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PwC Submission to the Financial System Inquiry

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Contents

Executive summary

The purpose of this submission is to assist the Financial System Inquiry (the Inquiry) in fulfilling its Objectives and Terms of Reference. As one of the leading global professional services firms we believe we are well placed to contribute and are delighted to do so. Reflecting the importance of the financial system to the economy, we believe that the work of the Inquiry is of significant national importance. We particularly welcome the focus in the Terms of Reference on setting the right framework and philosophy, because good policy can only be based on a sound framework. We particularly hope our comments in that area are of assistance.

Our submission consists of two parts: the first addresses the developments of the financial system since the Wallis Inquiry, reviews global trends influencing the Australian financial system and comments on the philosophy, principles and objectives underpinning it; the second part provides practical recommendations in relation to superannuation, bank funding and taxation.

Key developments since the Wallis Inquiry

The global financial system underwent an extraordinary transformation since the Second World War, from being highly regulated to a far more liberal system.

In hindsight, it is clear that regulators and market participants across the globe underestimated – and hence under-priced – the likelihood of large adverse events associated with this transition, in part because of confidence that the growth in financial contracts and information was tending to reduce aggregate risk. That confidence was a key reason for the willingness of both borrowers and lenders to drive leverage within Western economies to unprecedented levels. An important lesson to be taken from events since 1997, most notably the Global Financial Crisis (GFC), is the importance of the economic distinction between risk and uncertainty.

Australia fortunately has navigated this tumultuous period of change in the global financial system in recent decades remarkably well, through the combination of strengths and prudence in both the private and public sectors, together with some good luck, especially continued demand for our natural resources. Australia now has an economic imperative to find new sources of productive investment to drive growth as resources investment tapers.

Global trends affecting the financial system

The outlook for the next three or four decades is likely to be very different from the experience of the past 30 or 40 years which, were largely dominated by positive developments from a growth perspective. That in turn was a key explanation of the global willingness to increase leverage.

Looking forward, there are many positives, especially in relation to technology and innovation, which are mainsprings of economic growth, but there are also trends that may restrict global growth and confidence, including ageing populations, resource constraints, and the challenges of a multi-polar world. In addition, government and household balance sheets remain constrained, as do bank balance sheets in many jurisdictions.

A tougher world will give greater advantage to those economies that can deliver consistent economic growth. This should serve to remind Australian businesses and policy makers of the importance of genuine productivity improvements and innovation, as well as the importance of being able to direct finance to the best and highest uses.

Philosophy, principles and objectives underpinning the financial system

Australia needs to tread a balanced, path in financial services to reward risk-taking and innovation – the driving forces of economic growth – while ensuring systemic risk in the financial system is kept within appropriate bounds.

We need to resist at all costs the sense that government can or should be eliminating risk. Overly complex regulation can have the perverse effect of compounding rather than reducing risk and so ongoing simplification of the regulatory burden must remain our 'light on the hill'. However, by their very nature, governments play a critical role mitigating against the inherent uncertainty of the future, providing benefits for the economy, such as maintaining a back-stop role in relation to the banking system overall, or delivering genuine economic benefits through the strength of its balance sheet.

The global banking sector is about to undergo a live experiment in adapting to substantially increased requirements for liquidity (from January 2015) and funding (from January 2018). For its part, Australia needs to take extreme care lest we end up fighting the "last war", focussing too much on excessive leverage and mismatch risk, and not enough on encouraging new sources of economic activity and growth. Potentially, reducing mismatch and liquidity risk will provide the banking system room to increase risk elsewhere in the financial system – provided it is well understood and balanced by commensurate reward expectations.

Superannuation

The superannuation industry has experienced much change over the past 10 years, particularly in relation to increased regulation and industry consolidation. It plays a key role in generating and harnessing savings to sustain growth and living standards, and contributing to inter-generational equity. Whilst the superannuation industry is, in our view, essentially operating effectively, there are a number of areas that could be changed to increase its efficiency, stability and sustainable growth. These include: streamlining the regulatory environment and addressing costs; improving governance; improving fund effectiveness through widening the investment pool, extending tax rollover relief, removing barriers to annuities and the restriction of lump sums.

Funding

Like superannuation, the banking industry plays a key role in allocating capital, including credit, across the economy. However, the GFC highlighted the extent of vulnerability arising from banks placing too heavy a reliance on short duration wholesale debt to fund longer-term assets. Despite changes to funding and risk policies, the question still remains whether Australia's current funding arrangements are sufficient to fund the investment required for economic growth. The target of eight per cent annual credit growth, which has been suggested as being required to bring the economy up to trend economic growth, would test the current funding model for banks.

Our proposals are aimed at mitigating this potential funding gap, to encourage deposit growth and source additional wholesale funds from the domestic bond market.

Taxation

The complexity and uncompetitive nature of the Australian taxation system contributes to both the distortion of the financial system's allocation of capital and capital flows. It is critical that the Inquiry considers not only tax impediments to an efficient and effective allocation of capital but those that would attract/promote greater capital flows into and out of Australia. In our view; however, this issue can only be effectively addressed within the broader context of wide-ranging tax reform. Therefore, our recommendations address both taxation issues within the financial system specifically and also related and contingent issues within the taxation system more broadly. They include the changes in approach to the taxation of property and overhauling the imputation system.

About this submission

PwC has not sought to cover all the issues in the Inquiry's Terms of Reference, but rather to focus on a select number of key areas. As one of the leading global professional services firms we believe we are well placed to contribute and are delighted to do so.

Our submission is organised into two Parts and six Chapters. The first three chapters are of an overview nature, while the final three chapters focus on specific policy recommendations, as follows:

Part I: Context, trends and principles

Chapter 1 Reviews developments in the financial system since the Wallis Inquiry (Terms of Reference 1)

Chapter 2 Reviews global trends influencing the Australian financial system in coming decades (Terms of Reference 3)

Chapter 3 Comments on the philosophy, principles and objectives underpinning the financial system (Terms of Reference 2)

Part II: Specific issues and recommendations

Chapter 4 Examines issues and recommendations in relation to the superannuation sector (Terms of Reference 1, 4, and 5)

Chapter 5 Focuses on issues and recommendations in relation to how Australia funds its growth (Terms of Reference 1)

Chapter 6 Considers taxation issues (Terms of Reference 6).

Declaration of Interests

In Australia, PwC operates across all financial services sectors, and works with a high proportion of global and domestic financial institutions. The nature of our business requires the highest levels of objectivity and independence, and we have sought to reflect those standards in this document.

PwC also operates in all economic sectors, not just financial services, and so has sought to reflect an economy-wide perspective rather than a sector-specific bias. Nonetheless, we disclose that we have advised a number of clients, both formally and informally, on the preparations for their own submissions to this Inquiry. We also note that PwC, both domestically and globally, has benefitted from the strong growth in the financial services sector in recent decades, including through the growing global complexity of regulation and taxation requirements.

PwC is providing a full-time professional secondee to the Inquiry during 2014, at no cost to the Inquiry or Government.

Part I

1 The Australian financial system since the Wallis Inquiry

This chapter reviews major developments in the financial system since the Wallis Inquiry reported in 1997. It addresses the important lessons from these developments in terms of financial theory and policy. It explores the causes of the Global Financial Crisis (GFC), the impact on the Australian financial system and subsequent developments. The chapter concludes by reflecting on Australia's economic and financial systems performance over the longer-term.

1.1 From 1997 to now: An overview

1.1.1 De regulation and global trends

In 1997 the global financial system was still in the process of adjusting from the highly regulated Bretton Woods regime (1946-1971). When President Nixon broke the formal link between the USD and gold in 1971, the earlier gold supply constraint on the formation of formal money and credit ended. This coincided with the ongoing shift in market theory and policy from the 'Keynesian consensus' to the 'Washington consensus', including the benefits of free-floating exchange rates to enable monetary policy to be managed independently to achieve domestic economic objectives. In 1981 Australia's Campbell Committee[1] rightly recognised these benefits and the need for Australia to move in line with these developments. Australian financial markets were liberalised, particularly between 1983 and 1985.

The period from around 1980 also saw a significant shift in the tone of economic policy in a number of major economies, adopting pro-market, pro-growth stances. Global interest rates peaked in the early 1980s, as did oil prices. The low-growth, high-inflation experience of the 1970s was replaced, in many economies, with high growth and low inflation, in part because of excess global capacity in energy, food, and materials markets. The economic and military reputation of the United States enjoyed a renaissance in the 1980s, highlighted by the Plaza Accord in 1985 to revalue the JPY, the introduction of the Basel I Accord in 1988 to reduce Japanese bank leverage, and the collapse of the USSR in October 1989. Fukuyama's1992 book *The End of History*[2] captured the mood. The October 1987 share market crash proved only a minor speed-hump for Western markets, although the collapse of the Japanese equity and property markets in 1990 ushered in two decades years of economic stagnation in Japan, in part because of the failure of the Japanese banks to recognise significant bad debts.

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1 Campbell Committee, *Australian Financial System, Final Report of the Committee of Inquiry*, Australian Government Publishing Services, 1981

2 F Fukuyama, *The End of History and the Last Man*, Free Press, 1992

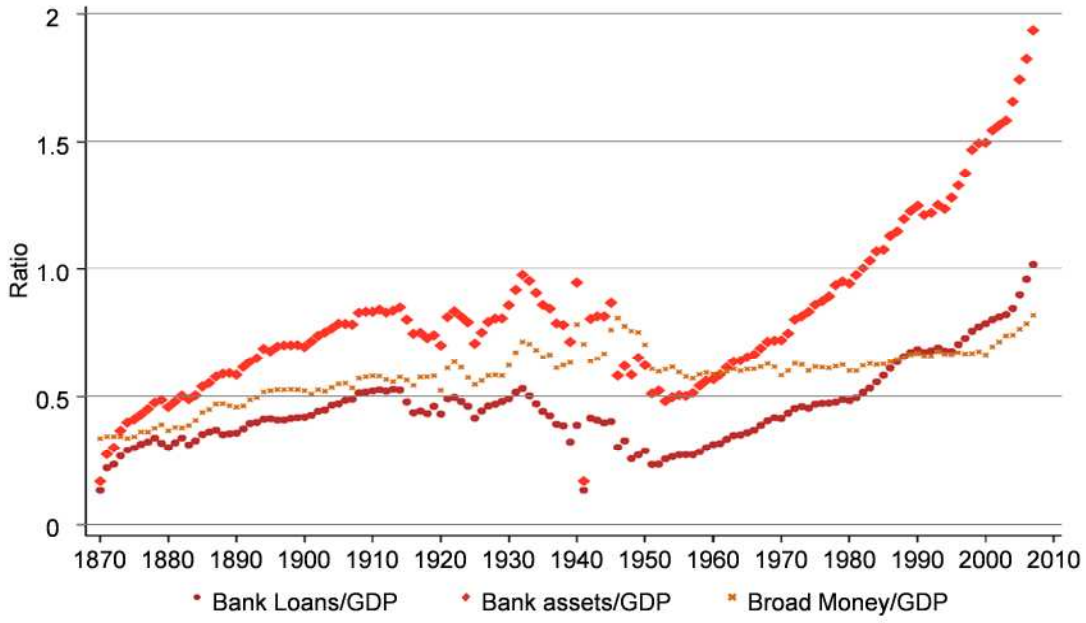
This generally optimistic global tone set the backdrop for the most important post-war shift in global banking. As Alan Taylor[3] has described it:

> *"... looking back over the long sweep of history, the financial sector in the world's advanced economies is now larger than it ever has been. The increase in size has been dramatic since the 1980s; after that date, compared with what has been the norm for more than a century, the banks almost doubled in size relative to GDP measured by loan activity, and almost tripled measured by total balance sheet size."[4]*

> *"[This is] not just a result of trends in a few countries, for example, the Anglo-Saxons...The US and UK saw large expansions, but so too did Australia, Canada; so did Germany, France; so did Scandinavia, Switzerland... all the advanced countries now have banking sector balance sheets that are a multiple, and in some cases quite a large multiple, of national GDP."[5]*

Figure 1 illustrates these trends:

Figure 1: Ratio of banking sector balance sheets to national GDP (covering 14 advanced countries)



Source: Taylor (2012)[6]

3 AM Taylor, *The Great Deleveraging*, University of Virginia, NBER, and CEPR, 2012,

4 Ibid AM Taylor, page 8

5 Ibid AM Taylor, page 12

6 Ibid AM Taylor, page 9

As noted above, the end of Bretton-Woods removed the previous supply constraint on bank credit formation, and this was reinforced by subsequent financial system liberalisation in many Western economies. However, the contractual nature of formal credit requires willingness by borrowers as much as it requires willingness by lenders. Declining global interest rates from the early 1980s clearly played a large role in encouraging demand for debt but so too were the many factors encouraging confidence and innovation, including:

- the long run of strong global economic performance ('the great moderation');
- the relative geo-political stability flowing from the US's unquestioned global authority;
- the emergence of important new markets, notably the former USSR and China; and
- significant new technologies, particularly in communications and information technology, including the internet and mobile phones.

Our assessment is that these factors were just as important as declining interest rates in generating confidence among borrowers in assuming an unprecedented level of debt obligations relative to Gross Domestic Product (GDP). In addition, increased credit supply, lower interest rates, and strong growth created a self-reinforcing cycle of rising asset prices, which further encouraged both borrowers and lenders. In other words, it was the reinforcing nature of positive supply and demand factors, ultimately built on an optimistic view of future economic developments that explains the global increase in leverage. Inevitably, human frailty and greed played a role as well.

Running in parallel to these developments were three other key trends in global markets:

- Substantial financial innovation, including in the application of information technology (such as in payments and distribution) and in the application of contract law and economic risk theory to product development (such as options and collateralised debt securities).
- A significant increase in trading volumes relative to economic activity. For instance, Tuner (2010)[7] cites an increase in FX trading from 11 times global trade and long-term investment flows in the 1970s to more than 70 times today.
- The growing skill and sophistication of investors in managing the principal-agent challenge of shareholders and bondholders in large corporations, for instance as techniques for maximising shareholder value (risk-adjusted returns) became better and more widely understood; through publications such as G Bennett Stewart's "The Quest for Value" (1991)[8], through increasing numbers of MBA graduates, and through wider legal codification of directors' responsibilities for shareholder value.

In combination these factors saw a sharp increase in global capital market integration, reversing the Bretton Woods situation, as shown in Figure 2.

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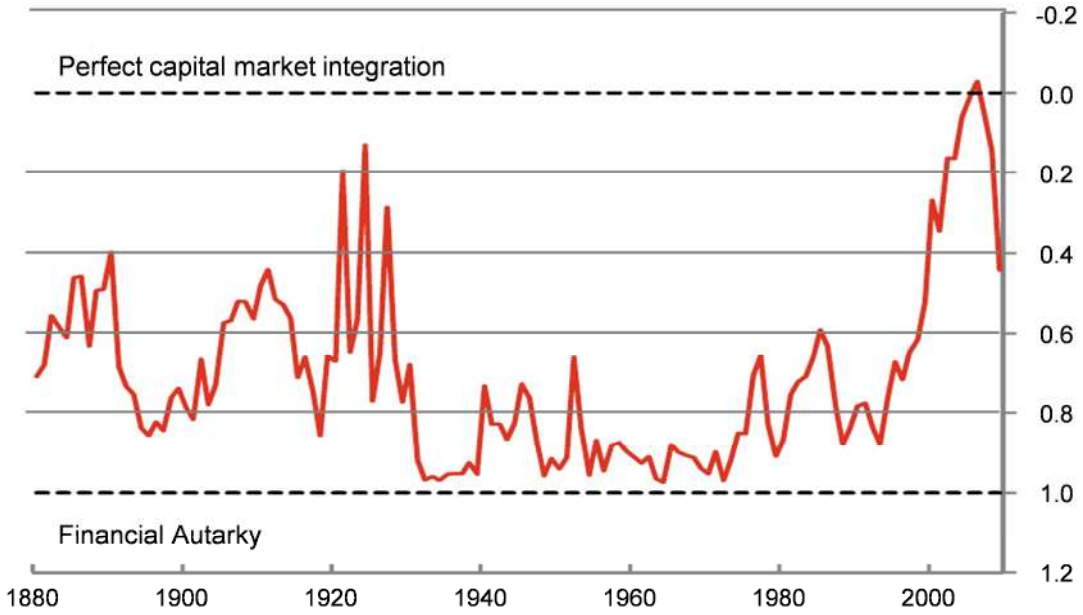
7 A. Turner, *What Do Banks Do, Why Do Credit Booms and Busts Occur What Can Public Policy Do About It?The London School of Economics and Political Science, 2010, page 14*

8 G Bennett Stewart, *The Quest for Value*, Harper Collins, 1991

Figure 2: Global market intergration



Source: Haldane (2013)[9]

The Wallis Inquiry reported in March 1997 against that global context, although of course these trends were less mature and so all were not as evident then as they are today with the benefit of hindsight.

1.1.2 The Australian context

The Australian context was also critical for the Wallis Inquiry and in particular its brief was to assess developments since the Australian banking liberalisation, which had occurred in the mid-1980s. This had been somewhat of a roller-coaster, including the sharp depreciation of the Australian dollar in 1986, the October 1987 share market crash, dramatic growth in commercial property lending as new banks vied for market share in the late 1980s, and a consequent tightening of monetary policy. The latter resulted in a collapse in commercial property prices and a sharp recession and banking stress in the early 1990s, followed by a gradual economic recovery from 1993. Australia's compulsory superannuation regime was established in 1992. A new Government was elected in March 1996 with a pro-growth, pro-market mandate, including the reinvigoration of micro-economic reform.

One of the new Government's first actions was to release *A Statement on the Conduct of Monetary Policy*[10], reflecting its agreement with the Governor of the Reserve Bank on these matters, and in particular the formalisation of the inflation targeting framework which had served as the basis for the conduct of monetary policy since the early 1990s. It was another important step in signalling Australia's commitment to adopting global best practice.

From a banking perspective, this period's property boom and its subsequent bust fundamentally reshaped the landscape. It was the main trigger for the collapse or sale of every state-owned bank in Australia over a five or six year period, plus the progressive privatisation of the Commonwealth Bank between 1991 and 1996 and the exit of a number of foreign banks. The collapses of the State Bank of Victoria, the State Bank of South Australia and the Pyramid Building Society in Victoria were a particular trigger for the later

9 AG Haldane, *Why Institutions matter (more than ever)*, Bank of England, speeches, 2013

10 Australian Government, *A statement on the Conduct of monetary Policy*, Canberra, 1996

commissioning of the Wallis Inquiry. At least one of Australia's largest private banks had also gone very close to collapse in the early 1990s in consequence of its commercial property exposures.

The detailed and comprehensive Wallis Inquiry Report (FSI (1997))[11] runs to 771 pages. In essence, though, the report rested on a fundamental premise – over time in the financial system, markets assume increasing importance relative to institutions. In explaining this *Shift in Balance from Intermediaries to Markets*, the Inquiry said

> *"The evolution of the financial system is characterised by a continuing struggle between financial intermediaries and financial markets. As imperfections in the operations of markets have receded with the development of new transactions technology and new ways of harnessing information, trade on markets has been increasingly substituted for financial intermediation."*[12].

Hence the essential rationale for the most far-reaching reform recommended (and subsequently implemented) by the Wallis Inquiry – the so-called 'twin peaks' model of regulation for the financial system comprising Australian Prudential Regulatory Authority (APRA) to oversee financial institutions and Australian Securities and Investment Commission (ASIC) to oversee markets. The Reserve Bank of Australia (RBA) retained responsibility for monetary policy and for systemic risk, while the Council of Financial Regulators (COFR), chaired by Treasury and comprising the chairman of APRA, ASIC and the RBA, provides oversight and coordination.

In the global context, this approach to financial regulation was very innovative and indeed similar approaches have since been adopted in a number of countries. We believe that this approach has served Australia well, and should not be fundamentally changed. It was a material explanation for Australia's comparatively good performance through the GFC.

Despite the innovative nature of the Wallis Inquiry's approach in Australia at the time, it is important to understand that its underlying rationale reflected a way of viewing the world that was common among many regulators. As Adair Turner, chairman of the UK Financial Services Authority from 2008-2012 has summarised it:

> *"These benefits of 'market completion' follow axiomatically … and in the pre-crisis years many regulators, and certainly the FSA, were highly susceptible to this argument by axiom."*[13]

This point warrants both elaboration and emphasis. In our view, it is impossible to draw out the correct lessons from the GFC without being explicit about market theory and context. This is the subject of the next section.

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11 *Wallis Inquiry*, *Financial System Inquiry Final Report*, Australian Government Publishing Services, 1997

12 Ibid *Wallis Inquiry*, page 8

13 Ibid A Turner, 2010, pages 16 and 45

1.2 Perspectives on finance theory and policy: risk versus uncertainty

We believe the most important lesson for financial theory and policy to be taken from events since the Wallis Inquiry is the importance of the economic distinction between risk and uncertainty – "*risk is quantifiable, uncertainty is not*" (Debelle[14]). Widespread optimism that modern finance had transformed uncertainty into risk is a root-cause explanation of the growth in leverage described above –refer Debelle[15] and Haldane[16] [17].

Linked to this is the idea of market completion. The concept of complete markets is, in simple terms, that there is a market – and hence a price – for every potential future state of the world (Arrow and Debreu)[18]. In other words the future can be described perfectly in terms of quantifiable risk – there is no uncertainty. This assumption simplifies the challenge for economists in describing the conditions under which a competitive equilibrium exists where no agent's utility (welfare) can be increased without reducing the utility of someone else.

Although highly abstract, this idea has had a profound influence on policy and theory. To quote again from Turner[19]

> *"Economics … has provided strong support for the belief that increased financial activity … must be a broadly positive development. This is because more financial activity helps complete markets. [Arrow and Debreu (1954)] illustrates that a competitive equilibrium is efficient but only if markets are complete … the more that innovation allows investors to choose the precise combinations of risk, return and liquidity, and the more that trading activity generates market liquidity, the more efficient and welfare-maximising the economy must be".*

This is the 'argument by axiom' to which regulators were susceptible, and ultimately the underpinning of the Wallis Inquiry's recommendations. Up until the GFC, the world seemed to be responding exactly as the theory would predict, with the price of risk steadily falling.

Over the same period, advances in IT were enabling the increasing practical application of advances in economic risk theory (for instance Black-Scholes[20] options valuation and Value At Risk concepts) by harnessing larger and larger data sets. Virtually without exception, this practical application depended on the assumption of normal (or Gaussian) distributions of the underlying variables. In other words, it was assumed that our quantifiable risks behave in a normal manner whereby the probability of large events decays exponentially (a^x), that is, very quickly; the tails of the distribution are thin and so large events have a low probability (Haldane)[21]. Haldane provides evidence of long data series which seems much more consistent with a so-called power-law distribution of probability, that is, where the

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14 G Debelle, *On Risk and Certainty*, Address to Risk Australia Conference, 2010, page 1

15 Ibid Debelle

16 Ibid Haldane, 2013

17 AG Haldane, *Tails of the Unexpected*, Bank of England, 2012

18 KJ Arrow and G Debreu, *Existence of an equilibrium for a competitive economy*, Econometrica, The Econometric Society, 1954

19 Ibid Turner, 2010, page 15

20 F Black and M Scholes, The pricing of Options and Corporate Liabilities, Journal of Political Economy, 1973

21 Ibid Haldane, 2012, page 7

probability of large events decays polynomially (x^a); in other words, more slowly and so with fatter tails (Haldane)[22].

The intuition for expecting fatter rather than thinner risk tails in real life is the variation that comes from interdependence – by definition each roll of a dice is independent of every other dice roll whereas in an economic system people's actions are influenced by other people's decisions. If it turns out the risks do not decline exponentially, this can have a material impact on the risk estimates and required capital allocations. For instance, in the same paper Haldane shows that for the standard internal ratings-based (IRB) Basel framework, the difference between the normal and power-law distributions implies the required capital buffer rises from three per cent to 12 per cent. (Haldane)[23].

In summary, the general thinking in the decades leading up to the GFC was to underestimate – and hence under-price – the likelihood of large adverse events, and to have confidence that the growth in financial contracts and information was tending to reduce aggregate risk. Debelle[24] expresses it well:

> *"[There was an] expectation that volatility was permanently reduced. This was then combined with the belief that the distinction between uncertainty and risk was no longer particularly relevant. That is, the belief was that while the future was still unknowable it was likely to lie within the distribution of the recent past… there supposedly had been a regime change which mean that the earlier, more volatile, period of history was no longer relevant."*

1.3 What caused the GFC?

The GFC provided a sharp jolt to these rosy expectations and the declining price of risk.

In hindsight the GFC is not hard to explain, even though it was anticipated only by a small number of people. Following the substantial growth in leverage in the US housing market, an increase in arrears for US sub-prime housing debt in early 2007 was the catalyst for a repricing of debt in that market, which flowed through to a re-assessment of the underlying risk in other debt and equity portfolios globally. While this placed pressure on investors in those securities, the re-pricing of risk placed further pressure on banks which had increasingly relied on short-term wholesale securities for funding purposes. Leading to outcomes such as the collapse of Northern Rock in September 2007, the first UK bank collapse since the mid-1800s. This foreshadowed a run of bank mergers and nationalisations in the Western world, with the collapse of Lehmann Brothers in September 2008 bringing the global financial system to within a few hours of melt-down and moving the global regulatory community to a 'save at all costs' mode. In 2010, difficulties in the fiscal position of a number of European nations created new market tensions, and confirmed that the excessive growth in leverage had not been confined to the private sector.

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22 Ibid Haldane, 2012, Data Annex, pages 25 to 31

23 Ibid Haldane, 2012, page 17

24 Ibid Debelle, 2010, page 3

Our view is that the GFC had two fundamental drivers:

1 The unprecedented growth in global leverage over several decades, which (as we argued in section 1.1) reflected the reinforcing nature of positive supply and demand factors ultimately built on an optimistic view of future economic developments.

2 Simultaneously, the widespread confidence which both market participants as a whole (including regulators) had in the benefits flowing from market completion and innovation, and the consequent 'regime change', so that there was a broad consensus that the increase in leverage and positive economic outlook were sustainable, and the risks were manageable.

There were important interactions between these two drivers. In particular, much of the innovation tended to exacerbate the maturity mismatch inherent in the traditional banking model – long-dated loans were increasingly funded by short-dated market instruments and very few people understood the consequent risks in aggregate. However the traffic was not all one way. The innovations also generated an increased ability and willingness of large entities other than banks (such as insurers and pension funds) to hold credit risk, which meant that when the collapse did come the costs were spread beyond banks.

The fact that the financial system had survived a number of serious stresses over the decade to the GFC in 2008 also had reinforced that confidence. The contained nature of Long-Term Capital Management's collapse in 1998, the recovery from the Asian Financial Crisis of 1997/98, and the relatively short-lived impact of the 'tech wreck' of 2000 reinforced confidence. It is worth noting that all these events came after the publication of the Wallis Inquiry Report. While 9/11 dented Western security complacency, the consequent easing of US monetary policy only encouraged economic confidence and leverage. The willingness of central banks both to increasingly co-ordinate policy responses and to provide liquidity during periods of market stress (the Greenspan put) were a further pointer to 'regime change' and bullishness, as was the repeal of the US Glass-Steagall Act (1933) in 1999. All these factors only served to make the market's response to the events of 2008 all the more dramatic.

