

# Financial Stability Review

MARCH 2012

---

## Contents

Overview	1
1. The Global Financial Environment	5
2. The Australian Financial System	21
Box A: Foreign-owned Bank Activity in Australia	38
3. Household and Business Balance Sheets	41
Box B: Home Mortgage Debt: Recent Insights from the HILDA Survey	53
4. Developments in the Financial System Architecture	57
Box C: Global Systemically Important Banks	66
Box D: A Closer Look at the Shadow Banking System in Australia	69
Copyright and Disclaimer Notices	73

*Reserve Bank*

The material in this *Financial Stability Review* was finalised on 27 March 2012.

The *Financial Stability Review* is published semi-annually in March and September. It is available on the Reserve Bank's website ([www.rba.gov.au](http://www.rba.gov.au)).

*Financial Stability Review* enquiries

Information Department  
Telephone: (612) 9551 9830  
Facsimile: (612) 9551 8033  
Email: [rbainfo@rba.gov.au](mailto:rbainfo@rba.gov.au)

ISSN 1449-3896 (Print)  
ISSN 1449-5260 (Online)

# Overview

---

In the period since the previous *Financial Stability Review*, global financial conditions have evolved in two distinct phases. The sovereign debt problems in the euro area escalated over the second half of 2011 as market concerns about debt sustainability intensified in a wider group of countries. Reflecting the links between sovereign and bank balance sheets, bank funding markets in the euro area came under intense strain, triggering fears of a bank liquidity crisis in the region. The turmoil spread to global financial markets, leading to tighter wholesale funding conditions for banks in many countries, including Australia.

Global market sentiment has improved noticeably since late December. To a large extent, this reflected the European Central Bank's (ECB's) three-year lending operations, which have greatly reduced funding risks for European banks. There has also been gradual progress towards enhancing euro area fiscal governance and dealing with Greece's sovereign debt problems. In addition, recent economic data in the United States have been more positive, somewhat allaying fears about a global growth slump. Accordingly, sovereign bond yields in Europe have declined from their recent peaks and equity markets have rallied globally. Bank share prices have increased in line with broader market movements, although in some cases they remain below levels seen in mid 2011. Pressures in bank funding markets have eased, but spreads are still fairly high.

Even though conditions in financial markets have improved, the ongoing difficulties in Europe as well as the subdued outlook for global growth will

continue to pose risks to global financial stability in the period ahead. Bank lending conditions tightened noticeably in several euro area countries in late 2011 and economic conditions weakened. These developments posed the risk of an adverse feedback loop between economic conditions, fiscal balances, borrower creditworthiness and banks' balance sheets, although policy actions by the ECB have alleviated that risk, at least for the time being.

While the immediate funding pressures on euro area banks have eased, some still need to improve their funding structures and capital positions, and are responding by continuing to shrink their balance sheets. This process is having adverse spillovers on some emerging market countries where euro area banks are active. The effects have been less apparent in Asia, given that the euro area banks have a relatively small presence there and the local banking systems are in reasonably good shape.

Countries outside the euro area remain susceptible to developments in Europe, and some are also dealing with their own financial sector vulnerabilities. In particular, property markets remain weak and levels of non-performing loans elevated in some large advanced countries, including the United States. In Asia, credit and asset prices have been growing strongly in a few countries over recent years, prompting authorities to tighten prudential policies. While non-performing loans are currently at low levels across the region, a decline in asset prices or significant slowing in economic activity could expose credit quality problems.

The Australian banking system remains in a relatively strong condition. The larger banks are in a better position than a few years ago to cope with the tighter funding conditions given the improvements they have made to their funding, liquidity and capital positions over recent years. Their wholesale funding task is also more manageable, with deposit growth continuing to outpace growth in credit by a wide margin. The improved conditions in global bank funding markets this year have enabled the larger banks to significantly step up their bond issuance, including through their newly established covered bond programs. Bond spreads remain wider than in the middle of last year, though, which has resulted in some loan repricing recently.

Banks' non-performing asset levels have come down a little recently, but remain higher than they were a few years ago, particularly for business loans. The overall loan impairment rate is still well below the levels seen in the early 1990s, and also below those currently experienced in many other developed economies. Exposures to the euro area, particularly to the countries experiencing the greatest financial stress, remain very low. The large banks have continued to record robust profits, generating returns on equity that have been broadly in line with long-run averages. However, the slow credit growth environment could constrain the pace of their future profit growth. It would therefore be unhelpful if banks were to chase unrealistic profit expectations by taking on more risk – through lowering credit standards or expanding too quickly into new or unfamiliar markets – or by pursuing cost cutting in a way that weakens their risk management capabilities.

The general insurance industry in Australia has coped well with the difficult underwriting and investment conditions of the past year and a half. While industry profits have been subdued recently, the industry remains well capitalised and backed by robust reinsurance arrangements.

The household sector has continued to show a more cautious approach towards its finances in recent years, which is helping to improve its resilience to possible shocks. The household saving rate has averaged around 9½ per cent; there has been a shift towards more conservative investment allocations; and many households are choosing to repay their debt more quickly than required. Part of the motivation for a higher saving rate may have been a desire to bolster wealth, given the weakness in some asset markets in recent years. Growth in household income has exceeded growth in debt for the past few years. This has also been helping to underpin households' debt-servicing capacity. Accordingly, aggregate measures of household financial stress remain low, though mortgage arrears rates are still somewhat higher than a few years ago.

Conditions continue to vary significantly across the business sector: the mining and related sectors are benefiting from the resources boom, while the retail, manufacturing, construction and tourism sectors are facing headwinds from subdued retail spending and the high exchange rate. These divergent experiences help explain why banks' non-performing business loans and business failure rates are somewhat higher than average. Overall, though, the business sector is in a better financial position than it was several years ago, having delevered considerably and improved its liquidity position. Though business credit has picked up a little recently, overall demand for external funding remains subdued. The parts of the business sector where investment has been strongest, such as mining, have also experienced the greatest increases in profitability in recent years, which has allowed them to finance a larger part of their investment from internal sources. The commercial property market, traditionally a source of vulnerability for banks, has continued to improve after the recent downturn, although construction activity is still muted and financing activity weak.

The international regulatory reform effort has continued over the past six months. Agreement was recently reached on an integrated policy framework to address the risks posed by systemically important financial institutions (SIFIs), with the focus initially being on the large global banks. The framework includes higher capital requirements for these banks as well as improved resolution regimes. Work is underway to extend this framework to other SIFIs, including banks that are systemically important in a domestic context. There has also been progress over the past six months on a number of other international regulatory initiatives, including the move towards central clearing of over-the-counter (OTC) derivatives and strengthening the oversight and regulation of shadow banks. Australia continues to be an active participant in the international discussions that are shaping these various reforms.

Domestically, the Australian Prudential Regulation Authority has been engaged with authorised deposit-taking institutions on the implementation of the Basel III capital and liquidity reforms, which will be phased in over the coming years. The Reserve Bank recently published details of the Committed Liquidity Facility that it will provide as part of Australia's implementation of the liquidity reforms. The Council of Financial Regulators has been reviewing aspects of the domestic regulatory arrangements for financial market infrastructures and OTC derivatives. Australia will this year be undergoing an independent review by the International Monetary Fund under its Financial Sector Assessment Program, which will involve a comprehensive assessment of the stability of the financial system and the quality of the financial supervisory and crisis management arrangements. ❖

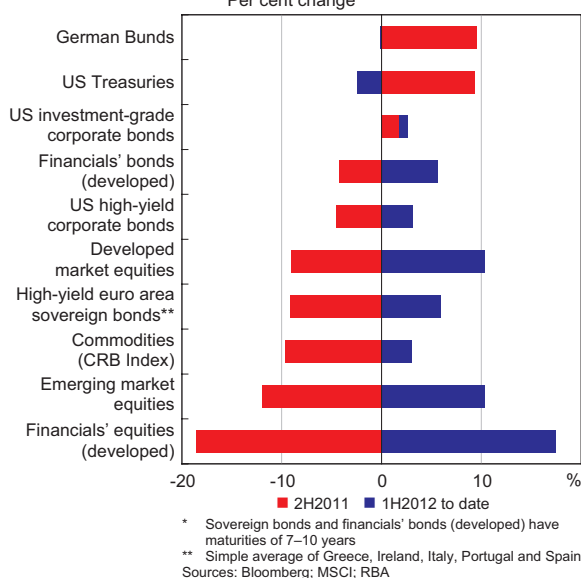


# 1. The Global Financial Environment

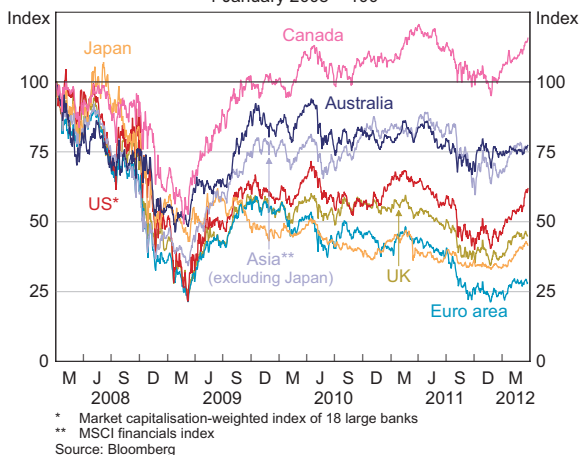
Conditions facing the global financial system deteriorated in the second half of 2011 associated with the escalation of the sovereign debt crisis in the euro area. Banks in the euro area came under severe funding strain, compounding the difficulties they were facing from weaker economic activity in the region; this raised the risk of an adverse feedback loop between the economy and financial system. These problems triggered a period of heightened risk aversion and volatility in global financial markets, with the prices of risk assets in a range of markets falling sharply over the second half of 2011 (Graph 1.1). Bank funding conditions outside the euro area tightened, and bank share prices declined as markets became increasingly concerned about the implications of a European crisis for the global financial system (Graph 1.2).

Since late December, there has been a notable turnaround in global financial market sentiment reflecting actions taken by the European Central Bank (ECB) to support euro area bank liquidity and other policy steps to address the sovereign debt problems in the region. The improvement has been evident in a return of global risk appetite; bank funding pressures have eased somewhat; and bank share prices in most major markets have recovered much of the decline they recorded in the second half of 2011. Even though market confidence has improved, risks to global financial stability remain: financial systems are susceptible to any further setbacks in dealing with the sovereign debt problems in Europe, and the near-term outlook for growth in the major advanced countries is subdued, which could affect the outlook for banks' asset quality and profitability. Overall, though, the major banking systems should

**Graph 1.1**  
**Asset Prices\***  
Per cent change



**Graph 1.2**  
**Banks' Share Prices**  
1 January 2008 = 100



be better positioned than they were before the 2008–2009 crisis to deal with periods of renewed stress, given the strengthening of many large banks' capital and funding positions over recent years.

### Sovereign Debt Problems in Europe

Market concerns about sovereign debt sustainability in the euro area spread to a wider range of countries over the second half of 2011. The focus was initially on the larger economies of Italy and Spain; yields on these sovereigns' bonds increased sharply during July and August, prompting the ECB to extend its sovereign debt purchase program to these bonds (Graph 1.3). Yields subsequently rose markedly across a broader range of euro area sovereigns (including France) as markets became increasingly pessimistic about the European authorities' ability to deal with the growing crisis. Political instability in several euro area countries and speculation that some countries might leave the euro area contributed to the market uncertainty. Euro area bank funding markets became impaired, raising fears of a banking crisis in the region that would be difficult to resolve given the precarious fiscal positions in some countries (see section on 'Bank Funding Conditions and Markets'). Yields also increased on sovereign bonds of some countries in emerging Europe, consistent with the strong financial and economic connections between these regions.

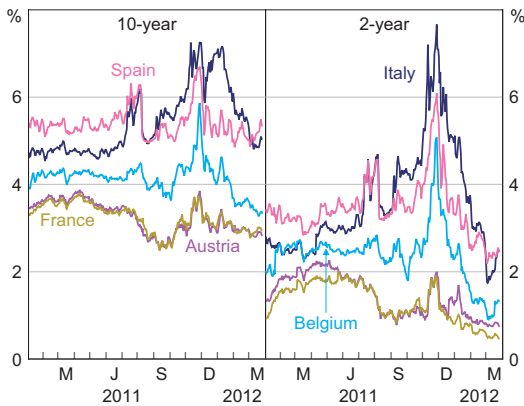
European policymakers announced several measures in late 2011 to address the escalating sovereign debt crisis. These included: a new fiscal treaty covering nearly all European Union (EU) countries, with enforceable rules and penalties; strengthening regional assistance by accelerating the introduction of the permanent European Stability Mechanism and the leveraging of the European Financial Stability Facility (EFSF); and additional funding of potential assistance via the International Monetary Fund (IMF). At the national level, a number of countries announced further fiscal consolidation measures, including Italy, Portugal and Spain. EU authorities also initiated several policies to buttress confidence in banking systems, given the interlinkages between sovereign and bank balance sheets. As discussed further below, these included the ECB's provision of three-year loans to banks, and higher capital requirements for larger European banks.

Sentiment in euro area sovereign debt markets has improved considerably since the end of 2011. The ECB's long-term lending seems to have been the main circuit-breaker, although sentiment has also been buoyed by the gradual steps to address fiscal issues. Banks, particularly Italian and Spanish banks, appear to have invested some of their ECB borrowing in euro area sovereign debt. Yields on Italian and Spanish 2-year government bonds have declined by about 4 and 2½ percentage points, respectively, since mid December. Market confidence in Italian sovereign debt has also been boosted by the fiscal and structural reforms recently announced by the new government in Italy. Despite these positive developments, policy measures still need to be successfully implemented and further action may be required to put some countries on a sustainable fiscal path.

There has also been progress in dealing with Greece's sovereign debt problems, which have been creating market uncertainty for some time. In early March, the Greek Government reached agreement with private sector creditors to restructure their holdings of Greek government debt, cutting its private debt

**Graph 1.3**

**Euro Area Government Bond Yields**



Source: Bloomberg



by about €100 billion. Almost 85 per cent of private sector creditors participated in a voluntary exchange of their Greek government bonds for short-term EFSF notes and new long-term Greek government bonds – measures which equate to a loss to these investors of more than 70 per cent in net present value terms. Most other private sector creditors were forced to accept losses after the Greek Government activated collective action clauses that allowed it to force losses on all private sector creditors once a required majority of creditors had accepted the bond exchange. Following the restructuring and other initiatives, the EU and IMF have agreed to make further disbursements to Greece under its assistance programs, conditional on the outcomes of quarterly reviews of Greece’s adherence to the programs’ terms.

The Greek debt restructuring, together with the substantial fiscal consolidation measures being taken by the Greek Government, have significantly reduced Greece’s future debt-service burden. Its stock of government debt is projected to fall to around 120 per cent of GDP by 2020, from 165 per cent in 2011. However, the debt-service burden remains high; it will be a challenge to keep Greek government finances on a sustainable path, given that the Greek economy is contracting sharply.

The relevant industry association, the International Swaps and Derivatives Association, ruled that the activation of collective action clauses constituted a ‘credit event’ for credit default swaps (CDS) referencing Greek sovereign debt. The CDS payout rate was determined by auction to be 78.5 per cent. The total net notional value of CDS referencing Greek sovereign debt was US\$3.1 billion at the time of the auction.

### Bank Funding Conditions and Markets

Bank funding difficulties in the euro area were initially centred on banks in the most troubled euro area countries – Greece, Ireland and Portugal.

But as market attention shifted to a broader range of countries, particularly Italy and Spain, funding pressures spread to the wider euro area banking system. Short-term bank funding markets became increasingly strained, with euro unsecured interbank borrowing spreads widening by about 60 basis points between August and November 2011, to the highest levels since early 2009 (Graph 1.4). The cost of swapping euros into US dollars in the foreign exchange market also increased considerably, in part because US money market funds, which are significant providers of short-term US dollar liquidity to euro area banks, cut their exposures to the region. While these funds had already all but stopped lending to banks in the more troubled euro area countries, they also reduced, and shortened the maturity of, their lending to French banks during the second half of 2011 (Graph 1.5). Outflows of private sector deposits contributed to the funding pressures of banks in a few countries.

Term funding markets were also disrupted. Euro area bank bond yields rose sharply in the second half of 2011, particularly for lower-rated issuers (Graph 1.6). Premia on CDS contracts referencing large euro area banks’ long-term debt increased to levels well above their previous peaks recorded during the 2008–2009 crisis. As a result, bank bond issuance in the euro area declined noticeably in the second half

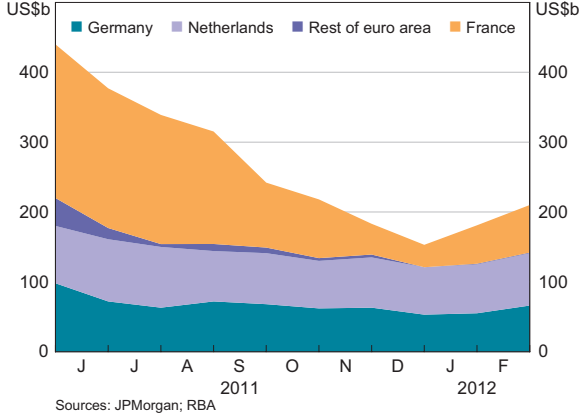
**Graph 1.4**  
**Euro Unsecured Interbank Borrowing Spread**  
 To overnight indexed swaps, 3-month maturity



**Graph 1.5**

**US Prime Money Market Funds**

Estimated value of euro area bank exposures, by country



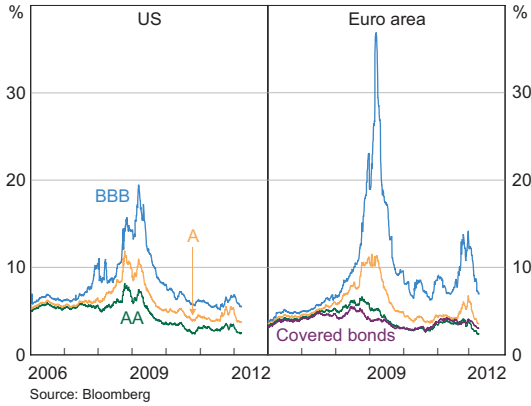
Sources: JPMorgan; RBA

had received a sizeable government capital injection and guarantees as part of a 2008 rescue.

The recent funding pressures of euro area banks were exacerbated by widespread downgrades to their credit ratings (Graph 1.8). The downgrades were partly in response to downgrades of their home countries' sovereign credit rating, as well as deteriorating financial and economic conditions in their core markets. Many banks in the most troubled euro area countries have now had their ratings downgraded to non-investment grade status, contributing to their funding difficulties. Globally, recent bank credit ratings downgrades have also

**Graph 1.6**

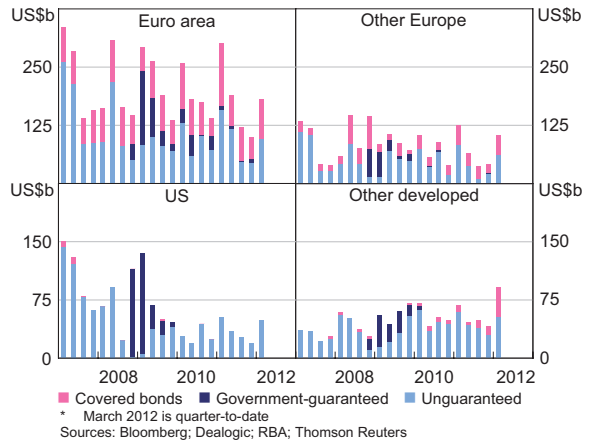
**Banks' Bond Yields**



Source: Bloomberg

**Graph 1.7**

**Banks' Bond Issuance\***

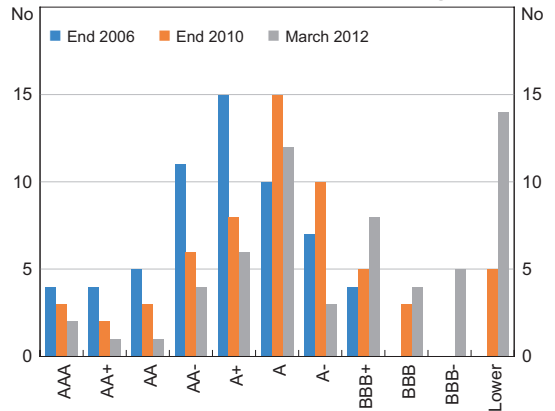


\* March 2012 is quarter-to-date  
Sources: Bloomberg; Dealogic; RBA; Thomson Reuters

of 2011, to about one-half the average level seen over the previous two years; unsecured issuance was particularly low (Graph 1.7). Some euro area banks were effectively shut out of the bond market for a few months towards the end of the year, which increased their near-term refinancing risks. Around €250 billion of euro area bank bonds were due to mature in the first quarter of 2012, or 9 per cent of the outstanding stock, of which nearly 30 per cent were government guaranteed. The Belgian-French bank Dexia, the 13th largest bank in the euro area, became distressed due to its reliance on wholesale funding. The Belgian, French and Luxembourg governments announced a plan to break up and nationalise the bank in late 2011, less than three years after the bank

**Graph 1.8**

**Euro Area Banks' Credit Ratings\***



\* Fixed sample of 60 large institutions from across the euro area; predominantly Standard & Poor's local long-term ratings, unless unrated, then Moody's senior unsecured  
Sources: Moody's; RBA; Standard & Poor's

reflected a number of technical factors, including: lower perceived sovereign support of banks (for example, in the United Kingdom); and changes to Standard & Poor's bank rating methodology.

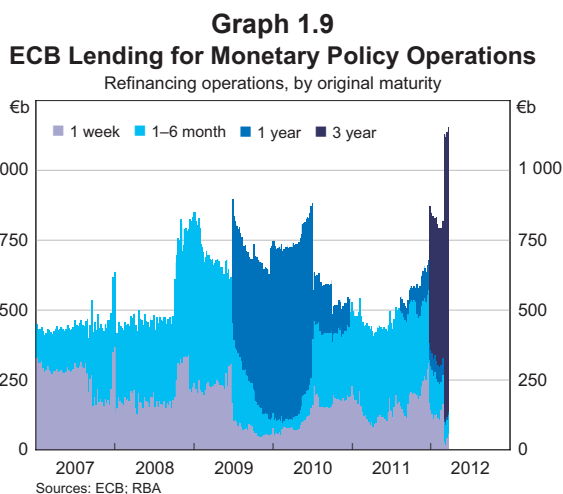
The ECB responded to the funding difficulties in the euro area banking system by conducting two special long-term liquidity operations, one in mid December 2011 and one in late February 2012. These operations allowed banks to take three-year collateralised (but otherwise unlimited) loans at the ECB's policy rate; previously ECB loans had only been available at maturities of one year or less. At its December operation, the ECB provided nearly €490 billion to more than 500 banks, of which around €190 billion was new lending (the difference was loans maturing or rolled into three-year loans) (Graph 1.9). Lending to banks located in Italy increased particularly sharply, while significant increases were also recorded for banks in Belgium, France, Germany and Spain. There was further strong take-up of the ECB's second operation in February: nearly €530 billion was provided to 800 banks, with net new lending amounting to €314 billion. Taken together, these operations have left banks in the region well placed to fund their aggregate bond maturities for at least the first half of the year. The ECB and some national central banks also introduced other measures that improved access to liquidity, including broadening the range of eligible collateral for liquidity operations,

and halving banks' required reserves ratio. The reintroduction of a government guarantee of bank debt securities in Italy in December allowed Italian banks to issue guaranteed bonds to themselves that were acceptable collateral at the ECB. In early December, the major central banks reduced the cost of the US dollar swap facility they provide to banks, which helped ease US dollar funding pressures.

Market sentiment and funding conditions have improved significantly since the ECB's first three-year loan operation. The operation effectively addressed the near-term refinancing needs of many banks and helped quell fears of a euro area banking crisis. Accordingly, CDS premia for large euro area banks have since declined considerably and bank share prices have increased. Short-term funding costs have retraced much of their run-up since mid 2011, although some banks are still reluctant to lend to other banks on an unsecured basis except at very short maturities. Bank bond yields have also declined and issuance has picked up in the early part of this year, although mainly for higher-rated banks. However, it is not clear if banks that have borrowed heavily from the ECB can transition smoothly back to market-based funding over the next few years.

Bank funding markets tightened in other countries over the latter part of 2011, although less so than in the euro area. Short-term unsecured borrowing spreads increased in the United States and the United Kingdom, for example, while banks' long-term wholesale funding costs also rose in a number of markets. As in the euro area, bond issuance by banks elsewhere slowed in the second half of 2011, but has since picked up as yields have eased.

In the past year, bank bond issuance has been more heavily weighted towards covered bonds than usual: across the major banking systems, covered bonds have accounted for about 35 per cent of issuance since 2011, compared with an average of about 25 per cent over 2007–2010. This shift has been encouraged by investor risk aversion and regulatory incentives. While covered bonds have been providing banks with a cheaper source of funding



in the current environment, they encumber assets, leaving unsecured creditors worse off. This could result in higher unsecured funding costs for banks at some point in the future. Asset encumbrance is a particular issue in Europe, where covered bonds represent a larger share of banks' balance sheets, and where collateralised borrowing in short-term funding markets and from the ECB is contributing to greater asset encumbrance. Some investors and regulators have become concerned that overall levels of encumbrance are not being adequately disclosed.

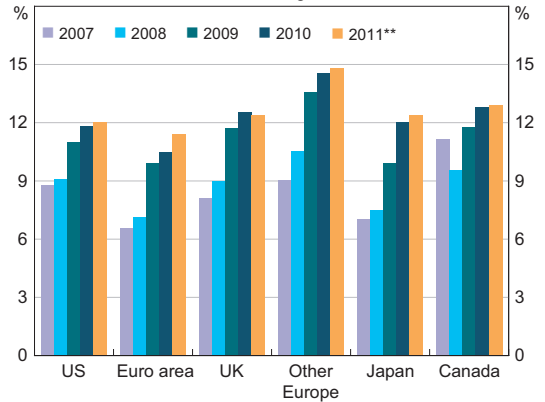
### Bank Capital Positions and Deleveraging

Bank capital positions have been strengthened substantially since 2008, improving the resilience of the major banking systems compared with their pre-crisis standing (Graph 1.10). Higher bank capital ratios over this period have primarily reflected increases in the level of Tier 1 capital, but assets and/or average risk weights have also declined, as banks adjusted to more appropriate post-crisis business models and tougher regulatory settings (Graph 1.11). Although this deleveraging process has been underway at many banks since the crisis, recent funding and capital pressures raised concerns of a more disorderly adjustment in the euro area.

In response to both sovereign debt exposures and weak economic outlooks, bank regulators in a number of the most troubled euro area countries (including Greece, Ireland, Portugal and Spain) introduced higher minimum capital requirements for their banks in late 2010 and early 2011. But pressures to strengthen capital buffers across the broader euro area banking system increased in the second half of 2011 as the sovereign debt problems spread.

