melbourne, March 2013

<sup>3</sup> Ibid. p 13-18

<sup>4</sup> Heinz P. Rudolph, State Financial Institutions: Mandates, Governance, and Beyond, Policy Research Working Paper 5141, Financial Systems Department, The World Bank, November 2009

<sup>5</sup> European Commission, *Green Paper Long-Term Financing of the European Economy*, Brussels, March 2013, p 7

entrepreneurial development and advisory and consultancy services. These institutions can be funded through public expenditure, capital markets, or a combination of both. Institutions which are exclusively publically funded are often referred to as agencies or public funds as they do not intermediate savers and investors, and therefore are not strictly finance companies or banks.

The mandates for agencies and public funds should be clearly defined such that public funding complements rather than replaces private funds, generating 'input additionality'. Mandates may also steer innovation in particular ways, generating 'behavioural additionality'.

In concrete terms, input additionality can be achieved through funding early state venture capital which incorporates the research and screening of projects. This can significantly reduce the risk profiles of RDI investment for other private investors. Behavioural additionality on the other hand can include developing a skill base and talent pool around particular forms of investing.

A review of the Finnish innovation funding agency, Tekes (Finnish Funding Agency for Technology and Innovation) has found that the agency approach has been very effective. The review concludes that the findings from a suite of separate evaluations of the agency:

“clearly indicate that public R&D funding has improved firms’ R&D practices and strategies and helped them become more competitive. It has also improved capabilities of their human capital and the quality of their R&D, and facilitated expansion of their co-operation networks. These types of changes bring benefits not just to the firm but the economy as a whole and the well-being of the country’s citizens. Both econometric results and survey response imply that firms have increased their own R&D financing after acquiring public R&D funding.”<sup>6</sup>

Sovereign wealth funds may or may not be mandated to address specific deficiencies in investment or public policy objectives and therefore do not necessarily embody the type of institution under consideration here (although they can impact economic development more broadly).

The World Bank review of four successful SFIs – Canada’s Business Development Bank (BDC), Chile’s BancoEstado, South Africa’s Development Bank of Southern Africa (DBSA), and Finland’s Finnvera, highlights four crucial features of SFIs design and operation. These are clear mandates, corporate strategies and objectives, the importance of self-financing as a means of not distorting the finance sector, high quality governance and a structure of clear ownership.

Table 1 provides a summary of a number of national and international development banks in relation to these key features: mandates, funding and related government support, governance and ownership.

As can be seen from Table 1, mandates can be narrow (e.g. BDC) or broad (e.g., BancoEstado), funding can be explicitly government guaranteed or not and the bank can actively cross-subsidise its operation in alignment with its mandated priorities. The Governance varies from independent with an appointment structure akin to the RBA (e.g., DBS), to directly politically appointed or constituted (e.g., BancoEstado and Finnvera) and can also include industry and private bank officers (e.g., KfW). Ownership can be singular under one Ministry or Treasury or across multiple sovereigns (e.g., KfW is owned by the 16 German States as well as the German Republic and the EIB is owned by all EU member states).

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<sup>6</sup> Jari Hyvärinen, 'Behavioural Additionality of Public R&D Funding in Finland', Chapter 6 in Organisation for Economic Co-operation and Development, *Government R&D Funding and Company Behaviour: measuring behavioural additionality*, 2006, p 126

