The Australian Financial System in the 2000s: Dodging the Bullet

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Abstract

The global financial crisis (GFC) occupied only a quarter of the decade of the 2000s but, because of its severity and implications for future financial sector development, dominates the decade. The Australian financial system coped relatively well with the GFC, raising the question of whether there was something special about its structure and prior evolution which explains that experience. This paper reviews Australian financial sector performance and development over the decade, then provides a more detailed overview of the Australian GFC experience and its implications, and considers explanations for the Australian financial sector resilience.

1. Introduction

The Australian (and global) financial system entered the first decade of the millennium preparing for a systems crisis, in the form of the Y2K computer scare, which on 1 January 2000 passed without event. But towards the end of the decade, the financial sector was faced with, arguably, its most serious systemic crisis ever, which the Australian financial system and economy weathered relatively well compared with advanced nations in the northern hemisphere.[1] While the GFC occupied only one-quarter of the past decade (from mid 2007), it prompts the questions which this review must seek to answer. Was there something about the structure and evolution of the Australian financial system which explained its resilience in the face of the crisis; and was that resilience due to lower risk-taking by the banking sector in the lead up to the crisis? Did the distribution of risk within the financial system facilitate adjustment to the shocks encountered? What role can be attributed to government and regulatory responses following the onset of the crisis?

In order to place the developments of the 2000s in context, this paper is structured as follows. First, overall macroeconomic and flow of funds trends are reviewed. Second, the overall picture of financial sector growth and structure in the 2000s is briefly reviewed in Section 3.[2] Then, because of the important role of regulation in financial sector evolution, Section 4 examines the major regulatory developments and influences on the financial sector prior to the GFC. Section 5 examines important developments in the financial sector in more detail. Section 6 outlines how the GFC

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1 The World Economic Forum Development Report increased Australia's financial system ranking from 11th internationally in 2008 to 2nd in 2009, partly in response to Australia's experience during the financial crisis. See Roubini and Bilodeau (2010).

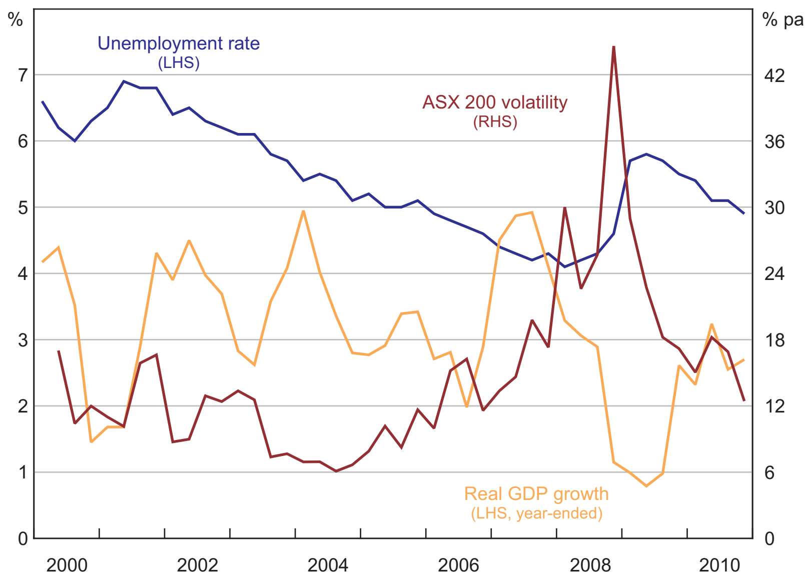
2 See Ryan and Thompson (2007) and Donovan and Gorajek (2011) for comprehensive reviews.

affected Australian financial markets and regulatory responses to that. Section 7 discusses the fallout from the GFC in terms of financial regulation and Section 8 draws on the prior discussion to address the questions posed above regarding Australian financial sector resilience. Section 9 focuses upon end of decade issues and Section 10 concludes.

2. The Economic and Financial Background

The 1990s, reviewed by Gizycki and Lowe (2000), were marked by serious financial dislocation and substantial banking sector losses at the start of the decade, from which a gradual recovery occurred throughout the decade. In contrast, the 2000s were relatively tranquil until the severe dislocation of the GFC, although the start of the 2000s was marked by two disruptive events. One was the global 'tech stock' boom and bust which, apart from adverse stock market consequences and failures of a number of new 'tech' stocks, had limited implications for Australia. The other was the collapse of the major insurance company HIH in 2001, which created significant economic disruption and led to government compensation of policyholders. Otherwise, a generally tranquil financial environment (in a period sometimes referred to as globally as the 'great moderation') persisted for some time into the 2000s, reflected in declining unemployment, good output growth, and low stock market volatility as shown in Figure 1.

Figure 1: Unemployment, Output and Stock Market Volatility

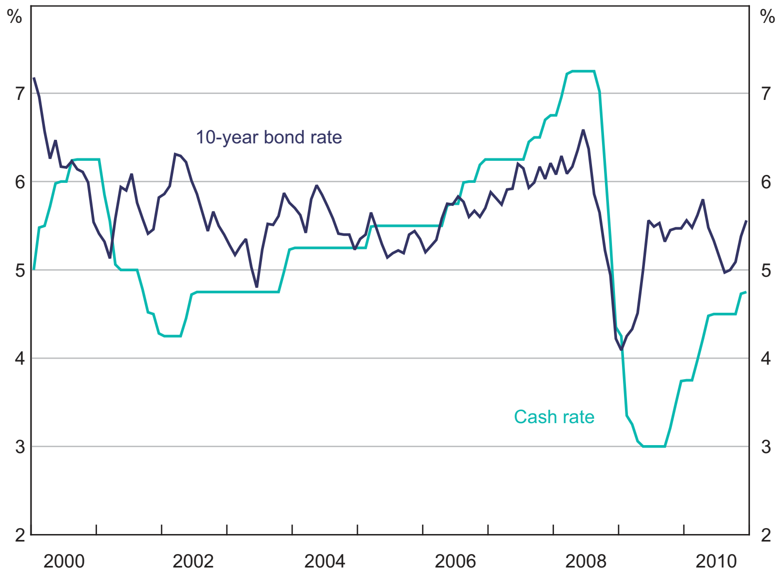


Note: Volatility is an end-month figure based on an historical 90-day estimation period

Sources: RBA; Securities Industry Research Centre of Asia-Pacific (SIRCA) on behalf of Thomson Reuters, TRTH database

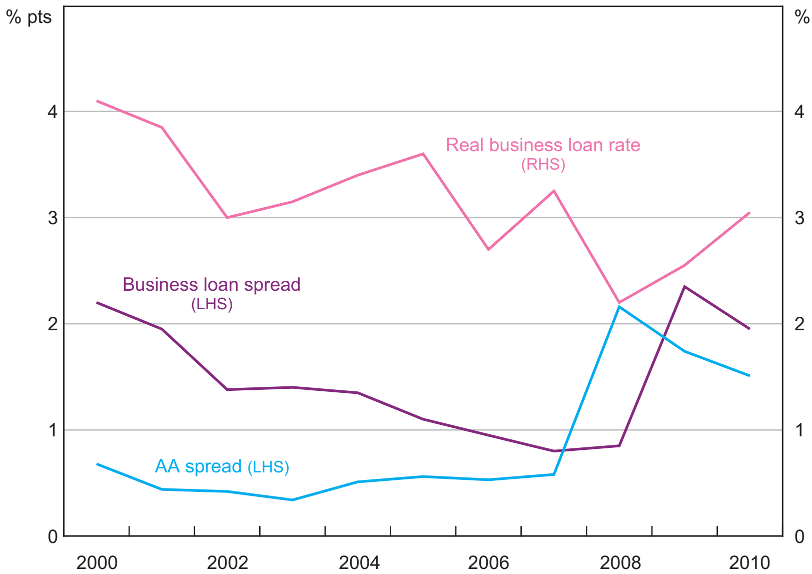
However, that period sowed the seeds of excessive lending, leverage, underpricing of risk, and inadequate governance and regulation internationally, which contributed to the GFC. Similar trends in market risk premia and risk-taking were evident in Australia, and the monetary authorities exercised a degree of monetary restraint, reflected in the increases in the cash rate after 2002 as shown in Figure 2. As Figure 2 also demonstrates, longer-term rates did not respond to the hikes in the cash rate, while Figure 3 illustrates how risk premia in business and corporate funding rates declined, with the real expected cost of loan funds trending down somewhat from around 4 per cent, despite the increasing short-term cash rate.

Figure 2: Interest Rate Behaviour



Source: RBA

Figure 3: Corporate and Business Loan Spreads



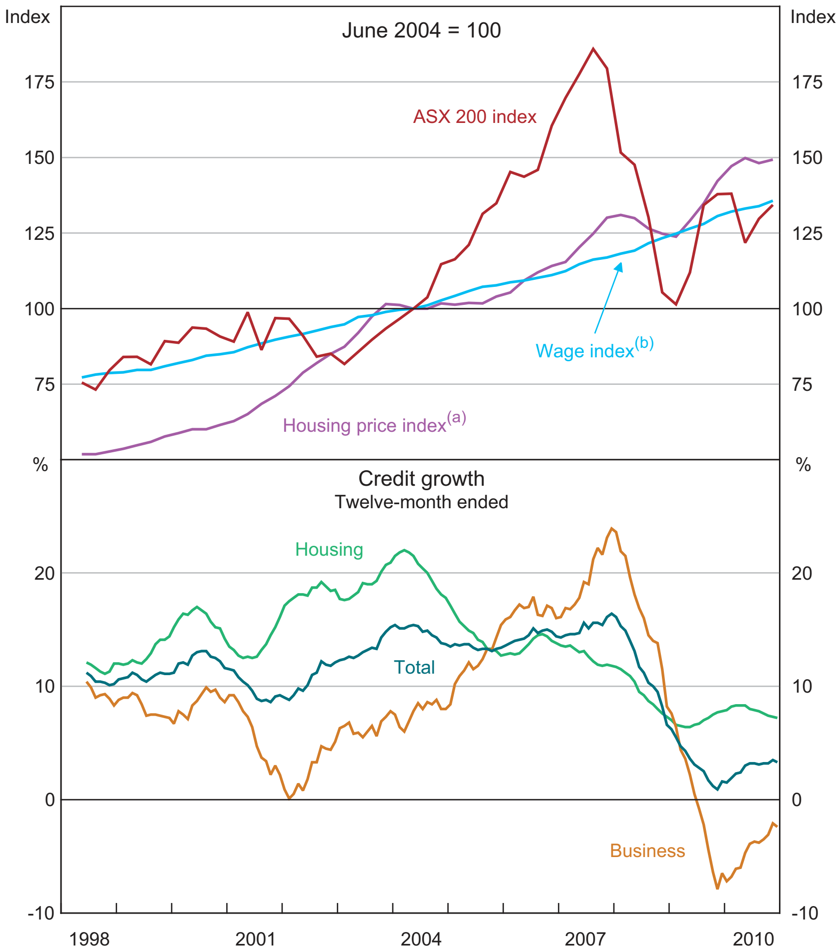
Notes: 'Business loan spread' is the bank variable loan rate margin over the cash rate; 'AA spread' is 5-year AA corporate bonds over government securities; 'Real business loan rate' is the bank variable loan rate minus median consumer inflation expectations

Sources: Melbourne Institute of Applied Economic and Social Research; RBA

That period of relative tranquillity was also accompanied by a boom in asset prices reflected in stock and house prices, and in strong credit growth as shown in Figure 4. While the GFC led to substantive declines in stock prices from the record high in November 2007, house prices continued to climb. There was ongoing commentary[3] about a possible housing price bubble, but housing prices relative to wages had increased only modestly after 2003 (following a significant boom prior to that time). Substantial deleveraging by both businesses and households saw a marked decline in the rate of credit growth following the onset of the GFC.

3 For example, 'Global House Prices: Rooms with a View' (*The Economist*, 9 July 2011, p 68) estimated that Australian housing prices were 50 per cent overvalued at the end of 2010.

Figure 4: Asset Prices, Wages and Credit Growth



Notes: (a) Established houses; weighted average of eight capital cities; break in series at 2004

(b) Average weekly ordinary time earnings

Sources: ABS; RBA

3. Financial Sector Growth, Structure and Development in the 2000s

It is useful to ask the question of how the Australian financial system differed from those overseas prior to the onset of the GFC. While all financial systems are different and have idiosyncratic features, at an aggregate level the structure and scale of the Australian financial system is not markedly different from that of other high-income countries. The banking sector plays the key role in financial intermediation, and the stock market is well developed, while bond markets play a lesser role in financing.

Table 1 highlights some apparent differences. The first is relatively lower bank deposits and assets as a ratio to GDP for Australia, which may reflect a number of influences. One would be a higher proportion of household assets in pension funds (superannuation) – over 70 per cent of GDP at the start of the decade – and the resulting growth of the funds management sector (the fourth largest in the world). That could be expected to be reflected in a higher use of capital markets; however, this is not apparent in Table 1. Another could be a larger role for 'shadow banking' (non-prudentially regulated financial institutions engaged in fund raising, lending and other financial services), although, as will be shown later, this seems not to be the case.[4] Alternatively, historically low household savings rates, coupled with high investment, may have led to this outcome, which is consistent with the heavy reliance of banks, through most of the decade, upon international wholesale market funding. This offshore financing has been an important component of net capital inflow reflecting a persistent current account deficit on the balance of payments, although subdued bank lending and increased deposit growth at the end of the decade saw offshore funding decline somewhat (Debelle 2011).

Second, while the private bond market appeared to be of average size by 2007, this primarily reflected growth in securitisation and the Kangaroo bond market (Australian dollar domestic issues by foreigners) rather than corporate issues. Third, reflecting the strong government fiscal position, the public sector bond market was relatively small by international standards.