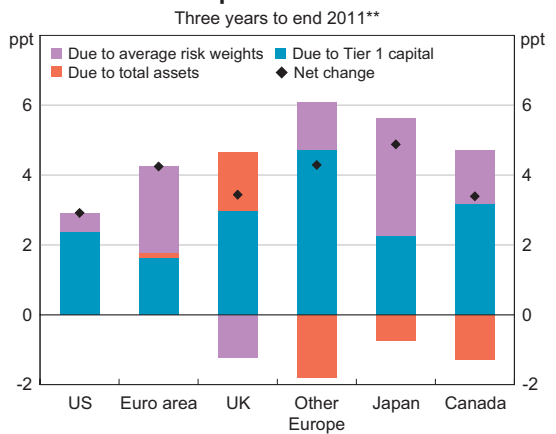
The European Banking Authority (EBA) announced in October that 65 large EU banks (accounting for about 60 per cent of EU bank assets) would be required to meet a temporary 9 per cent core Tier 1 capital ratio by June 2012, as well as a temporary buffer to allow for valuation losses on their EU

**Graph 1.10**  
**Large Banks' Tier 1 Capital\***  
Per cent of risk-weighted assets



\* Tier 1 capital ratios across banking systems are subject to definitional differences; includes the weighted average of: 19 large US banks, 52 large institutions from across the euro area, the five largest UK banks, 13 large other European banks, the three largest Japanese banks and the six largest Canadian banks  
\*\* End September 2011 data used for euro area institutions where end 2011 data are unavailable  
Sources: Bloomberg; CEBS; EBA; FDIC; RBA; banks' annual and interim reports

**Graph 1.11**  
**Change in Large Banks' Tier 1 Capital Ratios\***  
Three years to end 2011\*\*



\* 19 large US banks, 52 large institutions from across the euro area, the five largest UK banks, 13 large other European banks, the three largest Japanese banks and the six largest Canadian banks  
\*\* End September 2011 data used for euro area institutions where end 2011 data are unavailable  
Sources: Bloomberg; EBA; FDIC; RBA; banks' annual and interim reports

sovereign debt exposures.<sup>1</sup> In December, the EBA identified 31 banks with capital shortfalls, totalling

<sup>1</sup> The temporary 9 per cent core Tier 1 capital ratio for large EU banks compares with the 7 per cent common equity Tier 1 capital ratio (including conservation buffer) required by 2019 under Basel III. Core Tier 1 capital in the EBA plan uses the Basel II definition of high-quality capital, which is less strict than the forthcoming Basel III definition.

€85 billion, including €40 billion for the sovereign exposures buffer (Table 1.1). (Greek banks were not directly included in the EBA plan because the EU/IMF assistance package for Greece had already set aside funds to recapitalise these banks.) Spanish, Italian and German banks were found to have the largest

aggregate capital shortfall, while participating banks outside the euro area had little or none.

With bank share prices still depressed, issuing new capital is expensive. The EBA's capitalisation targets therefore fuelled concerns that banks would seek to meet the targets through asset sales and reduced

**Table 1.1: EU Banks' Capital Requirements**  
By country, as at September 2011

	Aggregate core Tier 1 capital	Capital shortfall <sup>(a)</sup>		Of which: sovereign buffer
	Per cent of risk-weighted assets	€ billion	Per cent of risk-weighted assets	€ billion
Austria	7.5	3.9	1.5	0.1
Belgium	8.8	6.3	2.7	4.8
Cyprus	7.0	3.5	6.5	2.5
Denmark	13.7	0.0	0.0	0.0
Germany	9.0	13.1	1.0	7.6
Finland	11.1	0.0	0.0	0.0
France	8.9	7.3	0.4	3.5
Hungary	12.5	0.0	0.0	0.0
Ireland	17.5	0.0	0.0	0.8
Italy	8.5	15.4	1.4	9.7
Luxembourg	13.8	0.0	0.0	0.0
Malta	10.5	0.0	0.0	0.0
Netherlands	10.5	0.2	0.0	0.2
Norway <sup>(b)</sup>	7.8	1.5	1.2	0.0
Poland	11.2	0.0	0.0	0.0
Portugal	7.6	6.9	3.0	3.7
Slovenia	7.5	0.3	1.7	0.0
Spain	7.5	26.2	1.9	6.6
Sweden	12.4	0.0	0.0	0.0
United Kingdom	10.1	0.0	0.0	0.0
<b>Total</b>	<b>9.4</b>	<b>84.7</b>	<b>0.8</b>	<b>39.4</b>
Memo item:				
<i>Greece<sup>(c)</sup></i>	<i>na</i>	<i>~50.0</i>	<i>na</i>	<i>na</i>

(a) Capital required to meet a 9 per cent core Tier 1 capital ratio, as well as a buffer for valuation losses on EU sovereign exposures at end September 2011; these requirements must be met by June 2012; the sovereign buffer does not contribute to the capital shortfall if banks have capital above the 9 per cent core Tier 1 capital ratio, after accounting for losses on sovereign exposures (e.g. the Irish banking system)

(b) Norway is not part of the EU, but one Norwegian bank participated because it has significant exposures in some EU countries

(c) Based on IMF estimates of Greek banks' recapitalisation needs as at March 2012

Sources: EBA; IMF

lending, particularly given the ongoing funding pressures they faced. While sales of assets by banks need not be harmful to financial stability, especially if the assets are bought by investors who are better able to fund them, the fear was that forced asset sales and lending cuts could destabilise financial markets and weaken economic activity. To alleviate these concerns, the EBA directed national bank supervisors to accept asset sales as part of banks' capital plans only if they did not reduce the flow of lending to the EU real economy.

The EBA's preliminary assessment of the banks' capital plans in February indicated that the banks had identified actions that would give an aggregate capital surplus of 26 per cent above the identified shortfall, providing leeway in case some actions did not materialise (Graph 1.12). The bulk of the actions were direct capital measures, mainly retained earnings and conversion of hybrids to common equity. Asset sales and other balance sheet adjustments accounted for only a small part of the recapitalisation.

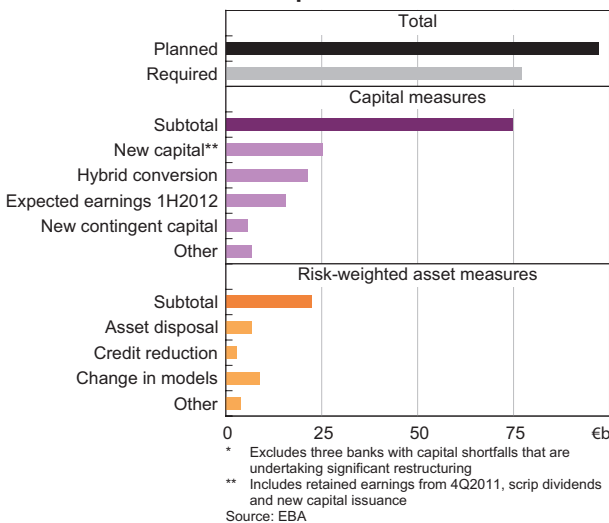
While these capital plans and recent actions helped allay market fears of significant asset shedding by banks with capital shortfalls, some euro area banks continue to sell assets as part of their longer-term

strategies. For instance, some French, German and Spanish banks have sold high-risk or US dollar assets, or divested some foreign operations, to refocus on their core activities or reduce their need for US dollar funding. In addition, some large UK and Swiss banks are continuing to contract and/or de-risk their balance sheets in order to meet upcoming tough domestic capital rules or the expectations of public sector shareholders. Asset sales are also scheduled for a number of banks that are in the process of being restructured or wound down, including Dexia. Industry estimates of overall asset disposals by European banks over the coming years range from €0.5 to €3 trillion, or about 1–7 per cent of European banks' assets.

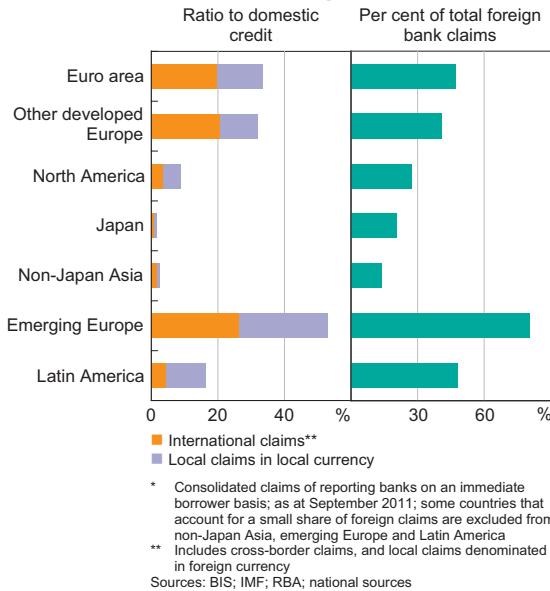
A significant amount of asset shedding seems to have been in advanced country markets, but there have also been concerns about the impact on those emerging market regions where European banks have a large presence. Emerging Europe would appear to be the most vulnerable given that euro area banks dominate many banking systems in this region; they also have significant market shares in some parts of Latin America (Graph 1.13). These concerns spurred European and other multilateral authorities recently to reconvene discussions with national authorities and the major cross-border banks under the European Bank Coordination 'Vienna' Initiative, established during the 2008–2009 financial crisis. These discussions are also aimed at the longer-term objective of increasing the share of credit that is funded locally in some emerging European banking systems, which should improve these economies' resilience to foreign funding and capital shocks.

Euro area banks' claims on emerging market regions declined by about 8 per cent over the September quarter 2011 (the latest available data), reflecting falls in lending to non-Japan Asia, emerging Europe and Latin America. New syndicated and large bilateral loans from European banks to emerging market borrowers fell noticeably in the December quarter, pointing to a further decline in euro area banks'

**Graph 1.12**  
**EU Banks' Recapitalisation Plans\***



**Graph 1.13**  
**Euro Area Banks' Foreign Claims on Selected Regions\***



outstanding lending. But these declines could partly reflect lower demand: syndicated loan approvals in non-Japan Asia, for example, fell sharply in the December quarter across banks from all regions (see Graph 1.22).

Outside of the euro area, increases in banks' capital positions over the past year were generally modest compared with those in 2009 and 2010. Banks largely built up their capital positions by retaining earnings, supported by dividend payout ratios that are still below pre-crisis levels. Capital ratios in the major banking systems also continued to benefit from slow growth in risk-weighted assets, reflecting subdued credit growth and some deliberate asset shedding. Some large banks in the United States have announced plans to distribute additional capital to shareholders in 2012, mainly via increases in their dividends or share buybacks. The US Federal Reserve approved most large US banks' capital plans after they remained above required minimum capital ratios under adverse scenarios included in its latest round of supervisory stress tests.

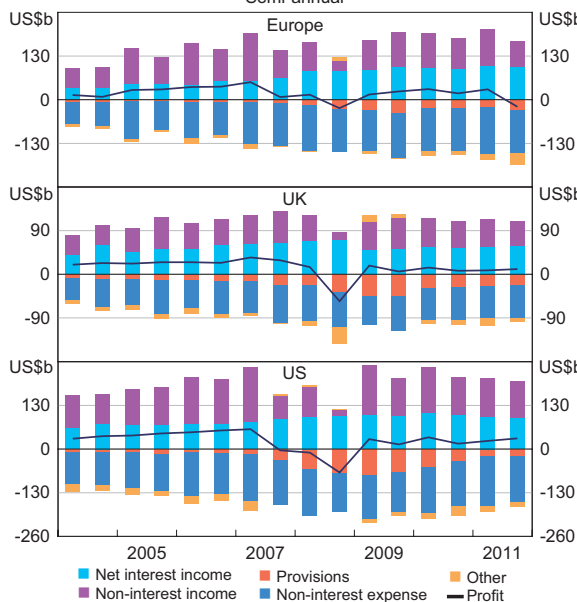
Although bank capital positions in the major advanced countries have increased significantly over the past few years, many banks will need to further strengthen their capitalisation to meet the tougher regulatory standards being phased in over coming years. Some banks will need to increase their common equity positions to meet Basel III requirements, and in some cases, the extra capital buffers that are to apply to global systemically important banks (see 'Box C: Global Systemically Important Banks'). As discussed in the chapter on 'Developments in the Financial System Architecture', large banks in some jurisdictions will also be required to hold additional capital and meet other requirements if they are deemed systemically important to the domestic financial system.

## Bank Profitability

The profitability of the large banks in Europe, the United Kingdom and the United States generally declined in the second half of 2011. Banks' non-interest income fell significantly as market uncertainty and volatility reduced the demand for investment banking services and resulted in trading book losses, especially at euro area banks (Graph 1.14). With credit growth remaining weak and higher funding costs weighing on net interest margins, most of these banks also recorded little or no growth in their net interest income. A number of the large banks in Europe recorded sizeable asset write-downs, including from reductions in goodwill and further impairments on their holdings of Greek sovereign bonds. Some of the large US banks continued to incur sizeable charges related to previous poor mortgage practices.

Most banks' loan-loss provisions were broadly steady in the second half of 2011 (excluding provisions for Greek debt), in contrast to the previous two years, when sharp declines in provisions had supported their profit growth. The main exception to this was in Spain, where further weakness in the property market required additional provisions. To address vulnerabilities related to property development

**Graph 1.14**  
**Large Banks' Profit\***  
Semi-annual

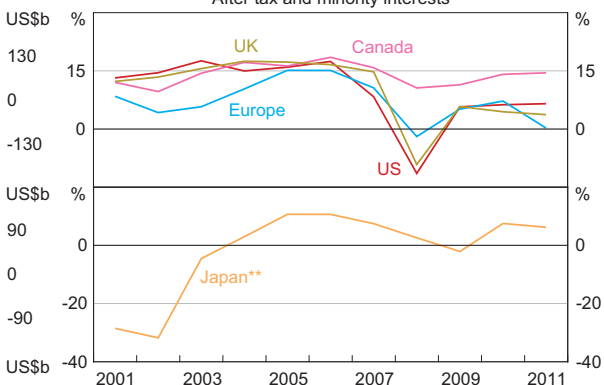


\* Profits of the six largest US banks, 10 largest listed European banks (including Switzerland) and five largest UK banks; adjusted for significant mergers and acquisitions; 2011 profit is annualised for one European bank  
Sources: Bloomberg; RBA; banks' annual and interim reports

exposures, the Spanish authorities have required their banks to raise an additional €50 billion in provisions in 2012, on top of the €100 billion or so these banks have raised since early 2008.

The combination of modest profits and higher capitalisation meant that returns on equity for the major banking systems were subdued in 2011. European banks' average returns were only slightly positive, while returns for large banks in the United Kingdom and the United States averaged between 4 and 7 per cent, similar to the rates recorded in 2009 and 2010 but well below those seen in the pre-crisis period (Graph 1.15). Even outside the euro area, a number of the large banks have responded to low profitability by selling underperforming business units and cutting costs, such as by reducing staff numbers. Cutbacks have been most pronounced in investment banking, given recent weak returns and tougher regulation for some of these activities.

**Graph 1.15**  
**Large Banks' Return on Equity\***  
After tax and minority interests



\* Return on equity of the six largest US banks, 10 largest listed European banks (including Switzerland), five largest UK banks, four largest Japanese banks and six largest Canadian banks; adjusted for significant mergers and acquisitions; 2011 profit is annualised and total equity is assumed constant from last reporting date for one European bank  
\*\* 2001–2007 results are to fiscal year ended 31 March  
Sources: Bloomberg; RBA; banks' annual and interim reports

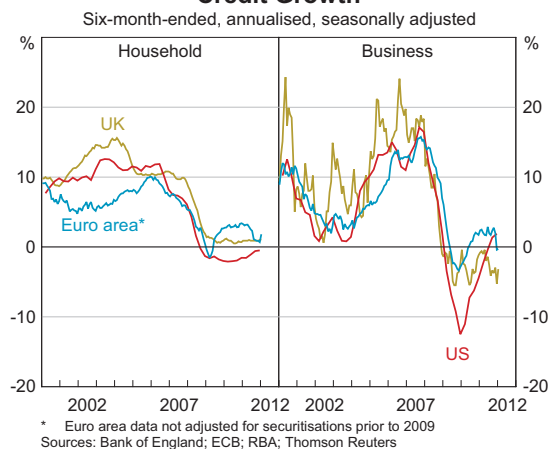
Compared with most of their international peers, the large Canadian banks posted a higher average return on equity of 14 per cent in 2011. Their relatively strong balance sheets have allowed them to make a number of acquisitions and overseas expansions during the past year. Japanese banks are also looking to expand offshore as they seek to boost their returns above what they can achieve domestically.

## Credit Conditions and Asset Quality

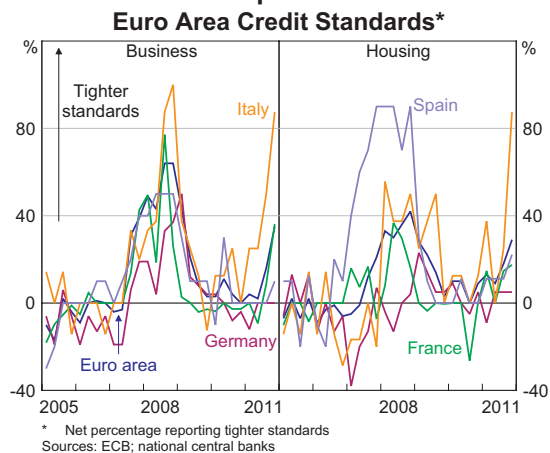
In the euro area, the pressures on banks' balance sheets were associated with a noticeable slowing in region-wide credit growth towards the end of 2011, and sharp falls in credit in southern euro area countries and Ireland (Graph 1.16). Lending surveys showed a marked increase in the balance of euro area lenders tightening their standards on household and business loans in the September and December quarters of 2011, which points to supply-side factors as being important to this slowing (Graph 1.17). The tightening was particularly pronounced in Italy, but it was evident across a number of large euro area countries, with the notable exception of Germany. It should be noted, however, that these survey results predate the impact of the ECB's December and February three-year lending operations.



**Graph 1.16**  
**Credit Growth**



**Graph 1.17**



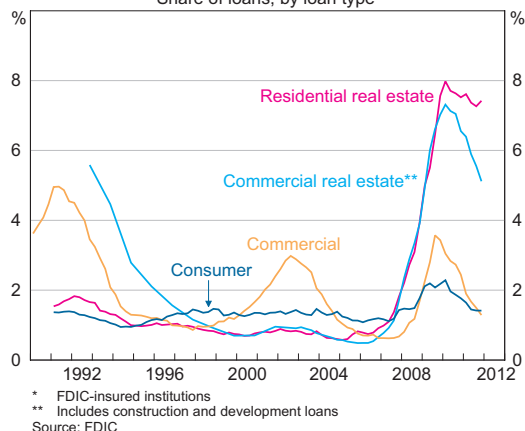
The constraints on euro area banks' balance sheets and capital positions pose a risk that they will further inhibit credit supply. The euro area economy is fairly reliant on bank credit; large businesses issue relatively little non-intermediated debt and, as elsewhere, households and small businesses do not have access to debt capital markets at all. A reduction in bank credit supply would therefore exacerbate the recent downturn in economic activity in the region, in turn weakening banks' own asset performance and financial positions. However, the ECB's recent long-term lending has ensured that a lack of funding does not act as a constraint on euro area banks'

capacity to lend, which may improve credit supply in the region in the period ahead.

Credit growth also remains weak in the United Kingdom and the United States, but this seems to be mainly due to soft demand. In particular, the level of household credit has been falling in the United States, consistent with difficult housing market conditions and high household debt burdens. Business credit has also declined over the past six months in the United Kingdom, as businesses have continued to repay debt and net bond issuance has picked up. However, authorities continue to be concerned about the availability of credit for small businesses. After a prolonged period of contraction, business credit expanded modestly in the United States over the second half of 2011, consistent with the pick-up in business investment. Loan standards reported by banks in these two countries have been broadly unchanged over the past six months, although they have tightened on some product lines, such as US banks' loans to businesses exposed to Europe and to banks headquartered in Europe.

Persistent concerns over asset quality are continuing to weigh on the outlook for banks in the major markets. While provisions for loan losses have generally declined from crisis peaks, they remain above historical levels, consistent with elevated non-performing loan ratios. Property-related exposures remain a key vulnerability, especially in the United States: many banks there are still dealing with a large overhang of non-performing commercial and residential real estate loans, which continue to contribute to bank failures (Graph 1.18). Around 100 small Federal Deposit Insurance Corporation (FDIC) insured institutions have failed since the start of 2011; although this is only about 1 per cent of all US FDIC-insured institutions, more than 10 per cent of institutions are still considered vulnerable by the FDIC, slightly above the 1990s peak. Non-performing ratios for commercial and consumer loans in the United States have declined to around their long-run average levels, consistent with the recovery in parts of the United States economy not exposed to real estate.

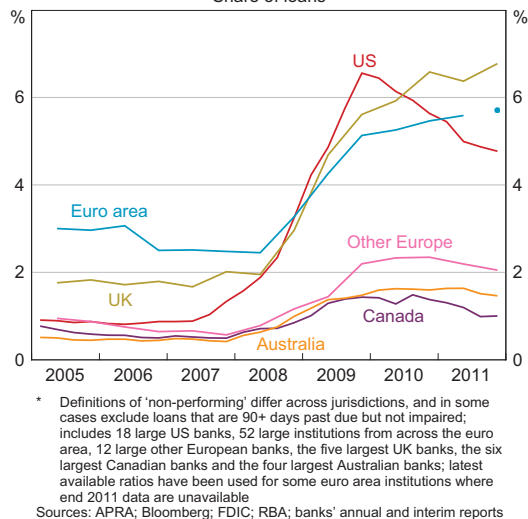
**Graph 1.18**  
**US Non-performing Loans\***  
 Share of loans, by loan type



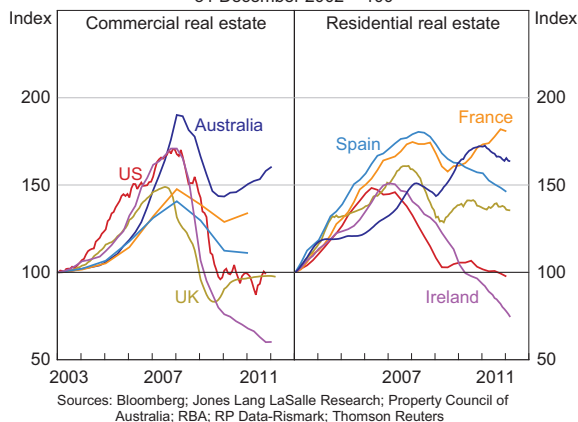
In the euro area and the United Kingdom, large banks' non-performing loan ratios have continued to drift up over the past few years (Graph 1.19). The available nationwide data indicate that these ratios have recently increased further in Ireland and Spain, countries that experienced particularly large booms and busts in property development. Banks' asset performance could come under further pressure in those euro area countries where economic and financial conditions have deteriorated significantly of late, and where substantial fiscal tightening is underway.

Many commercial and residential property loan exposures are still likely to be in negative equity, as property prices remain well below their peaks in most advanced countries (Graph 1.20). Indeed, in a number of countries, property prices have not yet begun to show any significant recovery. A large inventory of properties that are in protracted areas or in foreclosure continue to weigh on housing market prospects in the United States. Banks in some countries have been forbearing on problem property (and other) loans, via measures such as extending loan maturities and converting loans to interest-only terms. While these actions may have helped some borrowers to cope with temporary financial difficulty and avoided the need for lenders to sell assets into already depressed markets, they may increase the

**Graph 1.19**  
**Large Banks' Non-performing Loans\***  
 Share of loans



**Graph 1.20**  
**Property Price Indicators**  
 31 December 2002 = 100



need for provisions against losses in the event that economic and property market conditions turn out weaker than expected.

## Banking Systems in the Asian Region

Financial markets in the Asian region were affected by the deepening of the euro area sovereign debt crisis late last year. The increase in risk aversion saw large net outflows from emerging Asian equity

funds, which contributed to falls in equity prices and currency depreciations across the region. These movements have been partially reversed this year as capital has flowed back into the region. Given their domestic focus, Asian banking systems have little direct asset exposure to euro area countries and their relatively low reliance on wholesale funding sources also partly insulated them from the funding market strains that developed late last year. However, the global tightening in US dollar liquidity did make it more costly for some banks to obtain US dollar funding in the foreign currency swap market.

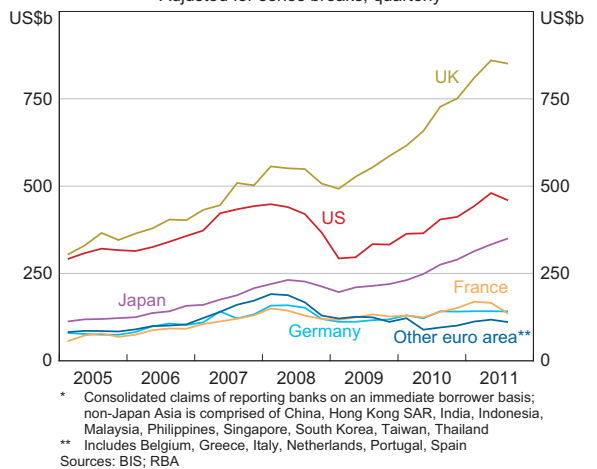
The pressures on euro area banks have seen some of them scale back their lending in the Asian region. In aggregate, euro area banks reduced their claims on non-Japan Asia by about 9 per cent over the September quarter 2011 (the latest available data). The decline was driven by a fall in lending by French banks; more recent reports suggest that some of these banks have sold portions of their Asian syndicated loan portfolios (Graph 1.21).

While euro area banks' total claims on non-Japan Asia are still relatively small – equivalent to less than 5 per cent of domestic credit in the region – some euro area banks are bigger players in trade finance and other specialised lending areas such as aircraft, shipping and project financing, on which some Asian economies are more reliant. These types of lending may be particularly susceptible to pullback by euro area banks as they are mainly denominated in US dollars. A recent IMF survey suggests that supply of trade finance tightened in Asia and globally over late 2011. A significant disruption to trade finance could have an adverse effect on trade flows and economic activity in the Asian region, particularly the more export-oriented economies of south-east Asia. It is not clear if other banks can pick up this business easily, because it requires US dollar funding and specialist skills, but reports suggest that some banks that already have a presence in the market are expanding their business, including banks from emerging Asia, Australia and Japan. Banks from these regions have increased their involvement in Asian

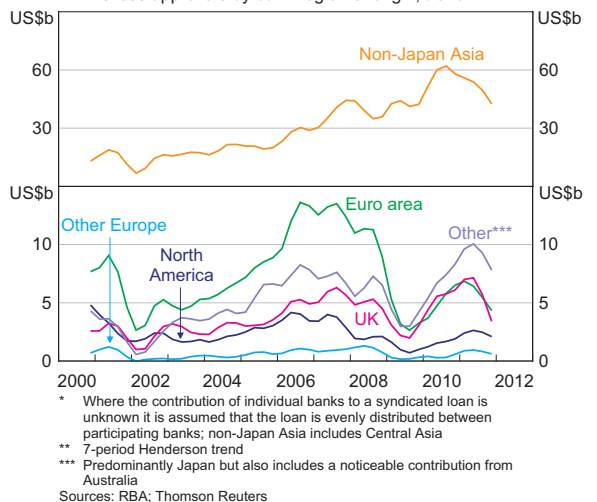
syndicated loan markets following the 2008–2009 crisis, largely offsetting declines by euro area and North American banks (Graph 1.22).

Concerns about cutbacks in lending by euro area banks also need to be weighed against strong domestic credit growth across the Asian region over recent years. Asset prices have increased significantly in a few economies, in particular, residential property prices in Hong Kong SAR, Taiwan, Singapore

**Graph 1.21**  
**Foreign Banks' Claims on Non-Japan Asia\***  
Adjusted for series breaks, quarterly



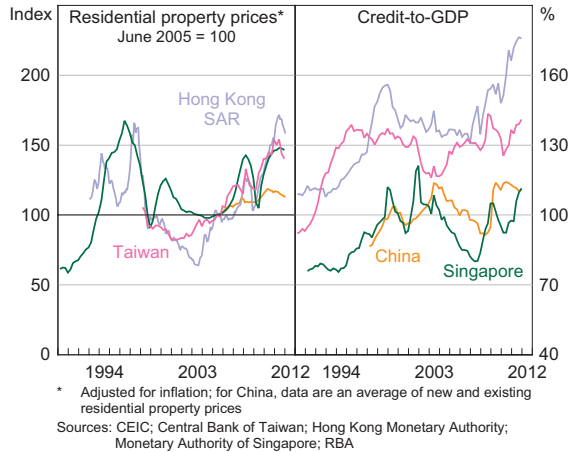
**Graph 1.22**  
**Syndicated Loans in Non-Japan Asia\***  
Gross approvals by bank region of origin; trend\*\*



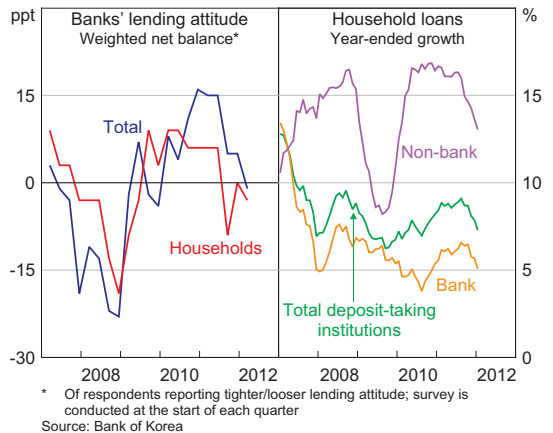
and some large cities in China (Graph 1.23). This prompted authorities in these economies to introduce a range of targeted measures in 2010 and early 2011, including increases in minimum down-payment requirements, new or higher taxes on certain property sales, and restrictions on certain property purchases. Residential property prices have declined modestly across these economies over the past six months, although they remain relatively high. Fears of a sharp correction in property prices have been weighing on Chinese banks' share prices, given the adverse effect this would have on banks' exposures to property developers and to local government financing vehicles (some of which rely heavily on land-based revenues).