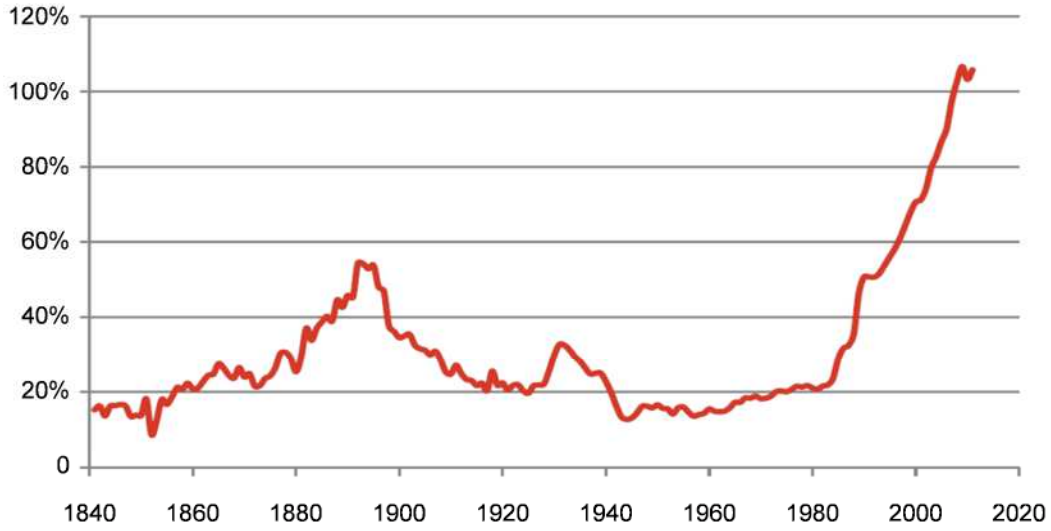
Singling out the confusion between risk and uncertainty as a core explanation of the GFC highlights that economic decisions today always depend on what people expect to happen in the future. Precisely the reason there was confidence in the risk-reduction benefits of market completion was the expectation that more markets for future or contingent delivery would help iron out 'bad expectations' through price discovery and hence avoid 'bad equilibria'. There is a lot of sense in that logic. One trouble, however, is that it diverted attention from a number of the adverse consequences – most of all, the rise in mismatch risk as long-dated bank assets were being funded by short-dated liabilities across the global economy. When market participants realised this, the response was dramatic.

It follows that any proper analytical framework for understanding how economies and financial systems work in practice must treat the distinction between risk and uncertainty as fundamental. We hope that this will be reflected in the Inquiry's final report and be one of the lasting legacies of the GFC.

1.4 Why Australia fared comparatively well through the GFC

Although Australia had experienced substantial increases in leverage prior to the GFC (refer Figure 3), the GFC resulted in much less banking and economic disruption than in many other countries.

Figure 3: Australian intermediated credit as a proportion of GDP



Source: Maddock (2013) [25]

Figure 4 sheds light on Australia's relatively stronger performance by comparing Australian banks with their Western global counterparts as at December 2007.

Figure 4: Assets, deposits and loans of Australian banks in 2007 relative to other countries.

2007	Trading & Investment Assets: Total Assets %	Deposits: Total Liabilities %	Loans: Deposits %:
Australian Banks	14	51	142
US/Canadian Commercial Banks	37	49	98
UK Banks	45	47	131
European Banks	55	33	86
US Investment Banks	53	13	14

Source: PwC (2009)[26]

[25] R Maddock, Banks, Capital Markets, and Australian Economic Development, Social Sciences Electronic Publishing, 2013.

[26] PwC, *Perspectives Major banks analysis*, May 2009

Some key points to highlight are:

- The very low per cent of trading and investment assets as a proportion of total assets held by the Australian banks. This is important because the GFC had its immediate origins in the dramatic fall in value in tradable credit instruments such as Collateralised debt obligations (CDOs), triggered by the US sub-prime crisis.

- The more conservative approach to funding employed by the Australia banks, which held a higher proportion of relatively stable deposits in their funding mix, and were thus better equipped to respond to adverse movements in funding markets.

- The relatively high proportion of loans to deposits, being the flip-side of a relatively low proportion of investment assets. With fewer investment assets to fund, there was scope to fund a higher proportion of traditional loans. Experience since 2007 has shown that the credit quality of these loans was generally strong; had the credit quality of these lending portfolios not been up to scratch, this high dependence on loans would have been a vulnerability.

We believe that five factors explain why the Australian banks avoided the temptations to which other banks succumbed prior to the GFC:

- Lax lending standards – especially by some of the larger banks – drove the previous boom-bust cycle in Australia in the late 1980s to early 1990s. In general, bank management in Australia since that time hads been determined not to repeat those mistakes and so embedded proper lending standards in bank operations.

- Likewise, the Australian regulators were also determined to ensure appropriate lending standards, and were effective and diligent in pursuing this through a range of means, such as oversight of lending practices, consumer credit codes, and higher capital requirements for riskier mortgage products. Lessons learnt by the collapse of insurance company HIH in 2001 had a positive impact on supervisory effectiveness thereafter.

- While Australia has a more stringent code of consumer protections at the time when a loan is made relative to many offshore jurisdictions, it also has a stringent code of protecting the lender's rights should a consumer default on the loan – 'full recourse' mortgages being an obvious example. Australia has a strong culture of debt repayment and this helps to underpin sensible borrowing decisions by customers.

- Real interest rates did not decline in Australia through the mid-2000s to the same extent as in some other countries; in fact, monetary policy was tightened progressively in Australia from May 2002. These higher real rates tempered demand for 'speculative borrowing' in Australia. Also, the demand by investors for 'yield enhancement' was less in Australia than in economies with much lower real interest rates.

- Australia has almost always run large current account deficits, requiring Australia's banks to raise funds offshore to finance their domestic lending, rather than looking for tradable assets in which to invest excess domestic savings. This is unlike some European countries where banks had excess domestic savings relative to domestic lending opportunities in the period prior to the GFC.

A number of other factors helped Australia weather the GFC, including:

- the availability of a ready pool of investment funds in the superannuation industry to provide equity to recapitalise listed Australian corporations (the impact of the GFC on corporate Australia – and hence the banks – would have been much greater otherwise);

- the Australian Government's robust balance sheet and debt-free status, which allowed stimulus spending and tax cuts;

- accommodative monetary policy, helped by the high proportion of variable-rate loans to speed the transmission of lower interest rates into spending; and

- strong investment in resources, underpinned by continued economic growth in Asia (including strong support from China's large stimulus policy).

In summary, generally good private sector practice, sound industry-wide supervision and robust economic policy combined to serve Australia so well, allowing us to avoid the worst international excesses that developed before 2007 and allowed a quick response to crisis conditions. Australia would not today have such a strong banking system if not for the very combination of strengths and prudence on both sides. The ongoing strength of resources demand from Asia was also critical, so good fortune played its part as well.

This picture of sound banking and prudential practice on the part of both the banks and the regulators in Australia is reinforced by an analysis of banking crises in the 117 economies for which data is consistently available since the 1970s. Of this population, 34 (29 per cent) had no crisis, 62 (53 per cent) had one crisis, and 21 (19 per cent) had two or more crises. If we limit this analysis to those countries with a credit-to-GDP ratio one standard deviation above the mean (so-called 'credit abundant' countries), only six of these countries have not had a banking crisis since 1970. Australia is one of those six; the other five are New Zealand, Canada, Singapore, Hong Kong and Malta. (refer Calomoris[27])

1.5 The Australian financial system since the GFC

Notwithstanding that Australia fared well through the GFC, the long-term ramifications were very significant. These changes fall into four categories:

1.5.1 Decline in risk appetite

The GFC generated an immediate reduction in risk appetite by Australian households and businesses, reflected in an increase in savings out of income, a shift in portfolio preference to less volatile assets, and a fall in credit demand. In consequence, household leverage has stabilised since 2005 with the ratio of household debt to income remaining at 150 per cent, apparently ending the steady increase in this ratio from 50 per cent in the early 1990s. Business leverage (eg business credit as a per cent of GDP) has reversed the sharp upward spike of the mid-2000s to return to more usual levels, and interest paid has fallen sharply as interest rates have fallen. (refer Appendix A, Figure 29)

1.5.2 Fall in interest rates to historical lows

Global interest rates have fallen to historical lows reflecting low growth and inflation. This is partly a policy response to high private and public debt and fragile confidence and low growth, supplemented by co-ordinated, quantitative easing in a number of major economies. It has given scope for Australian official cash rates to fall to record lows (refer Appendix A, Figure 30) partly to help rebalance growth towards domestic demand drivers, and partly as antidote to the post-GFC 'safe haven' characteristics of the Australian dollar.

One consequence of the low interest rates has been renewed interest by investors in high-quality dividend-franked domestic equities, including financial services companies. It is still too early to be confident about the long-term impact on global resource allocation of such an

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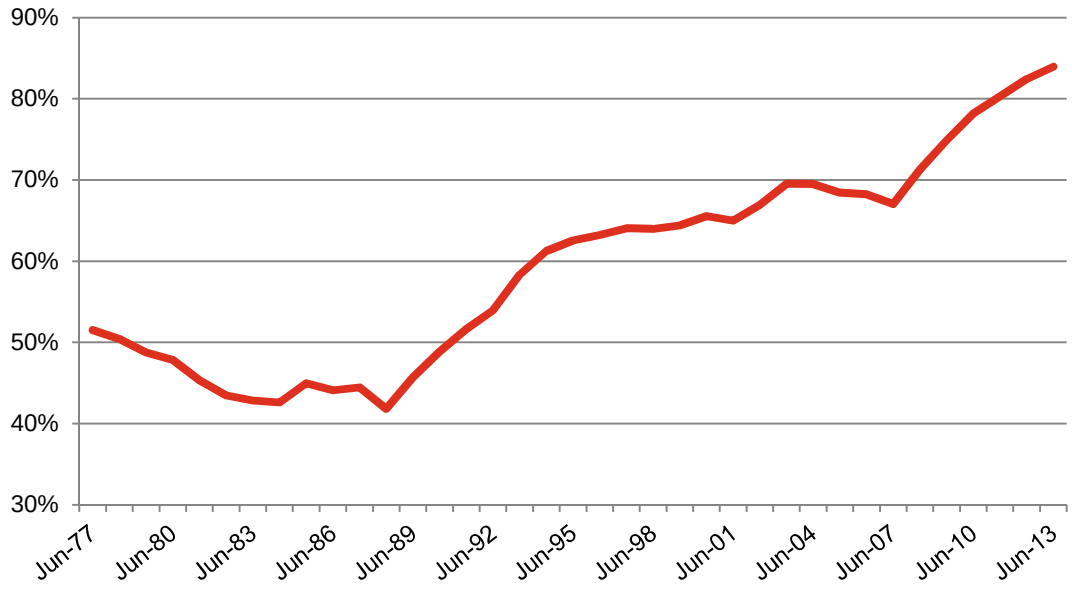
[27] CW Calomoris and SH Haber, *Fragile by Design, The Political Origins of Banking Crises and Scarce Credit*, Princeton University Press, 2014

extended period of low interest rates. White[28] provides an interesting analysis of potential long-term risks. For instance, low interest rates have created challenges for many insurance companies in managing their reserves. Global monetary authorities have, however been very successful in maintaining market confidence in the outlook for low interest rates, reinforcing the view that governments can be very effective in providing an anchor for market expectations in the face of deep uncertainty.

1.5.3 Changes in funding sources

The GFC saw a further concentration in the Australian banking market as a number of regional banks floundered and as a number of foreign banks reduced their Australian exposure (offset somewhat by an increasing presence of Asian banks in Australia). The effective closure of securitisation markets saw a reduction in the availability of non-bank finance. As a result, there has been a further increase in the proportion of intermediated credit funded by banks, as shown in Figure 5.

Figure 5: Total Australian bank loans and acceptances as a proportion of credit



Source: PwC (2013)[29]

The banks themselves have also made significant changes to their funding patterns, relying more on deposit funding and less on short-term wholesale funding. This has pushed up interest rates paid to deposit customers, which have been recovered in lending rates. Initially this resulted in higher interest margins but more recently most of this increase has been competed away as shown in Figure 6. Chapter five examines some of the potential consequences of these trends for the availability of credit, including policy suggestions.

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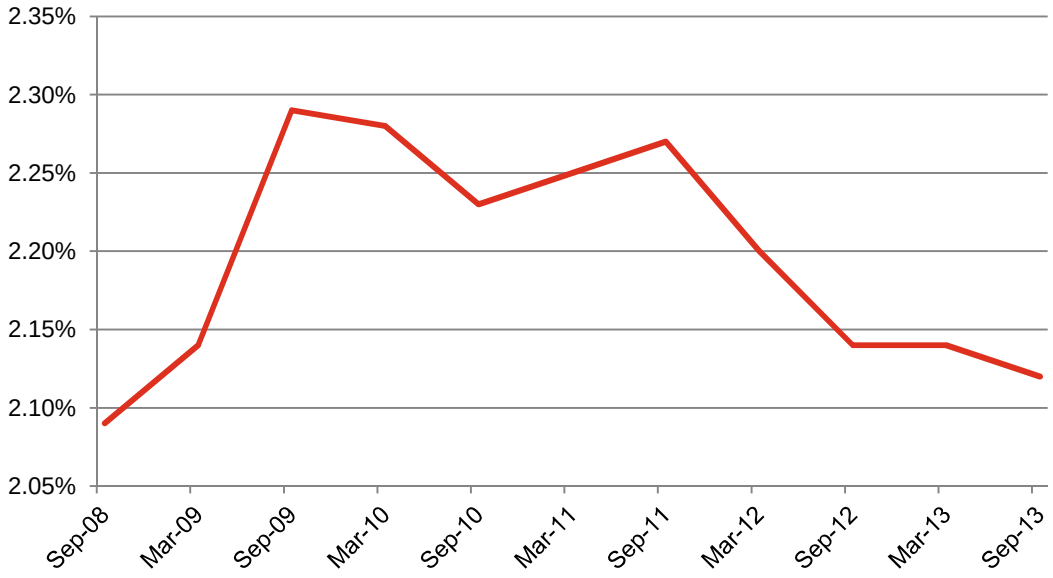
[28] WR White, *Ultra Easy Monetary Policy and the Law of Unintended Consequences*, Federal Bank of Dallas, Global and Monetary Policy Institute 2012

[29] PwC analysis based on the RBA's Financial Aggregates, September 2013

Figure 6: Australia's four major banks' combined net interest margin



Source: PwC (2013)[30]

1.5.4 Substantial changes to the regulatory environment

The realisation by both financial institutions and regulators that they had seriously under-estimated liquidity and mismatch risks prior to the GFC, has resulted in substantial changes in bank management practices and regulatory frameworks (in particular Basel III). In our view the changes have substantially mitigated these risks for the future. Australian institutions have also been impacted by the need to comply with a number of other requirements, some of which have domestic origin (eg the Financial Claims Scheme) but others of which have a global origin (eg the US FATCA legislation).

Chapters 3 and 5 include a more detailed discussion of changes in the regulatory environment.

1.5.5 Other relevant trends

Although not directly related to the GFC, three further trends are also worthy of mention:

- Superannuation assets have continued to grow strongly as markets have recovered and the Superannuation Guarantee Contribution (SGC) continues to accrue. Total superannuation balances are $1.8 trillion as at December 2013 compared to $1.1 trillion in June 2008. Chapter 4 considers the superannuation market, including policy suggestions

- Insurance markets have been variable. In life insurance, longer life expectancy and changes in disability experience have created challenges for insurance providers. Variability in the natural environment has created challenges at different times for general insurers, including floods and fires in Australia, and floods and droughts overseas. This has placed a spot-light on insurance affordability, especially in high-risk locations.

[30] PwC, *Major banks analysis*, November 2013

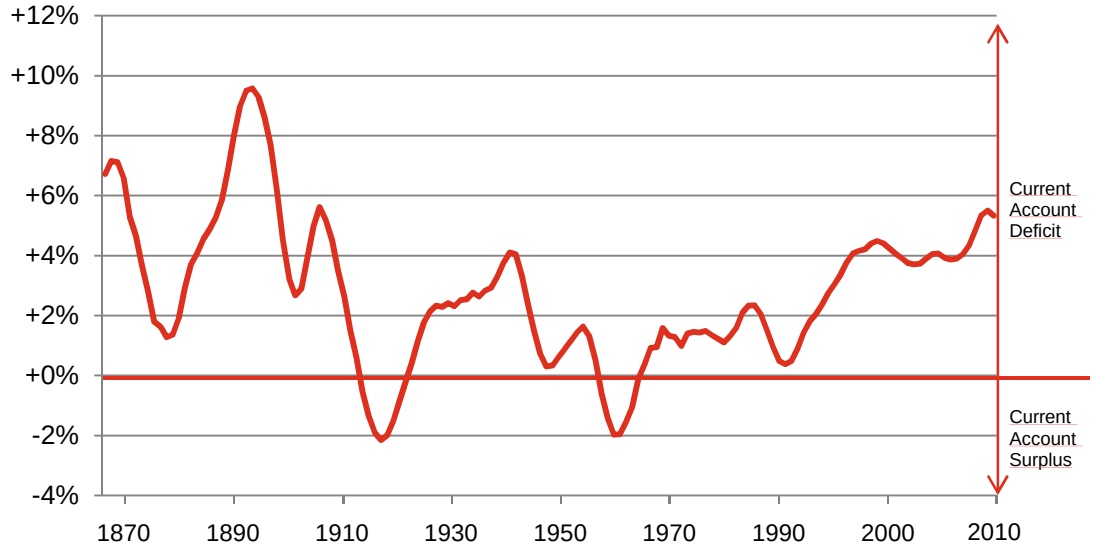
- Rapid development in digital technologies has seen considerable investment across the financial system. Institutions have a broad range of strategies, but one important common denominator is the dramatic improvement in data availability and hence data analytics. This will continue to be a major theme for all institutions. Refer Retail Banking 2020[31], PwC and Is "Big Data" for real?[32] PwC.

1.6 Australia's economic and financial system performance over the longer-run

1.6.1 Finding new sources of investment

As a country with a large resource base and a relatively small population, Australia has depended on offshore capital markets to finance investment opportunities in most years since 1788. As Figure 7 shows, Australia has imported foreign savings for virtually the entire period of available data and has been on a steady upward trend in recent decades.

Figure 7: Demand for foreign savings, as a proportion of GDP, five year moving average (Positive equates to current account deficit)



Source: Maddock(2013)[33]

In general, Australia's domestic saving rate has not been lower than other Western nations. Rather, Australia has generally had a higher investment-to-GDP ratio and this has generated the demand for foreign savings, as well as underpinning generally strong economic growth (refer Figure 8).

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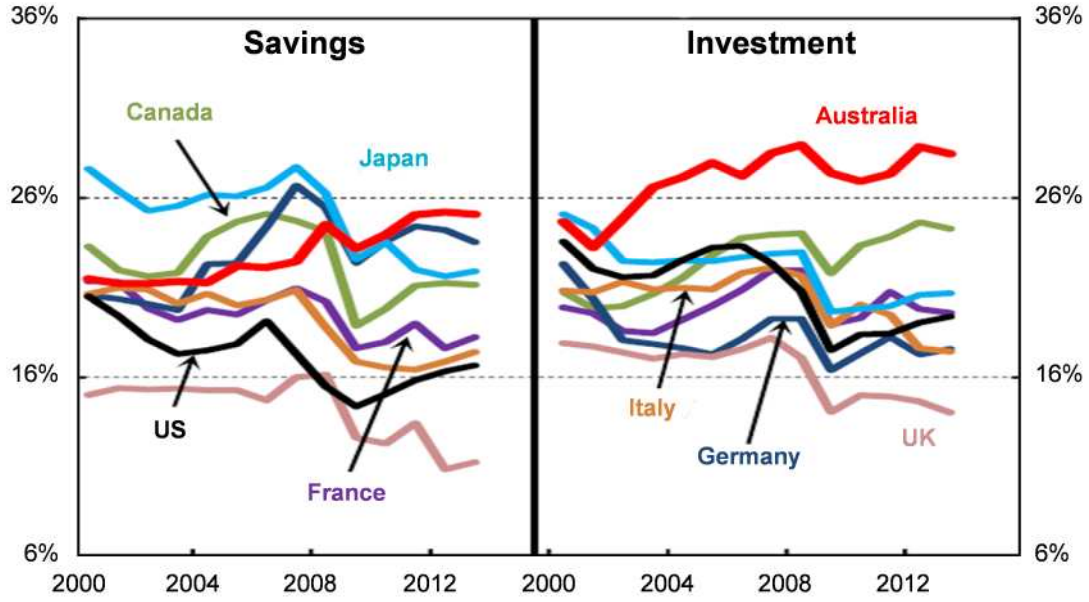
31 PwC, *Retail Banking 2020 publication*, 2014

32 PwC, *Perspectives Major banks analysis*, May 2012

33 Ibid Maddock, 2013, Savings series

Figure 8: Savings and investment as a proportion of GDP



Source: CBA (2014)[34]

Resources investment tapering will put downward pressure on the investment-to-GDP ratio. While this will reduce our call on overseas savings, it will also tend to depress economic growth. Given high household indebtedness, the household sector is unlikely to pick up this slack through higher consumption (lower savings) rates and so new sources of investment to replace the slowdown in mining investment will be key. This challenge is all the greater and more important given our recent history of declining productivity – new investment is an important element of improving productivity, while lagging productivity can of itself also be a drag on the incentive to invest.

In our judgement, Australia's ability to maintain its strong economic record fundamentally depends on our ability to find new sources of investment. Given the pressures on government finances, this fresh investment will largely need to come from the private sector, including in relation to infrastructure projects typically reserved for the public sector.

1.6.2 Foreign savings

A number of commentators have argued that in the next few years we may see Australia's demand for foreign savings decline substantially, as government deficits (borrowing) fall, resources investment declines, resource exports increase, household savings rates remain high, and returns from Australian investment offshore improve.(eg Blyth[35], Maddock[36],). The result would be for the current account to move to rough balance, thus reducing our dependence on foreign savings. While this is entirely plausible, we are not convinced that it would be consistent with a sufficient level of investment to maintain full employment.

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34 M Blythe, *Current account surplus – or banana republic no more*?, Commonwealth Bank of Australia, Global Market Research, Economics Issues, February 2014

35 Ibid Blythe, 2014

36 Ibid Maddock, 2013

1.6.3 Economic cycles and investment demand

It also needs to be remembered that the normal cycle of economic development is for businesses to fail, as customer tastes change and new competitors and technologies emerge; this is Schumpeter's so-called 'creative destruction' facilitating the transfer of resources to better opportunities. (Schumpeter[37])

It may be that Australia's long period of strong growth in recent decades may have insulated some businesses from these pressures, notwithstanding competition from offshore and a strong Australian dollar. The relatively low credit losses for commercial lending by the Australian banks in recent times may be one pointer to this. If so, a period of slower economic growth in Australia may see some catch up in the closure of uncompetitive businesses or industries (such as the automotive manufacturing sector). This implies a larger demand for fresh investment than that simply implied by the wind-down in resources investment. The very low level of global and domestic interest rates should assist in encouraging such investment, although such easy monetary policy may not last indefinitely. Either way, maintaining Australia's inflation experience in the range of 2 per cent to 3 per cent remains most important in underpinning a stable investment environment.

In short, we believe that maintenance of Australia's strong economic performance is fundamentally related to our ability to generate fresh investment opportunities. This is clearly related to enhancing Australia's competitive position, and likewise dependent on the availability of both debt and equity capital. Recommendations to assist this are proposed in Chapters 4-6 of this submission.

1.6.4 Housing investment

Investment in housing has always been a fundamental part of the Australian growth story and will need to continue to be so if we are to generate sufficient investment to maintain full employment. Investment in housing construction peaked at 6.2 per cent of GDP in 2004 (consistent with the peaks of previous decades), and has been declining steadily since then to 4.6 per cent-4.7 per cent of GDP. Although this is very much at the lower end of historical experience, there are some tentative signs of a pick-up.

As noted above, credit for housing grew particularly strongly in the two decades up to the GFC and has continued to grow since then at a slower pace as households have become more conservative. This has resulted in slower growth in housing lending by financial institutions since the GFC, but because aggregate credit to business from financial institutions has fallen since the GFC, the total proportion of credit to housing has continued to rise to be 60 per cent of all intermediated credit (refer Figure 9). This is somewhat higher than for other comparable economies (Davis[38]), although most Western economies have seen substantial growth in housing credit. Housing credit has accounted for 107 per cent of all growth intermediated credit since 2008.

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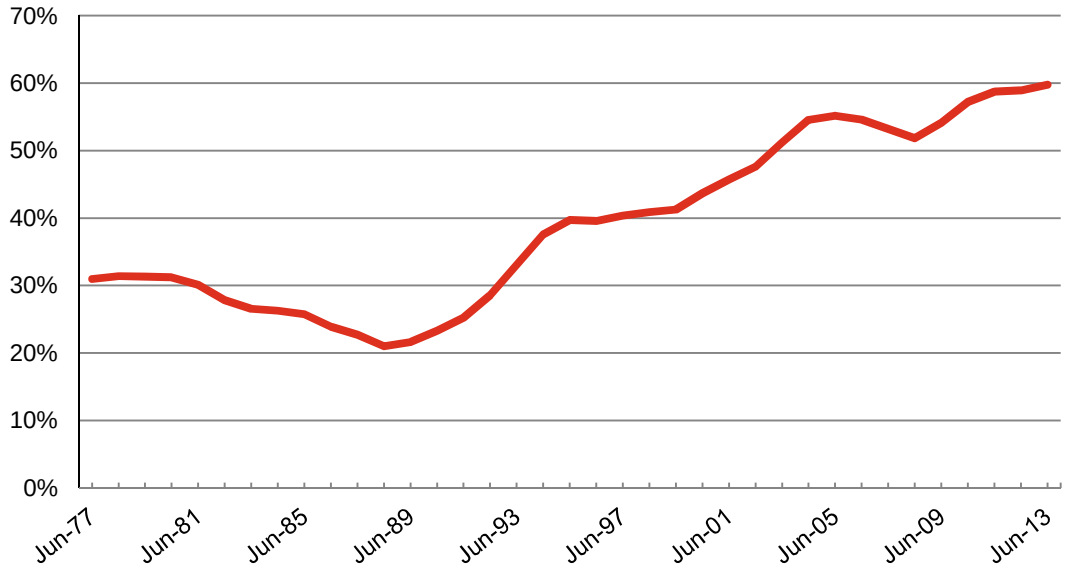
37 JA Schumpeter, *Capitalism, Socialism and Demographics*, George Allen and Unwin, 1943

38 K Davis, *Funding Australia's Future: From where do we begin*?, Australian Centre for Financial Studies, 2013, table 8

Figure 9: Housing credit as a proportion of total Australian credit



Source: PwC(2013)[39]

Housing has clearly been in a sweet-spot for both households and banks. Household tastes generally shifted towards larger homes in recent decades, and there seems general confidence in the upward trend in prices, supported by a number of taxation benefits, especially the capital gains tax exemption for the primary home. Banks have been confident in their risk-return assessments for mortgage lending, supported by observed household behaviour and low capital requirements. Historic credit performance supports this confidence, and as an auditor of a number of large mortgage portfolios in Australia we accept these assessments. Offshore investor appetite for Australian housing is a further source of confidence.

Nonetheless these trends emphasise the importance of maintaining Australia's strong economic performance. Ultimately house prices and housing debt are underpinned by the ability of households to service mortgages or pay rent – in short, by a robust labour market – and this in turn emphasises the importance of maintaining our strong economic record through new sources of productive investment. Borrowing households are being particularly assisted at this current time by historically low interest rates, but even then the average per cent of household income being allocated to housing is very high in historical terms (refer Appendix A, Figure 28); the distribution around this average means there will be some households who are extremely vulnerable to an increase in interest rates and/or a fall in income.

There is nothing new about strong economic performance flowing through into land values. As Adam Smith noted; "*every improvement in the circumstances of the society tends either directly or indirectly to raise the real rent of land*" (Smith[40]).In his pre-industrial society, Smith had agricultural land in mind because it provided the overwhelming proportion of food, energy, fibre and building resources. As production has shifted from organic to inorganic inputs (other than food), the overwhelming proportion of value is now derived in cities (Wrigley[41] and PwC[42]) and this explains why the value of urban land, especially in the

39 PwC analysis based on RBA's Financial Aggregates, September 2013

40 A Smith, *An Inquiry into Nature and Causes of the Wealth of Nations*, Liberty Classics, Indianapolis, 1776, page 264

41 EA Wrigley, *Continuity, Chance and Change: The Character of the Industrial Revolution in England*, Cambridge University Press, 1990

most productive cities, has risen globally (well ahead of agricultural land). In Australia, the value of the housing stock owned by households has risen from 2.2 times household income in 1988 to 3.5 times household income in 2013 as households have capitalised their expectations of continued strong economic growth, low interest rates, abundant credit, limited supply releases, and favourable tax treatment into house prices. These expectations will only be fulfilled if we can maintain a strong labour market and low inflation. This reminds us again of the imperative for finding new sources of productive investment.