Table 1: Australian Financial System Characteristics
Ratio to GDP

	2000		2007	
	OECD	Australia	OECD	Australia
Bank deposits	0.82	0.62	1.00	0.85
Bank assets	1.00	0.87	1.31	1.14
Loans from non-resident banks (amount outstanding)[(a)]	0.76	0.14	1.08	0.17
Private bond market capitalisation	0.35	0.27	0.54	0.57
Public bond market capitalisation	0.43	0.20	0.44	0.13
Stock market capitalisation	1.00	1.00	1.04	1.47

Notes: OECD figures are (unweighted) averages for other high-income OECD countries
(a) The lesser reliance on loans from non-resident banks primarily reflects financing patterns within Europe

Source: World Bank, 'Financial Structure Database', November 2010

4 In fact shadow banking appears substantially smaller than in the United States (RBA 2010a).

One potentially important difference in financial systems prior to the GFC lies in the apparent concentration of lending by Australian financial institutions towards real estate as shown in Table 2. Given the role played by real estate lending in the emergence of the GFC (residential in the United States and commercial property and property development elsewhere),[5] the absence of similar problems in Australia suggests differences in the level of exposure of banks to property prices, perhaps associated with conservative lending and regulatory arrangements.

Table 2: Loan Composition
2009, per cent of total loans

	Residential real estate loans	Commercial real estate loans
Australia	59.1	11.7
Canada	32.5	3.2
Germany	16.9	5.8
Italy	15.6	8.8
Russian Federation	5.8	6.3
South Africa	34.9	9.7
South Korea	20.8	19.1
Turkey	10.7	0.8
United Kingdom	14.5	5.0
United States	38.0	19.0

Note: Differences in treatment of securitised loans and other reporting differences mean that cross-country comparisons should be treated with caution

Source: IMF, 'Financial Soundness Indicators' (indicators I29 and I30)

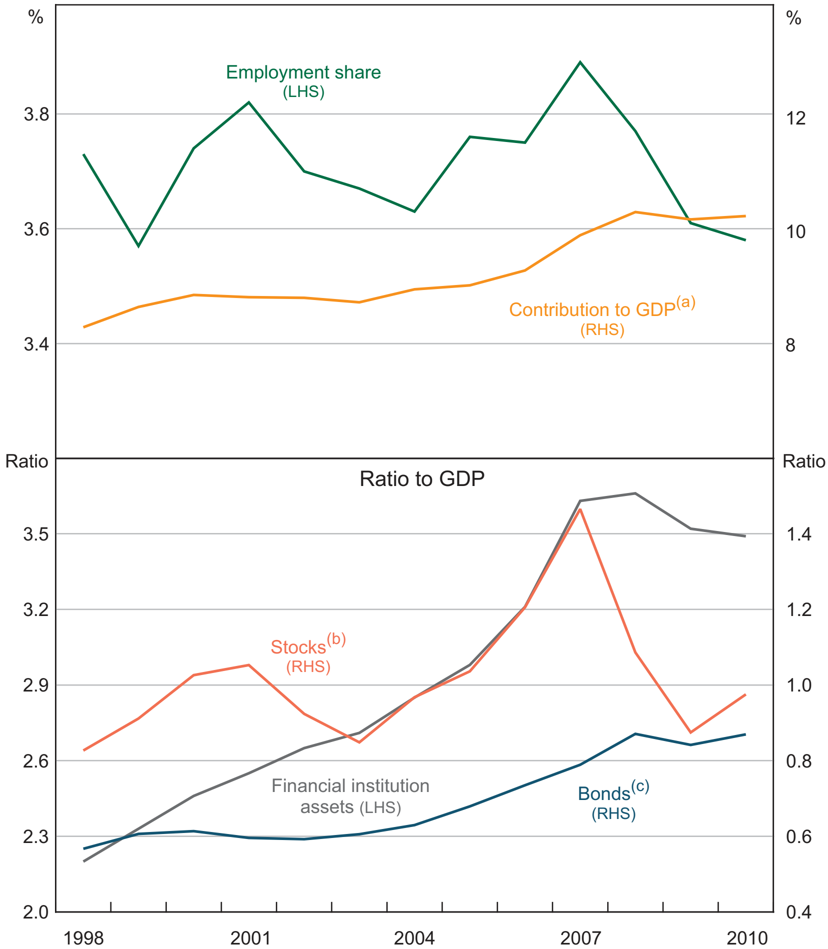
On most indicators, the Australian financial system continued to grow in relative size during the decade. Figure 5 presents several indicators. The contribution of the financial sector to GDP increased from 8.9 per cent in 1999/2000 to 10.3 per cent in 2009/10, making it one of the largest sectors.

The increased contribution to GDP was not due to an increasing share of employment. Instead, employment in the financial services industry remained relatively stable over the same period at around 3¾ per cent of total employment (although declining a little towards the end of the decade). Significant advances in technology and telecommunications provide part of the explanation for this.

The increase in GDP contribution was substantially less than the increase in financial intermediation as measured by total assets of financial institutions as a multiple of GDP. This increased from 2.5 at June 2000 to 3.7 at June 2008, after which it declined slightly due to the decline in stock prices (and the impact of that on total assets of superannuation funds).

5 See Ellis and Naughtin (2010).

Figure 5: Measures of Financial Sector Size



Notes: (a) Calculated using financial and insurance services industry gross value added

(b) Refers to stock market capitalisation

(c) Refers to bonds issued in Australia

Sources: ABS; RBA

Two complementary explanations can be advanced for the greater growth in the ratio of financial institution assets to GDP than in its contribution to GDP. One is the increasing complexity of the financial sector and a longer 'value chain' (such as superannuation fund assets including bank-issued debt which finances bank lending) or cross-holdings of assets within the sector. A second is that value added per unit of financial institution asset holdings has declined over time, reflecting changes in the composition of activities of the sector (such as if bank intermediation involves higher value added per dollar of assets than in the case of superannuation, or if housing loans involve less value added than other loans), changes in financial technology, or the effects of competition. The latter two of these factors would reflect either technological gains or pressures from increased competition being passed on to customers, such that lower value added (profits plus wages) is associated with any given scale of assets and intermediation. While this does not sit comfortably with ongoing debates about excessive profitability and remuneration in the finance sector, these alternative explanations have not been examined in depth as yet.

The growth in financial institutions exceeded, but was not at the expense of, growth in direct finance, and one potential explanation lies in the fact that much of that growth was in superannuation and managed funds which invest in capital market securities rather than intermediating *per se*. Financial markets also increased in size, as can be seen from Figure 5, which shows that equity market and bond market capitalisation increased relative to GDP (at least until the onset of the GFC). Increased issuance (particularly of longer-dated securities) by banks, government and non-resident issuers has seen bond market capitalisation increase since 2007.

Table 3 illustrates the growth in turnover in debt, currency and equity markets, and highlights several key features. First, turnover in bond markets, which are primarily over-the-counter (OTC), far exceeds that in the exchange-traded (ASX) equity market despite the substantially larger size of the latter. Second, more turnover occurs in the derivative markets than the physical markets, and the relative importance of the bond and interest rate derivatives market increased throughout the decade.

Table 3: Financial Markets Activity

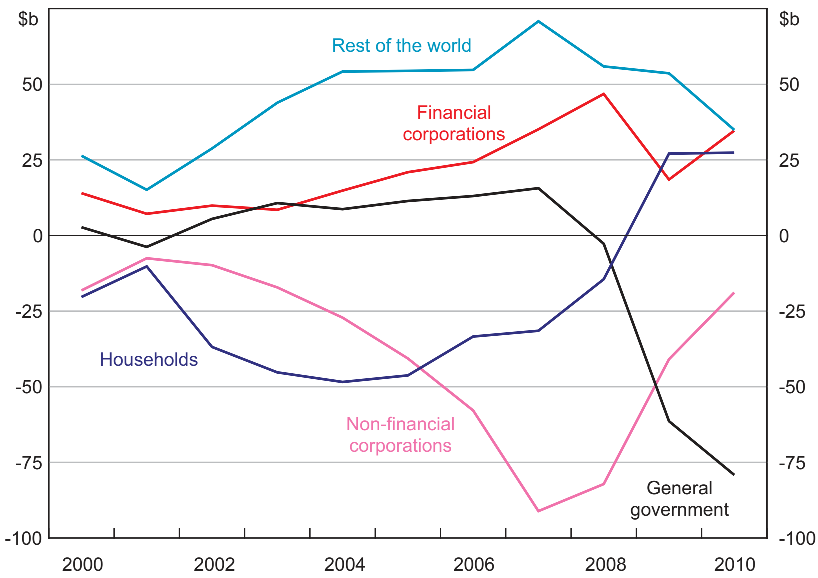
Year	Turnover $ billion			Derivative market turnover as a share of total Per cent		
	Debt	Currency	Equities	Debt	Currency	Equities
1999/2000	20 690	16 548	902	57	66	60
2004/05	47 073	34 831	1 756	63	72	54
2009/10	57 242	40 981	2 992	80	64	56

Source: AFMA, 'Australian Financial Markets Report', various issues

An important influence on financial sector evolution is the pattern of net lending and borrowing by the various sectors in the economy. Figure 6 provides an overview of trends throughout the decade and illustrates:

- the shift of the household sector from net borrowers to net lenders towards the end of the decade with offsetting changes for the government sector;
- the increase in borrowing by the corporate sector until the advent of the GFC and the subsequent decline in borrowing associated with deleveraging; and
- the continual net lending by the rest of the world reflecting the current account deficit of the balance of payments.

Figure 6: Sectoral Net Lending



Source: ABS

Compulsory superannuation and tax incentives for voluntary contributions to superannuation were a major influence upon financial sector structural development during the decade, although, as Table 4 indicates, this was reflected in only a modest increase in the share of institutional superannuation funds in total financial institution assets.[6] Three factors underlie that outcome. First is the decline in the value of equities since November 2007, which is also relevant to the decline in managed funds since that time. Second is the growth of self-managed super funds (SMSFs), which are not included in Table 4. Third is that banks used offshore and domestic wholesale market borrowings to grow their assets (resident deposits financed around 57 per cent of resident assets on average throughout the decade).

As Table 4 illustrates, life offices assets (other than superannuation assets managed by them) stagnated. The demise of endowment and other policies involving a savings component is relevant in this regard, but may also reflect community attitudes towards costs and benefits of insurance, prompting concerns in some quarters about widespread underinsurance, to which automatic provision of a level of basic life insurance cover through superannuation funds may contribute. The other major development was the decline in the securitisation sector after the onset of the GFC in 2007.

6 Donovan and Gorajek (2011) provide a comprehensive overview of developments in financial structure during the decade.

Table 4: Assets of Australian Financial Institutions

	Authorised deposit-taking institutions	Registered financial corporations	Life offices	Superannuation
$ billion				
Dec 1999	731.1	129.2	166.4	258.9
Dec 2005	1 502.9	167.6	185.9	537.0
Dec 2007	2 223.6	223.8	208.4	833.2
Dec 2010	2 739.8	165.1	187.4	946.5
Per cent of total				
Dec 1999	46	8	10	16
Dec 2005	49	5	6	18
Dec 2007	51	5	5	19
Dec 2010	59	4	4	20

	Managed funds	General insurance	Securitisation vehicles
$ billion			
Dec 1999	142.4	62.6	55.6
Dec 2005	277.3	103.6	193.8
Dec 2007	367.1	134.0	260.8
Dec 2010	288.7	133.0	138.4
Per cent of total			
Dec 1999	9	4	3
Dec 2005	9	3	6
Dec 2007	8	3	6
Dec 2010	6	3	3

Source: RBA

Table 4 also highlights the small and declining role of institutions which would be included in the 'shadow banking' sector. Registered financial corporations[7] include finance and leasing companies and money market corporations (such as merchant banks and investment banks) that are not prudentially regulated. At the end of the decade there were around 350 such companies with only a 4 per cent share of financial institution assets. Perhaps the outstanding feature to be drawn from Table 4 is the dominant role of prudentially regulated financial institutions (authorised deposit-taking institutions (ADIs), insurers and super funds) in the Australian financial sector – particularly when activities of their subsidiaries operating in other parts of the financial sector are also recognised.

7 As required to be registered under the *Financial Sector (Collection of Data) Act 2001*.

4. Financial Sector Regulation Prior to the GFC

In their review of the Australian financial system in the 1990s, Gizycki and Lowe (2000) listed financial liberalisation as one of two recurring themes of that decade, and commented that 'financial liberalisation looks to have been much more successful than appeared to be the case a decade ago' (p 180). There is little dispute that deregulation has contributed to improved economic growth and development, but after the GFC several of the features they pointed to, such as increased competition and growth of new debt and risk management products, are being reassessed in terms of their implications for financial stability, and investor and consumer protection. An international agenda of stronger regulation, especially of banks, commenced in the late 2000s, and substantial reforms involving stronger bank regulation and enhanced investor and borrower protection were in train at the end of the decade.

Just prior to the start of the decade, a number of regulatory and legislative changes had been introduced or initiated, following the report of the Wallis Committee in 1997 (Financial System Inquiry 1997). Foremost among these was the restructuring of regulatory arrangements involving the creation of a specialist prudential regulator, the Australian Prudential Regulation Authority (APRA), in 1998, with responsibilities for supervising banks and other ADIs, insurance, and superannuation funds, separate from the Reserve Bank. The RBA retained responsibility for monetary policy, financial stability and oversight of the payments system. The restructured securities and markets regulator, the Australian Securities and Investments Commission (ASIC), was given responsibility for capital markets, corporate conduct, and consumer protection in matters related to the finance sector (with conduct of the stock market undertaken by the ASX in a self-regulatory role[8]). The operational independence of both APRA and ASIC was affirmed later in the decade in 2007, following the Review of the Corporate Governance of Statutory Authorities and Office Holders (the Uhrig Review), when the Government set out explicit statements of 'Expectations of Regulators' to which 'Statements of Intent' were produced in response.

The merits of this allocation of regulatory responsibilities, including the separation of APRA from the RBA, were put to the test later in the decade, but also at the start when a major insurance company (HIH) failed on 15 March 2001, prompting a Royal Commission. Underpinning the Wallis Committee recommendations was the view that there would be less expectation that APRA (without the resources of the central bank) would compensate customers of a failed financial institution. In the event, the Government introduced the HIH Claims Support Scheme, providing compensation of up to $640 million for policyholders, effectively undermining this view and entrenching community expectations of implicit government guarantees of prudentially regulated institutions. In 2006, a survey commissioned by the RBA found that 60 per cent of individuals believed that the Government would provide at least partial compensation in the event of a failed bank.[9]

While some part of the regulatory failure involving HIH could arguably be attributed to a shortage of insurance expertise within APRA and lack of resourcing following its creation, the governance

8 At the end of the decade (effective 1 August 2010), responsibility for securities market supervision and surveillance was taken over by ASIC, reflecting potential conflict of interest problems from the planned entry of new trading platforms in competition with the ASX, and removing any ambiguity about responsibility for enforcement.