Korean authorities have also recently introduced policies to address vulnerabilities in their financial system. A number of measures were taken in 2010 and 2011 to reduce banks' reliance on foreign funding, including a levy on banks' foreign currency wholesale funding and tighter restrictions on banks' foreign currency derivative positions. In addition, large banks will be required to meet a maximum loan-to-deposit ratio of 100 per cent, to reduce their reliance on wholesale funding. Large banks' loan-to-deposit ratios declined over 2011, as they raised deposits ahead of this policy coming into force in mid 2012. The authorities also announced a range of measures in mid 2011 to address growing household indebtedness and rapid growth in lending by less-regulated credit providers. These include: mandating higher risk weights on banks' high-risk mortgages and mortgage loan concentrations; tightening capital and provision requirements for non-bank lenders; proposals to strengthen consumer protection; and tax incentives for households to repay principal on their mortgages and use debit cards rather than credit cards. Consistent with these measures, banks lowered their appetite for household lending last year. However, annual growth in overall household lending slowed only a little and non-bank lending growth remains strong despite its recent decline (Graph 1.24). This

**Graph 1.23**  
**Asset Prices and Credit**



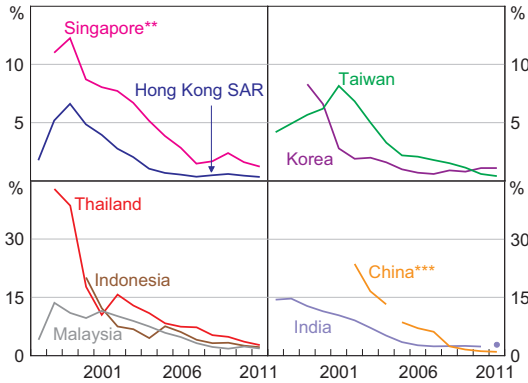
**Graph 1.24**  
**Korea – Household Credit Conditions**



might be partly because the capital requirements and other measures affecting banks were more stringent than for non-banks.

At this stage, Asian banking system loan portfolios have generally not deteriorated, despite tighter monetary policy and/or prudential policy over the past year. Non-performing loan ratios were broadly steady or declined slightly over 2011 (with the exception of India), and are currently around their lowest levels since at least prior to the Asian financial crisis in the late 1990s (Graph 1.25). Capital buffers have increased over recent years to fairly high levels,

**Graph 1.25**  
**Non-Japan Asia – Non-performing Loans\***  
 Share of loans



\* Definitions of 'non-performing' differ across jurisdictions; dot represents September quarter estimate  
 \*\* Domestic banks only  
 \*\*\* Data from 2002–2004 are for major commercial banks only  
 Sources: CEIC; RBA; banks' annual reports; national banking regulators

which should help banks cope with any slowing in economic activity and associated rise in problem loans.

In contrast to other Asian countries, Indian banks' non-performing loans rose moderately over 2011, driving an increase in loan-loss provisions and a small reduction in their capital ratio. This has been particularly the case for some state-owned banks; concerns over these banks' asset quality and capitalisation have been reflected in downgrades to their credit ratings. A few state-owned banks in India will receive capital injections from the Indian Government to rebuild their capital positions after recent loan losses. ↴



## 2. The Australian Financial System

---

A challenge for the Australian banking system during the past six months was dealing with the market volatility and associated drying up of some credit markets in late 2011 related to the European sovereign debt problems. Compared with the pre-crisis period, Australian banks were in a better position to cope with this disruption given the improvements they had made to their capital and funding positions in recent years. Deposits have also been continuing to grow faster than credit, reducing the size of banks' wholesale funding task. As outlined in 'The Global Financial Environment' chapter, global market sentiment has improved since late 2011 and long-term unsecured funding markets have reopened. The Australian banks have taken advantage of this by issuing a sizeable amount of bonds since the beginning of the year, including covered bonds. While spreads are still relatively high, the banks have been able to make significant inroads into their expected wholesale funding requirements for the year, and thereby put themselves in a better position to cope with any renewed funding strains, should they occur. In response to higher funding costs, banks have recently been lifting the interest rates on some loans relative to the cash rate.

While the banks continued to record robust profits in their latest half-year reporting periods, the slow credit growth environment is likely to limit the pace of future profit growth, particularly as the reductions in bad and doubtful debts that had boosted profitability in recent years appear largely to have run their course. In this environment, banks have

been looking to bolster their profitability through cost cutting and productivity improvements, with a number of them recently announcing plans to reduce staff numbers. To the extent that these job cuts are in lending and sales, they align with the weaker activity in these areas. If they were to be in risk management or operational areas, however, the performance of these areas could be compromised.

Banks' asset performance improved a little over the second half of 2011, but remains weaker than in the years leading up to the crisis. If economic conditions were to deteriorate materially, this would mean that banks are in a less favourable starting position in terms of their asset quality than a few years ago. That said, Australian banks' overall loan impairment rates are relatively low, and exposures to the euro area, particularly to the countries experiencing the greatest financial stress, remain very low.

Profitability in the Australian general insurance industry was somewhat subdued in the second half of 2011 following further natural disasters, even though the claims from these events were not on the same scale as the natural disasters in late 2010 and early 2011. The negative impact of these catastrophe events on insurers' underwriting results was also partly offset by stronger investment income. The costs of renewing property reinsurance programs have gone up significantly after the spike in catastrophe claims last year, and insurers have been passing these costs on to policyholders through higher premiums.

## Banking System Profits

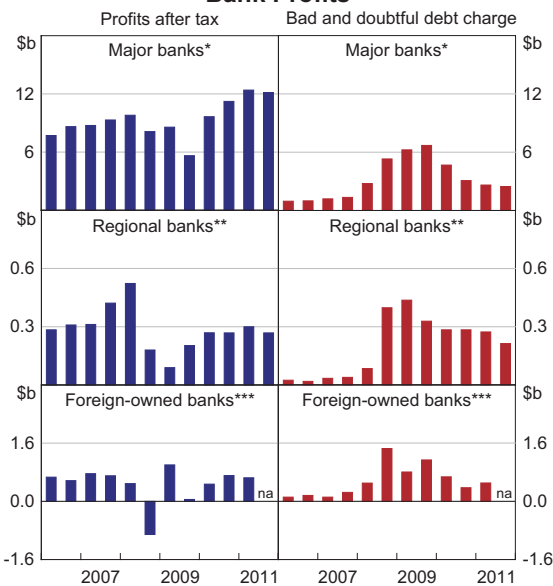
The four major banks reported aggregate headline profits after tax and minority interests of \$12.1 billion in their latest available half-yearly results (Graph 2.1 and Table 2.1). This result was around \$1 billion (8 per cent) higher than in the same period a year earlier but a little below the result from the previous half year. In annualised terms, the average return on equity in the latest half year was about 16 per cent, slightly higher than in the same period a year earlier, and broadly in line with the pre-crisis average (Graph 2.2).

The increase in profitability over the year was driven by a 6 per cent rise in net interest income, which was a stronger rate of growth than in recent years, together with broadly flat operating expenses. The growth in net interest income reflected a slightly wider average net interest margin over the year, combined with modest growth in interest-earning assets (Graph 2.3). More recently, the banks' net

interest margins have come under pressure from a rise in funding costs relative to the cash rate and increased holdings of liquid assets. In February, three major banks reported their December quarter 2011 trading updates, which all showed contractions in their group margins recently of between 5 and 10 basis points.

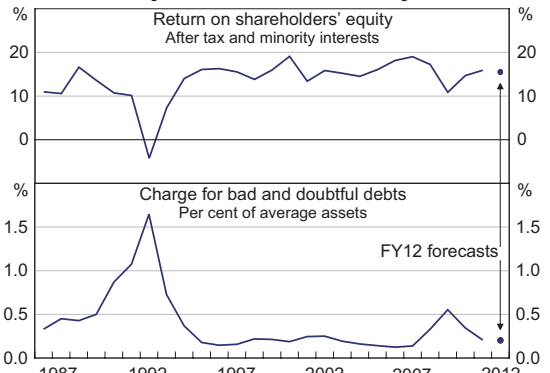
Over the year to the latest half-year reporting period, the major banks' non-interest income fell by 4 per cent, as volatility in financial markets reduced earnings from their trading and wealth management operations. Partly offsetting this, these banks recorded a 5 per cent rise in their fee

**Graph 2.1  
Bank Profits**



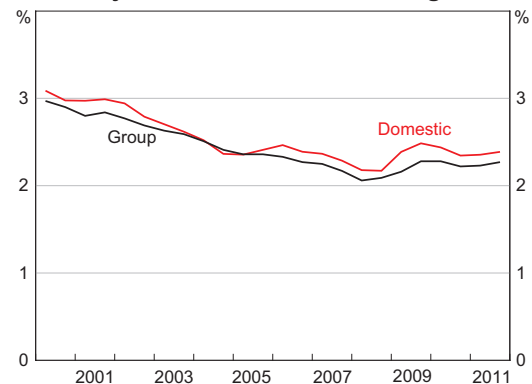
\* ANZ, NAB and Westpac report half yearly to March and September, while CBA reports to June and December  
 \*\* Suncorp Bank and Bendigo and Adelaide Bank report half yearly to June and December, while Bank of Queensland reports to February and August  
 \*\*\* All results are half year to June and December  
 Sources: APRA; RBA; banks' annual and interim reports

**Graph 2.2  
Major Banks' Profitability\***



\* From 2006, data are on an IFRS basis; prior years are on an AGAAP basis  
 Sources: Credit Suisse; Deutsche Bank; Nomura Equity Research; RBA; UBS Securities Australia; banks' annual and interim reports

**Graph 2.3  
Major Banks' Net Interest Margin\***



\* From 2006, data are on an IFRS basis; prior years are on an AGAAP basis; excludes St. George and Bankwest prior to the first half of 2009  
 Sources: RBA; banks' annual and interim reports



**Table 2.1: Major Banks' Latest Half-yearly Profit Results<sup>(a)</sup>**  
Consolidated global operations

	2010 \$billion	2011 \$billion	Change \$billion
<b>Income</b>			
Net interest income	23.8	25.3	1.5
Non-interest income	11.0	10.6	-0.4
<b>Expenses</b>			
Operating expenses	16.7	16.8	0.2
Bad and doubtful debts	3.1	2.5	-0.6
<b>Profit</b>			
Net profit before tax	15.0	16.6	1.6
Net profit after tax and minority interests	11.2	12.1	0.9

(a) Half year to September for ANZ, NAB and Westpac; half year to December for CBA  
Sources: RBA; banks' annual and interim reports

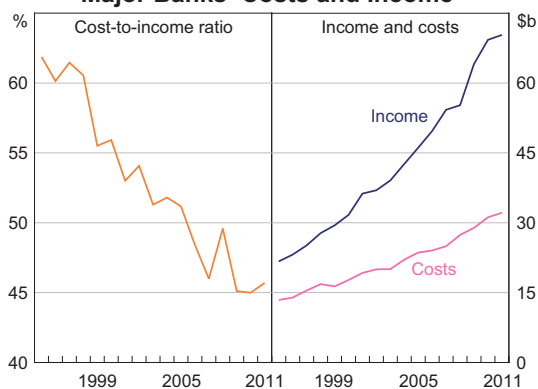
and commission income, the largest component of non-interest income. Overall, underlying revenue growth was steady at around 3 per cent over the year.

Also supporting the increase in the major banks' profits over the year was a further reduction in bad and doubtful debt charges. These charges totalled around \$2.5 billion in the latest half-year results, down about 20 per cent over the same period a year earlier but broadly in line with the previous half year. Equity market analysts expect that bad debt charges have now troughed and that they will drift up a little over the coming year. Given that banks' non-performing assets remain elevated, their future profit growth could be reduced if the current stock of provisions is insufficient for future losses.

In an environment of slow loan growth, banks are increasingly looking at ways to raise productivity and reduce costs in order to maintain profit growth. As staff-related expenses represent the largest component of their cost base, some of the major banks have recently announced job cuts and plans to move more technology and back-office processing to lower-cost locations, often offshore. The major banks' cost-to-income ratios have already declined significantly over the past decade and are fairly low by international standards (Graph 2.4).

In aggregate, the regional Australian banks' latest half-yearly profits were similar to the same period a year earlier. Compared with the previous half year though, profits fell slightly, mainly due to a large write-off by one bank. The outlook for regional banks' bad and doubtful debt charges is mixed, and accordingly, their profit outlooks differ over 2012. The foreign-owned banks operating in Australia recorded an increase in aggregate profits in their latest half-yearly results compared with a year earlier. This was driven by a fall in the charge for bad and doubtful debts at a few foreign bank branches, although this was partially offset by a rise at several

**Graph 2.4**  
**Major Banks' Costs and Income\***



\* From 2006, data are on an IFRS basis; prior years are on an AGAAP basis; includes St. George and, from 2009, Bankwest  
Sources: RBA; banks' annual and interim reports

other banks. In aggregate, the profits of the credit unions and building societies (CUBS) declined in their latest half-yearly results, although individual results were mixed. The composition of the CUBS sector is changing as a few of the larger ones have recently received APRA approval to call themselves mutual banks.

## Asset Performance

Banks' asset performance improved slightly over the second half of 2011 but remains worse than in the years leading up to the 2008–2009 crisis. On a consolidated group basis, the ratio of non-performing assets to total on-balance sheet assets fell to 1.5 per cent over the December half, after hovering around 1.7 per cent over 2010 and much of 2011 (Graph 2.5). The recent improvement was driven by a fall in the share of loans classified as past due (in arrears but well secured), while the share of loans classified as impaired (not well secured and where repayment is doubtful) was broadly unchanged at around 1.1 per cent. While the banks' total non-performing assets ratio remains nearly 90 basis points above its average over the decade prior to the crisis, it is still well below the early 1990s peak of over 6 per cent, and it also compares favourably with the ratios of some North Atlantic banking systems (see Graph 1.19 in 'The Global Financial Environment' chapter).

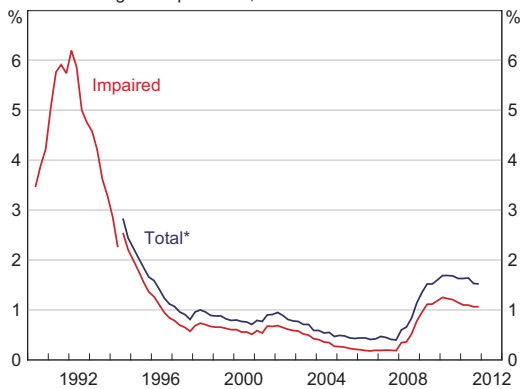
It is notable that quarterly inflows of newly impaired assets have been relatively constant over the past two years, at a much higher level than prior to the crisis (Graph 2.6). During 2011, the rate at which loans were moving out of impairment due to write-offs or 'curing' was similar to the inflows of newly impaired assets, resulting in little change in the level of impaired assets. The apparent stickiness in banks' impaired assets over the past few years could reflect a number of factors, including the pressures some business borrowers are facing from the high exchange rate and subdued domestic retail spending, and recent weakness in house prices making it harder for mortgage borrowers in difficulty to refinance. Were impaired assets to stay at their current level, it would mean that, if economic conditions deteriorated, banks' asset performance would be starting from a weaker position than before the crisis.

In the banks' domestic portfolio, the ratio of non-performing loans to total on-balance sheet loans fell slightly over the second half of 2011, to 1.7 per cent, about 20 basis points below its 2010 peak (Graph 2.7). The decline in this ratio since 2010 has partly been due to the business loan portfolio, where the non-performing share has fallen from a peak of 3.7 per cent in late 2010 to 3.2 per cent in December 2011. Even so, the share of business

**Graph 2.5**

### Banks' Non-performing Assets

Consolidated global operations, share of on-balance sheet assets

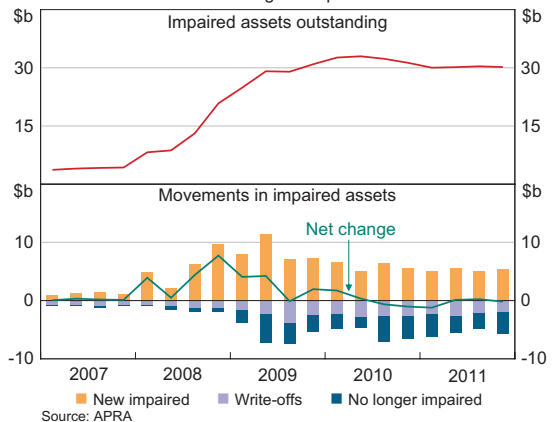


\* Includes assets 90+ days past due that are well secured  
Source: APRA

**Graph 2.6**

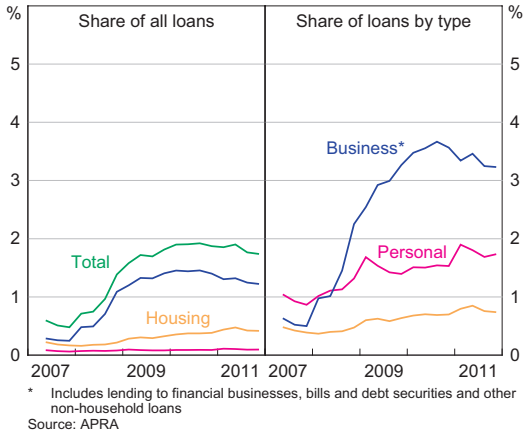
### Banks' Impaired Assets

Consolidated global operations



Source: APRA

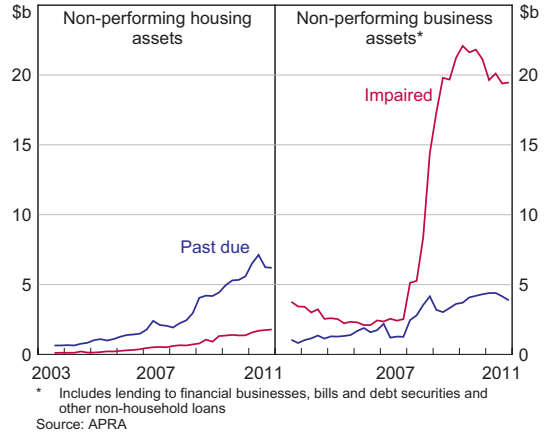
**Graph 2.7**  
**Banks' Non-performing Assets**  
Domestic books



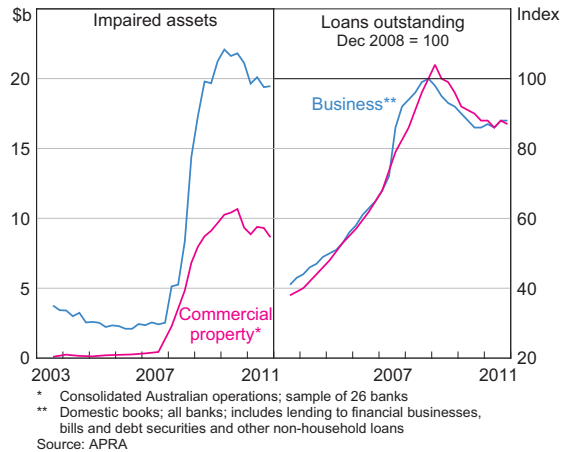
assets that is non-performing is still significantly higher than in the banks' housing and personal loan portfolios. For housing loans, the non-performing share has trended up over the past few years, though it did come down a little in the second half of 2011, to around 0.7 per cent in December, driven by a fall in past due loans. Though they still account for only a small share of banks' total non-performing housing loans, impaired housing loans have drifted up in recent years, consistent with the weakness in housing prices in many parts of the country (Graph 2.8). According to industry liaison, past due housing loans have declined partly because some banks have implemented more concerted collections processes. Allowing borrowers to stay in arrears when house prices are falling is not in the long-term interests of the borrowers or the bank.

Troubled commercial property exposures continue to be the key contributor to the high impairment rate in the banks' domestic business loan portfolio. The value of banks' commercial property loans that are impaired has declined by about 20 per cent since peaking in September 2010, although it remains high at around \$9 billion (compared with total impaired business loans of around \$20 billion) (Graph 2.9). Reflecting banks' continued caution towards commercial property lending, the stock

**Graph 2.8**  
**Banks' Asset Performance**  
Domestic books



**Graph 2.9**  
**Banks' Asset Performance**  
Domestic books



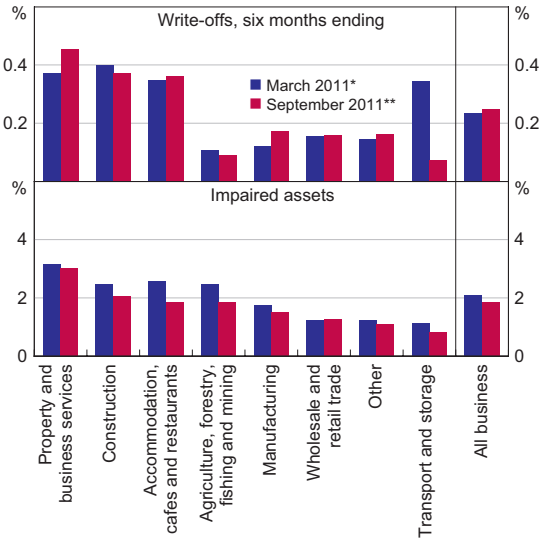
of their commercial property exposures has been broadly unchanged over the past year, and is around 15 per cent below its early 2009 peak.

The major banks' Basel II Pillar 3 disclosures provide more detail on the industry breakdown of impaired business loans and write-offs. Impairment rates declined across most industries during the six months to September 2011, but particularly for the accommodation, cafes and restaurants; agriculture, forestry, fishing and mining; and construction sectors (Graph 2.10). Loans to the property and

**Graph 2.10**

**Asset Performance by Industry**

Major banks' global operations, per cent of industry exposures



\* June 2011 for CBA  
 \*\* December 2011 for CBA  
 Source: Banks' Basel II Pillar 3 reports

business services sector (incorporating commercial property) still have the highest impairment rate. This sector continued to have an above-average write-off rate during the six months to September 2011, along with the construction and accommodation, cafes and restaurants sectors.

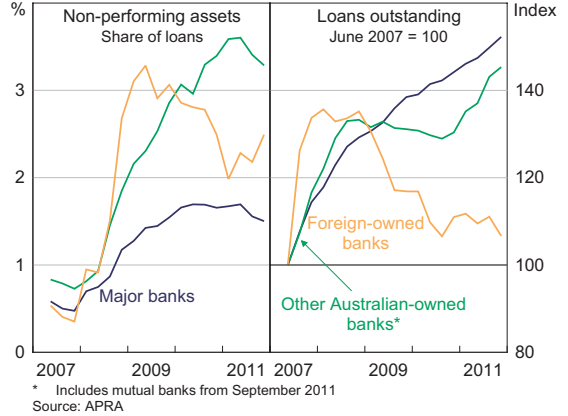
The major banks and smaller Australian-owned banks were behind the improvement in banks' domestic asset performance in the second half of 2011 (Graph 2.11). By contrast, the share of non-performing assets on foreign banks' books increased, although this was largely attributable to one foreign banking group. The non-performing loan ratio for CUBS was broadly unchanged over this period and remains much lower than that for the banks, partly because loans to households account for a larger share of CUBS' loans.

The performance of the banks' overseas assets improved over the past year. After peaking in mid 2010, the value of non-performing overseas assets declined by 16 per cent to around \$9 billion in December 2011 (around 0.3 per cent of the banks'

**Graph 2.11**

**Banks' Asset Performance and Credit**

Domestic books



\* Includes mutual banks from September 2011  
 Source: APRA

consolidated assets). For the major banks' New Zealand operations, which account for about 40 per cent of their foreign exposures, asset performance has been improving over recent quarters in line with better economic conditions in New Zealand. Asset performance at the banks' UK operations, which account for around 20 per cent of their foreign exposures, remains weaker.

With the recent focus on the problems in Europe, it is useful to note that Australian-owned banks continue to have very limited direct exposure to the sovereign debt of the euro area countries regarded as being most at risk (Table 2.2). Their exposures to euro area banks are also quite low, at around 1 per cent of their total consolidated assets as at September 2011. Most of these exposures are to banks in the larger euro area countries. Australian-owned banks' exposures to banks in the euro area countries that have faced the most acute fiscal problems remain very limited.

**Lending Growth and Credit Conditions**

Banks continued to record fairly modest growth in their domestic loan books over the past six months. In annualised terms, bank credit grew by about 5 per cent over the six months to January, broadly in line with the average growth rate over the previous

**Table 2.2: Australian-owned Banks' Claims on the Euro Area**  
Ultimate risk basis, as at September 2011

	Total \$billion	Per cent of assets	of which:		
			Banks Per cent of assets	Public sector Per cent of assets	Private sector Per cent of assets
<b>Euro area</b>	<b>55.4</b>	<b>1.8</b>	<b>1.0</b>	<b>0.2</b>	<b>0.6</b>
<i>of which:</i>					
Greece, Ireland, Italy, Portugal and Spain	5.2	0.2	0.0	0.0	0.1
France, Germany and the Netherlands	44.8	1.5	0.9	0.1	0.5

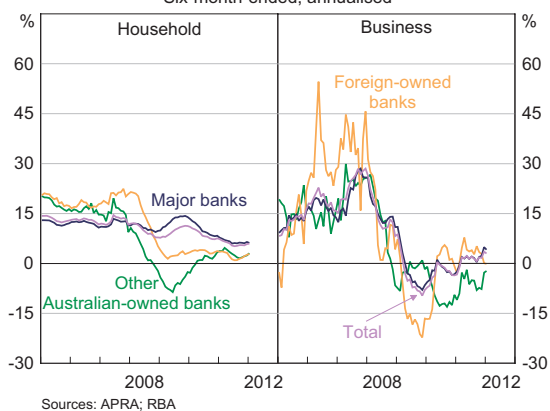
Source: APRA

three years. As noted in the chapter on 'Household and Business Balance Sheets', the household and business sectors have been cautious in their borrowing behaviour. According to industry liaison, lending growth is expected to remain at similar levels for some time due to subdued demand for credit.

Bank lending to households grew by about 6 per cent in annualised terms over the six months to January 2012, broadly similar to growth in the previous six months (Graph 2.12). The foreign-owned and smaller Australian-owned banks have continued to see much slower growth in their household lending than the major banks. After contracting over most of 2009 and 2010, bank lending to businesses recovered a little in 2011, rising by about 3 per cent in annualised terms over the six months to January 2012. The major banks drove this overall rise in business lending; the foreign-owned banks' business credit was broadly unchanged over this period, while it continued to contract for the smaller Australian-owned banks. For further information about the activities of foreign-owned banks in Australia, see 'Box A: Foreign-owned Bank Activity in Australia'.

Housing lending standards appear to have been largely unchanged over the past six months. Some banks have recently responded to higher relative

**Graph 2.12**  
**Bank Credit Growth**  
Six-month-ended, annualised



Sources: APRA; RBA

funding costs by reducing the interest rate discounts they offer on new housing loans and, in early 2012, most raised their standard variable housing loan rates by around 10 basis points, relative to the cash rate. Mortgage refinancing activity was particularly strong during most of 2011, but has declined in recent months, perhaps reflecting some changes in competitive pressures. In business lending, competitive pressures to loosen lending standards have generally been less intense than in housing lending. In industry liaison, most banks reported only modest interest in lending for commercial property, with credit standards generally remaining tight.