1.7 Conclusion

Five key conclusions are drawn from this review of developments:

1. *The global financial system underwent an extraordinary transformation since the Second World War, from being highly regulated to one which is far more liberal.*

2. *In hindsight it is clear that regulators and market participants across the globe underestimated – and hence under-priced – the likelihood of large adverse events associated with this transition, in part because of confidence that the growth in financial contracts and information was tending to reduce aggregate risk.*

3. *Australia has navigated this tumultuous period of change in the global financial system in recent decades remarkably well, through the combination of strengths and prudence in both the private and public sectors, together with some good luck, especially continued demand for our natural resources.*

4. *Australia now has a growth imperative to find new sources of productive investment as the resources investment boom fades.*

5. *At a conceptual level, any proper analytical framework for understanding how economies and financial systems work in practice must treat the distinction between risk and uncertainty as fundamental.*

[42] PwC, *Australia uncovered, A new lens for understanding our evolving economy*, PwC Australia, March 2014.

2 Global trends

This chapter examines global trends most likely to influence the Australian financial system in the coming decades. It provides a summary of the six key drivers of change, based on PwC's own research into the future of financial services globally, and explains how these trends – and inherent uncertainties – may impact the global economy. In short, it explains that Australia cannot rely on the tailwinds that have generally been kind to it in recent decades. The Chapter then focuses in detail on the impact on the Australian financial system of three key trends: technological change, government finances and natural resource availability.

2.1 A summary of our global financial services research

PwC has undertaken a global research[43] project on the future of financial services and has identified six key drivers of change over coming decades:

1 The rise and interconnectivity of emerging markets – South America, Asia, Africa, and the Middle East (SAAME) which will shift the global balance towards emerging markets relative to the Organisation for Economic Co-operation and Development (OECD) and so entrench a multi-polar world.

2 Demographic change, including widening divergences in population growth between nations, ageing populations in many key economies (including Europe, China and Japan), and challenges for government finances.

3 Social and behavioural change, including urbanisation, growing global affluence, and changing drivers of talent.

4 Technological change, including digital, energy, and medicine.

5 A war for natural resources, including for energy, food and water, metals, ecosystems and sustainability.

6 The rise of state-directed capitalism, including state intervention and state-sponsored finance and investment.

Our purpose here is not to provide detailed commentary on each of these trends. We would be delighted to share more detail with the Committee if that is helpful.

The purpose of this chapter is to highlight some issues flowing from this analysis that may be of particular relevance to the Australian outlook for financial services in coming decades. We also take as given that the significant changes implied by each of these trends will naturally carry the potential of great opportunity for Australian businesses – both financial and non-financial – which bring innovative and strategic solutions to market. This trend is already very evident in Australian financial services, in regards for instance the rise of Asia, the ageing of the domestic population, and the harnessing of digital technologies.

By their nature, the outlook for and impact of each of these trends is subject to significant uncertainty and in general the purpose of our global research is to highlight potential developments rather than to make 'point forecasts'. There are some exceptions to this (for instance the United Nation's estimates of ageing populations are likely to be quite accurate) but other trends such technological change and social and behavioural change are subject to great uncertainties.

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43 PwC Global Research, *Assessing the future trends for financial services*, 2013

The extent of this uncertainty is only realised when the interaction among the trends is considered. For instance, the rise and interconnectivity of the emerging markets is expected to continue and be a positive factor for those countries and the world economy in general, including Australia. Yet under our 'war for natural resources' trend we identify a risk that many of these nations, including China and India, are likely to experience severe water stress in key urban and agricultural geographies, as well as in power generation. If severe water shortages are not solved, they are likely to constrain economic activity and social cohesion in a material manner. It is impossible to predict with any certainty how this tug-of-war might play out.

The most important point is that when taken together these trends point to a very different outlook when we consider what the next three or four decades might look like compared to the past 30 or 40 years. As we argued in Chapter one, the world enjoyed a period of favourable and reinforcing economic developments for much of the 1980s, 1990s, and 2000s – an important explanation for the growth in leverage. There are many reasons to be positive about the future but there are also trends which may restrict growth and reduce confidence, including ageing populations, resource constraints, and the challenges of a multi-polar world. In addition, government and household balance sheets remain constrained, as do bank balance sheets in many jurisdictions.

A tougher world only gives greater advantage to those economies that can deliver consistent economic growth. This is turn reminds us of the importance of genuine productivity improvements and innovation, as well as the importance of being able to direct finance to the best and highest uses. At the same time, Australia cannot bank on the same tailwinds that have generally been kind to it in recent decades. There needs to be planning for a world where the objective circumstances of the next few decades put an ever-greater premium on genuine productivity improvement and entrepreneurial risk-taking.

The remainder of this chapter focuses on three particular trends – technological change, government finances, and natural resource availability.

2.2 Technological change

Information technology was first applied on a systemic basis in the Australian financial system in the late 1960s. Since then it has grown to become one of the most persistent and pervasive trends in the system, with critical benefits flowing to customers and shareholders. The economy as a whole has enjoyed significant spin-off benefits as technology skills nurtured in the finance sector have migrated to other sectors, offset somewhat by the demand from financial services tending to push up wage rates for these skills in other sectors.

Over the same period, the combination of developments in information and communications technologies has been a major driver of globalisation. The impact of this on Australian financial services has been evident in the past decade or so, with an increasing number of financial services companies offshoring operations, including back-office, technology, and font-line customer service (ie call centres).

The issue is not *whether* the impact of digital technology on the Australian economy and the financial system will accelerate in coming decades but rather *how far-reaching* these impacts will be. The dramatic growth in cloud technology in recent years is just one example of this.

2.2.1 *Key trends and their implications*

Considering the pace of recent developments globally, and the depth and breadth of strategic and business plans across our global client base, the potential for change in the Australian economy and financial system is dramatic. Key trends include:

- the substitution of capital for labour via investment in labour-saving technology as the array of human activities performed by technology (including robots) in a cost-effective way increases;
- reductions in search and transaction costs for all people and businesses (including across national boundaries);
- dramatic increases in the volume and sophistication of data analytics, including for marketing and risk assessment purposes;
- entirely new techniques for risk assessment purposes, for instance the use of DNA for life insurance assessment and the use of telematics for general insurance assessments;
- reduced barriers to entry through reduced marketing and technology costs for new players entering established industries; and
- the scope for the economic delivery of entirely new products and services to market.

We believe that the direction of recent research such as The Economist's analysis in *The Onrushing Wave*[44] is broadly correct – that is, we are fast approaching a point where many traditional jobs can be performed more cheaply and efficiently by digital technology. The fact such technology is available does not necessarily mean it will be deployed (capital constraints or risk and brand considerations are potential reasons) but the potential for such disruption is increasing quickly.

These trends carry a range of implications for the financial system, many of which are well-known:

- As noted above the financial system has a long history of using information technology to benefit customers and shareholders, and we expect this trend will only accelerate, especially in payments and away from branch-based transactions and cheques.
- One essential feature of the transition described above is the substitution of capital for labour – there will be opportunities in supplying such capital to clients.
- These trends also suggest that a higher proportion of economic value will be created from less tangible sources such as the amassing and analysis of data, the application of digital skills (eg app creation) and digital investments (eg operating systems) compared to traditional sources (ie bricks and mortar) These intangibles still need to be financed and so valued. By their nature, there is also the distinct potential for the life-cycle of such investments to be shorter and less predictable. Banks, for instance, may need to update their credit practices to reflect such trends. More deeply, is the 'fixed contract' nature of debt less appropriate then the more flexible nature of equity for financing such investments? In turn, how much of a weakness is Australia's relatively underdeveloped venture capital market a weakness in that regard?

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44 The Economist, *The Onrushing Wave*, 18 January 2014

In addition there are a number of potential implications that are less recognised – changing labour market dynamics, the role of the household sector and the impact of increasing interconnectivity and innovation.

2.2.2 *Changing labour market dynamics*

Digital technology has the potential to fundamentally change labour market dynamics in advanced economies, including Australia's. Since the Industrial Revolution real wage rates for workers in industrial economies have increased on a sustained basis. This is a fundamental trend, as the broad tendency to full employment has helped to ensure that competition for labour translates into higher real wages. This reflects the enhancements to labour productivity that have flowed from capital investments and organisational improvements. By contrast, capital mobility has tended to compete away excess profit rates (although this has been offset somewhat by the prevalence of economies of scale, which means that successful businesses tend to swallow smaller businesses and so we see bigger profit pools). (Refer Clark[45] and Goodwin[46]).

Financial services institutions selling into the retail market are particular beneficiaries of this trend, both because of higher household incomes and because financial services tend to be 'superior goods', that is, expenditure rises proportionately more quickly than income. Household spending on insurance and financial services in Australia has risen from $18 per person in 1963 to $854 per person in 2013 (an annual compound growth of 8%pa).

This combination of globalisation and technology is driving to a global labour pool – this is not a new trend but certainly an accelerating trend. If we anticipate that digital technology could see a step change in the substitution of capital for labour then the traditional labour force may find its ability to maintain high real wages harder to achieve, other than at the very upper skill echelon. The landmark research by Frey and Osborne[47] suggests that jobs are at a high risk of being automated in 47 per cent of traditional occupational categories (refer Figure 10.1, Figure 10.2 and Figure 11).

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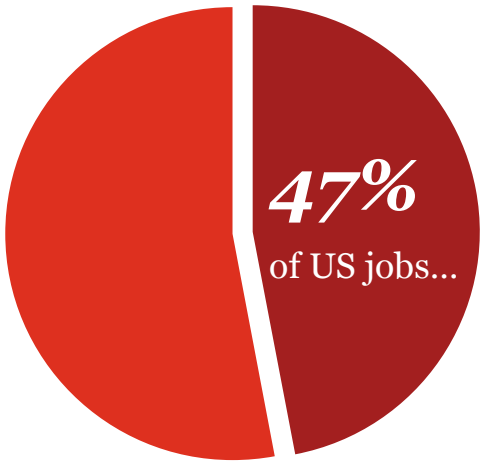
45 G Clark, *Farewell Alms*, Princeton University press, 2007

46 R. M. Goodwin, *A Growth Cycle*, in C.H. Feinstein, *Socialism, Capitalism and Economic Growth*. Cambridge University Press, 1967

47 C Frey and M Osborne, *The Future of employment: how Susceptible are jobs to Computerisation*?, Oxford University, 2013

Figure 10.1: Proportion of jobs and occupations that could be replaced by computers



... can be computerised over the next 20 years

Source: Frey and Osborne[48]

Figure 10.2: Probability of computerisation by skills

	Skill	Probability of computerisation
Management	Assisting and caring for others	34 (±10)
	Persuasion	32 (±7.8)
	Negotiation	30 (±8.9)
	Social perceptiveness	37 (±5.5)
Creative industry	Fine arts	1.3 (±5.5)
	Originality	32 (±5.6)
Support staff, sales & service	Manual dexterity	36 (±14)
	Finger dexterity	40 (±10)
	Cramped work space	31 (±20)

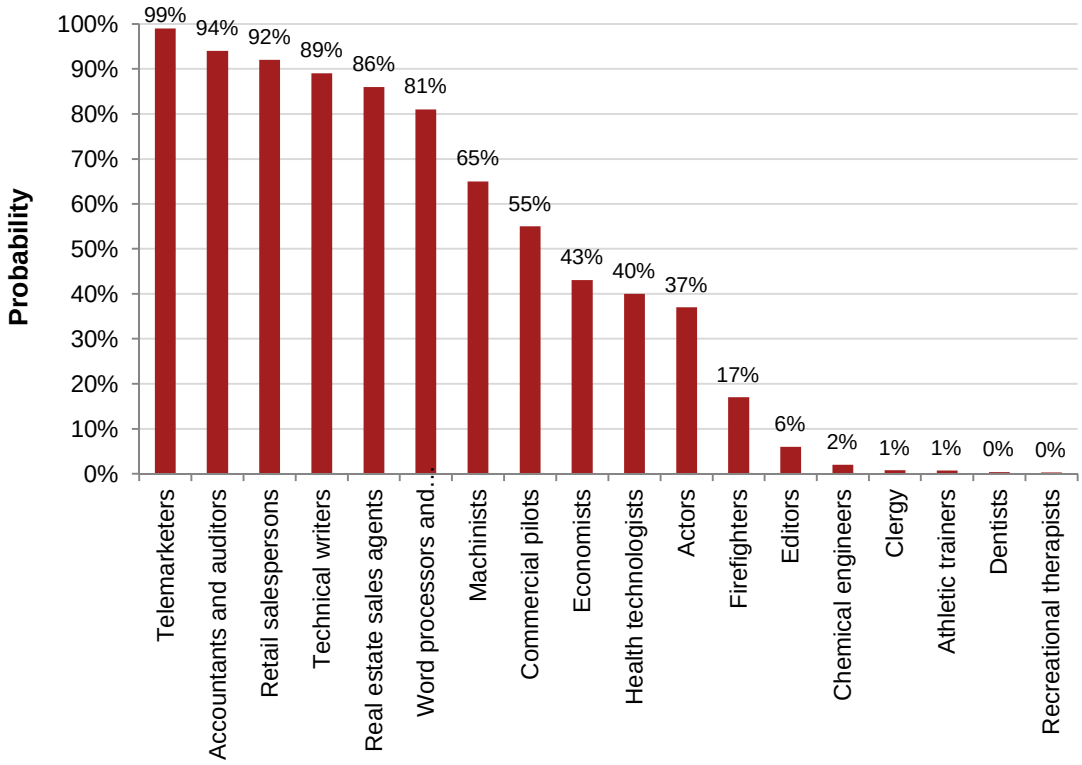
** The mean is presented with standard deviations in parenthesis. The probability is restrained between 70% and 100% to reflect high risk of computerization. A lower mean shows that jobs are less susceptible to computerization and vice versa.*

Source: Frey and Osborne[49]

48 Ibid Frey and Osborne, 2013

49 Ibid Frey and Osborne, 2013

Figure 11: Probability that computerisation will lead to job losses in the next two decades, selected occupation, 2013



Source: Frey and Osborne[50]

This is directionally consistent with the potential we see across our global client base across industries in general. Whether this potential is translated into reality will depend on investment cases – will the expected benefits exceed the investment costs? Certainly we believe there has been a step change in the potential in the last five years or so, and in general, commentators are underestimating the potential for a step-change in labour market dynamics (refer The Economist[51]).In Australia, this potential needs to be seen in the context of relatively high real wages by international standards (refer Newman[52]).

Of course such concerns are as old as the Industrial Revolution itself, but equally after more than two centuries of industrial progress we are now very well advanced through the primary-secondary-tertiary sector transition. Creating new jobs and creating enough high-wage jobs to maintain living standards are two different things.

2.2.3 Role of the household sector

Many of the profit pools in Australian financial services depend on the financial health of the household sector. A global trend has emerged in recent decades for financial institutions to increasingly focus on the household sector because that is where the demand and spending power – and hence the risk-adjusted profit pools – have resided. As the discussion in Chapter one indicated, these trends have been very evident in Australia, for instance through the rise in household leverage.

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50 Ibid Frey and Osborne, 2013

51 Ibid The Economist, 2014

52 M Newman, *Working with government to drive economic growth and a thriving business sector*, Address to the CEDA Annual Dinner, November 2013

The point here is that there is a direct link between the operation of the labour market and the state of household finances. If the thesis of the previous section is correct – that technology could force a fundamental shift in labour market dynamics – then this in turn implies a shift in the underlying risk profile of the Australian financial system, even without a change in interest rates.

In other words, we expect to see a direct impact of the increasing trend towards digital technology on labour market dynamics in coming years. This has the potential to flow through to financial institution risk profiles. This may be offset to some extent by the expected continued global appeal of Australia as an immigration destination and hence of Australian housing.

2.2.4 Interconnectivity and innovation

This risk dimension is further emphasised by the point made in Chapter 1 that increasing interconnectivity is linked to increasing risk because increasing interconnectivity implies that a given event can be transmitted further and faster with greater uncertainty about where it ultimately lands. Interconnectivity and 'fatter tails' go hand-in-hand and in that sense digital technology and interconnectivity go hand-in-hand. Merton[53] applies network theory to observed market data for global banks to demonstrate this point, emphasising the inherent uncertainty in how unexpected disruptions are transmitted between global banks.

A further element of this risk dimension comes from the observed tendency for accelerated innovation cycles over time, whereby both financial and non-financial organisations are under increasing market pressure to bring new products or operating models to market. In part, this reflects greater choice available to consumers and hence their increased licence to be more fickle. West argues that the modern prevalence of increasing returns to scale provides a more fundamental explanation – the growth potential of each new technology or innovation is achieved more quickly and hence a new innovation is required ever-more-quickly if the company is to maintain its competitive position (refer West[54]).

In other words, this requirement for accelerating innovation has been 'baked into' the economic –and hence financial – system. The process works well so long as accelerating innovation is achieved (as in recent decades), but begs the question of how the risk profile of the financial system responds if there is a disruption to the innovation cycle. These issues appear to be on the radar of central bankers (refer Lowe[55]).

2.3 Government finances

The period since the GFC has highlighted the pressure on government finances across the Western world. For some countries, such as the United States, these pressures were both at play and evident before the GFC; for others, such as Greece, the pressures were at play before the GFC but not evident until the crisis was well advanced. For others, including Australia, the pressures did not start arising until after the GFC.

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53 RC Merton, *A New Approach to Measuring Macrofinancial Risk Propagation*, Presentation to The Institute of Global Finance, UNSW, 2013

54 G West, *The Surprising Math of Cities and Corporations*, TED.com, 2011

55 P Lowe, *Demographics, Productivity and Innovation*, Reserve Bank of Australia, Sydney, 2014

While the circumstances of each country varies, the root cause of these pressures are taxation and government expenditure arrangements largely designed for 1950s and 1960s economic circumstances, which are struggling now. Reasons for this include:

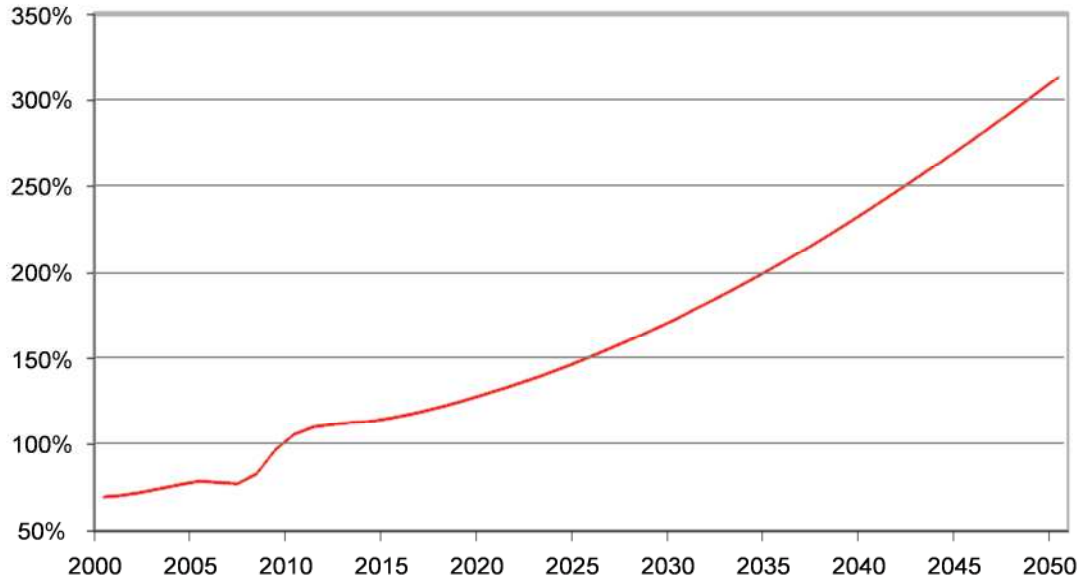
- economic growth rates are lower than the post-war era, impacting tax revenues;
- populations are ageing, and so drawing increased pension, health and aged-care benefits;
- per unit health care costs are rising, as medical technology becomes more sophisticated;
- the need to catch-up with respect to public infrastructure upgrades (such as roads and water) is becoming more pressing; and
- broader community expectations about the depth and breadth of government support are rising.

One recent positive for government finances has been the very low level of global interest rates, which has tended to reduce the interest servicing cost on public debt, except for those countries where solvency concerns drove up risk margins. The volume of debt, however, has continued to rise in consequence of persistent annual deficits; bank and other bail-outs during the GFC also contributed directly to government debt.

Demographic and other factors will exacerbate many of these trends in coming decades. In addition, the rise of 'state-directed capitalism' in the context of continued globalisation will likely increase the trend towards competitive auctions of government support or tax relief between nation-states in order to attract capital. Globalisation may also make it harder for tax authorities to prevent 'tax shifting' to more favourable tax regimes.

The extent of this challenge at the global level is evident in Figure 12, taken from an International Monetary Fund (IMF) study from 2009.

Figure 12: G20 advanced economies – Government Debt to 2050, as a proportion of GDP



Source: IMF[56]

[56] IMF, *Fiscal Implications of the Global Economic and Financial Crisis*, 2009

The full significance of Figure 12 is evident in the context of Rinehart and Rogoff's[57] long-run historical analysis, which suggests that once government debt rises to 90 per cent -100 per cent of GDP, it begins to adversely impact national economic performance. The explanation behind this is that servicing a debt of 100 per cent of GDP implies an interest bill in the order of 5 per cent of GDP, much of which is typically paid offshore; such a drain on domestic income can start impacting demand and growth. Investor behaviour in recent years gives credence to this analysis.

In other words, the analysis suggests that much of the Western world is moving to a point where government debt levels are unsustainable. In Australia this is also evident. The Commonwealth Government is now operating a Budget deficit and has been for the past four years, due to a range of factors including GFC expenditures and a reduction in company and capital gains tax receipts. While our deficits are comparatively low when compared to other OECD countries, a return to surplus has been more difficult than anticipated. This position is also inconsistent with the primary objective of fiscal policy to maintain a Budget surplus, on average, over the medium-term.[58]

Concerns over budget deficits are also amplified when considered though the lens of structural budget balances. Structural budget balances adjust for major cyclical and temporary factors and can provide an indication of the health of a government's balance sheet and debt sustainability. Recent reports have suggested that it is structural rather than cyclical factors driving Australia's increasing budget deficits, reflecting actions by current and former governments to reduce taxes (personal income taxes, fuel excises) and increase spending levels. According to estimates by the Parliamentary Budget Office[59], Australia moved into a structural deficit of around 3.25 per cent to 4.25 per cent in 2011-12, and while this has recovered somewhat, even with proposed savings it is expected to remain around 0.25 per cent to 1.5 per cent of GDP in 2016-17[60]

This short- to medium-term problem is exacerbated by structural factors mentioned above (including an ageing population, and growth in per capital health costs), as well the GFC-overhang impact on capital gains taxation and slower domestic growth impacting company and GST revenues.

PwC modelling to reflect these long-term forces shows a growing fiscal gap at all levels of government in Australia if expenditure and revenue policies remain unchanged, and productivity continues at the average of the past 15 years.

While the 2013-14 Mid-Year Economic and Financial Outlook (MYEFO) suggests a return to a surplus in the years ahead, modelling using the long-run underlying drivers of the economy – productivity, participation and population – suggests that this might be difficult to achieve and sustain (refer Figure 13).

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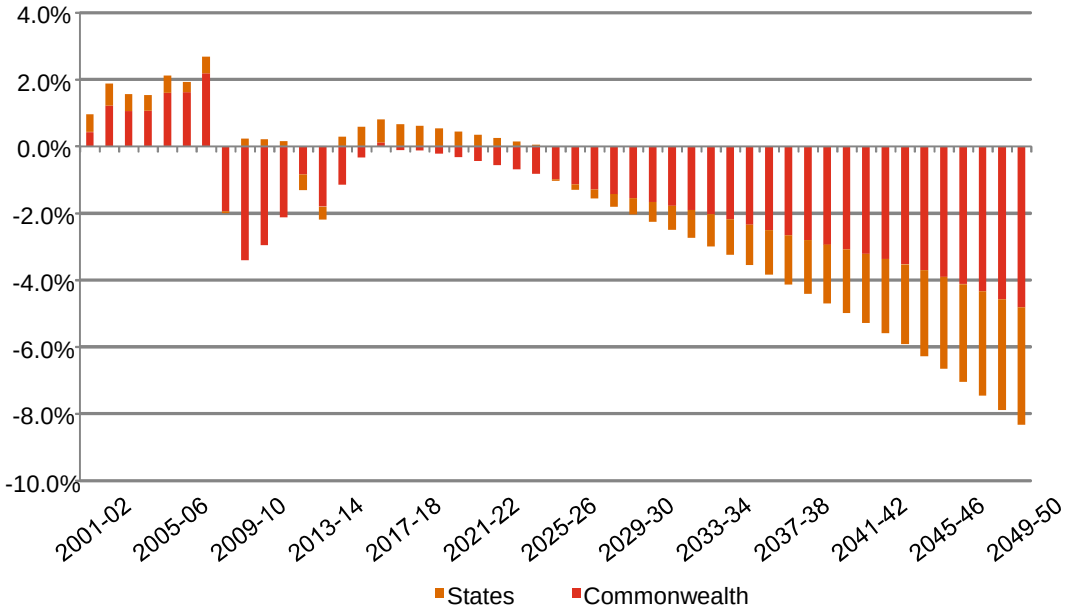
57 CM Rhinehart and KS Rogoff, *This Time is Different*, Princeton University Press, 2009

58 Australian Government, *Building resilience through national savings*, Statement 4, 2012

59 Australian Treasury, Budget 2012-13, Australian Government, Canberra

60 Australian Government ,The Treasury, *Estimates of the structural budget balance of the Australian Government,* Australian Government, 2013

Figure 13: Primary balance (Commonwealth and state/territory governments) as a proportion of GDP



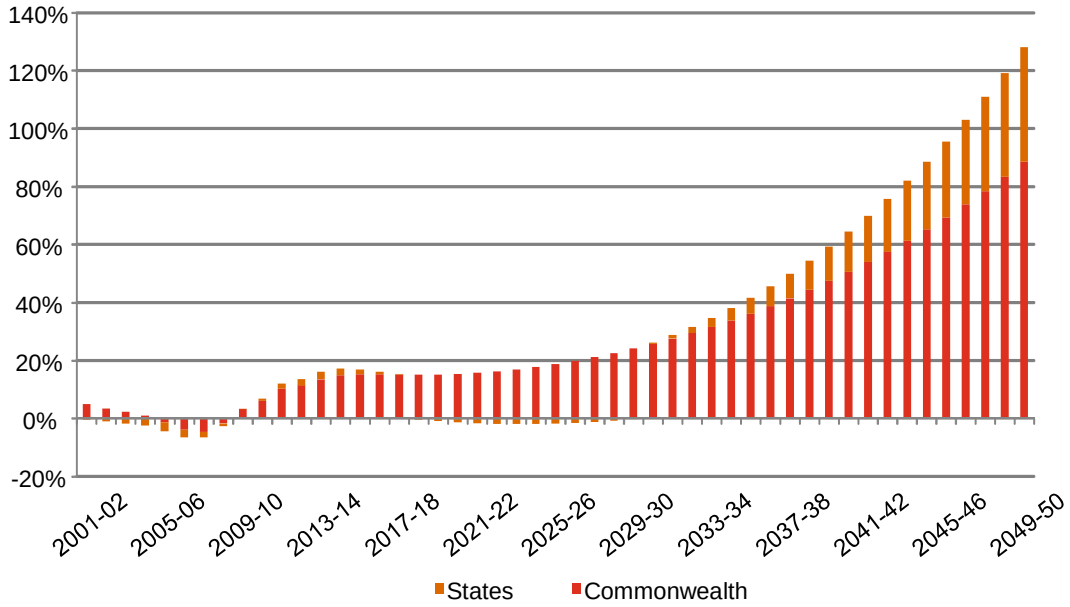
Source: PwC[61]

Note: The primary balance is defined as the difference between revenues and expenditures, excluding interest transactions. This chart uses official budget forward estimates where they are available. To this extent it relies on budget estimates of future revenue growth and expenditure paths. It is based on an assumption of a steady 1.5 per cent improvement in productivity each year.