Table 1 – Ownership, Governance and Funding of Major Development Banks

	Mandates	Funding	Governance	Ownership
<b>BDC (Canada)</b>	<ul style="list-style-type: none"> <li>• Entrepreneurs with SME emphasis</li> </ul>	<ul style="list-style-type: none"> <li>• Bonds are guaranteed</li> </ul>	<ul style="list-style-type: none"> <li>• Board of Directors</li> <li>• Fit and Proper Test</li> <li>• Government appoints from shortlist</li> </ul>	<ul style="list-style-type: none"> <li>• Minister of Industry of Canada (Industry Canada)</li> </ul>
<b>DBSA (South Africa)</b>	<ul style="list-style-type: none"> <li>• Municipal Infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>• Some bonds guaranteed</li> <li>• Deliberate cross subsidies from large municipalities to small ones</li> </ul>	<ul style="list-style-type: none"> <li>• Board of Directors</li> <li>• Fit and Proper Test</li> <li>• Government appoints from shortlist</li> </ul>	<ul style="list-style-type: none"> <li>• South African Treasury</li> </ul>
<b>BancoEstado (Chile)</b>	<ul style="list-style-type: none"> <li>• Financial Services for low income people</li> </ul>	<ul style="list-style-type: none"> <li>• No explicit guarantee</li> </ul>	<ul style="list-style-type: none"> <li>• Presidentially appointed supervisory board from government and industry</li> </ul>	<ul style="list-style-type: none"> <li>• Ministry of Finance</li> </ul>
<b>Finnvera (Finland)</b>	<ul style="list-style-type: none"> <li>• SME funding and internationalisation</li> </ul>	<ul style="list-style-type: none"> <li>• Some bonds guaranteed</li> <li>• Export Credit Agency has automatic recapitalisation component</li> </ul>	<ul style="list-style-type: none"> <li>• Politically appointed supervisory board from government and industry</li> <li>• 21 State Owned Companies constitute a Corporate Steering Group</li> </ul>	<ul style="list-style-type: none"> <li>• The Ministry of Employment and the Economy</li> </ul>
<b>European Investment Bank (Europe)</b>	<ul style="list-style-type: none"> <li>• Regional cohesion</li> <li>• SME</li> <li>• Sustainability</li> </ul>	<ul style="list-style-type: none"> <li>• No explicit guarantee</li> </ul>	<ul style="list-style-type: none"> <li>• Board of Governors of EU Finance Minister</li> <li>• Board of Directors appointed by each EU State and the EC</li> </ul>	<ul style="list-style-type: none"> <li>• Member states of the European Union</li> </ul>
<b>KfW (Germany)</b>	<ul style="list-style-type: none"> <li>• SMEs</li> <li>• Social infrastructure</li> <li>• Environmental infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>• Bonds are guaranteed</li> </ul>	<ul style="list-style-type: none"> <li>• Chair: Federal Minister of Finance and Federal Minister of Economics and Technology in alternation</li> <li>• 37 members from ministry, upper and lower house, private banks and industry</li> </ul>	<ul style="list-style-type: none"> <li>• Federal Republic of Germany (80%) and its States (20%)</li> </ul>

In addition to the overview in Table 1, the following discussion will provide a more detailed comparison of two highly successful examples of the financing and agency models: the Business Development Bank of Canada (BDC) and the Finnish Funding Agency for Technology and Innovation (Tekes).

## Models and Successes

The Business Development Bank of Canada was found to be the strongest of the four state-owned finance institutions reviewed by the World Bank in 2009. In its *Ten-Year Statutory Review of the Business Development Bank of Canada* for 2001-2010, the Standing Senate Committee on Banking, Trade and Commerce concluded that:

“The Committee believes that the Business Development Bank of Canada continues to play a significant role in assisting Canada’s entrepreneurs, particularly the nation’s small and medium-sized businesses, and that it was an important vehicle in helping the nation address the recent global financial and economic crisis. For the future, we envision a continued role for a modernized and financially sustainable BDC that is more focused on meeting the domestic and international needs of the nation’s small and medium-sized businesses, which are the engines of the country’s growth.”<sup>7</sup>

The BDC has been profitable since it was established in 1995, and has paid a total to \$173.5 million in dividends to its sole owner, the federal government. Over the 2000 to 2009 period, the BDC’s average annual return on equity was 8.2%.<sup>8</sup>

The BDC’s statutory mandate specifies funding Canadian entrepreneurs, especially SMEs, in ways that are complementary to “services available from commercial financial institutions”. While venture capital is not included in the statutory mandate, it has been established as a priority and objective by the Minister of Industry.

The bank provides loans, investments and guarantees, primarily in the forms of term loans and subordinate financing. Its activities are constrained by a leverage ratio and by a risk-weighted capital-adequacy ratio. The Bank can lend directly from the Consolidated Revenue Fund and has done so almost exclusively since April 2008.

The Bank also provides business planning services, management counselling and training, including seminars, conferences and meetings, and information.

In 2013, the Bank was partnered with 28,000 clients. Its total assets were CAD\$18 billion, of which \$15 billion was in loans and \$500 million in each of asset-backed securities, subordinate financing investments and venture capital investments.<sup>9</sup>

In contrast to the BDC, Tekes does not intermediate funds but provides grants and services supported by public funds. Tekes is responsible for funding both public research institutions and RDI investment. In 2012, total funds provided was €570 million, with €388 million (68%) going to SMEs.

Tekes is run out of the Ministry for Employment and Economy. The board is appointed by government and includes Ministers, members of local government, employees, and trade union and industry representatives. Tekes objectives are to boost productivity and accelerate renewal, to lift the wellbeing of people and the environment and increase capabilities in innovation activities. It does so through competitive grants, strategic programmes and specific funding programs (Figure 1).