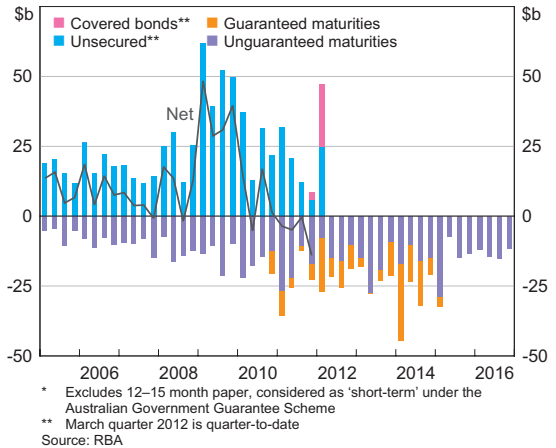
## Funding Conditions and Liquidity

The Australian banks faced a tougher funding environment in the second half of 2011, but conditions have improved since the start of this year. Conditions in global wholesale funding markets deteriorated towards the end of 2011, associated with the sovereign debt and banking sector problems in the euro area. During this time, banks were reluctant to issue into such volatile markets, due to price and non-price concerns, and thus issued only about \$20 billion in bonds over the second half of 2011, less than half the amount issued in the previous six months (Graph 2.13). Short-term wholesale funding markets remained open to them, and indeed they benefited from the reallocation of US money market funds' investments away from Europe, though there was some shortening of maturities in late 2011 and wider spreads.

As discussed in 'The Global Financial Environment' chapter, funding conditions have improved since late 2011. The Australian banks have taken advantage of this by significantly increasing their bond issuance, raising over \$45 billion since the start of the year. Covered bonds issued by the major banks accounted for around \$20 billion of this issuance, about 40 per cent of which were issued in the domestic market. The covered bonds have generally been at longer tenors than had previously been the case with unsecured bonds, partly reflecting access to a wider investor base.

The recent pick-up in banks' gross bond issuance was in part a response to the large amount of bond maturities over the early part of this year, particularly government-guaranteed bonds: close to \$20 billion were due to mature in the first quarter of 2012. Since December 2011, some banks have also continued to repurchase their guaranteed bonds that had around one year or less left before maturity, although at a slower pace than earlier in 2011. Reflecting these repurchases and maturities, banks' guaranteed wholesale liabilities outstanding have declined to just under \$100 billion, down from around

**Graph 2.13**  
**Banks' Bond Issuance and Maturities\***  
A\$ equivalent

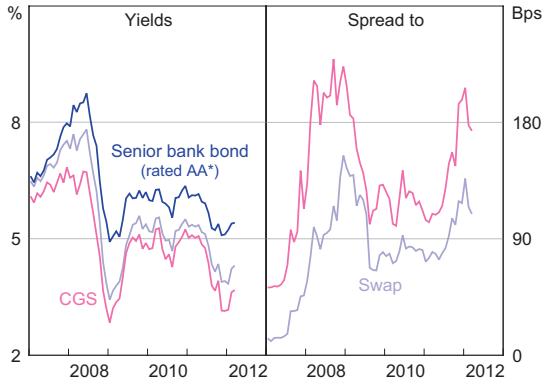


\$120 billion in August 2011 and \$170 billion at their peak in February 2010.

Issuance costs, relative to benchmark rates, generally increased over the second half of 2011, though they have since narrowed. In net terms, spreads on 3-year unsecured bank bonds have increased over the past six months as investors were drawn to Commonwealth Government securities as a safe-haven asset; spreads are now around 55 basis points higher than those on equivalent unsecured bonds in mid 2011, despite narrowing recently (Graph 2.14).

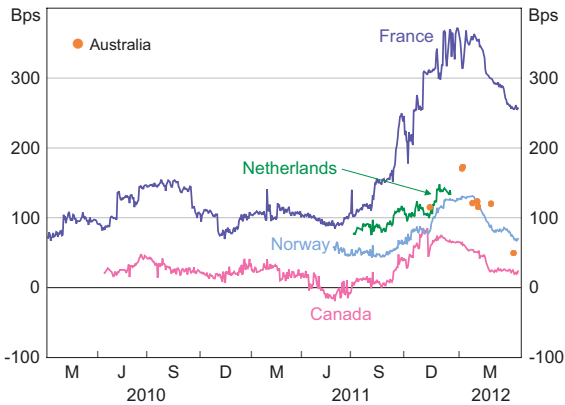
The banks' recent covered bond issuance has been considered to be a relatively expensive source of funds, being only slightly cheaper than senior unsecured bond funding, although spreads were similar to those of many peer banks overseas (Graph 2.15). Secondary market spreads on covered bonds priced in US dollars tightened in early February as market sentiment improved. In the domestic secondary market, spreads on 5-year covered bonds have been trading around 40 basis points tighter than senior unsecured bonds with a similar tenor. Despite the recent narrowing in spreads, the funding costs of both senior unsecured and covered bonds remain elevated. This is partly due to the higher cost

**Graph 2.14**  
**Major Banks' Bond Pricing**  
 3-year A\$ debt



\* S&P downgraded the major Australian banks to AA- in December 2011  
 Sources: Bloomberg; RBA; UBS AG, Australia Branch

**Graph 2.15**  
**Covered Bond Pricing\***  
 Spread to US\$ swap, 4-6 year AAA rated



\* Non-US\$ issuance converted into US\$ spreads  
 Sources: Bloomberg; RBA

of swapping offshore issuance into Australian dollars as well as ongoing concerns about the euro area.

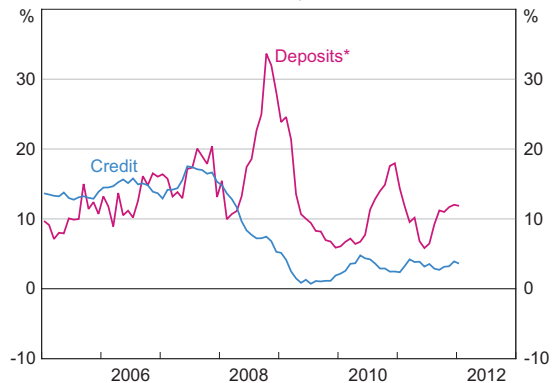
Given the tensions in wholesale funding markets, banks continued to compete actively for deposits, particularly for term deposits and other types of deposits that are likely to attract a more favourable treatment under the Basel III liquidity rules. Spreads between term deposit rates and market rates have increased over the past six months, and are around historically high levels. Growth in deposits has remained strong, at an annualised rate of 12 per cent during the past six months, and continues to

exceed credit growth by a wide margin (Graph 2.16). There has been strong growth in both household and business deposits, and across most types of deposit-taking institutions. Reflecting the intense competition for term deposits, their share of bank deposits has increased from 30 per cent to about 45 per cent since mid 2007, at the expense of transaction and savings account deposits. The reduction in the deposit guarantee limit under the Financial Claims Scheme from 1 February has had no discernible effect on the deposit market.

The strong growth in deposits has allowed banks to reduce their use of short-term wholesale funding further over the past six months (Graph 2.17). In early 2012, the deposit share of bank funding reached its highest level since 1998, at 52 per cent. In contrast, the share of short-term wholesale funding has declined to 20 per cent, compared with 33 per cent at the end of 2007.

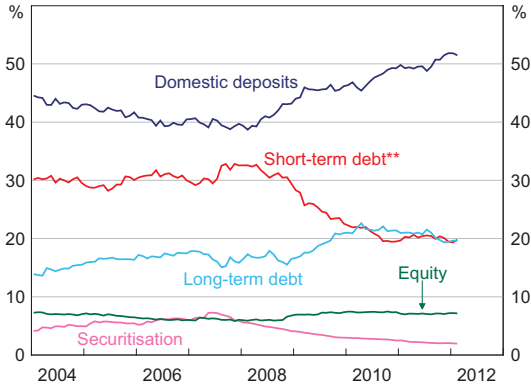
Conditions in residential mortgage-backed securities (RMBS) markets improved during 2011, with issuance for the year as a whole, at \$22 billion, the highest since 2007. However, these markets were also affected by the increase in global risk aversion in the second half of 2011, and only two small issues have taken place since the end of November. For the major banks, covered bond issuance could have crowded out RMBS to some extent.

**Graph 2.16**  
**Credit and Deposit Growth**  
 Six-month-ended, annualised



\* Excludes certificates of deposit, government deposits and foreign currency deposits  
 Source: RBA

**Graph 2.17**  
**Banks' Funding\***  
Share of total



\* Adjusted for movements in foreign exchange rates  
\*\* Includes deposits and intragroup funding from non-residents  
Sources: APRA; RBA; Standard & Poor's

Wholesale funding challenges could persist in 2012 if markets remain prone to bouts of uncertainty and volatility arising from developments in Europe and the slower global growth outlook. If that occurs, these challenges could restrain the scope to increase lending. However, banks can take steps to minimise the effect of further tensions in financial markets, including taking advantage of opportunities to issue debt, staying ahead on their funding requirements and maintaining a strong liquidity position.

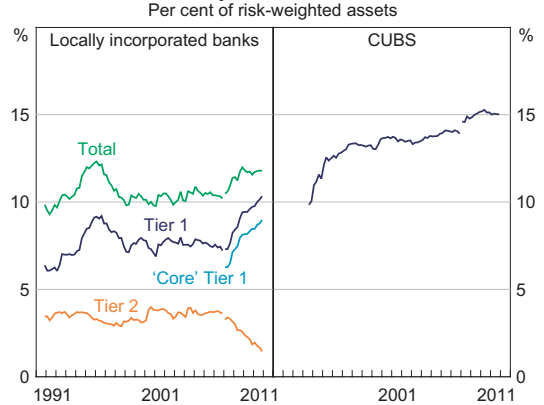
After increasing over the past couple of years, the banks' liquid asset position continued to trend up in recent quarters. The major banks' holdings of cash and liquid assets increased to around 10 per cent of their total assets in January 2012. Banks' holdings of internal RMBS also increased slightly over the past six months and now total \$150 billion. With the forthcoming Basel III liquidity rules, banks are continuing to assess their required liquid asset holdings and the appropriate mix of these assets.

## Capital

The Australian banking system remains well capitalised: banks' aggregate Tier 1 capital ratio increased by a further 0.3 percentage points over the second half of 2011, to 10.3 per cent of risk-weighted assets (Graph 2.18). The increase was mostly due to

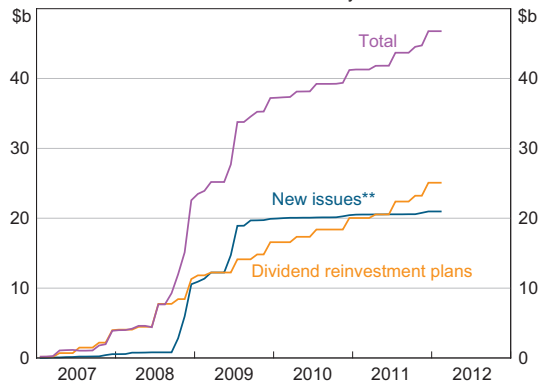
dividend reinvestment plans and higher retained earnings (Graph 2.19). A few banks have issued hybrid securities totalling \$2.7 billion over the past six months, which have a mandatory common equity conversion trigger, making them eligible as non-common equity Tier 1 capital under the Basel III framework. The increase in the banking system's Tier 1 capital was partly offset by the continued run-off of Tier 2 capital instruments (mainly subordinated debt) that will no longer qualify as capital under Basel III. CUBS have maintained their higher capital ratios: their aggregate Tier 1 capital ratio is around 15 per cent. As the Australian banking system is already

**Graph 2.18**  
**Capital Ratios\***  
Per cent of risk-weighted assets



\* Break in March 2008 due to the introduction of Basel II for most ADIs  
Source: APRA

**Graph 2.19**  
**Major Banks' Equity Raisings\***  
Cumulative from 1 January 2007



\* Includes St. George  
\*\* Includes new placements and employee share purchase plans  
Source: ASX



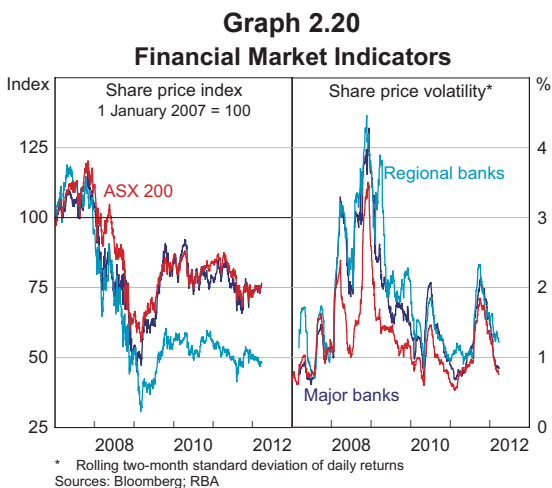
well placed to meet the Basel III capital requirements, APRA has proposed to implement them ahead of the global timetable.

The Australian banking system's risk-weighted assets increased by about 3 per cent over the second half of 2011. That this is slower than overall balance-sheet growth reflects the ongoing shift in the composition of banks' portfolios towards housing and high-quality liquid assets, such as government bonds, which attract lower risk weights than other assets.

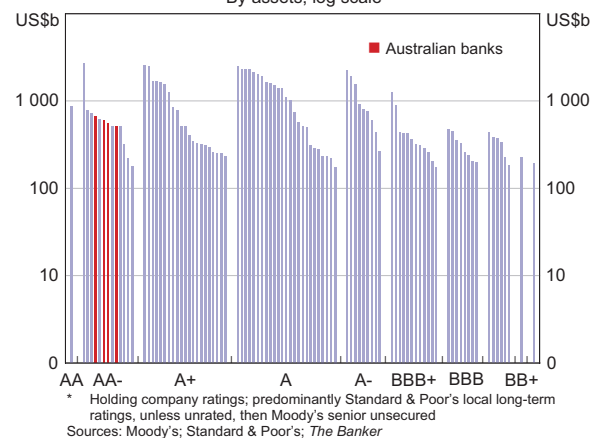
### Financial Markets' Assessment

After a period of heightened volatility during the second half of 2011 associated with the turbulence in global financial markets, Australian bank share prices have largely moved sideways over the past few months and generally in line with the broader share market (Graph 2.20). The recent improvement in global market sentiment has also been reflected in Australian banks' credit default swap premia, which have declined from the elevated levels seen in late 2011.

The major Australian banks continue to be viewed relatively favourably by the international credit rating agencies (Graph 2.21). Standard & Poor's (S&P) completed its review of its global bank credit rating methodology in late 2011. The revised methodology places a greater emphasis on perceived economic and funding imbalances as well as the importance of investment banking to a bank's business model. Following the review, S&P changed Australia's 'banking industry country risk assessment', which feeds into individual bank credit ratings, from Group 1 (the least risky) to Group 2 (out of 10 rating groups). Other Group 2 countries include Finland, France, Germany, Japan, the Netherlands and Sweden; only Canada and Switzerland remain in Group 1. Mainly as a result of this change, S&P downgraded its ratings of the major Australian banks by one notch from AA to AA- in December 2011. The decision had minimal market impact as it was well anticipated. Around the same time, S&P also lowered its rating of Bank of Queensland by one notch to



**Graph 2.21**  
**Credit Ratings of the Largest 100 Banking Groups\***  
By assets, log scale



BBB (although more recently placed it on positive watch), raised Bendigo and Adelaide Bank's rating by one notch to A-, and retained its A rating for Macquarie Bank although it downgraded its rating for Macquarie Group. S&P's review also affected the ratings of many other banks globally.

The other major rating agencies have also announced some rating actions on Australian banks since the beginning of the year. As part of a broader review, Fitch reviewed the major banks' and Macquarie Bank's ratings: three of the majors were downgraded to AA-, matching its existing rating for ANZ; and Macquarie Bank was downgraded to A.

Fitch based these decisions on its reassessment of the risks posed by the banks' reliance on offshore wholesale funding markets and for Macquarie Bank, its exposure to market-oriented income. Macquarie Bank was also downgraded by Moody's to A2 (equivalent to S&P's A rating) for similar reasons. Moody's downgraded Bank of Queensland to A3 (equivalent to S&P's A- rating) citing concerns over the performance of a small number of large loans and challenges in wholesale funding markets.

## General Insurance

The Australian general insurance industry remains in a sound financial position despite the claims impact of the natural catastrophe events over the past 18 months and weaker investment conditions. The return on equity for the industry was a little below average in the second half of 2011 (Graph 2.22). However, the industry remains well capitalised, holding capital equivalent to 1.8 times the minimum capital requirement as at December 2011. Reflecting their profitability and robust capital ratios, the major insurers continue to be rated A+ or higher by S&P.

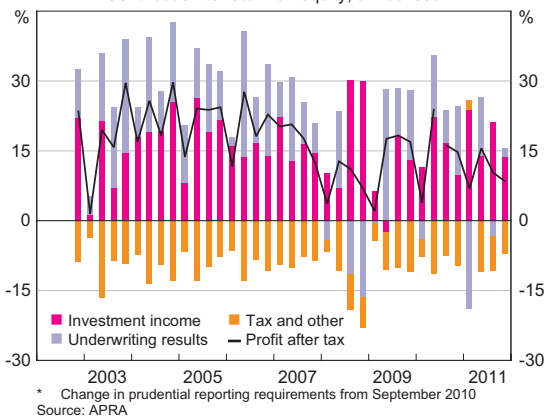
While there were further natural disasters in the second half of 2011, the claims estimates from these events were lower than those in late 2010 and early 2011. The Insurance Council of Australia currently estimates the value of the claims arising

from the storms in Victoria on Christmas Day and the recent flooding in south-west Queensland at nearly \$800 million in total, which is well below the estimate of around \$4 billion for the flooding events in 2010/11 and Cyclone Yasi. However, the accumulation of claims from a number of events meant that some insurers still exceeded their catastrophe allowances in the second half of 2011, and the industry's underwriting results were weak.

Financial market developments also affected the performance of the insurance industry over the second half of 2011. The value of 'long-tail' insurance liabilities increased because risk-free interest rates (used to discount these liabilities) declined, resulting in increased provisions for claims; this contributed to the small underwriting loss in the September quarter. On the other hand, the same decline in interest rates implied valuation gains, which boosted investment income. Consistent with the recent pressures on their earnings, insurers' share prices generally underperformed the broader market until recently, when they picked up strongly (Graph 2.23). Because reinsurers absorbed much of the large increase in natural disaster insurance claims over the past year or so, insurers have faced much higher prices when renegotiating their reinsurance arrangements; they have also been required to retain more risk in some cases. These higher reinsurance

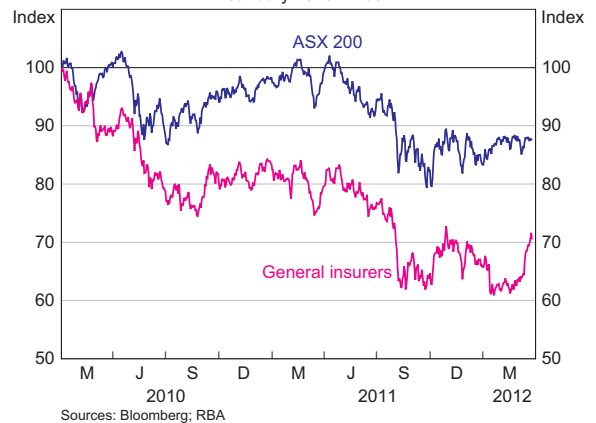
**Graph 2.22**

**General Insurers' Performance\***  
Contribution to return on equity, annualised



**Graph 2.23**

**General Insurers' Share Prices**  
1 January 2010 = 100



costs have contributed to insurers raising their premiums, particularly on home building and contents policies.

As noted in the previous *Review*, the Australian Government established the Natural Disaster Insurance Review to examine the availability of natural disaster insurance, and it released its final report in November 2011. The recommendations included that the industry should offer flood cover – using a common definition – as standard in home building and contents policies, and that the government establish an agency to coordinate national flood risk management, including flood mapping, to enhance the industry’s understanding of and ability to price for flood risk. Even before the final recommendations were released, a number of insurers had already moved to provide flood cover as standard in their policies.

Conditions in the Australian economy and residential property market have supported the two largest providers of lenders’ mortgage insurance (LMI), Genworth Australia and QBE LMI, in remaining profitable in the past year. QBE LMI continues to be rated AA- by S&P. Genworth Australia has also maintained its AA- credit rating from S&P even though its loss-making US parent was downgraded

in January. Genworth has announced plans to sell up to 40 per cent of its Australian unit through an initial public offering of shares in the second quarter of 2012.

## Managed Funds

Unconsolidated assets of the managed funds industry fell by 6 per cent in annualised terms over the six months to December 2011, to \$1.8 trillion (Table 2.3). This was well below the average annual growth of 7 per cent over the past decade, and reflects the difficult investment market conditions in the second half of 2011. All types of managed funds recorded falls in their funds under management over the half year to December 2011, with the largest falls occurring at public unit trusts. The assets of superannuation funds, which account for 70 per cent of the unconsolidated assets of managed funds, fell by almost 5 per cent in annualised terms over the half year.

Equity investments were the biggest contributor to the decrease in managed funds’ assets, as equity prices declined amid financial market turbulence in the September quarter of 2011; some explicit shifting of portfolios might also have occurred. Across all managed funds, the allocation to equities

**Table 2.3: Assets of Domestic Funds Management Institutions<sup>(a)</sup>**  
December 2011

	Level \$billion	Share of total Per cent	Six-month-ended annualised change	
			Jun 11 Per cent	Dec 11 Per cent
Superannuation funds	1 258	70	6.6	-4.9
Life insurers <sup>(a)</sup>	228	13	2.9	-6.0
Public unit trusts	263	15	-6.1	-13.4
Other managed funds <sup>(b)</sup>	38	2	-12.4	-0.4
<b>Total (unconsolidated)</b>	<b>1 786</b>	<b>100</b>	<b>3.6</b>	<b>-6.3</b>
<i>of which:</i>				
Cross investments	376	-	1.5	-10.4
<b>Total (consolidated)</b>	<b>1 411</b>	<b>-</b>	<b>4.2</b>	<b>-5.1</b>

(a) Includes superannuation assets held in statutory funds

(b) Cash management trusts, common funds and friendly societies

Sources: ABS; RBA

and units in trusts fell to 40 per cent of assets under management, down from 43 per cent in early 2011 (Graph 2.24). Managed funds' holdings of cash and deposits increased over the period and now make up 14 per cent of assets under management, up 6 percentage points since 2007. The increased allocation to cash and deposits may partly reflect a desire to hold assets with less volatile returns and greater capital protection.

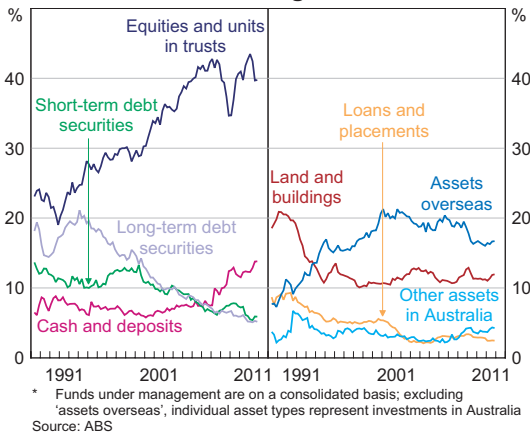
Over the half year to December 2011, superannuation funds' financial performance was mixed, recording negative returns in the September quarter, but positive returns in the December quarter. The relatively good performance of deposits and debt securities dampened the impact of equity market losses. Broadly steady net contribution inflows were not enough to offset the \$44 billion loss of funds' investment value during the financial market turbulence in the September quarter (Graph 2.25).

Life insurers' investments mirrored the performance of superannuation funds: investment losses drove a 6 per cent decline in annualised terms over the second half of 2011 (Graph 2.26). The fall in the value of equities mainly affected life insurers' superannuation business, but only had a small impact on the profitability of the industry during the second half of 2011. Life insurers remain well

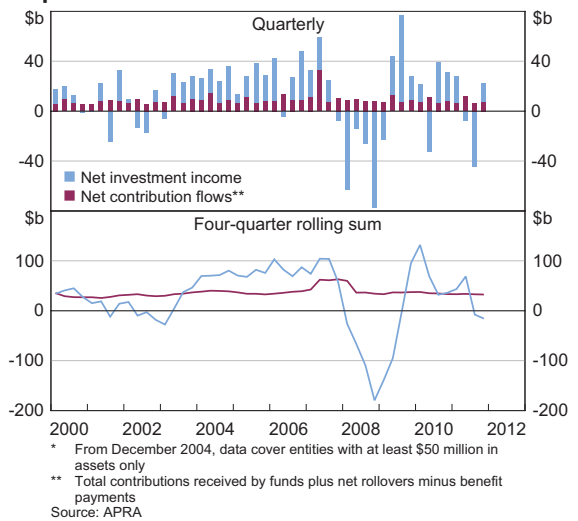
capitalised, holding the equivalent of 1.4 times the minimum requirements as at December 2011.

Outside of superannuation funds and life insurers, public unit trusts account for the majority of the remaining managed fund assets, though their share of all funds' assets is declining. The financial turmoil in the second half of 2011 particularly affected equity trusts, which accounted for most of the decline in public unit trusts' assets over this period.

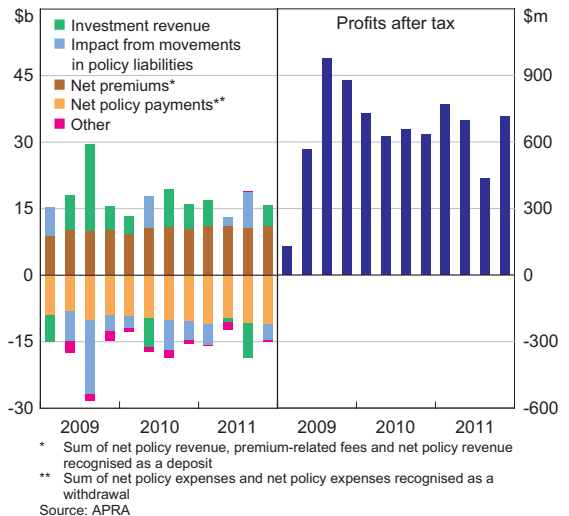
**Graph 2.24**  
**Allocation of Domestic Funds Under Management\***



**Graph 2.25**  
**Superannuation Funds' Financial Performance\***



**Graph 2.26**  
**Life Insurers' Financial Performance**



The Australian managed funds and banking sectors are interconnected, with one of the main linkages being managed funds' holdings of bank equity and liabilities. This interconnection is beneficial in that managed funds are a source of funding for banks, and banks provide investment opportunities for funds. On the other hand, it could also represent a concentrated exposure to each other. Managed funds' holdings of deposits, debt securities issued by banks, and bank equity have generally been increasing over the past few years, and now account for around 22 per cent of their financial assets (Graph 2.27). To the extent that banks are under market and regulatory pressure to lengthen the term of their funding and access funding from more reliable and stable sources, the increasing allocation of managed fund investments to bank liabilities has the potential to provide banks with a more stable source of funding compared with offshore wholesale investors.

The claims of superannuation funds on banks, which includes short-term and long-term debt securities, deposits and equity holdings, have increased by over \$100 billion since 2007, representing a 6 percentage point increase in the share of superannuation funds' assets. Bank-issued bonds remain a small component of superannuation funds' claims on banks, but they have grown noticeably since 2007. Much of the

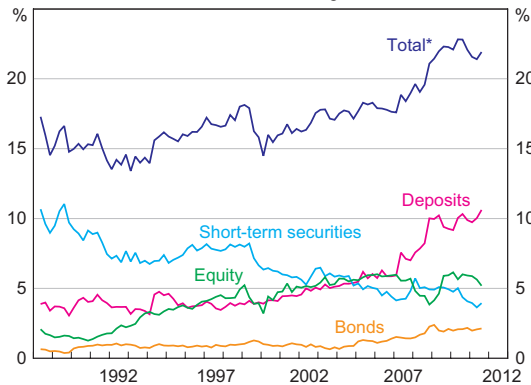
overall growth has been in deposits, which may be due to a growing appetite of superannuation funds to hold less risky assets and to manage their own liquidity needs.