9 Reported in RBA (2006).

structure of APRA was also changed with the replacement of the non-executive Board with a three-member Executive Committee. The role of the Council of Financial Regulators (comprising APRA, ASIC, the RBA and Treasury) was also enhanced. It is widely argued that one beneficial consequence of this experience was a more assertive supervisory culture in APRA[10] which, together with lingering memories among bankers of the early 1990's experience, helped Australia subsequently avoid the worst of the GFC.

Another important regulatory development early in the decade was the implementation of the Corporate Law Economic Reform Program (CLERP), which commenced in 1997 and led to the introduction of a number of legislative changes over the subsequent seven years designed to improve the financial infrastructure. Changes included reforms to accounting standard-setting arrangements, audit independence, directors' duties and corporate governance requirements, fund raising and takeover procedures, corporate disclosure requirements, compliance arrangements, provisions for electronic commerce, and shareholder rights.

Two particular changes had significant impact. The *Managed Investments Act 1998* removed the role of independent trustees for managed funds and introduced the concept of a single 'responsible entity', thereby facilitating the growth of fund management companies offering a variety of managed investment products and structures. Underpinning that change appeared to be a concern that division of responsibilities made allocating responsibility a difficult task in cases of failure. The changes, however, arguably increased the risk of failure (as discussed later).

The other component of the CLERP reforms directly affecting the financial sector was the *Financial Services Reform Act 2001* (FSRA). This introduced a single licensing regime for financial products,[11] a single regime for regulating financial services (investment advice), and licensing of exchanges and clearing and settlement facilities. It also imposed requirements for disclosure of fees and introduced a national dispute resolution system.

ASIC recently described the approach to financial services regulation (FSR) developed from these reforms in the following way:

> The fundamental policy settings of the FSR regime were developed following the principles set out in the Financial System Inquiry Report 1997 (the Wallis Report). These principles are based on 'efficient markets theory', a belief that markets drive efficiency and that regulatory intervention should be kept to a minimum to allow markets to achieve maximum efficiency. The 'efficient markets theory' has shaped both the FSR regime and ASIC's role and powers. (ASIC 2009, p 4)

This has meant that the approach to investor protection adopted in the non-prudentially regulated sector has been based upon the three building blocks of disclosure, education and advice. Valentine (2008) provides a critique of this approach, arguing that it had demonstrably failed. While disclosure is mandated in the form of prospectuses for securities and product disclosure statements (PDSs) for other financial products, the complexity and size of these documents (partly driven by issuers wishing to reduce potential liability from inadequate disclosure) has limited their usability by investors.

10 Including tighter regulatory capital requirements for insurers implemented before the release of the Royal Commission report and the development of the PAIRS (Probability and Impact Rating System) and SOARS (Supervisory Oversight and Response System) framework in 2003 (Littrell and Anastopoulos 2008).

11 Although the definition of financial products did not include credit products such as loans.

Financial literacy standards have also been called into question, prompting Government initiatives in this area through the establishment of a Financial Literacy Foundation. ASIC was subsequently given responsibility for promotion of financial literacy in July 2008.[12]

The FSRA also required licensing of financial advisers who, arguably, could assist individuals in financial decision-making.[13] By the end of the decade, there was substantial disquiet about incentive structures within that industry and conflicts of interest.

Valentine (2008) also argues that the extent of active enforcement by ASIC was limited. While AFS (Australian Financial Services) license holders were required to be members of an external dispute resolution scheme, such as the Financial Industry Complaints Service (FICS), the ability of individuals to afford to pursue legal action for claims above the $100 000 cap involved in that scheme left investors exposed. Over the decade, the role of class actions and litigation funders of such actions also increased dramatically,[14] including actions against financial advisers, who were required under legislative changes to the Corporations Law in 2007 to take out adequate professional indemnity insurance. Also, in 2008, a single Financial Services Ombudsman was created out of a number of separate financial sector Ombudsman schemes.

Depositors in ADIs have, in the absence of any explicit deposit insurance scheme,[15] traditionally been 'protected' by prudential regulation undertaken by APRA (and its predecessors) and through the 'depositor priority provisions' of the *Banking Act 1959*. Under those latter provisions, Australian depositors have first priority over the Australian assets of a failed bank, effectively precluding banks from issuing liabilities secured against their assets.

At the start of the decade, the Basel Committee on Bank Supervision had commenced work on the new Basel Accord (Basel II), which was ultimately implemented in Australia on 1 January 2008.[16] This involved important changes to the prudential regulation of banks, including capital charges for operational risk, and risk weights assigned to various asset classes (and customers) that vary depending on whether the bank undertaking the lending was regulated under the proposed standardised or the internal ratings-based (IRB) approaches. Under the latter approach, large 'sophisticated' banks can use their internal risk models in the calculation of risk-weighted assets (RWAs) and capital requirements. The architects of Basel II anticipated an outcome involving different minimum aggregate capital requirements across banks, with an incentive, in the form of a lower capital charge, for banks judged to have acceptable advanced risk management systems. The major Australian banks invested large sums over the decade in upgrading their risk management systems and data in order to be classified in that category, and Australia and New Zealand Banking Group (ANZ), Commonwealth Bank of Australia (CBA) and Westpac were accorded both advanced IRB and advanced measurement approaches (AMA) status for the implementation date (with Macquarie meeting the foundation IRB and AMA requirements). Following its 'rogue

12 ASIC's consumer website www.moneysmart.gov.au gives details of activities.

13 Credit rating agencies were exempt from the requirement for an Australian Financial Services License (AFSL) until ASIC introduced such a requirement from 1 January 2010 if information was provided to retail investors. One consequence was that those entities stopped retail investors accessing information on their Australian websites.

14 This was facilitated by a High Court endorsement of litigation funding in 2006 and an ASIC exemption in 2009 of such activities from classification as a managed investment scheme. Lim (2011) provides details.

15 Davis (2004) provides details of past arrangements.

16 IMF (2010) provides a review.

trader' foreign exchange trading losses of $360 million in early 2004,[17] National Australia Bank (NAB) was not initially approved to operate under the IRB approach (but has subsequently been approved).[18]

At the end of the decade, in response to the GFC experience, a new version of the Basel accord – Basel III – was being introduced, involving much higher capital requirements and more risk sensitivity. While the GFC experience led some to question the wisdom of relying on internal bank risk management models for prudential regulation, the attempt at better aligning the risk weights for regulatory capital with those involved in internal bank economic capital risk measurements, which started under Basel II, was not changed. What did change was the recognition that historical risk measurements based on the 'great moderation' were inappropriate and that regulatory capital needed to increase relative to economic capital.

The Reserve Bank began a program of payments system reforms in the early 2000s, focusing initially on card payment systems (Bullock 2010), where network characteristics create access issues. The structure of interchange fees and customer pricing had meant that consumers were typically using credit rather than debit cards (eftpos) for transactions, even though the costs associated with the latter were generally lower. Scheme arrangements also meant that merchants were precluded from discriminating between cards either in terms of acceptance or through differential pricing. By reducing and aligning interchange fees for debit and credit cards, and providing greater merchant discretion, a substantial increase in the relative use of debit cards has eventuated. Much later in the decade (2009), the RBA implemented reforms to the methods of charging for ATM transactions (Filipovski and Flood 2010), involving direct charging of customers using 'foreign' ATMs, replacing the previous interchange fee arrangements.

The Australian Government's attempt to develop a consistent framework for taxation of financial arrangements (TOFA), which began in 1999 in response to the Review of Business Taxation, has progressed slowly and was still underway at the end of the decade. Differences between domestic and international taxation arrangements, which can create impediments for the development of the domestic financial services industry, have also been reviewed. One example has been the tax treatment of managed funds, whereby withholding tax arrangements have inhibited the export of funds management services (i.e. Australian managers managing offshore financial assets for foreign investors). Some changes to these arrangements were announced in May 2008 aimed at enhancing the competitive position of Australian-based fund managers in competing for international business, and further recommendations were made at the end of the decade by the Australian Financial Centre Forum (2009).

17 These were dwarfed by its losses of $2 billion earlier in the decade from an investment in a US mortgage servicing company (Homeside) which, however, attracted relatively little publicity.

18 In a departure from past experience, the report by APRA (and also one by the accounting firm PricewaterhouseCoopers) into the rogue trader experience were made public by NAB. Later in the decade, ANZ made public a report on its internal review into its involvement with the failed Opes Prime margin lending and broking firm. More generally, banks began publishing required Basel II Pillar 3 risk disclosures on their websites.

5. Financial Institutions and Markets during the Decade

Among issues identified by Gizycki and Lowe (2000) in their review of the Australian financial system during the 1990s as warranting explicit attention, were the changing nature of household balance sheets, profitability and competition in financial markets, and the drift towards intermediation via capital markets rather than traditional intermediation. Those issues remained important during the 2000s and, together with bank funding arrangements, bond market development, growth and developments in funds management and superannuation, and corporate finance issues, are topics discussed in the following sections as relevant for understanding the Australian experience during the GFC.

5.1 The bond markets

Table 5 summarises the evolution of the Australian bond markets during the 2000s. Several features stand out. First, non-financial corporate domestic issuance was relatively small, and while international issuance was larger, it was not particularly large relative to that by corporates in comparable overseas countries. Second, banks were substantive issuers both domestically and overseas, with issuance increasing during the GFC aided by the Government Debt Guarantee Scheme.[19] Third, the supply of (particularly Australian) Government debt was limited due to the strong fiscal position, with the Australian Government going so far as to conduct a review of the future of the Commonwealth Government Securities (CGS) market in 2002–2003, which decided that its retention was necessary.[20] Fourth, securitisation grew rapidly up until the GFC, with both international and domestic demand then drying up such that the stock of residential mortgage-backed securities (RMBS) on issue fell (as did the stock of short-term asset-backed commercial paper (ABCP)).[21] Fifth, the Kangaroo bond market grew rapidly until the GFC.

19 The increased share of banks in international issuance, at the expense of corporate and government issuers, has been a common trend internationally: see <http://www.bis.org/statistics/secstats.htm>.

20 However, Treasury note issues ceased in 2002 and were not resumed until 2009.

21 ABS figures indicate an increase due to internal 'self-securitisations' by banks in order to create precautionary balances of securities which could be used in repo transactions at the RBA in extreme circumstances.

Table 5: Australian Bond Market Developments
$ billion outstanding

Month:	Mar 2000	Mar 2005	Mar 2008	Mar 2010
Corporates				
Australia	16	38	47	41
Rest of the world	31	68	83	115
Banks				
Australia	21	45	90	168
Rest of the world	67	172	257	366
State government[(a)]				
Australia	49	59	65	139
Rest of the world	25	24	33	16
Government				
Australia	79	58	58	127
Rest of the world	2	1	1	1
Securitisers				
Australia	25	72	118	86
Rest of the world	18	64	74	38
Rest of the world				
Australia	9	44	108	123
Rest of the world	na	na	na	na

Notes: Excludes short-term securities
(a) Central borrowing authorities

Sources: ABS; RBA

For corporate, bank, and securitiser debt, the distribution of holders (domestic versus international) was generally similar to the distribution of issuance shown in Table 5, but with somewhat more international holdings. But for government issues, foreign holdings were substantially greater, having increased over the decade until around half of the total federal and state central borrowing authority issues (and two-thirds of federal issues) were held by foreigners as at September 2009. The turnover in the CGS market had also declined to around five times per annum, and at that time around one-quarter of domestic investor bond holdings were from overseas issuers,[22] including around half of the Kangaroo bonds on issue. Notably, the growth of the fund management sector in Australia was not associated with growth in corporate bond issuance, which might have been expected. That is reflected in the focus of Australian superannuation funds on equity investments,[23] such that throughout the decade they had a relatively low 6–7 per cent of their asset portfolios in domestic bonds (and around 4–5 per cent in short-term one-name paper).

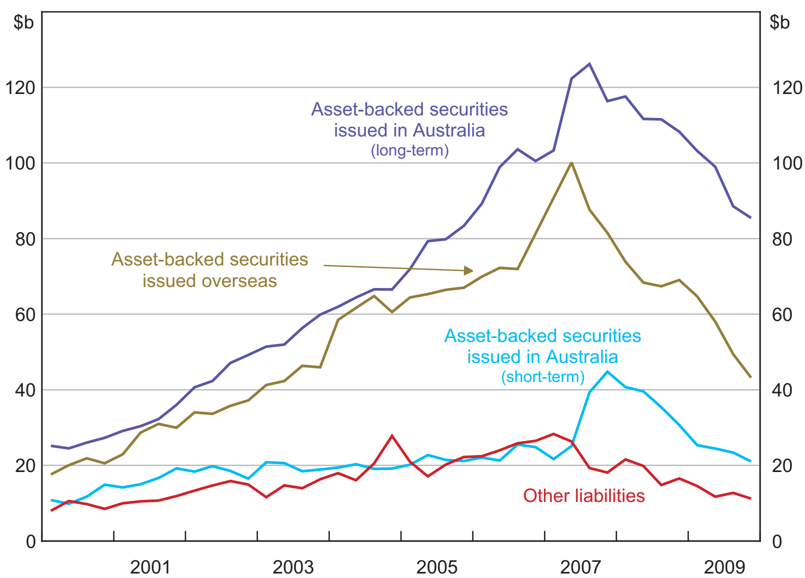
22 This figure is biased downwards by the inclusion of self-securitisations in ABS statistics for bond holdings.

23 OECD (2010) estimated that Australian pension funds were the most heavily invested in equities of 21 developed countries examined, with a portfolio share of 54.4 per cent, which was approximately twice the average of the other countries.

Overall, Australian issuers (primarily financial institutions) made greater use of international bond markets than domestic bond markets, such that Australia's relative use was around twice that of other comparable countries. While persistent balance of payments deficits help explain this difference at the aggregate level, the composition suggests that Australian financial institutions appear to have focused primarily on fund raising for themselves for on-lending rather than facilitating direct borrowings by corporates in either domestic or international bond markets. On the other hand, Australian corporates appear well-served in terms of access to the international syndicated loans market, with around 2 per cent by value of syndicated loans globally originating out of Australia in the second half of the decade.