Based on these trends, it is estimated that total general government debt will grow for all levels of government, with the cumulative deficits as a proportion of gross domestic product (GDP), rising from 12.1 per cent in 2011-12 to 59.3 per cent by 2039-40, and then to 128.1 per cent by 2049-50 (refer Figure 14).

61 PwC, *Protecting prosperity: Why we need talk about tax, July 2013, (updated for MYEFO)*

Figure 14: Public sector debt (Commonwealth and state/territory governments) proportion of GDP



Source: PwC[62]

It needs to be recognised that the increase in government debt is much less dramatic than the aggregate position of the G20 Advanced Economies identified by the IMF above. This is of limited comfort given that we are on a path towards the 100 per cent public debt-to-GDP threshold discussed above, and moreover, a key differentiator of Australia's comparative position globally – and key to navigating the GFC so well – has been a sound fiscal position. Given the commodity-driven volatility of our external revenues, it is imperative we take the steps to maintain this position.

2.4 Natural resource scarcity

Western economic thought has a long history in expressing premature concern about natural resource constraints acting as a check on economic growth. This includes Malthus, Ricardo, Jevons and the Club of Rome. Typically, these analyses have under-estimated both the extent of available natural resources and the potential for innovation, both to reduce resource intensity of production and to unlock new resources. The recent application of 'fracking' technology – first trialled in the 1970s – is an obvious example.

Nonetheless, in consulting to our global clients across multiple industries and other global experts, there is clearly a growing concern about specific resource constraints in critical geographies over coming decades. These concerns have been sufficient for PwC's global financial services practice to regard the *War for Natural Resources* as one of the six key drivers of change in coming decades.

The research suggests enormous variation exists across commodity and asset classes. For instance, commodities such as iron ore, coal, natural gas and uranium are clearly in great abundance globally. There will always be market fluctuations in these products, but global-scale supply shortages are most unlikely, and the value-mass ratios of these products mean that global trade is an efficient means of smoothing out regional supply shortages. Two types of natural resources; however, pose greater potential for concern: water and climate.

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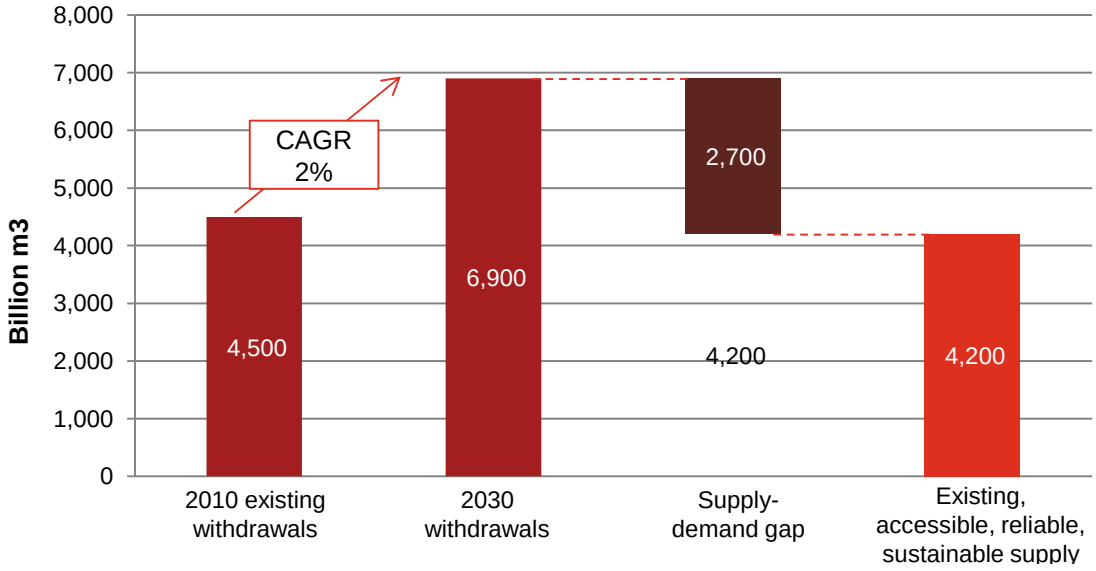
62 Ibid PwC, *Protecting prosperity: Why we need talk about tax*, July 2013

2.4.1 Water

There are two core issues in relation to fresh water availability. The first is that current withdrawals for human usage on a global basis (4.5 billion cu m) are already slightly above existing accessible, reliable and sustainable supply (4.2 billion cu m). Looking forward, demand for fresh water is expected to grow at a 2 per cent compound annual rate over the next decades, with very limited scope for improvements in reliable supply. By 2030, this implies demand for water is expected to exceed sustainable supply by 60 per cent (refer Figure 15). It is estimated that by 2050 half of the world's population may be subject to water shortages equivalent to those experienced in sub-Saharan Africa (Crawford 2014)

Figure 15: Aggregated global gap between existing accessible, reliable supply and 2030 water withdrawals, billion m3

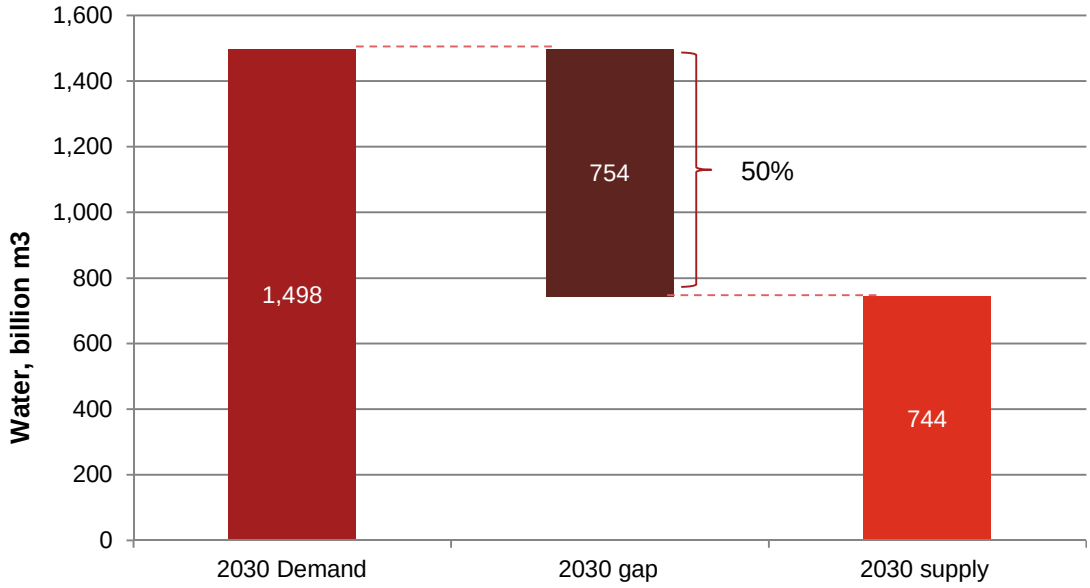


Source: PwC[63]

The second core issue is that projected water stress is concentrated in some critical countries, including India and China, as indicated in Figure 16.1 and Figure 16.2. One important contributing factor in both countries are dependence on underground aquifers which are being depleted, for instance in the North China Plain (which encompasses Beijing and Tianjin) and in a number of Northern Indian states (especially Rajasthan, Punjab, and Haryana) where there is no regulatory framework for aligning demand to sustainable supply. Mexico is in a similar position.

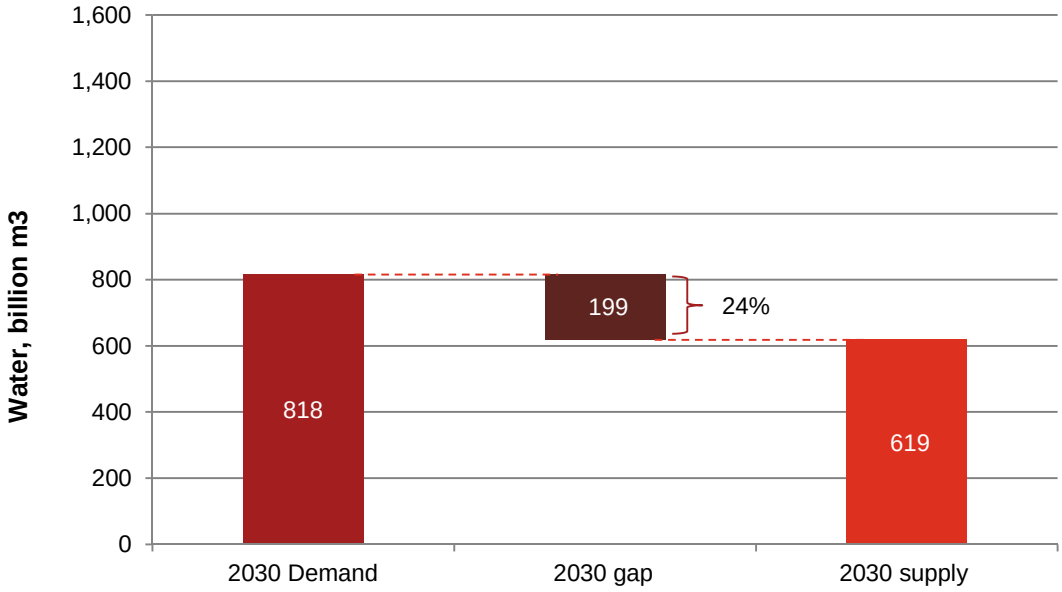
63 PwC analysis, *2030 Water resources group- charting our water future*, 2013

Figure 16.1: India, water demand, supply and gap, billion m3, 2030



Source: PwC[64]

Figure 16.2: China, water demand, supply and gap, billion m3, 2030



Source: PwC[65]

One pointer to the scale of global aquifer depletion is an estimate that in 2015, for the first time, water withdrawals from aquifers will exceed inflows into man-made dams (refer Crawford [66]2014).

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64 Ibid PwC analysis, *2030 Water resources group- charting our water future*, 2013

65 Ibid PwC analysis, *2030 Water resources group- charting our water future*, 2013

66 J Crawford, *Why our blue planet is running out of water*, World Economic Forum, March 2014

The consequences of water shortages are not limited to agriculture or direct human consumption, but also energy, where both nuclear- and coal-powered electricity production requires substantial water inputs, exacerbated by the fact that coal mines are often located away from available water. The substantial planned capacity increases across Asia in electricity generation over the next two decades are not matched by equivalent increases in water availability, with estimates suggesting roughly half of the existing and planned capacity in India and Southeast Asia are in water-scarce or-water stressed areas. Variations in water supply due to drought are separate challenges; in August 2012 for instance rolling black-outs across India are estimated to have impacted more than 600m people[67][68]. There were also temporary closures of nuclear power generation plants in the US in 2012 for the same reason[69].

Clearly there are potential improvements and solutions to these issues – more efficient power plants, investment in water-saving technologies, better water pricing regimes, desalination, and trade in embedded water via the global food trade. . Rather, the point is recognising that the extraordinary global economic development of the past few decades has consumed global excess capacity in water, and where to date water shortages have been localised. This is most unlikely to be the case from here, especially as areas of significant stress coincide with precisely the places which we are relying on for global growth.

The point to emphasise is that global economic development to date has largely been unconstrained by water shortages in any material way, either directly through food or power supply disruptions or through the flow-on impacts for social cohesion. Over the past 30 years, the opposite is largely true – that the extension of global trade has enabled trade in food ('virtual water') to smooth out regional stresses and shortages. It is part of the reason we argued in Chapter one that the global economic circumstances of the last 30 years have been very favourable, and hence conducive to the run-up in debt. The evidence above suggests that we can no longer take this for granted, not just in economic terms but in social cohesion as well. Likely, water stress is one – only one – factor underlying the so-called Arab Spring.

From an Australian perspective, there will be considerable opportunity – we are a major food exporter and, along with Israel and the US, one of the most advanced nations in water-efficiency technology. Equally, the wider global picture will set the broader market context, emphasising yet again the importance of a robust financial system to cope with the inevitable surprises and stresses of coming decades. As the historian Niall Ferguson[70] (2013) has expressed it in the context of such stresses:

> *"By their very nature, the unknown unknowns are impossible to anticipate. But what of the unknown knowns – the insights which history has to offer, which most people choose to ignore? … From a historian's point of view, the real risks in the non-Western world today are of revolution and war … caused by a combination of food-price spikes, a youthful population, a rising middle class, a disruptive ideology, a corrupt old regime, and a weakening international order"*

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[67] Bloomberg, *Asian Water Scarcity Risked as Coal-fired Power Embraces*, 10 September 2012

[68] Financial Times, *Powerless to act*, 5 August 2012

[69] New Scientist, *Water shortages hit US power supply*, 15 August 2012

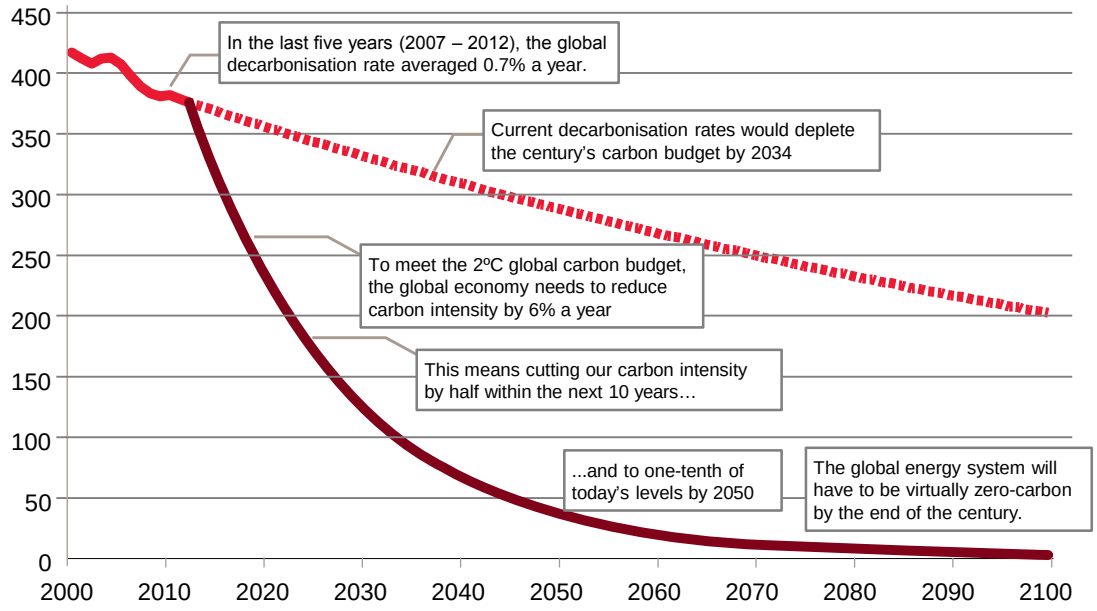
[70] N Ferguson, *The Great Depression – How Institutions Decay and Economies Die*, Penguin, London, 2013, page 145

2.4.2 Climate

Potential changes in the global climate are relevant for consideration in this context, on two levels. The first is the uncertainty about the extent of changes to the climate globally, as well as the implications of this uncertainty. Consistent with the professional scepticism inherent to both auditing and professional services more generally, we have an instinctive bias against extreme claims on either side of the debate, especially allowing for the tendency for self-interest to cloud objectivity in such complex matters. Nonetheless, we note the recent flow of evidence from organisations such as the, The Royal Society[71], National Academy of Sciences[72], The American Academy for the Advancement of Sciences[73], and, in the Australian context, the Commonwealth Scientific and Industrial Research Organisation (CSIRO)[74] consistently suggests continued changes in many climate dimensions outside of historic climate variability.

Moreover, our global PwC research from November 2013 has demonstrated the global challenge to achieve the reductions in carbon-intensity implied by the 2 degree limit on global warming (refer Figure 17).

Figure 17: Carbon intensity (tCO2/$m2012)



Source: PwC[75]

Reflecting similar analysis, the World Bank[76] concluded in 2012 that:

> *"Even with the current mitigation commitments and pledges fully implemented, there is roughly a 20 per cent likelihood of exceeding 4C by 2100. If they are not met, a warming of 4C could occur as early as the 2060s."*

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[71] The Royal Society, *The Climate Change: Evidence & Causes*, 2014

[72] Ibid The Royal Society, 2014

[73] American Society for the Advancement of Sciences, *What We Know*, 2014

[74] CSIRO, *State of the Climate*, March 2014

[75] PwC, *Busting the carbon budget by 2034*, 2013

[76] World Bank, *Turn Down the Heat – Why a 4ºC Warmer World Must Be Avoided*, November 2012

A potential rise of 4C needs to be seen in the context that the current average global temperature is approximately 14°C – +4C implies a 25 per cent increase on this – while temperatures in the last global ice age were 4-5C below current temperatures[77]

The second consideration is the approach taken by global policy makers. In recent years, it has become increasingly clear that it is most unlikely there will be a global accord to give material incentive for individual nations to reduce carbon intensity. This reflects the importance placed by both governments and their key constituencies on maintaining economic and jobs growth, economic competitiveness, and low energy prices (which in turn drives economic growth). This outcome is entirely consistent with standard analysis of decision-making under uncertainty as captured in the 'prisoners' dilemma' tool: in the absence of confidence in how others will behave, the business as usual option is the most rational individual choice, even though it generates a sub-optimal outcome in aggregate.

Against this context, continued growth in greenhouse gases such as CO2, CH4, and NO_X seem likely, because reductions in carbon intensity per unit of GDP are unlikely to be sufficient to offset the growth in energy usage as global GDP grows. The potential implications of this are most unclear. It may be that the natural environment is sufficiently robust to absorb these emissions without material change, although this is by no means the conclusion of mainstream climate science.

If material climate change occurs, then regardless of the global policy response, there will inevitably be market reactions on multiple levels as businesses and individuals respond to new opportunities, consequences and uncertainties. Insurers, banks, and asset managers will be integral participants in this as the primary risk intermediaries in global markets and economies. We are certainly seeing evidence of this across our global network as financial institutions assess these trends. Reflecting the nature of their businesses, we observe that global reinsurers are furthest progressed in this regard, followed by global insurers, and then global banks. Many institutions are still treating these issues as largely 'corporate social responsibility' issues rather than having material balance sheet risk or operational risk dimensions. As you would expect in any market, there is a wide range of assessments about the extent of opportunity and uncertainty between market participants at this time.

As noted in section 2.1, the approach in our global research project has been to stress the uncertainties that arise when the interaction among the trends is considered. The interaction between digital technology and natural resources is a good example of this interaction. Miniaturisation flowing from digitisation may tend to reduce our energy and resource demand per unit of output; it may also tend to increase the premium on economic growth – and hence the availability of reliable, low-cost energy– to help absorb displaced workers into new jobs. How this tug-of-war between the conflicting requirements of energy-for-growth and of reduced carbon footprints plays out is not at all clear[78]. In any scenario, financial institutions will be the key risk intermediaries.

[77] Ibid The Royal Society, 2014, page 19

[78] V Smil, *Energy Transitions, History, Requirements, Prospects*, 2010

2.5 Conclusion

This chapter has sought to stress that the outlook for the next two or three decades is likely to be very different from the experience of the past 30 or so years since the Campbell Committee[79] Report. As we argued in Chapter one, the world enjoyed a period of favourable and reinforcing economic developments for much of the 1980s, 1990s and 2000s, and this is an important explanation for the growth in leverage.

Looking forward, there are many positives but there are also trends that may restrict growth and confidence, including ageing populations, resource constraints, and the challenges of a multi-polar world. In addition, government and household balance sheets remain constrained, as do bank balance sheets in many jurisdictions. A tougher world only gives greater advantage to those economies that can deliver consistent economic growth and maintain a sound fiscal position. This in turn reminds us of the importance of genuine productivity improvements and innovation, of the importance of being able to direct finance to the best and highest uses, and of the importance of ensuring that our financial system is sufficiently robust to withstand the inevitable stresses and surprises of coming decades.

As Niall Ferguson[80] summarised his survey of recent global developments:

> "*Today we face more uncertainty than calculable risk. Such is the result of exchanging a bipolar wold for a networked one*"

[79] Ibid Campbell Committee, 2009

[80] Ibid N Ferguson, 2013, page 145

3 Philosophy, principles and objectives

This chapter builds on our first two chapters to draw observations on the philosophy, principles and objectives underpinning the financial system. It outlines the context for finding a balanced path between driving growth through innovation and risk-taking on the one hand, while limiting the likelihood of financial crises on the other. It explains the key emerging global trends in relation to investment and funding, and the factors influencing the roles and responsibilities of the public and private sectors. The role of government in the financial system is explored, including a perspective on (Small to Medium Enterprises) SMEs. The chapter concludes with a discussion of the role of audit in the financial system.

3.1 Context for a balanced path between innovation and uncertainty

We believe the core issue facing the financial system is how we heed the lessons of the past while rising to the challenges of growth and innovation in a very uncertain world. The challenges facing Australia can be expected to be materially different to those of recent decades. In particular, how do we use the lessons of the past to promote growth and innovation, rather than to restrict growth?

One key to the answer is to retain our confidence in a fundamental lesson of history – the ability of the private sector pursuing individual goals through the organising mechanism of markets to be able to generate innovation and growth, and hence rising living standards.

However, the disruption caused by the GFC would be entirely in vain if we did not pay careful attention to the lessons of the past six or seven years: in particular, that financial crisis is a very real phenomenon and, in the extreme, would bring down the global financial system. We came very close to that happening in September 2008.

The challenge is to find the middle path between these two lessons. How do we reward the risk-taking and innovation that is economic growth's driving force while avoiding financial crises? Trying to eliminate 'bad stuff' happening is not just futile but is entirely counter-productive. Although never easy to watch, the failure of businesses and industries is part and parcel of how economies and societies develop, as technologies, tastes, and resource availabilities shift. The 'destruction' part is just as important as the 'creative' part in Schumpeter's[81] colourful description of competition.

Finding the right balance is not helped by simplistic appeals to economic theory. As Professor Frank Hahn put it in rejecting such appeals:

> *"The possibility of bankruptcy is therefore also a possibility for the occurrence of some rather sharp discontinuities.... If the route from unemployment to high levels of demand is strewn with bankruptcies then the smooth curves of the textbooks will be harder to justify". (Hahn[82])*

81 Ibid Schumpeter 1943

82 FH Hahn, *Equilibrium and Macroeconomics*, Blackwell Publishers, London, 1984, page 156

We think that there are two core markers to bear in mind in trying to navigate a balanced path.

The first is to remember that the financial system is in a constant state of flux and financial cycles generally last longer than cycles in economic activity. Understanding the longer historical context is therefore key to finding the middle path. From 1946 to 1971, credit creation was largely constrained by gold supply; from 1971 to 2007 credit creation became increasingly unconstrained; since 2008 markets and regulators have been trying to find a balance between those extremes.

In this sense, the changes to Basel II and the introduction of Basel III in response to the GFC are an effort by the global regulatory community to find a balanced path between the ability of competitive markets to deliver growth and innovation and the need to avoid systemic financial crisis by increasing capital requirements, restricting mismatch on bank balance sheets, and increasing liquidity holdings. In general we think that the right balance has been struck, although we do make some practical suggestions for refinement in Chapter 5.

The second marker for finding a balanced path is to be wary of absolutes. For instance, we often talk about competition or innovation as if more is always better. The US sub-prime experience showed that intense competition for mortgage lending did not turn out for the better because risk management and supervision were grossly inadequate. The disintegration of the CDO market showed that innovation in financial products did not always turn out for the better because the systemic risk implications were not well understood.

Likewise, being too risk averse is generally not optimal. For instance, the RBA's recent championing of the New Payments Platform for 'real-time payments' can be interpreted as a response to market participants being too risk averse, and so too reluctant to innovate; hence the RBA mandating a co-operative solution for the infrastructure, and while encouraging competition in the 'overlay services'. In short, we need to be wary of absolutes in both directions, ensuring policy in the context of the needs of the day.

As we have argued throughout this submission we believe that the policy skew over the next period needs to be tilted towards growth and innovation. To use a military analogy, we need to guard against fighting the last (GFC) war, focussing too much on excessive leverage and mismatch risk, and not enough on encouraging new sources of economic activity and growth. This is particularly the case given that the global banking sector is about to undergo a live experiment in adapting to substantially increased requirements for liquidity (from January 2015) and funding (from January 2018). These are unchartered waters – we need to focus on bedding them down, avoiding further regulatory impost and be pragmatic in responding if unexpected issues emerge. Potentially, reducing mismatch and liquidity risk provides the banking system room to increase risk elsewhere in the financial system provided it is well understood and matched by commensurate reward expectations.

3.2 Driving private and public investment

In Chapter 1 we argued that Australia's ability to maintain its strong economic record fundamentally depends on our ability to find new sources of investment. Given the pressures on government finances, this fresh investment will largely need to come from the private sector, including infrastructure projects typically reserved for the public sector.

In Chapter 2 we argued that a range of trends in the global economy suggest the outlook for the next three or four decades is likely to be very different from the experience of the past 30 or 40 years. The deep uncertainties come from how these various trends might interact with each other.

We also noted above that one of the trends of the past few decades has been the growing skill and sophistication of investors in managing the principal-agent challenge of shareholders in large corporations. In others words, investors are more skilled in ensuring that management decisions align to the investors' preferences as shareholders or bondholders. This particularly

relates to ensuring that expected returns align to the organisation's actual risk profile and exceed the cost of capital. Financial institution regulators are similarly interested in board risk appetite statements and understanding that these are embedded in management decision-making.

These trends have only accelerated since the GFC as everyone has realised that the 'regime change' to a risk-only world did not eventuate. This is one reason why global interest rates have fallen: risk-adjusted hurdles for investment have risen so the cost of money can fall without excessive inflationary pressure. In practice, there is a world of difference in investment decisions between risks that are well understood and can be calculated (such as Australian residential mortgage lending) and genuine uncertainties (such as passenger vehicle demand for a new cross-city tunnel or for the commercialisation of an entirely new technology).

3.2.1 Public encouragement for investment and funding

We need to ensure that in a world much more attuned to uncertainty, the appetite for making and funding investment is not eroded. It has been long understood that governments play an important role in this, from ensuring the rule of law through to providing stability in relation to economic policy.

Just as governments, financial institutions, and investors have different functions and responsibilities, they also have different risk-reward tolerances and preferences. This means that properly structured arrangements can improve the risk-reward trade-off (or 'frontier') for the economy.

An important application of this principle in Australia is the *corporate bond market*. We believe that a fundamental explanation of why Australia does not have a well-developed corporate bond market is that the government bond market has not been sufficiently liquid in enough maturities relevant to corporate issuers. Global experience strongly suggests that corporate bond markets need these benchmarks of government risk to anchor price discovery for corporate bonds and provide hedging vehicles. In other words, the presence of a liquid government bond market of the right maturities is a necessary pre-condition for market-making for corporate bonds in a way consistent with required private sector risk-return parameters. We believe this need to be an important objective for government policy, notwithstanding the need to improve Australia's fiscal position. A liquid corporate bond market would improve domestic funding for corporations and banks, and would encourage superannuation funds to hold longer-term assets, including infrastructure assets. We explore this in greater detail in Chapter 5.