## Market Infrastructure

Settlement of high-value payments through the Reserve Bank's payment infrastructure continued to function smoothly over the past six months. The volume of transactions settled in Australia's high-value payment system, the Reserve Bank Information and Transfer System (RITS), continued its upward trend over 2011. However, the average value of transactions settled in RITS remains subdued, falling to \$158 billion per day in the March quarter to date, which is about 22 per cent below the pre-crisis peak (Graph 2.28).

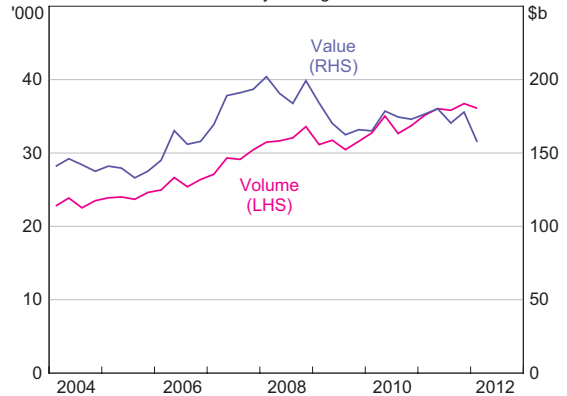
For low-value (generally retail) payments, the Reserve Bank has developed new services which will further enhance the efficient and stable operation of payments infrastructure. These are two complementary services to assist settlement of low-value payments systems (i.e. those for cheques, card payments and direct-entry transactions). These services aim to: reduce the risk associated with the settlement arrangements for low-value payments; improve timeliness and efficiency; and support ongoing industry innovation.

**Graph 2.27**  
**Managed Funds' Claims on Banks**  
 Share of unconsolidated managed fund assets



\* Refers to the total financial claims of managed funds against banks  
 Source: ABS

**Graph 2.28**  
**RITS Settled Payments\***  
 Daily average



\* Real-time gross settlement payments; March 2012 is quarter-to-date  
 Source: RBA

Financial institutions that participate in clearing arrangements for low-value payments systems process transactions throughout the day and, in some systems, exchange files periodically containing payment information. At the end of each day, each financial institution that settles directly sends a summary of its bilateral obligations to the Reserve Bank, which calculates each financial institution's multilateral net position. These multilateral net positions are then settled in RITS at around 9 am the next day.

The Reserve Bank introduced the Low Value Clearing Service (LVCS) in June 2010 to facilitate the transfer of files related to the clearing of low-value payments. The Reserve Bank acts as a central point through which clearing files can be routed from one participant to another regardless of the communication network used by an individual participant. The Reserve Bank has also developed the RITS Low Value Settlement Service (LVSS) to replace end-of-day advices of settlement obligations with individual settlement instructions sent to RITS at the time that payments clearing takes place. In the future, this will enable a move to more timely and frequent settlement of payment obligations through these systems. This reduces the credit exposure that arises when payments are posted to customer accounts ahead of interbank settlement. The first low-value system to migrate to the LVSS will be that for direct-entry transactions. This is targeted for May 2012. Other low-value systems are expected to migrate by the end of October 2012. Initially, settlement will continue to occur on a multilateral, next-day basis.

The Reserve Bank has responsibility for promoting an efficient and stable payments system, which includes promoting the operational reliability of payment systems. With continued rapid growth in the value of payments settled across electronic retail payment systems, and following a number of operational incidents, the Reserve Bank recently announced that it will be formalising its requirements for the reporting of major retail payments system incidents.

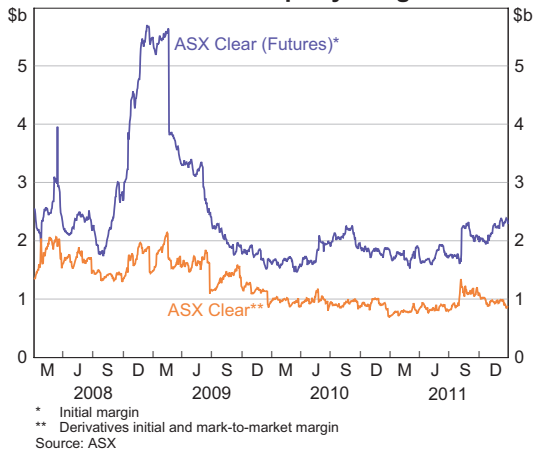
ADIs that provide retail payments services and operate Exchange Settlement accounts with the Reserve Bank will be required to report significant incidents in their retail payments operations to the Reserve Bank. This will supplement the existing reporting of high-value payments incidents by RITS members. Operational resilience is primarily an issue for payments system efficiency. However, there could be implications for financial stability if material concerns about operational resilience occurred during a period of financial stress.

The two ASX central counterparties, ASX Clear and ASX Clear (Futures), centralise and manage counterparty risk in Australia's main exchange-traded equities and derivatives markets. Exposure from this activity is mitigated by margin from participants and mutualised participant contributions to a default fund. Currently, margin is collected on derivatives positions only, although ASX Clear is in the process of implementing margining of equities.

Margin rates are based on historical price volatility and accordingly, margin held at the central counterparties provides an indication of the aggregate risk of open positions held. At the start of the second half of 2011, margin held remained at low levels relative to recent years. It increased noticeably in August after heightened market volatility led the central counterparties to raise margin rates on a number of contracts (Graph 2.29). Increased volatility also led to a temporary increase in open positions, which were mostly closed out following the peak in volatility. Margin held by ASX Clear (Futures) picked up again after further margin rate increases in October.

In early November, ASX Clear and ASX Clear (Futures) declared three clearing participants in default; all were subsidiaries of MF Global, a US-based company specialising in brokerage services. The default declaration was a result of the parent company filing for bankruptcy in the United States, after its exposures to European sovereign debt generated critical funding problems. Of MF Global's Australian clearing participants, that with the largest position,

**Graph 2.29**  
**Central Counterparty Margins**



MF Global UK, had a relatively small portfolio at ASX Clear (Futures) comprising financial and agricultural derivatives, which were mostly held on behalf of clients. Nevertheless, as it accounted for a large proportion of the relatively small wool and grain derivatives markets, ASX Clear (Futures) suspended trading in these markets on the day of the default, though these markets reopened the next day. The ASX central counterparties were well collateralised against MF Global exposures at all times, and these exposures were able to be closed out within two weeks.

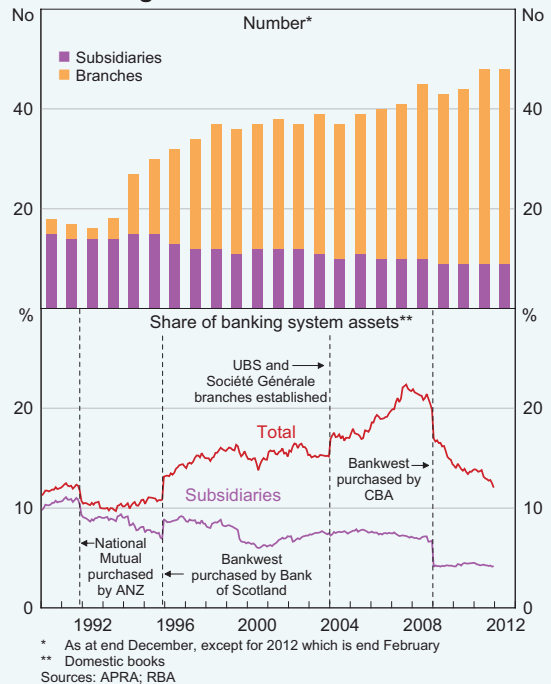
## Box A

# Foreign-owned Bank Activity in Australia

Since entry conditions for operating in Australia were further liberalised in 1992, the number of foreign-owned banks in Australia has been increasing steadily (Graph A1).<sup>1</sup> There are currently 48 foreign-owned banks in Australia, of which 39 are branches and 9 are subsidiaries, with some foreign-owned banks operating both a branch and a subsidiary. Subsidiaries are incorporated in Australia, must hold capital locally and are subject to the same prudential standards and supervision as Australian-owned banks. By contrast, branches are not locally incorporated, do not hold capital locally and are mainly supervised by the prudential regulator in their home country. Branches are not permitted to accept initial retail deposits from Australian residents of less than \$250 000.

Increasingly, foreign-owned banks in Australia have tended to operate as branches: the number of branches has increased over the past two decades, while the number of subsidiaries has declined from 15 to 9. This mainly reflected some foreign banks replacing their Australian subsidiaries with branches and others selling their subsidiaries to Australian-owned banks, as well as new foreign branch entrants. Consistent with this, branches now account for around two-thirds of foreign-owned bank assets, up from about one-eighth in 1990. Branches vary in size, from less than \$100 million to \$20 billion in assets, and are typically smaller than subsidiaries. The largest subsidiary currently has around \$47 billion in assets, making it the eighth largest bank in Australia; by comparison, the smallest of the four major banks has about \$400 billion in resident assets.

**Graph A1**  
Foreign-owned Banks in Australia

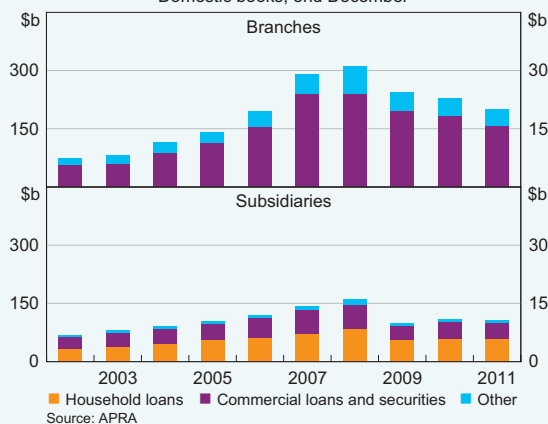


Branches tend to concentrate on wholesale banking operations because they have more flexibility to access funding globally, including through their parents, and are less constrained by large exposure limits, which helps them meet the demands of large corporate clients. By contrast, subsidiaries tend to be more retail focused, where large exposures are less significant, and their access to local retail depositors means they fund a larger share of their lending through deposits. This difference in business models is evident in the allocation of assets: the bulk of branches' assets are in commercial loans and securities, while the largest share of subsidiaries' assets are loans to households (Graph A2).

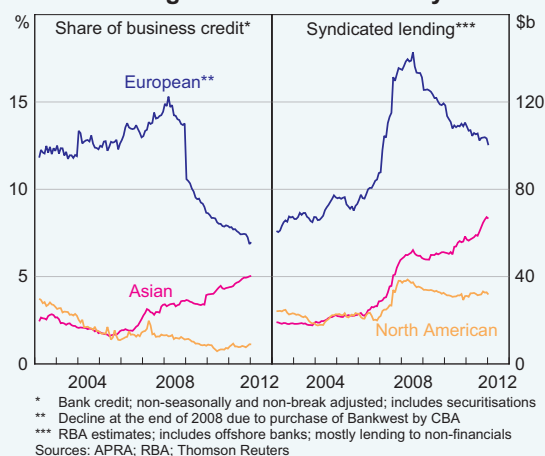
<sup>1</sup> Further information on the history of foreign-owned banks operating in Australia is available in RBA (2007), 'Box C: Foreign-owned Banks in Australia', *Financial Stability Review*, March, pp 47–49.



**Graph A2**  
**Foreign-owned Banks' Assets**  
 Domestic books, end December



**Graph A3**  
**Foreign-owned Bank Activity**



Although the number of foreign-owned banks operating in Australia has more than doubled since the early 1990s, their share of bank assets at the end of 2011, at 12 per cent, was broadly the same. From around the mid 1990s to 2007, they noticeably increased their share of bank assets, from around 10 per cent to 22 per cent, due to a combination of acquisitions, new entrants and organic growth. Since the onset of the financial crisis, however, the foreign-owned banks' share of assets has fallen. Only part of this was due to CBA's purchase of Bankwest in 2008, which was the largest foreign-owned bank at the time. The foreign-owned banks that expanded the most in the years leading up to the crisis have typically also seen the largest contractions in their assets in recent years.

Many European-owned bank branches, in particular, have been reducing their activity in the Australian market over recent years, while Asian-owned banks have become more prominent. European-owned banks' share of business lending has declined by about 4 percentage points since early 2009, while Asian-owned banks have increased their share by about 2 percentage points (Graph A3, left panel). Much of the pullback by European-owned banks has been in commercial property lending, where

their aggregate exposures have declined by about 60 per cent since the peak in 2009, compared with a 16 per cent fall for all banks. This may partly reflect their response to the relatively high impairment rates they have experienced on their commercial property loan portfolios in recent years. Some European banks have also been under pressure to deleverage because of difficulties their parents have been facing. The growth of Asian-owned banks over recent years reflects a growing appetite to expand their existing Australian operations as well as some new entrants from China and other countries in the region. Since 2010, seven new foreign bank licences have been granted in Australia, four of which were to Asian-owned banks.

Another way that foreign-owned banks provide finance in Australia is through cross-border lending. This is where an offshore bank provides loans directly to entities in Australia, typically large non-financial businesses, rather than through a domestic subsidiary or branch. Much of this lending is likely to be to businesses with a connection to the home country of the foreign bank. As with foreign banks lending through their Australian entities, cross-border lending has also moderated over recent years. Estimates suggest that outstanding

cross-border loans to non-financial businesses in Australia declined from about \$48 billion in 2007 (equivalent to 8 per cent of domestic business credit) to about \$27 billion in December 2011 (4 per cent of business credit).

The recent changes in the involvement of foreign banks in Australia have also been evident in the syndicated loan market. The estimated outstanding value of syndicated loans to Australian borrowers provided by foreign-owned banks nearly tripled over the decade to 2008, to about \$240 billion, but has since fallen by around 14 per cent (Graph A3, right panel). The recent fall was driven by European banks, partly offset by an increase in syndicated loans provided by Asian banks. European banks now account for a little over one-quarter of the outstanding value of syndicated loans provided by banks, down from over one-third in 2008, while Asian banks' share has increased to close to one-fifth. ❏

### 3. Household and Business Balance Sheets

The household sector has continued to consolidate its financial position. The household saving rate remains well above the levels recorded in the 1990s and early to mid 2000s and households have been actively shifting their portfolios towards more conservative assets such as deposits. The aggregate debt-to-income ratio has drifted down over the past year, with demand for new debt remaining low and many households choosing to repay their existing debt more quickly than required. Solid income growth is also helping to support households' debt-servicing capacity. In aggregate, households are managing their debt levels well, though mortgage arrears rates are still a little higher than a few years ago.

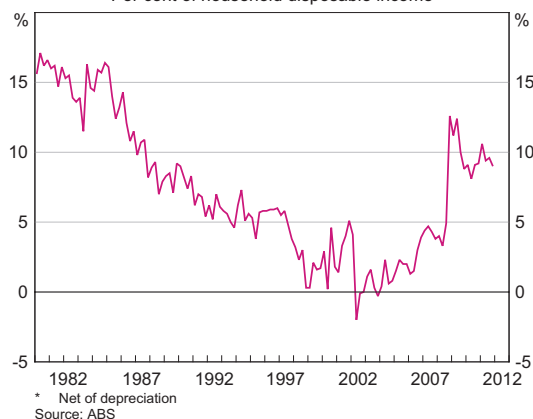
The business sector has been experiencing mixed conditions: the mining and related sectors continue to benefit from the resources boom, while the retail, manufacturing, construction and tourism sectors are facing weaker conditions associated with subdued retail spending, the high exchange rate and, in some cases, tighter lending standards than average. Overall, profitability and conditions in the business sector are positive. However, banks' non-performing business loans and failure rates are somewhat higher than average, reflecting the challenges some firms are facing as the Australian economy goes through a period of structural change. The business sector is in a better financial position than it was several years ago, having reduced leverage considerably and improved its liquidity position. Even so, demand for credit remains subdued.

#### Household Sector

Households' more prudent approach to financing has persisted through the past few quarters. As one indicator of this, the household saving ratio has been around 9½ per cent of disposable income for the past few years, significantly above the levels recorded in the 1990s and early to mid 2000s (Graph 3.1).

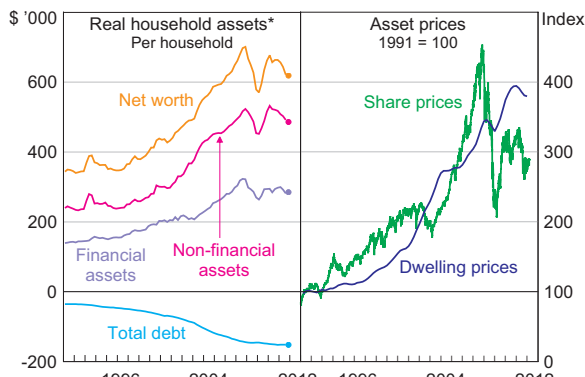
Part of the motivation for this higher rate of saving may have been a desire to bolster wealth, given the weakness in some asset markets in recent years. Real net worth per household is estimated to have fallen by 6½ per cent over 2011, to be 11½ per cent below its 2007 peak (Graph 3.2). This contrasts with the rapid trend expansion in this series over the decade to 2007 when average annual growth was 6½ per cent. Recently, the weakness in household wealth has been driven by dwelling prices, which were down about 4 per cent on an average nationwide basis over the year to December 2011; prices declined in

**Graph 3.1**  
**Household Saving\***  
Per cent of household disposable income



**Graph 3.2**

**Real Household Assets and Asset Prices**



\* In 2009/10 dollars; deflated using the household final consumption expenditure implicit price deflator; includes unincorporated enterprises; RBA estimates for December quarter 2011  
Sources: ABS; Bloomberg; RBA; REIA; RP Data-Rismark

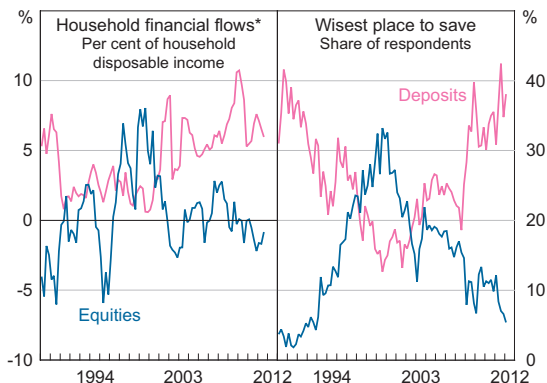
most cities over the year. Housing market conditions remain soft; preliminary data indicate that dwelling prices have fallen a little in early 2012. At the national level, the ratio of dwelling prices to income has fallen over the past year, and is below the average of the past decade, while rental yields have begun to pick up, assisted by stronger rental growth as well as lower prices.

Another sign of the more cautious approach of households is that they have been actively shifting the composition of their financial asset portfolio away from riskier assets like equities and towards deposits. From the beginning of 2008 to September 2011, there were net outflows from households' directly held equities of nearly \$50 billion, while holdings of deposits increased by around \$210 billion (\$94 billion more than in the previous corresponding period) (Graph 3.3, left panel). The net outflows from equities have come on top of – and were probably in reaction to – declines in equity prices over recent years, especially given that the resulting capital losses coincided with more attractive rates of return available on deposits.

The share of (directly held) equities in household financial assets is now almost half its pre-crisis level, at 9 per cent, while cash and deposits account for 27 per cent, up from 19 per cent in December 2007.

**Graph 3.3**

**Saving Measures**



\* Four-quarter moving average; excludes income and financial assets of unincorporated enterprises and is after interest, tax and depreciation  
Sources: ABS; Melbourne Institute and Westpac

Superannuation continues to account for the largest share of household financial assets, at 58 per cent, and has seen a similar shift in asset allocation away from equities and towards deposits. While fund managers' decisions need not directly reflect household preferences, the shift was more pronounced for self-managed superannuation funds, suggesting that households who directly manage their superannuation have indeed changed their investment preferences.

Consistent with this portfolio shift, surveys show a marked increase in the share of people nominating deposits and paying down debt as the 'wisest place' for their savings and a decline in the share nominating equities and real estate (Graph 3.3, right panel). Disaggregated data from the Household, Income and Labour Dynamics in Australia (HILDA) Survey also indicate that households have become somewhat more risk averse: the share of households who reported having a high tolerance for risk declined from 9½ per cent in the 2008 survey to 8 per cent in the 2010 survey.

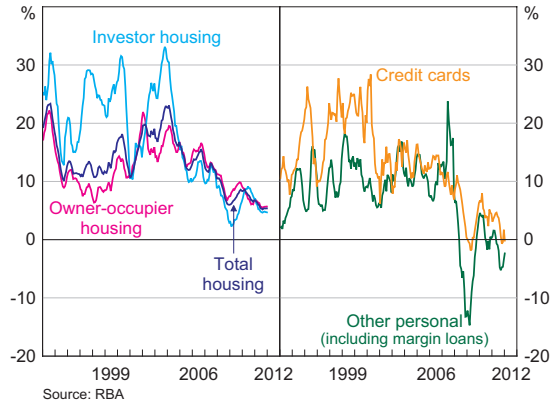
Households have also displayed a less exuberant approach to taking on additional debt in recent years. Growth in household credit has remained at an annual pace of 4½ per cent in the past year, well down on the 14 per cent average growth rate recorded between 2000 and 2010 (Graph 3.4). The reduced

appetite for debt has been more pronounced for borrowing for investment purposes, with investor housing credit growing at a slightly slower pace than owner-occupier housing credit for much of the past few years, and the value of outstanding margin loans continuing to fall; it is now down about two-thirds from its 2007 peak. Households' use of credit cards has also been quite subdued over the past year, with aggregate balances increasing only slightly.

Housing loan approvals data point to continued modest growth in housing credit in the immediate period ahead. Although the value of monthly approvals increased a little over the six months to January, it remained well below the peaks seen in recent years (Graph 3.5). The increase was largely driven by a pick-up in approvals to first home buyers, partly reflecting some pull-forward of their demand ahead of the expiry of stamp duty exemptions in New South Wales on 31 December 2011. Some first home buyers might have also been attracted into the market because lenders resumed offering loans with 95 per cent loan-to-valuation ratios (LVRs) last year. Consistent with this, the share of new owner-occupier housing loans with an LVR above 90 per cent has risen from a trough of 11½ per cent in the June quarter 2010 to 17 per cent in the December quarter 2011 (Graph 3.6). The share of owner-occupier housing loans approved at fixed interest rates has also increased over this period, to about 11½ per cent in December, a little above its long-run average. This increase likely reflects a narrowing in the spread between fixed-rate and variable-rate loans, though it may also be associated with recent uncertainty about lenders' loan pricing related to volatility in their funding costs. The share of interest-only (including 100 per cent offset) loans was broadly steady in 2011, while low-doc and other non-standard loans continued to account for a very small share of the market.

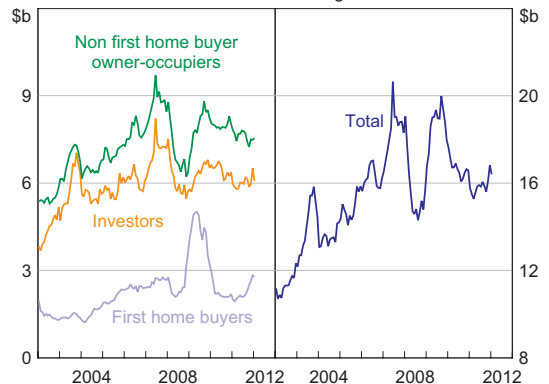
Reinforcing the effect of subdued approvals on credit growth is the continued pattern of many households choosing to repay their mortgages more quickly than required. Data from the latest HILDA Survey

**Graph 3.4**  
**Household Debt by Type**  
Six-month-ended annualised growth



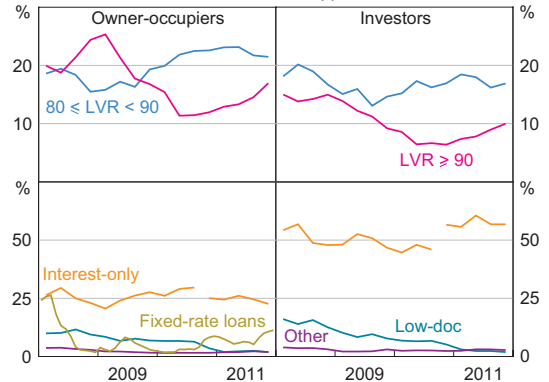
Source: RBA

**Graph 3.5**  
**Value of Housing Loan Approvals**  
Net of refinancing



Sources: ABS; RBA

**Graph 3.6**  
**Banks' Housing Loan Characteristics\***  
Share of new loan approvals



\* LVR = loan-to-valuation ratio; 'Other' includes loans approved outside normal policies, and other non-standard loans; 'Interest-only' includes mortgages with 100 per cent offset accounts

Sources: ABS; APRA

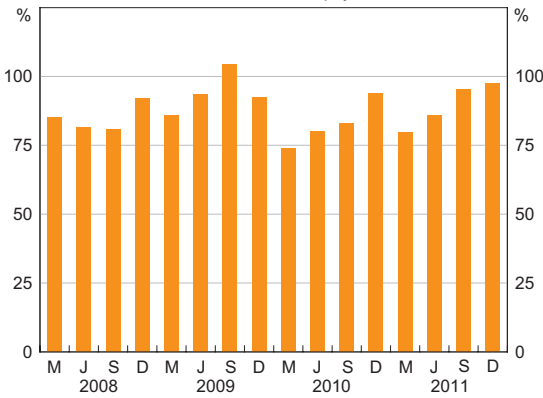
indicate that nearly 50 per cent of owner-occupiers with mortgages were ahead of schedule on their repayments in 2010, a slightly higher share than in the 2007 survey (see 'Box B: Home Mortgage Debt: Recent Insights from the HILDA Survey'). Many borrowers are repaying substantially more than required: data from lenders suggest that the rate at which borrowers were making excess repayments on their mortgages increased over 2011. Total excess repayments were roughly the same as required repayments in the December quarter 2011, up from about 80 per cent in the March quarter (Graph 3.7). These data include regular excess repayments as well as any one-off excess repayments made as a result of salary bonuses and other irregular income. Given that most borrowers do not change their regular repayment amounts when interest rates fall, the reductions in lending rates in late 2011 would be expected to boost excess repayments even further. This would add to the buffers that some of these borrowers are building up, and thus their resilience to potential future setbacks to their income.

Consistent with these mortgage borrowing and repayment trends, the rate of housing equity injection has increased over the past few years; on average, households have injected around 3 per cent of disposable income annually since 2008,

compared with average annual equity withdrawal of 4 per cent of disposable income around the middle of the decade.

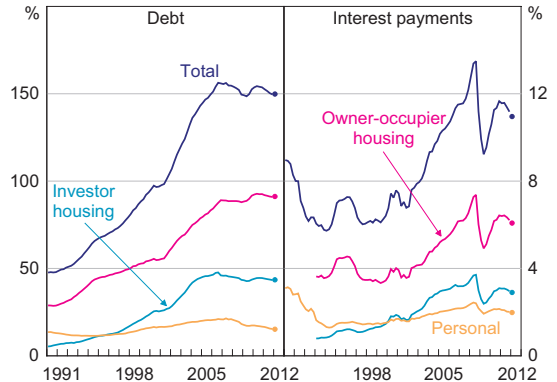
Household income growth has been solid, and this is underpinning households' debt-servicing capacity. Real household disposable income increased by 3¼ per cent over the year to the December quarter 2011, largely driven by an increase in compensation of employees. Reflecting the combination of solid income growth, subdued credit growth and lower lending rates, the ratio of household interest payments to disposable income has drifted down since late 2010. At an estimated 11 per cent in the March quarter 2012, this interest-servicing ratio is around 2½ percentage points below its 2008 peak (Graph 3.8, right panel).