The securitisation market, whose growth since the 1990s had been a major contributor to increasing competition in housing loan markets,[24] was one of the hardest hit by the GFC (Figure 7), with investor demand falling away even for low-risk issues such as Australian RMBS. It is also noticeable that other liabilities (including warehouse funding of mortgages yet to be securitised) also declined during that period, with those entities without a substantial deposit-based balance sheet experiencing difficulties in obtaining warehouse loans or liquidity facilities to back up commercial paper issuance. Even with the support of the Government's Australian Office of Financial Management (AOFM) investment program (discussed later), new public issues remained low until the end of the decade.[25]

Figure 7: Securitisation Debt on Issue



Source: ABS

24 Kirkwood (2010).

25 There has been some recovery more recently.

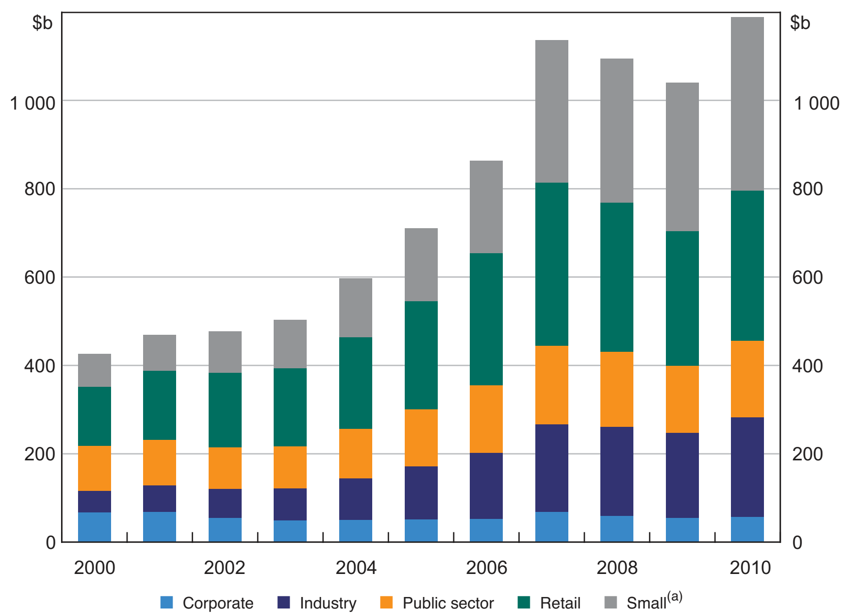
Three questions arise from this brief review of bond market trends. First, why are Australian corporates relatively low issuers of debt? Second, why is Australian financial institution debt issuance into international markets relatively high by international experience? Third, why are holdings of debt securities by Australian superannuation funds relatively low? These questions are taken up in the following sections.

5.2 Superannuation and funds management

A dominating feature of the development of the Australian financial sector during the 2000s has been the continued growth of superannuation. One consequence of the introduction of compulsory superannuation has been increased household savings and wealth as Connolly (2007) shows, as well as changing its mix towards managed funds at the expense of bank deposits.

A key feature of this growth has been the emergence of new, large financial institutions, in the form of industry funds,[26] together with the proliferation of small SMSFs. Figure 8 shows that SMSFs became the largest part of the superannuation industry by asset size by 2010; indeed, they doubled in number to over 428 000 over the decade. In contrast, other types of superannuation funds declined in number due to mergers. Corporate funds declined from over 3 000 to under 300, while industry, retail and public sector funds all roughly halved in number. In terms of assets, industry funds grew more rapidly than the other types of institutions.

Figure 8: Superannuation Fund Assets



Note: (a) Small funds are overwhelmingly comprised of self-managed superannuation funds

Source: APRA

26 These are not-for-profit funds, initially formed to manage retirement savings of workers in specific industries with trustee boards appointed by employer representatives and trade unions.

Underpinning the growth of superannuation assets were a number of policy influences during the decade. First, compulsory contributions under the Super Guarantee Charge increased to 9 per cent of wages at July 2002. Second, in the May 2006 Budget, the Government introduced its 'Simpler Super' changes. Fundamental tax changes at the retirement stage involved the removal of Reasonable Benefits Limits and the application of a zero tax rate to retirement income for retirees over the age of 60. At the contribution stage, concessional (tax advantaged) and non-concessional contribution limits were specified, with initial transition arrangements allowing substantial short-term contributions prior to the complete introduction of the contribution caps. The substantial growth in the size of superannuation assets in the year ending June 2007 (and an unusually high increase in the number of SMSFs in that year) partly reflect the greater tax effectiveness of super (and opportunities to exploit that), with the decline in subsequent years largely reflecting negative returns due to stock market declines.

Competition within the superannuation industry and the industry's performance have been matters for debate throughout the decade. When compulsory superannuation was initially introduced, contributions for workers (who were not members of corporate or other funds) were directed to the industry funds specified under the relevant awards. This lack of choice, and impediment to competition, was rectified by the *Superannuation Legislation Amendment (Choice of Superannuation Funds) Act* passed on 23 June 2004, which gave workers the choice of fund. While relatively few have utilised that choice option (except when changing jobs), one consequence has been a trend towards industry funds becoming 'public offer' funds in order to accept members working in industries outside of the fund's original remit, and increasing potential for competition between the funds.

In general, there has been limited involvement of most individuals with superannuation, and this is reflected in the number of 'lost' superannuation accounts and the large number of multiple accounts arising from individuals working at different times across different industries. In this regard, it is perhaps surprising that the part of the sector most likely to involve financially aware members, the retail fund sector (funds operated by financial institutions for profit, and open to all), where members might be more likely to vote via 'exit', appears to have performed relatively poorly after controlling for different asset allocation. APRA (2008) undertook a detailed study of large superannuation fund performance over the period 2001 to 2006, which indicated that the apparent underperformance of retail funds could be due to higher fees.

In 2009, the Government commissioned the Cooper Review of superannuation, which focused upon governance, efficiency, structure and operations of the sector. Reflecting the lack of member involvement, the Review's final report (Super System Review Panel 2010) issued in mid 2010 recommended that a low-cost default option 'MySuper' be required of all funds to cater for non-involved members. It also proposed a package of measures – 'SuperStream' – aimed at enhancing better use of technology and productivity in the industry. One anticipated consequence is further consolidation of the sector in order to achieve economies of scale.

One consequence of the growth of the superannuation industry has been concurrent growth in the funds management sector to become the fourth largest in the world. Much of the investment of superannuation funds is made indirectly, and at March 2007 (for example) around 45 per cent of the $1 trillion funds under management by investment managers was from superannuation funds, with another 10–15 per cent each from insurance companies, public unit trusts (managed funds), and other (wholesale) unit trusts. Only around 5 per cent came from overseas sources, an issue focused upon by the Australian Financial Centre Forum (2009) Report, which made recommendations for tax reform to promote the export of fund management services.

The large insurance companies, major banks and government fund managers (such as the Future Fund, QIC and the Victorian Funds Management Corporation (VFMC)) are the largest participants in the sector (although small by world standards – all being outside the largest 100 managers worldwide). At August 2007 there were over 10 000 funds offered by 248 fund managers. The large banks and insurers dominate the retail funds management sector and Hall and Veryard (2006) estimated that at 2006 the banks' share of retail funds under management was 40 per cent. They also, through their dealer groups, dominate the financial advice industry, as well as the provision of accounting and technology systems (platforms or wraps) through which investors are directed by the financial advisers to investment products manufactured by those institutions. The remuneration arrangements, incentive structures and potential conflicts of interest involved became a major policy issue at the end of the decade (and are addressed later).

Two other features of the growth in funds management deserve mention. One is the growth in hedge funds in Australia, most structured as unit trusts and mutual funds rather than the limited partnership form common overseas, but which are taxed as an entity in Australia. While much of the initial growth was from funds from individuals (who can also invest in similar entities listed on the ASX), the use of hedge funds by superannuation funds has been growing. In early 2007, there were estimated to be 87 hedge fund managers operating offering 180 hedge funds, of which 51 were funds primarily investing in offshore entities. At June 2006, the sector had around $60 billion under management, but growth stagnated after the onset of the GFC and assets at September 2010 were estimated to have fallen to around $50 billion (Donovan and Gorajek 2011).

Also reflecting the growth in funds under management has been the growth of Custodians, which at June 2010 had $1.7 trillion assets under custody for Australian investors (up from around $0.6 trillion at the start of the decade). While most were international firms, the largest custodian for Australian investors was a subsidiary of NAB. Among the other services provided, Custodians play a key role in the securities lending business, an activity which came to public attention in the latter part of the 2000s when securities lending by superannuation funds (earning them a fee) was seen by many as inappropriate since it could facilitate short selling of the very stocks which the funds held but were lending.[27]

5.3 Competition in Australian financial markets

Concerns about competition in Australian financial markets have been a common theme throughout this and past decades, often prompted by the extent of concentration in the Australian banking market, but also by movements in fees and interest rates and bank profit levels.

The link between concentration and degree of competition is tenuous, and a high level of banking sector concentration is relatively common internationally (Davis 2007). Table 6 shows banking concentration in Australia as measured by the share of the four major banks in certain markets.

27 Its inappropriate use as a framework for margin lending arrangements (discussed later) also came to prominence during the GFC.

Two noticeable features stand out. First, the declining share in both asset and deposit markets up until 2007 was subsequently reversed – much of which can be explained by the acquisition of (the then fifth largest bank) St. George Bank by Westpac in December 2008.[28]

Table 6: Concentration Ratios

	March 2000	March 2004	March 2007	March 2010
Total resident assets				
All banks – $b	700	1 107	1 650	2 351
Share of four majors – %	65.4	68.5	64.8	73.4
Amount securitised				
All banks – $b		57	110	71
Share of four majors – %		24.4	23.2	29.7
Gross loans and advances				
All banks – $b		730	1 064	1 534
Share of four majors – %		71.8	71.0	78.1
Total deposits				
All banks – $b	392	605	843	1 252
Share of four majors – %	63.9	68.2	62.2	75.5
Number of licensed banks	**50**	**53**	**54**	**56**

Source: APRA

Further consolidation has occurred amongst building societies and credit unions, with the number of credit unions approximately halving over the decade to 112 at December 2009 and the initially small number of building societies also declining slightly to 11.

Much attention is paid to competition in the housing mortgage market, where the growth of mortgage originators and securitisation observed in the 1990s continued into the first half of the 2000s, and was seen by many as putting pressure on bank margins and loan interest rates. That effect was particularly noticeable in the 1990s when the margin between the standard variable housing loan interest rate and the RBA target cash rate fell from over 400 in 1993–1994 to 170 basis points by mid 1997. Thereafter, however, the spread remained relatively stable (at 180 basis points) until the start of 2008 when banks adjusted rates to widen the spread over the official cash rate, reflecting higher cost of funding and a re-evaluation of credit risk. The spread increased to 290 basis points by the end of 2009.

This suggests that competition was occurring via other mechanisms. One was the proliferation of special rates, the discounts on which Fabbro and Hack (2011) suggest gradually increased to around 60–70 basis points by mid 2007. Another mechanism was by way of compression of bank interest rate margins, by around 75 basis points from the start of the decade until the

28 The 2010 figures are, arguably, biased downwards because Bankwest, which was taken over by CBA in October 2008, still retains a separate banking licence.

GFC (although this also reflects an increasing asset share of relatively lower interest rate housing loans).[29] Another potential indicator of competitive forces in the market lies in the extent of housing loan refinancing (although some part of this may reflect households taking out larger loans from alternative lenders in order to extract equity and increase leverage). The proportion of loan approvals which represented refinancing had increased markedly during the 1990s, stabilised at around 20 per cent (by number) in the late 1990s and then resumed its upward trend to reach around 30 per cent until near the end of the 2000s. And from around 12.5 per cent at the start of the 2000s, securitisation's share of housing credit steadily increased to around 22.5 per cent before the GFC struck in 2007.

A further indicator which has been used in relation to the level of competition between banks has been the level of profits, with public perceptions of insufficient competition influenced by the sheer dollar size of announced profits of the major banks. However, others (including RBA (2010b)) have pointed to bank profit rates as not appearing excessive relative to either overseas banking systems (excluding the GFC experience) or other Australian industry sectors. Over the decade, the accounting return on equity of the major banks hovered around the 15 per cent mark.

Given the breadth of activities of the major banks across the entire financial sector, aggregate profit figures may disguise the degree of competition and profitability in different market segments. The Australian banks are also important participants in such areas as wealth management and broking activities, and have some significant activities outside Australia (notably New Zealand). They are providers of basic products (loans, deposits, etc), manufactured investments (securities, warrants, etc), funds management services (mutual funds and superannuation), and advisory and transactions services, including provision of management systems. An alternative measure of performance which can be examined is the ratio of the market value of equity to its book value, with values in excess of unity indicating that the market perceives the entity as being able, or having prospects of being able, to generate higher returns than required by providers of equity capital. For the Australian banks, the market-to-book ratio varied throughout the decade around an average of approximately 2, but increased strongly between 2005 and 2007 to 3, before declining to between 1 and 1.5 at the end of the decade. While this may be indicative of an ability to earn above normal profits, similar market-to-book ratios existed prior to the financial crisis in other international banking markets (Stevens 2009).

But international comparisons are extremely hazardous, and the perception exists that Australian banks have been highly profitable by international comparison (both prior to and during the GFC). The International Monetary Fund (IMF), for example, provides estimates of bank return on equity (ROE) for advanced economies among its financial soundness indicators, with Australia having (on its figures) an average ROE over the six years to 2010 of 23.4 per cent, compared to an average for the other 30 countries of 11.4 per cent.[30] In contrast, the RBA submission to the Senate Economics References Committee Inquiry into Competition within the Australian Banking Sector (RBA 2010b) presented comparisons of profitability across large banks in Australia, Canada, the euro area, the United Kingdom and the United States, indicating no substantive differences prior to the GFC.