A different example of the principle is reflected in the increasing tendency of governments around the world to negotiate the assumption of risk with investors and financial institutions to achieve the risk-reward frontier. Obviously this depends on those governments having the skill to understand the risks and the ability to structure proper arrangements to protect public interests and not to be conned by rent-seekers. (In Australia, such public sector skills are very evident in The Future Fund, for instance.) In providing genuine economic benefits through the strength of its balance sheet, government has every right to negotiate the appropriate return. Potential applications of this principle in Australia are:

- ***Infrastructure.*** Infrastructure assets can provide reliable, long-term income flows for investors, including superannuation funds. The trouble is that greenfield infrastructure projects can be subject to very substantial project and demand risks, which put them out of the risk-reward appetite of many investors. For example, in Australia superannuation funds are generally uncomfortable in taking this risk. We are therefore supportive of government assuming these early-stage risks, with a view to selling the established asset to long-term investors. This can be a sensible use of the government's balance sheet, so long as it is properly compensated.

- ***Energy markets.*** Shifts in energy markets may provide another example. The early evidence from the Clean Energy Finance Corporation suggests some success in identifying profitable opportunities which were outside the risk-reward parameters of the private sector. Given the uncertainties involved, this is entirely understandable.

- ***Economic zones.*** The establishment of 'special economic zones' in OECD countries can be partly interpreted as a means of providing greater investment certainty to the private sector, and may be worthy of consideration in the context for instance of Northern Australia.

3.2.2 Other responses to support investment

We are not in favour of various forms of compulsion in respect of private sector investments. For instance, it is often suggested that superannuation funds be mandated to hold a certain per cent of their funds in infrastructure assets. This would violate the responsibility of trustees to manage their portfolios in accordance with their own risk-reward parameters. It is one thing for the government to use its own balance sheet to achieve a particular risk-reward outcome; it is an entirely different matter to dictate the risk-reward objectives of the superannuation sector.

The Australian Government has signalled the need to make difficult choices in respect of fiscal policy, and we wholeheartedly support the need to deal with these issues. Key to this will be the extent of the Government's safety net arrangements. Given our thesis of rapidly shifting sources of economic value and risk in the global economy, we believe there is a need to ensure that these arrangements encourage both the mobility of resources across sectors and resources and the over-riding responsibility of individuals to provide for their own insurance arrangements in respect of risks.

The lessons of economic history and economic theory are much more complex than to suggest that unconstrained flexibility in all markets is the right answer regardless of time and place. However, in this current epoch of history, where we will see such large global shifts in the sources of value and risk, and in the interaction between markets, Australia needs to do all we can to be achieving flexibility in goods and factor markets.

Finally, we also encourage the progressive simplification of regulatory frameworks in general as a sensible response to this changing environment. Over time, we need to be shifting our focus towards simplifying the overall system as Andrew Haldane[83] has argued:

> *"Regulatory rules of the past sought to reflect risk. Regulatory rules of the future need to seek to reflect uncertainty. This calls for a quite different, and sometimes seemingly perverse, approach. Under uncertainty, many of our intuitive regulatory rules are turned on their head: slower can be faster, less can be more, slack can be tight. Instinctively a complex financial system seems likely to require complex control rules. Under uncertainty, however, it is precisely wrong. Then, the optimal control rule is a simple one. Less is more. The reason less can be more is complex rules are less robust to mistakes in specification."*

We believe this is a critical insight and needs to be regarded as 'the light on the hill' in relation to the direction of financial system regulation – in a complex and uncertain world, less is more, assuming of course that the quality of supervision meets the mark. Further, while Haldane's comments were made in the context of banking regulation, the underlying point has much wider relevance, including the current Government's emphasis on simplifying regulation generally.

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[83] Ibid Haldane, 2012, page 19

3.3 The role of government in the financial system

The GFC and associated regulatory changes have resulted in a sharp change in the perception of the role government plays in the financial system. These changes include:

- the back-stop role of government in the event of banking crises is now more widely appreciated;
- the scope of regulation in the financial system has been expanded, including in relation to capital, liquidity, funding, deposit insurance, financial advice, and systemic risk through macro-prudential supervision (leaning against the wind); and
- coordination between global regulators and governments has been expanded through the G20 and related mechanisms.

3.3.1 The back stop role of government

An important point to be made in relation to the back-stop role of government for banks is that the role is now more widely appreciated as opposed to it somehow being a new role. The highly leveraged nature of banks (which have gearing of 10-12 times rather than the yardstick of 2-3 times for large industrial companies) means that governments (generally via the 'lender of last resort' function of central banks) have had a recognised back-stop role in the event of crises for well over a century, not just to minimise risks to depositors but to economic activity overall; this has to be seen as the 'price' society pays for the benefits which come from the risk-pooling and transformation undertaken by banks.

The alternative to this broad approach of a government stop-gap would be to require banks to carry enough capital and liquidity to cover all potential eventualities and uncertainties. This would be prohibitively expensive, and simply not a viable use of the scarce capital available to society (Caballero[84] (2010), and Debelle[85] (2010)). It is another reason why we favour a cautious approach to fiscal policy, to ensure maximum flexibility in the case of need. It also points to the interdependent nature of banking risk and government risk.

The fact that the back-stop role in relation to banks is now more widely appreciated does however raise concerns about moral hazard risk. Historically Australia has managed this risk very well through the 'doctrine of constructive ambiguity' whereby regulators were deliberately ambiguous about their attitudes to dealing with financial institutions under stress so as to minimise the moral hazard that banks would undertake risky practices to maximise profit because they were confident that they would be bailed out if the bank over-reached. The doctrine is also a root-cause explanation of why Australia was one of the few countries which did not have an explicit guarantee of bank deposits prior to 2008.

The GFC and subsequent regulatory changes have clearly moved the needle on this dramatically. Once other jurisdictions started guaranteeing bank wholesale debt and placing constraints on short-selling, the Australian Government was left with no option but to follow suit in October 2008. This included the introduction for the first time of an explicit guarantee of bank deposits, which has now transitioned to the Financial Claims Scheme. While the other arrangements have since been removed, these events have left a lasting impression that in times of severe stress the Government and regulators will step in to preserve the integrity of the banking system. Much of the post-GFC regulation has had the dual objective of reducing the likelihood of such stress arising in the first place, and

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84 RJ Caballero, Crisis and Reform: Managing Systemic Risk, Angelo Costa Lecture, Rome, March 2010

85 Ibid Debelle, 2010

increasing the understanding that some institutions are 'systemically important', (ie too big to fail). These institutions are now required to hold additional capital.

We argued above that one element of good policy making is to understand the historical context. In 2014, our context is a relatively small number of very large financial institutions, which reflects the strong underlying economies of scale in financial services. Arguably, it is tribute to the Australian policymakers that pressures for further consolidation of financial institutions were resisted. We believe having financial institutions of world-scale and world-class must be seen as a national competitive advantage and while compliance with the Volker rule seems inevitable, we need to resist the UK Vickers Commission-style splitting between institutional and retail banks as this will only dilute the global strength of those institutions.

This reinforces our earlier point that we are undertaking a 'live experiment'. A key underlying rationale by policymakers for 'constructive ambiguity' was as a lever to restrict risk-taking by banks. In the post 'constructive ambiguity' period, we need to make sure that the combination of regulator and shareholder pressure doesn't push the banks in the opposite direction – of not taking enough risk in the productive sectors of the economy.

3.3.2 Regulation in the Australian context

We have already noted that overall the regulators have served Australia well in recent times. PwC's position as auditor and adviser to many of the world's major central banks and regulatory authorities gives us strong confidence that Australia is fortunate in the integrity and quality of its central bank and financial regulators (as it is for financial institutions in general).

While of course circumstances vary across institutions, we also believe that the RBA has been very successful in setting an overall tone which is pragmatic and market-based, reflecting in part its origins as a commercial institution and its tradition of having a board dominated by business people of extremely high calibre, including their focus on succession planning of key personnel. Many of the potential risks of separating APRA from the RBA have been mitigated by the close interchange of senior staff. It is critical that these traditions are maintained; they need to be seen as strategic strengths for Australia.

We also believe that in respect of supervisory practices:

- there needs to be continued reinforcement of the Australian practice of principles-based regulation and supervision; and

- the supervisory approach should continue to stress an institution-by-institution approach, where the overall context of the market and of the financial institution's strategy, strengths, aspirations and risk profile can be fully allowed for.

Stressing an institution-by-institution approach is particularly important given the relatively small number of large institutions in most financial sectors (including banking and insurance), and often quite a large gap to the smaller institutions. This is important for three reasons.

The first reason being that the objective circumstances of each institution can be quite different, especially between large and small.

The second reason is because one way to mitigate systemic risk is for the financial institutions in a given market to be pursuing different strategies and risk profiles rather than larger similar approaches. This is challenging in Australia – for instance, is there too much of a one-way bet across all institutions on housing, or too much focus on Australia-New Zealand rather than offshore? Investors tend to prefer well-tested strategies which generate acceptable risk-adjusted profit growth and so themselves may be a source of pressure on financial institutions to 'follow the herd'. The search for diversity is made all the more difficult by the relatively small nature of the Australian market (and by the mixed historical

results of Australian financial institutions expanding offshore). In short, seeing the banks adopt divergent strategies and risk profiles could potentially see a reduction in systemic risk for the economy while also moving us closer to the ideal mentioned above using our large financial institutions to be genuine sources of competitive advantage for the economy overall.

Finally, our earlier 'light on the hill' aspiration of less complex financial regulation as a rational response to a more complex and uncertain world only makes sense in the context of robust supervision on an institution-by-institution basis.

3.4 Comments on the SME sector

The Small to Medium Enterprise (SME) sector has traditionally been a key source of growth and employment for the Australian economy, as well as a key user of financial services, including insurance, payment services, and traditional bank lending and deposits. The banks' branch networks, access to payments data, and ability to pool diverse risks have given them key strengths in lending to SMEs. Likewise, insurers have been able to pool diverse risks for this sector.

In recent decades the SME sector has taken a relatively conservative approach to borrowing, in part encouraged by banks. As noted above, part of the reason that the Australian banks entered the GFC in such good shape was their improved lending standards since the 1991/92 recession, including for SME lending. The GFC only reinforced this tendency. In addition, historically, the smaller banks have tended to have a higher tolerance for risk in this sector and so this may be another factor at play since the GFC. Finally, small and medium resource companies tend to have a strong preference for equity over debt.

Even more importantly, sources of commercial value-add in this sector continue to change quickly, driven by precisely the factors discussed earlier, including digitisation, globalisation, and broader economies of scale. Typically, 'bricks and mortar' assets are less important, while design, customer intimacy, marketing, and value chain management become more important, and also subject to more fickle shifts in customer demand. While the issue is more about changing opportunities for small business rather than declining opportunities, it is also changing the basis for traditional bank lending to this sector. Banks will need new skills in assessing these risks, and perhaps more equity rather than debt is really required. Indeed, we note that one Australian major bank has recently announced an increased involvement in the venture capital market. There may also be a lag between investment in these new skills and approaches, and profit generation.

Potentially, the nature of the economic changes impacting the SME sector means there is a disconnect between the nature of risk capital the sector now requires and the availability of traditional sources of capital to this sector given risk-reward objectives and regulatory constraints. We hope that submissions to the Inquiry may shed some light on this matter. It may be this is one sector where reduced mismatch and liquidity risk in aggregate provide room to increase risk appetite through innovative approaches. We note for instance that peer-to-peer lending models are beginning to provide working capital to business, including agriculture.

3.5 The role of audit in the financial system

We believe that the audit profession has an integral role to play in ensuring the health of the financial system and ensuring that it supports broader economic objectives to maximum effect. Of concern to us is that in recent years there has been a decline in trust in institutions of all kinds, including governments and corporations. Businesses – and the financial system and capital markets that sustain them – always face the ongoing challenge that unexpected issues emerge, with the potential in turn to dent public trust further. Rebuilding public trust is critical to the ongoing effectiveness of the capital markets and audit firms such as ours must adapt both their approach and processes to enable this.

Preserving and building trust in the capital markets

We believe that rebuilding public trust is a shared responsibility involving auditors, those charged with governance, regulators, standard-setters, legislators and investors. In our view, confidence and trust will be best preserved by:

- Reporting that is clear, concise and relevant, and which requires companies to clearly and transparently articulate the link between strategy, governance and financial performance.
- Auditors giving assurance on future-focused information, such as key indicators of management integrity and company performance, as well as historical information.
- More regular engagement between market participants (eg increasing auditor communication with regulators and investors).

Further information on each of these elements is provided below.

3.5.1 Reporting that is clear, concise and linked to strategy, governance and performance

Business leaders, boards and the investor community acknowledge there are significant opportunities to simplify the reporting of financial information to better tell the story of company performance to stakeholders. This is especially relevant in the post-GFC environment where 'lessons learned' have reinforced the inherent business uncertainties at play and the importance of both strong communication and risk management strategies.

In practice, we are seeing a number of businesses (including financial institutions) invest the necessary time and energy in improving their financial reporting. For example, some companies in the UK are beginning to explore the benefits of integrated reporting and closer to home, some companies are proactively reviewing their financial reports to reconsider the language used and the disclosures made so that their content is more meaningful to stakeholders and that the information most relevant for decision making is given prominence.

Based on our experience, there has never been more awareness from companies on the importance of using financial reports as a communication tool, not just a compliance tool. Many businesses in Australia and elsewhere are beginning to take steps to improve their reporting to the market. We are working to support and encourage all efforts by business that improve the clarity and usefulness of their reporting.

An example of growing complexity in financial reporting: Mark to market accounting

Greater financial instrument complexity has brought with it greater reliance on judgement in valuing assets and liabilities, making the need for independent assurance all the more important as a check. Often the judgement is not black-and-white, especially when market valuations are changing quickly, making the auditor's role more challenging. The audit profession carries its own store of accumulated market experience and thus provides an additional source of 'institutional memory' for the markets overall. The ability to challenge boards and management is a key role for auditors and provides an important source of 'check and balance' for institutions and, by extension, the market overall. These sophisticated audit practices (and others) are an integral element of the checks and balances in the financial system that maintain confidence and stability and build trust.

As a profession we favour mark-to-market accounting as the method that best reflects the inherent requirement that a set of financial statements be struck at a point-in-time. We think this is the right answer, although we accept the profession could do more to educate both the professional community and the broader community about the benefits and inherent limitations of this approach. We are also mindful that the mark-to-market approach can

exacerbate cyclical market sentiment – marking assets up in good times, and down in bad times. This can have particular impacts on bank capital requirements, especially during times of stress.

Some have suggested that bank boards and auditors should be given special latitude to make judgements, in conjunction with APRA, to look through these impacts during times of stress in striking asset values. We strongly disagree with this view. Instead, we believe financial services entities should be treated no differently to other entities and should continue to provide transparent and comparable financial information to market participants in accordance with a common set of high quality accounting standards. It is important, particularly during times of stress, to provide market participants with objective measures of asset values based on a commonly prescribed measurement framework.

3.5.2 Providing broader assurance on future-focused information

The services auditors provide directly contribute to the integrity of financial reporting, and in doing so build trust in the capital markets framework. By providing independent assurance and advice, auditors give confidence on a wide range of matters to a wide range of parties, including boards, investors, regulators, ratings agencies and customers. This is key in responding to the challenge of asymmetric information arising from the 'principal-agent' problem, helping to put market participants on a level playing field.

However, as financial reporting practices have become more complex, and financial products, instruments and regulations more dynamic, so too has the role of the auditor. The same factors have spawned greater interest in the audit process, as external parties look to auditors to have a superior level of technical knowledge to give them confidence.

Today's investors have diverse information needs – for example, expecting data on non-financial metrics on culture, values and behaviours, future prospects, risks, fraud, and sustainability– to help them decide whether an organisation is worthy of their trust. They want this information to be comprehensive as well as focused, integrated and independently assured. In financial services, this has been partly driven by regulatory requirements from the prudential supervisor, but also by boards, management and investors seeking the benefits of an independent assessment of company information.

To better meet the needs of the community, we believe the role and scope of auditors must change. For example, expanding an auditor's focus to include the provision of assurance on the capital adequacy of banks, compliance with a wider range of regulatory requirements and over non-financial measures of performance (eg market share, margins, credit growth, investor presentations) and sustainability reporting would better meet investors' needs and build trust in the capital markets. To date auditors have been reluctant to take on roles which extend their liability from what they have traditionally been responsible for, but giving the right level of confidence to capital markets demands that they must adapt to meet market expectations.

Increased engagement between market participants

Increasing the dialogue between market participants is critical to rebuilding public trust in the capital markets. Clearer communication that is transparent and more regular will help build understanding of the roles of capital markets participants and result in more informed investors, analysts and other stakeholders.

Today's investors want company reporting to be more dynamic and interactive; they believe – and we agree – that improving the flow of information will help build public trust in companies and better support investors who make decisions in an increasingly time-sensitive and technology-driven environment.

Heading in the right direction

The financial system is not perfect; there are valid criticisms of company reporting; the current role and scope of the auditor; and the level of engagement between capital markets participants. However, significant progress is being made across each of these fronts and there is further promise on the way judging by continuing business and broader community dialogue on these matters.

3.6 Conclusion

In this chapter, we have argued that Australia needs to tread a balanced path in financial services to reward risk-taking and innovation – the driving forces of economic growth – while ensuring systemic risk in the financial system is kept within appropriate bounds.

In this context, we offer the following summary observations to assist the Inquiry in its reflections on the philosophy, principles, and objectives of the financial system:

- Australia's regulatory framework in financial services is broadly correct – we support the 'twin peaks' model and believe that the application of the regulatory framework is largely done well in Australia;

- while Basel II and III represent a solid framework to balance the ability of competitive markets to deliver growth and innovation and the need to avoid systemic financial crises, these changes are very substantial – we need to focus on bedding them down, avoiding further regulatory impost and be pragmatic in responding if unexpected issues emerge

- the light on the hill has to be the need for the simplification of detailed regulation in concert with pragmatic supervision on an institution-by-institution basis. **Recognising that in a *world of uncertainty 'less is more'* is critical, especially in a market with a small number of large and well-supervised institutions such as Australia;**

- the worst possible lesson to take out of the GFC would be to discourage legitimate risk-taking – it is the mainspring of economic progress. We need to be extremely careful not to end up fighting the last war, that is focussing too much on excessive leverage and mismatch risk, and not enough on encouraging new sources of economic activity and growth;

- financial institutions and investors are increasingly sophisticated in choosing the risks they will assume relative to expected returns and we need to be realistic about what this means for the allocation of capital in the broader economy;

- we are not in favour of various forms of compulsion in respect of private sector investments such as superannuation – it is not appropriate for regulation to dictate the risk-reward objectives of the private sector in this regard;

- governments have a different risk appetite to financial institutions and investors and this has the potential to improve the assumption of risk in the economy overall by taking on specific risks (say in the construction phase of a major project) but only if governments have the skill to understand the risks and the ability not to be conned by rent-seekers. In providing genuine economic benefits through the strength of its balance sheet, the government has a legitimate opportunity to negotiate appropriate return; and

- separate to the previous point, governments play an inevitable back-stop role, especially for banks, in the event of systemic crises; requiring banks to carry enough capital and liquidity to cover all potential eventualities and uncertainties would be prohibitively expensive. . In the final analysis, the inherent uncertainty of the future means we will always have to live with some prospect of systemic crisis.

The balance of our report applies these observations to three important areas of the financial system.

Chapter four discusses superannuation. This has been the fastest growing sector of the financial system since the Wallis Inquiry, and is fundamental to nearly all the themes mentioned so far, including the provision of investment funds to support economic growth, the boundary between private and public risks, and the application of financial regulation. We therefore believe it is worthy of special consideration in its own right. We make 15 specific regulations in relation to superannuation.

Chapter five discusses bank funding in the context of the challenges for the banks in funding economic growth in a post-GFC/Basel III world. The focus here is on practical policy changes to reduce potential constraints on bank funding, and so seeks to minimise downside risks in our 'live experiment' of adapting to the new world. Recommendations in relation to the application of financial regulation and the assumption of risk feature prominently.

Chapter six discusses taxation. Taxation influences every aspect of economic activity, and so has both direct and indirect impact on the financial system, and in the earlier chapters we have sought to emphasise the important linkages between the financial system and government fiscal settings. This chapter makes a number of suggestions in respect of Australian tax policy settings in light of the imperative to rebuild strong budgets. In our view, tax reform can be a powerful lever if done the right way – that is, utilising those taxes that have the least effect on economic growth, and reducing reliance on those taxes that are damaging to economic growth. Chapters four and five also make specific recommendations in relation to tax.

Part II

4 Superannuation

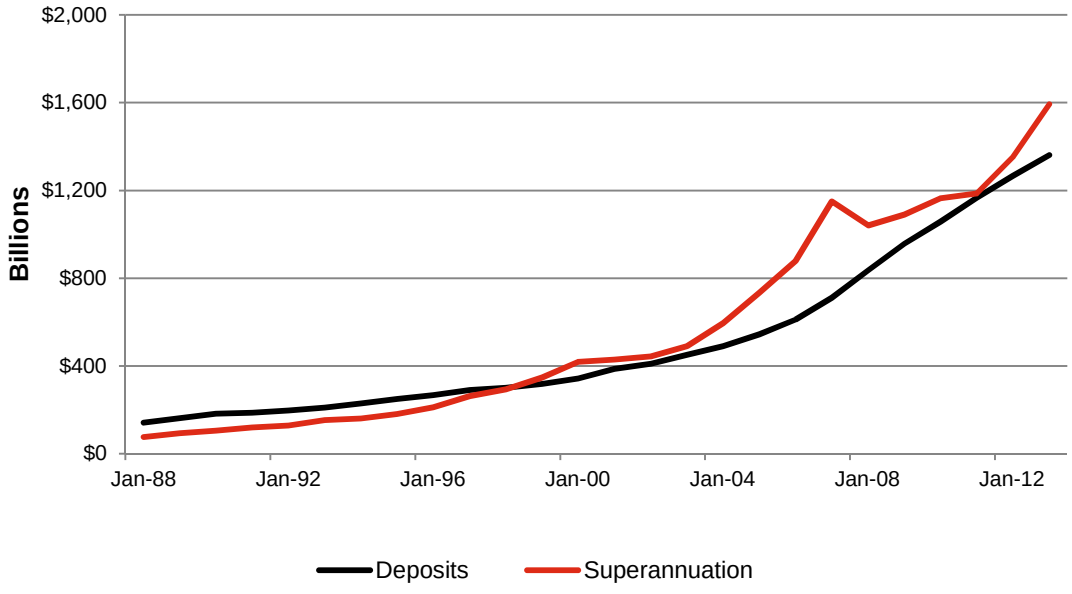
4.1 Overview

This chapter considers superannuation in the context of the broader financial system. It proposes a number of policy recommendations focused on improving the sector's efficiency, streamlining the regulatory environment, addressing costs and improving governance, as well looking at ways to improve overall fund effectiveness through widening the investment pool, and developing the retirement product market.

4.2 Industry developments and challenges

When the Wallis Inquiry reported in 1997, the Superannuation Guarantee Contribution (SGC) had been in place for about five years. Fund assets were approximately $220 billion, compared to total deposit balances of $290 billion. Since then deposits have grown at an average rate of 10 per cent per annum and superannuation assets have grown at 12 per cent per annum (refer Figure 18). Today both forms of savings represent significant pools of savings available to drive economic growth. The further growth of superannuation is likely to continue for some time before slowing as the number of superannuants in the retirement phase starts to outweigh those in the accumulation phase.

Figure 18: Australian superfund financial assets and deposits



Source: PwC [86]

[86] PwC analysis based on RBA Financial Aggregates and ABS National Accounts data

4.2.1 Structural changes in the industry post SGC

As well as ensuring a growing pool of assets, the introduction of SGC significantly changed the structural profile of the superannuation industry. Prior to SGC, the predominant type of superannuation funds were corporate funds. The SGC and the subsequent introduction of member choice have changed this. The initial trend was for corporations to move individual members into employer-nominated industry or retail funds. This saw the number of corporate funds reduce significantly and the size of industry and retail funds increase, both in terms of members and assets.

Throughout the period there has been ongoing consolidation across the industry driven by rising costs and increased regulation, including APRA Licensing, MySuper, SuperStream, Future of Financial Advice (FOFA), Anti-Money Laundering and Counter-Terrorism Financing Rules (AML/CTF), and Australian Financial Services Licence (AFSL).Fund providers have seen consolidation as a means of improving efficiencies by taking advantage of economies of scale. The overall result has been a sizeable reduction in the number of funds with four or more members (refer Figure 19).

Ongoing industry reforms around mobility and choice of fund have seen a new trend emerging –Self Managed Superfunds (SMSF). SMSFs have doubled in number of funds over the last 10 years and quadrupled in value of assets, (refer Figure 19). This trend is driven in part by a post-GFC response to professional funds management, as well as the recent regulatory changes which allow small superannuation funds to borrow to invest in certain assets, including residential property.

Figure 19: Changes to the superannuation industry composition

	Jun-2004		Sep 2013	
	Number of Entities	$b	Number of Entities	$b
Funds with more than 4 members	2,011	423.3	317	1,167
Pooled Superannuation Trusts	143	40.7	60	108
Small APRA Funds	7,843	3.1	2,962	2
SMSF's	271,515	127.5	516,925	532
Life office statutory funds		40.3		47
	281,512	634.9	520,264	1,856

Source: PwC[87]

4.2.2 The impact of the GFC

As with other elements of the Australian financial system, the superannuation sector navigated the GFC intact, albeit with a slightly tarnished reputation from a number of years of negative returns to members.

The GFC did highlight the need for superannuation funds to focus on liquidity. The disruption in the capital markets caused by the GFC made it difficult for some funds to rebalance their asset allocations, given the sharp fall in liquidity caused by equity market and foreign exchange losses, which combined with an increase in members switching from

[87] PwC analysis based APRA Superannuation fund statistics

equities to cash. Although the industry had led the way in investing in infrastructure, private equity and direct property, the result was that some funds became overweight in these illiquid assets. A positive impact of the GFC was that it led to the industry putting in place controls to help prevent similar situations in the future.

These events serve to highlight that careful attention will need to be given to the evolving risk profile of superannuation funds as current savers approach the retirement age. As the law stands, members can start to withdraw lump sums from their superannuation funds from the age of 55 meaning that superannuation funds must be able to liquidate assets to meet demand as it arises. Balancing a growing demand for liquidity with the need to invest for the long term to generate superior returns for members who are still trying to save could provide challenges and result in sub-optimal investment outcomes.

4.2.3 The role of superannuation in financing the economy

Perhaps the defining characteristic of the superannuation system; however, is how well it has continued to serve the Australian economy, providing consistent capital flows when and where they are needed.

Figure 20 below shows the asset allocations of superannuation funds in 1988 and 2013. Excluded from this analysis are real assets held directly by superannuation funds; as at September 2013 assets held via financial instruments represented 87.5 per cent of all superannuation assets.

Figure 20: Superannuation fund financial asset allocations by type of security and the user of funds, 1988 and 2013

	Users of funds by sector													
Type of security	Financial Entities		Non-Financial Entities		Infrastructure		Government		Offshore		Total		% of total assets	
$b	Jun-88	Sep-13	Jun-88	Sep-13	Jun-88	Sep-13	Jun-88	Sep-13	Jun-88	Sep-13	Jun-88	Sep-13	Jun-88	Sep-13
Equities	3	391	11	356	3	69	-	-	5	298	22	1133	42%	70%
Fixed Income	7	117	1	7	-	1	11	30	-	60	19	227	37%	14%
Deposits	6	232	-	-	-	-	-	-	1	3	6	236	12%	15%
Other investments	4	28	-	-	-	-	-	-	-	-	4	28	8%	2%
Total	**20**	**769**	**12**	**363**	**3**	**70**	**11**	**30**	**6**	**361**	**52**	**1624**		
Sector as a % of total assets	**40%**	**47%**	**23%**	**22%**	**6%**	**4%**	**21%**	**2%**	**11%**	**22%**				

Source: PwC [88]

A number of aspects in Figure 20 are worthy of comment.