**Graph 3.7**  
**Net Excess Mortgage Repayment Flows\***  
Per cent of scheduled repayments\*\*



\* Excludes repayments due to sales and refinancing  
\*\* Scheduled repayments include interest and principal  
Source: APRA

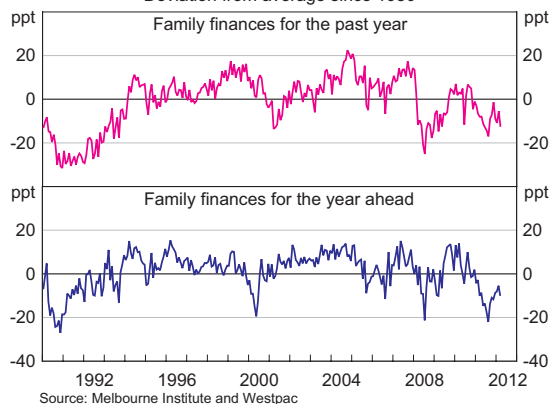
**Graph 3.8**  
**Household Debt and Interest Payments**  
Per cent of household disposable income\*



\* Household disposable income excludes unincorporated enterprises and is before interest payments; debt-to-income uses annual income; RBA estimates for March quarter 2012  
Sources: ABS; RBA

Despite the strength in incomes, households' sentiment towards their financial position has been relatively weak in recent years. For example, surveys suggest that households' view of their current and future financial positions has dipped below average in the past year or so (Graph 3.9). Household sentiment may have been dampened by the softening in the labour market; employment and hours worked grew very little in the year to February 2012, and the unemployment rate is somewhat

**Graph 3.9**  
**Consumer Sentiment**  
Deviation from average since 1980



higher. Forward-looking indicators, such as surveys of business hiring intentions, point to only modest growth in employment in the period ahead.

With income growing faster than debt, the ratio of household debt to annual disposable income has, like the interest-servicing ratio, drifted down recently, from 154 per cent in mid 2010 to an estimated 150 per cent in March 2012; however, this is still high by historical standards (Graph 3.8, left panel). Aggregate gearing of the household balance sheet – the ratio of debt to assets – has drifted up over the past year as asset prices have weakened. At nearly 20 per cent at the end of 2011, it is close to the previous peak in 2009.

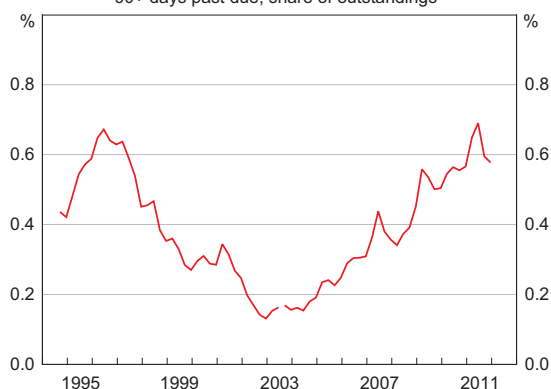
Although the household sector as a whole is still quite indebted, it remains the case that there is only a small share of very highly geared borrowers, and households generally appear well placed to meet their debt obligations. Data from the latest HILDA Survey, for 2010, show that a declining fraction of indebted owner-occupiers met standard criteria for assessing vulnerability. Just under 3 per cent of indebted owner-occupier households (holding around 7 per cent of owner-occupier housing debt) had both high debt-servicing ratios (DSRs) and high LVRs in 2010, compared with 3½ per cent in 2008. As well, less than 5 per cent of indebted owner-occupiers in 2010 were in the lowest 40 per cent of the income distribution and had DSRs above

50 per cent. More than 90 per cent of owner-occupier households with mortgages in the 2010 survey had an LVR below 80 per cent and/or a DSR below 30 per cent of income. These households also account for the bulk of outstanding owner-occupier debt.

Consistent with these survey results, aggregate indicators of financial stress show that the household sector has been coping reasonably well with its debt level. While arrears rates on mortgages are still above average, they have eased a little recently, and remain low by international standards. The arrears rate for housing loans (on banks' domestic books plus securitised housing loans) declined to 0.6 per cent in December, from 0.7 per cent in mid 2011 (Graph 3.10). The non-performing rate for credit cards has also improved, falling from 1.4 per cent in June 2011 to 1.2 per cent in December, while the rate for other personal loans has been broadly unchanged since mid 2011 at around 2 per cent (Graph 3.11).

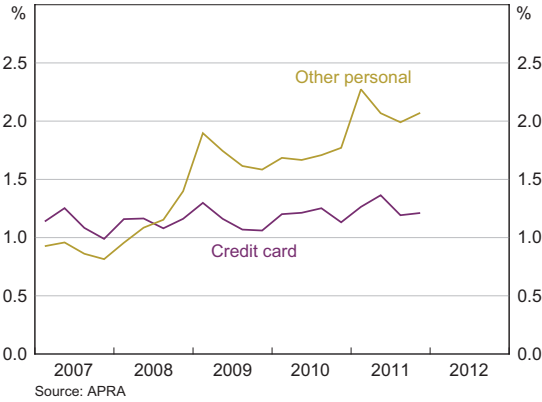
While the aggregate mortgage arrears rate has come down recently, state-level rates have diverged somewhat. Securitisation data suggest that arrears rates on housing loans in Queensland and Western Australia have increased the most over the past few years (Graph 3.12). Many of the loans in arrears were originated between 2006 and 2008, towards the end of the period of rapid housing price growth in

**Graph 3.10**  
**Housing Loan Arrears**  
90+ days past due, share of outstandings\*

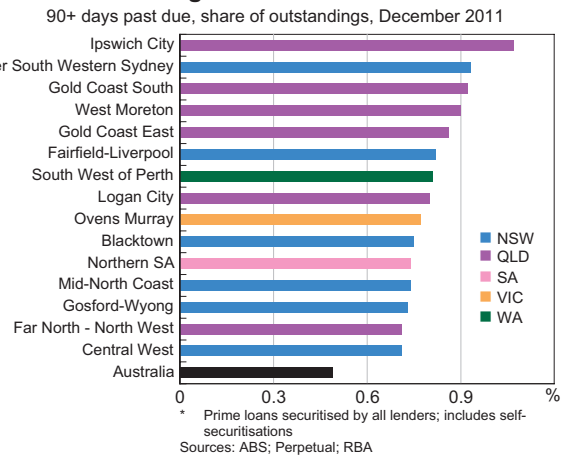


\* Includes banks' on-balance sheet loans and securitised loans from October 1997 onwards; securitised loans include only prime loans prior to April 2003 and loans securitised by all lenders afterwards; on-balance sheet loans are 90+ days past due but otherwise well secured by collateral  
Sources: APRA; Perpetual; RBA

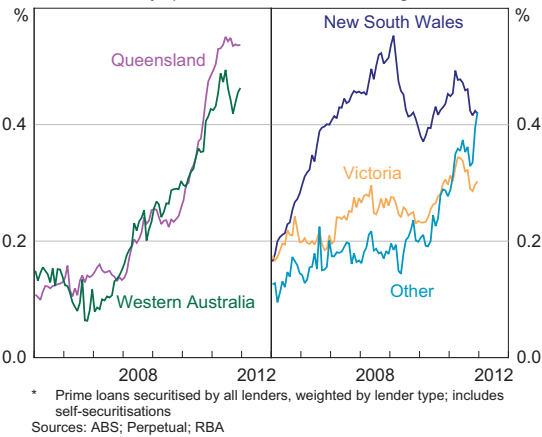
**Graph 3.11**  
**Banks' Non-performing Assets**  
 Domestic books, share of loans by type



**Graph 3.13**  
**Regions with the Highest Housing Loan Arrears Rates\***  
 90+ days past due, share of outstandings, December 2011

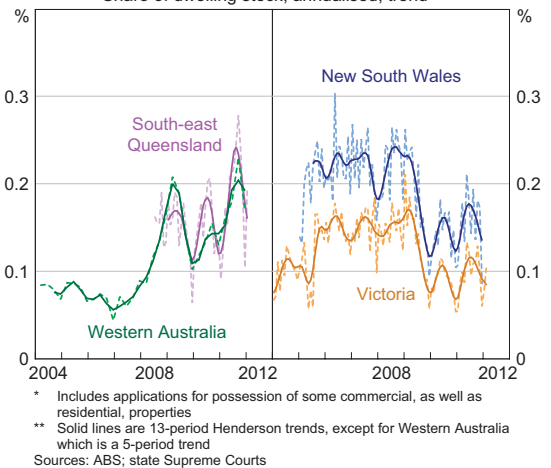


**Graph 3.12**  
**Securitised Housing Loan Arrears by State\***  
 90+ days past due, share of outstandings, sa



for lender property possession in South-east Queensland and Western Australia in the past year, although these have eased in recent months (Graph 3.14). In contrast, possession rates have generally either stabilised or improved in most other states. Bankruptcy rates have broadly fallen across states since 2009, although less so in Queensland and Western Australia. Overall, though, the number of households whose financial difficulties have deteriorated to the extremes of bankruptcy or lender property possession is very low in absolute terms.

**Graph 3.14**  
**Applications for Property Possession\***  
 Share of dwelling stock, annualised, trend\*\*



those states, which was followed by falls in prices. By contrast, arrears rates have declined from the recent peaks in New South Wales and Victoria. As a result, Queensland – particularly the areas in the south-eastern part of the state that rely on tourism, such as the Gold Coast and Sunshine Coast, and where unemployment is higher than the state average – is now more heavily represented among the regions in Australia with the highest mortgage arrears rates; a few years ago, New South Wales was more heavily represented (Graph 3.13).

The developments in state arrears rates have also been reflected in higher rates of applications

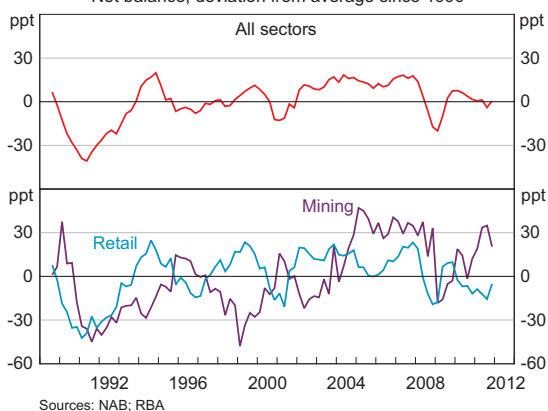
\* Includes applications for possession of some commercial, as well as residential, properties  
 \*\* Solid lines are 13-period Henderson trends, except for Western Australia which is a 5-period trend  
 Sources: ABS; state Supreme Courts



## Business Sector

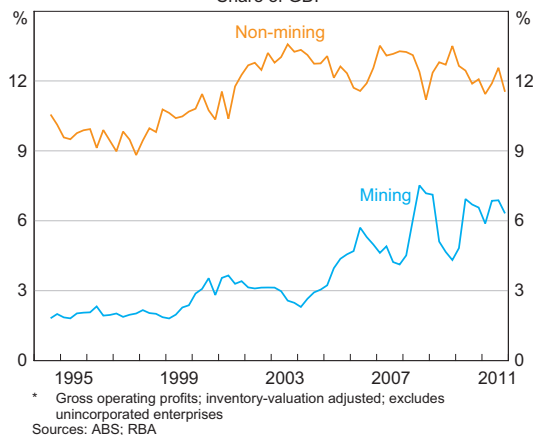
The divergence in conditions between the mining and non-mining sectors continues (Graph 3.15). In particular, the retail, manufacturing, construction and tourism sectors are facing weaker conditions because of relatively subdued retail spending, the high exchange rate, and in some cases, tighter lending standards than average. Thus although conditions in the business sector overall are quite positive, there may be a larger than usual segment of poorly performing firms; it is the connections of these firms to the financial sector that are most relevant for financial stability.

**Graph 3.15**  
**Business Conditions Surveys**  
Net balance, deviation from average since 1990



According to the national accounts, business profits fell by 1½ per cent in the December quarter 2011 but were 3 per cent higher over the year. Both mining and non-mining profits increased over the year, though growth in mining profits was a little stronger. Mining profits remain well above their average share of GDP while the GDP share of non-mining profits is a little below its decade average (Graph 3.16). This sectoral divergence was also evident in the latest profit reporting season for listed companies. Market analysts forecast profits to increase faster next financial year than in the current one and profit growth is expected to be stronger for listed resources companies than for other non-financial companies.

**Graph 3.16**  
**Business Profits\***  
Share of GDP



Profitability remains somewhat softer for smaller businesses than for larger businesses. Survey measures of small business profitability are still below average. The national accounts measure of profits of unincorporated enterprises fell by 2 per cent over the year to the December quarter 2011; the corresponding growth rate for (typically larger) incorporated businesses was around 5 per cent. Partial credit bureau data suggest that profitability in the unlisted (generally smaller) sector was broadly unchanged in 2011 across most industries; the median after-tax return on assets remains at about 4 per cent, which is a little below its long-run average. The share of unlisted businesses reporting losses was also broadly unchanged in 2011, at around 20 per cent, which is slightly above its pre-crisis average, though still down from a peak of 28 per cent in 2009. The share of loss-making firms is higher among the smallest unlisted firms – as has been the case historically – and for firms in the agriculture, property services and utilities sectors.

Robust total profits, together with lower disbursements, have generated strong internal funding of businesses in recent years. Internal funding of non-financial corporates increased to 11 per cent of GDP over the nine months to September 2011, the highest level in over 20 years

(Graph 3.17). The share of profits retained internally has been unusually high: buybacks and dividend payout ratios have fallen since the crisis, and interest payments have fallen relative to profits in line with lower interest rates and past reductions in leverage. Internal funding is estimated to have accounted for 80 per cent of total business funds raised in 2011, compared with an average of about 40 per cent in the years leading up to the crisis. This shift is consistent with the usual tendency of mining firms to fund a high proportion of their investment internally.

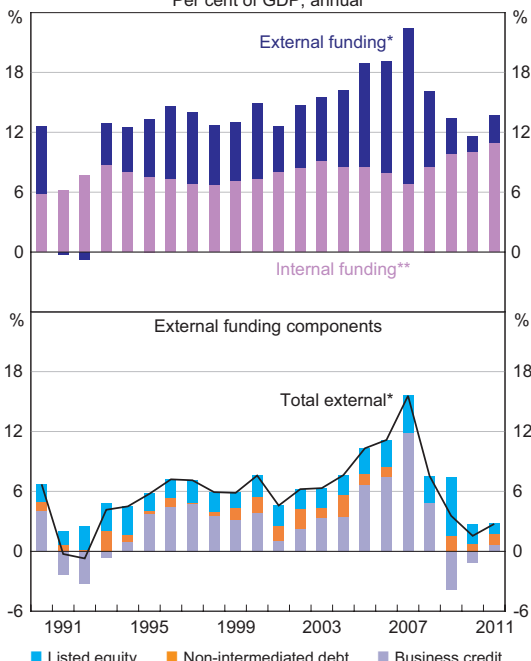
In contrast to internal funding, businesses' external funding has been subdued in recent years, averaging around 3 per cent of GDP since 2009 compared with a long-run average of 6 per cent. Equity raisings have been a more modest source of funds in the past couple of years than during the period of strong raisings in 2008 and 2009. In fact, companies bought back around \$10 billion of shares in 2011, the highest

annual volume since 2007. While the buyback activity was dominated by BHP Billiton, there was also a pick-up in buybacks by other companies and several have announced buybacks for 2012. There have been few initial public offerings in recent years, reflecting the soft share market conditions.

Like the household sector, businesses' demand for credit has been quite muted recently, partly because much of the business investment activity has been undertaken by mining companies that have been able to fund themselves internally. After contracting over much of the period since 2009, business credit increased modestly over the six months to January, but remains around 8 per cent below its 2008 peak (Graph 3.18). The increase in business credit was broad-based across sectors, other than the construction sector where conditions remain quite weak.

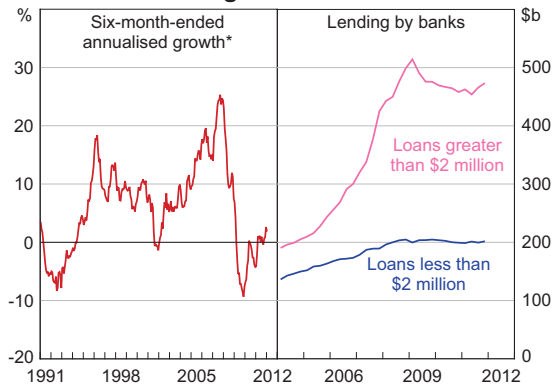
The weakness in business credit over 2009 and 2010 and the subsequent small rise is almost entirely explained by larger loans (above \$2 million); the outstanding value of loans smaller than \$2 million each has been broadly stable since 2008. A broadly similar pattern is evident in the split of credit between incorporated (typically larger) businesses and smaller, unincorporated businesses. Much of the weakness in incorporated business lending over recent years seems to have been driven by

**Graph 3.17**  
**Business Funding**  
Per cent of GDP, annual



\* Does not capture loans by institutions domiciled outside Australia  
\*\* 2011 observation is for the nine months to September  
Sources: ABS; APRA; ASX; Austraclear; RBA

**Graph 3.18**  
**Lending to Businesses**



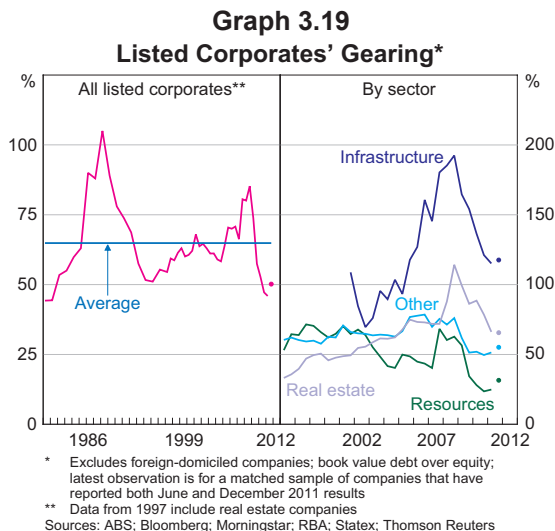
\* Seasonally adjusted and break adjusted; includes lending by non-bank financial institutions and securitised loans, but excludes lending to non-residents  
Sources: APRA; RBA

listed companies; while some tapped bond markets instead, many of them have chosen to pay down debt to strengthen their balance sheets.

The overall weakness in business credit seems to be mainly due to weak demand rather than supply constraints; liaison suggests that appetite for new debt remains subdued, and some businesses reported paying down existing debt. That said, supply factors have also contributed. Although liaison indicates that the availability of bank finance has improved over the past year for many firms, credit conditions remain tighter than prior to the crisis, particularly for loans to property developers.

While the use of intermediated debt has been relatively weak, corporate bond issuance has been solid in recent quarters. Much of this issuance was undertaken by resources companies as partial funding for acquisitions. Spreads between corporate bond yields and Commonwealth Government securities increased in the second half of 2011, in line with the increased volatility in global markets. However, they did not widen to the same extent as for US and European issuers and they remain well below the peaks in early 2009. In some recent cases, non-financial firms have issued at spreads lower than those on debt of the higher-rated Australian banks.

Corporate leverage has decreased significantly over recent years, to levels last seen in the early 1980s; the previously mentioned equity raisings, lower debt levels and increased retained earnings have served to strengthen companies' financial positions (Graph 3.19). However, the restructuring of balance sheets appears to be drawing to a close for most companies. Preliminary (matched sample) data suggest that average book value gearing of listed non-financial companies increased a little to 50 per cent over the December half 2011, largely driven by debt-funded acquisitions and buybacks by BHP Billiton and Rio Tinto. The decline in gearing over recent years has been broad based across sectors, and has been especially pronounced among highly leveraged companies in the infrastructure and real estate sectors. Gearing in the resources sector is

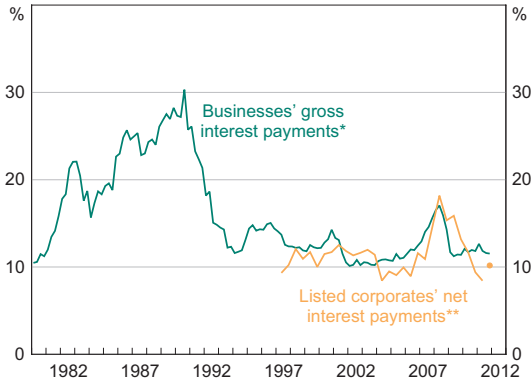


lower than in most other sectors but has picked up recently. Credit bureau data suggest that gearing in the unlisted business sector rose in 2011, after decreasing over the previous few years. Median gearing was 54 per cent based on the 2011 sample of firms, up from 47 per cent in the 2010 sample, but still below the pre-crisis average of 59 per cent.

Businesses' balance sheets have also become more liquid in recent years compared with prior to the financial crisis. Business deposits at banks increased by 12 per cent over 2011, after rising 8 per cent in 2010. Cash balances, including deposits, of listed companies remain at high levels across most sectors, but particularly so in the resources sector. Mining sector cash balances have recently declined a little, however, as BHP Billiton and Rio Tinto used part of their large cash reserves for acquisitions.

Reflecting businesses' low leverage, solid profitability and interest rates being around average, the ratio of businesses' interest payments on intermediated debt to profits is below its long-run average level (Graph 3.20). The ratio declined slightly in the September and December quarters 2011, as profits increased and business interest rates fell, to be around 11½ per cent, well below the peak of 17 per cent in 2008. For listed corporates, net interest payments (on all debt) as a share of profits are also

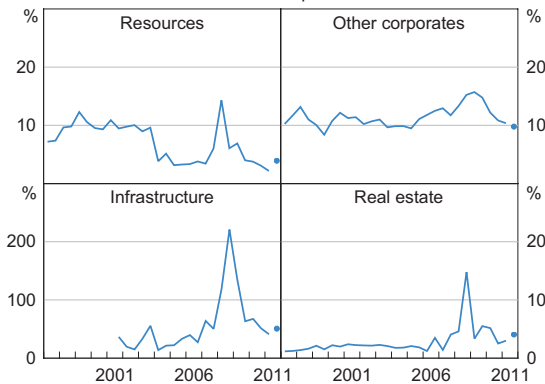
**Graph 3.20**  
**Business Interest Payments**  
Per cent of profits



\* Interest on intermediated debt from Australian-domiciled financial institutions  
\*\* Interest on all debt; final observation is for a matched sample of companies that have reported both June and December 2011 results; excludes foreign-domiciled companies  
Sources: ABS; APRA; Morningstar; RBA

at low levels. This is particularly the case for mining companies, reflecting their low leverage and high profitability, despite a slight increase in the second half of 2011 (Graph 3.21). Servicing ratios vary widely across sectors, in line with their different business models; for example, the average ratio is higher for infrastructure and real estate companies, though well below the peaks seen in 2008 when profits fell sharply, as well as for agriculture and hospitality companies.

**Graph 3.21**  
**Listed Corporates' Net Interest Payments\***  
Per cent of profits

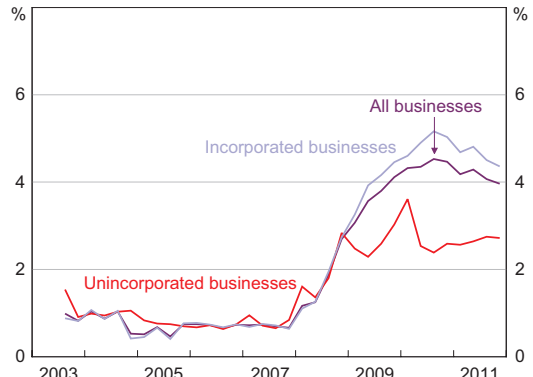


\* Final observation is for a matched sample of companies that have reported both June and December 2011 results; excludes foreign-domiciled companies  
Sources: Bloomberg; Morningstar; RBA

As discussed in the chapter on 'The Australian Financial System', the share of banks' business loans that is non-performing has declined over the past year, though it remains above average (Graph 3.22). The non-performance rate is still higher for loans to incorporated businesses than for loans to unincorporated businesses.

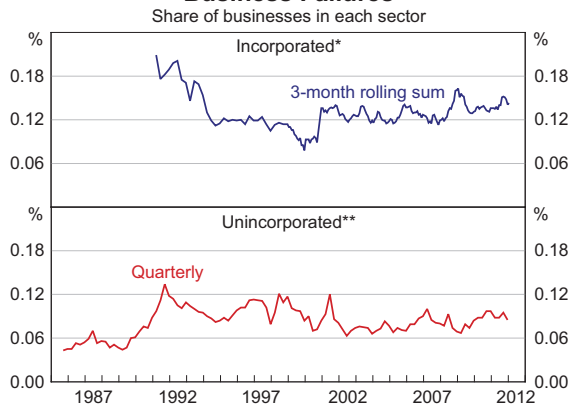
Business failure rates, a lagging indicator of business financial health, have been a little above average recently, though still below earlier peaks (Graph 3.23). The rate at which incorporated businesses were entering external administration has been elevated over the six months to January 2012, but has eased a little recently. Estimates based

**Graph 3.22**  
**Banks' Non-performing Business Assets\***  
Domestic books, share of outstandings by type



\* Excludes lending to financial businesses and includes bills and debt securities  
Sources: APRA; RBA

**Graph 3.23**  
**Business Failures**  
Share of businesses in each sector



\* Companies entering external administration; pre-1999 data are quarterly  
\*\* Business bankruptcies  
Sources: ABS; ASIC; ITSA; RBA

on projections of the number of tax-reporting (and thus economically active) firms suggest that the corporate insolvency rate may be closer to its 2009 peak, though still low in absolute terms. The failure rate among unincorporated businesses has eased a little recently after increasing over 2009 and 2010. In recent years, a larger share of business failures has been attributed to economic conditions, which may reflect the lagged effects of the financial crisis or pressures on those sectors not benefiting from the resources boom. Disaggregated data on corporate failures by industry show the recent increase was concentrated in the business and personal services sectors, while the share of failures in the hospitality and retail trade sectors has also increased a little.

## Commercial Property

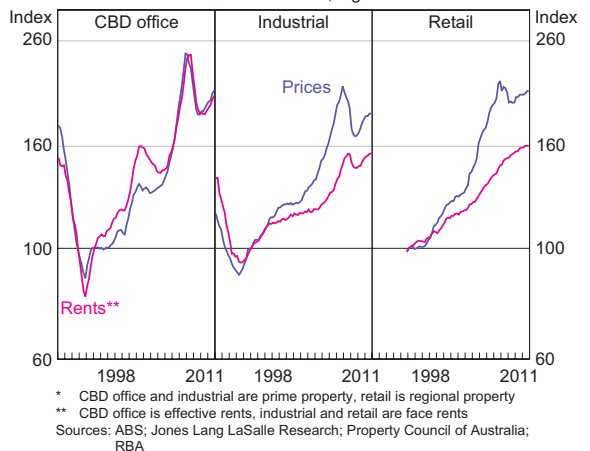
Conditions in the commercial property sector continued to improve in late 2011. Office vacancy rates in most capital cities have stabilised or declined moderately since 2009, with larger falls recorded in Perth and Brisbane (where vacancy rates had previously increased more sharply). Consistent with falling vacancy rates, office property values and rents rose by about 7 per cent over 2011, but remained around 15 per cent below their 2007 peaks on a national basis (Graph 3.24). The pick-up in office property prices was evident across most capital cities. Prices and rents in the industrial property market also strengthened, though conditions in the retail property market have been more subdued.