29 Reductions in operating cost structures, and compression in credit spreads prior to the GFC (with highly rated banks raising funds and lending to lower-rated borrowers), are also potentially relevant factors.

30 For the three years from 2005 to 2007, Australian bank average ROE was estimated as 27.9 per cent compared to an average for the other countries of 16.9 per cent. See <http://fsi.imf.org/docs/GFSR/GFSR-FSITables-April2011.xls>.

Throughout the decade, the four pillars policy remained in effect, preventing mergers between the four major banks. Whether this restriction on the market for corporate control affects bank proclivity towards risk-taking, with benefits for financial stability, is an unanswered question. So too is the question of whether the concentration which prompts the four pillars policy creates such franchise value as to inhibit excessive risk-taking. While the four pillars policy has traditionally been linked to banking (deposit and loan) market concentration, the dominance of the Big Four across other parts of the financial sector was reflected in the opposition by the Australian Competition and Consumer Commission (ACCC) at the end of the decade to the takeover of the wealth management and life insurance company AXA by one of the majors (NAB) on the grounds of adverse effects on competition in the wealth management industry (particularly as a supplier of investment platforms).

The number of foreign banks operating in Australia increased from 50 to 59 over the decade, but only a small number were incorporated as subsidiaries within Australia – and thus able to provide competition in retail loan and deposit markets. Nevertheless, initiatives such as the development of internet-only deposits by some of those entrants, aggressive marketing and expansion (until the onset of the GFC) and involvement in securitisation provided a substantial spur to competition in deposit and loan markets. More substantive effects could be seen in securities markets and investment banking where foreign banks were major players in the industry league tables as lead managers or arrangers for equity and debt issuance, mergers and acquisition, and in funds management and custody.

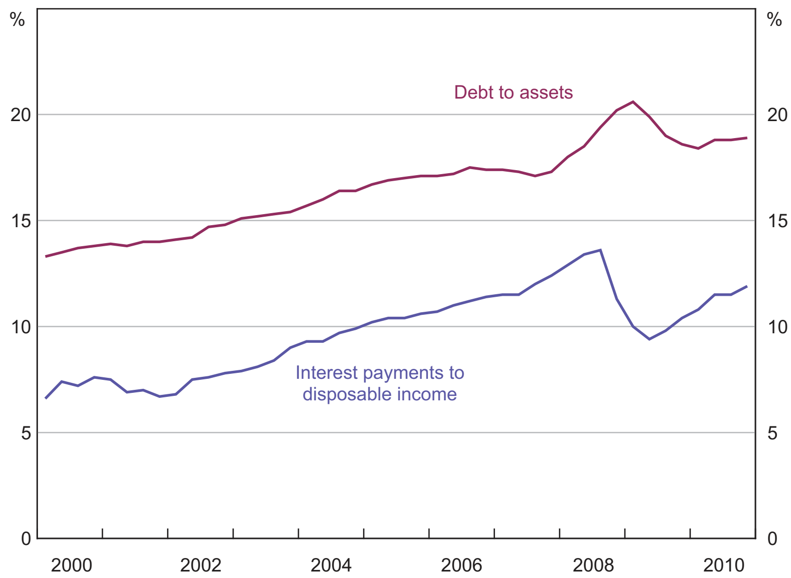
Towards the end of the decade, the ASX's (near) monopoly of the market for listing and trading of equities and derivatives came under challenge, with an application by Chi-X to set up a competing trading platform.[31] While that application was not approved until after the end of the decade, the ASX was also facing competition through the growth of other trading arrangements such as 'dark pools' and internal crossings of stock by brokers. Within the broking industry, the growth of online, low cost, retail broking services (including services provided by the major banks such as 'E*Trade' and 'CommSec') increased competition, contributing to some consolidation within the broking industry.

5.4 Household balance sheets, risk-taking and investor protection

Throughout the 2000s, the high and increasing level of household leverage and exposure of investments to market risk was a continuing theme of RBA *Financial Stability Reviews*. The trend is shown in Figure 9, with a decline in the ratio of interest payments to disposable income in 2008 reflecting the marked decline in official interest rates at that time, and a more gradual, but temporary, decline in debt relative to assets, reflecting increased household savings and deleveraging following the GFC.

31 Notably, however, other providers of exchange services (such as the National Stock Exchange and the Australia-Pacific Exchange) had failed to make significant headway.

Figure 9: Household Leverage Ratios



Source: ABS

There are a number of hypotheses which can be advanced to explain greater household leverage, which Kent, Ossolinski and Willard (2007) note was a common trend internationally, and in Australia involved a shift from a quite low level by international standards at the start of the 1990s (Macfarlane 2003). One is that it is consistent with financial deregulation facilitating greater household borrowing and lending consistent with life-cycle financing needs. A second is that household attitudes to risk-taking have changed. A third is that changed economic conditions (lower inflation and real interest rates, low unemployment and economic stability) enabled households to take on greater leverage by, for example, removing the negative tilt over time in real repayments associated with standard mortgages (Ellis 2006). While the resulting changes in household leverage may be benign (and reflecting a new 'equilibrium' balance sheet), the concern arises that they may also be predicated on inappropriate household expectations or excessive competition for borrowers by financial institutions which could expose the economy to systemic shocks.

Table 7 illustrates the movements in major components of household balance sheets over the decade, illustrating the greater exposure to market and property price risk up until the GFC. Some part of that trend (and the subsequent decline) reflects the movements in equity and property prices during the decade. But also important are government policies towards taxation and superannuation which have induced individuals to take on increased financial risk. The Henry Review (Australia's Future Tax System Review Panel 2009, Chart A1–19) illustrates the preferential tax treatment given to investments in superannuation, property and equities relative to fixed income investments such as bank deposits, and these are magnified (as are the risks) by the tax deductibility of interest on debt used to leverage those investments.[32] Financial product manufacturers have capitalised on those tax distortions to produce retail financial products (including many listed on the ASX, such as instalment warrants) which package the borrowing and risky investment into one product, sometimes adding a capital protection component. Margin lending, also enabling investors to undertake leveraged share investments grew strongly from around $6.5 billion in mid 2000 (with under 85 000 clients) to $41.6 billion with 248 000 clients in December 2007, but subsequently halved to $21.7 billion at December 2009. The significance of property investments as a component of household asset portfolios is reflected in lending for residential investment properties comprising around 30–35 per cent of total loan approvals.

Table 7: Household Balance Sheet Characteristics

	June 2000	June 2007	June 2010
Ratio to financial assets			
Deposits	0.18	0.17	0.25
Superannuation	0.53	0.57	0.57
Shares	0.20	0.18	0.11
Liabilities	0.42	0.51	0.61
Ratio to total assets			
Dwellings	0.53	0.56	0.60
Liabilities	0.17	0.20	0.22
Financial assets	0.40	0.39	0.36
Total assets – $ billion	**2 820**	**5 882**	**6 671**

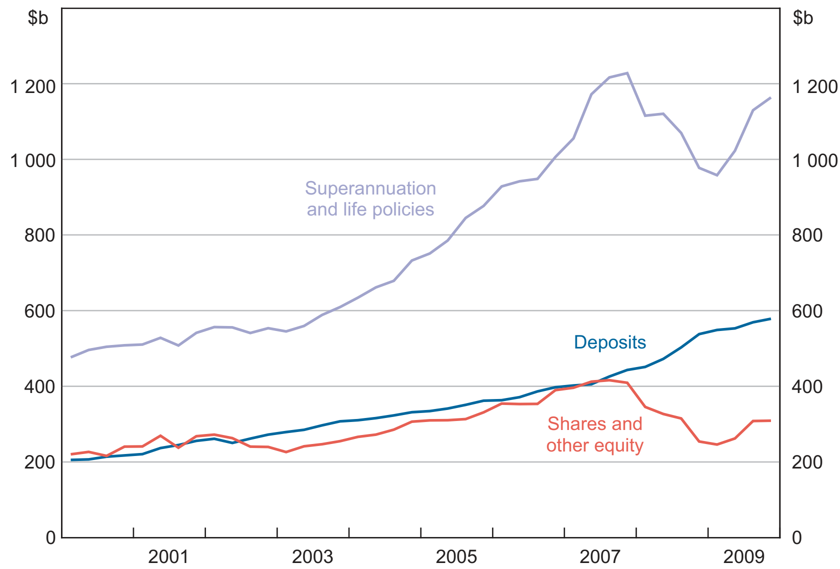
Sources: ABS; RBA

Figure 10 illustrates the growth in household superannuation assets relative to bank deposits and the decline in the value of those superannuation assets, and of holdings of equities and mutual funds, during the GFC.

Allied to this increased exposure to market risk is the increased exposure of financially unsophisticated individuals to complex, often unsuitable, financial products and incentives for producers and distributors of financial products and financial advisers to promote such products. During the decade, highly leveraged products such as contracts for difference (CFDs) were strongly marketed by producers of those products, including the ASX which developed and introduced an exchange-listed CFD in late 2007. Further high-risk products introduced on the ASX and available to retail investors included credit-linked notes structured as unit trusts and listed private equity funds, as well as the vast array (over 4 000 at the end of October 2007) of warrant products involving implicit leverage.

32 While borrowing is prohibited for superannuation funds, use of internally leveraged products such as instalment warrants has been permitted for SMSFs, provided that there is no recourse back to the super fund.

Figure 10: Household Financial Assets



Source: ABS

Investment structures and business models also exposed investors to risks of which they may not have been fully aware. Unlisted property and mortgage trusts were one example in which highly illiquid assets were financed by investor funds that could supposedly be withdrawn on demand or with short notice. Another example was the marketing of capital 'guaranteed' products, where the guarantee was only as good as the credit standing of the entity providing the guarantee.

Arguably, Australia has been a world leader in applying *caveat emptor*, based on disclosure requirements, as a policy strategy for regulation of financial products for the household sector, and it should be acknowledged that prior to the GFC there were relatively few instances of systemic problems affecting the household sector. Failures of financial and property development companies Westpoint, ACR and Fincorp in the middle of the decade received significant press but only involved some 20 000 investors. But sufficient instances of excessive, badly advised, household risk-taking were brought to light during the GFC to prompt a parliamentary inquiry (PJCCFS 2009), and led to regulatory changes at the end of the decade.

Over the course of the 2000s the affordability of housing generally declined (prompting a Senate Select Committee Inquiry on Housing Affordability in Australia in 2008), with Australian house prices becoming, on some measures, among the highest in the world. The extent to which elevated house prices reflected fundamental supply and demand influences or overvaluation is open to debate, although econometric analysis by Fry, Martin and Voukelatos (2010) suggested that by 2008 there was only a relatively small element of overvaluation.

Despite widespread public debate throughout the 2000s about the level of mortgage stress, household risk-taking and leverage, and housing affordability, it is difficult to find hard evidence of widespread problems persisting at the end of the decade.[33] Connolly and McGregor (2011) use data from the Household, Income and Labour Dynamics in Australia (HILDA) Survey[34] to note that while initial housing loan-to-income ratios increased over the decade from around 225 per cent to over 300 per cent, the ratios fell quite substantially within a few years of taking out the loan. And following the GFC, debt-to-income ratios tended to stabilise or decline.

Some government policies are, arguably, creating potential problems for future decades. Government tax and superannuation policy has encouraged the growth of SMSFs, of which there were over 400 000 (and growing) at June 2009. Apart from concerns about the ability of SMSF trustees to invest wisely (Sinclair 2009), the risks associated with ageing and cognitive decline of individual trustees, and consequent ability to manage the fund (as well as the administration costs associated with small balances) in the decumulation (retirement) phase, are yet to come home to roost (Covick 2007).

A second potential longer-term problem arises from policy changes enabling retirees to opt for tax-free withdrawals by way of lump sums or via account-based (allocated) pensions (in which the individual maintains an account invested (tax free) in earning assets and has considerable flexibility in the rate at which funds can be withdrawn from the account). The potential for longevity risk to lead to ultimate reliance on the government age pension is significant, and these arrangements are also one likely contributor to the demise of the lifetime annuity market.

5.5 Bank funding and capital

Australian bank funding patterns have reflected two main factors. One is the imbalance between household borrowings and deposits (which can be seen in Table 7), partially reflecting the important role of superannuation as a recipient of household savings, but also the incentives which the tax system provides for leveraged investments by individuals. The other is the need for financing of the ongoing Australian balance of payments deficit, where bank offshore borrowings have played a major role (Henry 2011). Also important have been regulatory capital requirements in the form of the Basel Accord, as well as the limited development of domestic bond markets such that corporate funding has largely occurred through bank balance sheets. But there are substantial size-related differences in bank funding patterns, reflecting abilities to access particular types of funds and incentives to do so.

Throughout the 2000s, Australian banks have used deposits to fund approximately half of their portfolios, as shown in Table 8 which presents information on a consolidated basis (including offshore activities). The importance of international debt funding is readily apparent, as is the reliance on debt and short-term security issuance.[35] Figure 11 shows changes in the composition of funding for the domestic books of the Australian banks.[36] Prior to the GFC there had been a decline in the role of deposit funding, and an increasing role for offshore funding. The share of

33 While 23 000 non-business related personal bankruptcies in 2009/10 corresponds to around 1 per 400 households, over half of these are attributed to reasons other than unemployment and excessive use of credit.

34 Information on the HILDA Survey is available at <http://melbourneinstitute.com/hilda/>.

35 The marked decline in the role of bank bill acceptances reflects a relative decline in their use in business financing in the first part of the decade (together with a decline in the relative share of business credit) followed by a subsequent tendency for banks to retain accepted bills on balance sheet rather than discounting them into the market.

36 These figures do not include operations of overseas branches or subsidiaries.

household deposits in total deposits also exhibited a downward trend. As a share of total liabilities, household deposits were in the range of 20–30 per cent, indicating the exposure of Australian bank funding to wholesale debt markets and non-retail depositors. Following the onset of the GFC these trends appear to have reversed, with an increase in deposit funding, less reliance on overseas funding, and a greater share of household deposits as shown in Figure 11.