- The substantial shift to equities (42 per cent to 70 per cent), offset by a decline in fixed interest (37 per cent to 14 per cent). There are multiple explanations for this (including a decline in government bond issuance) but overall the allocation to equities appears high. It is worth noting that nearly one in every four dollars of superannuation funds (excluding direct holdings of real assets) are invested in equities in Financial Entities, whereas the financial services sector accounts for about 10 per cent of GDP;

88 PwC analysis based on ABS National Accounts statistics, December 2013

- While allocation to non-financial entities has remained roughly constant, allocation to all other sector categories has shifted significantly;

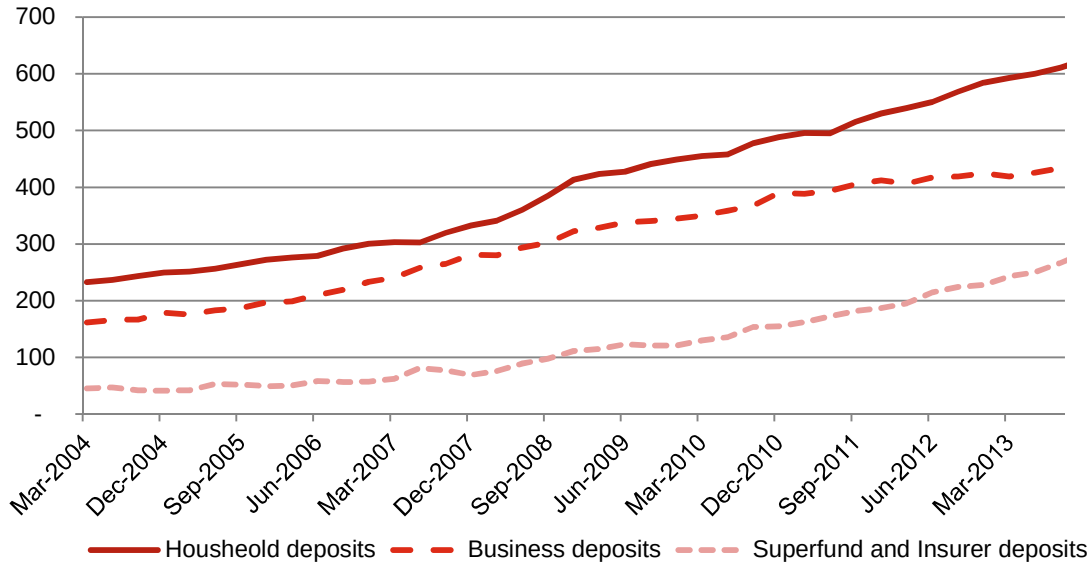
- The reduction in infrastructure and government categories is largely explained by the lack of suitable instruments or opportunities;

- The doubling of the offshore category means this has moved closer to more appropriate benchmarks, reflecting the increasing internationalisation of our economy.

It is also worth noting that the allocation of superannuation funds in financial entities (as defined above) has increased from 40 per cent to 47 per cent. Part of the explanation for the traditionally high allocation to financial entities is the sector's unique role in offering deposits. As well, the privatisation of government-owned banks and insurers had not commenced in 1988, so care needs to be taken in simple comparisons between 1988 and 2013. Nonetheless, and ignoring deposits and other investments, the allocation to financial entities has risen from 19 per cent to 31 per cent, while the allocation to non-financials has remained roughly constant (23 per cent to 22 per cent). Normal portfolio diversification theory would probably argue against further prudent allocation increases to financial entities in aggregate, other than through 'other investment' vehicles as a pass-through to different assets or sectors. It is also relevant here that the allocation of bank credit (banks, of course, are only a subset of financial entities) is substantially skewed to housing and many superannuation holders will have direct exposure to the housing market via home ownership.

Finally, it should be recognised that the growth in bank deposits held by superannuation funds over the past six-to-eight years has been very helpful in supporting the banking system's greater reliance on deposit funding in a post-GFC world (refer Figure 21)

Figure 21: Bank deposits (A$ billion)



Source: PwC[89]

In this context it is also worthy of note that the superannuation industry is a source of stability for the financial system and the economy as a whole. Not only have very few funds failed, but many of Australia's biggest superannuation funds are of comparable size (in asset terms) to many companies (in equity terms) in the ASX Top-10 (refer Figure 22). In fact,

89 PwC analysis based on RBA Financial Aggregates and APRA Monthly Banking Statistics

corporate failures, including several ASX-listed companies, have impacted the superannuation industry more so than fund failures.

Figure 22: Public companies, by market capitalisation and superannuation funds, by total asset size

Market Capitalisation / Assets > $40 billion	$M
Commonwealth Bank of Australia	124,346
BHP Billiton Ltd	117,451
Westpac Banking Corporation	102,200
Australia and New Zealand Banking Group Ltd	89,853
National Australia Bank Ltd	84,145
Australian Super	65,953
Telstra Corporation	63,957
AMP Superannuation Savings Trust	58,304
Colonial First State First Choice Superannuation Trust	51,341
Wesfarmers Ltd	48,017
State Public Sector Super Scheme (QSuper)	44,545
Woolworths Ltd	43,478
BT Retirement Wrap	41,324
First State Super	40,398

Source PwC[90]

4.2.4 The superannuation industry today

Today, there is significant competition in the superannuation market with members enjoying multiple fund and investment choices. Employees have the choice of corporate funds, industry funds, retail funds and self-managed superannuation funds. Many employees rely on their employer to put them into a 'default fund', with many of these funds based on industry awards and enterprise agreements.

The industry is highly regulated through APRA Licensing, the Superannuation Industry Supervision Act, ASIC (via the Corporations Act, including AFSL compliance), ATO, AUSTRAC and the Privacy Act. The recent MySuper Licensing requirements have further raised the bar on the prudential management requirements of the industry, bringing alignment with the banking and insurance sectors. All APRA regulated funds are now required to have an Operational Risk Reserve. At present the minimum requirement is for each fund to hold 25 basis points of funds under management in this reserve account.

From a governance perspective, most non-SMSF funds have trustee boards that meet at least quarterly. Under recent APRA prudential standard requirements Boards are required to have Independent Board evaluations. Many funds have already participated in such reviews in

[90] PwC analysis based on ASX information and APRA Superannuation Statistics

recent years. In our experience most trustee directors would spend 200–300 hours a year in their role as trustee.

The overall quality and safety of superannuation products is strong. Investment diversification and a sound prudential framework, including the trustee system, underlines this strength. The quality of trustee boards and internal management teams and the overall skills of funds is, in our view, why our superannuation industry has been so successful.

In particular, the industry is supported by global and local asset consulting firms, global custodians and fund managers with specific asset class investment skills. The Mercer Global Pension Survey and World Bank support the view that the Australian superannuation system is among the best in the world. The suite of different funds across various sectors of the market, including SMSFs, provide the Australian public with a competitive range of funds and investment options.

But whilst the superannuation industry is in our view operating effectively, there are a number of areas that could be changed to increase its effectiveness further and ensure continued and sustainable growth. The remainder of this chapter outlines these issues and provides recommendations for addressing each.

4.3 The regulatory environment and costs

One of the most complex issues financial regulators face is how to balance the need to address market failures and provide an appropriate level of protection to investors with the need to avoid inefficient regulation. The Wallis Report was certainly not alone in recognising that regulatory efficiency is a crucial factor in the overall performance of an economy.

Under the twin-peaks regulatory model established by the Wallis Report, APRA has become recognised as a strong prudential regulator responsible for supervision of individual institutions as well as financial system stability, while ASIC is recognised as the financial products, financial markets and conduct and disclosure regulator. The ATO, of course, collects tax revenue and administers the tax system, as well as overseeing some aspects of the SMSF sector.

Whilst rationalising the number of regulators involved in the superannuation industry could be difficult, an opportunity exists for regulators and funds to work together more efficiently to reduce duplication, confusion and therefore the cost to both themselves and the funds.

Streamlining the operations of regulators would help ensure consistent prudential regulation and that rules exist for all superannuation products. If the present regulatory framework is to remain in place then regulators should work to reduce duplication and, when performing reviews of funds (such as unit pricing errors), ensure their approach is consistent and comprehensive.

SMSF is one particular area of superannuation regulation which warrants closer attention, along with simplifying the regulation of pooled superannuation trusts and reducing reporting requirements.

4.3.1 Regulating SMSFs

Under the current regulatory model, SMSFs are subject to a light touch regulatory approach, administered by the ATO. The recent rapid growth in popularity of SMSFs has seen them become a significant part of the superannuation system. The risk to the overall system of an individual or group of these funds failing is not the issue, but weaknesses in the sector as a whole could have a significant impact on resource allocation in the broader economy.

Through work with our clients we have noticed a significant number of rollovers from retail and industry funds into SMSFs. In particular, we have noticed the account balances being transferred into SMSFs are often very small.

Additionally, there are growing concerns around the appropriateness or otherwise of individual SMSF investment strategies. Examples of poor strategies include being overweight in cash and Australian equities and underweight in broader asset classes. Non-existent strategies include examples where 100 per cent of a fund's investment is in one property, or investments are excessively geared, and so on. Inappropriate investment strategies could result in retirees not having sufficient funds to support their retirement and increase reliance on the public purse.

These concerns point to the need for more consumer protection, but the challenge is to balance the costs of regulating this sector with the benefits.

Recommendation 1:

That regulation of individual SMSFs is transferred to ASIC to be regulated as a financial product. Further, APRA be given a role in oversight and policy development to prevent a build-up of systemic risks related to SMSFs (eg excessive leverage).

Given that ASIC will incur additional costs in establishing an appropriately skilled team to regulate this sector, annual registration fees from SMSFs should be available to ASIC to cover the cost of regulation.

Recommendation 2:

ASIC develop an ownership test for SMSFs, so that SMSFs can only be controlled by sophisticated investors, as defined by chapter six of the Corporations Act 2001. ASIC to also develop a surveillance process similar to that employed to monitor the provision of financial advice.

Recommendation 3:

ASIC ensure that surveillance practises extend to monitoring and testing SMSF trustee's adherence to the requirement to have a documented investment strategy setting out how the fund will meet its long term investment objectives including asset allocation, diversification, liquidity and the appropriate level of borrowings

4.3.2 Pooled superannuation trusts

Pooled superannuation trusts (PSTs) are more akin to investment funds than superannuation funds. We believe that the application of the new regulatory and legislative regime (ie APRA levies, prudential standards and reporting requirements) to PSTs is excessive. The same regulatory approach and costs apply to such investment funds when much of the regulatory oversight is already covered by the superannuation funds that invest through PSTs.

It is arguably anticompetitive for superannuation funds that invest through wholesale PSTs to be subject to this level of regulation and charged twice the APRA costs and other regulatory imposts compared to funds that invest through other collective investment vehicles regulated by ASIC.

Recommendation 4:

Simplify PST regulatory requirements.

4.3.3 Information overload

An opportunity also exists to simplify the volume of data provided to regulators by superannuation funds, as well as the process by which it is provided. Consistent with public company listing requirements, consideration should be given to providing annual accounts, quarterly management accounts and only very limited additional information for supervisory purposes. All other information is readily available from superannuation fund websites.

Recommendation 5:

No longer require APRA to publish performance rankings of superannuation funds and instead establish a website that provides access to all MySuper Dashboards.

4.4 Governance

Superannuation funds are increasing in size and complexity and are an important source of capital to drive economic growth. Investors need to feel confident that their superannuation wealth is well managed and that trustee boards are trustworthy and well governed. However there is inconsistency between the definition of independence for a company director and a trustee director of a superannuation fund.

The definition of independence for directors is outlined in detail in the ASX Corporate Governance Principles and Recommendations[91]

> *"An independent director is a non-executive director who is not a member of management and who is free of any business or other relationship that could materially interfere with – or could reasonably be perceived to materially interfere with – the independent exercise of their judgement."*

This is also an appropriate definition for an independent trustee director of a superannuation fund and should be formally adopted as such in relevant superannuation legislation.

Almost all trustee directors at public offer superannuation funds meet the above definition of independence, with the main exception to the rule being some retail superannuation funds, which still have key management personnel on their trustee boards. In the past five years many public offer funds (both retail and industry funds) have appointed skill based independent directors. These independents typically bring specific skills to the trustee boards, such as legal, investment, operational, financial and regulatory skills, as well as a high degree of objectivity and a questioning mind.

Similar to public companies it also is in the member's best interest, on balance, for trustee directors to be members of their fund, whether by actively contributing, transitioning to retirement or in pension phase. Having a financial interest in the outcome of the fund can only help further encourage trustee directors to act in the members' best interest. Also, as a matter of practicality, trustee directors will receive fees with associated superannuation

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91 ASX Corporate Governance Council, *Corporate Governance Principles and Recommendations with 2010 Amendments*. 2nd Edition.

contributions that will need to be paid to a fund. It seems perverse to not allow that contribution to go to the fund of which they are a trustee director. Many large global pension plans (eg CALPERS, Ontario Teachers Fund and the Netherlands Pension Plan) all operate using the trustee system with representation from members and employers.

Whilst there are strong arguments for greater clarity around the definition of independent trustee directors for public offer funds, it would not be practical for non-public offer funds (eg corporate funds) to have mandated requirements for independent directors.

Recommendation 6:

That the ASX definition of an independent director be adopted for trustee directors of all public offer superfunds to provide consistency in the Australian market.

In addition, trustee directors are required to have an interest in the funds that they are responsible for overseeing.

4.4.1 Restructuring boards to ensure independence

The structure of a board is crucial for good governance. Consideration should be given to a so-called '3/3/3 system' whereby a third of the directors of each public offer trustee board are independent. This will help to ensure that trustee directors who represent financial corporations, industry associations or unions act independently of the shareholder in ensuring members' interests are protected. If funds want more or fewer independent directors, then approval should be obtained from APRA. On the basis that the definition of independent director is consistent with the ASX Principles, superannuation trustee boards should also have independent chairs.

Whilst there should be latitude about how independent directors are appointed, all funds should also disclose to their members the appointment process and how this process ensures that the majority of members are suitably represented.

Another factor for consideration is the tenure of trustee directors. Making it mandatory that directors' terms expire every five years, at which time they may be eligible for re-election, would ensure that a formal selection process is followed and that directors are adding value to superannuation funds. Whilst limits around maximum tenure or age may be considered by some to be artificial constraints, this additional diligence around the appropriateness of the board would provide improved governance outcomes.

The most important considerations for independent directors; however, are that they have the right skills and that they are objective. Even though 'independent-in-mind' is an important trait and cannot be legislated, the recently updated regulatory requirements in relation to trustees meeting the 'fit and proper' requirements are of a very high standard and go a long way to ensuring the quality of directors.

Recommendation 7:

That all public offer/MySuper funds are required to have one third independent directors unless otherwise agreed with APRA, including an independent Chair. The tenure of trustee directors should be limited to five years, at which time they may be eligible for re-election.

4.5 Supporting innovation and growth

The following section outlines a number of recommendations aimed at enabling superannuation funds to more actively innovate and become involved in a wider range of investment activities that support growth.

4.5.1 Widening the investment pool

Australian superannuation funds are heavily concentrated in certain asset classes, particularly equities.

Figure 20 above demonstrated this in relation to superannuation holding of financial instruments. Separately, as at 30 June 2013, more than 50 per cent of the $466 billion of default strategy investments out of total assets of $1,065 billion (for funds with more than four members) were invested in equities (refer Figure 23).

Figure 23: Allocation of superannuation funds by asset class for default strategy investments

Australian Equities	26%
International Equities	25%
Listed Property	2%
Unlisted Property	7%
Australian Fixed Interest	9%
International Fixed Interest	6%
Cash	8%
Other Assets	16%
	100%

Source: APRA[92]

As the Australian population ages over the next 20 years the number of members that will either be approaching, or in, retirement and seeking a stable and less risky asset allocation will increase significantly. There is merit in examining ways to widen the pool of investment options for funds in order to meet this growing and diversified demand.

Funds have shown a strong appetite for investing in infrastructure within their risk-reward parameters, but in recent years the supply of such investment opportunities has been unavailable. As a result funds have invested in overseas infrastructure projects.

As we discussed in earlier chapters, we see part of the explanation for this as the gap between the risks and uncertainties associated with early-stage infrastructure projects and the risk-reward preference of many investors. Potentially, this is an area where the Government can play a useful role, absorbing risk in the early stages and then achieving a commercial reward for this when the project has moved to a phase which suits the investment preferences of superannuation funds, for instance.

[92] APRA, *Annual Superannuation Bulletin June 2013*

Some form of long-term Infrastructure and Social Benefit Bond providing a stable gross return of 5 to 7 per cent would be an attractive investment for retired pension members, superannuation funds and financial service entities looking to provide long-term annuities infrastructure investment in Australia. Refer recommendations 18 – 21 in Chapter 5 that consider changes to improve the domestic wholesale debt market.

Recommendation 8:

That Treasury and the ATO work with industry to develop Infrastructure and Social Benefit Bonds, with a particular focus on understanding the assumption of risks at different project stages.

4.5.2 Rollover relief, mergers and succession

The investment market has changed significantly since superannuation was introduced and continues to evolve. In good faith, many trustees and fund managers develop products appropriate at the time but which, in due course, become less relevant, while other funds fail to achieve economies of scale.

Given the natural need for mergers and succession fund transfers of smaller corporate and retail funds, it is appropriate to provide continued tax rollover relief for these transactions. This relief should also apply to Pooled Superannuation Trusts (PSTs).

The investment management industry is characterised by a product 'graveyard' of legacy and grandfathered products that create unnecessary costs (including to regulators) as well as diverting management attention and increasing risk. Rationalisation and consolidation provides long-term benefits to fund members, improves the efficiency of the system and also reduces regulatory risk. Changes to tax law to facilitate product rationalisation will benefit the industry and ultimately, fund members.

Rationalising legacy products is complex. The cost of even a small rationalisation is substantial as it requires ensuring there is no disadvantage to members as well as appropriate governance, regulatory approval, communication to members, and system and business processes changes. These barriers are significant enough without further regulatory restrictions.

A new regime that focuses on the principles of:

- Ensuring members are not disadvantaged by the rationalisation; and
- The scheme does not avoid nor crystallise additional tax,

would go a long way to simplifying the process and reducing costs. A general framework is required to enable rationalisation between various superannuation entities and structures in the normal course of business, which may include the following:

- Transferring fund assets and liabilities between life companies;
- Transferring fund assets between life companies and the superannuation fund directly;
- Transferring fund assets between life companies and managed investment schemes held by the superannuation fund;
- Transferring in specie between managed investment schemes; and
- Changes in business processes in a way not envisaged when the product was issued.

The benefits of rationalising products do not solely arise in relation to legacy products and, by restricting any rationalisation rules to legacy products (however defined), it would reduce the legislation's effectiveness. However with an appropriate approval framework this outcome could be achieved.

Recommendation 9:

That tax rollover relief extend beyond 2017 to further encourage superannuation fund consolidation and the rationalisation of legacy investment products.

Establish a simplified general framework for fund rationalisation that reduces the costs associated with fund rationalisation, including legacy products.

4.5.3 Operational risk reserve

APRA recently introduced the operational risk reserve requirement for all APRA-regulated funds. The purpose of these reserves is to compensate member accounts in the event of operational errors, such as unit pricing errors, not for losses in relation to investment market risk.

In our experience, fund trustees model the various risks that would impact them from an operational risk perspective and then determine an appropriate level (dollar amount) required should such events occur in the future. At a practical level, funds that self-administer or internally invest certain asset classes generally have higher operational reserve requirements.

Our concern is that, although not formally documented, in practice APRA requires all funds to have a minimum 25 basis points in operational risk reserves, regardless of the level of risk (and subsequent reserve) quantified by the fund. As fund values grow the discrepancy between the amounts indicated as being required by a risk assessment will continue to diverge from the 25 basis points as operational risks do not correlate on a straight line with funds under management.

Whilst providing an important safety net, operational risk reserves reduce member benefits; therefore, ensuring that they are set at an appropriate level is critical for the efficiency of the system.

Recommendation 10:

APRA and the industry work together to establish a robust framework for quantifying Operational Risk Reserves that is prudent but at the same time ensures funds do not have excessive reserves in the long term.

4.5.4 Long-term annuities

Long-term annuities are an important part of a superannuation fund's diversified product offering. Whilst there are many benefits to funds and members by increasing the range of annuity products, there are also many barriers to doing so, the majority of which are regulatory.

Government has a range of options at its disposal to reduce these barriers and facilitate the development of sound annuity products. These include:

- Revising the SIS regulations (specifically Regulation 1.06), which are unnecessarily prescriptive and limit the design of these annuities.

- Removing unfavourable treatment of annuities under Aged Care and Social Security rules.
- Issuing longer-dated bonds (such as Infrastructure and Social Bonds, referred to in section 5.5.1 of this submission) so that investment products better match the annuity style products.
- Allowing annuities and deferred annuities to be issued as a component of an account-based pension.
- Changing the tax rules on deferred annuities so that, if taken out in the draw-down phase, the product is regarded as a pension (rather than a non-pension) for tax purposes.
- Developing a clear regulatory regime for variable annuity style products.

It also makes sense for the Government to introduce some form of industry protection against counterparty risk for long-term annuities to provide the assurance necessary for people to invest. Although Australia has a strong regulatory regime under which the probability of default is low, the risk exists. Providing some form of industry protection is consistent with both the US and UK, where a more developed and mature market exists.

There are different approaches to providing industry protection, including funded versus unfunded industry levies. A suitable industry protection for long-term annuities may be similar to the unfunded industry support scheme provided (under SIS) for accumulation savings.

In developing its policy around annuities the Australian Government should consider the findings of the UK's Financial Conduct Authority review into that country's annuities market and, in particular, the findings in relation to poor transparency, competition and the selling of annuities.

Recommendation 11:

That the MySuper structure be extended to include a post retirement MySuper offering which may include intelligent defaults for account-based pension and/or longer term annuities and that barriers to the development of the long term annuity market be removed.

4.5.5 Restricting lump sums

There are neither disincentive limits nor tax consequences on withdrawing lump sums from superannuation for people aged 60 and above (albeit there is a tax incentive for people to retain their assets in income stream products). While little evidence exists that a material number of retirees are withdrawing significant lump sums and then relying on the Government Age Pension, a case may be made for the Government to provide greater incentives for post-retirement assets to be used to provide an income stream.

Any consideration of limits would need to be cognisant of the liquidity needs of retirees, especially for aged care and health costs.

Recommendation 12:

Consider amending the rules governing withdrawal of funds from the superannuation system including adjusting limits and changes to tax legislation to encourage pensioners to retain their funds within the system.

4.5.6 Simplifying the tax on super

Once a superannuation fund member moves from accumulation to pension account, any drawdowns from the pension account that meet the drawdown rules are tax exempt. The income on such pension accounts is tax exempt in the pension account. In addition, any franking credit tax benefits are effectively credited to pension accounts, whether they are invested through retail, corporate, industry fund or a SMSF. The same principles apply to public sector funds.

Given the ageing population and the budget challenges confronting the Government, the tax-free nature of pension accounts could be considered overly generous and unsustainable. A strong argument for policy change exists, especially in the context of our wider view that Australia would be better served by a broader tax base with fewer exemptions and the consequent scope for the reductions in personal and business tax rates. Indeed, one advantage of the reforms we suggest here could be to enable the Henry Review [need to footnote] recommendation of bringing the tax rate on superannuation income down from 15 per cent to 7.5 per cent and that in turn would help build meaningful retirement balances.

We also believe that a number of other changes are warranted to encourage contributions and hence the achievement of meaningful retirement balances over time. In short, we suggest the following policy options be considered in relation to superannuation:

- Simplify superannuation tax rules, and avoid continuous 'tweaks'.
- Extend coverage of tax on superannuation fund income to include the pension phase (in addition to the accumulation phase) and consider the consequent scope to reduce the taxation rate below the current rate of 15 per cent. Remove the Super Contributions Surcharge on concessional contributions (which applies to taxpayers whose adjusted taxable income is over $300,000), so that the single rate of 15 per cent applies
- Introduce tax incentives by increasing concessional caps to encourage contributions at an earlier age – this will assist in building meaningful retirement balances for a higher proportion of the population, with consequent benefits over time to reduced government pension outlays.
- Introduce higher concessional and non-concessional caps for those aged over 50 to encourage significant contributions at the stage where more people have cash flow to make additional savings.
- Extend the age qualification to make contributions from 75 to 80 years of age.

Recommendation 13:

That consideration is given to simplifying tax rules in superannuation, including that all income from superannuation fund earnings be taxed, regardless of accumulation or pension phase.

5 How to support bank funding

5.1 Overview

This chapter outlines the funding challenges facing the banking sector. Australia must ensure that any increase in domestic demand for credit can be sustainably funded, as a key plank of securing future economic prosperity. We set out a package of reforms including taxing investments and savings more equitably, encouraging a deep and liquid domestic bond market and the prudent exercise of regulator discretion in the context of Basel III that, if implemented, would assist banks in meeting increased demand for credit in a sustainable manner.

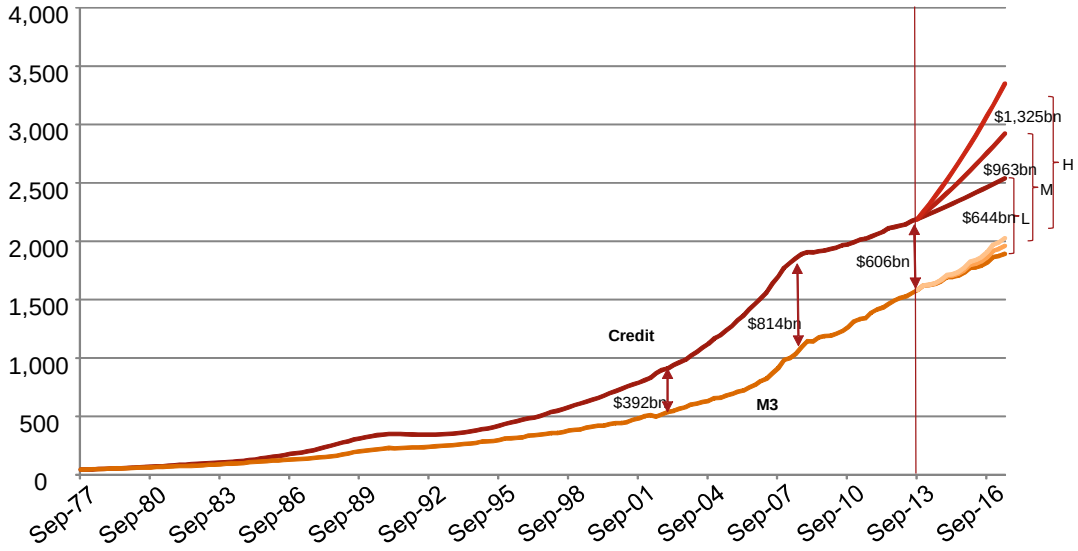
5.2 Funding challenges

As noted earlier, the GFC highlighted the extent of vulnerability arising from placing too heavy a reliance on short duration wholesale debt to fund longer-term assets. The Australian banking system, whilst resilient through the GFC, has taken heed of the lessons from the GFC and undergone an orderly process of adjustment to funding and risk policies, including preparation for Basel III regulatory reforms, resulting in banks now relying more on bank deposits and diversified portfolios of longer-term wholesale debt for funding. This adjustment process has been accompanied and assisted by a more cautious approach from Australian business and households, which has seen household savings rates rise and the demand for credit fall. This has allowed banks to fund increases in lending almost exclusively from increases in deposits in recent years.

But how sustainable is this funding arrangement, given a key policy objective for the Government is to return the economy to trend economic growth? The Government's objective is best reflected in the 8 per cent scenario for credit growth outlined in economic modelling undertaken by the Australian Bankers' Association[93]. This scenario estimates that if the economy returned to trend growth, credit growth would roughly double from its current levels of between 3 per cent and 4 per cent per annum, to at least 8 per cent per annum. Whilst the banks are best placed to meet any increase in demand for credit in these circumstances, such a significant increase could test the funding model for banks, in part because deposit growth is unlikely to also double. In this situation it is uncertain whether wholesale debt funding will be a viable option to cover the short fall, as the required amounts would surpass those seen in 2008 (refer Figure 24 and Figure 25).