The adjustment in the commercial property market in recent years was less severe and drawn out than the downturn in the early 1990s: office property values fell by 25 per cent over two years from their late 2007 peak, compared with a 50 per cent peak-to-trough fall over four years in the early 1990s. There was a smaller supply overhang this time, and banks appear to have delayed selling some non-performing commercial property assets until conditions improved rather than selling into a depressed market. There were some market segments, however, where stock additions at the peak of the market subsequently put pressure on vacancy rates and rents, especially

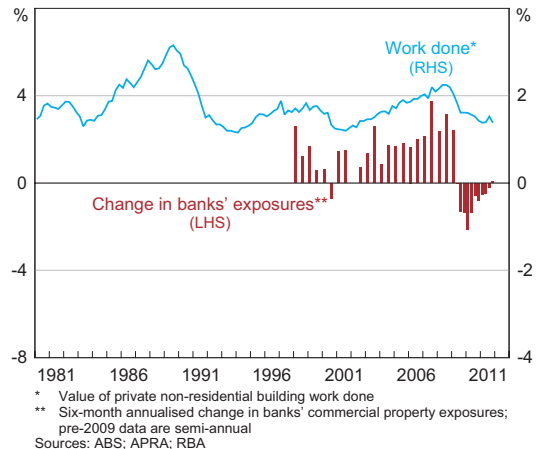
the Perth and Brisbane CBD office property markets. Liaison suggests that the increase in business failures in Western Australia was driven by distressed firms in construction and residential property development.

Despite conditions in the commercial property market improving, construction activity remains below average (Graph 3.25). This partly reflects ongoing tightness in financing conditions. While larger developers reportedly have good access to wholesale finance, industry liaison indicates that smaller developers are facing stricter collateral, covenant and pre-commitment requirements

**Graph 3.24**  
**Commercial Property\***  
March 1995 = 100, log scale



**Graph 3.25**  
**Commercial Property**  
Per cent of GDP



than in earlier years. Lending conditions are said to be particularly tight for residential property developments in Melbourne, given concerns about a possible oversupply of apartments in that city.

After falling about 15 per cent between 2009 and 2010, banks' outstanding commercial property lending was broadly flat in the second half of 2011 (Graph 3.26). This occurred partly because the smaller Australian-owned banks' exposures began to stabilise in the second half of 2011; in contrast, those of the European-owned banks continued to shrink and have now fallen by 60 per cent since the peak in 2009, proportionately more than the decline in their total business lending. This pullback from commercial property financing may partly be explained by the higher impairment rate these banks have experienced on their commercial property portfolios. Some of them have also been under pressure to deleverage given the difficulties their parent groups are facing in Europe. By contrast, Asian banks have increased their exposures to the Australian commercial property market over the past two years, though from a relatively low base. Non-bank sources of finance for commercial property remain constrained, with little issuance of commercial mortgage-backed securities in recent years and mortgage trusts' funds under management continuing to decline. The major banks' lending for commercial property has been

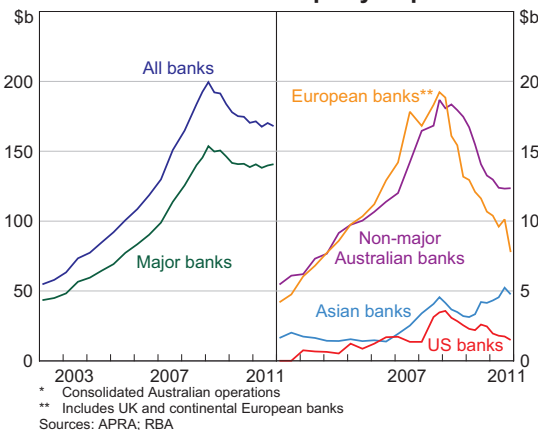
relatively resilient over the past few years; as a result of the declines in debt funding from other sources, they now account for 65 per cent of all commercial property debt financing in Australia, up from 45 per cent in 2006.

As discussed in the chapter on 'The Australian Financial System', the quality of banks' commercial property exposures improved slightly over 2011, but the impairment rate remains above that for banks' total business lending (5 per cent versus 3 per cent). Commercial property impairments are about one-half of banks' total impaired business assets, even though lending to the sector accounts for only about one-third of total business lending.

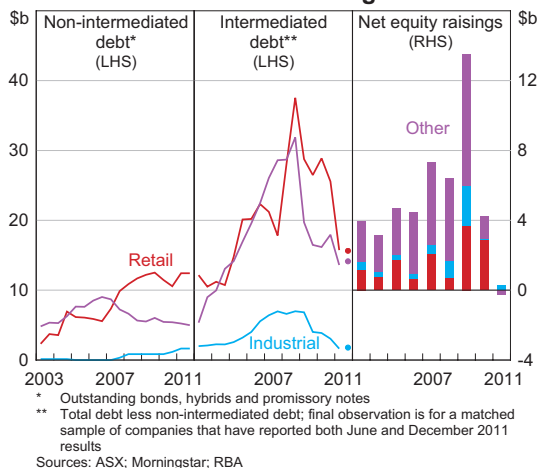
Australian listed real estate investment trusts (A-REITs) appear to be nearing the end of their balance sheet restructuring, with preliminary data for December 2011 showing average gearing back to 2004 levels at around 60 per cent, and well below the peak of 115 per cent in 2008. Debt levels were lower over the year, while equity raisings of about \$½ billion in the first half of 2011 were almost entirely offset by buybacks in the second half (Graph 3.27). With property prices stabilising, A-REITs' profitability has recovered over recent periods, but remains below the high levels seen prior to the crisis when property price inflation was a significant contributing factor.

**Graph 3.26**

**Banks' Commercial Property Exposures\***



**Graph 3.27**  
**A-REITs' Funding**



## Box B

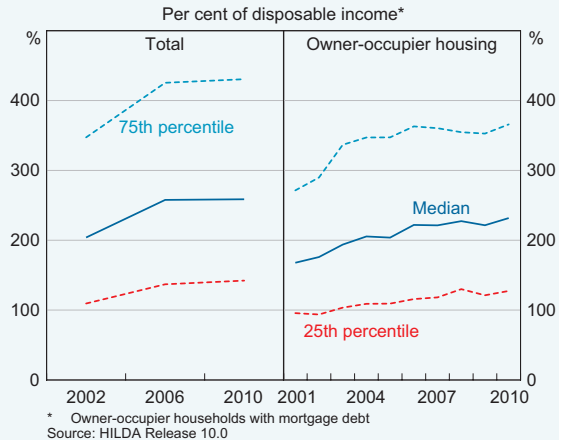
# Home Mortgage Debt: Recent Insights from the HILDA Survey

The Household, Income and Labour Dynamics in Australia (HILDA) Survey interviews the same households each year, mainly between August and November, with the latest published results being for 2010. It therefore makes it possible to trace individual changes in household debt over the past decade. Detailed data on owner-occupier mortgage debt are included in each year's survey; a full breakdown of all forms of household debt is available at four-yearly intervals (2002, 2006 and 2010).

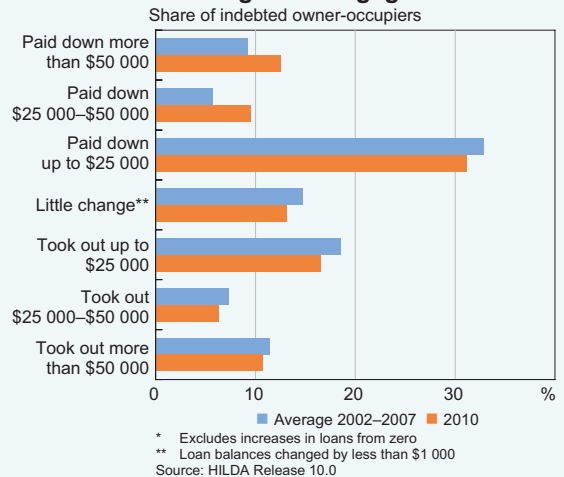
Broadly consistent with the aggregate data (see Graph 3.8 in the 'Household and Business Balance Sheets' chapter), the HILDA Survey data on total household debt show that the debt-to-income ratio for the median indebted household increased sharply between 2002 and 2006, and then rose only marginally between 2006 and 2010 (Graph B1). A similar pattern is evident when the sample is restricted to indebted owner-occupiers only. The recent slowdown in growth is observable across the distribution of the debt-to-income ratio.

The moderation in the debt-to-income ratio reflects a shift of many households towards paying down debt rather than accumulating it: the share of indebted owner-occupier households who made substantial principal repayments on their mortgage (of \$25 000 or more over the year) was significantly higher in 2010 than the average between 2002 and 2007 (Graph B2, Table B1). A repayment of this size is significant, and well in excess of the additional repayment that would accrue if repayments were held constant in the face of lower interest rates. A \$25 000 reduction in debt is equivalent to more than double the annual principal repayment a borrower would make in any of the first fifteen years on the average new mortgage (of around \$300 000 at origination).

**Graph B1**  
**Household Debt**



**Graph B2**  
**Annual Change in Mortgage Debt\***



Moreover, the share of households who substantially increased their mortgage (by \$25 000 or more) was lower in 2010 than the average between 2002 and 2007.

**Table B1: Annual Changes in Mortgage Debt<sup>(a)</sup>**  
Owner-occupier households with mortgage debt

	Share of indebted households <sup>(b)</sup>	Paid down more than \$25 000				Took out more than \$25 000			
		2002–07 average	2008	2009	2010	2002–07 average	2008	2009	2010
<b>Income bracket, per cent of each income bracket</b>									
0≥20%	10	11	8	11	19	9	21	14	12
20≥40%	22	11	16	14	16	12	11	8	12
40≥60%	38	12	12	15	16	16	16	17	19
60≥80%	55	13	14	21	22	20	21	17	19
80≥100%	60	21	24	30	30	23	24	20	16
<b>Age of household head, per cent of each age bracket</b>									
15–34	36	13	16	20	20	15	13	13	14
35–54	53	14	14	19	24	25	22	20	21
Over 55	24	22	15	26	33	33	40	36	24
<b>State, per cent of each state</b>									
NSW	35	19	21	24	29	22	20	18	15
Vic	37	14	13	23	19	17	17	17	20
Qld	38	12	13	16	22	16	20	19	14
SA	36	11	11	11	13	16	13	12	17
WA	39	14	18	25	23	21	24	15	21
<b>Total, per cent of total</b>									
	<b>37</b>	<b>15</b>	<b>16</b>	<b>21</b>	<b>22</b>	<b>19</b>	<b>19</b>	<b>17</b>	<b>17</b>

(a) Excludes increases in loans from zero

(b) Per cent of owner-occupier households with mortgage debt

Source: HILDA Release 10.0

The change in mortgage repayment behaviour has been broad based across the income distribution, but particularly marked among households in the upper income brackets. There was a significant increase in the share of households in the top 20 per cent of the income distribution who made substantial mortgage repayments in recent years, while the share of these households that substantially increased their outstanding mortgage debt fell. Higher-income households typically spend a smaller share of their incomes on essential goods and services, so they have more scope to pay debt down quickly than do lower-income households.

Despite this, the share of lower-income households making large mortgage repayments in 2010 was also significantly above the average between 2002 and 2007.

By age bracket, the share of older households with mortgages (where the household head is aged over 55 years) making substantial repayments increased significantly in recent years and there has been a substantial decline in older households adding large amounts of debt. Despite the fact that younger households (with a head aged 15–34 years) typically have lower-than-average incomes, the



share of these households making large repayments also increased significantly. Overall, the change in mortgage repayment behaviour was largely driven by households with a head aged 35–54 years; a lower share of younger and older households have mortgage debt.

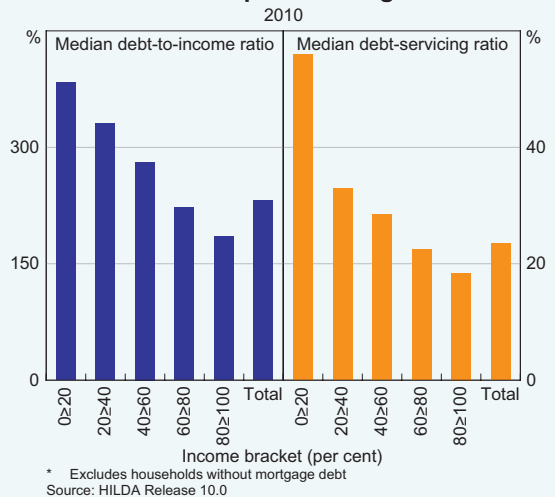
The recent repayment behaviour by households has occurred broadly across states. New South Wales borrowers in particular appear to have become more cautious; the share of households making large mortgage repayments was higher in 2010 than in prior years and the share of households taking out substantial amounts of mortgage debt decreased. The share of Queensland and Western Australian households making substantial mortgage repayments also increased significantly.

The recent household balance sheet consolidation is part of a more prudent approach to financing that households have been taking in recent years. Although the household sector remains quite indebted, households appear well placed to manage their debt. Around 70 per cent of owner-occupier housing debt is held by high-income households (in the top 40 per cent of the income distribution) that typically have lower debt-to-income and debt-servicing ratios (DSRs) (Graph B3). Only a relatively small share of low-income households (in the bottom 20 per cent of the income distribution) have housing debt. However, these households tend to be very indebted and have high DSRs. Sometimes this is because they have temporarily low incomes.

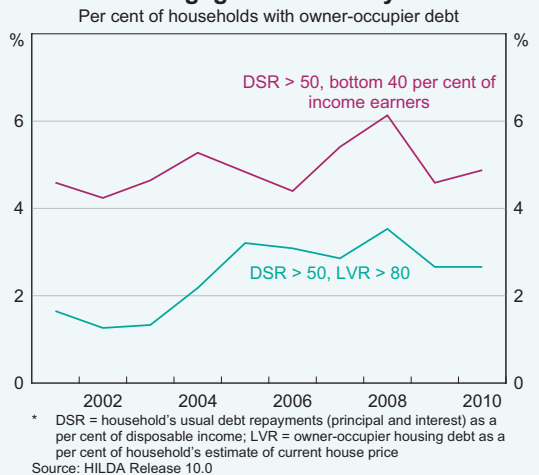
Few households appear to be vulnerable to falling into mortgage arrears. While 5 per cent of households who owned residential property and had owner-occupier debt missed a mortgage repayment in the year prior to the 2010 Survey, only a small share of these households were behind schedule on their mortgage. This suggests that most households who miss a repayment are able to resolve their difficulties. The share of owner-occupier households that could be considered to be most vulnerable, that is, with

both high DSRs and high loan-to-valuation ratios (LVRs), has decreased in recent HILDA Surveys and is quite low (Graph B4). Part of the recent decrease in the share of households with high DSRs reflects lower interest rates – all other things equal, DSRs fall when interest rates fall – though these measures of vulnerability have been broadly steady at a low level for some time. The measure of debt servicing recorded in the HILDA Survey covers actual

**Graph B3**  
**Owner-occupier Housing Debt\***



**Graph B4**  
**Mortgage Vulnerability\***



repayments made by households and includes excess repayments; some households may have a high DSR voluntarily. While required repayments are not reported in the HILDA Survey, reasonable approximations of the interest component and loan term are available. Based on this information, it seems that roughly one-half of borrowers with DSRs above 50 per cent could be making payments substantially above their likely required repayments, and would be reasonably considered to be less vulnerable to falling into distress. ✎

## 4. Developments in the Financial System Architecture

---

Addressing the risks posed by systemically important financial institutions (SIFIs) has continued to be a priority of the international regulatory reform agenda. The G-20 recently endorsed a policy framework for SIFIs, with the focus initially being on the large global banks. The framework includes higher capital requirements for these banks as well as improved resolution regimes. Work is underway to extend the framework to other SIFIs, including banks that are systemically important in a domestic context. The Financial Stability Board (FSB) is continuing to lead work on shadow banking: it recently developed a framework for strengthening the oversight and regulation of shadow banking systems, which includes an annual global monitoring exercise.

Reform of over-the-counter (OTC) derivatives markets is continuing as jurisdictions work to meet the G-20 commitment that all standardised OTC derivative contracts be centrally cleared by the end of 2012. The FSB has intensified its monitoring and coordination of developments in this area in order to accelerate national efforts and promote adequate safeguards for the use of central counterparties across borders. In Australia, the Council of Financial Regulators (CFR) continued to develop policy proposals on the regulation of OTC derivatives markets. The CFR has also reviewed aspects of the regulatory arrangements for financial market infrastructures. The CFR agencies are preparing for an International Monetary Fund (IMF) Financial Sector Assessment Program (FSAP) review that Australia has agreed to undergo in 2012.

The Australian Prudential Regulation Authority (APRA) has been engaging with authorised deposit-taking institutions (ADIs) on the implementation of the Basel III capital and liquidity standards in Australia, which are due to be phased in over the coming years. Associated with this, the Bank has provided further detail on the Committed Liquidity Facility it will provide as part of Australia's implementation of the Basel III liquidity reforms. Along with other countries, Australia's implementation of the Basel III capital reforms will eventually be reviewed by the Basel Committee on Banking Supervision (BCBS) under its recently established assessment framework. This framework is aimed at ensuring timely and consistent implementation of the Basel capital framework across jurisdictions.

### International Regulatory Agenda and Australia

#### Systemically important financial institutions (SIFIs)

At their November 2011 Summit, the G-20 Leaders endorsed a policy framework for SIFIs developed by the FSB. Some specific measures focus on institutions that are systemically important in a global context (so-called G-SIFIs) to reflect the greater risks these institutions pose to the global financial system. This is a key part of the international policy response to the crisis, aimed at addressing the moral hazard and externalities associated with financial institutions that are perceived to be 'too-big-to-fail'.

The policy framework comprises:

- a new international standard setting out the responsibilities, instruments and powers that all national resolution regimes should have, to enable authorities to resolve failing financial firms in an orderly manner and without exposing the taxpayer to the risk of loss;
- requirements to develop resolvability assessments and for recovery and resolution planning for G-SIFs, as well as institution-specific cross-border cooperation arrangements so that home and host authorities of G-SIFs are better prepared to deal with crises;
- requirements that global systemically important banks (so-called G-SIBs) have additional loss absorption capacity above the Basel III minimum; and
- recommendations for more intensive and effective supervision of all SIFs, including through stronger supervisory mandates, resources and powers, and higher supervisory expectations for risk management functions, data reporting capabilities, risk governance and internal controls.

To support this policy framework, the BCBS recently finalised a methodology to identify G-SIBs, along with a graduated system of capital requirements (above Basel III) that will apply to them (see 'Box C: Global Systemically Important Banks'). An initial list of 29 G-SIBs based on the methodology was published by the FSB in November. The higher capital requirements for G-SIBs aim to reduce the probability of their failure and provide incentives for them to become less globally systemic.

The new international standard on resolution regimes, *Key Attributes of Effective Resolution Regimes for Financial Institutions (Key Attributes)*, was released by the FSB in November. It aims to improve the capacity of authorities to restructure and resolve troubled SIFs in an orderly and effective manner. The final version of the *Key Attributes* is broadly the same as the consultation version described in the previous *Review*.

The key elements are:

- ensuring a designated resolution authority has a broad range of powers and tools to intervene and resolve a financial institution that is no longer viable;
- removing any impediments to cross-border cooperation between resolution authorities and providing authorities with incentives, statutory mandates and powers to share information across borders to help facilitate cross-border resolutions;
- ensuring that all G-SIFs have recovery and resolution plans ('living wills'), which are regularly reviewed and updated and are informed by rigorous annual resolvability assessments of each firm; and
- establishing crisis management groups for all G-SIFs, comprising home and key host resolution authorities and underpinned by cooperation agreements.

The G-20 and the FSB have called on countries to undertake the reforms, including any legislative changes, needed to conform to the *Key Attributes*. Together with the IMF and other standard-setting bodies, the FSB is developing a methodology to assess jurisdictions' compliance with the *Key Attributes*. In due course, the FSB will use this methodology to undertake a peer review of all member jurisdictions. The FSB is also establishing a Peer Review Council to monitor the implementation of the G-SIFI policy measures and associated changes to national resolution regimes. Resolvability assessments, recovery and resolution plans, and cross-border cooperation agreements are required for all G-SIBs by the end of 2012.

FSB members were recently asked to provide a self-assessment of how their national resolution regimes compared to the *Key Attributes* and their plans to address any gaps. Significant parts of the *Key Attributes* do not apply to Australia as no Australian-owned banks are identified as G-SIBs and Australia is not a key host jurisdiction for any

G-SIBs. Furthermore, Australian law and resolution arrangements do not distinguish between SIFIs and other prudentially regulated entities. Nonetheless, Australia's response to the FSB noted that the domestic resolution regime for financial institutions was largely compliant with the *Key Attributes*, reflecting the substantial legislative and administrative steps that had been taken in recent years to strengthen the resolution framework.

Even though they are only required of G-SIBs at this stage, APRA has begun preliminary work on living wills in Australia, focusing initially on recovery planning in the ADI industry. In 2011, APRA established a pilot program on recovery planning for a number of the larger ADIs. This requires the ADIs to prepare a comprehensive recovery plan that sets out the specific actions they would take to restore themselves to a sound financial position in the face of a major depletion of their capital and associated liquidity pressures. APRA is currently reviewing the draft plans that the ADIs submitted late last year; the finalised plans are to be signed off by the ADIs' boards by mid 2012. Drawing on the results of the pilot program, APRA intends to extend the recovery planning to a wider set of ADIs in 2012/13, and will be considering the appropriate extension of recovery planning to general and life insurance companies in due course.

Given the significant presence of Australian banks in New Zealand, the CFR agencies and their New Zealand counterparts have long recognised the need for effective cooperation and coordination on crisis resolution while recognising that each country has its sovereign interests to protect. Through the Trans-Tasman Council on Banking Supervision, a number of steps have been taken in recent years to strengthen the cross-border crisis management framework. The authorities from both countries recently conducted a cross-border crisis simulation exercise to test the framework and determine the scope for further refinements to the crisis management arrangements.

Beyond the elements of the SIFI policy framework described above, there are further measures being developed to address the risks posed by SIFIs other than G-SIBs. The International Association of Insurance Supervisors (IAIS) is expected to finalise a methodology for identifying global systemically important insurers and associated policy measures during 2012. The broad indicators being considered by the IAIS to judge the global systemic importance of insurers are similar to the G-SIB approach, including measures of size, global activity, substitutability and interconnectedness. Measures of non-traditional insurance business are also likely to play a key role: the IAIS considers that insurers engaged in non-traditional activities, such as credit default swap transactions for non-hedging purposes, are more likely to contribute to systemic risk. The FSB, in consultation with the International Organization of Securities Commissions (IOSCO), is separately looking at developing a framework for identifying the systemic importance of other non-bank financial institutions such as securities firms. The Committee on Payment and Settlement Systems (CPSS) and IOSCO are continuing their work on systemically important market infrastructures and are close to finalising a stronger set of international standards for these entities aimed at minimising the risk of their failure and reducing contagion risks if participants fail. As discussed in the March 2011 *Review*, these standards will apply to all systemically important market infrastructures including payment and settlement systems and central counterparties.

Now that the design of the international framework for G-SIBs is largely completed, the FSB and BCBS have recently begun work, at the request of the G-20, to consider how to extend it to domestic systemically important banks (so-called D-SIBs). The two bodies are scheduled to deliver a progress report on this work to the G-20 Finance Ministers and Central Bank Governors in April. The Bank and APRA have been contributing to the BCBS workstream developing the D-SIB framework. This work will have implications for a broader range of countries than

the G-SIB framework. Unlike the G-SIB framework, the D-SIB framework is currently envisaged as taking the form of a set of guiding principles for national authorities. Given the large differences in jurisdictions' financial structures and the fact that D-SIBs have, by definition, mainly domestic impacts, there is a strong case for a high degree of national discretion and flexibility in how D-SIBs are identified and their risks addressed.

Indeed, a number of jurisdictions are already developing their own approaches for identifying SIFIs and associated policy responses. Identification methodologies vary from those based on single indicators, such as size, to those that more closely resemble the multiple-indicator approach used to identify G-SIBs. Some of these jurisdictions, including China, the Netherlands, Sweden, Switzerland and the United Kingdom, have also announced, but not necessarily formalised, additional loss absorbency requirements for their D-SIBs.

In the United States, the Financial Stability Oversight Council recently released its methodology for identifying systemic non-bank financial companies. This includes an initial filter comprising several quantitative thresholds, to be followed by a more detailed analysis of individual firms where this is warranted. This builds on the measures for systemic banks prescribed in the 2010 Dodd-Frank Act, where any US bank holding company with US\$50 billion or more in total consolidated assets is to be subject to enhanced prudential standards and supervision by the US Federal Reserve. The proposed prudential standards for systemic institutions include stronger risk-based capital, leverage and liquidity standards, and more intensive stress-testing. US regulatory agencies have also recently released detailed guidance on the implementation of the so-called Volcker Rule, which prohibits banks in the United States carrying out proprietary trading and from having an ownership interest in hedge funds and private equity funds. The draft rules define which activities are prohibited and specify a compliance regime and reporting requirements.

## Assessing implementation of Basel III

As noted in the previous *Review*, many countries, including Australia, are in the process of implementing the Basel III standards. To help ensure full, timely and consistent implementation, the BCBS has recently established a framework to monitor and review its members' adoption of the globally agreed Basel capital rules. As part of this process, each BCBS member has committed to undergo a peer review of its implementation of all components of the Basel capital framework, including Basel II, Basel 2.5 (the July 2009 enhancements on market risk and securitisations) and Basel III. These peer reviews will assess the compliance of members' domestic rules or regulations with the international minimum standards in order to identify differences that could raise prudential or level playing field concerns. The BCBS will also review how risk-weighted assets are measured, to ensure practices are consistent across jurisdictions. Initial peer reviews are assessing implementation in the European Union (EU), Japan and the United States, with other BCBS members to be assessed in due course. A senior official from APRA is leading the peer review of the EU. Australia is well placed in its implementation of the Basel capital framework: APRA has fully implemented the Basel II and 2.5 reforms and is in the process of consulting with the ADI industry on the implementation of the Basel III reforms.

## Supervisory principles

Two international standard-setting bodies recently issued for consultation revised supervisory principles relating to financial institutions. In December, the BCBS issued its revised *Core Principles for Effective Banking Supervision* for consultation. Updating the 2006 version, the revised principles build on the lessons of the recent financial crisis by enhancing supervisory practices and supervisory expectations relating to risk management within banks. For similar reasons, they also recognise the need for greater supervisory intensity and resources to deal effectively with systemically important banks; the

importance of applying a system-wide, macro perspective to the supervision of banks to assist in the control of systemic risk; and the increasing focus on effective crisis management, recovery and resolution measures in reducing both the probability and impact of a bank failure.

The Joint Forum (comprising the BCBS, IAIS and IOSCO) released a consultation paper on a revised set of *Principles for the Supervision of Financial Conglomerates*. The principles are designed to support consistent and effective supervision of financial conglomerates, particularly those that are active across borders. They also address risks arising from unregulated financial activities and entities, including the complexities and gaps resulting from cross-sectoral activities.

The consultation for both sets of principles closed in March, and they are expected to be finalised in coming months.

The IAIS revised its 2003 *Insurance Core Principles, Standards, Guidance and Assessment Methodology*, which provides a globally accepted framework for the supervision of the insurance sector. This revised framework, which came into effect in October 2011, incorporates recent developments in insurance markets and supervision, as well as recommendations from the G-20 and the FSB. Like the BCBS, the IAIS has increased the focus on systemic stability, as evidenced by the inclusion of a new principle in the area of macroprudential surveillance, which aims to identify and mitigate systemic risk within the insurance sector.

### **FSB peer review process**

The FSB has continued with its program of 'thematic' and country peer reviews, as part of its efforts to strengthen adherence to international standards. As foreshadowed in the previous *Review*, a country peer review of Australia was published in September 2011. The report concluded that the Australian financial system had weathered the financial crisis well, largely reflecting strong macroeconomic fundamentals supported by a sound regulatory

and supervisory framework. It also concluded that Australia had made significant progress in addressing key recommendations from the 2005/06 IMF Financial Sector Assessment Program report.

The FSB also recently published a second thematic cross-country review on financial sector compensation practices and one on deposit insurance systems. In 2012, the FSB is intending to undertake peer reviews on risk governance of financial institutions and on resolution regimes. The latter will evaluate the resolution regimes of FSB member jurisdictions against the FSB's *Key Attributes*, as discussed earlier. Based on a recommendation of an earlier thematic review of mortgage underwriting and origination practices, the FSB has developed draft *Principles for Sound Residential Mortgage Underwriting Practices*, which was subject to a consultation process late last year and which will be finalised shortly. The Bank was represented on the group that developed these principles.