Table 8: Australian Bank Liabilities
Per cent of total

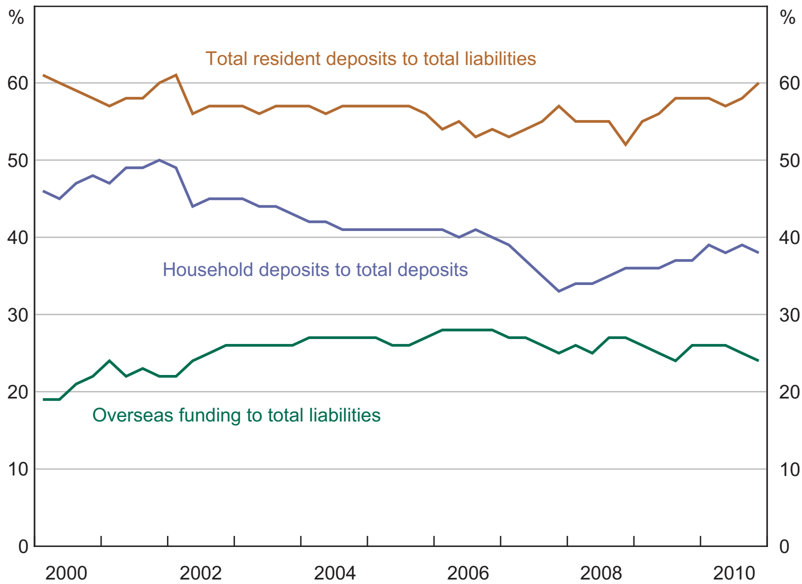
	December 1999	December 2006	December 2009
Deposits	49	43	47
Bonds, etc issued offshore	7	12	13
Bonds, etc issued in Australia	3	4	5
One name paper issued offshore	3	6	3
One name paper issued in Australia	8	8	6
Long-term loans and placements	1	1	1
Short-term loans and placements	4	2	4
Acceptance of bills of exchange	6	3	1
Derivatives	3	4	4
Equity	14	17	14
Total – $ billion	**731**	**1 659**	**2 315**

Note: These figures are market value, and relate to consolidated balance sheets

Source: ABS

There are substantial differences in funding patterns between the types of banks as shown in Table 9. The non-major domestic banks have relied heavily on securitisation as a method of competition. Foreign branches have relied more heavily on non-deposit funding (and are largely precluded from accessing the retail market).

Figure 11: Bank Deposit Funding Ratios



Notes: Australian bank domestic books; series break for overseas funding at June 2002

Sources: ABS; APRA

Table 9: Bank Funding and Assets
December 2009

	Major four	Other domestic	Foreign subsidiaries	Foreign branches
Number of banks	4	9	9	34
Total resident assets – $m	1 586 130	199 378	99 497	153 120
Outstanding principal balance of securitised assets – $m	12 132	42 709	1 142	na
Total deposits – $m	867 764	114 152	54 230	56 700
Deposits from households – $m	314 850	48 842	28 617	557
Assets-to-deposits ratio	1.8	1.7	1.8	2.7
Securitisations-to-assets ratio	0.01	0.21	0.01	0.00

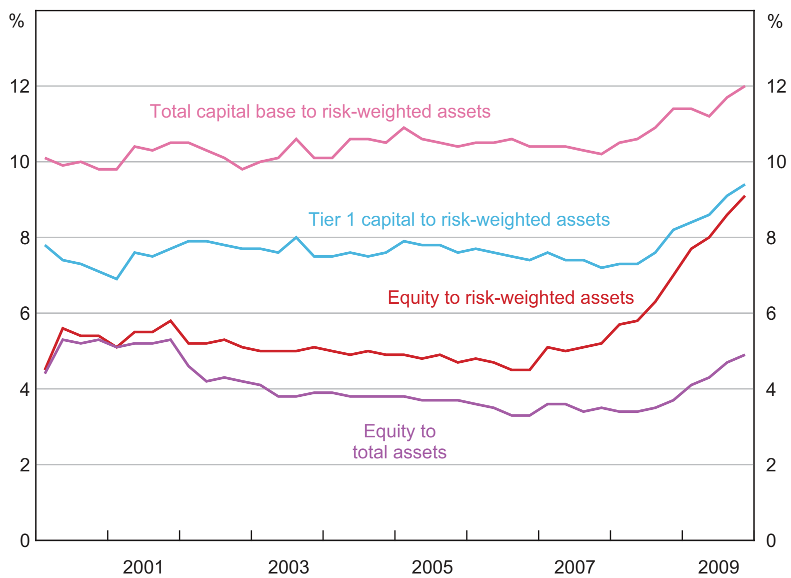
Source: APRA

Figure 12 shows aggregate trends in Australian bank capitalisation. The gradual decline in the ratio of equity to assets until the GFC is noticeable (in common with international trends), as is the widening gap between total capital and equity (as ratios to RWAs), reflecting the increasing use of hybrid securities as capital. Both of these trends were reversed after the onset of the GFC, with substantial equity raisings by Australian banks more than offsetting reduced use of hybrid capital instruments, and the introduction of Basel II at the start of 2008 causing a drop in calculated

RWAs. As a result, both the ratio of equity to assets and equity to RWAs increased substantially. It is also worth noting that in comparing Australian bank-reported capital ratios with those overseas, different treatments of allowable capital components and risk weights in Basel II create substantial differences. Thus, for example, at September 2008, ANZ Bank reported that if its capital ratios were calculated according to the UK Financial Services Authority (FSA) approach or the Canadian Office of the Superintendent of Financial Institutions (OSFI) approach, the Tier 1 to RWAs ratio would have been around 2 percentage points higher.[37]

At the end of the decade, following the GFC, Australian bank funding patterns had become more conservative, involving higher equity capital levels, more reliance on domestic deposits and lengthened maturities of wholesale funding.

Figure 12: Bank Capitalisation Ratios



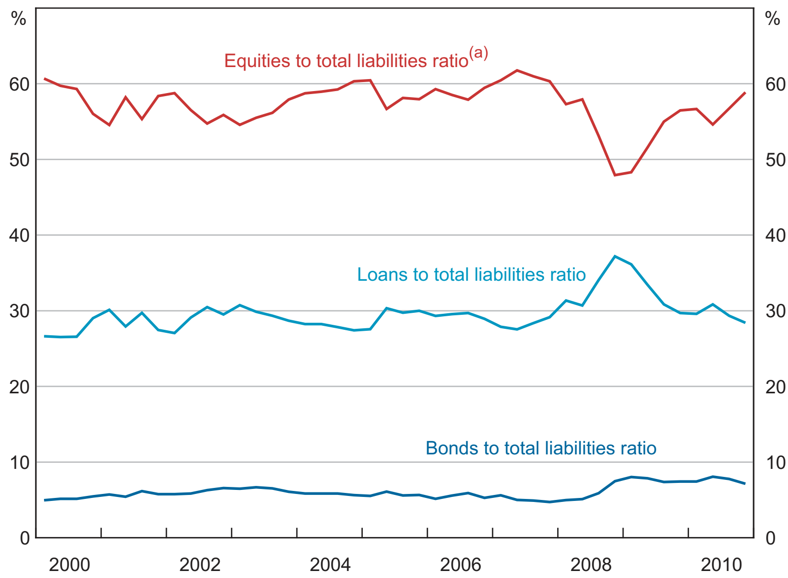
Source: APRA

5.6 Corporate financing

Since the introduction of the dividend imputation tax system, Australian corporate financial management has, in aggregate, been characterised by relatively low leverage and high dividend payout ratios, reflecting the reduced interest tax shield and value placed on distributed franking credits by Australian shareholders. Figure 13 illustrates the small proportion of corporate debt accounted for by bond issuance relative to loans. In aggregate there was little variation over the decade, except for the temporary increase in leverage in 2008 reflecting the substantial decline in equity values, which was rectified by subsequent equity raisings, reduced dividend payouts and some recovery in stock prices.

37 See 'Comparison of ANZ Tier 1 and Core Capital Ratios to FSA and OFSI'. Available at <http://www.anz.com/aus/shares/toolkit/Basel-II/Pdf/Capital_comparisons.pdf>.

Figure 13: Corporate Liability Structure



Notes: (a) Non-financial corporations

(b) Equities measured at market value

Source: ABS

However, as Black, Kirkwood and Shah Idil (2009) show (for listed companies), that aggregate picture hides significant diversity across sectors, with real estate and infrastructure companies relying heavily on raising funds externally, and resources and other non-financial companies raising most funding from internal sources. Prior to the advent of the GFC, real estate and infrastructure companies in particular increased their leverage in response to relatively benign economic conditions and low credit spreads in borrowing and debt markets. Subsequently, this contributed to substantial problems during the GFC. Investment banks, such as Macquarie and Babcock and Brown, were at the forefront of developing and managing innovative structures such as infrastructure (and property) funds, often involving issuance of stapled securities of units in a non-operating trust and equity and/or debt of an associated operating company. In some cases, this model had characteristics of private equity, with several operating businesses being the assets held by the trust and managed by boards chosen by the sponsoring manager, with unit holders in the trusts having virtually no say in governance of either the trust or the operating businesses.

Until the GFC this business model proved highly successful in generating substantial annuity style fee income for the sponsoring companies. It also provided opportunities for the sponsoring companies to profit by purchasing assets and selling them at higher values into the trust (perhaps justified by increased value asserted to be associated with the new management). But it relied on substantial leverage, and upward revaluations of the untraded assets enabled increased borrowings to generate cash which could be distributed to investors in the fund, causing some commentators to liken the structures to a Ponzi scheme. Development of these structures was facilitated by the introduction of the single Responsible Entity (RE) model in the *Managed*

Investments Act 1998, which removed the role of trustees. Such a structure has merit in the case of transparent structures such as equity trusts, where there is limited scope for adverse pricing of management and operational services and independent valuations of underlying assets are readily available. However, its suitability for more complex arrangements, including where liquid assets of several trusts get commingled with those of the RE is questionable.[38]

The increased cost of debt, market distrust of leveraged structures, and concerns about overvalued assets arising from the GFC saw a number of large investment finance companies operating such business models lose market confidence and struggle for survival.

The Australian private equity sector also increased in size and significance around the middle of the decade,[39] with proposed takeovers of two very large Australian companies (Qantas, unsuccessfully, and Coles) bringing this sector to public attention and prompting a parliamentary inquiry (Senate Standing Committee on Economics 2007). To some observers, the participation of current executives in such buyouts caused concerns about priority of duties to existing shareholders. Deals of around $16 billion were completed in 2006, compared with an average over earlier years of around $2 billion. A relatively small part of the industry takes the form of venture capital, with leveraged buyouts (at high levels of leverage, much of it borrowings from foreign banks) ultimately creating problems for some participants during and after the GFC. Funds raised by private equity (venture capital and leveraged buyouts) were over $17 billion in the second half of the decade, over three times the amount for the first half, although inflows declined in the last two years of the decade. Superannuation funds were significant investors.

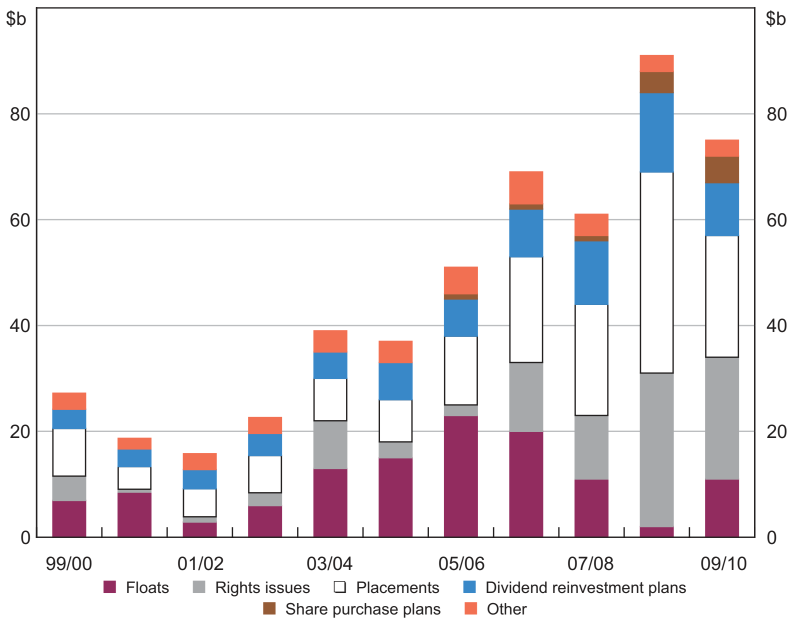
Another concern surrounding merger and acquisition activity which emerged during the decade involved governance issues. The use of schemes of arrangement in mergers grew substantially with over 40 per cent of the 146 mergers in the 18 months to July 2009 being achieved via this mechanism (CAMAC 2009). These require a lower level of target company shareholder agreement (75 per cent versus the 90 per cent holding required for compulsory acquisition) for a takeover, although CAMAC saw no reason to recommend change to this particular feature.

Figure 14 shows the pattern of external equity financing by listed companies during the decade, and several features can be noted. First, substantial declines in equity raisings occurred twice during the 2000s, the first associated with the bursting of the 'tech bubble' in the early years of the decade, and the second with the onset of the GFC. Equity raisings increased strongly in 2008/09, as companies attempted, despite depressed equity prices, to deleverage their balance sheets, given the problems and higher spreads in debt markets – although a large proportion of those raisings were by the Australian banks focused on building up their capital bases. However, the initial public offering (IPO) market, which had grown strongly during the middle of the decade, exhibiting substantial underpricing of new issues associated with such IPO waves, collapsed as it had done in the earlier period.

38 The issue of dealing with failures of REs was considered in PJCCFS (2009) and CAMAC (2011) is also considering this issue.

39 RBA (2007) provides an overview and analysis of potential issues.

Figure 14: ASX Capital Raisings



Note: 'Other' comprises calls on contributing shares, exercises of options and employee share schemes, etc

Source: Australian Financial Markets Association

A further feature of capital raisings was the substantial increase in rights issues, often involving non-renounceable issues at a significant discount to the prevailing market price. Such issues can lead to dilution of small shareholders not wishing to participate, and for whom the transactions costs of selling existing stock to participate and maintain a constant level of holdings are excessive.