93 The basis for PwC's analysis and recommendations is modelling undertaken for the Australian Bankers' Association (ABA) earlier this year to consider implications of different levels of credit demand on the banking sector and to consider potential sources of funding. PwC's full report is included in the ABA's submission

Figure 24: Magnitude of the system 'gap' between credit demand and M3 (A$ billion) under different credit demand scenarios



Source: PwC[94]

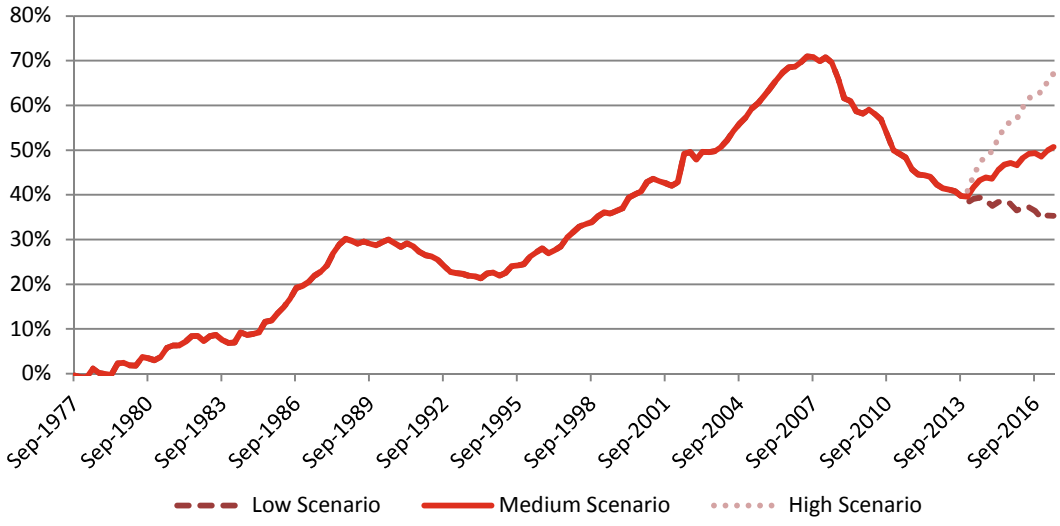
Note:

L = Low credit growth. Credit growth remains at around recent levels of 4 per cent per annum, and corresponding economic growth is consistently below trend GDP

M = Medium credit growth. Credit growth is 8 per cent per annum, roughly double existing levels, PwC modelling suggests this will be required to achieve trend GDP growth

H= High credit growth. Credit growth is 12 per cent per annum, which is the level achieved consistently prior to the GFC.

Figure 25: System credit requirement as a share of nominal GDP under the three scenarios



Source: PwC[95].

94 PwC report for the ABA, *Sustainably funding Australia's prosperity*, February *2014*

95 Ibid, PwC report for the ABA, *Sustainably funding Australia's prosperity*, February *2014*

It should be stressed that for an individual bank, and hence for banks in aggregate, assets (mostly made up of loans) will always equal liabilities (predominately deposits, wholesale debt and capital), meaning that the banking system always balances in an accounting sense. The key question is whether this happens at an optimal level from an economic perspective. In other words, can it meet the demand for credit consistent with achieving trend economic growth?

Whilst Australia's recent performance gives confidence in sensible adjustment, given the critical importance of returning Australia to trend economic growth it would be foolhardy to underestimate the risks ahead.

5.3 Options for addressing the gap

Our scenario analysis shows that credit growth of 8 per cent a year will result in a widening of the gap between credit and deposits. There are four potential responses which could either reduce or meet this funding requirement:

A) Encourage deposit growth, especially those deposits that tend to be most stable overtime;

B) Source additional wholesale funds from the domestic market;

C) Source additional wholesale funds from offshore markets; and

D) Limit credit supply to potential borrowers.

The recommendations in this chapter focus on steps to achieve A and B so as to minimise the need for either C or D.

In respect to D, we believe limiting credit growth in the current environment would result in a poor economic outcome.

The considerations around C – increasing reliance on offshore funding – are somewhat more complex. As the starting point, our assessment is that Australian banks, given their risk assessments, will be reluctant overall to increase their relative exposure to offshore wholesale debt in the foreseeable future. However, a situation where the demand for credit rose more quickly than domestic funding sources would take us into new territory and it is not clear how banks will respond in aggregate, especially given the different circumstances and potential approaches by individual banks.

For instance, except in the most extreme periods of market disruption, incremental domestic funding can be accessed at a higher price (ie higher interest rate). The banks' assessment of the risk-adjusted benefit of such funding relative to incremental offshore wholesale funding, in the context of both market conditions and the new Basel III rules, is impossible to judge ahead of time. Likewise, how would credit demand respond to the inevitable increase in lending rates?

Put simply, our view of the funding challenge is as follows. Australia will not return to trend growth without a substantial pick-up in credit demand. This will take us into unchartered territory in the post-GFC era. The question therefore is not whether the banks will be able to fund themselves in an accounting sense. The question is whether the consequent level of available credit given their funding decisions is optimal in an economic sense. In other words, will credit growth be consistent with achieving the economic growth required to support our standards of living?

This highlights the importance of ensuring that domestic markets can provide the most efficient funding options for the Australian banks. The recommendations in the remainder of this chapter therefore look at ways to increase funding from stable, reliable sources within Australia (ie options A and B above). They include the more equitable taxation of investments and savings (such as deposits), steps to encourage deeper domestic bond markets, and the exercise of regulator discretion.

5.4 Increasing deposit growth

The tax treatment of deposits compared to other investment options reduces the attractiveness of deposits as a saving option and hence reduces deposit growth. One way to reduce the gap between credit and deposits is to grow deposits faster by attracting more savings into deposits. Differences in the way various investments are taxed influences investor preferences and have the unintended consequence of diverting potential additional deposit savings into other asset classes.

Changing the taxation of deposits, to make it more equitable when compared to other savings options, is expected to have a positive effect on deposit growth.

5.4.1 How are different investments taxed?

Deposits are only one of a number of investment options available to households and businesses when they are deciding where to place their savings. Others include home ownership, shares (equities), commercial property and bonds (debt securities). Since the mid-1980s deposits have sustained growth of about 7 per cent to 10 per cent per annum. However, other forms of investment – most notably housing and equities (including through superannuation) – have also grown strongly.

Whilst return for risk is probably the most influential driver of asset allocation decisions, taxation also plays a significant role. The Henry Review noted[96]:

> *"There is considerable evidence that tax differences have large effects on which assets a household's savings are invested in. Based on an examination of the literature and OECD data, the OECD concluded that while low-income individuals respond to tax incentives with more savings, for high-income individuals in particular savings are diverted from taxable to tax-preferred savings (OECD 2007a)."*

In essence, taxpayers will seek out investments that both satisfy their investment objectives and reduce or defer their tax bill. Both the timing of taxation and allowance for inflation can impact the amount of tax paid and therefore the investment decision.

Figure 26 outlines the tax treatment of common investment and savings options. The key point is that deposit interest is taxed at the taxpayer's marginal rate, with no allowance for inflation or tax deferral relative to other options which provide greater opportunity for tax planning. In particular, the Henry Review concluded that real effective tax rates on bank deposits were nearly double relevant marginal rates and significantly higher than other asset classes.

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96 Dr K Henry, "The Henry Review", *Australia's future tax system, Report to the Treasurer*, Dec 2009, refer to Part Two, Detailed Analysis, volume 1 of 2, chapter A1, A1-3 Taxation of income from savings

Figure 26: Differing tax treatments across asset classes

Investment	Income		Capital Gains & Losses			
	Income Type	Taxpayer Deductions	Taxed	Indexed for Inflation	Deferral	Transferrable
Home	None	n/a	×	n/a	n/a	n/a
Investment Property	Rent	✓	✓	✓	✓	✓
Shares	Dividends (post tax, with franking)	✓	✓	✓	✓	✓
Bonds	Interest	✓	✓	✓	✓	✓
Deposits	Interest	×	n/a	×	n/a	n/a

Source: PwC[97]

*Note: ** Taxpayer deductions include depreciation, interest on borrowings used to fund purchase of investment assets (negative gearing), and repairs and maintenance for investment properties.*

In addition to the varying tax treatments of the different investments outlined above, superannuation provides a tax effective way of saving. Investments held with a superannuation fund are subject to tax as described in Figure 26 above, but at a lower tax rate. For example, contributions and investment returns are generally taxed at 15 per cent, rather than a taxpayer's marginal tax rate.

Since its introduction in 1988, compulsory superannuation has forced households to save for their own retirement through mandated superannuation contributions. In doing so it has increased households' exposure to investment options other than bank deposits. Households are now better informed about a broader range of investment options and their related tax implications, and use this knowledge when choosing where to invest both their superannuation and discretionary savings, with home ownership and equities being most notably favoured.

5.4.2 Moving the taxation of bank deposits to a level playing field

A bank deposit is the only investment product that is taxed on its nominal returns and has no opportunity for tax planning by deferring gains – and attracting indexation from inflation – or negative gearing.

The Henry Review carried out a substantial review of the tax treatment of investments including bank deposits and concluded that the tax treatment of bank deposits should be amended to put them on a comparable basis with other investment products. It recommended that interest derived from bank deposits should be taxed at a discounted rate for individuals and for non-business purposes.

Growth in deposits recently seen from SMSFs (refer Figure 21 in Chapter 4) is evidence that superannuation funds are willing to invest in bank deposits. Changing the tax treatment of deposits would be expected to add additional impetus to this trend.

97 Ibid PwC report for ABA, Sustainably funding Australia's prosperity, February 2014

Recommendation 16:

Adopt The Henry Review Recommendation 14 in respect of a discount for savings income for taxation purposes.

5.5 Domestic wholesale markets

The nature of the Australian banks' balance sheets means that wholesale debt funding will be an important part of their overall funding mix for the foreseeable future, reflecting wholesale debt funding volumes undertaken before the GFC. During that era, offshore debt markets were seen to be more attractive to the banks than domestic bond markets, which tended to be not as deep or liquid as offshore markets.

Since the GFC the banks have concentrated on funding additional lending out of deposit growth. They have tended to use wholesale debt markets only to refinance existing wholesale debt, and because the domestic market remains relatively shallow and illiquid, this refinancing has tended to be done in offshore markets.

The Australian bond market, although long-established, has declined somewhat in recent decades Trends over the past 30 years have resulted in a lack of diversity amongst types of issuers and investors. This situation has arisen because of a number of factors[98] including:

- ***Government has declined as an issuer of debt.*** Whilst it has been government policy to reduce public debt levels, this has removed a valuable participant from the market and pushed the burden of funding the economy to the private sector. Long-term government bonds on issue have declined from 50 per cent of the market in 1988 to 29 per cent in 2013.

- ***Households have declined as direct investors.*** Households' direct holdings of bonds have declined as a proportion of the market from a range of 33 per cent to 50 per cent in the 1950s and 1960s to less than 1 per cent today. There are multiple reasons for this, including growth in superannuation, a reduced supply of government bonds, and an increased preference for equities (in part due to tax considerations). Disclosure requirements on issuers may also have played a role. The effect has been to remove a key investor segment from the market, thus reducing liquidity and market depth.

- ***Corporations have tended to rely on banks for their debt financing.*** Banks enjoyed a comparative advantage over all but the largest corporations in fund raising for much of the post-deregulation era, and could pass these lower credit costs to corporations, thus reducing corporate bond issuance.

If these trends continue unabated they result in banks being unable to obtain the level of stable, longer term wholesale funding they require to meet the $963 billion gap estimated under the 8 per cent scenario discussed above . This has the potential to limit their ability to continue to intermediate credit growth, which in turn will limit credit growth and prevent the economy returning to trend growth.

Funding options for banks would clearly be increased if the domestic bond market became deeper and more liquid, thus expanding a potentially less-risky source of additional funding for banks (and indeed corporates generally). There would also be broader economic benefits including non-bank corporations having more funding options, and investors having more investment options. Superannuation funds could be particular beneficiaries, given their need

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98 Susan Black, Joshua Kirkwood, Alan Rai and Thomas Williams , RBA Research Discussion Paper '*A History of Australian Corporate Bonds',* September 2012

for long-dated fixed interest investments and considering the scale and growth prospects for the superannuation industry.

5.5.1 The key to a deeper and more liquid domestic bond market

Observed market experience globally is that because bond securities are generally long-dated (sometimes up to 30 or 50 years) government participation is critical for underpinning the market's effective functioning, even for tenures as short a five years and even though mechanisms of government participation may differ. A recent IMF report makes this point very strongly.[99]

The bond market is an area where the Australian Government's strong balance sheet could be sensibly used to improve the flow of finance in the economy. This could be achieved by:

- Looking at innovative ways to partner with the private sector to issue debt to fund projects with an economic and/or social benefit, including infrastructure, construction of new housing and other growth industries;
- Using the Government's credit rating to enhance private debt, where funding is going to projects that have a clear social and economic benefit; and
- The Government providing aggregation services for smaller banks (for a fee).

Regardless of the mechanism, the critical point here is that the Australian bond market will not deepen sufficiently in any relevant timeframe without active Government participation. The Government's recent decision to issue 20-year bonds for the first time is a welcome step in this direction.

Recommendation 17:

Adopt extension of the domestic bond market as a central plank of Commonwealth Government policy to improve economic growth, recognising that active Government participation is inherent in all mature bond markets.

5.5.2 Specific steps to achieving this deeper and more liquid market

The recommendations below introduce measures aimed at attracting more investors and diversifying the types of bonds on issue in terms of issuer, credit rating, tenor and structure. This specifically requires removing barriers that prevent potential participants entering the market.

Recommendation 18:

Complete the work started by the Treasury discussion paper issued in late 2011 that looked at barriers to issuing bonds to retail investors, "Development of the Retail Corporate Bond Market: Streamlining disclosure and liability requirements".

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99 IMF, *Local Currency Bond Markets – A Diagnostic Framework*, July 2013

Recommendation 19:

Enact the proposed legislation: Corporation Amendment (Simple Corporate Bonds and Other Measures) Bill 2013.

Recommendation 20:

Increase accessibility to trading infrastructure to facilitate timely and accurate price discovery and easier settlement. This could include facilitating more bonds being traded on an exchange and more tools to facilitate access via electronic platforms.

Recommendation 21:

Review the structure and regulation of superfunds to determine if there are changes to both superannuation funds and the types of bonds on offer that would result in superannuation funds holding more bonds. For instance, consideration could be given to implementing requirements for retirees to access their superannuation through a combination of lump sum withdrawals and annuities.

From time-to-time suggestions have been made that superannuation funds be mandated to hold a proportion of their assets in long-dated bonds issued by banks. In other words that a proportion of the national pool of superannuation assets be allocated to provide wholesale funding for banks, especially given the rapid growth expected in superannuation assets. However, and as argued in Chapter four, in our view it is preferable that trustees remain accountable for asset allocation decisions. The better path is to ensure that the domestic bond market is sufficiently deep and liquid to attract investors. The recent rapid growth in bank deposits held by superannuation funds shows that there is an interest by trustees in holding bank risk, strengthening the case for actions to improve our domestic bond market.

5.6 Regulatory considerations

5.6.1 Bank deposits held by superannuation funds (Basel III)

As a package, the Basel III reforms are a significant advancement in bank risk management. However, there are some areas that if changed could have a positive impact on the challenge of funding the gap between credit and deposits, by reducing the overall level of liquid assets required.

Basel III requires banks to manage their liquidity needs under strict parameters and distinguishes between different deposit types according to their expected stability during times of market stress. These requirements are stricter than previously, reflecting the experience of the GFC.

Under APRA's liquidity rules, a proportion of bank deposits held by superannuation funds (including SMSFs) may be classified as less stable. This reflects the view that superannuation trustees are financially sophisticated and will, therefore, respond more rapidly to stress conditions than retail depositors.

But given the critical importance of superannuation fund deposits as a growing source of funding (refer Chapter four), the high proportion of SMSF deposits within this category, and the different levels of sophistication among those trustees, APRA's ruling may warrant further consideration ahead of the formal commencement of these rules in 2015.

Recommendation 22:

Review the behaviour of deposits linked to superannuation funds to determine if they are actually less stable than other forms of deposits, such as retail deposits, and adjust the classification for Basel III liquidity if warranted.

5.6.2 Liquid assets (Basel III)

Because of Australia's relatively low level of government bonds, our wholesale debt markets are short of assets that qualify as liquid assets for the banks to hold under the Basel III liquidity rules. Recognising this, APRA and the RBA have established the Committed Liquidity Facility (CLF), to enable the banks to supplement their liquid asset requirements. APRA is enforcing strict eligibility and fee criteria to ensure the use of the CLF is minimised.

While the CLF has been carefully designed, it nonetheless represents a significant departure from recent regulatory practice. It appears to give the authorities an explicit quantity lever to influence overall bank operations, whereas since liberalisation the emphasis has been on price rather than volume levers[100]. In particular, there is the risk that credit growth could be restricted if it is not sufficiently responsive to changing market conditions.

An important aspect of this issue is that because Australia's wholesale debt markets are relatively under-developed the markets for eligible securities for liquidity purposes are somewhat thin. In addition, it makes sense that APRA's operation of the CLF is subject to appropriate oversight.

Recommendation 23:

Review the markets in which eligible securities are traded to improve market participation, so that they become more liquid. Refer 5.2 above where ways to improve the functioning of the Australian bond market are discussed.

Recommendation 24:

Formally require APRA to report in its Annual Report specific analysis of the system costs and benefits associated with operating the CLF.

5.6.3 Securitisation

Securitisation allows banks to issue secured debt, as an alternative to unsecured wholesale funding, and so access a broader pool of investors and generate potential capital and funding benefits. For smaller banks, it enables them to access the wholesale market at a price they cannot otherwise achieve due to their credit rating. Following the GFC, this type of funding has attracted increased regulatory scrutiny. Regulatory settings now make secured debt relatively unattractive as a source of funding for banks.

APRA is reviewing the regulatory requirements for securitisation in Australia including: whether issuers should continue to hold an interest in the securitised notes over the life of the deal (ie have 'skin in the game'); the overall loss absorbency structure of the securitisation entities; and whether or not there should be a capital impost for banks against securitised assets.

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[100] One analogy is that the regulatory framework has set the boundaries of the bank "sand pit", whereas the CLF is more like a "line in the sand" for the banks to follow

It is important that this review be completed as quickly as possible and that it recognises the benefits to the economy of a liquid and transparent securitisation market, where the investors understand that originators retain a meaningful, ongoing interest in these securities.

In completing this review, APRA should recognise the benefits to the economy that can flow to smaller institutions from having access to securitisation on terms approaching those available to larger institutions. For instance, it could be beneficial to introduce a master trust structure – as allowed in some overseas jurisdictions – where lenders with a particular regional footprint could issue joint securities and provide investors with the benefit of regional diversification.

Finally, the securitisation framework should be flexible over time as the operation of the securitisation market becomes better understood and in light of other developing trends in bank funding.

Recommendation 25:

Regulatory settings for securitisation should be finalised by APRA as quickly as possible and the benefits of a liquid and transparent securitisation market, including for smaller institutions, be recognised.

5.6.4 Covered bonds

Covered bonds have been introduced as a special form of secured funding against specific portfolios of residential mortgages ('the covered pool'). As such they have a higher credit rating – and a lower cost to banks – than unsecured wholesale funding and have been used by banks to reduce funding costs.

APRA has sensibly imposed an 8 per cent cap on the total size of the covered pool given these bonds alter the security position of unsecured investors, including depositors. The 8 per cent cap is a matter of judgement and it is recommended that a flexible approach be considered over time as the operation of the covered bond market becomes better understood and the impact of other developing trends in bank funding come to light. For instance, an increase in the cap could be useful in the face of a notable uptick in the demand for business credit or for residential construction finance to meet underlying demand for new housing.

Recommendation 26:

The cap on the covered pool should be reviewed by APRA over time in light of the operation of the covered bond market and other developing trends in bank funding.

6 Tax system

6.1 Overview

A recurrent theme in this submission, particularly in Chapter two, is the fiscal challenge facing Western governments, including Australia. Dealing with this challenge will involve tough decisions on both the revenue and expenditure side. The Australian Government has indicated the importance of restoring the Government's fiscal position. Also relevant here are the various linkages between the financial system and government fiscal settings, for instance the impact of taxation on asset allocation decisions by households.

This chapter makes a number of suggestions in respect of Australian tax policy settings in light of the imperative to rebuild strong budgets. In our view, tax reform can be a powerful lever if done the right way – that is, utilising those taxes that have the least effect on economic growth, and reducing reliance on those taxes that are damaging to economic growth. In our view, a sound thriving financial system is dependent upon long term budget security and tax reform should seek to ensure this is achieved.

This chapter builds on PwC's 2013 report into Australian policy entitled *Protecting Prosperity*[101] which commented that a more growth-friendly tax system would have two key features:

1 A greater reliance on taxes that do not damage the incentives to invest, work and learn. Specifically this will mean:
   - increasing revenue from consumption taxes and land taxes;
   - reducing corporate and personal taxes and/or state-based stamp duties, insurance and fire levies and reforming or reducing payroll taxes.

2 A broader application of key taxes by allowing fewer exemptions and concessions. In particular, this means broadening the application of existing consumption taxes, removing exemptions which apply (eg land tax, payroll tax, and company tax) and examining closely the current tax concessions available under income and company taxes.

Protecting Prosperity particularly highlighted the challenges for taxation posed by globalisation and global competition along the same lines as the trends highlighted in Chapter 2.

To achieve real and meaningful economic outcomes, tax reform needs to be wide ranging and comprehensive. In our view, it is critical that the Inquiry considers not only tax impediments to an efficient and effective allocation of capital but those that would attract/promote greater capital and people flows into and out of Australia.

The OECD has found that attracting foreign direct investment lifts a country's economic performance and its living standards[102]. Foreign capital generates increased employment, higher incomes and improved infrastructure, thereby creating a stronger industrial and economic base. Inflows of foreign capital are also believed to improve a host country's productivity. For example, foreign direct investment can be a stimulus to indigenous research and development, stimulating expanded production or lower unit production costs. These developments, in turn, can be expected to attract additional investment, ultimately

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[101] Ibid PwC, *Protecting prosperity: Why we need talk about tax,* July 2013

[102] OECD, Corporate Tax Incentives for Foreign Direct Investment, OECD Tax Policy Studies No.4, 2001, page 19

increasing a country's wealth. Australia is in direct competition with other financial centres in the Asia Pacific region and beyond for foreign direct investment.

Further, Australia's company and personal income tax rates remain high by international standards. PwC's *Total Tax Contribution* study[103] found Australia continues to rely more heavily on income tax to raise revenue from business than most other countries. Research further indicates that Australia's 30 per cent corporate tax rate and 45 per cent personal income tax rate are higher than the OECD average of 25.3 per cent for companies and 41.5 per cent for individuals. Given the global and competitive nature of financial services, these higher tax rates are a particular impediment for the financial services industry.

We see particular benefit in revisiting The Henry Review[104] recommendation of a reduction in Australia's corporate tax rate to 25 per cent over the short to medium term with the timing subject to economic and fiscal circumstances. A lack of consensus on the Government's tax base broadening proposals meant this recommendation did not eventuate following the Business Tax Working Group's review into Australia's business tax system in 2012.

We therefore hope the Inquiry will argue strongly for the need for broad-based taxation reform along these lines.

The balance of the chapter considers specific suggestions for change that could inform the Tax White Paper. Some of these relate specifically to financial services. To the extent that these are outside the Terms of Reference, we submit that the Inquiry should advocate for these issues to be considered/reviewed as part of the broader tax reform agenda. We do not repeat taxation recommendations from earlier chapters (Recommendations 1, 20, 23 and 24).

Recommendation 27:

The Inquiry should strongly support broad based tax reform that contributes to greater fiscal security for Australian governments, ensures our taxes are structured to reduce their negative impact on economic growth and that protects equity between all Australians. The Inquiry should recommend that this review considers issues that will contribute to the growth of the Australian finance industry including the reduction of the corporate tax rate. The Inquiry should also call for the contribution of all Australian states to the process of tax reform.

6.2 Dividend imputation system

The imputation system was introduced to reduce double taxation of corporate profits and to reduce the preference in the previous classical tax system for debt over equity.

However, there is concern that the system produces bias by Australian investors towards domestic investment (eg Australian equities) and by foreign investors away from Australia. This is because imputation credits are provided only for Australian corporate tax paid and primarily benefit Australian shareholders who can use them to offset their personal tax liability. Anecdotal evidence suggests that market value placed on imputation credits is around 40-70 per cent of their value.

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[103] PwC, Total Tax Contribution. *Understanding the economic contribution of business,* 2010.

[104] Ibid Dr K Henry, "The Henry Review", Australia's future tax system, Report to the Treasurer, Dec. 2009, ref Part One, Chapter 5, section 5.1, pages 39-40 and Chapter 12 page 86.

Foreign taxes paid on foreign income do not generate franking credits in Australia. Furthermore, in most cases, Australian companies with foreign direct investments do not have corporate tax payable in Australia due to either the foreign branch income exemption or the foreign dividend exemption. For these reasons, Australian shareholders of Australian companies place a lower value on foreign investments than a company's domestic investments.

On the other hand, foreign investors would prefer to minimise any tax payable in Australia as the dividend imputation system is of little or no benefit to them. Although franked dividends are not subject to Australian dividend withholding tax, foreign investors may feel that these credits come at a higher cost (as franking credits represent an underlying Australian corporate tax paid of 30 per cent) than the lower Australian dividend withholding tax that may apply due to the application of tax treaties.

A further issue to consider is whether the attractiveness of franked dividends to Australian shareholders creates a bias towards higher dividend payout ratios, thereby creating a disincentive for companies to reinvest into their businesses.

In the context of the overriding importance of ensuring Australia's sound fiscal position, and recognising the need to find new sources of investment to sustain Australia's growth, as well as the need to remove investment bias in the tax system, we believe that careful consideration should be given to whether there would be benefits to be obtained from modifications to the imputation system.

The Board of Taxation's Report[105] to the Federal Treasurer on Australia's International Taxation on 28 February 2003 examined and considered modifications to the imputation system in so far as they might encourage Australian investment offshore. Some of the recommendations included:

- Retaining the imputation system but providing Australian shareholders tax relief for unfranked dividends paid out of foreign-sourced income by way of a non-refundable tax credit for 20 per cent, without the need to trace foreign tax paid offshore.

- Retaining the imputation system but allow streaming of foreign income (together with any foreign tax credits) to foreign shareholders and streaming of imputation credits to Australian shareholders.

  In our view, the review of the Australian tax system should include a consideration of whether it would be beneficial to place a cap on the amount of imputation benefits available to Australian shareholders, or even to replace the imputation system with the following examples of company/shareholder tax relief systems together with appropriate transition arrangements:

  A full or partial deduction to the company for distributed profits;

  – Flat rate taxes on dividends;

  – Whole or partial exclusion of dividends from shareholders' taxable income; and

  – A full or partial credit to the shareholder for dividends received.

Each of the above options will require detailed analysis.

[105] The Board of Taxation, *A report to the Treasurer on International Taxation*, Australian Government, 28 February 2003

However, one feature of the current imputation system that could be removed without necessarily requiring the same level of analysis is the tax refund available only to certain Australian shareholders (eg individuals and complying superannuation funds) under the imputation system for 'excess' imputation credits. At the very least, we would recommend that the rationale for this tax concession needs to be articulated, and its efficiency judged on that basis.

Recommendation 28:

A full review should be undertaken of the dividend imputation system.

6.3 Main residence tax exemption and negative gearing encourage inefficient allocation of capital

In Chapter one we discussed the shift in the allocation of credit towards housing since the late 1980s and how widely-held expectations of the continuation of a range of factors (including continued strong economic growth, low interest rates, abundant credit, limited land supply releases, and favourable tax treatment) have been capitalised into residential land and house prices.