### **Shadow banking**

The FSB has been continuing its work on strengthening the oversight and regulation of shadow banking systems. In October 2011, it published a report that contained high-level principles for monitoring shadow banking systems, and more detailed guidance on monitoring the risks within individual shadow banking entities and activities. Drawing on this enhanced monitoring framework, the FSB is aiming to strengthen its assessment of global trends and risks in shadow banking, with the results to be reported to the FSB Plenary and G-20 each year. The FSB report also identified a number of areas where further work on regulatory measures may be warranted to address risks posed by shadow banking systems. A number of international workstreams have subsequently been established, led by relevant standard-setting bodies or the FSB itself, to assess the case for additional regulatory action in several areas: banks' interactions with shadow banking entities; money market funds; securitisation; securities lending and repos;

and other shadow banking entities such as finance companies and hedge funds. These groups are expected to provide policy recommendations in the second half of the year. The Bank is involved in some of these workstreams, and has been keen to ensure that any regulatory response to shadow banks is proportionate to the risks they pose. Institutions that could be considered part of the shadow banking system account for a small and declining share of the financial system in Australia (see 'Box D: A Closer Look at the Shadow Banking System in Australia').

### **OTC derivatives markets**

The FSB is continuing to coordinate and monitor implementation of reforms to OTC derivatives markets. Recently the FSB expressed concern that while there had been some progress, few FSB members have the legislation or regulations in place to implement the G-20 commitment that all standardised OTC derivative contracts are to be traded on exchanges or electronic trading platforms, where appropriate, and cleared through central counterparties (CCPs) by the end of 2012. A number of smaller jurisdictions have been waiting for regimes in the United States and EU (the two largest OTC derivative markets) to be finalised before putting their own in place, especially in the area of central clearing. Further clarity is emerging on both the US and EU regimes. In the United States, regulators are well advanced in implementing the Dodd-Frank Act requirements on central clearing of OTC derivatives, with the rules likely to take effect in the second half of 2012. In the EU, new rules on OTC derivatives regulation were issued in February as part of the broader *European Market Infrastructure Regulation* and European regulators have begun consultation on their implementation.

The FSB recently established a new group comprising the chairs of relevant standard-setting bodies, to ensure closer coordination of the different international OTC workstreams. Its initial focus will be on establishing adequate regulatory safeguards for a global CCP framework. To the extent that smaller

markets, such as Australia, may be reliant on CCPs in offshore jurisdictions, it will be important that the FSB's work in this area addresses the potential risks associated with an increasing global reliance on a small number of large CCPs. Australian agencies are also working to ensure satisfactory outcomes are reached internationally on issues such as membership of, and criteria for access to, offshore CCPs as well as information sharing, which are particularly relevant for smaller markets.

Domestically, the Council of Financial Regulators (CFR) has continued to consider how best to implement reforms to the regulation of OTC derivatives markets in Australia, following its consultation with industry during the second half of 2011. The CFR's conclusions will be published shortly.

## **Domestic Regulatory Developments**

### **Implementation of Basel III capital and liquidity reforms**

As discussed in the previous *Review*, APRA is in the process of consulting with the ADI industry on the implementation of the Basel III capital reforms in Australia. APRA issued a consultation paper in September 2011, and following consideration of submissions received during this consultation, will issue draft prudential standards for industry consultation in the near future.

Separately, APRA issued a consultation paper late last year on how it intends to implement the Basel III liquidity reforms in Australia. APRA is proposing to introduce the two new quantitative liquidity standards – the Liquidity Coverage Ratio (LCR) and Net Stable Funding Ratio (NSFR) – broadly in line with the Basel III recommendations. These standards will apply to the larger, more complex Australian ADIs which already use scenario analysis for their liquidity requirements. The smaller ADIs will continue to be subject to APRA's simpler minimum liquidity holdings regime. APRA is proposing to follow the BCBS timetable for introducing the new global liquidity standards: the LCR requirement will



become effective from 1 January 2015 and the NSFR requirement from 1 January 2018. APRA's liquidity reforms will also incorporate enhanced qualitative requirements, which are broadly consistent with the BCBS' 2008 *Principles for Sound Liquidity Risk Management and Supervision*. These will apply to all ADIs in Australia once APRA publishes its final liquidity prudential standard, expected around the middle of 2012.

In conjunction with APRA's liquidity consultation paper, the Bank published further detail on the Committed Liquidity Facility (CLF) it will provide as part of Australia's implementation of the Basel III liquidity reforms. As was discussed in the March 2011 *Review*, this facility is required because of the limited amount of government debt in Australia, which means there are insufficient high-quality liquid assets for ADIs to meet their LCR requirement by holding these assets alone. Under the CLF, participating ADIs will be able to access a pre-specified amount of liquidity by entering into repurchase agreements of eligible securities outside the Bank's normal market operations. The Bank's commitment to provide the liquidity will be contingent on the ADI having positive net worth in the opinion of the Bank, having consulted with APRA. The facility will commence from 1 January 2015, concurrently with APRA's implementation of the LCR. A commitment fee of 15 basis points will be charged for the facility, applying to both drawn and undrawn amounts. All securities eligible for the Bank's normal market operations will be able to be used for the facility as well as certain related-party assets issued by bankruptcy remote vehicles, such as self-securitised residential mortgage-backed securities. This reflects a desire from a systemic risk perspective to avoid promoting excessive cross-holdings of bank-issued instruments. Should a participating ADI lack a sufficient quantity of residential mortgages, other self-securitised assets may be considered, with eligibility assessed on a case-by-case basis. APRA will be reviewing each ADI's liquidity risk management

framework as the basis for approving the amount of the facility that can be recognised for LCR purposes.

At a recent meeting, the BCBS reviewed aspects of the LCR standard and confirmed that liquid assets accumulated in normal times are intended to be used in times of stress, so that banks can temporarily fall below the minimum 100 per cent LCR requirement if necessary. This was motivated by the concern that if the 100 per cent LCR was a 'hard floor', then banks would have to hold additional liquid assets above this requirement as a buffer against unexpected events. The BCBS is also intending to provide additional guidance on the circumstances that would justify the use of the pool of high-quality liquid assets, and to examine how central banks interact with banks during periods of stress so that the workings of the LCR do not hinder or conflict with central bank policies.

### Other prudential standards

In late September, APRA released a discussion paper on its proposals for prudential standards for superannuation funds. This follows a decision of the Australian Government, as part of its 'Stronger Super' reforms, to enable APRA to make and enforce prudential standards for the superannuation entities it regulates. APRA intends to introduce prudential standards covering matters common to other APRA-regulated industries, such as governance and risk management, as well as superannuation-specific matters such as conflicts of interest, insurance in superannuation and defined benefit fund solvency. The standards will not detract from trustees' responsibility for prudent management of superannuation funds. Submissions on the discussion paper closed in December and APRA is now considering the feedback received and will be issuing draft standards for consultation in the near future.

APRA also released a discussion paper outlining its proposals to introduce a new prudential standard relating to the issuance of covered bonds by

ADIs. As discussed in the previous *Review*, this follows legislative changes in late 2011 which allowed such issuance. As noted in the chapter on 'The Australian Financial System', the large Australian banks have issued a sizeable amount of covered bonds in the past few months.<sup>1</sup> APRA's proposed prudential standard aims to ensure that ADIs adopt prudent practices when issuing covered bonds and carefully manage the risks associated with their exposures to covered bond special purpose vehicles. The discussion paper also proposes changes to APRA's prudential standards on securitisation, including clarifying the capital treatment of ADIs' holdings of subordinated tranches of securitisations where they are not the originator of the loans. APRA envisages these prudential standards will take effect in the first half of 2012.

APRA has also continued consultation on its proposals for revising the capital standards for general and life insurers, releasing a response paper and draft prudential standards for consultation in December. Submissions on this consultation closed in late February and APRA expects to release final revised capital standards in May 2012. The new capital framework will be effective from 1 January 2013.

### Financial market infrastructures

As discussed in the previous *Review*, the CFR was asked by the Australian Government in April 2011 to consider possible changes to the regulation of financial market infrastructures (FMIs) to strengthen regulators' ability to provide effective oversight and manage risks to stability and market integrity. The CFR issued a consultation paper in October 2011 with various proposals to enhance the regulation of FMIs. Since the CFR considered that FMIs are as systemically important as many ADIs, several of the recommendations were developed with

reference to APRA's powers in respect of ADIs. The recommendations most relevant to financial stability were:

- introduction of 'step-in' powers to enable regulators to intervene in the event of a domestic FMI experiencing substantial difficulties;
- introduction of powers to require certain systemically important FMIs to have key aspects of their operations located in Australia and overseen by 'fit and proper' persons; and
- strengthening of regulators' directions-giving powers and sanctions in respect of FMIs.

Since the consultation process, the CFR has developed policy recommendations that are expected to be published shortly. As flagged in the consultation paper, work is ongoing on issues relating to competition in clearing and settlement systems and the segregation and portability of customer accounts of participants of CCPs.

### Financial Claims Scheme

Following an announcement by the Australian Government in September 2011, coverage under the Financial Claims Scheme (FCS) was lowered from \$1 million to \$250 000 per depositor, per ADI from 1 February 2012 (with grandfathering arrangements in place for term deposits existing as at 10 September). This is still at the higher end of the range of deposit insurance caps – relative to per capita GDP – in other countries.<sup>2</sup> The change in cap has not had any discernible impact on ADI deposit flows. A number of initiatives are now underway to improve public awareness of the FCS, including the introduction of a government-guaranteed deposits seal and updating website material on the FCS. In the meantime, APRA has been continuing to develop its pre-positioning requirements for the FCS. It recently introduced a prudential standard that, among other measures, requires all locally incorporated ADIs to be able to

<sup>1</sup> For more information, see also RBA (2012) 'Box D: Covered Bond Issuance by Australian Banks', *Statement on Monetary Policy*, February, pp 57–58.

<sup>2</sup> For more information, see Turner G (2011), 'Depositor Protection in Australia', *RBA Bulletin*, December, pp 45–55.

produce a 'single customer view' that aggregates the balances of all FCS-eligible deposit accounts held by each customer.

### **Financial Sector Assessment Program (FSAP) review of Australia**

The Australian Government has agreed to undergo an IMF FSAP in 2012. This will be a follow-up from Australia's first FSAP conducted in 2005/06 (discussed in the September 2006 *Review*) and is consistent with a recent commitment of FSB members to undergo an FSAP every five years. The focus of FSAP assessments is on the stability of the financial sector and the quality of financial supervisory and crisis management arrangements. The CFR agencies have begun initial work for the FSAP, including preparing

background material for the IMF on Australia's financial regulatory framework, financial crisis management arrangements and financial stability policy framework. APRA and the Australian Securities and Investments Commission are also in the process of completing detailed self-assessments of their banking, insurance and financial market supervisory arrangements against international standards. The FSAP is also expected to focus on a financial stability assessment in which the Bank is likely to be heavily involved. Stress testing is another key element of the FSAP process: APRA is currently undertaking one of its regular stress tests of the ADI industry, the results of which are likely to be examined as part of the FSAP.

## Box C

# Global Systemically Important Banks

As part of the policy framework for systemically important financial institutions (SIFIs) announced in November 2011, the Financial Stability Board (FSB) identified an initial group of global systemically important banks (so-called G-SIBs). These banks must meet some requirements of the framework, such as having recovery and resolution plans, by the end of 2012. In due course, G-SIBs will also be subject to additional capital requirements.

The G-SIBs were identified using a methodology developed by the Basel Committee on Banking Supervision (BCBS). The methodology uses indicators of banks' size, global (cross-jurisdictional) activity, substitutability, complexity and interconnectedness to rank their global systemic importance. The indicators were selected to capture different aspects of the systemic impact of a bank's failure, rather than the probability that it will fail. The methodology also allows some supervisory judgement to be used, drawing on other information, but judgement can only override the indicator-based approach in exceptional circumstances and will be subject to international peer review.

Using this methodology, an initial sample of 73 of the world's largest banks were ranked using end 2009 data for each indicator. Each bank's overall score represented its global systemic importance relative to the other banks in the sample. Based on the clustering of scores produced by the methodology, the BCBS decided that the 27 banks with the highest scores would be designated as G-SIBs. Two additional banks were added to this initial list based on the home supervisor's judgement. The resulting list of 29 G-SIBs, headquartered in 12 countries, was published by the FSB in November 2011 (Table C1).

**Table C1: Global Systemically Important Banks**

Based on end 2009 data;  
in order of country of head office

Bank	Head office
Dexia	Belgium
Bank of China	China
Banque Populaire CdE	France
BNP Paribas	France
Group Crédit Agricole	France
Société Générale	France
Commerzbank	Germany
Deutsche Bank	Germany
Unicredit Group	Italy
Mitsubishi UFJ FG	Japan
Mizuho FG	Japan
Sumitomo Mitsui FG	Japan
ING Bank	Netherlands
Santander	Spain
Nordea	Sweden
Credit Suisse	Switzerland
UBS	Switzerland
Barclays	UK
HSBC	UK
Lloyds Banking Group	UK
Royal Bank of Scotland	UK
Bank of America	US
Bank of New York Mellon	US
Citigroup	US
Goldman Sachs	US
JP Morgan Chase	US
Morgan Stanley	US
State Street	US
Wells Fargo	US

Source: FSB

The number of G-SIBs is not fixed; it will evolve over time reflecting changes in the systemic importance of banks. The sample of banks to be assessed will be reviewed periodically; the BCBS will develop another methodology to guide this process. Supervisory judgement will be able to be used to add, but not remove, banks from the sample to be assessed for global systemic importance. The intention is that the list of G-SIBs will be updated annually and published each November. The assessment methodology itself will be reviewed every three years to capture changes in the global banking system and progress in measuring systemic importance.

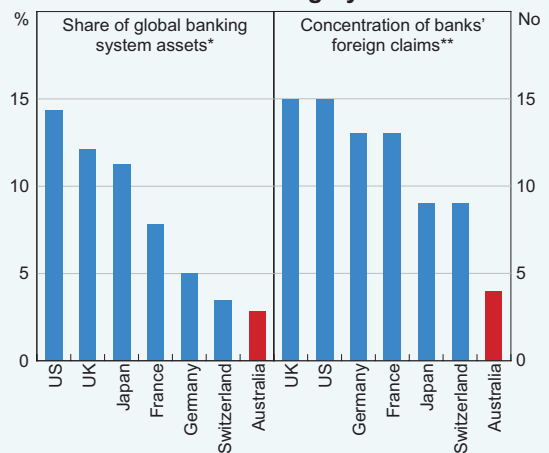
Alongside the assessment methodology, the BCBS also recently agreed on a graduated system of higher loss absorbency requirements that will apply to G-SIBs. The G-SIBs are to be grouped into different categories ('buckets') based on the systemic importance score produced by the assessment methodology, with each bucket being subject to a different requirement for additional loss absorbency. Initially there will be four buckets, with capital requirements ranging from 1 to 2½ per cent of risk-weighted assets, to be met by common equity Tier 1 capital. To discourage G-SIBs from becoming even more systemic, an additional 1 per cent capital requirement (for a total of 3½ per cent) will apply to any G-SIB becoming noticeably more systemic than the highest-ranked G-SIB is initially. The additional G-SIB capital requirements will apply to those banks identified as G-SIBs in November 2014, and will be phased in starting in January 2016, with full compliance by January 2019.

Transparency is a key part of the G-SIB framework: market discipline is expected to encourage banks to reduce their global systemic importance. As a first step, the list of G-SIBs and the methodology for identifying them have been published. The BCBS is also planning to disclose information on how the loss absorbency buckets are defined, and which G-SIBs are allocated to each bucket. The banks in the G-SIB assessment sample will be required to disclose

the data on their individual indicators that feed into the assessment methodology, so that market participants will be able to calculate G-SIB scores themselves. Transparency about the methodology will also allow banks to understand how their own actions contribute to their G-SIB scores and what steps they can take to reduce their systemic importance and thereby minimise their additional capital requirements.

No Australian-owned banks are on the current list of 29 G-SIBs. However, some of them were included in the initial sample of 73 large international banks that were assessed for their global systemic importance. It is not surprising that Australian banks are absent from the list of banks with the greatest impact on the global financial system. The major Australian banks are quite large by international standards, each ranking among the top 50 banks worldwide in terms of consolidated assets. However, their combined share of global banking system assets is less than 3 per cent, lower than the share accounted for by the banks of countries that are home to two or more G-SIBs (Graph C1). In addition, Australian banks,

**Graph C1**  
**Size and Cross-border Activities of Selected Banking Systems**



\* Based on the total assets of each country's domestically owned banks; data are for 2010

\*\* These data show the number of countries accounting for 75 per cent of the foreign claims of each listed country's domestically owned banks; claims are on a consolidated immediate borrower basis; data are as at September 2011

Sources: APRA; BIS; IMF; Swiss National Bank

with their business models oriented to commercial and retail banking, are less interconnected with the rest of the global financial system than are many of the G-SIBs, which have substantial investment banking businesses. The Australian-owned banks' cross-jurisdictional activities, as measured by their aggregate foreign claims, are much smaller than those of banks in most of the countries with G-SIBs, and are narrowly focused on a small number of countries (mainly New Zealand and the United Kingdom).

## Box D

# A Closer Look at the Shadow Banking System in Australia

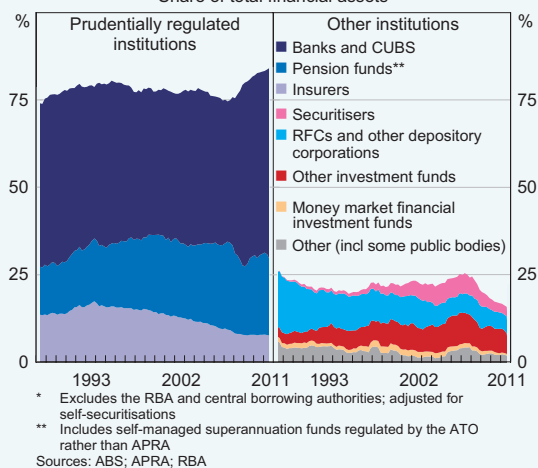
Since the 2008–2009 crisis, there has been growing interest internationally in monitoring and assessing the risks posed by the so-called ‘shadow’ banking system. In a recent report, the Financial Stability Board (FSB) defined the shadow banking system broadly as ‘credit intermediation involving entities and activities outside the regular banking system’. The global shadow banking system grew rapidly in the years leading up to the crisis, and some of the entities within it directly contributed to the spread of the crisis.

To strengthen the monitoring of shadow banking systems, the FSB has recommended that jurisdictions adopt a two-step monitoring framework. It recommended that authorities first examine the broad scale and trends in non-bank credit intermediation in the financial system. Based on this assessment, the FSB recommended that jurisdictions then narrow their focus to the subset of shadow banking entities that have the potential to pose systemic risks from factors such as maturity transformation, liquidity transformation and leverage, or those that give rise to regulatory arbitrage concerns.

Because it can be difficult to identify non-bank credit intermediation activities directly, one approach is to first examine all financial institutions outside the perimeter of prudential regulation. In Australia, non-prudentially regulated institutions include registered financial corporations (RFCs), securitisation vehicles, money market funds and other investment funds. Together, these institutions account for a relatively small and declining share of financial system assets: currently around 15 per cent, down from 25 per cent in 2007 (Graph D1). This is a much smaller share than in Canada, the Netherlands and the United

States, but similar to France, Italy, Germany and Spain. Not all non-prudentially regulated financial institutions engage in bank-like activities, however, and they do not necessarily pose systemic risks that warrant closer monitoring or stronger regulation. The remainder of this box examines the main types of non-prudentially regulated financial institutions in Australia and the key risks they pose to the financial system.

**Graph D1**  
**Financial Sector Composition\***  
Share of total financial assets



## Registered Financial Corporations

In Australia, RFCs are most readily considered shadow banking entities, as they intermediate between lenders and borrowers, and some of them engage in investment banking activities. While RFCs are not prudentially regulated by the Australian Prudential Regulation Authority (APRA), they are required to meet disclosure, licensing and conduct requirements that the Australian Securities and Investments Commission (ASIC) administers in

respect of all financial companies. RFCs with assets exceeding \$50 million are also subject to certain reporting requirements with APRA.

There are currently over 300 RFCs in Australia, accounting for around 5 per cent of financial system assets as at September 2011. Around 120 RFCs report data to APRA, of which 20 are money market corporations (MMCs) – accounting for nearly 40 per cent of reporting RFCs’ assets – and the remainder are finance companies. The sizes of reporting RFCs vary widely: the largest has assets of around \$15 billion (less than half the size of the smallest regional bank in Australia), while 30 or so have assets less than \$100 million.

The assets of the RFC sector have been declining over the past few years, from around \$250 billion in mid 2008 to \$160 billion as at December 2011. This partly reflects the more difficult funding environment that has existed since the onset of the 2008–2009 crisis, which has caused some RFCs to scale back their operations. Much of the fall has been in the assets of MMCs, consistent with many of them being more exposed to shifts in wholesale funding market conditions, although the assets of finance companies also decreased over this period.

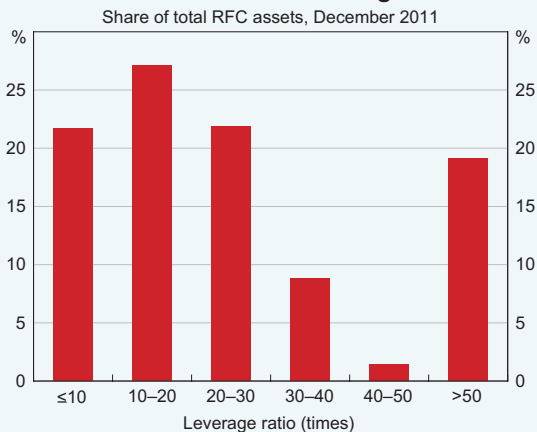
Most MMCs are owned by banks or securities firms and they are typically involved in similar activities to investment banks in other countries. Their asset mix tends to be skewed towards commercial loans and trading securities, while they obtain a relatively large share of their funding from short-term wholesale markets – including repurchase agreements (repos) – and, in some cases, from related parties. Finance companies are typically smaller than MMCs and are generally involved in the provision of motor vehicle, consumer or business finance. A few of the larger ones are the financing arms of large car manufacturers. Some of the finance companies focusing on consumer and business finance are owned by Australian banks, and are therefore considered as part of APRA’s consolidated

approach to supervising banks. Funding for finance companies varies: some source a large share of their funding from domestic banks, while others make use of long-term loans and other forms of wholesale funding. In many cases, finance companies’ funding is concentrated in a particular type of funding.

The leverage of reporting RFCs varies quite widely, with the highest leverage ratio (total assets to equity) well over 50 but the majority having leverage ratios of less than 30 (Graph D2). The RFCs with higher leverage include some of the larger institutions, with their repo books contributing to their leverage. As an indicator of risk, leverage ratios have shortcomings, however, as they do not take into account the composition of assets and liabilities. An institution with higher leverage but safer assets and more long-term liabilities may be less risky than an institution with lower leverage but weaker assets and more short-term liabilities.

Even though RFCs are relatively small, they have linkages with the regulated banking system that could in principle be a source of risk. As at September 2011, RFCs accounted for about one-half of the exposure of Australian authorised deposit-taking institutions (ADIs) to other non-ADI domestic

**Graph D2**  
**Distribution of RFCs’ Leverage Ratios\***



\* Ratio of assets to equity; excludes some small institutions  
Source: APRA

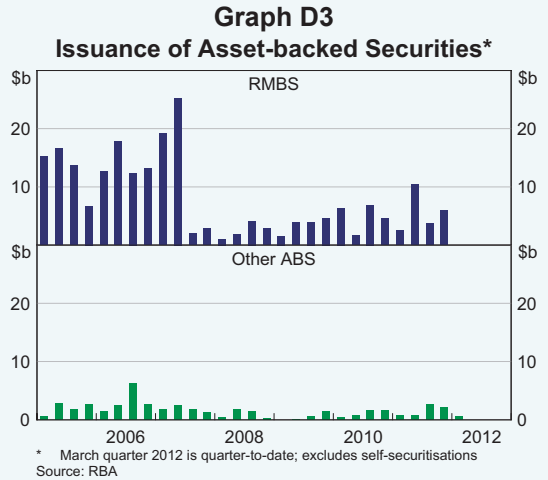


financial institutions. However, ADIs' overall exposure to RFCs is relatively small as over 90 per cent of ADIs' financial assets are with the non-financial sector, mainly in the form of loans. Where an RFC is owned by an Australian ADI, APRA's approach to consolidated supervision ensures that the risks associated with intragroup exposures are carefully managed. APRA also enforces a range of other prudential standards aimed at ensuring ADIs manage the risks associated with their exposures to related and unrelated RFCs.

### Securitisation Vehicles

Securitisation vehicles accounted for around 3 per cent of financial system assets in Australia as at September 2011, a share that has declined since 2007 due to the problems that emerged in securitisation markets globally during the crisis. These vehicles are closely interconnected with ADIs, as securitisation has been an important source of funding for housing lending, particularly for smaller ADIs, and institutions often buy each other's asset-backed securities to meet their demand for liquid assets. Though it is not counted as part of the assets of securitisation vehicles, ADIs also undertake 'self-securitisation', which they retain on their balance sheets and which can be used to obtain liquidity from the RBA in exceptional circumstances.

In Australia, securitisation has not posed the same risks as in some overseas markets because most of the underlying assets were high-quality, prime mortgages, and there were very few securitisations involving the more complex structures that caused problems overseas. Around 90 per cent of the outstanding securities issued by securitisation vehicles are residential mortgage-backed securities (RMBS) for which the underlying collateral has continued to perform strongly. Despite this, Australian RMBS still suffered reputational damage as a result of the problems that emerged in the US RMBS markets in 2007, and RMBS issuance in Australia has not been as strong in recent years as in the years leading up to the crisis (Graph D3).



The RBA has for some years collected market-based data on securitisation structures so as to understand and monitor the growing importance of securitisation as a funding source for ADIs and any risks arising from this activity. APRA also has prudential requirements requiring ADIs to manage the risks associated with their securitisation exposures prudently, and to hold sufficient regulatory capital against any residual credit risk ADIs retain in respect of those exposures.

### Investment Funds

Investment funds, including money market funds and hedge funds, accounted for around 6 per cent of financial system assets as at September 2011. The majority of investment funds in Australia are equity funds, that invest entirely or predominantly in domestic or foreign equity markets, and would therefore not be considered shadow banks. Money market funds, which mainly invest in short-term debt instruments, are relatively uncommon in Australia, currently accounting for ½ per cent of financial system assets. Although they engage in some bank-like activities (intermediation), they typically do not engage in maturity transformation and are too small a part of the system to pose systemic risks. This contrasts with the situation in some other jurisdictions, like the United States and Europe,

where money market funds are a much larger share of the financial system and are an important source of financing for governments, businesses and financial institutions. Market-based surveys indicate that there are relatively few hedge funds in Australia and they account for a small proportion of the assets of investment funds. The investment strategies of

hedge funds can vary widely, but few of them are engaged in credit intermediation. All investment funds in Australia, including hedge funds, must meet certain duties towards their investors, and comply with disclosure and competency requirements administered by ASIC. ✎

# Copyright and Disclaimer Notices

---

## HILDA

The following Disclaimer applies to data obtained from the HILDA Survey and reported in the chapter on 'Household and Business Balance Sheets' and 'Box B: Home Mortgage Debt: Recent Insights from the HILDA Survey' in this issue of the *Review*.

### Disclaimer

The Household, Income and Labour Dynamics in Australia (HILDA) Survey was initiated and is funded by the Australian Government Department of Families, Housing, Community Services and Indigenous Affairs (FaHCSIA), and is managed by the Melbourne Institute of Applied Economic and Social Research (Melbourne Institute). Findings and views based on these data should not be attributed to either FaHCSIA or the Melbourne Institute.