Tekes has a rigorous monitoring and evaluation program and has consistently performed well in seeding additional private RDI funding and supporting productivity and employment in Finland. Its 2012 evaluation report found that for every €1 of RDI funded by Tekes, €2 is provided by private

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<sup>7</sup> The Standing Senate Committee on Banking, Trade and Commerce, *Ten-Year Statutory Review of the Business Development Bank of Canada*, December 2010, p 37

<sup>8</sup> Ibid., p 9

<sup>9</sup> Business Development Bank of Canada, *Annual Report 2013*, p 72

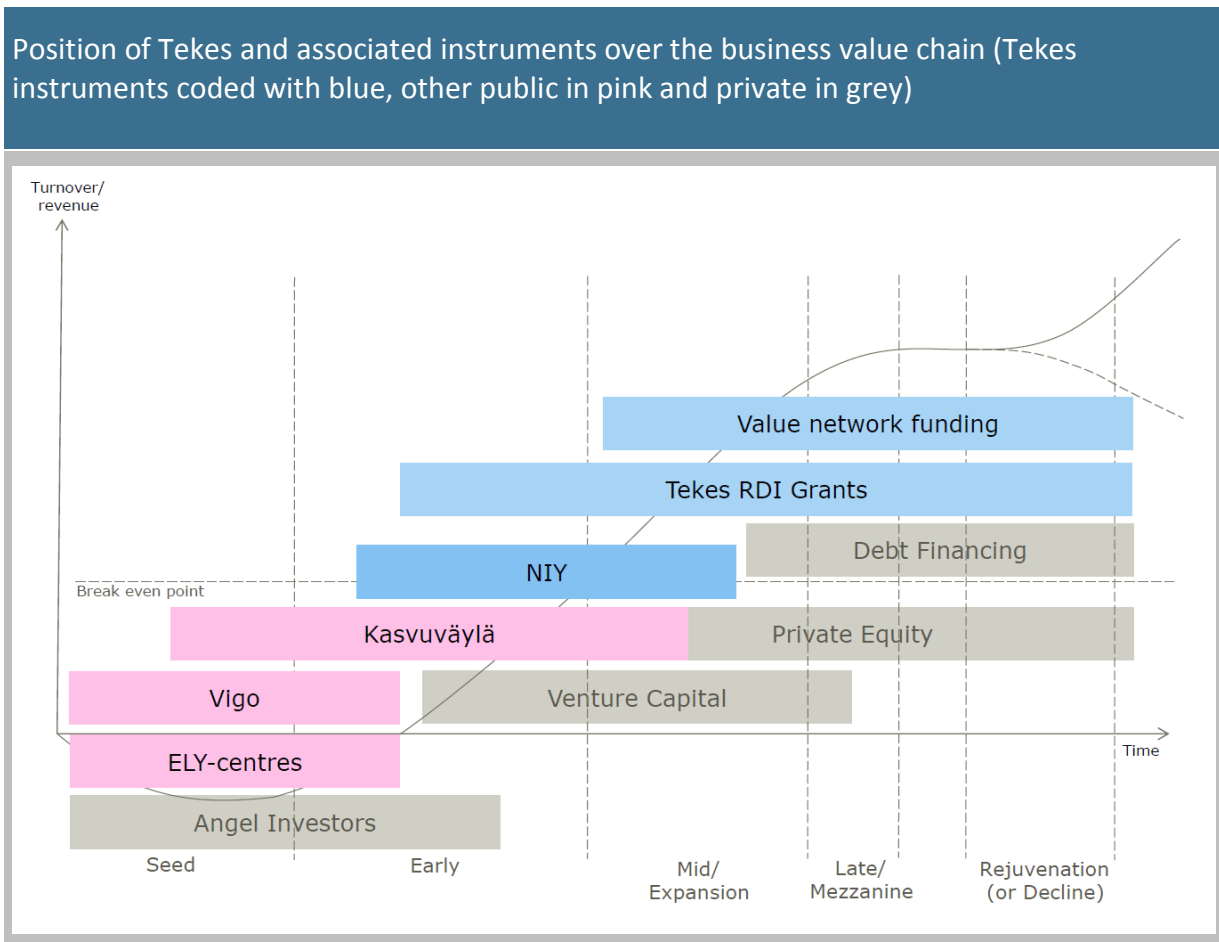


sources and that for every €13,000 Tekes provides, one job in a new and growing industry is created.<sup>10</sup> In relation to productivity, the report concludes:

“The productivity of companies funded by Tekes at the beginning of the 2000s increased by an average of 3.5 times more than that of the industrial companies in other euro countries during a five-year period.”<sup>11</sup>

Figure 1 shows the range of Tekes grants and services in relation to private sources of funds and business develop stages.

**Figure 1 – Tekes activity across the investment landscape**



<sup>10</sup> Tekes, *The Impact of Tekes and Innovation Activities*, 2012, March 2012

<sup>11</sup> Tekes, *The Impact of Tekes and Innovation Activities*, 2012, March 2012, p 8

**Value Network Funding**

- Funding for partnering networking, processes and organisations and customer analysis.

**Tekes RDI Grants**

- Competitive Grant Funding provided to SME and larger institutions. It is reactive to the needs of businesses.