As noted earlier, Australian companies have not been substantial issuers of bonds – either in domestic or (with the exception of the banks) in international markets. Hybrid instruments have, however, been relatively popular, and prior to the GFC there were a number of issues, most of which were variants upon the converting preference share structure introduced in the 1990s, often involving reset arrangements. These were structured to look like debt securities, converting into a fixed value of equities at some date, possibly with some upside exposure to the issuer's stock price. Many of the issuers were financial institutions for whom the permanent capital raised met regulatory capital requirements. At the end of 2005 there were 56 such securities listed on the ASX with a market value of $19.8 billion (around half as large as corporate bonds on issue).[40] Following the onset of the GFC, most such securities suffered substantial price declines reflecting the increase in credit spreads on 'debt-like' instruments and new issues were few.

One other feature of corporate capital management during the decade which deserves mention was the proliferation of share buybacks by listed companies. While the majority by number were on-market repurchases, over the period 2000–2007 there were 47 off-market repurchases with a

40 Information sourced from JBWere, The Acronym, 12 December 2005.

market value of $11.9 billion. These were typically for significant proportions of outstanding equity and, because of the tax treatment of the repurchase amount as being mostly franked dividend and a small deemed sale price for capital gains tax purposes, they were generally transacted at below current share market prices. Motivation for these transactions can be found in the obvious tax advantages for participating shareholders, the willingness of companies to increase leverage over that period, and the beneficial signalling effect on share prices which announcements of such capital management initiatives generated. Again, with the onset of the GFC, corporate deleveraging, and some uncertainty about future tax treatment,[41] this activity dried up.

6. The GFC and the Australian Financial System[42]

Early indications that Australia would not be immune from the onset of the GFC emerged with the failures of two substantial Australian hedge funds (Basis and Absolute Capital) in July 2007 and the announcement of financing problems of the large securitiser RAMS Home Loans (which had only recently been floated on the ASX) in August 2007. Credit spreads began to rise from their previous low levels, and banking sector uncertainties were reflected in an increase in demand for holdings of exchange settlement account (ESA) balances at the RBA. The RBA reacted to the increased demand by adjusting the supply of ESA balances to avoid undue pressure on the cash rate (Debelle 2008). However, private market spreads (such as the 3-month bank bill swap rate (BBSW) to overnight indexed swap (OIS) spread) had increased from the previous level of 5–8 basis points to around 25–50 basis points (reflecting credit and liquidity risks) and remained at such elevated levels for the remainder of the decade.

The RBA also expanded the range of repo-eligible securities to include bank paper with more than one year to maturity in September 2007, and RMBS and ABCP in October 2007 (subject initially to the securities not being issued by the bank seeking financing via repos). Very quickly, however, in response to worsening markets, the RBA announced that self-securitisations would be acceptable, inducing banks to internally securitise housing loans in order to have additional securities available for use in repo transactions if required. The terms for which repos were undertaken also increased substantially, and from late 2007 onwards, the majority of repos involved private sector securities. With repo rates being determined by auction, the cost of funding via this mechanism jumped substantially relative to OIS (Kearns 2009).

In fact, direct exposure to (what was then referred to as) the sub-prime crisis was relatively limited. Australian banks had relatively little exposure to collateralised debt obligations (CDOs) and other toxic products, although the exposure of a significant number of local councils and other direct investors was noted by the RBA in its September 2007 *Financial Stability Report*. Rather, the transmission process to the Australian financial sector and economy was largely indirect, with spillovers from weaknesses in international markets affecting local markets and institutions, and ultimately exposing some weaknesses in financing patterns in parts of the Australian economy.

The closure of international securitisation markets hit Australian securitisers hard, and while domestic issuance continued for a time, ultimately domestic markets also froze. Australian banks, relying heavily on international wholesale financing found their cost of funding increasing,

41 Recommendations by the Board of Taxation (2008) had not been implemented as at mid 2011.

42 For overviews of the Australian experience in the GFC, see Brown and Davis (2008, 2010).

leading them to pass higher funding costs onto borrowers. The global economic slowdown and uncertainties led to downward re-ratings of corporate borrowers and the eventual global stock market collapse was rapidly reflected in Australian stock prices.

In the first phase of the GFC, prior to the failure of Lehman Brothers in September 2008, it was primarily higher borrowing costs and depressed equity and asset prices that exposed a number of problems. A number of large listed financial and property investment companies found that their highly leveraged, complex, business models were unsustainable. Companies such as Centro, Allco, and MFS, which had borrowed extensively to purchase property and other assets to hold or to sell into the (leveraged) managed funds they had created, failed or entered restructuring arrangements.[43]

The position was complicated by other weaknesses which were exposed in Australia's financial markets. One such weakness was the growth of margin lending arrangements based on a securities lending model in which legal title of the securities involved was transferred to the lender, exposing the borrower to counterparty risk. The failures of broking firms Opes Prime and Lift Capital using this model brought this to light, and the seizure of securities by banks that had financed those broking firms imposed substantial losses on the borrowers. While the banks, concerned to minimise reputational damage arising from these associations, have negotiated some compensatory settlements, many of the borrowers were substantial shareholders and directors of small listed companies, and the disruption to share registers led to temporary trading halts. A more substantial, general, problem emerged on 28 January 2008 when ASX settlement had to be suspended due to the failure of a broker (Tricom) to be able to redeem securities that it had previously lent and which were required for settlement of market transactions.

Significant margin lending by substantial shareholder-directors of companies created the risk that speculators would short sell the stock in the hope that price declines would lead to margin calls and forced sales, further depressing the price and making the short-selling strategy profitable. The publicity given to these events meant that attention was paid to short-selling arrangements, and it was discovered that market participants had interpreted requirements to report short sales to the ASX quite loosely (including not reporting short sales when securities had been borrowed), such that it had been substantially under-reported.

The second stage of the crisis, commencing in September 2008 and marked by the failure of Lehman Brothers, led to much greater intervention and actions by government and regulators.

First, concerns about short selling and its effects on equity prices (particularly of banks and consequent effects on confidence) led, similar to a number of overseas countries, to the imposition of a general ban on short selling on 21 September 2008. The ban was subsequently limited to financial stocks on 19 November and ultimately removed on 25 May 2009.

Second, the RBA entered foreign exchange swaps with the US Federal Reserve, aimed at providing US dollar liquidity to Australian banks and other banks' foreign operations in Australia, enabling them to access US dollars via repurchase transactions with the RBA using domestic securities as collateral.

43 Sykes (2010) provides an overview of a number of these failures.

Third, in September 2008 the RBA introduced a term deposit facility with rates set by auction, enabling banks wishing to hold risk-free RBA liabilities to do so for maturities up to 14 days. In November 2008, it further extended the range of securities in which it would undertake repos to include most AAA-rated Australian dollar-denominated securities.

Fourth, in late September 2008, responding to the collapse of the RMBS market, and concerns that this source of competition to major banks in the housing loans market would not recover, the Government announced (and subsequently expanded) an $8 billion scheme whereby the AOFM would be a cornerstone investor in selected new RMBS issues.

Fifth, the announcement by some overseas governments of guarantees over their banks led the Australian Government to introduce on 12 October 2008 a guarantee on bank deposits (with an optional fee-based scheme for deposits over $1 million introduced a few weeks later) and a wholesale funding guarantee scheme for Australian banks. The deposit guarantee announcement overtook the planned introduction of the Financial Claims Scheme which had been scheduled for legislation that week, but with a planned cap on insured deposits of $20 000. Australian banks made substantial use of the debt guarantee scheme with the amount on issue reaching a peak of $157 billion before the scheme was terminated to new issuance at the end of March 2010. While the Government received substantial income from the guarantee fees, the guarantees appeared underpriced relative to those charged by overseas governments, and regional banks have argued that the pricing disadvantaged them relative to the major (AA-rated) banks. In May 2009, the Australian Government also announced a guarantee scheme for state government debt, to offset competitive disadvantages faced by the state central borrowing authorities in competing in debt markets with federally guaranteed bank debt.

Sixth, the Government announced a substantial fiscal stimulus program in October 2008 and other measures in subsequent months which amounted to $90 billion over four years (Senate Economics References Committee 2009, Chapter 2). Some fiscal proposals, including a planned 'Ozcar' scheme to replace the departure of two major car dealer financiers from the market, never came to fruition (and were mired in political controversy, as were some other specific measures). The extent to which the fiscal stimulus contributed to Australia avoiding a 'recession' versus the strength of the resources boom helped by the strength of Australia's major trading partner, China, remains open to debate.

These actions meant that Australian financial markets coped relatively well during the crisis period, but there were still substantial difficulties – primarily outside of the banking sector.

First, unlisted property and mortgage funds which had been facing significant redemption requests found this situation aggravated by the deposit guarantees, and many were forced to suspend redemptions (with limitations on withdrawals extending, in many cases, into the next decade). At the end of the 2000s, there was approximately $20 billion in such frozen funds.

Second, the general decline in asset prices meant that many individuals were faced with substantial declines in the value of their superannuation accumulation or allocated pension accounts, creating problems for those in or near retirement. In response to this, the Government reduced the size of the minimum pension (as a proportion of the account balance) which needed to be taken from allocated pension accounts in the hope that this would facilitate a rebuilding of account balances when (if!) stock markets recovered.

Third, substantial difficulties were exposed in the financial advice industry, particularly with the collapse of the advisory firm Storm Financial, which had encouraged investors to take out loans on their dwellings and use available savings, including withdrawals from superannuation balances, to set up highly leveraged margin accounts for share investments.

Fourth, further failures of financial and investment companies occurred with substantial losses to investors, raising questions about business models permitted by legislation, particularly for the operations of managed funds. Failures of a number of Agribusiness Managed Investment Schemes in early 2009 (including Timbercorp and Great Southern) as well as the listed investment bank Babcock and Brown fall into this category. Because under the *Managed Investments Act* there is no requirement for a separate trustee, conflicts of interest can abound for a responsible entity where assets without independent observable market prices are bought by the promoters to sell into a managed fund, which in turn contracts to buy services from entities related to the responsible entity (Brown, Davis and Trusler 2010).

A more general consequence of the GFC was the impact of higher credit spreads in international wholesale markets on bank funding costs and the flow through of these, and increases in domestic deposit costs as banks increased competition for such funds, into bank loan (particularly housing) interest rates. These changes primarily reflected the increase in bank funding costs over this period (Fabbro and Hack 2011), although political and public opinion was not convinced of that argument. Notably, the increase in the spread was relatively lagged for housing loans, reflecting pricing based on the average historical cost of funds (such that the higher marginal cost of new or rollover funding only gradually increased the average), and also public relations and political sensitivities of discretionary increases in variable housing rates. This is likely to have also contributed to the lack of recovery of the securitisation market, where new loans must be priced off the marginal cost of funding in wholesale markets.

7. The GFC Regulatory Fallout

The GFC, and regulatory responses to it, have led to substantial review of previous approaches to financial regulation, both at the domestic and international levels, with the latter being driven by the G-20. And because Australia, like most other nations, is committed to the multinational approach, regulatory changes arising out of that process will impact upon the Australian financial system. Foremost among those changes are the new Basel III capital and liquidity requirements, involving higher quantity and quality of bank capital, together with measures focusing upon executive remuneration.

One important implication is the effect of the Government's guarantee of bank liabilities introduced at the peak of the crisis. Previously perceived implicit guarantees were replaced by explicit ones. And while the scaling back of (free) deposit guarantees to $1 million imposed a limit on explicit guarantees, that action is likely to have reinforced perceptions among Australian depositors that Australian banks are 'too big to fail'. The Financial Claims Scheme introduced in October 2008 is a closed resolution scheme, in which APRA compensates insured depositors and then is first claimant upon the assets of the failed institution, with an ex-post levy on ADIs proposed should a shortfall of assets lead to losses for APRA. The deposit cap is due to be reviewed by October 2011, and a cap in the range of $100 000 to $250 000 has been proposed by the Council of Financial Regulators (Australian Government 2011).

While there had been many calls for a wide-ranging 'Son of Wallis' Review of the Financial System to be held (with the Wallis Committee having suggested that such a review was warranted every decade), that had not occurred, with many arguing that the extent of international regulatory changes following the GFC warranted deferral of any such review. However, there have been many other reviews, consultations and inquiries, particularly near the end of the decade. Senate Economics Committees undertook inquiries into: the National Consumer Credit Protection Bill 2009; Aspects of Bank Mergers; and Bank Funding Guarantees. The Parliamentary Joint Committee on Corporations and Financial Services inquired into Financial Products and Services in Australia (the Ripoll Inquiry) and into Aspects of Agribusiness Managed Investment Schemes, and the House Standing Committee on Economics completed an inquiry into Competition in the Banking and Non-banking Sectors in November 2008. The Senate Economics References Committee commenced another inquiry into Competition within the Australian Banking Sector in 2010.

The Ripoll Inquiry (PJCCFS 2009) was prompted by significant failures of financial advisers and firms providing financial services and products to retail customers. It made a number of recommendations including: a requirement for financial advisers to have an explicit fiduciary duty to clients; investigating ways to cease payments from product manufacturers to financial advisers; and investigation of a statutory last resort compensation fund for investors. Prior to this, ASIC had introduced its 'investing between the flags' approach to educating financial consumers about risk. Reflecting concerns about counterparty risk of investors to manufacturers of financial products, ASIC had also introduced an 'if-not-why-not' disclosure approach for products such as debentures. Under this approach, product providers whose business models and practices deviated from an ASIC 'good practice' template were required to disclose why that was appropriate. It can be asked whether such reliance on disclosure will work, and why an alternative approach of legislating to preclude high risk business structures and practices is not followed.

The apparent causes of the recent woes of a number of large Australian financial and investment companies, stock market disruption and securities lending debacle, cast some doubt on the overall success of CLERP in enhancing Australia's financial infrastructure. Complex, opaque, corporate structures were allowed to flourish, involving poor governance arrangements, less than optimal accounting arrangements, and auditors' judgements being called into question. Regulatory oversight of securities firms engaged in margin lending and stock lending was inadequate, and stock market investors had been, for a long time, misinformed about the incidence or level of short selling. While Australian investors generally escaped significant exposure to the most 'toxic' financial products, there were many examples of poor product design and investment advice arrangements which ultimately impacted adversely upon investors.