Aspects of this favourable tax treatment include:

- Main place of residence capital gains tax exemption
- The allowance of full deductibility of expenses (including depreciation, financing costs, council rates and agents fees relative to rental income) relating to investment properties against other assessable income (generally wages and salary) – so called 'negative gearing' (refer Figure 26, Chapter 5)
- The taxation of capital gains (without inflation adjustment) at half the rates applicable to other income/gains.

In the context of the overriding importance of ensuring Australia's sound fiscal position and the need to direct investment to long-term sources of productive investment, we would support the review of these tax arrangements.

Recommendation 29:

A review of the Australian tax system should include a consideration of the following tax measures that may reduce the current investment bias towards real property relative to other forms of investment:

Negative gearing – limit the use of negative gearing losses to the extent of the income generated from the residential property investment itself

Main residence tax exemption – place a value cap on or otherwise limit the use of the main residence tax exemption, with appropriate transition arrangements. For instance, the exemption could be limited to three or four main places of residence per individual over a lifetime or main place of residence up to a certain $ value (say three times the average house price in a particular location capital city, which equates to approximately $2.3m in Sydney, is exempt).

6.4 An effective investment manager regime

The Government has introduced the investment manager regime (IMR) recommended by the Australian Financial Centre Forum. However, the rules are unnecessarily complex, and based on the feedback received from foreign investors are likely to have limited impact in encouraging investment in Australia.

Australia's investment manager regime needs to be more closely aligned with those in other jurisdictions.

Recommendation 30:

Simplify the IMR requirements, with greater alignment to other investment manager regimes around the world

6.5 Offshore banking units (OBUs)

The OBU regime is a concessional tax regime that allows entities registered as OBUs a reduced rate of taxation on certain non-resident to non-resident transactions. The Government has recently announced changes to the OBU regime to address concerns by the Australian Taxation Office (ATO) that the OBU regime is being used to transfer domestic banking activities and non-banking profits into OBUs to access the lower tax rate. Now that the ATO concerns have been addressed, the OBU regime should be promoted.

Recommendation 31:

The OBU regime should be reviewed and its use by Australian businesses should be encouraged and promoted.

6.6 Taxation of offshore borrowings

The imposition of interest withholding tax on certain offshore borrowings by Australian financial institutions not only raises the cost of capital (thereby placing Australian financial institutions at a competitive disadvantage) but also introduces distortions into the financial system.

Overseas jurisdictions which provide interest withholding tax exemption for offshore borrowings by banks include the UK, Ireland, Hong Kong, Singapore, US and Canada. Accordingly, the Inquiry should consider removing the interest withholding tax on offshore borrowings by Australian banks[106].

Another limitation on offshore borrowings is the tax treatment under the foreign bank branch rules whereby the deductibility for interest paid by Australian branches of foreign banks on funds borrowed from their offshore parents is limited to LIBOR. In our view, this limitation is not necessary given the application of transfer pricing rules to related party international dealings.

[106] Australian Financial Centre Forum (Australian Government Initiative), *Australia as a Financial Centre Building on Our Strengths*, final report November 2009, refer chapter3, section 3.2.

Recommendation 32:

Consideration to be given to removal of:

- *The interest withholding tax on offshore borrowings by Australian banks[107]; and*
- *The LIBOR cap on parent-branch funding.*

6.7 Islamic finance products

Islamic financial products are expected to continue to grow in prominence in global markets. Australia should have a clear framework for these products, consistent with remaining a world class financial hub.

In 2010, the Board of Taxation reviewed the taxation treatment of Islamic finance products and made recommendations in a report to the Assistant Treasurer to ensure parity of tax treatment with more conventional products. That report has not yet been publicly released, and there does not seem to have been any progress on the recommendations. We recommend that the report be made public and consideration be given to the introduction of tax rules which encourage the development and provision of Islamic financial (particularly wholesale) products in Australia.

Recommendation 33:

Introduce tax rules which encourage the development and provision of Islamic financial products in Australia.

6.8 Reforms to controlled foreign company (CFC) rules.

The Government recently announced that it will not proceed with the proposed reforms to the CFC rules. We believe that the current CFC rules discourage investment in foreign jurisdictions by Australian companies, and also discourage foreign investors from using Australia as a holding company jurisdiction.

Recommendation 34:

CFC rules should be reformed to encourage greater foreign investments by Australian companies.

[107] Ibid Australian Financial Centre Forum, November 2009,

6.9 Differential tax treatment of debt and equity

The Australian taxation system treats returns on debt and equity funding differently. Interest paid on debt instruments are tax deductible while dividends paid on equity instruments are not tax deductible for the paying company. However, both are functionally equivalent transactions in the sense of compensating investors for the use of funds.

The differential tax treatment afforded to debt and equity funding introduces tax distortions into the investment capital markets that may result in sub-optimal outcomes.

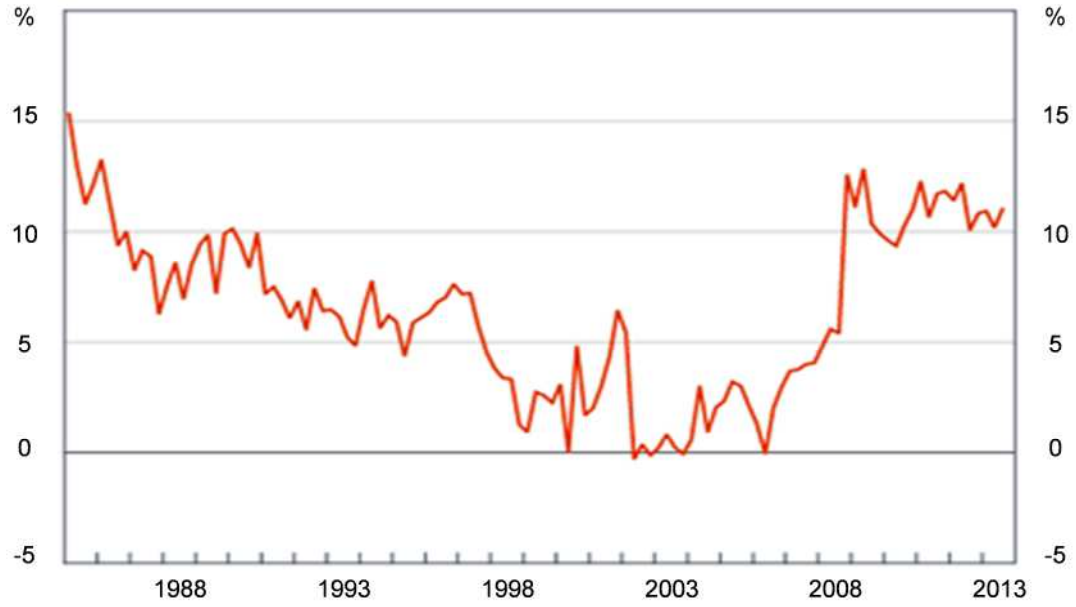
Recommendation 35:

As part of the review of the Australian tax system, the current differential tax treatment of debt and equity should be examined and consideration be given to its removal.

As part of the review of the Australian tax system, the current differential tax treatment of debt and equity should be examined and consideration be given to its removal

Appendix A – The Australian financial system since the GFC
Additional information

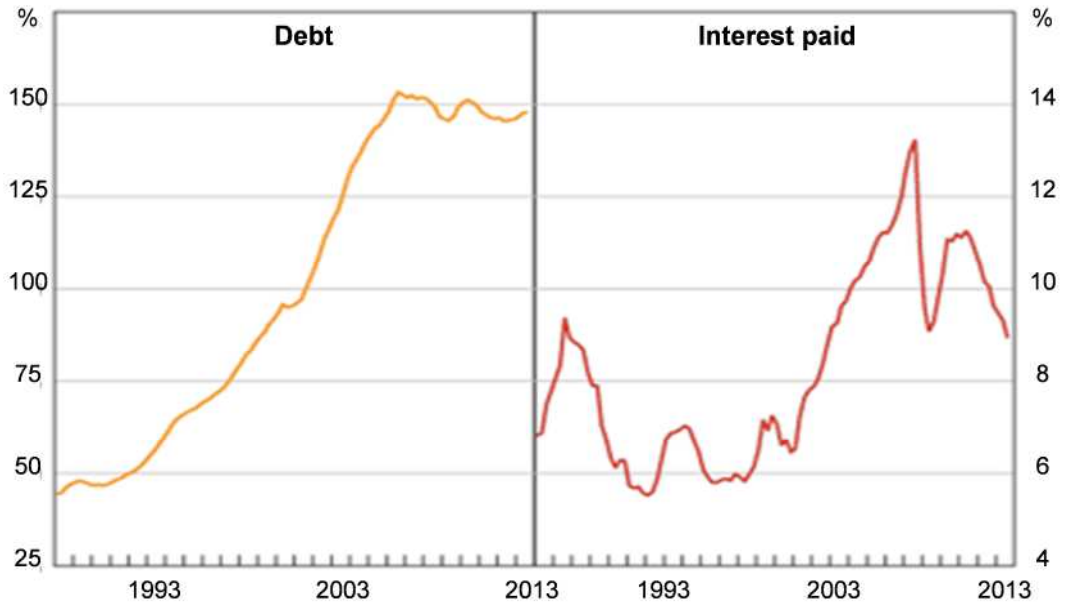
Figure 27: Australian household savings ratio as a proportion of household disposable income



* *Net of depreciation*

Source: RBA chart pack, March 2014

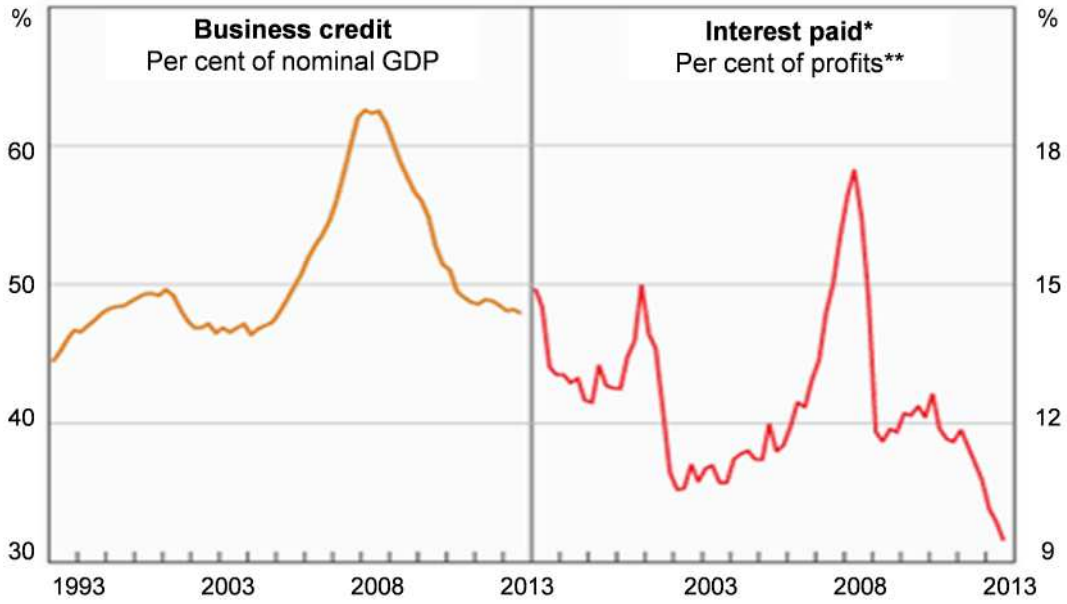
Figure 28: Australia household finances as a proportion of disposable income



* *Household sector excludes unincorporated enterprises; disposable income is after tax and before the deduction of interest payments*

Source: RBA chart pack, March 2014

Figure 29: Business Finances

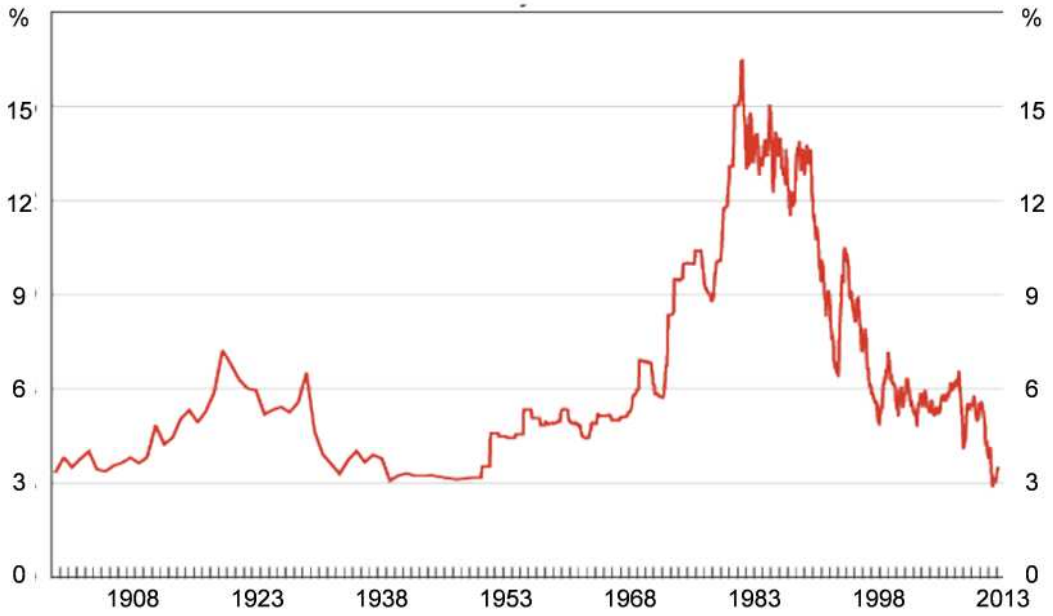


* *Interest on intermediated debt from Australian-domiciled financial institutions*

** *Profits are private non-financial gross operating surplus (adjusted for privatisations) and gross mixed income*

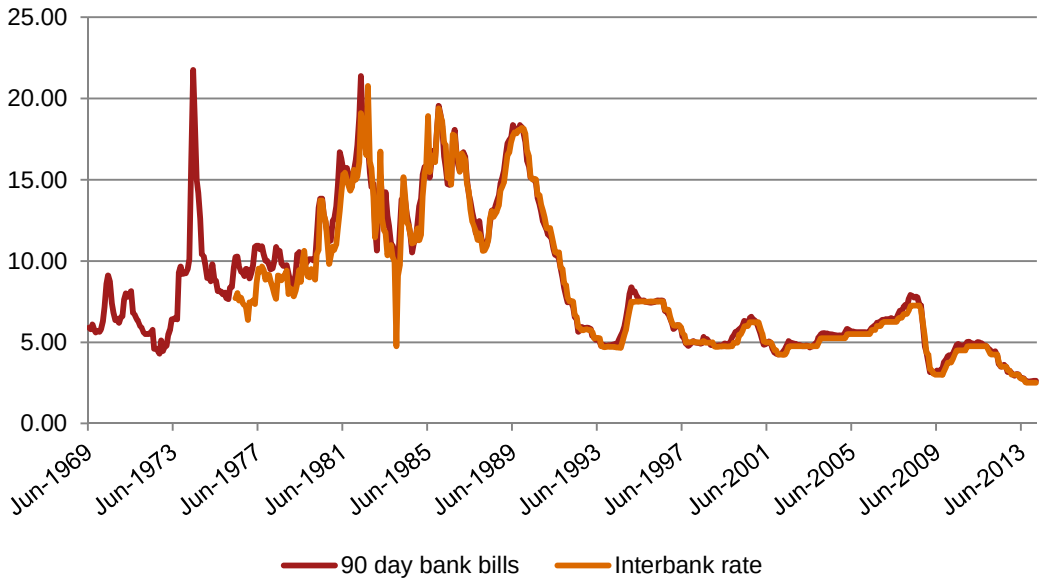
Source: RBA chart pack, March 2014

Figure 30: Australian Government 10-year bond yields



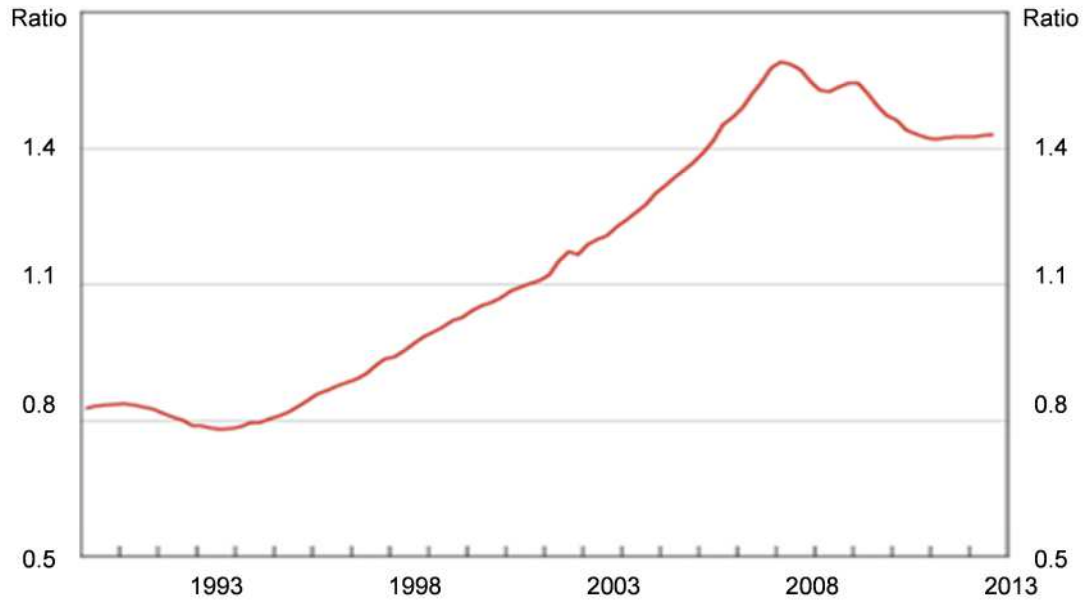
Source: G Debelle, Some Recent (and not so recent) Trends in Australian Debt Markets, *RBA, March 2013*

Figure 31: Australian interest rates



Source: RBA, PwC Analysis

Figure 32: Australian credit ratio to nominal GDP



* *Not adjusted for breaks*

Source: RBA chart pack, March 2014

Appendix B – Charts and tables

Appendix C – Bibliography

American Academy for the Advancement of Sciences, *What we Know*, http://whatweknow.aaas.org/, 2014

Arrow, KJ and Debreu G, *Existence of an equilibrium for a competitive economy,* Econometrica, The Econometric Society, 1954

ASX Corporate Governance Council, *Corporate Governance Principles and Recommendations with 2010 Amendments, 2nd edition,* http://www.asx.com.au/documents/asx-compliance/cg_principles_recommendations_with_2010_amendments.pdf, Sydney, 2010

Australian Financial Centre Forum (Australian Government Initiate) *Australia as a Financial Centre Building on Our Strengths*, November 2009, http://afcf.treasury.gov.au/afcf/content/final_report.asp

Australian Government, RBA, *A Statement on the Conduct of Monetary Policy,* RBA, Sydney, 1996

Australian Government, *Building resilience through national savings, statement 4,* http://www.budget.gov.au/2012-13/content/bp1/html/bp1_bst4.htm , Canberra, 2012

Australian Government, The Treasury, *Budget 2012-13,* http://www.budget.gov.au/2012-13/, Canberra, 2012

Australian Government, The Treasury, *Estimates of the structural budget balance of the Australian Government,* http://www.treasury.gov.au/PublicationsAndMedia/Publications/2013/Estimating-the-Structural-Budget-Balance-of-The-Australian-Government, Canberra, 2013

Bennett Stewart, G, *The Quest for Value,* HarperCollins, New York, 1991

Black, F and Scholes, M, *The Pricing of Options and Corporate Liabilities,* Journal of Political Economy, University of Chicago Press, Chicago, 1973

Black S et al, *A History of Australian Corporate Bonds,* http://www.rba.gov.au/publications/rdp/2012/2012-09.html, Sydney, 2012

Board of Treasury, *A International Taxation Report to the Treasurer,* 2003

Blythe, M, *Current account surplus – or banana republic no more?,* Commonwealth Bank of Australia, Global Markets Research, Sydney, 2014

Bloomberg, *Asian Water Scarcity Risked as Coal-Fired Power Embraced*, http://www.bloomberg.com/news/2012-09-09/asian-water-scarcity-risked-as-coal-fired-power-embraced.html, 10 September 2010

Caballero, RJ, *Crisis and Reform Managing Systemic Risk,* Angelo Costa Lecture, Rome, 2010

Calomoris, CW and Haber, SH, *Fragile by Design: The Political Origins of Banking Crises and Scarce Credit,* Princeton University Press, Princeton, 2014

Campbell Committee, The, *Australian Financial System, Final Report of the Committee of Inquiry,* Australian Government Publishing Services, Canberra, 1981

Clark, G, *Farewell to Alms,* Princeton University Press, Princeton, 2007

Crawford, J, *Why our blue plant is running out of water,* http://forumblog.org/2014/03/war-water/, World Economic Forum, 2014

CSIRO, *State of the Climate* – 2014, http://www.csiro.au/en/Outcomes/Climate/Understanding/State-of-the-Climate-2014.aspx, March 2014

Davis, K, *Funding Australia's Future: From where do we begin?,* Australian Centre for Financial Studies Melbourne, 2013

Debelle, G, *On Risk and Uncertainty,* Address to Risk Australia Conference, RBA Speeches, Sydney, 2010

Feinstein, CH, *Capitalism and Economic Growth,* Cambridge University Press, Cambridge, 1967

Ferguson, N, *The Great Degeneration – How Institutions Decay and Economies Die,* Penguin, London, 2013

Frey, C and Osborne, M, *"The Future of Employment: How Susceptible are Jobs to Computerisation?",* Oxford University Press, Oxford, 2013

Financial Times, *Powerless to act*, Henny Sender and James Crabtree, http://www.ft.com/intl/cms/s/2/0e71b7ee-dd4b-11e1-8fdc-00144feab49a.html#axzz2xUxmhx5D, 5 August 2012

Fukuyama, F, *The End of History and the Last Man,* Free Press, New York, 1992

Goodwin, RM, *A Growth Cycle' in Feinstein (1967),* Cambridge University Press, Cambridge, 1967

Haldane, AG, *Tails of the Unexpected,* Bank of England, Speeches, London, 2012

Haldane, AG, *Why Institutions Matter (more than ever),* Bank of England, Speeches, London, 2013

Hahn, FH, *Equilibrium and Macroeconomics,* Blackwell Publishers, London, 1984

IMF, *Fiscal Implications of the Global Economic and Financial Crisis,* http://www.imf.org/external/pubs/ft/spn/2009/spn0913.pdf, Washington, 2009

IMF, *Local Currency Bond Markets – A diagnostic Framework,* http://www.imf.org/external/np/sec/pr/2013/pr13393.htm, Washington, 2013

London School of Economics, *"The Future of Finance",* LSEPS, London, 2010

Lowe, P, *Demographics, Productivity and Innovation,* Reserve Bank Australia, Sydney, 2014

Maddock, R, *Banks, Capital Markets, and Australian Economic Development,* http://ssrn.com/abstract=2258843, 2013

Merton, RC, *A New Approach to Measuring Macrofinancial Risk Propagation,* Presentation to The Institute of Global Finance, UNSW Sydney, 2013

Newman, M, *Working with government to drive economic growth and a thriving business sector,* http://www.ceda.com.au/news-articles/2013/11/11/annualdinner, Address to CEDA Annual Dinner, Sydney, November 2013

New Scientist, *Water shortages hit US power supply*, http://www.newscientist.com/article/dn22178-water-shortages-hit-us-power-supply.html, 15 August 2012

OECD, *Corporate Tax Incentives for Foreign Direct investment,* http://www.oecd-ilibrary.org/taxation/corporate-tax-incentives-for-foreign-direct-investment_9789264188402-en, 2001

PwC Australia, *Perspectives Major banks analysis, May 2009,* http://www.pwc.com.au/industry/banking-capital-markets/publications/major-banks-analysis/index.htm, Sydney, 2009

PwC Australia, *Major banks analysis, November 2013,* http://www.pwc.com.au/industry/banking-capital-markets/publications/major-banks-analysis/index.htm, Sydney, 2013

PwC Australia, *Major banks analysis, May 2012,* http://www.pwc.com.au/industry/banking-capital-markets/publications/major-banks-analysis/index.htm, Sydney, 2012

PwC Australia, *Australia Uncovered, A new lens for understanding our evolving economy,* http://www.pwc.com.au/consulting/publications/australia-uncovered.htm, Sydney, 2014

PwC Australia, *Protecting Prosperity, we need to talk about tax,* http://www.pwc.com/gx/en/psrc/australia/protecting-prosperity-why-we-need-to-talk-about-tax.jhtml, Melbourne, 2013

PwC Australia, *Total Tax Contribution, Understanding the economic contribution of business,* 2010

PwC Global, *Busting the carbon budget by 2034,* http://www.pwc.co.uk/sustainability-climate-change/publications/low-carbon-economy-index.jhtml, London, 2013

PwC Global, *Retail Banking 2020,* http://www.pwc.com/gx/en/banking-capital-markets/banking-2020/index.jhtml, London, 2014

PwC Global, *Assessing the future trends for financial services,* http://www.pwc.com/gx/en/financial-services/projectblue/index.jhtml, London, 2013

PwC Global, *Asset Management 2020: A Brave New World*, http://www.pwc.com/gx/en/asset-management/publications/asset-management-2020-a-brave-new-world.jhtml, London,2013

PwC Global, *Insurance 2020: A Quiet Revolution – The Future of Global Insurance M&A*, http://www.pwc.com/gx/en/insurance/insurance-2020-global-insurance-manda-a-quiet-revolution.jhtml, London, 2013

PwC Global, *2030 Water resources group – charting our water future,* PwC Global research, London, 2013

Rinehart, CM and Rogoff, KS, *This Time is Different,* Princeton University Press, Princeton, 2009

Royal Society, The, *Climate Change: Evidence & Causes*, http://royalsociety.org/policy/projects/climate-evidence-causes/, 2014

Schumpeter, JA, *Capitalism, Socialism and Democracy,* George Allen and Unwin, London, 1943

Smil V, *Energy Transitions, History, Requirements, Prospects*, Praeger, California, 2010

Smith, A, *An Inquiry into the Nature and Causes of the Wealth of Nations,* Liberty Classics, Indianapolis, 1776

Taylor, AM, *The Great Leveraging,* University of Virginia, Charlottesville, Virginia, 2012

The Economist, *"The Onrushing Wave",* http://www.economist.com/news/briefing/21594264-previous-technological-innovation-has-always-delivered-more-long-run-employment-not-less, London, Jan 2014

The Henry Review, *Australia's Future tax system, Report to the Treasurer,* Australian Government Publishing Services, Canberra, 2009

Turner, A, *What do banks do?, Why do credit booms and busts occur? What can public policy do about it? in* Turner A et al *The Future of Finance,* London School of Economics and Political Science London, 2010

Turner, A, *Credit, Money and Leverage: What Wicksell, Hayek, and Fisher Knew and Modern Macroeconomics Forgot,* Stockholm School of Economics, Stockholm, 2013

Wallis Inquiry, The, *Financial System Inquiry Final Report,* Australian Government Publishing Services, Canberra, 1997

West, G, *The Surprising Math of Cities and Corporations,* www.ted.com/talks/geoffrey_west_the_surprising_math_of_cities_and_corporations.htlm, 2008

White, WR , *Ultra Easy Monetary Policy and the law of Unintended Consequences',* Federal Reserve Bank of Dallas, Globalisation and Monetary Policy Institute, Dallas, 2012

World Bank, *Turn Down the heat – Why a 4°C Warmer World Must be Avoided,* World Bank, 2012

Wrigley, EA, *Continuity, Chance and Change: The Character of the Industrial Revolution in England,* Cambridge University Press, Cambridge, 1990

Vasicek, O, *"Limiting loan loss probability distribution",* KMV Working Paper, 1991

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