**NIY**

- Three phase funding for Young Innovative Enterprise Funding

**Kasvuväylä**

- Funding in partnership with public institutions in targeted enterprise.

**Vigo**

- Capital investments and business development expertise for seed-phase enterprises.

**ELY-Centres**

- Advisory, training and expert services and by granting funding for investment and development projects for regional SMEs.

Source: Kimmo Viljamaa, Kalle Piirainen, Annu Kotiranta, Hannu Karhunen ja Janne Huovari, *Impact of Tekes Activities on Productivity And Renewal*, for Finnish Funding Agency for Technology and Innovation – Tekes, Final Report April, 2013, p 27.

## Appendix: United Kingdom fee caps

In 2002, the UK government undertook a survey of the pension landscape identifying that the regime at the time would yield inadequate and unequal pensions. The government's response to this was to introduce the automatic enrolment (AE) framework, in which employees meeting certain criteria could be automatically enrolled into a defined contribution pension product. The AE framework has been introduced progressively from 2012.

In January 2013, the UK Office of Fair Trading (OFT) launched a market study into DC workplace pensions. It concluded that there was sufficient evidence of market failure to require government intervention.

### **Market Failure in the DC pensions**

The OFT's study found that competition alone was insufficient in the AE marketplace to result in optimal outcomes for members.

The conclusion is based on the finding that neither party potentially choosing the fund – workers and employers – can be relied upon to exercise that choice in a manner that would put pressure on providers in terms of price or performance.

On the part of workers, the issue is often described as disengagement. The costs and benefits of the choice between pension funds are extremely remote, potentially only being felt decades away. Additionally, the products and pricing are complex and unfamiliar to most consumers, and the effort to make an informed choice is costly. Approximately 91 per cent of those auto-enrolled stay within the scheme though not exercising a choice of fund. With 1.7 million auto enrolments in its first year, the scheme will have significant impacts on the savings behaviour across the UK.

Employees who do not make an active choice are dependent on the choice made by the employer. The employer's choice is not necessarily optimal either. Employers have incentives that are different from their employees, and do not have a duty to put the interests of the employees ahead of the employer in making decisions. In addition, the issue of costly and complex decisions is also relevant for employers.

The study found that the pricing of pensions in large workplaces was not commonly excessive;<sup>1</sup> however, in smaller workplaces, where selection processes are less professionally managed and incentives or the product provider are not as strong, prices varied and were often very high.

The OFT identified a range of legacy schemes with up to 26% higher costs that were still in operation as an eligible AE scheme. With the roll out of the scheme to include small and medium enterprises, the ability of these employers to negotiate or select a high performing scheme at reasonable costs were open to doubt.

### **UK policy response**

Increased disclosure was discussed as an avenue to address market failure, however the challenges arising from the principal agent problem and the sheer complexity of the charges faced by members indicated that disclosure alone would be insufficient.

The necessity to ensure that all members participating in a pension scheme are provided with equal opportunities and not disadvantaged through costs arising from inefficient employer choices has

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<sup>1</sup> This is different from fair or appropriate pricing, insofar as the referenced aspects of the UK pension system have imperfect markets

resulted in the proposed cap on fees charged on pension savings. It was determined that annual fees would be capped at 0.75% - 1% of assets.

### **The fee cap and lessons for Australia**

The UK fee cap regulation proposal for workplace default funds reflects the need for government intervention in light of evidence that neither worker nor employer choices could reasonably be expected to produce (nor in fact do produce) fair and appropriate outcomes in workplace default pension markets. The UK review also highlights the needs of the system to structure an efficient pool of schemes for selection, in particular by employers of small to medium enterprises as their capability and incentives to negotiate with complex financial products on behalf of their workers may be limited.

In Australia, the same issues with workplace superannuation fund selection were identified by the Cooper Review and the Productivity Commission review of default fund selection in awards. These reviews recommended, respectively, a new regulatory regime for workplace default funds – MySuper, and a continued role for the industrial umpire in determining a list of default funds or in ratifying agreements on the same between employers and unions.

The UK fee cap is not an alternative to the safety net provided by an industrial umpire in selecting default funds.<sup>2</sup> The fee cap focuses solely on costs, while an expert panel can evaluate not just costs, but performance and strategy, as well as employee-specific needs (e.g., adequacy of insurance for certain kinds of risky occupations).

However, the fee cap could correct excessive prices in superannuation that neither the industrial umpire nor the market would necessarily be able to do. The market failure is clear and the industrial umpire cannot dictate terms of superannuation schemes, it can only select from among the funds that are on offer: if all of the funds have excessive pricing due to market failures, the weeding out of inappropriate funds by the umpire will have some beneficial effect, but it is likely to be limited.

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<sup>2</sup> In addition, if the safety net provided by the industrial umpire becomes ineffective or unwound, it would only be a matter of time before fee caps would be required in Australia