The reforms introduced by CLERP have been widely advertised as delivering a 'best practice' corporate law structure. There has, however, been very little serious empirical research aimed at identifying what the outcomes and economic benefits of the CLERP reforms have been. That said, however, it can be argued that Australia's capital markets performed better in the GFC than was the case in many other countries in terms of losses to investors, credit market outcomes, and market integrity and stability.

At the start of the new decade there were two major Government regulatory initiatives announced. The 'Competitive and Sustainable Banking System' reforms included *inter alia* proposals to: ban exit fees on home mortgages; take action on interest rate price signalling; and allow covered bond issuance. The other was the 'Future of Financial Advice' (FOFA) reforms announced on 26 April 2010 in response to the Ripoll Report. These included introducing:

- a ban on commissions being paid by financial product providers to advisers;
- an adviser-charging regime involving up-front determination of fees on either a time basis or as a percentage of (non-leveraged) funds under management; and
- a statutory fiduciary duty for financial advisers.

Reflecting concerns about the effectiveness of disclosure documents, in June 2010 the Government provided for the use of short form PDSs of no more than eight pages for super and managed investment scheme (MIS) products (four pages for margin loans), with prescribed sections, and links to information outside the PDS. (The *Corporations Act* also requires the PDS to 'describe, in the form of a summary the risk level of the option'). There has also been legislation to allow short form retail bond prospectuses.

The National Consumer Credit Protection Bill 2009 introduced the National Consumer Credit Code replacing the state-based Uniform Consumer Credit Code. New licensing arrangements for lenders were introduced and a number of requirements, such as ensuring that credit granted was suitable for the borrower's circumstances, were tightened.[44] The Corporations Legislation Amendment (Financial Services Modernisation) Bill 2009 introduced new requirements for trustee companies, retail debenture and promissory note issues, and included margin lending as a financial product covered by the FSRA.

The Cooper Review of Superannuation (Super System Review Panel 2010) is also relevant in several regards, particularly since superannuation is the main form of financial investment for most individuals. Cooper's proposals included permitting superannuation funds to provide simple financial advice and requirements that a default ('MySuper') option be provided.

8. Australia's Financial Resilience during the GFC

Three specific questions were posed in the introduction regarding possible causes of Australia's financial resilience during the GFC.

Was there some feature of Australia's financial sector which prevented excessive risk-taking by Australian financial institutions? Internal governance characteristics are one possible factor. Inherent conservatism induced by memory of the banking crisis at the start of the 1990s may have been another, inducing lower risk lending and limiting exposures. Australian banks generally hedged the foreign currency risk associated with their foreign borrowings and property-related lending was generally well secured. Unlike the 1980s experience following deregulation, there was no significant decline in lending standards. Legal penalties for unconscionable lending, and the predominance of on-balance sheet lending, and retention of risk, for housing by major banks, were relevant factors here. It may also be argued that the high level of banking sector concentration

44 Phase 1 regulations announced in June 2010 related primarily to licensing and responsible lending, while phase 2 proposals announced in July 2010 included consideration of credit card offers and regulation of fringe lending.

and resulting 'franchise value' created disincentives to put high profitability at risk by excessive risk-taking.

External influences may also have been important influences upon risk-taking, although arguably the role of stock market discipline was tempered by the *Banks (Shareholdings) Act 1972* limitation on a 15 per cent maximum equity stake, and the four pillars policy preventing merger activity. On the other hand, these legislative constraints may have facilitated board (if not managerial) entrenchment and greater resulting conservatism. In principle, deposit and debt markets could have exerted discipline against excessive risk-taking, if depositors believed that their funds were at risk and subordination of debt holder claims due to depositor preference increased monitoring.

Another external influence is regulation. The 'twin-peaks' model adopted just prior to the start of the decade created a specialist prudential regulator (APRA) and a specialist corporate, markets and financial services regulator (ASIC). Such specialisation, allied with information sharing and co-operation through the Council of Financial Regulators (including also the Reserve Bank and Treasury) may have facilitated more effective prudential regulation and prevention of excessive risk-taking. The fact that prudential regulation embraced institutions holding a very large proportion of financial sector assets should also be noted.

Also important is the strength of prudential supervision, with the collapse of the major insurance company HIH at the start of the decade (which involved significant economic and financial dislocation and embarrassment for APRA) arguably inducing a tougher approach to prudential regulation. Henry (2011, p 14), for example, argues that Australian banks 'have benefited from years of rigorous supervision by better than world-class financial regulators'.[45]

Yet another factor may have been the overall structure of financing in the economy. With (major) Australian banks borrowing extensively offshore (helping to finance Australia's current account deficit) and able to profitably use those funds for housing and other domestic lending there were limited incentives to invest in ultimately 'toxic' assets. Doing so, such as by expanding into investments in CDOs, would have required further offshore borrowings, with potentially adverse effects on existing sources of funds.

Did the distribution of risks in the economy facilitate adjustment to the shocks encountered? Gizycki and Lowe (2000) noted the changes in the balance sheet of the household sector during the 1990s, together with the growth of market-linked investments. That has become increasingly relevant with the continued growth of defined contribution (accumulation) superannuation. Combined with a *caveat emptor* approach (subject to disclosure requirements on issuers of securities and financial products) towards securities market regulation, substantial risk-taking by investors outside the prudentially regulated sector existed, and declines in asset prices thus impacted perhaps more directly upon end users rather than financial intermediaries than was the case elsewhere. Also relevant is the nature of risk sharing between banks and their customers, with the predominant use of variable-rate lending enabling shocks to the cost of bank funding to be generally passed on to borrowers. And while there were notable exceptions, the lower leverage of the Australian corporate sector (due to the dividend imputation tax system reducing, if not

45 In 2005 the IMF conducted a Financial Sector Assessment Program (FSAP) of Australia and, while noting several vulnerabilities, gave the country's financial sector a good rating.

eliminating, the interest tax shield of debt) may have reduced credit risk and enabled the corporate sector to adjust more readily to the increased cost and reduced availability of credit.

The Reserve Bank (RBA 2010a) also points to the relatively small share of the finance sector accounted for by shadow banking (non-prudentially regulated institutions) which, in conjunction with their lower levels of leverage and trading, are suggested to have led to less transmission of shocks. The relatively low level of collateralised asset financing involving 'repo' financing (as used by US investment banks) meant that a 'liquidity loss and margin spiral' (Brunnermeier 2009) was not induced by initial asset price declines. While a number of non-prudentially regulated, leveraged, institutions experienced similar such pressures (leading to some failures and freezes on redemptions), the markets for their assets were generally illiquid. And while domestic interbank markets exhibited stress, the high concentration and relatively small number of major participants may have contributed to less 'network' uncertainties.

Also important for the adjustment process was the underlying strength of the economy, with strong demand for commodity exports being one factor contributing to economic growth and less potential for credit losses.

What role did regulatory and policy responses play in ameliorating the effects? The rapid and substantive actions taken by the Reserve Bank to adapt system liquidity arrangements to meet increased demand for liquidity have been outlined earlier, and had the effect of preventing a liquidity crisis from emerging. Similarly, the Australian Government's actions in October 2008 in providing debt guarantee facilities and a deposit guarantee for banks limited the potential disruption to bank funding and its cost that may have otherwise occurred. As regards fiscal policy, Australia was fortunate in having had a prior period of substantial budget surpluses, leading to a low public debt position, and providing scope for significant fiscal stimulus. And the prior period of relatively tight monetary policy meant that the Reserve Bank was able to rapidly lower interest rates, which had the effect of partially offsetting the increase in credit spreads on overall borrowing costs.

It is difficult, if not impossible, to determine the relative contributions of all of these factors. And it would be incomplete not to attribute some role to 'luck' and timing. At least one bank had taken on a moderate exposure to CDOs and there was substantial ongoing marketing of such products to a range of investors. Had the onset of the crisis been later, exposures may have been larger and Australia may have not been so able to 'dodge the bullet' of the GFC.

9. End of Decade Issues

Entering the second decade of the millennium, there are several issues which are relevant for the future evolution of the financial sector.

Banking sector risk and financial stability. Prompted by the GFC experience, much greater attention is being paid globally to systemic risks and stability and the role played by financial sector structure and characteristics as determinants. While the Australian financial system exhibited resiliency in the GFC, it has several characteristics which could raise concerns among observers not cognisant of the details of those characteristics.

One such feature is that Australian banks have had a relatively heavy reliance on international wholesale funding, reflected in a high assets-to-deposits ratio on the Australian balance sheet. A second is that the sector is dominated by the four majors whose similar funding patterns could expose them (and the Australian financial system) to risk of contagion from, or common shocks to, investor perceptions of bank safety. The third is that the asset portfolio structure of Australian banks is, by international standards, heavily weighted towards residential property lending.

The Australian banks, towards the end of the 2000s, reduced reliance on international wholesale funding, and substantially increased their equity capital. Moreover, the slowdown in credit growth post the GFC (see Figure 4) has reduced bank funding requirements and thus their demands upon international capital markets. Although asset portfolios are heavily weighted towards residential lending, this is not a particularly high risk, despite concerns of some commentators about overvaluation of residential property. Loan-to-valuation ratios have remained relatively conservative; responsible lending requirements inhibit unwise lending, and the full recourse nature of loans reduces borrower incentives to default and, potentially, the loss given default. Consequently, arrears statistics remain low, and banks have regularly passed stress tests premised on substantial property price declines and retained high credit ratings.[46] At the end of the decade, the four major banks were among only nine large banks in the world to have an AA or better credit rating.

Implementation and consequences of Basel III. At the end of the decade, the Basel Committee released its proposals for new capital and liquidity requirements. The former involve, *inter alia*, more and better quality capital. While Australian banks were well placed to meet such requirements, reflecting substantial capital raisings after the onset of the GFC, the requirements imply some increase in the cost of bank intermediation. Consequently, they may prompt banks to develop capital market funding alternatives for corporate customers, and may create incentives for the development of non-prudentially regulated 'shadow banking'.

Potentially even more significant were the liquidity requirements announced by the Basel Committee in December 2009. The Net Stable Funding Ratio requirement and the Liquidity Coverage Ratio requirement[47] are likely to also create incentives for development of capital markets and alter flow of funds patterns in ways yet to be discerned.

Deposit insurance. Also requiring resolution was the status of the Financial Claims Scheme (deposit insurance) and the government guarantee scheme for bank debt. The latter was terminated in May 2010 (by which time some banks were finding it cheaper to issue non-guaranteed debt), but transitioning from the $1 million cap on insured deposits to a lower level remained to be done,[48] and longer-term implications for competitiveness and growth of non-guaranteed competitors for retail funds is yet to be fully appreciated.

Securitisation. The future of the AOFM cornerstone investor arrangements, which had supported a number of issues, remained to be decided, and there were some calling for the introduction

46 Direct exposure of Australian banks to a sovereign debt crisis is also reportedly low.

47 The relatively small stock of government securities available to serve as high quality liquid assets has meant that a complementary fee-based liquidity facility at the RBA for banks to meet the requirement is to be developed.

48 As previously noted, proposals for a cap between $100 000 and $250 000 were released in May 2011 (Australian Government 2011).

of some form of government guarantees for RMBS (generally citing Canadian, but rarely the US Fannie Mae and Freddie Mac, experience). Following much debate, the Government approved limited issuance of covered bonds as an alternative form of securitisation – partly because there were less problems with this type of securitisation during the GFC, but primarily because of its potential as an alternative funding source for Australian banks. Draft legislation was released in March 2011, involving necessary amendments to depositor preference legislation which had previously been argued to remove the need for deposit insurance. Implications for bank funding patterns, traditional securitisation, and bond market development remain to be seen.

Australia as a financial centre. While the Australian financial sector is large, it could be argued that it was primarily domestically focused, despite one of the largest fund management sectors in the world, substantial international debt issuance by securitisers (at least prior to the ravages of the GFC), and major banks active as borrowers in international capital markets and with some substantial offshore subsidiaries. International trade in financial services was relatively low (Australian Financial Centre Forum 2009), and there was limited management of international funds by domestic fund managers, reflecting a variety of tax and other impediments. In that environment, and with the growth of the Asian region and financial sectors posing challenges to the regional importance of the Australian sector, the Government was considering responses to the recommendations of its Australian Financial Centre Forum taskforce report.

10. Conclusion

The 2000s opened with optimism about the future of the financial system. Financial liberalisation appeared to have ultimately brought benefits of efficiency and innovation without threatening financial stability. Investor protection mechanisms based around disclosure, education and advice were perceived to be sufficient, and greater risk-taking by households was viewed with caution, but not alarm. Compulsory (and tax incentives for) superannuation savings were expected to enhance long-term savings and wealth accumulation, as well as encouraging capital and (particularly) bond market development. Competition in financial markets appeared to be improving, particularly through the growth of securitisation. A newly designed and implemented 'twin peaks' regulatory structure held promise of an effective, coherent regulatory model.

At the end of the decade, the GFC experience had cast doubts upon many of these perspectives, with the possible exception of the merits of the regulatory structure – although even there the merits of continued separation of the prudential regulator from the central bank was being questioned on the basis of interrelationships between 'micro' prudential regulation with financial stability and 'macro' prudential regulation concerns.[49] A rethinking of what constitutes better financial regulation was underway (and *more* regulation was a common populist thought) and the merit of reliance upon a *laissez faire* strategy of education, disclosure and advice for protection of investors and consumers of financial services was under challenge. While superannuation had grown substantially, questions were being asked about whether governance arrangements, investment strategies and operational efficiency were delivering adequate performance.

49 Some commentators, for example, FINSIA and Access Economics (2009) also questioned whether the increased integration and interrelationships between financial institutions and financial markets meant that the division of regulatory responsibilities between APRA and ASIC warranted review.

Possibly the most significant development was the increased emphasis on financial stability – something which grew throughout the decade (with the RBA producing its first *Financial Stability Review* in 2004) and was brought to prominence with the GFC. Re-adjusting financial regulation to promote financial stability, including by affecting the structure and inter-linkages within the financial sector, without impeding socially valuable financial innovation and efficiency, was the main challenge facing the coming decade.

Gizycki and Lowe (2000) ended their review of the 1990s experience by noting three policy issues which they expected to be important over the next decade. These were: ensuring competition in financial markets; investor protection and identifying systemic risks; and the appropriate responses of monetary and prudential policy. Sometimes, no matter how much things change, they remain the same!

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